

NOTICE TO THE PUBLIC
WILLIAMSON COUNTY COMMISSIONER'S COURT
AUGUST 15TH, 2017
9:30 A.M.

The Commissioner's Court of Williamson County, Texas will meet in regular session in the Commissioner's Courtroom, 710 Main Street, in Georgetown, Texas to consider the following items:

1. Review and approval of minutes.
2. Consider noting in minutes any off right-of-way work on any County road done by Road & Bridge Division.
3. Hear County Auditor concerning invoices, bills, Quick Check Report, wire transfers and electronic payments submitted for payment and take appropriate action including, but not limited to approval for payment provided said items are found by the County Auditor to be legal obligations of the county.
4. Citizen comments. Except when public hearings are scheduled for later in the meeting, this will be the only opportunity for citizen input. The Court invites comments on any matter affecting the county, whether on the Agenda or not. Speakers should limit their comments to three minutes. Note that the members of the Court may not comment at the meeting about matters that are not on the agenda.

CONSENT AGENDA

The Consent Agenda includes non-controversial and routine items that the Court may act on with one single vote. The Judge or a Commissioner may pull any item from the consent agenda in order that the court discuss and act upon it individually as part of the Regular Agenda.
 (Items 5 – 25)

5. Discuss, consider and take appropriate action on a line item transfer for Williamson County EMS.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0540.004234	Training Supplies	\$2004.35
To	0100.0540.003107	Medical Equipment < \$5,000	\$2004.35
From	0100.0540.004234	Training Supplies	\$1385.98
To	0100.0540.003101	Education Aids / Materials	\$1385.98

6. Discuss, consider, and take appropriate action on a line item transfer for Facilities.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0509-004100	Professional Service	7000
To	0100-0509-003319	Extermination	7000
From	0100-0509-004505	Software Maintenance	2000

To	0100-0509-004512	Kitchen Maint & Repair	2000
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7. Discuss, consider, and take appropriate action on a line item transfer for the County Sheriff.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0570.004500	Maintenance Contracts	\$10,000.00
To	0100.0570.004705	Pre-Employment Screening	\$10,000.00

8. Discuss, consider, and take appropriate action on a line item transfer for the County Sheriff.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0560.4703	MH/MR	\$20,000.00
To	0100.0560.4232	Training	\$20,000.00

9. Discuss, consider, and take appropriate action on a line item transfer for Facilities.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0509-004505	Facilities/Software Maint	\$2,850
To	0100-0509-004541	Vehicle Maint & Repair	\$9,000
From	0100-0509-004100	Facilities/Prof Svcs	\$4,000
From	0100-0509-003002	Facilities/Vehicle Equip	\$2,150

10. Discuss, consider and take appropriate action on a line item transfer for Road and Bridge Division.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0200-0210-003597	Roadway Rehab	\$25,000.00
To	0200-0210-005200	Right of Way	\$25,000.00

11. Discuss, consider, and take appropriate action on approving a line item transfer for the County Attorney's Office.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0475.004902	Co Atty Leg Supp	\$599.00
To	0100.0475.003010	Computer Equipment	\$599.00

12. Discuss, consider and take appropriate action to approve a line item transfer for Mobile Outreach Team.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0341-005730	Radio Equipment < \$5,000	2000.00
To	0100-0341-004908	Outreach Flex Funding	2000.00

13. Discuss, consider and take appropriate action on a line item transfer for Non Departmental.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0409-004998	Non Dept/Contingencies	\$35,000
To	0100-0409-003005	Non Dept/Office Furniture	\$35,000

14. Discuss, consider, and take appropriate action on a line item transfer for Juvenile Services.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0576.004106	Counseling Services	10000
From	0100.0576.003307	Pharmaceuticals	5500
From	0100.0576.003102	Safety Supplies	1000
To	0100.0576.004541	Vehicle Repairs & Maintenance	14000
To	0100.0576.003101	Educational Aids	1500
To	0100.0576.004510	Facility Maintenance & Repair	1000

15. Discuss, Consider, and take appropriate action on a Line Item Transfer for Fleet Services.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0882.0882.003301	Gasoline	\$30,000.00
To	0882.0882.003523	Parts	\$30,000.00

16. Discuss, consider and take appropriate action on approving compensation changes, position titles changes, position grade changes and any corresponding line item transfers.
17. Discuss, consider and take appropriate action on appointment of Leo Enriquez as an unpaid Reserve Deputy Constable for the Precinct 2 Constable's Office.
18. Discuss, consider and take appropriate action on approving property tax collections for the month of July 2017 for the Williamson County Tax Assessor/Collector.
19. Discuss, consider and take appropriate action on approving property tax refunds over \$2,500.00 for the month of July 2017 for the Williamson County Tax Assessor/Collector.
20. Discuss, consider and take appropriate action on authorizing the disposal of two hundred (200) wooden pallets through auction pursuant to TX. Local Gov't Code 263.152 and authorizing the special auction date of August 16, 2017 through GovDeals.

21. Discuss, consider and take appropriate action on authorizing the disposal of various county assets through inter-departmental transfer including (2) Monitor's and (3) Folding tables (see attached lists) pursuant to Tx. Local Gov't Code 263.152.
22. Discuss, consider and take appropriate action on authorizing the disposal of (1) Canon IPF 755 Plotter through Trade-in (see attached list) pursuant to Tx. Local Gov't Code 263.152.
23. Discuss, consider and take appropriate action on authorizing the disposal of various county assets through auction including (1) 2005 Ford F-150 (see attached list) pursuant to Tx. Local Gov't Code 263.152.
24. Discuss, consider and take any appropriate action regarding approval and receipt of Vehicle Reimbursement Agreement with Fellowship Church (Traffic control and security during various church services in Round Rock)
25. Discuss, consider, and take appropriate action on approval of the final plat for the Sunset Meadows subdivision - Pct 4.

REGULAR AGENDA

26. Discuss, consider and take appropriate action on a proclamation recognizing August 19, 2017 as Overdose Awareness Day in Williamson County.
27. Discuss, consider and take appropriate action on the Department of Infrastructure projects and issues update.
28. Receive and acknowledge the August 2017 Construction Summary Report for the Road Bond and Pass Through Financing Programs.
29. Discuss, consider, and take appropriate action regarding the Utility Agreement between Oncor Electric and Williamson County for utility relocations on North Mays, a Road Bond Project in Commissioner Pct 1.
30. Discuss, consider, and take appropriate action regarding Change Order No. 1 in the amount of -\$5,837.31 for CR 110 South, a Road Bond Project in Commissioner Pct 4.
31. Discuss, consider and take appropriate action on approving 2006 Road Bond Budget Transfer per Mike Weaver, Road Bond Manager, to move \$525,000 from 2006 Road Bond Non-Departmental (P156) to Cedar Park ILA (P268).
32. 10:00 a.m. Public Hearing on the proposed 2017 tax rate for Williamson County.
33. Discuss 2017-2018 Budget.
34. Consider adopting salaries and other compensation (per diem) for elected officials and authorize publication of notice.
35. Consider authorizing written notice to each elected official of his/her salary and other compensation to be included in the 2017-2018 budget.

36. Discuss, consider and take appropriate action on approving the FY18 compensation increases.
37. Discuss, consider and take appropriate action on authorizing the County Judge to execute the Agreement between Beneplace, Inc., Voluntary Benefits Platform which offers special access to a variety of programs, goods and/or services from third parties at discounted or preferred prices made available by Beneplace through such platform, the “Beneplace Services”.
38. Discuss, consider and take appropriate action on authorizing the County Judge to execute the Agreement between Paylogix, Common Remitter Service Agreement which works with the Beneplace Platform for the Voluntary Employee Discount Program, by remitting Voluntary Employee Elections and remitting payment for these Voluntary Employee Elections to the appropriate Voluntary Benefit Vendors.
39. Discuss, consider, and take any appropriate action regarding authorizing employee payroll deduction(s) for voluntary insurance platform through Beneplace Services.
40. Discuss, consider and take appropriate action approving the appointment of Bob Lubecker, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with Falkenberg Construction Co., Inc. relating to the Williamson County Cedar Park Tax Office Remodel Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Bob Lubecker to sign non-contractual permit applications associated with the construction of the Project.
41. Discuss, consider and take appropriate action approving the appointment of Dwayne Gossett, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement for Construction Services with L. Wallace Construction Co., Inc. relating to the Williamson County Justice Center Roof Reconstruction and Improvements Project for any increase or decrease in cost of \$5,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dwayne Gossett to sign non-contractual permit applications associated with the construction of the Project.
42. Discuss, consider and take appropriate action approving the appointment of Bob Lubecker, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with Trimbuilt Construction, Inc. relating to the Williamson County Texas Avenue Facility Remodel (WCCHD Office Renovations) Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Bob Lubecker to sign non-contractual permit applications associated with the construction of the Project.
43. Discuss, consider and take appropriate action approving the appointment of Dale Butler, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Construction Manager-at-Risk with J. T. Vaughn Construction, LLC relating to the Williamson County Animal Shelter Expansion Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dale Butler to sign non-contractual permit applications associated with the construction of the Project.

44. Discuss, consider and take appropriate action approving the appointment of Dale Butler, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with STR Constructors, Ltd. relating to the Williamson County Jail Kitchen and Plumbing Remodel Project for any increase or decrease in cost of \$50,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dale Butler to sign non-contractual permit applications associated with the construction of the Project.
45. Discuss, consider and take appropriate action on a State Plan of Operation (SPO) agreement between the State of Texas and the Williamson County Sheriff's Office setting forth the terms and conditions which will be binding on the parties with respect to excess Department of Defense personal property transferred pursuant to 10 USC 2576a.
46. Discuss, consider and take appropriate action on a Public Interest Contract between Williamson County and Coupland Civic Organization, Inc. for disbursement of \$10,000.00 from the Landfill Community Recreation Facility Fund for renovations to be made to the Caboose situated in the Historic Depot of Coupland, Texas.
47. Discuss, consider and take appropriate action on approving Guaranteed Maximum Price Proposal from Chasco Constructors, LTD, L.L.P. for the Williamson County Georgetown Annex.
48. Discuss, consider, and take appropriate action on authorizing the extension of Metal Beam Guard Fence Contract #1507-002, for the same pricing, terms and conditions as the existing contract for the term of September 8, 2017 - September 7, 2018, with RHB Construction.
49. Discuss, consider and take appropriate action on authorizing the extension of armored courier service contract #1605-078, for the same pricing, terms and conditions as the existing contract for the term of October 1, 2017 - September 30, 2018, with Dunbar Armored, Inc.
50. Discuss, consider and take appropriate action on authorizing Purchasing Agent to advertise and receive competitive sealed proposals for River Ranch County Park Residence under RFCSP # 1708-180.
51. Discuss, consider, and take appropriate action on authorizing Purchasing Agent to advertise and receive sealed bids for River Rd and Old Windmill Rd rehabilitation under IFB # 1708-182
52. Discuss, consider, and take appropriate action on authorizing Purchasing Agent to advertise and receive sealed bids for FY 17 Cross Culvert Replacements under IFB # 1708-183
53. Discuss, consider, and take appropriate action on awarding IFB# 1706-169, for Ronald Regan BLVD Milling and Overlay to the lowest and best bidder, Lone Star Paving, and authorizing the execution of service agreement.
54. Discuss, consider and take appropriate action on authorizing the extension of Investment Advisory Services Contract, for the same pricing, terms and conditions as the existing Contract for a two year term covering 8 September 2017 - 7 September 2019, with First Southwest Asset Management, LLC.
55. Discuss, consider and take appropriate action on awarding RFP # 1705-166, Jail Kitchen & Plumbing Remodel, to the best proposer STR Constructors, LTD and authorizing execution of the agreement.

56. Discuss, consider and take appropriate action on approving service contract with Carahsoft Technology Corporation for the purchase of permitting software in the amount of \$420,203.21 under DIR Contract # DIR-TSO-3149 to support the operations of the Williamson County On-Site Sewage Facilities Department and the Williamson County Central Health District and authorizing the execution of the agreement.

57. Discuss, consider and take appropriate action on a line item transfer for Non Departmental.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0409-004100	Professional Services	\$95,224.06
To	0100-0409-004208	Internet Cloud Solutions	\$95,224.06

58. Discuss, consider and take appropriate action on an order declaring an emergency and grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenue for the General Fund.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100-0000-333220	Payments from Other Entities	\$95,224.05

59. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge addition expenditures for the General Fund in Non Departmental.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100-0409-004208	Internet Cloud Solutions	\$95,224.05

60. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional revenues for Sheriff's Office Donations:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367400	Donations	\$100.00

61. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Sheriff's Office Donations:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0560.003670	Use of Donations	\$100.00

62. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenues for Park Donations:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367403	Park Donations	\$99.00

63. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Park Donations:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0510.003670	Use of Donations	\$99.00

64. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenues for Juvenile Services:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367400	Donations	\$850.00

65. Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Juvenile Services:

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0576.003670	Use of Donations	\$850.00

EXECUTIVE SESSION

"The Commissioners Court for Williamson County reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code Sections 551.071 (Consultations with Attorney), 551.072 (Deliberations regarding Real Property), 551.073 (Deliberations regarding Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations regarding Security Devices) and 551.087 (Deliberations regarding Economic Development Negotiations)."

66. Discussion regarding economic development negotiations pursuant to Texas Government Code, Section 551.087:
- a) Business prospect(s) that may locate or expand within Williamson County.
 - b) Discuss Pearson Road District.
 - c) Discuss North Woods Road District.
 - d) Project Columbus Balbo
 - e) Mega Site

f) Texas State Gold Depository

67. Discuss real estate matters (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.072 Deliberation Regarding Real Estate Property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with third person.)
- A. Real Estate Owned by Third Parties
1. Preliminary discussions relating to proposed or potential purchase or lease of property owned by third parties
 - a) Discuss the acquisition of real property for right-of-way for N. Mays St. Extension
 - b) Discuss the acquisition of real property for SW 183 and SH 29 Loop.
 - c) Discuss the acquisition of real property for CR 176 at RM 2243
 - d) Discuss the acquisition of real property with endangered species for mitigation purposes.
 - e) Discuss the acquisition of real property: CR 101
 - f) Discuss the acquisition of real property: CR 111
 - g) Discuss the acquisition of real property for CR 278 at Bagdad Rd.
 - h) Discuss the acquisition of real property for proposed CR 110 project. (All sections)
 - i) Discuss the acquisition of real property for County Facilities.
 - j) Discuss the acquisition of Easement interests for the Brushy Creek Trail Project.
 - k) Discuss acquisition of property located at NEC of Toll 130 and Gattis School Rd.
 - l) Discuss the acquisition of a drainage easement for CR 108.
 - m) Discuss easement acquisitions from San Gabriel River Ranch Subdivision.
 - n) Discuss the acquisition of real property for CR 258.
 - o) Discuss the acquisition of real property for Seward Junction SE Loop.
 - p) Discuss the acquisition of real property for US 183.
 - q) Discuss the acquisition of real property for Hairy Man Rd.
 - r) Discuss the acquisition of real property for SW Bypass.
 - s) Discuss the acquisition of real property for Crossroad Acres.
 - t) Discuss proposed acquisition of real property on CR 138.
 - u) Discuss proposed acquisition of real property at Highland Springs Lane.
 - v) Discuss Somerset Road Districts No. 3 & 4 reimbursements for acquisition & construction of Reagan Blvd.
 - x) Discuss the acquisition of real property- Condra Funeral Home- Taylor, Texas
 - y) Discuss the acquisition of real property- S&D Plumbing- Taylor, Texas
 - z) Discuss the acquisition of Real Estate for Tower Site.
- B. Property or Real Estate owned by Williamson County
- 1). Preliminary discussions relating to proposed or potential sale or lease of property owned by the County
 - a) Discuss County owned real estate containing underground water rights and interests.
 - b) Discuss possible sale of 183 A excess right of way
 - c) Discuss proposed sale of real estate of Blue Springs Blvd
 - d) Discuss transfer of right of way for Westinghouse Rd. to the City of Georgetown.
 - e) Discuss wastewater easements in Berry Springs Park
 - f) Discuss Development Agreement with Ashby Capital Investments, LLC
 - g) Discuss sale of County property on Ronald Reagan Blvd.
 - h) Discuss abandonment of County property on CR 123.
 - i) Discuss possible sale or exchange of property at 350 Exchange Boulevard, Hutto, Texas
 - j) Discuss possible sale of +/- 10 acres located on Chandler Road near the County Sheriff's Office Training Facility
 - k) Discuss possible sale/disposition of a portion of CR 117.
- C. Consider intervention in lawsuit regarding de-listing of Bone Cave harvestman.

- 68.** Discuss pending or contemplated litigation, settlement matters and other confidential attorney-client legal matters (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.071 consultation with attorney.), including the following:
- a) Litigation or claims or potential litigation or claims against the County or by the County
 - b) Status Update-Pending Cases or Claims;
 - c) Civil Action No.1:13- CV- 505, Robert Lloyd v. Lisa Birkman, et al, In The United States District Court for the Western District of Texas, Austin Division
 - d) Employee/personnel related matters
 - e) Other confidential attorney-client matters, including contracts and certain matters related to county defense issues in which the duty of the attorney to the governmental body within the attorney/client relationship clearly conflicts with Chapter 551 of the Texas Government Code.
 - f) Cause No. 15-0064-C277, Gordon v. Dollahite et al, In The District Court of Williamson County, Texas, 277th District
 - g) County Road 241 utility and Right-of-Way Issues and matters;
 - h) Civil Action No. 1:15-cv-431; Herman Crisp v. Williamson County, et al; In the USDC-WD-Austin Division
 - i) Carolyn Barnes, et al v. Texas Attorney General, et al; Cause # D-1-GN-15-000877, in the 419th Judicial District Court of Travis County
 - j) Appeal of IRS Proposed Worker Classification Changes and Proposed Tax Adjustments 2011 -2013; and Payment of Disputed Employment Taxes Pending Appeal
 - k) Discuss proposed acquisition of property for SW 183 and SH 29 Loop
 - l) Civil Action; American Stewards of Liberty, et al. v. Sally Jewell, et al., In the Western District Court, Western District of Texas, Austin Division
 - m) Berry Springs Park and Preserve pipeline
 - n) Civil Action No. 1:16-cv-1023 LY, Brian Carrier v. Lt. McKnight, et al, In The United States District Court For The Western District Of Texas, Austin Division
Commissary and the Williamson County Sheriff, In the United States District Court for the Western District of Texas – Austin Division
 - o) Law relating requests for the closure, abandonment or vacation of roadway(s) in the Woodland Park Subdivision.
 - p) Requirements relating to grant of easement to Lone Star Regional Water Authority on Hwy 95
 - q) Case No. 1:17-cv-00290, Rodney A. Hurdsman v. Williamson County Sheriff Deputies Pokluda et al, In The Unites States District Court For The Western District of Texas – Austin Division.
- 69.** Deliberate the appointment, employment, evaluation, reassignment, duties, discipline and/or dismissal of Williamson County officers, directors, employees and/or positions, including but not limited to conducting deliberation and discussion pertaining to annual reviews of department heads and appointed officials (Executive Session as per Tex. Gov. Code Section 551.074 – Personnel Matters).
- 70.** Discuss the deployment or specific occasions for implementation of security personnel or devices in relation to the Williamson County Justice Center (Executive Session as per Texas Gov't. Code § 551.076).

REGULAR AGENDA (continued)

- 71.** Discuss and take appropriate action concerning economic development.
- 72.** Discuss and take appropriate action concerning real estate.
- 73.** Discuss and take appropriate action on pending or contemplated litigation, settlement matters and other confidential attorney-client legal matters, including the following:
- a) Litigation or claims or potential litigation or claims against the County or by the County
 - b) Status Update-Pending Cases or Claims;
 - c) Civil Action No.1:13- CV- 505, Robert Lloyd v. Lisa Birkman, et al, In The United States District Court for the Western District of Texas, Austin Division

- d) Employee/personnel related matters
- e) Other confidential attorney-client matters, including contracts and certain matters related to county defense issues in which the duty of the attorney to the governmental body within the attorney/client relationship clearly conflicts with Chapter 551 of the Texas Government Code.
- f) Cause No. 15-0064-C277, Gordon v. Dollahite et al, In The District Court of Williamson County, Texas, 277th District
- g) County Road 241 utility and Right-of-Way Issues and matters;
- h) Civil Action No. 1:15-cv-431; Herman Crisp v. Williamson County, et al; In the USDC-WD-Austin Division
- i) Carolyn Barnes, et al v. Texas Attorney General, et al; Cause # D-1-GN-15-000877, in the 419th Judicial District Court of Travis County
- j) Discuss, consider and take appropriate action regarding possible appeal of IRS Proposed Worker Classification Changes and Proposed Tax Adjustments 2011 -2013; and approval of payment of disputed employment taxes pending appeal
- k) Discuss proposed acquisition of property for SW 183 and SH 29 Loop
- l) Civil Action; American Stewards of Liberty, et al. v. Sally Jewell, et al., In the Western District Court, Western District of Texas, Austin Division
- m) Berry Springs Park and Preserve pipeline
- n) Civil Action No. 1:16-cv-1023 LY, Brian Carrier v. Lt. McKnight, et al, In The United States District Court For The Western District Of Texas, Austin Division
- o) Law relating requests for the closure, abandonment or vacation of roadway(s) in the Woodland Park Subdivision.
- p) Requirements relating to grant of easement to Lone Star Regional Water Authority on Hwy 95
- q) Case No. 1:17-cv-00290, Rodney A. Hurdsman v. Williamson County Sheriff Deputies Pokluda et al, In The Unites States District Court For The Western District of Texas – Austin Division.

- 74. Discuss, consider and take appropriate action regarding the appointment, employment, evaluation, reassignment, duties, discipline and/or dismissal of Williamson County officers, directors or employees, including but not limited to any necessary action pertaining to conducting annual reviews of department heads and appointed officials.
- 75. Comments from Commissioners.

Dan A. Gattis, County Judge

This notice of meeting was posted in the locked box located on the south side of the Williamson County Courthouse, a place readily accessible to the general public at all times, on the _____ day of _____, 2017 at _____ and remained posted for at least 72 continuous hours preceding the scheduled time of said meeting.

Commissioners Court - Regular Session

5.

Meeting Date: 08/15/2017

WCEMS LIT for training equipment

Submitted By: Michael Knipstein, EMS

Department: EMS

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on a line item transfer for Williamson County EMS.

Background

This request is to provide sufficient funds to purchase training mannequins and educational materials for classes.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0540.004234	Training Supplies	\$2004.35
To	0100.0540.003107	Medical Equipment < \$5,000	\$2004.35
From	0100.0540.004234	Training Supplies	\$1385.98
To	0100.0540.003101	Education Aids / Materials	\$1385.98

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Michael Knipstein

Final Approval Date: 08/07/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/07/2017 03:07 PM

08/07/2017 03:08 PM

Started On: 08/03/2017 02:49 PM

Commissioners Court - Regular Session

6.

Meeting Date: 08/15/2017

Line Item Transfer

Submitted By: Gina Wrehsnig, Facilities Maintenance

Department: Facilities Maintenance

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on a line item transfer for Facilities.

Background

Need additional funds for the remainder of the year for routine pest control and kitchen repairs.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0509-004100	Professional Service	7000
To	0100-0509-003319	Extermination	7000
From	0100-0509-004505	Software Maintenance	2000
To	0100-0509-004512	Kitchen Maint & Repair	2000

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Gina Wrehsnig

Final Approval Date: 08/07/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/07/2017 03:07 PM

08/07/2017 03:09 PM

Started On: 08/04/2017 09:14 AM

Commissioners Court - Regular Session

7.

Meeting Date: 08/15/2017

Line Item Transfer for County Sheriff

Submitted For: Robert Chody

Submitted By: Toni Mace, Sheriff

Department: Sheriff

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on a line item transfer for the County Sheriff.

Background

The line item transfer is necessary to cover pre-employment expenditures.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0570.004500	Maintenance Contracts	\$10,000.00
To	0100.0570.004705	Pre-Employment Screening	\$10,000.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Toni Mace

Final Approval Date: 08/07/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/07/2017 03:07 PM

08/07/2017 03:09 PM

Started On: 08/04/2017 01:17 PM

Commissioners Court - Regular Session

8.

Meeting Date: 08/15/2017

Line Item Transfer for County Sheriff

Submitted By: Peggy Braun, Sheriff

Department: Sheriff

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on a line item transfer for the County Sheriff.

Background

The line item transfer is requested in order to cover training expenses.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0560.4703	MH/MR	\$20,000.00
To	0100.0560.4232	Training	\$20,000.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Peggy Braun

Final Approval Date: 08/08/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/08/2017 12:36 PM

08/08/2017 12:39 PM

Started On: 08/07/2017 01:31 PM

Commissioners Court - Regular Session

9.

Meeting Date: 08/15/2017

Line Item Transfer

Submitted By: Gina Wrehsnig, Facilities Maintenance

Department: Facilities Maintenance

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on a line item transfer for Facilities.

Background

Need additional funds for the rest of the year for vehicle maintenance and repair.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0509-004505	Facilities/Software Maint	\$2,850
To	0100-0509-004541	Vehicle Maint & Repair	\$9,000
From	0100-0509-004100	Facilities/Prof Svcs	\$4,000
From	0100-0509-003002	Facilities/Vehicle Equip	\$2,150

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Gina Wrehsnig

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/09/2017 03:03 PM

08/10/2017 11:43 AM

Started On: 08/09/2017 01:03 PM

Commissioners Court - Regular Session

10.

Meeting Date: 08/15/2017

Discuss consider and take appropriate action on line item transfer for Road and Bridge

Submitted For: Terron Evertson

Submitted By: Lydia Linden, Unified Road System

Department: Unified Road System

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on a line item transfer for Road and Bridge Division.

Background

The transfer into Right of way is necessary to protect right of way associated with the long range transportation plan.

The transfer into Office Furniture is for the OSSF staff that will be moving into cubicles currently being utilized by Subdivision Inspection staff. The Subdivision Inspection staff will be moved to the field maintenance building and need small cubicles set up.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0200-0210-003597	Roadway Rehab	\$25,000.00
To	0200-0210-005200	Right of Way	\$25,000.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Lydia Linden

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/10/2017 09:13 AM

08/10/2017 10:00 AM

Started On: 08/09/2017 01:58 PM

Commissioners Court - Regular Session

11.

Meeting Date: 08/15/2017

Line Item Transfer

Submitted For: D. Hobbs

Submitted By: Stephanie Lloyd, County Attorney

Department: County Attorney

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on approving a line item transfer for the County Attorney's Office.

Background

One of our computers has been damaged and no longer usable. This is the cost to replace the unit.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0475.004902	Co Atty Leg Supp	\$599.00
To	0100.0475.003010	Computer Equipment	\$599.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Stephanie Lloyd

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/10/2017 09:13 AM

08/10/2017 09:54 AM

Started On: 08/09/2017 04:50 PM

Commissioners Court - Regular Session

12.

Meeting Date: 08/15/2017

Line Item Transfer Mobile Outreach Team

Submitted For: Annie Burwell

Submitted By: Jeanne Williby, Outreach

Department: Outreach

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action to approve a line item transfer for Mobile Outreach Team.

Background

Current budget balance in flex funds is \$1,000. With just under 2 months remaining in the fiscal year, \$2,000 will carry us to the end of the year.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0341-005730	Radio Equipment < \$5,000	2000.00
To	0100-0341-004908	Outreach Flex Funding	2000.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Jeanne Williby

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/10/2017 09:13 AM

08/10/2017 09:55 AM

Started On: 08/09/2017 06:02 PM

Commissioners Court - Regular Session

13.

Meeting Date: 08/15/2017

Line Item Transfer

Submitted By: Ashlie Koenig, Budget Office

Department: Budget Office

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on a line item transfer for Non Departmental.

Background

The On-Site Sewage Facility Department will transition from the Health Department to Williamson County on 10/1/17. For this reason we will need to purchase cubicles to allow for "office furniture" to be in place. This money will facilitate that purchase.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0409-004998	Non Dept/Contingencies	\$35,000
To	0100-0409-003005	Non Dept/Office Furniture	\$35,000

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Ashlie Koenig
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:28 AM
Started On: 08/10/2017 10:00 AM

Commissioners Court - Regular Session

14.

Meeting Date: 08/15/2017

Budget Line Item Transfer

Submitted By: John Pelczar, Juvenile Services

Department: Juvenile Services

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on a line item transfer for Juvenile Services.

Background

Juvenile Services is requesting line item transfers based on current year-to-date expenditures and anticipated expenditures for the remainder of FY17.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100.0576.004106	Counseling Services	10000
From	0100.0576.003307	Pharmaceuticals	5500
From	0100.0576.003102	Safety Supplies	1000
To	0100.0576.004541	Vehicle Repairs & Maintenance	14000
To	0100.0576.003101	Educational Aids	1500
To	0100.0576.004510	Facility Maintenance & Repair	1000

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: John Pelczar

Final Approval Date: 08/11/2017

Reviewed By

Wendy Coco

Wendy Coco

Date

08/10/2017 11:14 AM

08/11/2017 12:15 PM

Started On: 08/10/2017 10:51 AM

Commissioners Court - Regular Session

15.

Meeting Date: 08/15/2017

08-15-2017 LIT

Submitted For: Kevin Teller

Submitted By: Edward Pospisil, Fleet Maintenance

Department: Fleet Maintenance

Agenda Category: Consent

Information

Agenda Item

Discuss, Consider, and take appropriate action on a Line Item Transfer for Fleet Services.

Background

This transfer amount is requested to supplement our parts purchasing line item. Current projections indicate a shortage of funds in this line item over the remainder of this fiscal year due to major repairs and accidents that have arisen.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0882.0882.003301	Gasoline	\$30,000.00
To	0882.0882.003523	Parts	\$30,000.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Budget Office

Form Started By: Edward Pospisil

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Ashlie Koenig

Date

08/10/2017 11:31 AM

08/10/2017 11:41 AM

Started On: 08/10/2017 11:07 AM

Commissioners Court - Regular Session

16.

Meeting Date: 08/15/2017

Compensation Items

Submitted For: Tara Raymore

Submitted By: Kristy Sutton, Human Resources

Department: Human Resources

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on approving compensation changes, position titles changes, position grade changes and any corresponding line item transfers.

Background

See attached documentation for details.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Comp Item

Form Review

Inbox

Human Resources (Originator)

County Judge Exec Asst.

Form Started By: Kristy Sutton

Final Approval Date: 08/10/2017

Reviewed By

Tammy Fennell

Wendy Coco

Date

08/10/2017 11:22 AM

08/10/2017 11:29 AM

Started On: 08/10/2017 09:09 AM

Department	PCN	EE ID	Budget Amount	*Requested Amount	Change Amount	% Change	Reason for Change	Available Funds	Earliest Oracle Effective Date
911 Communications	0133	Vacant	\$36,547.38	0	0	0	Title & Grade change: Telecommunications Officer I (B.21) to Telecommunications Officer Trainee (B.20)	N/A	8/11/2017
Constable Pct. 1	0263	13218	\$36,171.20	\$37,256.34	\$1,085.14	3.00%	Merit	Unallocated	8/11/2017
Corrections	0357	Vacant	\$30,014.40	\$34,086.08	\$4,071.68	13.57%	Title and Grade change: Control Oper SO (B.17) to Corr Ofcr (C1.1), Salary Increase to bring to minimum of the grade	Unallocated	8/11/2017
County Auditor	0637	12641	\$60,522.54	\$61,127.82	\$605.28	1.00%	Merit	Unallocated	8/11/2017
County Auditor	0635	02611	\$98,794.80	\$99,782.80	\$988.00	1.00%	Merit	Unallocated	8/11/2017
Information Systems	0968	12980	\$61,307.48	\$61,767.16	\$459.68	0.75%	Merit	Unallocated	8/11/2017
Information Systems	1629	13658	\$52,804.70	\$53,200.68	\$395.98	0.75%	Merit	Unallocated	8/11/2017
Justice of the Peace 2	0991	12771	\$34,927.40	\$35,451.31	\$523.91	1.50%	Merit	Unallocated	8/11/2017
Justice of the Peace 2	9961	Vacant	\$29,120.00	\$30,430.400	\$1,310.40	4.50%	Increase vacant position salary	Unallocated	8/11/2017
Justice of the Peace 2	0990	Vacant	\$30,903.18	\$32,448.34	\$1,545.16	5.00%	Increase vacant position salary	Unallocated	8/11/2017
Juvenile Grant	1022	13885	\$43,000.01	\$45,150.00	\$2,149.99	5.00%	Merit	Unallocated	9/16/2017
Juvenile Grant	1027	14297	\$34,112.00	\$35,817.60	\$1,705.60	5.00%	Merit	Unallocated	9/16/2017
Juvenile Services	1071	14128	\$34,112.00	\$35,817.60	\$1,705.60	5.00%	Merit	Unallocated	9/16/2017
Juvenile Services	1122	14304	\$34,112.00	\$35,817.60	\$1,705.60	5.00%	Merit	Unallocated	9/16/2017
Juvenile Services	1124	14296	\$34,112.00	\$35,817.60	\$1,705.60	5.00%	Merit	Unallocated	9/16/2017
Magistrate's Office	0183	Vacant	\$33,280.00	\$36,200.00	\$2,920.00	8.77%	Title & Grade change: Indigent Defense Specialist (B.19) to Admin Specialist (B.17)	Unallocated	8/25/2017
Personal Bond Office	1706	Vacant	\$47,730.26	\$37,508.87	-\$10,221.39	-21.41%	Title & Grade change: Court Admin II (B.24) to Admin Specialist I(B.17)	Unallocated	8/11/2017
Personal Bond Office	1211	Vacant	\$30,825.60	\$37,508.87	\$6,683.27	21.68%	Increase vacant position salary	Unallocated	8/11/2017
Purchasing	1217	14260	\$47,999.99	\$49,440.00	\$1,440.00	3.00%	Merit	Unallocated	8/11/2017
Purchasing	1216	14268	\$37,024.00	\$38,134.72	\$1,110.72	3.00%	Merit	Unallocated	8/11/2017
Sheriff's Office	1697	Vacant	\$41,397.72	\$47,993.40	\$6,595.68	15.93%	Increase vacant position salary	Unallocated	8/25/2017
Sheriff's Office	1389	12945	\$54,585.44	\$55,131.18	\$545.74	1.00%	Merit	Unallocated	8/11/2017
Sheriff's Office	1396	14140	\$51,717.90	\$54,303.86	\$2,585.96	5.00%	Merit	Unallocated	8/11/2017
Tax Office	1463	Vacant	\$41,064.96	0	0	0	Title & Grade change: Tax Accounting Spec II (B.19) to Motor Vehicle Specialist I(B.17)	N/A	8/25/2017
Tax Office	1426	03745	\$66,551.16	0	0	0	Title change: Acctg Spec Tax to Accounting Manager	Unallocated	8/11/2017

*Amount may vary slightly due to Oracle rounding

Commissioners Court - Regular Session

17.

Meeting Date: 08/15/2017

Reserve Deputy

Submitted For: Cynthia Long

Submitted By: Kathy Pierce, Commissioner Pct. #2

Department: Commissioner Pct. #2

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on appointment of Leo Enriquez as an unpaid Reserve Deputy Constable for the Precinct 2 Constable's Office.

Background

Leo Enriquez served for eight years with the Precinct 2 Constable's Office and honorably retired earlier this year. Mr. Enriquez is a licensed peace officer with over 34 years of service and has successfully completed background checks. Mr. Enriquez is a 24-year resident of Williamson County.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Kathy Pierce

Final Approval Date: 08/09/2017

Reviewed By

Wendy Coco

Date

08/09/2017 10:04 AM

Started On: 08/09/2017 09:00 AM

Commissioners Court - Regular Session

18.

Meeting Date: 08/15/2017

Property Tax Collections – July 2017

Submitted For: Larry Gaddes

Submitted By: Sandra Surratt, County Tax Assessor Collector

Department: County Tax Assessor Collector

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on approving property tax collections for the month of July 2017 for the Williamson County Tax Assessor/Collector.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[070117-073117 GWI-RFM](#)

[070117-073117 GWI-RFM Graph](#)

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Sandra Surratt

Final Approval Date: 08/09/2017

Reviewed By

Wendy Coco

Date

08/09/2017 10:07 AM

Started On: 08/09/2017 09:29 AM

YEAR TO DATE - COLLECTION REPORT
Williamson County - GWI/RFM Property Taxes
July 31, 2017

Williamson County General Fund	Tax Roll	Adjustments	Adjusted Tax Roll	Current Tax Collected	Penalty & Interest Collected	Variance	Uncollected Balance	YTD Collected	YTD Percent Collected	YTD Percent Collected w/P & I	YTD Percent Collected w/P & I & Prior Years
2016	\$226,223,062.05	\$292,939.52	\$226,516,001.57	\$762,759.25	\$31,361.44	\$1.49	\$1,021,270.14	\$225,494,731.43	99.55%	99.75%	100.44%
2015 & Prior Rollbacks	\$2,047,458.40 \$468,099.22	(\$331,029.63) \$769,022.53	\$1,716,428.77 \$1,237,121.75	\$11,033.20 \$59,675.60	\$5,166.33 \$0.00	\$378.26 \$0.00	\$1,345,360.15 \$223,017.83	\$371,068.62 \$1,014,103.92	21.62% 81.97%	31.42% 82.40%	
Total All	\$228,738,619.67	\$730,932.42	\$229,469,552.09	\$833,468.05	\$36,527.77	\$379.75	\$2,589,648.12	\$226,879,903.97	98.87%	99.14%	

Williamson County RFM	Tax Roll	Adjustments	Adjusted Tax Roll	Current Tax Collected	Penalty & Interest Collected	Variance	Uncollected Balance	YTD Collected	YTD Percent Collected	YTD Percent Collected w/P & I	YTD Percent Collected w/P & I & Prior Years
2016	\$20,562,004.13	\$32,630.74	\$20,594,634.87	\$66,629.92	\$2,855.22	\$0.22	\$92,128.94	\$20,502,505.93	99.55%	99.75%	100.39%
2015 & Prior Rollbacks	\$172,606.65 \$37,565.88	(\$28,575.74) \$64,428.63	\$144,030.91 \$101,994.51	\$1,027.51 \$5,270.71	\$469.81 \$0.00	\$28.39 \$0.00	\$110,499.98 \$19,165.23	\$33,530.93 \$82,829.28	23.28% 81.21%	33.79% 81.62%	
Total All	\$20,772,176.66	\$68,483.63	\$20,840,660.29	\$72,928.14	\$3,325.03	\$28.61	\$221,794.15	\$20,618,866.14	98.94%	99.21%	

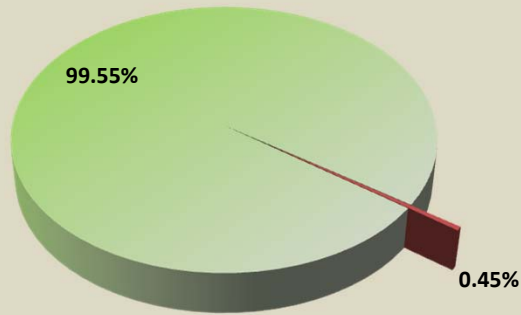
2016 COMBINED MONTHLY BREAKDOWN

Oct-16	\$249,510,796.33	\$174,087.04	\$249,684,883.37	\$9,479,071.82	\$21,239.64	\$1,658.11	\$240,204,153.44	\$9,480,729.93			
Nov-16	\$249,684,883.37	\$633,585.03	\$250,318,468.40	\$10,270,321.69	\$30,038.80	\$4,805.07	\$230,562,611.71	\$19,755,856.69			
Dec-16	\$250,318,468.40	(\$278,681.38)	\$250,039,787.02	\$132,850,048.98	\$23,630.70	\$593.98	\$97,433,287.37	\$152,606,499.65			
Jan-17	\$250,039,787.02	\$148,420.90	\$250,188,207.92	\$85,802,448.75	\$29,213.62	\$289.79	\$11,778,969.73	\$238,409,238.19			
Feb-17	\$250,188,207.92	(\$46,669.47)	\$250,141,538.45	\$3,563,898.84	\$196,390.69	(\$30,865.31)	\$8,199,266.73	\$241,942,271.72			
Mar-17	\$250,141,538.45	(\$88,426.37)	\$250,053,112.08	\$2,110,181.72	\$123,515.82	\$37,185.40	\$5,963,473.24	\$244,089,638.84			
Apr-17	\$250,053,112.08	\$146,139.52	\$250,199,251.60	\$728,306.79	\$87,457.12	\$2,046.90	\$5,379,259.07	\$244,819,992.53			
May-17	\$250,199,251.60	\$74,048.72	\$250,273,300.32	\$1,273,516.27	\$59,796.86	\$841.12	\$4,178,950.40	\$246,094,349.92			
Jun-17	\$250,273,300.32	\$45,897.42	\$250,319,197.74	\$493,691.76	\$67,486.75	\$3,923.88	\$3,727,232.18	\$246,591,965.56			
Jul-17	\$250,319,197.74	(\$8,985.36)	\$250,310,212.38	\$906,396.19	\$39,852.80	\$408.36	\$2,811,442.27	\$247,498,770.11			

**Year to Date Collection Report
October 1, 2016 - July 31, 2017**

■ YTD Collected ■ YTD Uncollected

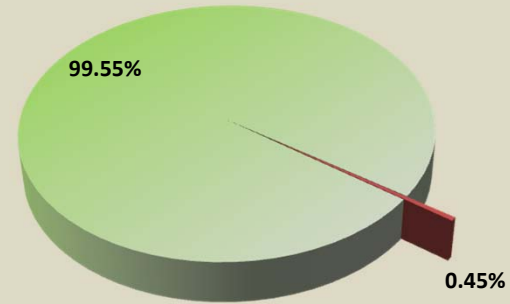
GWI



**Year to Date Collection Report
October 1, 2016 - July 31, 2017**

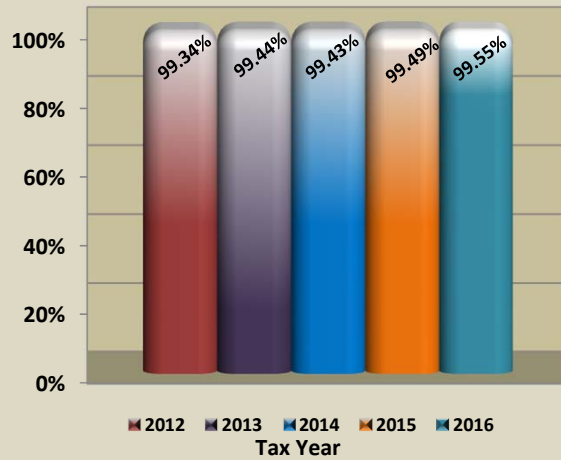
■ YTD Collected ■ YTD Uncollected

RFM



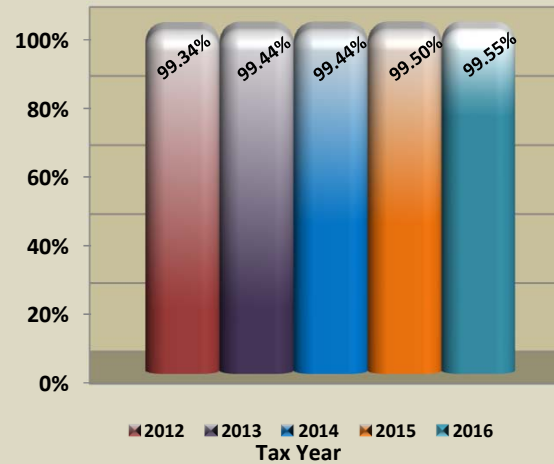
**Percent of Roll Collected Comparison
July 2013-2017**

GWI



**Percent of Roll Collected Comparison
July 2013-2017**

RFM



Commissioners Court - Regular Session

19.

Meeting Date: 08/15/2017

Property Tax Refunds – Over 2500 – July 2017

Submitted For: Larry Gaddes

Submitted By: Sandra Surratt, County Tax Assessor Collector

Department: County Tax Assessor Collector

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on approving property tax refunds over \$2,500.00 for the month of July 2017 for the Williamson County Tax Assessor/Collector.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[070117-073117 Refunds Over 2500](#)

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Sandra Surratt

Final Approval Date: 08/09/2017

Reviewed By

Wendy Coco

Date

08/09/2017 10:07 AM

Started On: 08/09/2017 09:35 AM



Date: August 9, 2017
To: Members of the Commissioners Court
From: Larry Gaddes PCAC, CTA
Subject: Property Tax Refunds

Larry Gaddes PCAC, C T A
Tax Assessor/Collector

In accordance with Section 31.11 of the Property Tax Code, the court needs to approve all refunds in excess of \$2,500.00. We are presenting the attached list which includes these property tax refunds for your approval.

Please contact me at (512) 943-1954, if you have any questions.

Thank you.

Main Office and Mailing Address:

904 South Main Street
Georgetown, Texas 78626
Motor Vehicle Telephone: 512.943.1602
Property Tax Telephone: 512.943.1603
www.wilco.org/tax

Annex Locations:

1801 E. Old Settler's Blvd., Ste 115	350 Discovery Blvd., Ste. 101	412 Vance St., Ste. 1
Round Rock, Texas 78664	Cedar Park, Texas 78613	Taylor, Texas 76574
Telephone: 512.244.8644	Telephone: 512.260.4290	Telephone: 512.352.4140

Property Tax
Account QuickReport
As of July 31, 2017

<u>Date</u>	<u>Num</u>	<u>Name</u>	<u>Memo</u>	<u>Amount</u>
Refunds Payable - Taxpayers				
07/14/2017	63141	JAMES OR MEREDITH DERKOWSKI	R335232 - Escrow Refund	-4,596.32
07/14/2017	63142	JALAL-UR-RAHMAN S OR MAHENOOR QUADRI	R454094 - Escrow Refund	-7,121.94
Total Refunds Payable - Taxpayers				<u>-11,718.26</u>
TOTAL				<u><u>-11,718.26</u></u>

Commissioners Court - Regular Session

20.

Meeting Date: 08/15/2017

Asset Disposal Special Auction

Submitted For: Randy Barker

Submitted By: Thomas Skiles, Purchasing

Department: Purchasing

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the disposal of two hundred (200) wooden pallets through auction pursuant to TX. Local Gov't Code 263.152 and authorizing the special auction date of August 16, 2017 through GovDeals.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

Asset Sheet

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Thomas Skiles

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM

Started On: 08/10/2017 09:59 AM

Williamson County

Asset Status Change Form

The following asset(s) is(are) considered for: (select one)

TRANSFER bet ween county departments
 DONATION to a non-county entity
 SALE at the earliest auction *
 DESTRUCTION due to Public Health / Safety
 TRADE-IN for new assets of similar type for the county
 SALE to a government entity / civil or charitable organization in the county at fair market value

Asset List:

Quantity	Description (year, make, model, etc.)	Manufacturer ID# (serial, service tag, or VIN)	County Tag#	Condition of Assets (Working, Non-Working)
200	Wood Pallets			▼
	Special auction date of 8/16/2017			▼
				▼
				▼
				▼

Parties involved:

FROM (Transferor Department): ITS Warehouse

Transferor - Elected Official/Department Head/ Authorized Staff:

Tammy McCulley **Contact Person:** Tony Hill

Print Name _____ Print Name _____

Tammy McCulley 8/10/2017 943-3314

Signature _____ Date _____ Phone Number _____

TO (Transferee Department/Auction/Trade-in/Donee): Auction

Transferee - Elected Official/Department Head/ Authorized Staff OR Donee - Representative: (If being approved for Sale or Trade-in, no signature is necessary.)

Contact Person: Tony Hill

Print Name _____ Print Name _____

Signature _____ Date _____ Phone Number _____

943-3314

* If the above asset(s) is (are) listed for sale at auction and no bids are made, the Purchasing Director may dispose of or donate this (these) asset(s). A list of the (these) asset(s) to be donated or disposed of will be sent to the Auditor's Office with a date of donation or disposal.

Forward to County Auditor's Office

This Change Status was approved as agenda item # _____ in Commissioner's Court on _____

If for Sale, the asset(s) was(were) delivered to warehouse on _____ by _____

Commissioners Court - Regular Session

21.

Meeting Date: 08/15/2017

Asset Transfer 8/15/2017

Submitted By: Jayme Jasso, Purchasing

Department: Purchasing

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the disposal of various county assets through inter-departmental transfer including (2) Monitor's and (3) Folding tables (see attached lists) pursuant to Tx. Local Gov't Code 263.152.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

Asset Transfer 1

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Jayme Jasso

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 11:31 AM

Started On: 08/08/2017 11:36 AM

Williamson County Asset Status Change Form

The following asset(s) is(are) considered for: (select one)

- | | |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="radio"/> TRANSFER bet ween county departments | <input type="radio"/> DONATION to a non-county entity |
| <input type="radio"/> SALE at the earliest auction * | <input type="radio"/> DESTRUCTION due to Public Health / Safety |
| <input type="radio"/> TRADE-IN for new assets of similar type for the county | <input type="radio"/> SALE to a government entity / civil or charitable organization in the county at fair market value |

Asset List:


Quantity	Description (year, make, model, etc.)	Manufacturer ID# (serial, service tag, or VIN)	County Tag#	Condition of Assets (Working, Non-Working)
1	Dell P2014Ht monitor	CN-0J6HFT-74445-48E-693L		Working
1	Dell P2014Ht monitor	CN-0J6HFT-74445-487-A5UL		Working

Parties involved:

FROM (Transferor Department): AUCTION

Transferor - Elected Official/Department Head/Authorized Staff:

TAMMY MCCULLEY
Print Name


Signature

July 27, 2017
Date

Contact Person:

TONY HILL
Print Name

+1 (512) 943-3315
Phone Number

TO (Transferee Department/Auction/Trade-in/Donee): COMMISSIONER PCT 3

RECEIVED

Transferee - Elected Official/Department Head/Authorized Staff OR Donee - Representative: (If being approved for Sale or Trade-in, no signature is necessary.)

RACHEL ARNOLD
Print Name


Signature

July 27, 2017
Date

Contact Person:

RACHEL ARNOLD
Print Name

+1 (512) 943-3370
Phone Number

JUL 30 2017

AUDITOR'S OFFICE
WILLIAMSON COUNTY, TEXAS

* If the above asset(s) is (are) listed for sale at auction and no bids are made, the Purchasing Director may dispose of or donate this (these) asset(s). A list of the (these) asset(s) to be donated or disposed of will be sent to the Auditor's Office with a date of donation or disposal.

Forward to County Auditor's Office

This Change Status was approved as agenda item # _____ in Commissioner's Court on _____

If for Sale, the asset(s) was(were) delivered to warehouse on _____ by _____

Williamson County

Asset Status Change Form

Print Form

The following asset(s) is(are) considered for: (select one)

TRANSFER bet ween county departments
 DONATION to a non-county entity
 SALE at the earliest auction *
 DESTRUCTION due to Public Health / Safety
 TRADE-IN for new assets of similar type for the county
 SALE to a government entity / civil or charitable organization in the county at fair market value

Asset List:

Quantity	Description (year, make, model, etc.)	Manufacturer ID# (serial, service tag, or VIN)	County Tag#	Condition of Assets (Working, Non-Working)
3	Folding Tables			Working ▼
				▼
				▼
				▼
				▼

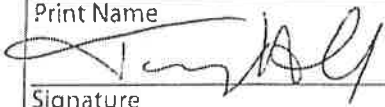
Parties involved:

FROM (Transferor Department): Auction

**Transferor - Elected Official/Department Head/
Authorized Staff:**

Tony Hill

Print Name



Signature

7/26/2017

Date

Contact Person:

Tony Hill

Print Name

943-3314

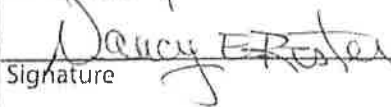
Phone Number

TO (Transferee Department/Auction/Trade-in/Donee): County Clerk

**Transferee - Elected Official/Department Head/
Authorized Staff OR Donee - Representative: (If being approved for Sale or Trade-in, no signature is necessary.)**

Nancy E. Rister

Print Name



Signature

Contact Person:

Regina Brown

Print Name

512-943-1141

Phone Number

* If the above asset(s) is (are) listed for sale at auction and no bids are made, the Purchasing Director may dispose of or donate this (these) asset(s). A list of the (these) asset(s) to be donated or disposed of will be sent to the Auditor's Office with a date of donation or disposal.

Forward to County Auditor's Office

This Change Status was approved as agenda item # _____ in Commissioner's Court on _____

If for Sale, the asset(s) was(were) delivered to warehouse on _____ by _____

Commissioners Court - Regular Session

22.

Meeting Date: 08/15/2017

Asset Trade-in 8/15/2017

Submitted By: Jayme Jasso, Purchasing

Department: Purchasing

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the disposal of (1) Canon IPF 755 Plotter through Trade-in (see attached list) pursuant to Tx. Local Gov't Code 263.152.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Asset Trade-in 1

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Jayme Jasso

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 11:31 AM

Started On: 08/08/2017 11:58 AM

Williamson County Asset Status Change Form

Print Form

The following asset(s) is(are) considered for: (select one)

<input type="radio"/> TRANSFER bet ween county departments <input type="radio"/> SALE at the earliest auction * <input checked="" type="radio"/> TRADE-IN for new assets of similar type for the county	<input type="radio"/> DONATION to a non-county entity <input type="radio"/> DESTRUCTION due to Public Health / Safety <input type="radio"/> SALE to a government entity / civil or charitable organization in the county at fair market value
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Asset List:

Quantity	Description (year, make, model, etc.)	Manufacturer ID# (serial, service tag, or VIN)	County Tag#	Condition of Assets (Working, Non-Working)
1	Cannon iPF 755 Plotter, 2009	s/n: AAAH0405		Working

Parties involved:

FROM (Transferor Department): Infrastructure

Transferor - Elected Official/Department Head/ Authorized Staff:

Terron Evertson	Contact Person: Matt Williamson
Print Name	Print Name
	+1 (512) 943-3384
Signature	Date Phone Number

TO (Transferee Department/Auction/Trade-in/Donee): Trade-In with purchase of new plotter

Transferee - Elected Official/Department Head/ Authorized Staff OR Donee - Representative: (If being approved for Sale or Trade-in, no signature is necessary.)

	Contact Person:
Print Name	Print Name
Signature	Date Phone Number

* If the above asset(s) is (are) listed for sale at auction and no bids are made, the Purchasing Director may dispose of or donate this (these) asset(s). A list of the (these) asset(s) to be donated or disposed of will be sent to the Auditor's Office with a date of donation or disposal.

Forward to County Auditor's Office

This Change Status was approved as agenda item # _____ in Commissioner's Court on _____

If for Sale, the asset(s) was(were) delivered to warehouse on _____ by _____

Commissioners Court - Regular Session

23.

Meeting Date: 08/15/2017

Asset Auction 8/8/2017

Submitted By: Jayme Jasso, Purchasing

Department: Purchasing

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the disposal of various county assets through auction including (1) 2005 Ford F-150 (see attached list) pursuant to Tx. Local Gov't Code 263.152.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Asset Auction 1

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Jayme Jasso

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 11:31 AM

Started On: 08/08/2017 12:01 PM

Vehicle Status Change

Reason for Status Change	HIGH MILEAGE: List actual mileage in comments below
Comments	111088
Department	509 - Building Maintenance
County VIN/Serial Number	1FTRX12W65KD56488
Equipment/Door Number	BB0583
License Plate	1137002
Year	2005
Make	FORD
Model	F150
Elected Official/Department Head/Authorized Staff Digital Signature	✔ Todd Imboden 8/1/2017 9:21 AM
Department Transfer	
Receiving Department Signature	✘
Budget Office Signature Acknowledgement	✘
To be completed by Fleet Services Manager	
Method of Status change: This vehicle is to be considered for: (select one)	Sale at the earliest auction
Authorized Fleet Staff Digital Signature	✔ Kevin Teller 8/1/2017 4:49 PM
To be completed by HR - Signature acknowledges that there all paperwork has been received and there are no pending litigations	
Authorizing HR Employee Digital Signature	✔ Heather Kirkwood 8/4/2017 5:00 PM
To be completed by Auditor's Office	
Electronic Signature indicates the Vehicle Status Change has been reviewed and approved.	
Title Approved for (Audit)	No change needed; current title is still valid
Auditor's Authorized Employee Digital Signature	✔ Angela Schmidt 8/7/2017 2:01 PM
To be completed by Purchasing Department	
Purchasing Department Signature Acknowledgement	✔ Jayme Jasso 8/8/2017 11:49 AM

Human Resources

Created by Williamson County Technology Services

Commissioners Court - Regular Session

24.

Meeting Date: 08/15/2017

Vehicle Reimbursement Agreement for Fellowship Church

Submitted For: Robert Chody

Submitted By: Starla Hall, Sheriff

Department: Sheriff

Agenda Category: Consent

Information

Agenda Item

Discuss, consider and take any appropriate action regarding approval and receipt of Vehicle Reimbursement Agreement with Fellowship Church (Traffic control and security during various church services in Round Rock)

Background

This agreement gives permission for Fellowship Church to contract Williamson County Sheriff Deputies in a private capacity.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Fellowship Church

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Starla Hall

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 12:24 PM

Started On: 08/08/2017 04:45 PM

STATE OF TEXAS

§
§
§
§
§
§

VEHICLE REIMBURSEMENT
AGREEMENT WITH
NON-GOVERNMENTAL
ORGANIZATION
REGARDING OFF-DUTY
CONTRACTING OF COUNTY DEPUTIES

COUNTY OF WILLIAMSON

This Vehicle Reimbursement Agreement with Non-Governmental Organization Regarding Off-Duty Contracting of County Deputies (hereinafter, the "AGREEMENT") is entered into by and between the company/organization set forth on the signature page below (hereinafter, "NON-GOVERNMENTAL ORGANIZATION") in the State of Texas, and Williamson County, Texas (hereinafter, "COUNTY") a political subdivision of the State of Texas, and the Williamson County Law Enforcement Agency set forth on the signature page below (hereinafter, "LEA").

For and in consideration of the permission given by COUNTY for the NON-GOVERNMENTAL ORGANIZATION to contract in a private capacity DEPUTIES of the LEA (hereinafter "DEPUTIES"), while DEPUTIES are not on duty with and for the COUNTY, it is hereby agreed as follows:

1. It is mutually agreed that while the DEPUTIES are working for the NON-GOVERNMENTAL ORGANIZATION, the DEPUTIES' primary responsibility is the enforcement of Federal and State laws and COUNTY Ordinances or Regulations to protect life and property and to keep the peace. The DEPUTIES are not allowed to enforce NON-GOVERNMENTAL ORGANIZATION policies or rules. DEPUTIES are at all times subject to the rules and policies of the LEA. *NON-GOVERNMENTAL ORGANIZATION expressly acknowledges and agrees that such DEPUTIES are in all times independent contractors of the NON-GOVERNMENTAL ORGANIZATION when contracted by the NON-GOVERNMENTAL ORGANIZATION.*
2. **It is understood by the NON-GOVERNMENTAL ORGANIZATION** that the COUNTY shall retain the right to withdraw at any time its permission for the DEPUTIES to work in a private capacity (including the right to terminate this agreement at any time). **If** the permission of the COUNTY is withdrawn, the NON-GOVERNMENTAL ORGANIZATION agrees to terminate its contracting relationships with DEPUTIES. The NON-GOVERNMENTAL ORGANIZATION, as part of this AGREEMENT, binds itself to release and hold harmless the COUNTY from any liability or claim for damages in the event such permission is withdrawn by the COUNTY.
3. Prior to the beginning of DEPUTIES contracting with the NON-GOVERNMENTAL ORGANIZATION, the NON-GOVERNMENTAL ORGANIZATION shall obtain a comprehensive general liability insurance policy

from a company authorized to do business in the State of Texas with minimum amounts of Ten Thousand Dollars (\$10,000) per occurrence for property damage, One Hundred Thousand Dollars (\$100,000) per person, and Three Hundred Thousand Dollars (\$300,000) per occurrence for personal injury. COUNTY SHALL BE NAMED AS AN ADDITIONAL INSURED UNDER THIS COVERAGE.

4. The term of this AGREEMENT shall begin on the **1st, September 2017** and shall terminate on **September 30, 2018.** Any extension of this AGREEMENT must be set forth in writing and signed by both parties.
5. State law requires that law enforcement personnel conducting "off-duty" work must be both "full time" and "entitled" to fringe benefits. Tex. Occup. Code Sec. 1702.322(A) & (B)(i). Thus, part-time deputies and "reserve" officers may not conduct "off-duty" work.¹
6. The COUNTY agrees that each of the DEPUTIES will be properly insured with automobile liability insurance while operating the patrol vehicle in accordance with Section 612.005(b) of the Texas Government Code, and any other applicable laws.
7. COUNTY agrees to invoice NON-GOVERNMENTAL ORGANIZATION for the reimbursement amounts for deputy vehicle usage at a rate of **\$12.00** per hour per vehicle (to cover NON-GOVERNMENTAL ORGANIZATIONS fair share of costs for fuel, maintenance, and yearly premiums on automobile insurance).
8. NON-GOVERNMENTAL ORGANIZATION agrees to log and maintain all times that vehicles are allotted to off-duty work, whether actually used, or parked, for each vehicle used by DEPUTIES on a monthly basis. NON-GOVERNMENTAL ORGANIZATION shall provide such vehicle time records to COUNTY and LEA no later than the last day of the end of each month in which vehicle usage occurs. COUNTY will invoice based on the total usage and rate, as set forth in Paragraph 7, and NON-GOVERNMENTAL ORGANIZATION will pay such invoice within ten (10) days of the invoice date. Reporting must be submitted to:¹

LEA: At the address set forth on signature page below.

COUNTY: Williamson County Auditor's Office
Attn: Finance Director
710 Main Street, Suite 301
Georgetown, Texas 78626

9. NON-GOVERNMENTAL ORGANIZATION agrees that is shall pay deputies directly and file 1099 forms with the Internal Revenue Service.

¹ It is the commissioners court that sets what compensation (and benefits) deputies are entitled to, which affects eligibility for off-duty work. Tex. Local Govt Code § 152.011.

10. Each party to this AGREEMENT, in the performance of this AGREEMENT, shall act

in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another.

II. Nothing in this AGREEMENT shall be deemed to waive, modify or amend any legal defense available at law or in equity to COUNTY, its past or present officers, employ, or agents, nor to create any legal rights or claim on behalf of any third party. COUNTY does not waive, modify, or alter to extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

NON-GOVERNMENTAL ORGANIZATION: Name of

Organization: Fellowship Church

Signature: BW

Printed Name: Brandon Weir

Title: Executive Pastor

Date: 7/31 2017

WILLIAMSON COUNTY LAW ENFORCEMENT AGENCY:

Name of Office: Williamson County Sheriff's Office

Printed Name of Official: Sheriff Robert Chody

Signature of Official: Robert F. Chody

Date: July 21st 20 17

Address of Office: 508 S. Rock Street
Georgetown, Texas 78626

WILLIAMSON COUNTY COMMISSIONERS COURT:

By: _____

Dan A. Gattis,
Williamson County Judge &
Presiding Officer, Williamson County Commissioners Court
710 Main Street, Suite 105
Georgetown, Texas 78626

Commissioners Court - Regular Session

25.

Meeting Date: 08/15/2017

Discuss consider and take appropriate action on approval of the final plat for the Sunset Meadows subdivision - Pct 4

Submitted For: Terron Evertson

Submitted By: Katheryn Cromwell, Unified Road System

Department: Unified Road System

Agenda Category: Consent

Information

Agenda Item

Discuss, consider, and take appropriate action on approval of the final plat for the Sunset Meadows subdivision - Pct 4.

Background

This subdivision consists of 16 single family lots and no new public roads.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Sunset Meadows

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Katheryn Cromwell

Final Approval Date: 08/10/2017

Reviewed By

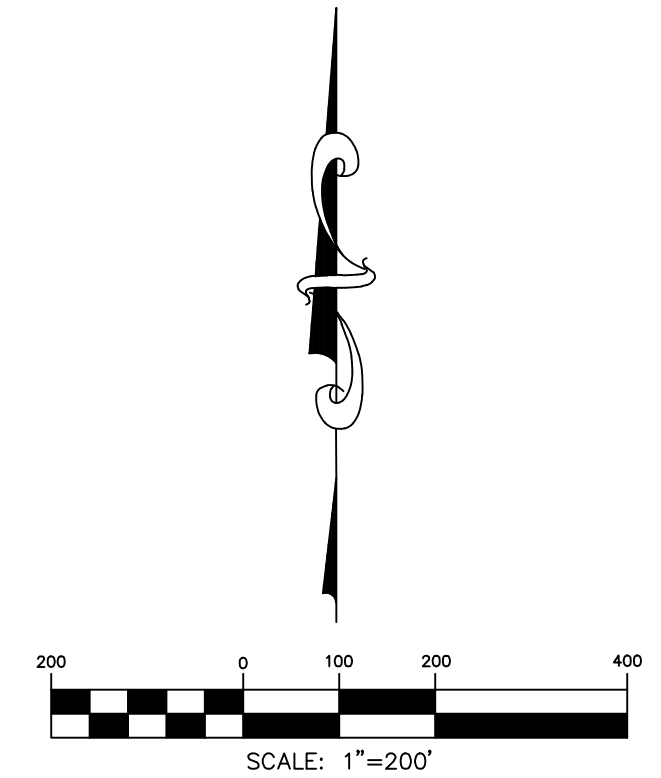
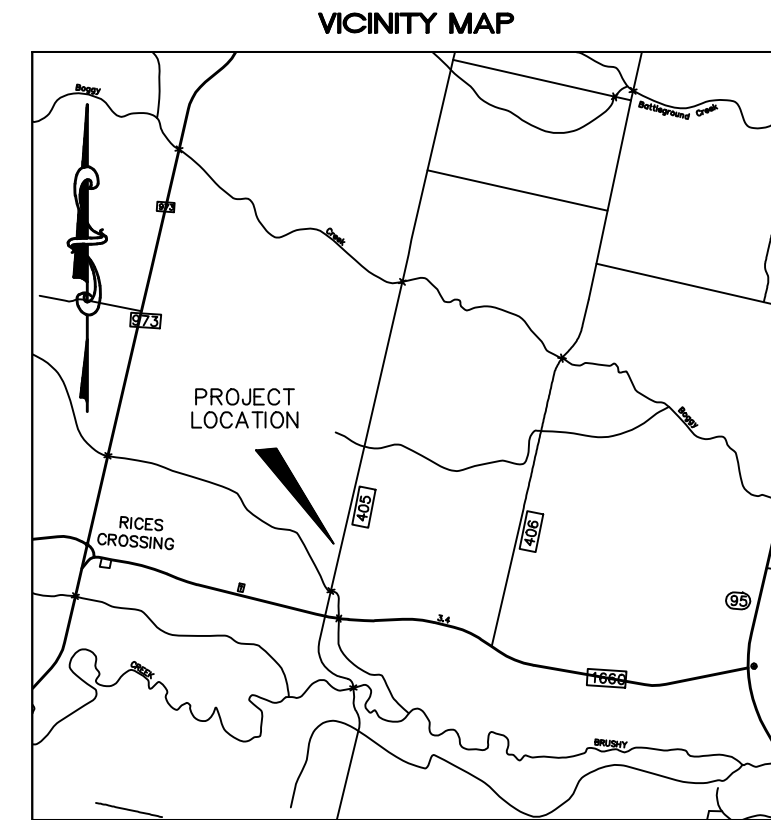
Wendy Coco

Date

08/10/2017 10:27 AM

Started On: 08/10/2017 09:24 AM

FINAL PLAT OF SUNSET MEADOWS

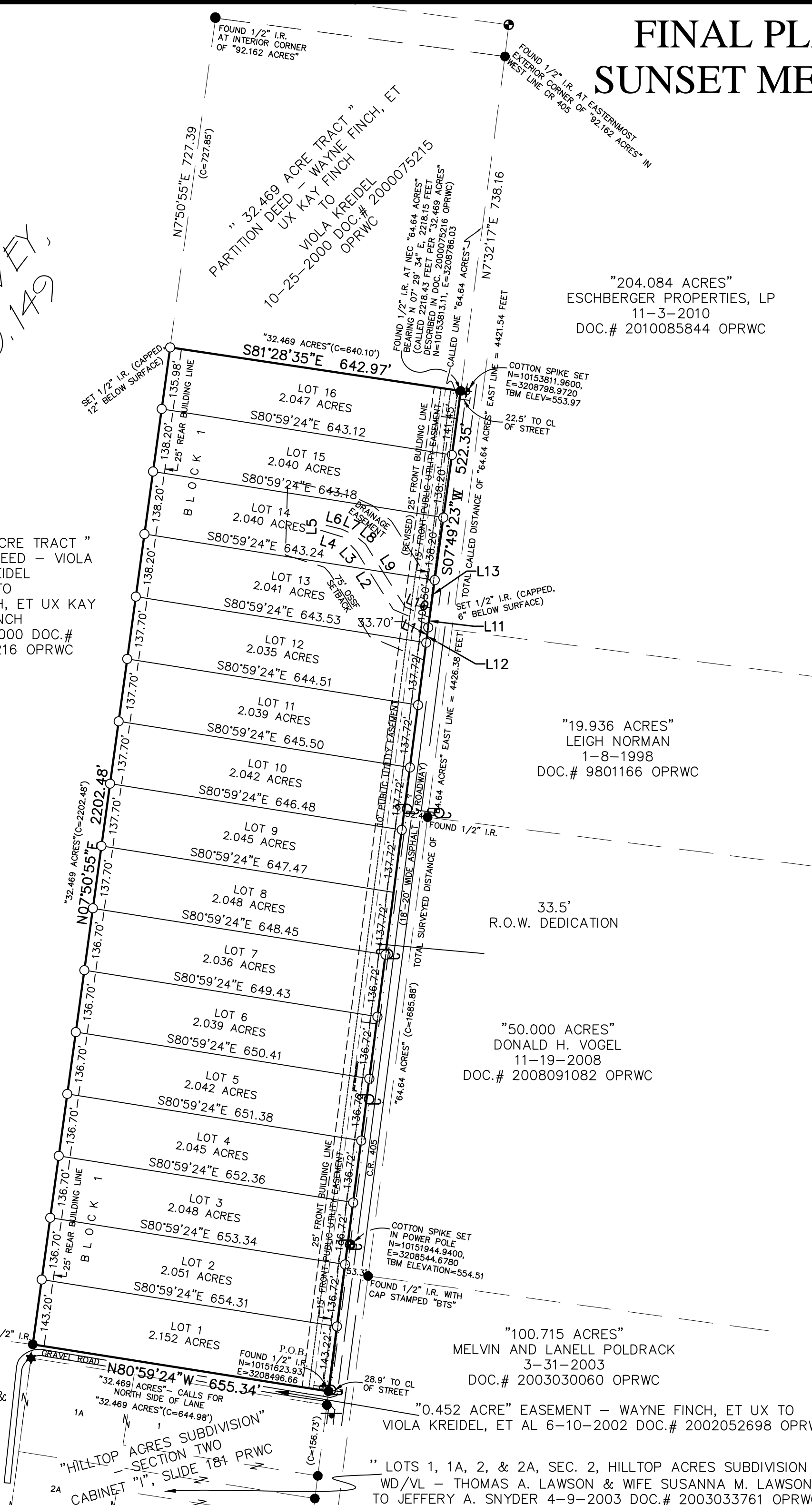


"204.084 ACRES"
ESCHBERGER PROPERTIES, LP
11-3-2010
DOC.# 2010085844 OPRWC

J.A. CROSBY SURVEY,
ABSTRACT NO. 149

"32.469 ACRE TRACT"
PARTITION DEED - VIOLA
KREIDEL
TO
WAYNE FINCH, ET UX KAY
FINCH
10-25-2000 DOC.#
2000075216 OPRWC

"92.162 ACRE TRACT"
WD - VIOLA KREIDEL
TO
JAY D. MIKULENCAK
1-9-2003
DOC.# 2003005230 OPRWC



LINE	LENGTH	BEARING
L1	84.41	N66°36'09"W
L2	149.30	N32°19'56"W
L3	42.79	N42°32'12"W
L4	52.80	N72°39'14"W
L5	13.61	N01°51'54"E
L6	48.24	S75°45'37"E
L7	29.08	S65°32'42"E
L8	31.85	S50°38'57"E
L9	163.39	S32°19'56"E
L10	57.83	S66°38'06"E
L11	15.61	S07°49'23"W
L12	39.67	S07°29'49"W
L13	82.93	N07°49'23"E

"DIP-TYPE" DRIVEWAYS WILL BE UTILIZED ON ALL LOTS

ONE-WAY "CIRCULAR" DRIVEWAYS SHALL BE PROHIBITED

THE MINIMUM FINISHED FLOOR ELEVATION SHALL BE ONE FOOT HIGHER THAN THE HIGHEST SPOT ELEVATION THAT IS LOCATED WITHIN FIVE FEET OUTSIDE THE PERIMETER OF THE BUILDING, OR ONE FOOT ABOVE THE BFE, WHICHEVER IS HIGHER.

"WATER SERVICE FOR THIS SUBDIVISION WILL BE PROVIDED BY MANVILLE WATER SUPPLY CORPORATION"

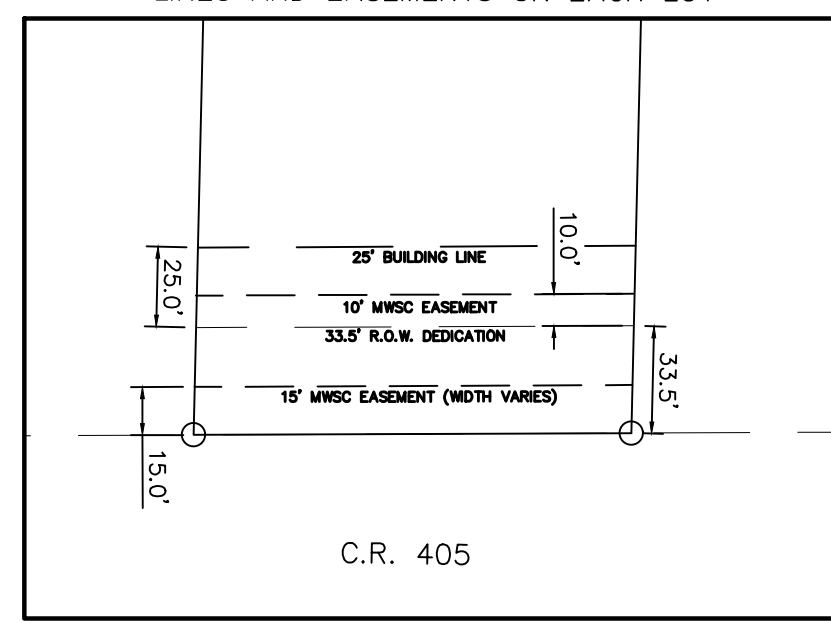
"THIS TRACT IS NOT LOCATED IN THE EDWARD AQUIFER RECHARGE ZONE"

"SEWER SERVICE FOR THIS SUBDIVISION WILL BY ON-SITE SEWAGE FACILITIES"

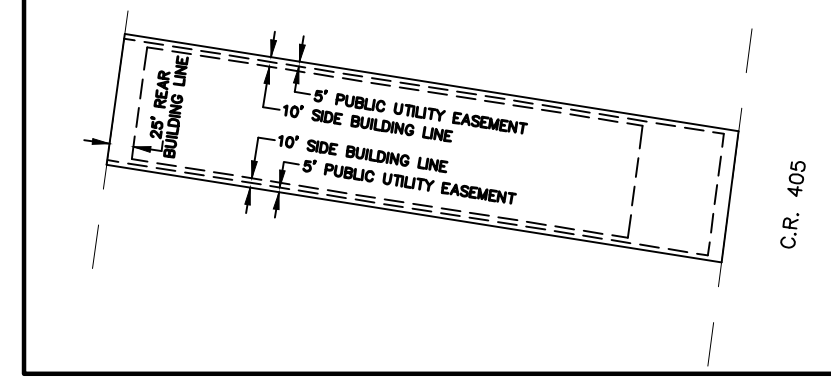
- SERVICE PROVIDERS:
- WATER - MANVILLE WATER SUPPLY CORPORATION
 - ELECTRIC - ONCOR
 - WASTEWATER - ON-SITE SEWAGE FACILITIES
 - TELECOMMUNICATIONS - AT&T
 - GAS - ON-SITE PROPANE

- LEGEND:
- 1/2" IRON ROD SET (CAPPED "BRYAN TECH SERVICES")
 - IRON ROD FOUND
- ABBREVIATIONS
- I.R. - IRON ROD
 - CL - CENTERLINE
 - R.O.W. - RIGHT-OF-WAY
 - PRWC - PLAT RECORDS OF WILLIAMSON COUNTY, TEXAS
 - OPRWC - OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
 - WD - WARRANTY DEED
 - WD/VL - DEED WITH VENDOR'S LIEN
 - P.O.B. - PLACE OF BEGINNING

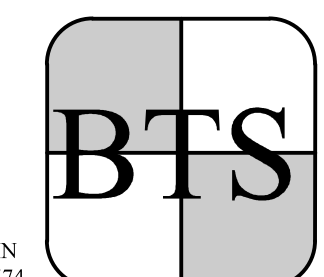
TYPICAL LOCATIONS FOR FRONT BUILDING SETBACK LINES AND EASEMENTS ON EACH LOT



TYPICAL LOCATIONS FOR SIDE AND REAR BUILDING SETBACK LINES AND EASEMENTS ON EACH LOT



BRYAN TECHNICAL SERVICES, INC.



911 NORTH MAIN TAYLOR, TX 76754 PHONE: (512) 352-9090 FAX: (512) 352-9091

FIRM No. 10128500
surveying@austin.tr.com
www.bryantechservices.com

NO.	DATE	REVISIONS	BY

DRAWN BY: JRG CHECKED BY: BLB

SCALE: 1" = 200' APPROVED BY: BLB

PROJECT NO. 16-882 DATE: JANUARY 11, 2017

Commissioners Court - Regular Session

26.

Meeting Date: 08/15/2017

Overdose Awareness Proclamation

Submitted For: Annie Burwell

Submitted By: Jeanne Williby, Outreach

Department: Outreach

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on a proclamation recognizing August 19, 2017 as Overdose Awareness Day in Williamson County.

Background

Williamson County EMS and Mobile Outreach Team have partnered with LifeSteps Council on Alcohol and Drugs, and Texas Overdose Naloxone Initiative for the 2nd Annual Williamson County Overdose Awareness Day on August 19, 2017 as a free public event at the Lakeview Pavilion in Old Settler's Park. This will be a memorial walk and flower release as a day to remember those who were lost, who are struggling and who are in recovery

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Overdose Proclamation

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Jeanne Williby
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM
Started On: 08/09/2017 04:15 PM

**State of Texas
County of Williamson
Know all men by these presents:**

That on the 15th day of August, 2017 the Commissioners Court of Williamson County, Texas met in duly called session at the Williamson County Courthouse with the following members present:

Dan A. Gattis, County Judge
Terry Cook, Commissioner Precinct One
Cynthia P. Long, Commissioner Precinct Two
Valerie Covey, Commissioner Precinct Three
Larry Madsen, Commissioner Precinct Four

And at said meeting, among other business, the Court considered the following:

PROCLAMATION

WHEREAS, since 2001, the international community has come to together every August 31st to commemorate family members, friends, and fellow citizens who have passed away due to drug overdose; and

WHEREAS, according to 2015 data from the Centers for Disease Control, there were 52,404 deaths, or 144 drug overdose deaths per day in the United States, which is an 11.4 percent increase in just one year; and

WHEREAS, Williamson County will hold Overdose Awareness Day on August 19, 2017 and will host a day to remember those who were lost, who are struggling, and who are in recovery; and

WHEREAS, Overdose Awareness Day is committed to providing a platform to acknowledge the grief felt by families and friends who have lost loved ones to overdose and to raise awareness that the tragedy of overdose-related death is preventable; and

WHEREAS, drug overdose knows no limits; it does not recognize victims' race, religion, socio-economic status, or family ties; anyone can battle drug addiction and face a possible overdose; but, recognizing overdose warning signs enables and empowers families and friends to prevent overdose-related death by calling for help; and

WHEREAS, members of the community and organizations associated with drug abuse prevention and aid will work to remove the stigma associated with overdose-related deaths and reinforce the belief that no one should feel shame or disgrace due to an overdose-related death of a loved one; and

WHEREAS, organizations such as LifeSteps Council on Alcohol and Drugs, Texas Overdose Naloxone Initiative, Williamson County Emergency Medical Services and Mobile Outreach Team strive daily to make overdose and overdose-related deaths a thing of the past;

Now, therefore be it **PROCLAIMED**, that the Williamson County Commissioners Court declares August 19, 2017 as

Overdose Awareness Day

in Williamson County, Texas and ask residents to remember those who were lost, those who are struggling, and those who are in recovery.

Dan Gattis, County Judge

Nancy Rister, County Clerk

Commissioners Court - Regular Session

27.

Meeting Date: 08/15/2017

Discuss consider and take appropriate action on the Department of Infrastructure projects and issues update

Submitted For: Robert Daigh

Submitted By: Lydia Linden, Unified Road System

Department: Unified Road System

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on the Department of Infrastructure projects and issues update.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Lydia Linden

Final Approval Date: 07/17/2017

Reviewed By

Wendy Coco

Date

07/17/2017 09:01 AM

Started On: 07/17/2017 08:46 AM

Commissioners Court - Regular Session

28.

Meeting Date: 08/15/2017

Road Bond and Pass Through Financing Construction Summary Report

Submitted By: Dawn Haggard, Road Bond

Department: Road Bond

Agenda Category: Regular Agenda Items

Information

Agenda Item

Receive and acknowledge the August 2017 Construction Summary Report for the Road Bond and Pass Through Financing Programs.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

August 2017 CSR

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Dawn Haggard

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:12 AM

Started On: 08/09/2017 02:55 PM



ROAD BOND & PASS THROUGH FINANCING

Construction Summary Report

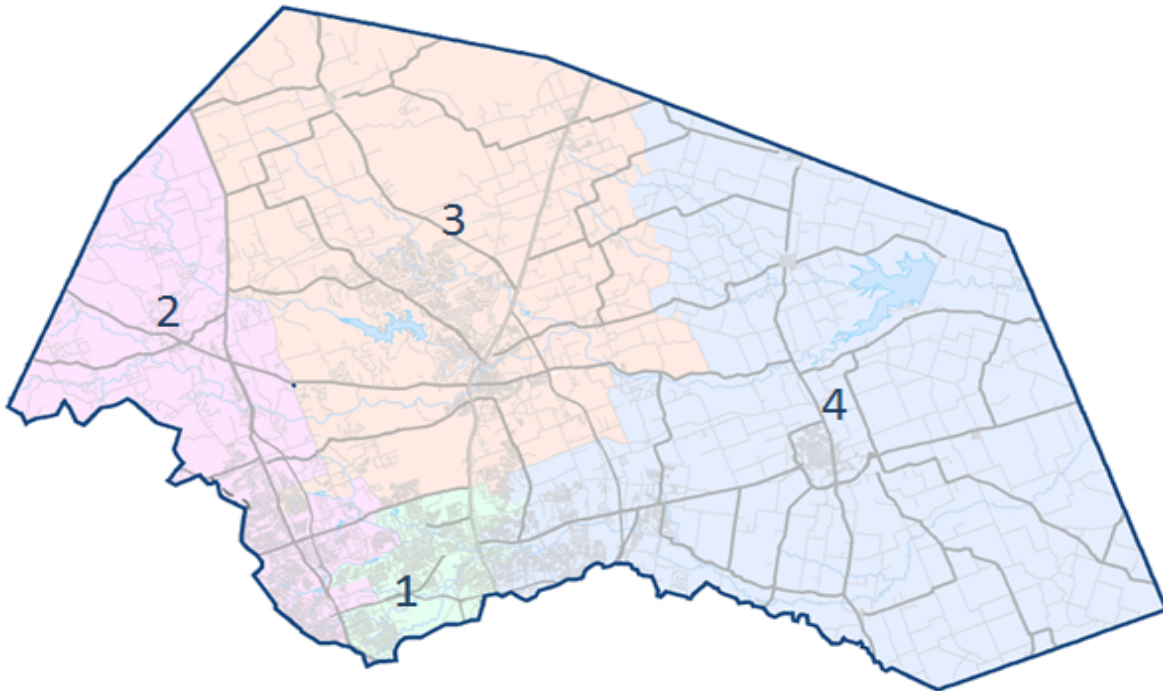
County Judge
Dan Gattis

Commissioners
Terry Cook
Cynthia Long
Valerie Covey
Larry Madsen

August 2017

WWW.ROADBOND.ORG

Volume XVI - Issue No.08



Presented By:



PRIME
STRATEGIES,
INC.

HNTB

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WILLIAMSON COUNTY

ROAD BOND PROGRAM

COMPLETED PROJECTS

CONSTRUCTION SUBSTANTIALLY COMPLETE/OPEN TO TRAFFIC - AS OF JULY 2017

Precinct 1

- Pond Springs Road (signal) – Apr 2002
- McNeil Road, Phase 1 – Jan 2005
- McNeil Road, Phase 2 – Feb 2007
- RM 620, Phase 1 – Jan 2009
- Pond Springs Road – Sep 2010
- County Road 174 at Brushy Creek – Jun 2011
- O'Connor Drive Extension – Apr 2012
- King of Kings Crossing – Aug 2012
- RM 620 Safety Improvements – Dec 2014

Precinct 2

- RM 1869 at SH 29 (signal) – Aug 2002
- River Bend Oaks – Feb 2003
- County Road 175 – Jun 2003
- County Road 200 – Sep 2003
- Ronald Reagan Blvd, South Ph. 1 – Dec 2004
- County Road 214 – Feb 2005
- County Road 258 – Sep 2006
- San Gabriel Pkwy, Ph. 1 – Feb 2007
- Ronald Reagan Blvd North Ph. 1 – Mar 2007
- Lakeline Blvd – Jul 2007
- Ronald Reagan Blvd South Ph. 2 – Feb 2008
- US 183 at CR 274 – Feb 2008
- County Road 175 Phase 2A – Jan 2010
- US 183 at FM 3405 Traffic Signal – Mar 2010
- US 183 at FM 3405 Left Turn Lanes – May 2010
- County Road 214 Phase 2A – Jan 2011
- San Gabriel Parkway Ph. 2 – Oct 2011
- US 183 (PTF) – Apr 2012
- SH 29 TWLTL Liberty Hill – Dec 2012
- Hero Way – Feb 2013
- County Roads 260/266 – Apr 2013
- County Road 277 – Jul 2014
- Lakeline Blvd at US 183 – Nov 2014
- Lakeline Blvd Ph. 2 – Apr 2015
- County Road 258 – Jul 2017

WILLIAMSON COUNTY

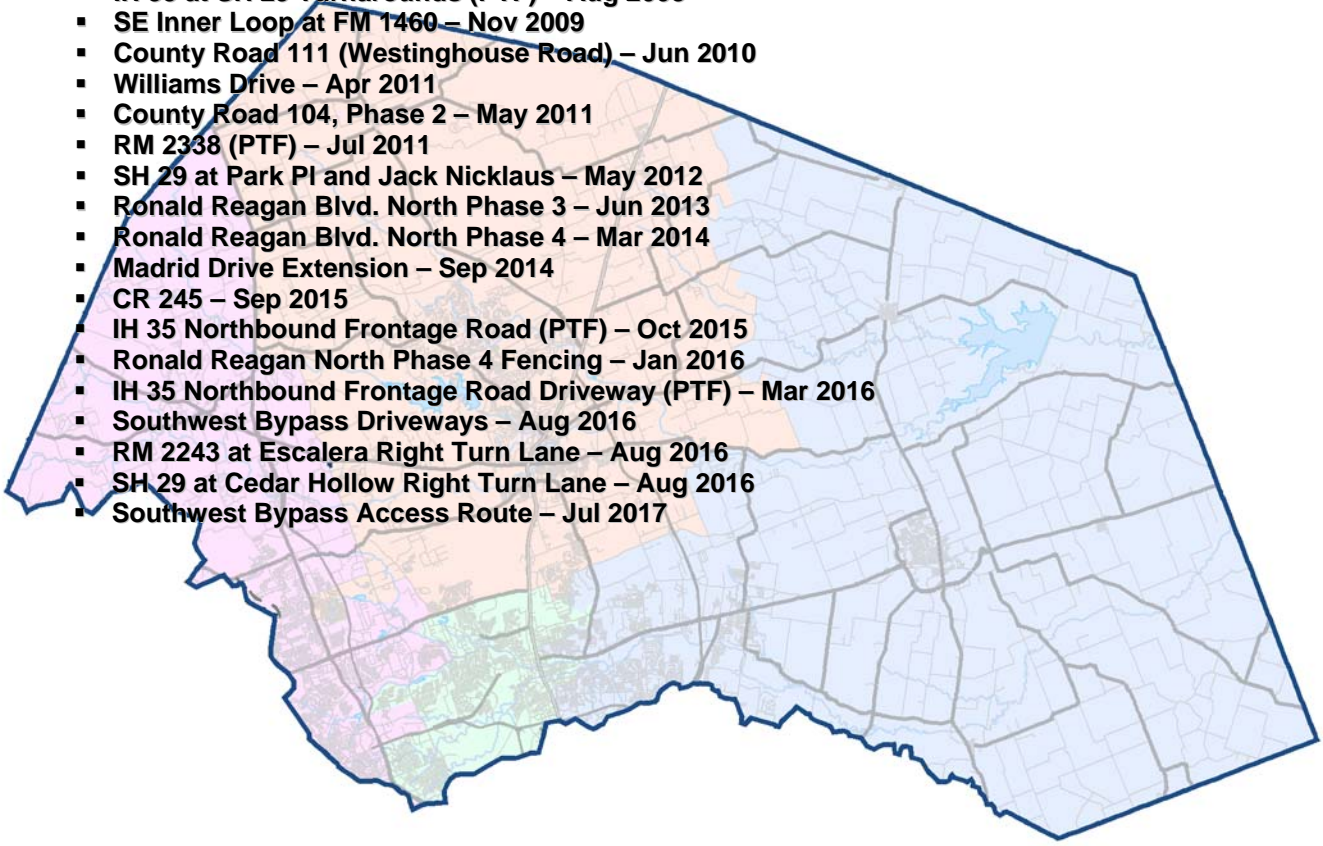
ROAD BOND PROGRAM

COMPLETED PROJECTS

CONSTRUCTION SUBSTANTIALLY COMPLETE/OPEN TO TRAFFIC - AS OF JULY 2017

Precinct 3

- Cedar Hollow at SH 29 (signal) – Aug 2002
- Georgetown Inner Loop Project 2 – Aug 2003
- Georgetown Inner Loop Project 1 – Jun 2004
- Georgetown Inner Loop East Extension – Sep 2004
- County Road 152 Bridge Replacement – Sep 2004
- Inner Loop East (CR 151 to Bus 35) – Oct 2005
- Ronald Reagan Blvd North, Ph. 2 – May 2008
- 12" Water Main Relocation for SH 29 Widening – Jun 2008
- SH 29 / CR 104, Ph. 1 – Jul 2008
- IH 35 at SH 29 Turnarounds (PTF) – Aug 2008
- SE Inner Loop at FM 1460 – Nov 2009
- County Road 111 (Westinghouse Road) – Jun 2010
- Williams Drive – Apr 2011
- County Road 104, Phase 2 – May 2011
- RM 2338 (PTF) – Jul 2011
- SH 29 at Park Pl and Jack Nicklaus – May 2012
- Ronald Reagan Blvd. North Phase 3 – Jun 2013
- Ronald Reagan Blvd. North Phase 4 – Mar 2014
- Madrid Drive Extension – Sep 2014
- CR 245 – Sep 2015
- IH 35 Northbound Frontage Road (PTF) – Oct 2015
- Ronald Reagan North Phase 4 Fencing – Jan 2016
- IH 35 Northbound Frontage Road Driveway (PTF) – Mar 2016
- Southwest Bypass Driveways – Aug 2016
- RM 2243 at Escalera Right Turn Lane – Aug 2016
- SH 29 at Cedar Hollow Right Turn Lane – Aug 2016
- Southwest Bypass Access Route – Jul 2017



WILLIAMSON COUNTY

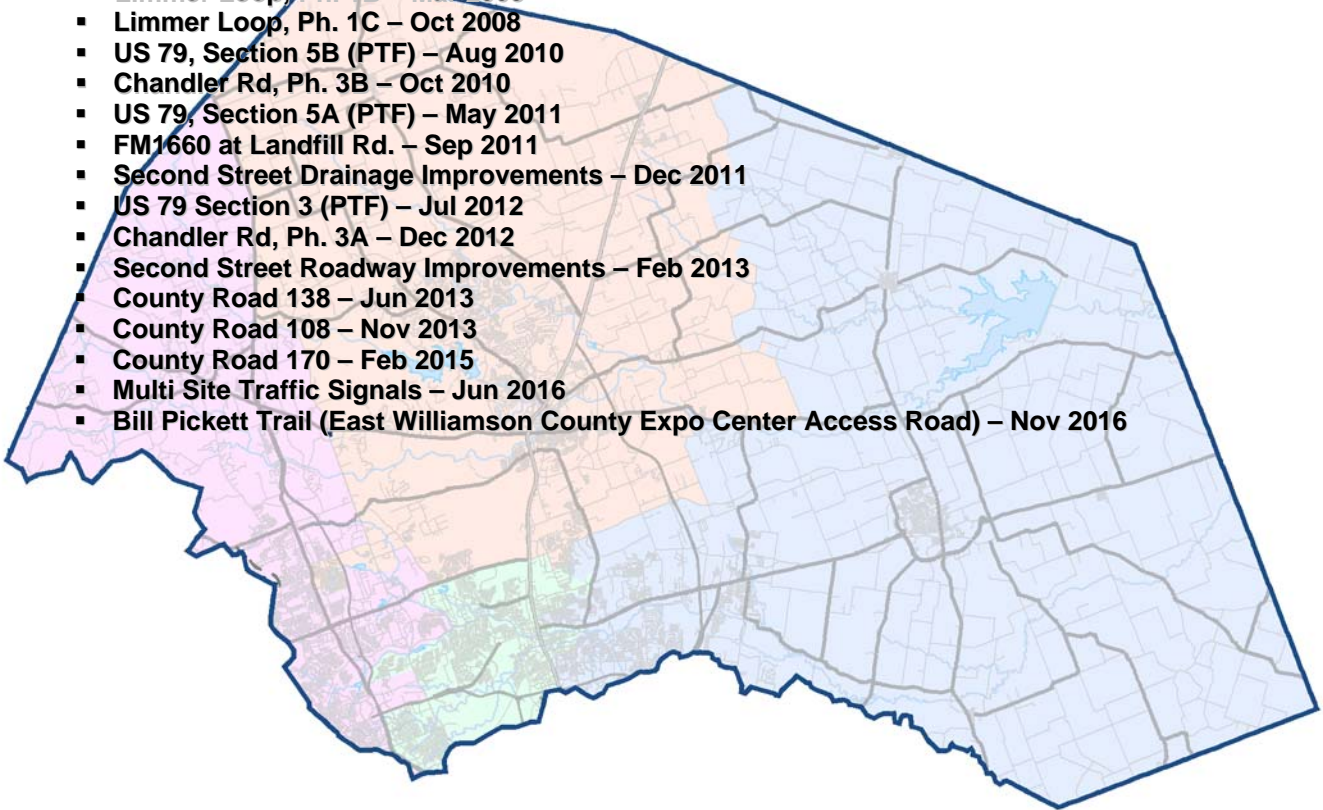
ROAD BOND PROGRAM

COMPLETED PROJECTS

CONSTRUCTION SUBSTANTIALLY COMPLETE/OPEN TO TRAFFIC - AS OF JULY 2017

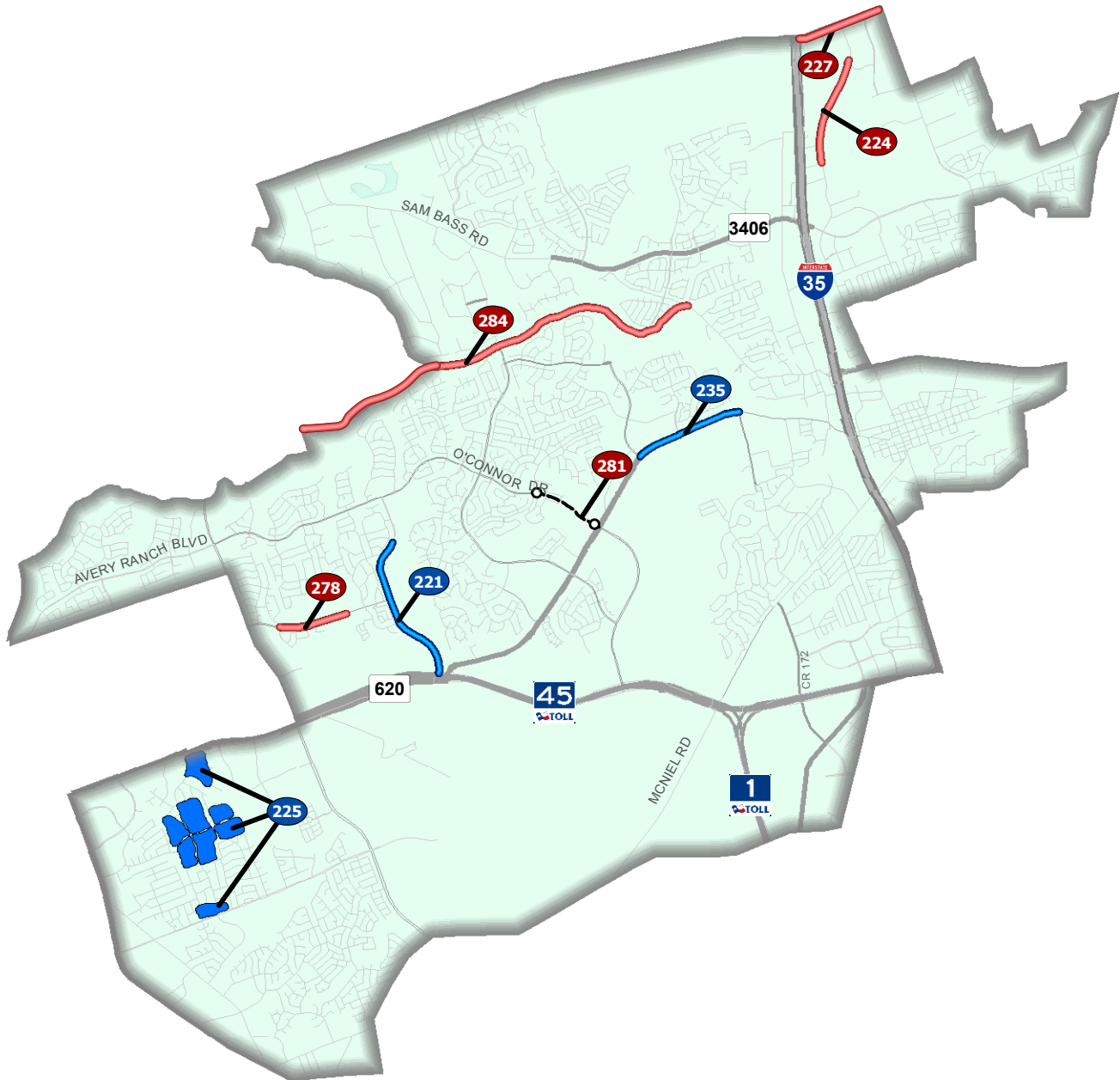
Precinct 4

- Bridge Replacements (CR 390, 406 & 427) – Nov 2002
- County Road 368 and 369 – Nov 2002
- County Road 412 – Aug 2003
- County Road 300 and 301 – Dec 2003
- County Road 424 Bridge Replacement – Jan 2004
- Chandler Rd. Extension, Ph. 1 – Mar 2005
- County Road 112, Ph. 1 – Aug 2005
- County Road 137 – Oct 2005
- Limmer Loop, Ph. 1A – Jul 2006
- Chandler Rd, Ph. 2 – Dec 2007
- Limmer Loop, Ph. 1B – Mar 2008
- Limmer Loop, Ph. 1C – Oct 2008
- US 79, Section 5B (PTF) – Aug 2010
- Chandler Rd, Ph. 3B – Oct 2010
- US 79, Section 5A (PTF) – May 2011
- FM1660 at Landfill Rd. – Sep 2011
- Second Street Drainage Improvements – Dec 2011
- US 79 Section 3 (PTF) – Jul 2012
- Chandler Rd, Ph. 3A – Dec 2012
- Second Street Roadway Improvements – Feb 2013
- County Road 138 – Jun 2013
- County Road 108 – Nov 2013
- County Road 170 – Feb 2015
- Multi Site Traffic Signals – Jun 2016
- Bill Pickett Trail (East Williamson County Expo Center Access Road) – Nov 2016



2013 ROAD BOND PROGRAM PROJECTS

PRECINCT 1 - COMMISSIONER COOK



Under Construction/Bidding

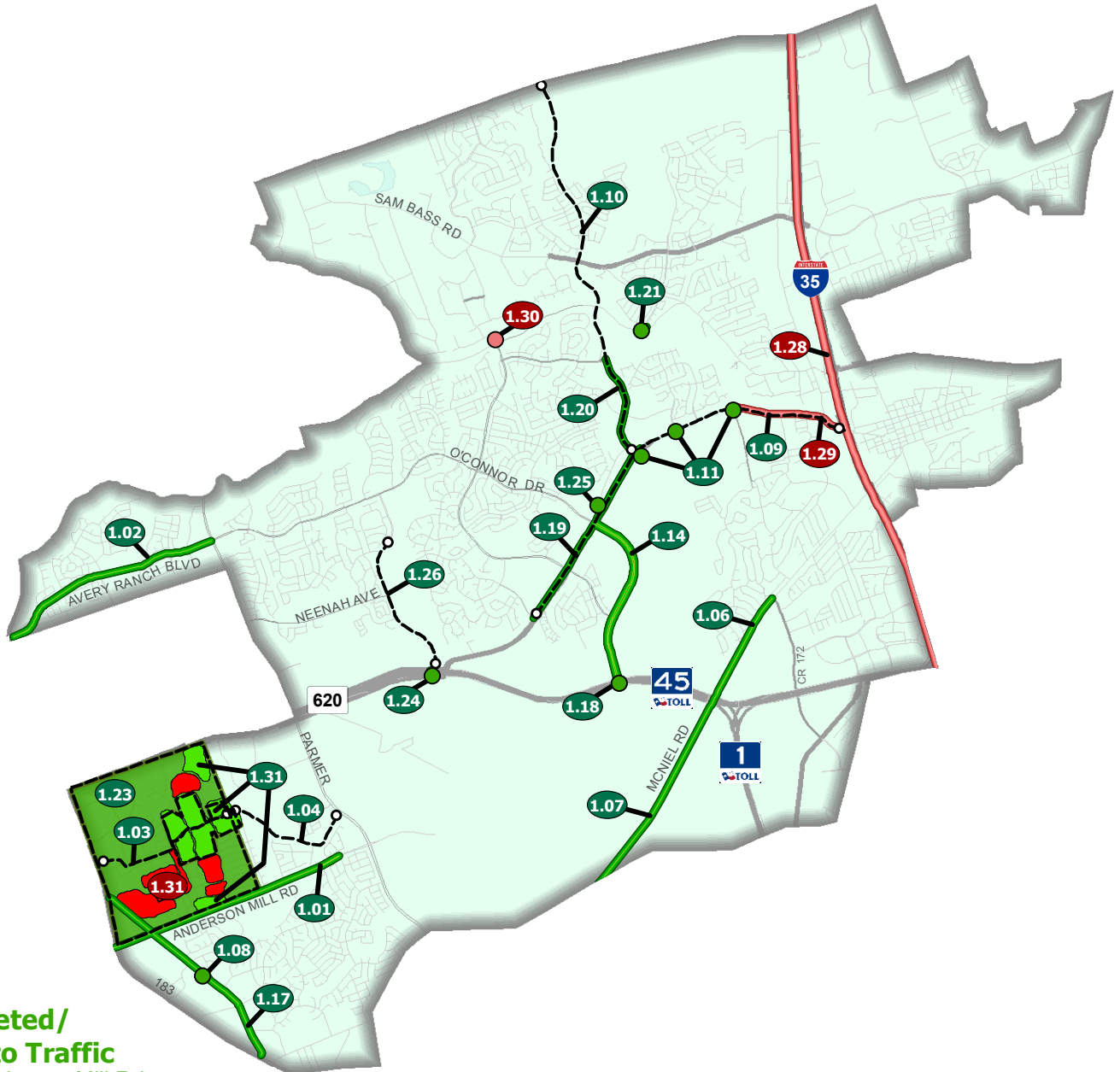
- 221 Pearson Ranch Road
- 225 Forest North Drainage Improvements - Phase 1
- 235 RM 620 Phase 2 (Wyoming Springs to Deep Wood Drive)

In Design

- 224 North Mays Street Extension (La Paloma to Oakmont Dr.)
- 227 University Blvd Widening (IH 35 to Sunrise Rd.)
- 278 Neenah Avenue Widening (Olive Hill Drive to end)
- 281 O'Connor Drive North of RM 620 (Traffic Study) ○—○
- 284 Hairy Man Rd/Brushy Creek Rd Safety Improvements (Arrowhead Trail to Sam Bass Road)

2006 ROAD BOND PROGRAM PROJECTS

PRECINCT 1 - COMMISSIONER COOK

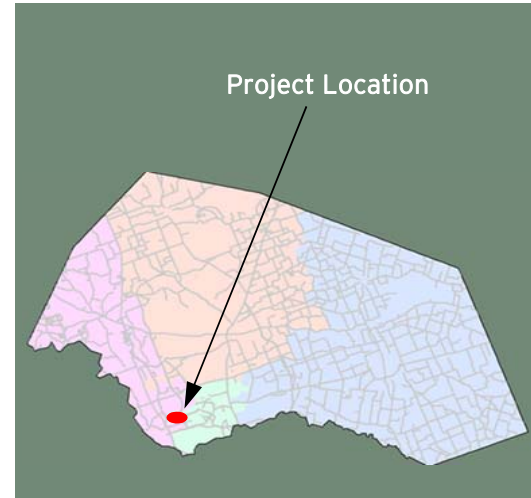


Completed/ Open to Traffic

- 1.01 Anderson Mill Rd.
- 1.02 Avery Ranch Blvd. (183 to Parmer Lane)
- 1.03 Lake Creek Drainage – Phase 1 ○—○
- 1.04 Lake Creek Drainage – Phase 2 ○—○
- 1.06 McNeil Road - Phase 1
- 1.07 McNeil Road - Phase 2
- 1.08 Pond Springs at Turtle Rock Signal
- 1.09 RM 620 Feasibility Study ○—○
- 1.10 Wyoming Springs North Study ○—○
- 1.11 RM 620 Interim Improvements – Phase 1
- 1.14 O'Connor Extension
- 1.17 Pond Springs Road
- 1.18 O'Connor Overpass at SH 45
- 1.19 RM 620 (Cornerwood Dr. to Wyoming Springs)
- 1.20 Wyoming Springs (620 to Brightwater Blvd.)
- 1.21 CR 174 (Hairy Man Rd.) Bridge Rail Rehab
- 1.23 Forest North Drainage Study []
- 1.25 King of Kings Crossing
- 1.26 Pearson Ranch Road (Design) ○—○
- 1.24 Pearson Ranch Underpass at SH 45/ RM 620
- 1.31 Forest North Drainage Improvements - Phase 1 (design) []

In Design

- 1.28 IH 35 Operational Analysis
- 1.29 RM 620 (IH 35 to Deep Wood Dr.)
- 1.30 Great Oaks at Brushy Creek
- 1.31 Forest North Drainage Improvements - Phase 2



Forest North Drainage Ph 1
 (Residential Drainage of the Forest North Subdivision)

Project Length: Residential Neighborhood
 Roadway Classification: Drainage Improvements

Project Schedule: August 2016 - April 2018
 Estimated Construction Cost: \$3.6 Million



JULY 2017 IN REVIEW

7/07/2017: DeNucci Constructors continued water line relocation work and prepped the easement area between the Gilbeau and Hennidy properties for storm pipe installation, in the Wisterwood zone.

7/14/2017: The relocation/installation of water services was completed in the Wisterwood zone. Storm pipe installation continued in the Wisterwood zone. Driveway replacement work began in the Stillforest zone and final patch work began in the Sherbrooke zone.

7/21/2017: The storm pipe installation continued in the Wisterwood zone. Easement clearing/prep ROW began for the Trickle channel in the Briar Hollow zone.

7/28/2017: The 24" and 36" storm pipe installation continued in the Wisterwood zone. The water line tie-ins were completed at the Briar Hollow/Braeburn Glenn and Wisterwood/Braeburn Glenn intersections. Easement clearing/prep ROW continued for the Trickle channel in the Briar Hollow zone.



Design Engineer: K Friese and Cobb Fendley
 Contractor: DeNucci Constructors
 Construction Observation: Ryan Rivera, HNTB

Williamson County
 Road Bond Program



**Forest North Drainage Ph 1
Project No. 1604-068**

Original Contract Price = \$3,556,659.50

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
6/9/2016	7/1/2016	8/1/2016	8/11/2016			600	35	635	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	8/11/2016	8/31/2016	21	\$152,734.50	\$152,734.50	\$16,970.50	\$16,970.50	5	3
2	9/1/2016	9/30/2016	30	\$208,685.70	\$361,420.20	\$23,187.30	\$40,157.80	11	8
3	10/1/2016	10/31/2016	31	\$266,921.68	\$628,341.88	\$29,657.96	\$69,815.76	19	13
4	11/1/2016	12/2/2016	32	\$182,471.22	\$810,813.10	\$20,274.58	\$90,090.34	25	18
5	12/3/2016	12/31/2016	29	\$177,314.98	\$988,128.08	\$19,701.67	\$109,792.01	30	23
6	1/1/2017	1/31/2017	31	\$231,302.70	\$1,219,430.78	\$25,700.30	\$135,492.31	37	27
7	2/1/2017	2/28/2017	28	\$304,664.67	\$1,524,095.45	\$33,851.63	\$169,343.94	46	32
8	3/1/2017	3/31/2017	31	\$191,005.20	\$1,715,100.65	\$21,222.80	\$190,566.74	52	37
9	4/1/2017	4/30/2017	30	\$172,795.55	\$1,887,896.20	\$19,199.50	\$209,766.24	58	41
10	5/1/2017	5/31/2017	31	\$229,295.63	\$2,117,191.83	\$25,477.30	\$235,243.54	65	46
11	6/1/2017	6/30/2017	30	\$291,274.89	\$2,408,466.72	\$32,363.87	\$267,607.41	73	51

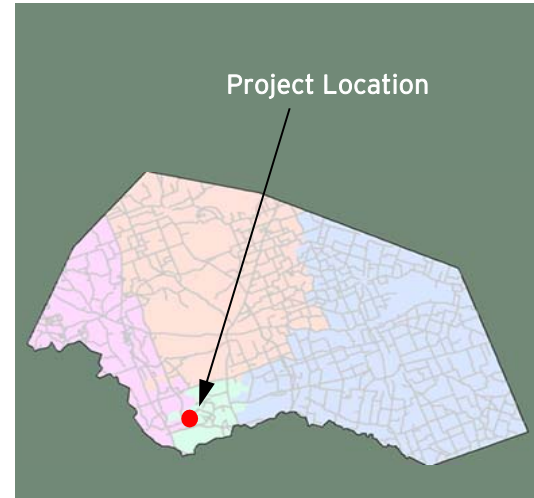
<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
01	3/21/2017	31,806.00	31,806.00

1A: Design Error or Omission. Incorrect PS&E . This Change Order revises work along Broadmeade Ave., between Sherbrooke St. and Meadowheath Dr in the Sherbrooke zone. The original plans called for a ditch in this location but, due to the depth of the original planned ditch, which created slopes steeper than 3:1, the ditch was replaced with an underground storm sewer system with inlets. 3F: County Convenience. Additional work desired by the County. New pay items have been added to the contract to reimburse the contractor for removal of trees larger than what was called out in the original contract.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
02	5/23/2017	58,006.83	89,812.83

2G: Differing Site Conditions (unforseeable). Unadjusted utility (unforseeable). This Change Order compensates the Contractor for the removal and relocation of an existing water line that is in conflict with the proposed storm sewer line BB1 at the corner of Broadmeade Avenue and Braeburn Glen. 4B: Third Party Accommodation. Third party requested work. This change order also compensates the Contractor for completed trench repair of the asbestos line that is being removed. A portion of the trench repair quantity has been added to this change order. The remaining quantity will be added to a future change order. The City of Austin has agreed to compensate the Contractor for these costs.

Adjusted Price = \$3,646,472.33



Pearson Ranch Road
 (Iveans Way to SH 45 ROW)

Project Length: 1.3 Miles
 Roadway Classification: Minor Arterial

Project Schedule: November 2016 - October 2017
 Estimated Construction Cost: \$4.4 Million



JULY 2017 IN REVIEW

7/07/2017: Jimmy Evans continued to backfill the sidewalk/curb and place topsoil from the Round Rock Bus Garage (RRBG) to the south end. The Contractor placed filter fabric, drain pipe and gravel back fill for the Water Quality Pond retaining walls.

7/14/2017: Flexbase continued to be fine graded. Subcontractor Bryant/Frey installed trench boxes. Subcontractor Greater Austin placed concrete for driveways, sidewalk and curb at the RRBG. Subcontractor N-Line installed sign foundations from Neenah to the north.

7/21/2017: The fine grading of the flexbase was completed along both lanes from the RRBG to the south. Filter fabric, drain pipe and gravel back fill for the Water Quality Pond retaining walls continued to be placed. The 36" RCP bypass for the water quality pond was installed. Subcontractor Lone Star Paving placed prime and chip seal on both lanes from the RRBG to the south.

7/28/2017: The clay liner placement began for the Water Quality Pond. The 24" RCP installation began for the outfall on the Robinson easement. Subcontractor Bryant/Frey continued to bore under RM 620. Subcontractor Lone Star Paving placed two 2" lifts of flexbase along the northbound lanes.



Design Engineer: Cunningham-Allen
 Contractor: Jimmy Evans
 Construction Observation:
 Seth Turvey, HNTB

Williamson County
 Road Bond Program



**Pearson Ranch Road (Iveans Way to RM 620)
Project No. 1607-102**

Original Contract Price = \$4,516,178.77

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
9/20/2016	10/11/2016	11/18/2016	11/28/2016			330	0	330	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	11/28/2016	11/30/2016	3	\$195,710.04	\$195,710.04	\$21,745.56	\$21,745.56	5	1
2	12/1/2016	12/31/2016	31	\$243,555.13	\$439,265.17	\$27,061.68	\$48,807.24	11	10
3	1/1/2017	1/31/2017	31	\$202,139.71	\$641,404.88	\$22,459.97	\$71,267.21	16	20
4	2/1/2017	2/28/2017	28	\$508,271.85	\$1,149,676.73	\$56,474.65	\$127,741.86	29	28
5	3/1/2017	3/31/2017	31	\$369,038.84	\$1,518,715.57	\$41,004.32	\$168,746.18	38	38
6	4/1/2017	4/30/2017	30	\$330,336.72	\$1,849,052.29	\$36,704.08	\$205,450.26	46	47
7	5/1/2017	5/31/2017	31	\$492,086.42	\$2,341,138.71	-\$82,232.43	\$123,217.83	56	56
8	6/1/2017	6/30/2017	30	\$372,704.74	\$2,713,843.45	\$19,616.04	\$142,833.87	64	65
9	7/1/2017	7/31/2017	31	\$813,710.22	\$3,527,553.67	\$42,826.85	\$185,660.72	84	75

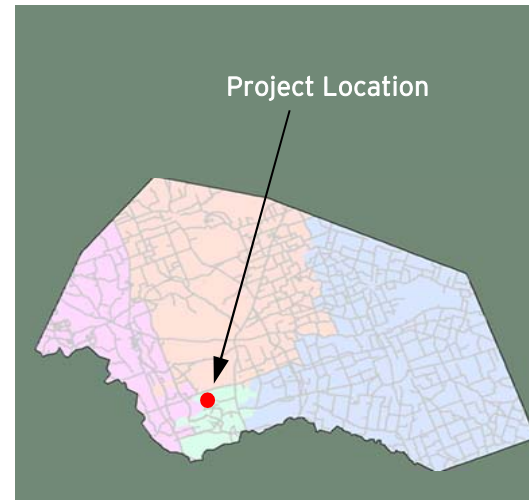
<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
01	5/16/2017	-92,621.70	-92,621.70

4B: Third Party Accommodation. Third party requested work (reduction in scope). This Change Order revises the City of Austin (COA) water and wastewater (W&WW) work shown in the original plans. The COA requested that the installation of the 8" and 24" pipe and related items be deleted from the contract. The COA funded the water and wastewater work shown in the plans and will get the credit for the reduction in cost to the contract.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
02	6/13/2017	11,553.00	-81,068.70

2C: Differing Site Conditions (unforeseeable). New development (conditions changing after PS&E completed). This Change Order revises the pay items for the intersection tie-in work at Neenah Avenue and Pearson Ranch Road. The tie-in location was adjusted 25' to provide a smooth profile through the intersection. This change extends the limits of Neenah reconstruction west of Pearson Ranch Road.

Adjusted Price = \$4,435,110.07



RM 620 Phase 2
 (Wyoming Springs to Deep Wood Drive)

Project Length: .9 Miles
 Roadway Classification: Urban Principal Arterial

Project Schedule: January 2017-March 2018
 Estimated Construction Cost: \$6.1 Million



JULY 2017 IN REVIEW

7/07/2017: Cox Commercial Construction finished placing flexbase on the full length of the south ROW and continued to fine grade the flexbase on the new widening. The right turn lane from eastbound RM 620 to Deep Wood remained closed and crews continued excavation for pavement widening.

7/14/2017: Existing pavement in the right turn lane at Deep Wood was removed and flexbase was placed. Subcontractor Flasher removed the existing pavement markings and placed new striping near Deep Wood. Subcontractor Austin Materials paved asphalt on the new widening. The right turn lane from eastbound RM 620 to Deep Wood remained closed.

7/21/2017: A temporary pavement widening was constructed east of Deep Wood. Subcontractor Greater Austin placed forms and poured two driveways and filled in the remaining curb along the south side.

7/28/2017: The inlets between the new roadway and the existing roadway were cleared to provide positive drainage. Flexbase was processed for the temporary pavement widening at Deep Wood. Permanent asphalt was placed on the pipe crossings in existing RM 620. The right turn lane from eastbound RM 620 to Deep Wood remained closed.



Design Engineer: Half Associates
 Contractor: Cox Commercial Construction
 Construction Observation: Clayton Weber, HNTB

Williamson County
 Road Bond Program



**RM 620 Safety Improvements (Cornerwood to Wyoming Springs)
Project No. 1608-108**

Original Contract Price = \$6,082,225.70

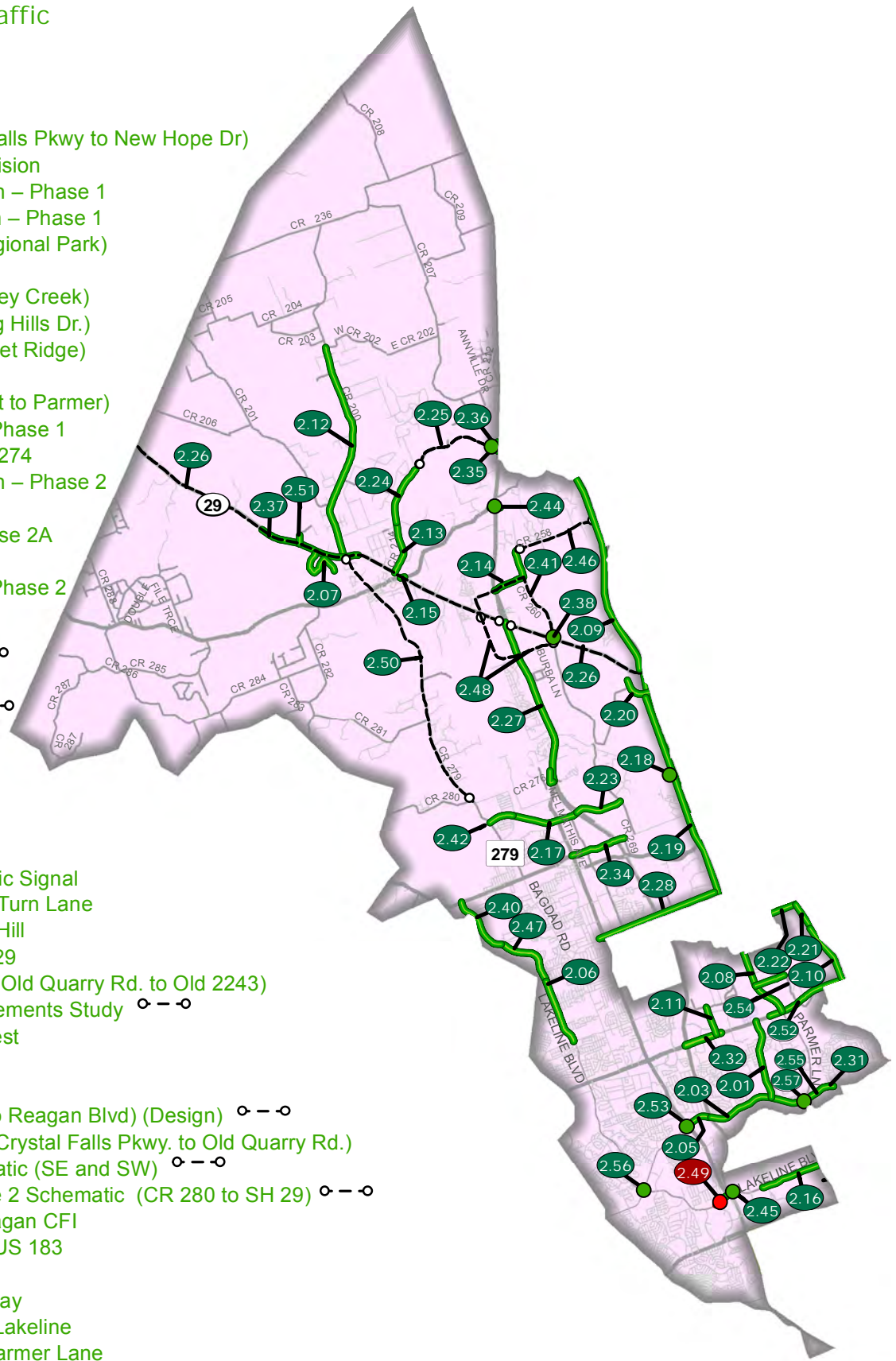
<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantially Complete</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>
9/28/2016	11/30/2016	1/3/2017	1/13/2017			425	0	425
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>% (\$) Used</u>	<u>% Time Used</u>	
1	1/13/2017	1/31/2017	19	\$459,169.50	\$459,169.50	8	4	
2	2/1/2017	2/28/2017	28	\$280,194.00	\$739,363.50	12	11	
3	3/1/2017	3/31/2017	31	\$389,047.00	\$1,128,410.50	19	18	
4	4/1/2017	4/30/2017	30	\$516,962.84	\$1,645,373.34	27	25	
5	5/1/2017	5/31/2017	31	\$285,725.66	\$1,931,099.00	32	33	
6	6/1/2017	6/30/2017	30	\$313,267.57	\$2,244,366.57	37	40	
7	7/1/2017	7/31/2017	31	\$274,834.20	\$2,519,200.77	41	47	
						Adjusted Price =		\$6,082,225.70

2006 ROAD BOND PROGRAM PROJECTS

PRECINCT 2 - COMMISSIONER LONG

Completed/Open to Traffic

- 2.01 Vista Ridge Blvd.
- 2.03 Brushy Creek Road
- 2.05 Cypress Creek Road
- 2.06 Lakeline Blvd. (Crystal Falls Pkwy to New Hope Dr)
- 2.07 River Bend Oaks Subdivision
- 2.08 Ronald W. Reagan South – Phase 1
- 2.09 Ronald W. Reagan North – Phase 1
- 2.10 CR 175 (RM 1431 to Regional Park)
- 2.11 CR 185
- 2.12 CR 200 (CR 201 to Lackey Creek)
- 2.13 CR 214 (SH 29 to Rolling Hills Dr.)
- 2.14 CR 258 (US 183 to Sunset Ridge)
- 2.15 RM 1869 at SH 29
- 2.16 Lakeline Blvd. (Lyndhurst to Parmer)
- 2.17 San Gabriel Parkway – Phase 1
- 2.18 US 183 Widening at CR 274
- 2.19 Ronald W. Reagan South – Phase 2
- 2.20 Kauffman Loop
- 2.21 CR 175 Extension – Phase 2A
- 2.22 CR 179
- 2.23 San Gabriel Parkway – Phase 2
- 2.24 CR 214 – Phase 2A
- 2.25 CR 214 – Phase 2B Schematic
- 2.26 SH 29 Improvements Study & Schematic
- 2.27 US 183 (PTF)
- 2.28 CR 272
- 2.31 Brushy Creek Road
- 2.32 RM 1431
- 2.34 Hero Way
- 2.35 US 183 at FM 3405 Traffic Signal
- 2.36 US 183 at FM 3405 Left Turn Lane
- 2.37 SH 29 TWLTL in Liberty Hill
- 2.38 CR 260 / CR 266 at SH 29
- 2.40 Lakeline Blvd. Phase 2 (Old Quarry Rd. to Old 2243)
- 2.41 Seward Junction Improvements Study
- 2.42 San Gabriel Parkway West
- 2.44 US 183 at RM 1869
- 2.45 Lakeline Blvd. at US 183
- 2.46 CR 258 (Sunset Ridge to Reagan Blvd) (Design)
- 2.47 Lakeline Blvd. Phase 3 (Crystal Falls Pkwy. to Old Quarry Rd.)
- 2.48 Seward Junction Schematic (SE and SW)
- 2.50 Bagdad Rd. North Phase 2 Schematic (CR 280 to SH 29)
- 2.52 RM 1431 at Parmer/ Reagan CF1
- 2.53 Cypress Creek Road at US 183
- 2.54 CR 272 Overlay
- 2.55 Brushy Creek East Overlay
- 2.56 Cypress Creek Road at Lakeline
- 2.57 Brushy Creek Road at Parmer Lane

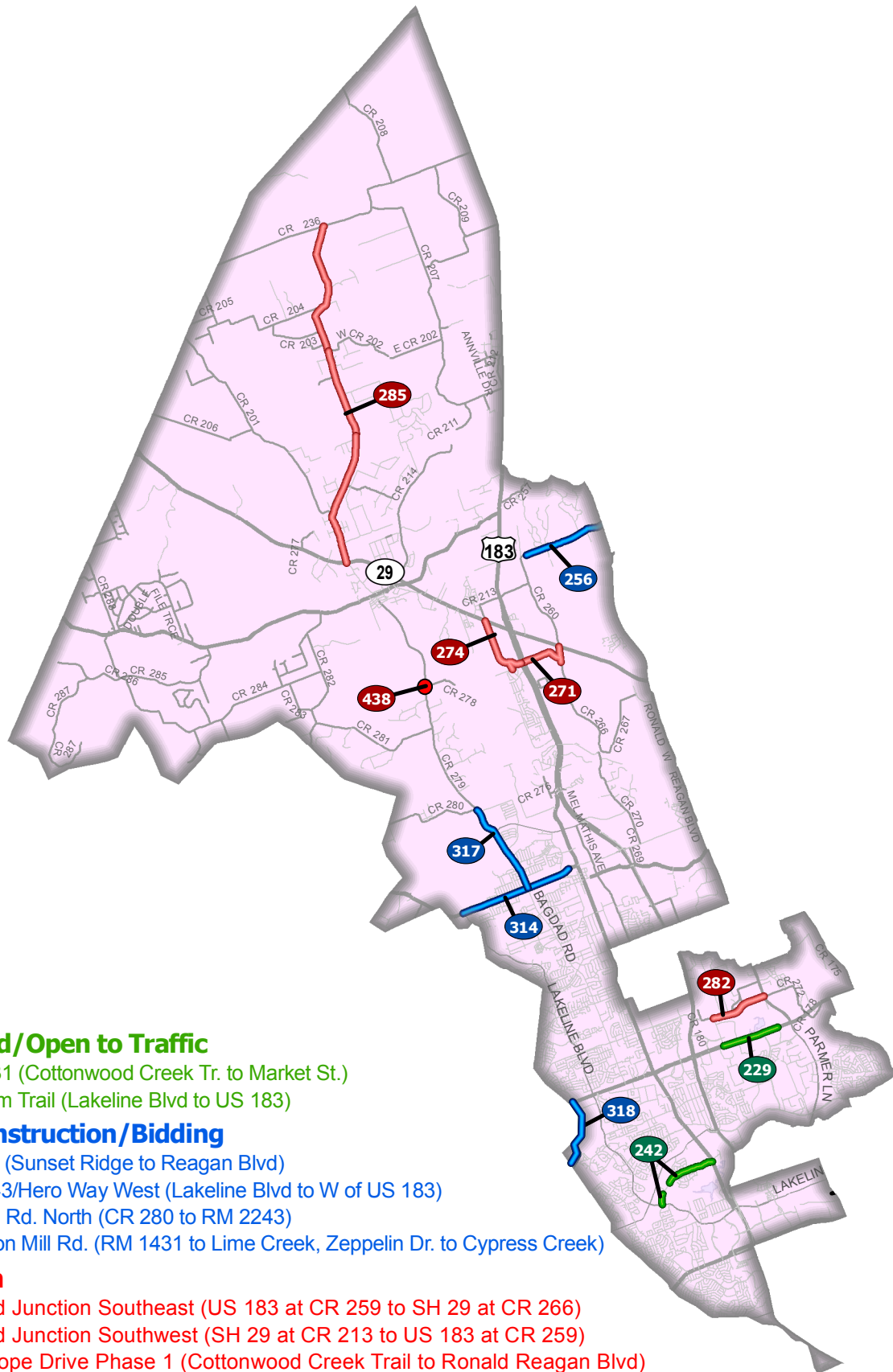


In Design

- 2.49 Lakeline Blvd. Right Turn Lanes

2013 ROAD BOND PROGRAM PROJECTS

PRECINCT 2 - COMMISSIONER LONG



Completed/Open to Traffic

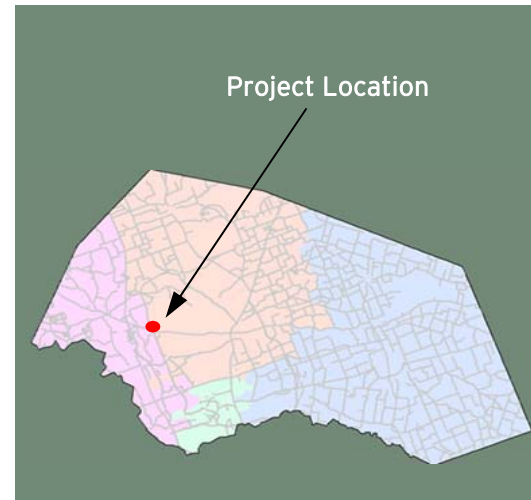
- 229 RM 1431 (Cottonwood Creek Tr. to Market St.)
- 242 Little Elm Trail (Lakeline Blvd to US 183)

Under Construction/Bidding

- 256 CR 258 (Sunset Ridge to Reagan Blvd)
- 314 Old 2243/Hero Way West (Lakeline Blvd to W of US 183)
- 317 Bagdad Rd. North (CR 280 to RM 2243)
- 318 Anderson Mill Rd. (RM 1431 to Lime Creek, Zeppelin Dr. to Cypress Creek)

In Design

- 271 Seward Junction Southeast (US 183 at CR 259 to SH 29 at CR 266)
- 274 Seward Junction Southwest (SH 29 at CR 213 to US 183 at CR 259)
- 282 New Hope Drive Phase 1 (Cottonwood Creek Trail to Ronald Reagan Blvd)
- 285 CR 200 - Preliminary Design (SH 29 to CR 236)
- 438 Bagdad Road at CR 278



CR 258
 (Sunset Ridge to Ronald Reagan Blvd.)

Project Length: 1.75 Miles
 Roadway Classification: Suburban Collector

Project Schedule: July 2016 - August 2017
 Estimated Construction Cost: \$6 Million



JULY 2017 IN REVIEW

7/07/2017: Chasco Constructors continued to grade the slope/ditch along the north half between San Gabriel Oaks and Ronald Reagan. Concrete for the water line valve aprons continued to be formed and placed throughout the project. Concrete riprap was placed below the metal beam guard fence.

7/14/2017: Concrete was formed and placed for the driveway and safety end treatments at driveway 25. Subcontractor Matoka installed the soil retention blanket and subcontractor AWP installed the small sign foundations.

7/21/2017: Surveyors marked the layout for the final striping. Pavement edges were backfilled and general clean up continued. Subcontractor Wheeler Paving placed the final course of asphalt on the roadway. Subcontractor Roadway Specialties placed seed for vegetation establishment. Subcontractor Matoka placed soil retention blankets along the north ROW and subcontractor AWP installed small signs throughout the project and at the side streets.

7/28/2017: Pavement edges were backfilled and general clean up on the project was performed. Subcontractor Matoka placed soil retention blankets along the north ROW.



Design Engineer: Civil Engineering Consultants and Cobb Fendley
 Contractor: Chasco Constructors
 Construction Observation: Steven Shull, HNTB

Williamson County
 Road Bond Program



CR 258 (Sunset Ridge to Ronald Reagan North)
Project No. 1603-062

Original Contract Price = \$5,808,856.58

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
4/20/2016	5/10/2016	7/29/2016	8/8/2016			360	4	364	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	7/1/2016	7/31/2016	0	\$204,692.63	\$204,692.63	\$22,743.63	\$22,743.63	4	0
2	8/8/2016	8/31/2016	24	\$647,625.15	\$852,317.78	\$71,958.35	\$94,701.98	16	7
3	9/1/2016	9/30/2016	30	\$768,046.95	\$1,620,364.73	\$85,338.55	\$180,040.53	30	15
4	10/1/2016	10/31/2016	31	\$523,476.94	\$2,143,841.67	\$58,164.10	\$238,204.63	40	23
5	11/1/2016	11/30/2016	30	\$98,689.54	\$2,242,531.21	\$10,965.50	\$249,170.13	41	32
6	12/1/2016	12/31/2016	31	\$38,127.37	\$2,280,658.58	\$4,236.38	\$253,406.51	42	40
7	1/1/2017	1/31/2017	31	\$636,301.80	\$2,916,960.38	\$70,700.20	\$324,106.71	54	49
8	2/1/2017	2/28/2017	28	\$395,763.89	\$3,312,724.27	\$43,973.76	\$368,080.47	61	56
9	3/1/2017	3/31/2017	31	\$456,281.18	\$3,769,005.45	\$50,697.91	\$418,778.38	69	65
10	4/1/2017	4/30/2017	30	\$317,257.62	\$4,086,263.07	\$35,250.85	\$454,029.23	75	73
11	5/1/2017	5/31/2017	31	\$325,276.60	\$4,411,539.67	\$36,141.84	\$490,171.07	81	82
12	6/1/2017	6/30/2017	30	\$382,942.21	\$4,794,481.88	\$42,549.14	\$532,720.21	88	90
13	7/1/2017	7/25/2017	25	\$732,546.03	\$5,527,027.91	-\$241,824.00	\$290,896.21	96	97

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
01	10/4/2016	9,660.00	9,660.00

4B: Third Party Accommodation. Third Party Requested Work. This Change Order adds an encasement pipe crossing for a future waterline under CR 258 at Station 160+50. The installation of the additional encasement pipe was requested by the Property owner for future water service. The additional cost of the encasement pipe will be deducted from the Right of Way acquisition agreement with the property owner.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
02	1/31/2017	33,848.00	43,508.00

3B: County Convenience. Public relations improvement. 3F: County Convenience. Additional work desired by the County. This Change Order changes the hot mix pavement section on CR 258 from one 3" lift of Type C HMA PG 70-22 to one 2" lift of Type C HMA PG 64-22 and one 1.5" lift of Type D HMA PG 64-22 and deletes the one course surface treatment on Ronald Reagan.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
03	2/28/2017	38,765.00	82,273.00

2C: Differing Site Conditions (Unforeseeable). New development (conditions changing after PS&E completed). 4B: Third Party Accommodation. Third party requested work. This change order reflects multiple driveway changes including, extending a driveway culvert to accommodate a new driveway location, relocating a proposed driveway, extending a driveway culvert to save a heritage oak tree, adding a driveway to the project and shortening the guardrail at a proposed driveway location.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
04	3/21/2017	14,907.69	97,180.69

6C: Untimely ROW/Utilities Utilities Not Clear: This Change Order compensates the Contractor for additional costs to locate and avoid impacts to the AT&T line and to ensure uninterrupted service to adjacent properties. Utilities AT&T and PEC were scheduled to be clear by August 31, 2016, but were not clear until February 2017. The Contractor worked to avoid impacts to the existing AT&T line during the installation of the new City of Georgetown water line.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
05	3/21/2017	51,199.00	148,379.69

2J: Differing Site Conditions. (unforeseeable) Other. This change order revises various erosion control measures on the project, including the addition of soil retention blanket to the contract to prevent erosion and help to establish vegetation quicker on the slopes and in the ditches. 3H: County Convenience. Cost savings opportunity discovered during construction. This change order replaces the 12" Gabion mattresses with Flexamat. The use of this product was approved by the County Road and Bridge Department. The 3' x 3' gabions were deleted due to changes at the downstream end of Culvert #2.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
06	5/16/2017	23,780.00	172,159.69

1A: Design Error or Omission. Incorrect PS&E. This Change Order documents the quantity/cost overrun to existing bid Item 508 Constructing Detours. 2C: Differing Site Conditions. New development (conditions changing after PS&E). This change order also includes the deletion of existing bid items; Item 403 Temporary Shoring, Item 552 Wire Fencing and Gate because these items will not be used on the project and a reduction in quantity for Item 512 Port Concrete Traffic Barrier, Ty 1 and 2.

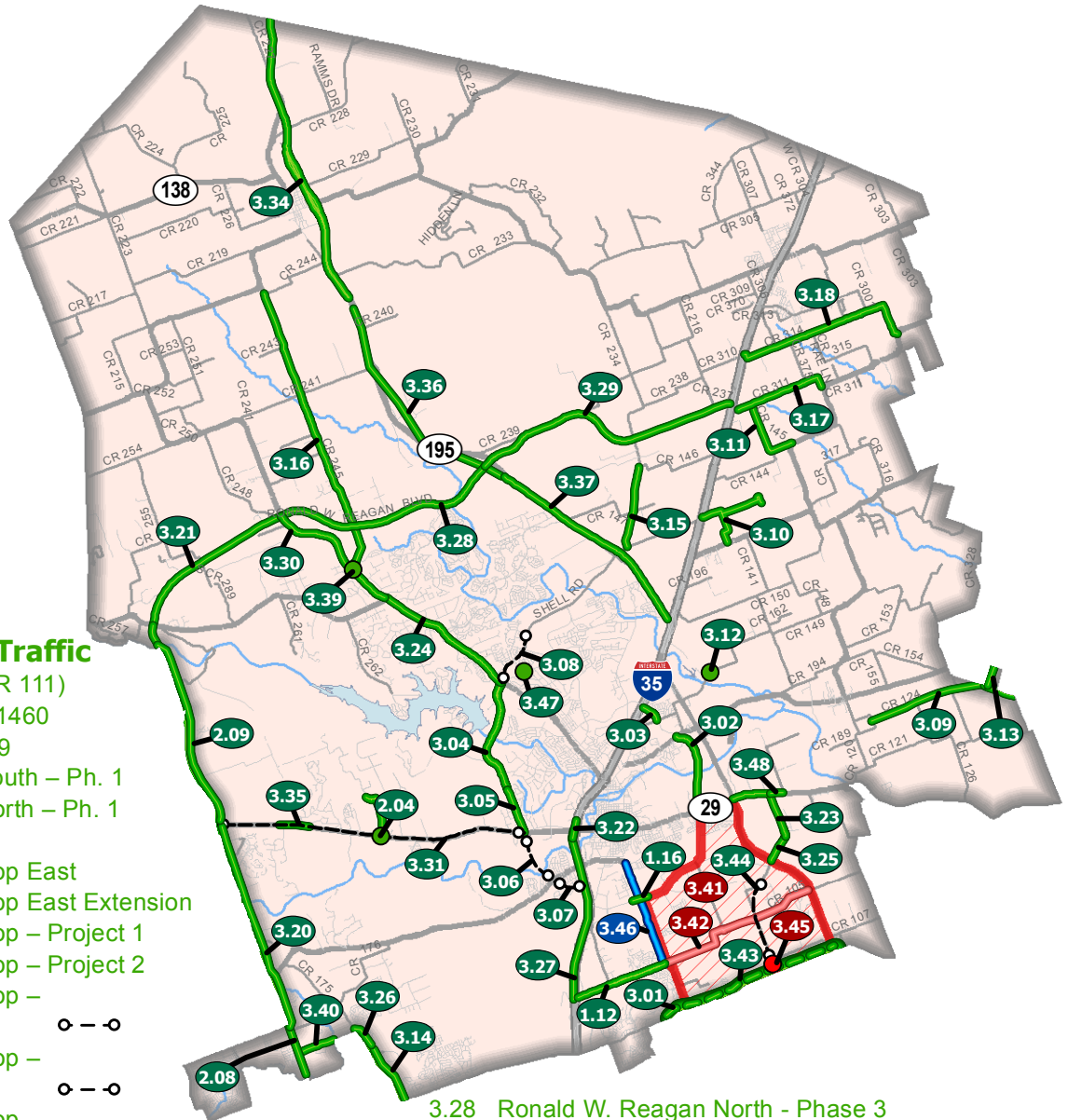
<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
07	6/6/2017	48,426.44	220,586.13

2F: Differing Site Conditions (unforeseeable). Site conditions altered by an act of nature. Ground water was encountered at the east end of the project while excavating to subgrade on the proposed eastbound half of the project. After several days of pumping, cutting trenches, excavating, and reworking subgrade to try and dry it out a French drain was installed to relieve the ground water that was causing the issues with the subgrade.

Adjusted Price = \$6,029,442.71

2006 ROAD BOND PROGRAM PROJECTS

PRECINCT 3 - COMMISSIONER COVEY



Completed/Open to Traffic

- 1.12 Westinghouse Rd. (CR 111)
- 1.16 SE Inner Loop at FM 1460
- 2.04 Cedar Hollow at SH 29
- 2.08 Ronald W. Reagan South – Ph. 1
- 2.09 Ronald W. Reagan North – Ph. 1
- 3.01 FM 1460 to CR 110
- 3.02 Georgetown Inner Loop East
- 3.03 Georgetown Inner Loop East Extension
- 3.04 Georgetown Inner Loop – Project 1
- 3.05 Georgetown Inner Loop – Project 2
- 3.06 Georgetown Inner Loop – Project 3 Study ○ – ○
- 3.07 Georgetown Inner Loop – Project 4 Study ○ – ○
- 3.08 Georgetown Inner Loop – Project 5 Study ○ – ○
- 3.09 CR 124
- 3.10 CR 142
- 3.11 CR 145
- 3.12 CR 152 Bridge Replacement
- 3.13 CR 157
- 3.14 CR 175
- 3.15 CR 234
- 3.16 CR 245
- 3.17 CR 311
- 3.18 CR 314
- 3.20 Ronald W. Reagan South - Phase 2
- 3.21 Ronald W. Reagan North - Phase 2
- 3.22 IH-35 at SH 29 Turnarounds (PTF)
- 3.48 SH 29 Widening - 12" Water Main Relocation
- 3.23 SH 29/CR 104 – Phase 1
- 3.24 Williams Drive (RM 2338)
- 3.25 CR 104 – Phase 2
- 3.26 CR 175 Extension - Phase 2A
- 3.27 IH 35 Northbound Frontage Rd. and Ramps

- 3.28 Ronald W. Reagan North - Phase 3
- 3.29 Ronald W. Reagan North - Phase 4
- 3.30 RM 2338 (PTF)
- 3.31 SH 29 Improvements Study & Schematic ○ – ○
- 3.34 SH 195 Project 1
- 3.35 SH 29 at Park Place Dr. & Jack Nicklaus Blvd.
- 3.36 SH 195 Project 2
- 3.37 SH 195 Project 3
- 3.39 CR 245 Realignment
- 3.40 CR 179
- 3.43 University Blvd. (Chandler Rd) Expansion (Design)
- 3.44 CR 110 North ○ – ○
(North of CR 107 to North of Sam Houston) (Design)
- 3.47 Madrid Drive Extension

Under Construction/Bidding

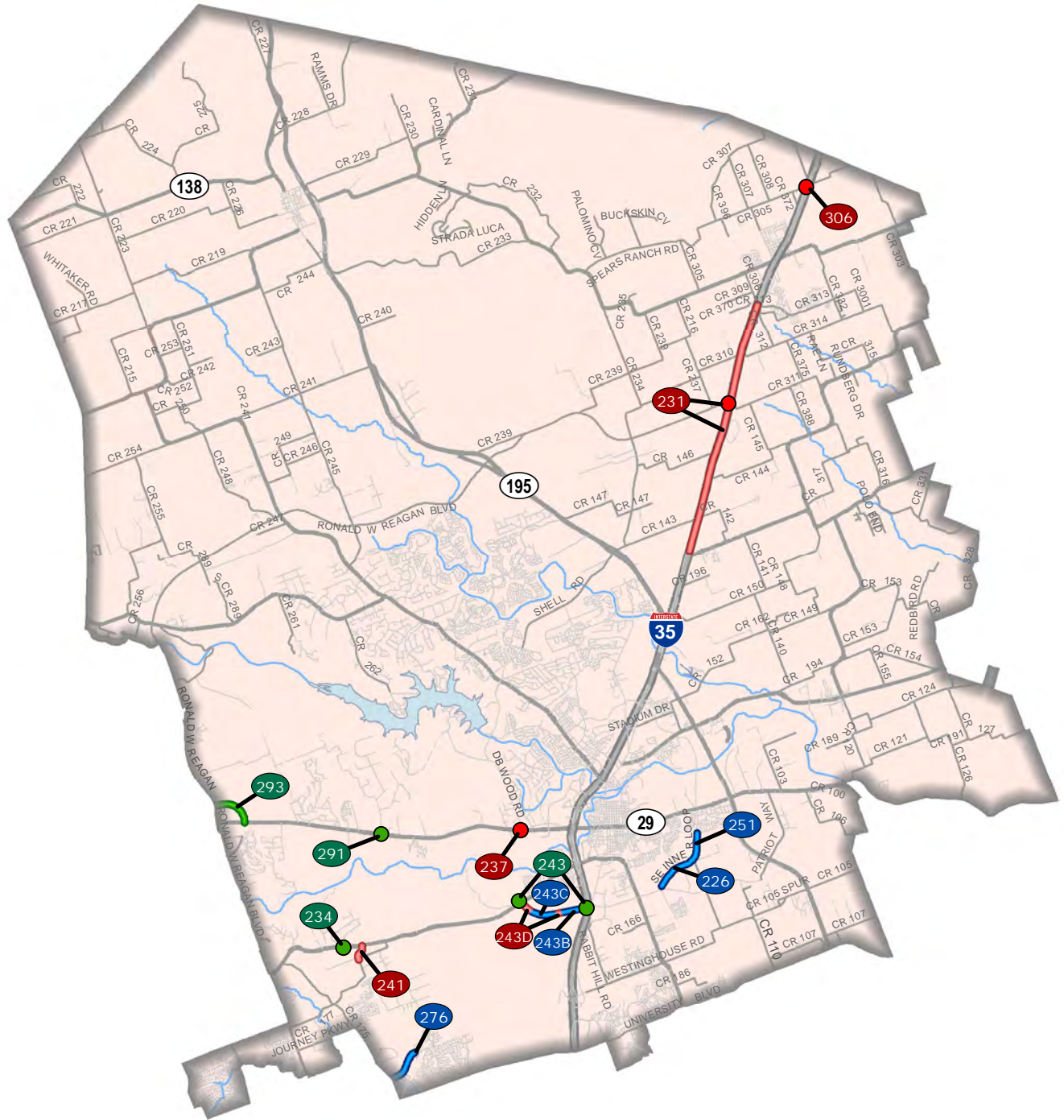
- 3.46 FM 1460 North

In Design

- 3.41 CR 110 / Arterial A Study
- 3.42 CR 111 / CR 105 Westinghouse Rd.
(FM 1460 to SH 130)
- 3.45 CR 110 Middle (North of Limmer Loop to CR 107)

2013 ROAD BOND PROGRAM PROJECTS

PRECINCT 3 - COMMISSIONER COVEY



Completed/ Open to Traffic

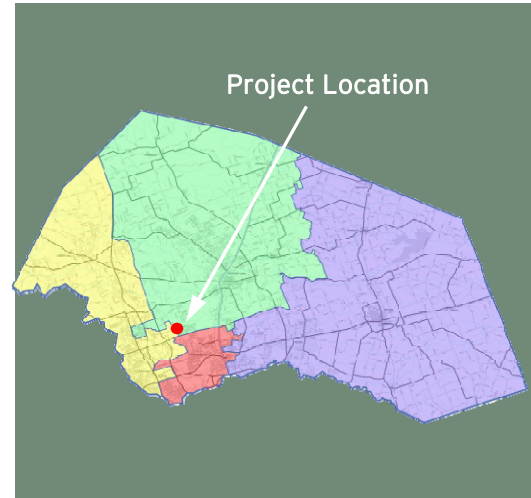
- 234 RM 2243 At Escalera Parkway
- 243 Southwest Bypass Driveways
- 291 SH 29 At Cedar Hollow
- 293 Kauffman Loop Phase 1 (NE quadrant of Reagan at SH 29)

Under Construction/Bidding

- 226 Inner Loop Safety Improvements (Rockride Lane to Wilco Way)
- 243c Southwest Bypass Access Route
- 243b Southwest Bypass Segment 1 (RM 2243 to IH 35)
- 251 Inner Loop Safety Improvements (Belmont Drive to Rockride Lane)
- 276 Arterial H Extension Phase 1 (CR 175 to Massey Way)

In Design

- 231 Ronald Reagan at IH 35 (Bridge Replacement)
- 231 IH 35 Ramp Reversal and Frontage Road Conversion (FM 972 to CR 312)
- 237 DB Wood At SH 29
- 241 CR 176 at RM 2243 (Safety Improvements)
- 243d Southwest Bypass Segment 2 (RM 2243 to IH 35)
- 306 CR 305 At IH 35 - Design (Bridge Replacement)



Arterial H

(Sam Bass Rd to existing Arterial H)

Project Length: .83 Miles

Roadway Classification: Minor Arterial

Limited NTP: June 2016 - November 2017

Estimated Construction Cost: \$3.2 Million



JULY 2017 IN REVIEW

7/07/2017: Patin Construction continued placing embankment to subgrade at the east end of the project on both sides of Culvert B. The material continued to be separated/screened for use in the fills.

7/14/2017: Embankment to subgrade continued to be placed at the east end of the project on both sides of Culvert B. Excavation to subgrade continued from east of Culvert A to west of Culvert B. Brush continued to be cleared along the north half of the project. The earthwork spoils continued to be separated/screened for use in the fills.

7/21/2017: Embankment to subgrade continued to be placed at the east end of the project on both sides of Culvert B. Excavation to subgrade continued from east of Culvert A to west of Culvert B.

7/28/2017: Embankment to subgrade continued to be placed at the east end of the project on both sides of Culvert B. Rebar was delivered for the box culverts.



Design Engineer: Randall Jones
Contractor: Patin Construction
Construction Observation:
Steven Shull, HNTB

Williamson County
Road Bond Program

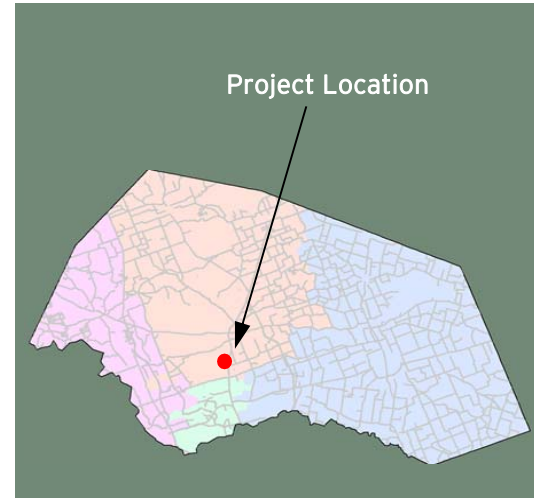
**Arterial H Phase 1 (Sam Bass Rd to existing Arterial H)
Project No. 1603-064**

Original Contract Price = \$3,210,934.80

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>
4/20/2016	5/16/2016	2/17/2017 (Limited) 5/26/2017	6/5/2017			180	0	180

<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	6/1/2016	6/30/2016	0	\$134,198.10	\$134,198.10	\$14,910.90	\$14,910.90	5	0
2	7/1/2016	7/31/2016	0	\$182,746.89	\$316,944.99	\$20,305.21	\$35,216.11	11	0
3	8/1/2016	8/31/2016	0	\$93,893.40	\$410,838.39	\$10,432.60	\$45,648.71	14	0
4	9/1/2016	9/30/2016	0	\$206,817.21	\$617,655.60	\$22,979.69	\$68,628.40	21	0
5	6/4/2017	6/30/2017	27	\$47,340.00	\$664,995.60	\$5,260.00	\$73,888.40	23	15

Adjusted Price = \$3,210,934.80



Southwest Bypass Access Route

Project Length: 1 Mile
Roadway Classification: Access Route

Project Schedule: June 2017-July 2017
Estimated Construction Cost: \$.2 Million



JULY 2017 IN REVIEW

7/07/2017: Jordan Foster continued to shape from both ramps 1, 2, and 3. The Contractor placed large rocks along the border of the ROW.

7/14/2017: Jordan Foster completed the ramps and demobilized the site.



Design Engineer: HDR Engineering
Contractor: Jordan Foster Construction
Construction Observation:
Steven Shull HNTB

Williamson County
Road Bond Program

**Southwest Bypass Access Route
Project No. 1702-148**

Original Contract Price = \$204,000.00

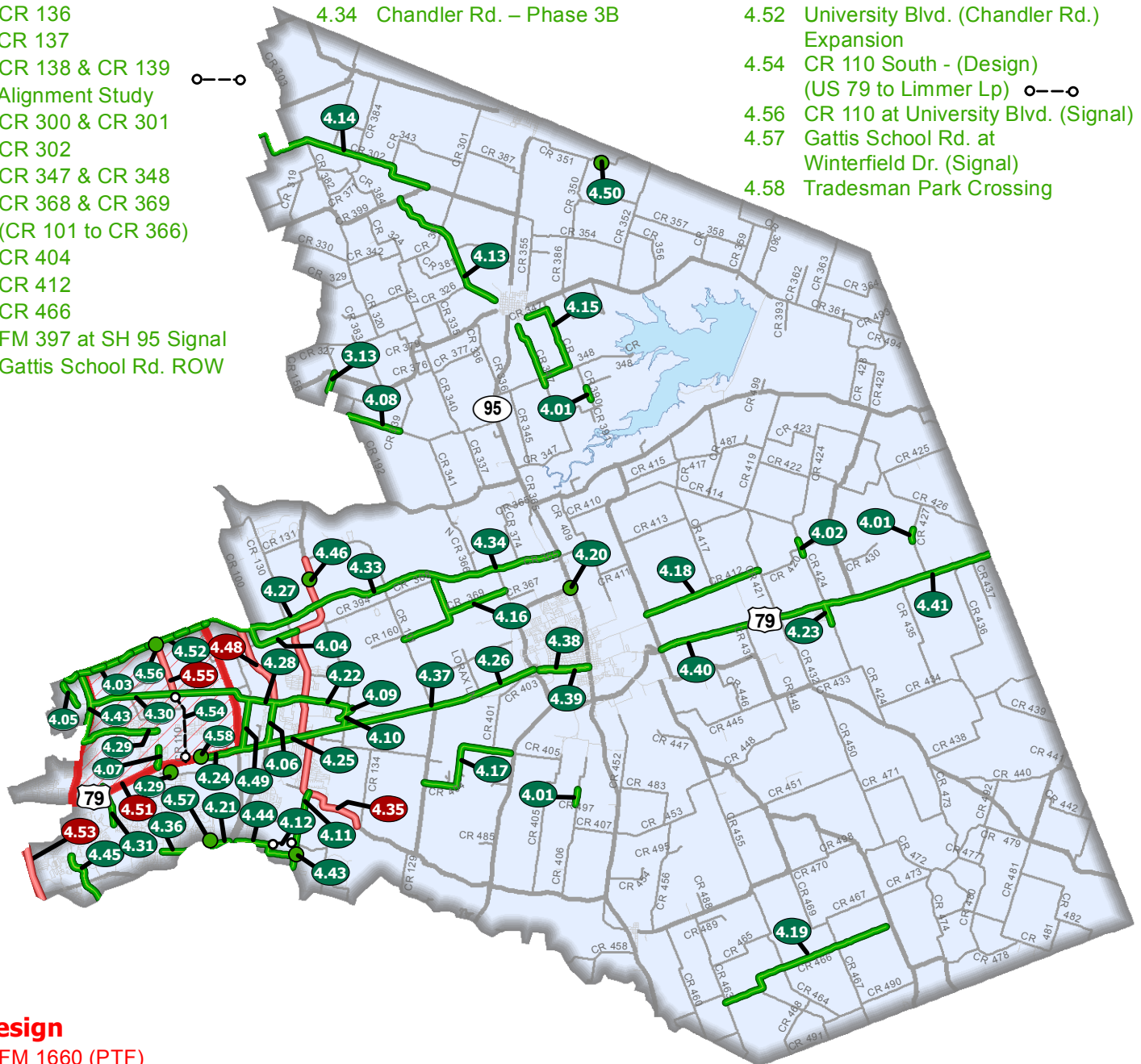
<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
4/12/2017	4/25/2017	6/1/2017	6/4/2017			55	0	55	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$) Used</u>	<u>% Time Used</u>
1	6/3/2017	6/25/2017	23	\$147,493.36	\$147,493.36	\$7,762.81	\$7,762.81	76	42
2	6/26/2017	7/7/2017	12	\$43,109.27	\$190,602.63	\$2,268.72	\$10,031.53	98	64
Adjusted Price =								\$204,000.00	

2006 ROAD BOND PROGRAM PROJECTS

PRECINCT 4 - COMMISSIONER MADSEN

Completed/Open to Traffic

- | | | |
|--------------------------------------------------------|--------------------------------------|-------------------------------------------------------|
| 3.13 CR 157 | 4.22 Limmer Loop – Phase 1A | 4.36 Gattis School Road |
| 4.01 Bridge Replacements Phase 1
(CR 390, 406, 427) | 4.23 Thrall School Zone | 4.37 US 79 - Section 3 (PTF) |
| 4.02 CR 224 Bridge Replacement | 4.24 US 79 – Section 1 | 4.38 2nd Street Improvements |
| 4.03 Chandler Rd. – Phase 1 | 4.25 US 79 – Section 2 | 4.39 2nd Street Drainage Improvements |
| 4.04 CR 100 | 4.26 US 79 – Section 3A | 4.40 US 79 Section 5A (PTF) |
| 4.05 CR 112 – Phase 1 | 4.27 Chandler Rd. – Phase 2 | 4.41 US 79 Section 5B (PTF) |
| 4.06 CR 119 | 4.28 Limmer Loop – Phase 1B | 4.43 FM 1460 Section 2 |
| 4.07 CR 122 at US 79 | 4.29 CR 113 / Old Settlers Blvd. | 4.44 CR 138 |
| 4.08 CR 124 | 4.30 Limmer Loop – Phase 1C | 4.45 CR 170 |
| 4.09 CR 132 | 4.31 Kenney Fort Boulevard – Phase 1 | 4.46 FM 1660 at Landfill Rd. (CR 128) |
| 4.10 CR 136 | 4.33 Chandler Rd. – Phase 3A | 4.49 CR 108 |
| 4.11 CR 137 | 4.34 Chandler Rd. – Phase 3B | 4.50 CR 351 at Donahoe Creek |
| 4.12 CR 138 & CR 139
Alignment Study | | 4.52 University Blvd. (Chandler Rd.)
Expansion |
| 4.13 CR 300 & CR 301 | | 4.54 CR 110 South - (Design)
(US 79 to Limmer Lp) |
| 4.14 CR 302 | | 4.56 CR 110 at University Blvd. (Signal) |
| 4.15 CR 347 & CR 348 | | 4.57 Gattis School Rd. at
Winterfield Dr. (Signal) |
| 4.16 CR 368 & CR 369
(CR 101 to CR 366) | | 4.58 Tradesman Park Crossing |
| 4.17 CR 404 | | |
| 4.18 CR 412 | | |
| 4.19 CR 466 | | |
| 4.20 FM 397 at SH 95 Signal | | |
| 4.21 Gattis School Rd. ROW | | |

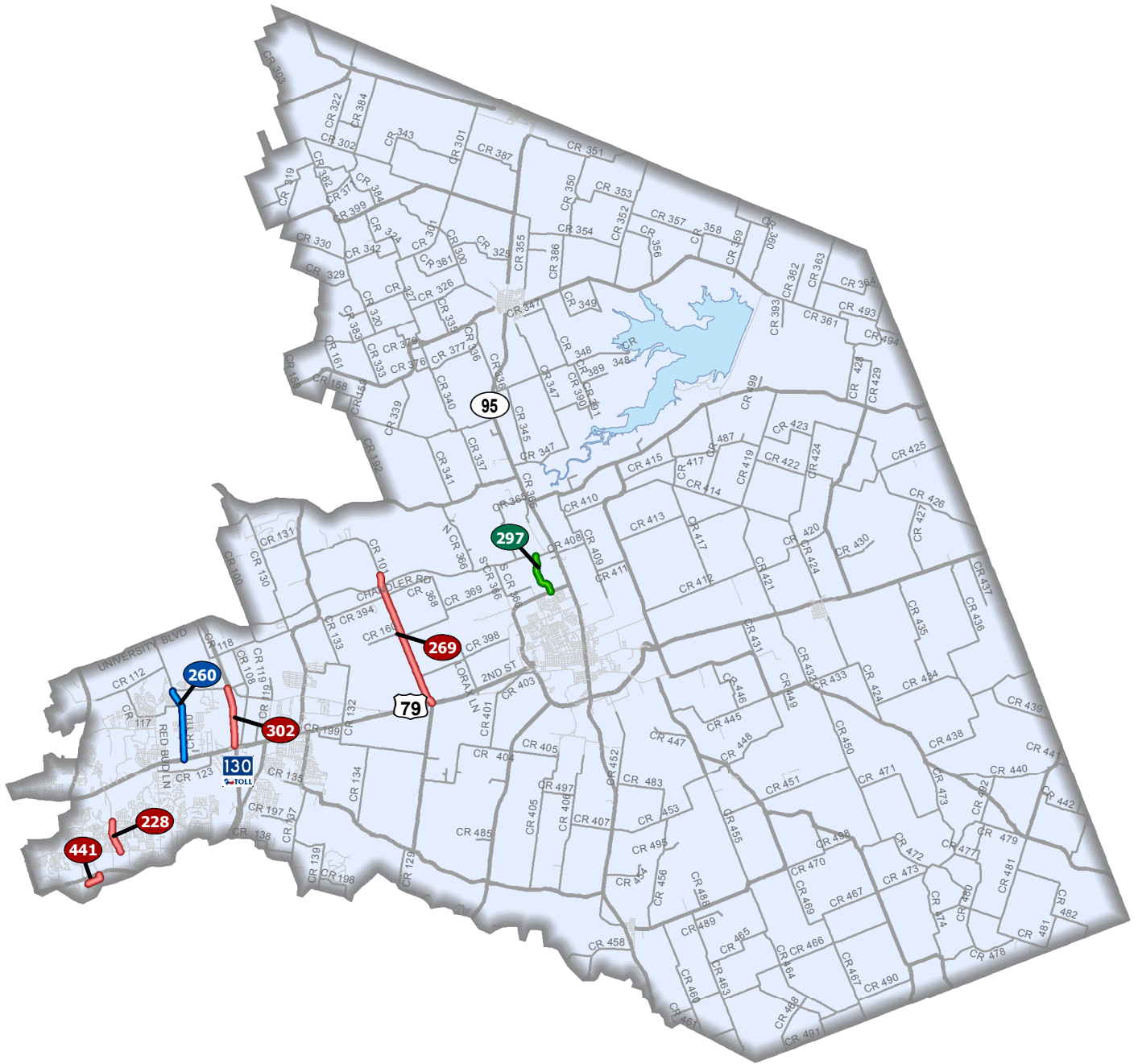


In Design

- 4.35 FM 1660 (PTF)
- 4.48 CR 119
- 4.51 CR 110/ Arterial A Study Area
- 4.53 IH 35 Operational Analysis
- 4.55 CR 110 Middle (North of Limmer Loop to CR 107)

2013 ROAD BOND PROGRAM PROJECTS

PRECINCT 4 - COMMISSIONER MADSEN



Completed/Open to Traffic

297 Bill Pickett Trail (Carlos Parker Blvd to Chandler Road)

Under Construction/Bidding

260 CR 110 South (US 79 to Limmer Loop)

In Design

228 Kenney Fort Blvd. Ph. 1 (Forest Creek Blvd. to Gattis School Rd.)

269 CR 101 (US 79 to North of Chandler Rd.)

302 SH 130 Frontage Roads Phase 3 (SBFR US 79 to Limmer Loop)

441 Roundville Lane (A.W. Grimes Blvd. to EBFR of SH 45)

**Multi Site Traffic Signals (CR 110 at Univ, Gattis School Rd at Winterfield)
Project No. 1512-036**

Original Contract Price = \$328,802.95

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
2/3/2016	2/17/2016	3/11/2016	3/21/2016	6/24/2016		90	6	96	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$) Used</u>	<u>% Time Used</u>
1	3/21/2016	4/30/2016	41	\$23,553.00	\$23,553.00	\$2,617.00	\$2,617.00	8	43
2	5/1/2016	5/31/2016	31	\$35,329.50	\$58,882.50	\$3,925.50	\$6,542.50	20	75
3	6/1/2016	6/24/2016	24	\$195,889.50	\$254,772.00	\$21,765.50	\$28,308.00	88	100
4	6/25/2016	9/30/2016	0	\$32,280.08	\$287,052.08	\$3,586.68	\$31,894.68	99	100

8/4/2017 Comments - The final Pay estimate has been sent to the Contractor.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
01	11/29/2016	-7,856.20	-7,856.20

2E: Differing Site Conditions (unforeseeable). Miscellaneous difference in site conditions (unforeseeable)(Item 9). This Change Order provides the final balancing for the overrun/underrun of Contract quantities on the project as a result of addressing field conditions not accounted for in the original plans. 2J: Differing Site Conditions (unforeseeable). Other. This change order also adds time to the contract to cover the time it took the electrical service application and installation to be completed at the Gattis School site for Williamson County.

Adjusted Price = \$320,946.75

**Bill Pickett Trail (East Williamson County Access Road)
Project No. 1601-045**

Original Contract Price = \$3,806,133.30

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
3/16/2016	4/5/2016	5/2/2016	5/12/2016	11/11/2016		100	30	130	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	5/12/2016	5/31/2016	20	\$643,105.80	\$643,105.80	\$71,456.20	\$71,456.20	19	15
2	6/1/2016	6/30/2016	30	\$268,272.41	\$911,378.21	\$29,808.05	\$101,264.25	28	38
3	7/1/2016	7/31/2016	31	\$378,344.61	\$1,289,722.82	\$42,038.29	\$143,302.54	39	62
4	8/1/2016	8/31/2016	31	\$476,356.92	\$1,766,079.74	\$52,928.54	\$196,231.08	53	86
5	9/1/2016	9/30/2016	30	\$463,467.16	\$2,229,546.90	\$51,496.35	\$247,727.43	67	109
6	10/1/2016	10/31/2016	31	\$776,046.85	\$3,005,593.75	\$86,227.43	\$333,954.86	91	133
7	11/1/2016	11/30/2016	30	\$150,073.08	\$3,155,666.83	\$16,674.79	\$350,629.65	95	156
8	12/1/2016	12/31/2016	0	\$11,444.91	\$3,167,111.74	\$1,271.65	\$351,901.30	96	156

7/7/2017 Comments - The GEC is preparing the final documents for Completion.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
01	6/7/2016	-85.80	-85.80

3K: This Change Order adds Select Fill material to be used in lieu of Lime Treated Subgrade. This change requires adjustments to the earthwork quantities and deletes the lime related items from the Contract.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
02	8/9/2016	3,305.00	3,219.20

3H: County Convenience. Cost savings opportunity discovered during construction. This Change Order adds a new contract item to change the Type C SAC A PG 76-22 surface asphalt to Type D SAC B PG 70-22 surface asphalt which provides a cost savings to the County. 1A: Design Error or Omission. Incorrect PS&E. This Change Order adds asphalt quantity for the school driveway to account for a 4" thickness rather than 2" inadvertently included in the plans. 6B: Untimely ROW/Utilities. Right of Way not clear (County responsible for ROW). Thirty days are being added for delays associated in acquiring Right of Way.

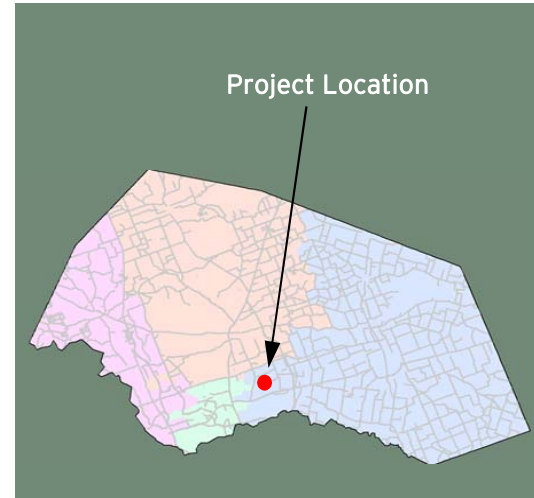
<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
03	9/6/2016	-102,204.38	-98,985.18

3H: County Convenience. Cost savings opportunity discovered during construction. This Change Order removes the Erosion Control Compost (3") called for in the plans and replaces it with new contract items for Fertilizer and Soil Retention Blanket. Vegetation can be established and erosion can be minimized by using fertilizer and soil retention blanket in lieu of the Erosion Control Compost at a substantial cost savings for the County.

<u>Change Order Number</u>	<u>Approved</u>	<u>Cost This CO</u>	<u>Total COs</u>
04	9/20/2016	-24,873.50	-123,858.68

3H: County Convenience. Cost savings opportunity discovered during construction. This Change Order replaces the Tier II Asphalt and Type D Grade 5 Sac B Aggregate in the contract with a Hot-Applied Non-Tracking Underseal (TFT-H). This is a substitution for a traditional underseal and eliminates the need for aggregate in the application process.

Adjusted Price = \$3,682,274.62



County Road 110 South
 (US 79 to Limmer Loop)

Project Length: 2.25 Miles
 Roadway Classification: Minor Urban Arterial

Project Schedule: January 2017-June 2018
 Estimated Construction Cost: \$11.2 Million



JULY 2017 IN REVIEW

7/07/2017: Chasco Constructors completed subgrade from Mozart Lane to Parma Street. The Jonah Water tank dismantling was completed. The 16" water line installation continued from McNutt Creek to US 79.

7/14/2017: Subgrade from CR 122 to Limmer Loop and embankment for the road widening at Limmer Loop were both completed. Lime treatment was placed from McNutt Creek to Parma Street. Subcontractor Bryant/Frey bored casing for the water line. Subcontractor McKinney Drilling completed the bridge foundation shafts for the McNutt Creek Bridge.

7/21/2017: Lime continued to be placed for subgrade treatment. Bryant/Frey completed the casing bore and began installing waterline pipe. Columns for the south abutment of the McNutt Creek Bridge continued to be formed and poured. Suddenlink and MCI/Verizon continue relocating communications lines.

7/28/2017: Flexbase was placed from McNutt Creek to Mozart Lane. Subcontractor Texas Walls formed and poured the MSE wall footing for the northwest wall at Abutment 2 of the McNutt Creek bridge. Suddenlink and MCI/Verizon continue relocating communication lines. FiberLight tied in new lines and removed the existing line.



Design Engineer: Dannenbaum
 Contractor: Chasco Constructors
 Construction Observation:
 David Boone, HNTB

Williamson County
 Road Bond Program

CR 110 South (US 79 to Limmer Loop)
Project No. 1604-075

Original Contract Price = \$11,224,589.02

<u>Letting</u>	<u>Award</u>	<u>Notice To Proceed</u>	<u>Begin Work</u>	<u>Substantial Completion</u>	<u>Work Accepted</u>	<u>Total Bid Days</u>	<u>Days Added</u>	<u>Total Days</u>	
9/27/2016	10/17/2016	1/3/2017	1/13/2017			510	0	510	
<u>Invoice Number</u>	<u>Beginning Date</u>	<u>Ending Date</u>	<u>Days Charged</u>	<u>Current Invoice</u>	<u>Invoice Total</u>	<u>Current Retainage</u>	<u>Total Retainage</u>	<u>% (\$ Used)</u>	<u>% Time Used</u>
1	1/13/2017	3/31/2017	78	\$1,644,069.60	\$1,644,069.60	\$182,674.40	\$182,674.40	16	15
2	4/1/2017	4/30/2017	30	\$393,511.50	\$2,037,581.10	\$43,723.50	\$226,397.90	20	21
3	5/1/2017	5/31/2017	31	\$582,730.20	\$2,620,311.30	\$64,747.80	\$291,145.70	26	27

Adjusted Price = \$11,224,589.02

Commissioners Court - Regular Session

29.

Meeting Date: 08/15/2017

North Mays Extension - Oncor Reimbursement Agreement

Submitted By: Dawn Haggard, Road Bond

Department: Road Bond

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action regarding the Utility Agreement between Oncor Electric and Williamson County for utility relocations on North Mays, a Road Bond Project in Commissioner Pct 1.

Background

Oncor Electric has existing facilities, which are in conflict with the proposed construction for the North Mays Extension Project. The County will reimburse Oncor Electric \$170,896.38 for the installation of 13 new electric poles with approximately 2,239 linear feet of electric conductor and ancillaries. This relocation is 85.71% reimbursable. The total anticipated reimbursement to Oncor by the County is \$170,896.38, which is 85.71% of the total eligible costs of \$199,389.08. The total eligible costs do not include betterments, because those costs are paid for by the Utility Owner.

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

North Mays Ext - Oncor Utility Agmt

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Dawn Haggard

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 11:14 AM

Started On: 08/09/2017 02:50 PM

REIMBURSEMENT AGREEMENT

This Reimbursement Agreement ("Agreement") is made and entered into and effective the 18th day of July, 2017, by and between Oncor Electric Delivery LLC (hereinafter referred to as "Utility"), and Williamson County, Texas, (hereinafter referred to as "County").

WITNESSETH:

WHEREAS, Utility is the owner of certain proposed to install 13 poles, 2,239 linear feet of conductor and ancillaries, remove 21 poles, 3,349 linear feet overhead conductor and ancillaries. (herein called Facilities).

WHEREAS, County desires to construct proposed North Mays Extension Phase I(Paloma Dr. to Oakmont Dr). (Hereinafter called "Project") and make improvements to Project as shown on plans submitted to Utility;

WHEREAS, to accommodate the Project, County desires Utility to perform certain facility modification/relocation work herein referred to as the "Work" and described as follows:

- Oncor relocation consist of: Installing 13 poles, 2,239 linear feet of conductor and ancillaries, removing 21 poles, 3,349 linear feet overhead conductor and ancillaries.
- County will reimburse Utility for Engineering Services, Inspection Services and Internal cost only.
- Upon completion of Project, Contractor will provide an as-built drawing of the relocation to the Utility and County.

WHEREAS, Utility, under the terms hereinafter stated, has evaluated the Project and is willing to perform Work to its Facilities to accommodate the Project, provided the County reimburses Utility for 100% of its eligible costs for labor and materials to do the Work.

NOW, THEREFORE, in consideration of the promises and mutual covenants herein contained, Utility agrees to perform the Work and permit the Project subject to the following terms and provisions:

1. County agrees that the description of the Work listed above contains a complete representation of the Work requested of Utility to accommodate the Project.
2. County shall, at its own expense, inspect the Work by Utility hereunder, to assure itself that the Work is being performed in compliance with the standards of County.
3. Though this agreement is based on the proposed "Good Faith Estimate" herein referred to as the "Estimate" listed below: (See Attachment "A" for detailed estimate)

Estimated 13 of poles along with apparatus defined as Work = \$199,389.08

County agrees to bear 100% of the eligible costs incurred by utility relating to the Work. Final eligible costs may be more or less than the Estimate, which shall not be construed as a limitation of costs for such Work. County recognizes that Utility may use one or more contractors to perform the Work.

4. Upon completion of said Work, Utility shall make an accounting of final costs and provide County an invoice of the same. The final eligible cost may be greater or less than the Estimate and County shall be liable to Utility for 100% of the eligible final cost. After receipt and approval of invoice, County shall pay the full amount within 30 days.
5. County shall perform all operations and construction activities below or adjacent to the Facilities in a workmanlike and safe manner and in conformance with all applicable industry and governmental standards and conditions that may be imposed by Utility from time to time. No construction activity by County shall be performed under, across, or adjacent to the Facilities until the Work of Utility has been completed.
6. Notice shall be given to Utility by County, at least 48 hours in advance of commencement of any construction activity on or adjacent to the Facilities, excepting only cases of emergency. Said notice shall be given to Texas One-Call: 1-800-245-4545. In the event County breaches any of the terms, covenants or provisions of this Agreement and Utility commences litigation to enforce any provisions of this Agreement, the cost of attorneys' fees, interest and the attendant expenses will be payable to Utility by County upon demand.
7. To the fullest extent permitted by law, the County shall indemnify, save, hold harmless, and at Utility's option, defend Utility and its affiliated companies and their directors, officers, employees and agents from any and all claims, demands, cost (including reasonable attorney and expert witness fees and court costs), expenses, losses, causes of action (whether at law or in equity), fines, civil penalties, and administrative proceedings for injury or death to persons or damage or loss to property or other business losses, including those made or incurred by Utility or its directors, officers, employees, or agents and including environmental damage in any way arising from or connected with the existence, construction, operation, maintenance, removal or other operations arising out of the Work as described in this Agreement and the construction, operation and/or use of the Project by County, except those arising from Utility's sole negligence.
8. This Agreement supersedes every antecedent or concurrent oral and/or written declaration and/or understanding pertaining to the Work or construction activity by and between Utility and County.
9. As soon as possible after the document is prepared, Utility and County shall sign a Utility Joint Use Agreement and make a part hereof.

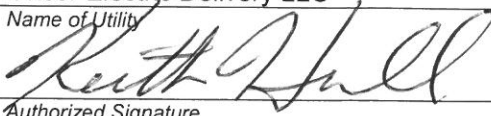
Unless an item below is stricken and initialed by the County and Utility, this agreement in its entirety consists of the following:

1. Utility Agreement - Wilco –U-35 – 100% County – Off System
2. Plans, Specification, and Estimated Costs (Attachment “A”)
3. Utility’s Schedule of Work and Estimated Date of Completion (Attachment “B”)
4. Eligibility Ratio (Attachment “C”)
5. Betterment Calculation and Estimates (Attachment “D”)
6. Proof of Property Interest – ROW-U-1A (Attachment “E”)
7. Wilco-U-80A – Joint Use Agreement (Attachment “F”)

IN WITNESS WHEREOF, we have hereunto set our hands on the day and year below.

UTILITY

Utility: Oncor Electric Delivery LLC
Name of Utility

By: 
Authorized Signature

Keith Hull
Print or Type Name

Title: V.P. Distribution Operations

Date: 7-31-2017

WILLIAMSON COUNTY

By: _____
Authorized Signature

Dan A. Gattis
Print or Type Name

Title: Williamson County Judge

Date: _____



Electric Delivery

ONCOR Project: 3306699
District: NA
County: Williamson
Federal Proj. No.: NA
ROW CSJ No.: NA
Road Location: North Mays Extension, Phase 1
From: Paloma Dr
To: Oakmont Dr
Eligibility Ratio: 85.71%

Attachment "A"
Summary Estimate

Contractors Expense	57,297.92	
Vouchers	27,511.00	
Materials	61,800.70	
subtotal 1 :	<hr/>	146,609.62
Construction Overhead		52,779.46
subtotal 2 :		<hr/> 199,389.08
OED Tax Expense		0.00
subtotal 3 :		<hr/> 199,389.08
Total Charged to Project		199,389.08
Salvage Material		0.00
Net Estimated Cost		199,389.08
Less Betterment		0.00
Estimated Cost		199,389.08
Eligibility Ratio	85.71%	170,896.38

WILLIAMSON COUNTY

NORTH MAYS EXTENSION PRECINCT NUMBER 1

ROADWAY	CLASSIFICATION	DESIGN SPEED
NORTH MAYS OAKMONT	ARTERIAL COLLECTOR	40 MPH 30 MPH
NORTH MAYS OAKMONT	ADT (2019) 2,430	ADT (2039) 5,325

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS

NET LENGTH OF ROADWAY = 3686.68 FT (0.688 MI.)
 NET LENGTH OF BRIDGE = 1224.00 FT (0.232 MI.)
 NET LENGTH OF PROJECT = 4910.68 FT (0.920 MI.)

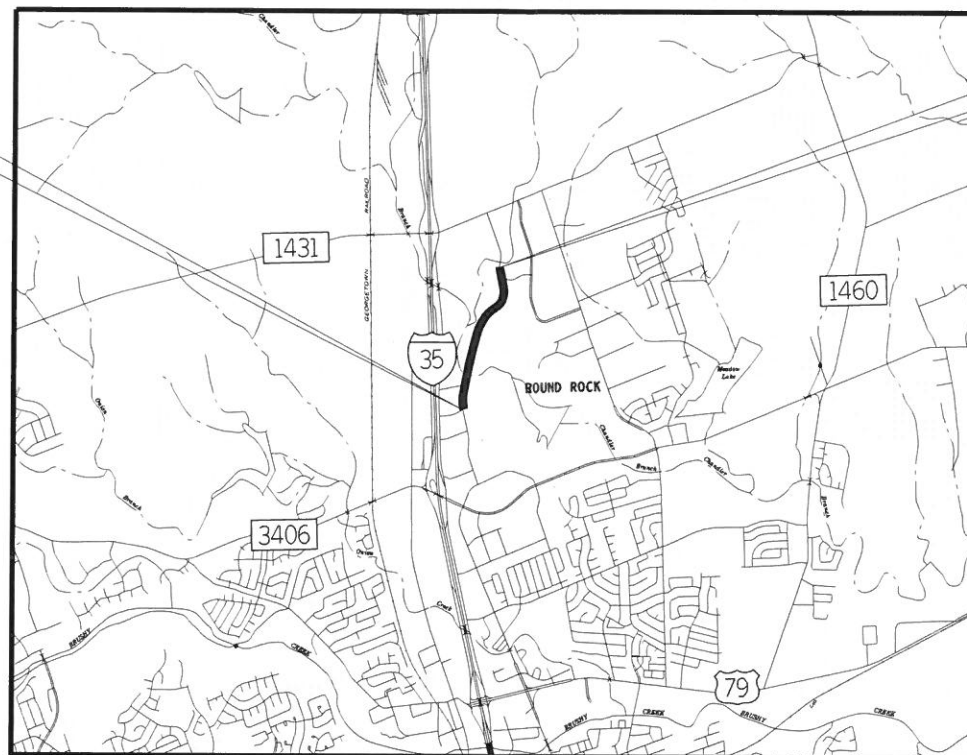
LIMITS: FROM PALOMA DRIVE TO 185' SOUTH OF CHANDLER BRANCH TRIBUTARY I

FOR THE CONSTRUCTION OF NEW ROADWAY CONSISTING OF GRADING, BASE, PAVING, STRUCTURES, DITCHES, STORM SEWER SYSTEM, WATER QUALITY BMPS, SIGNING, AND PAVEMENT MARKINGS

90%
SUBMITTAL

BEGIN PROJECT
STA. 30+04.61

END PROJECT
STA. 79+15.29



VICINITY MAP
N. T. S.

EXCEPTIONS: NONE
 EQUATIONS: NONE
 RAILROAD CROSSINGS: NONE
 WATERSHEAD: UPPER BRUSHY CREEK
 AREA OF DISTURBANCE: 15.98 AC

PREPARED BY:
LJA ENGINEERING, INC. (DESIGN CONSULTANT)

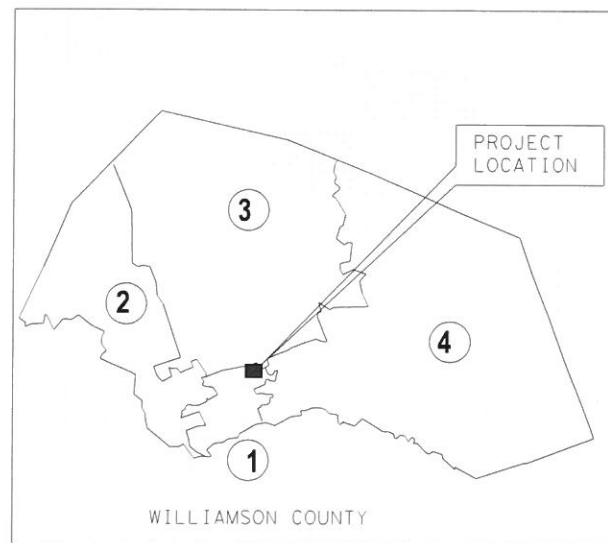
KENNETH G. SCHROCK, P.E.
PROJECT MANAGER

DATE

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY UNDER THE AUTHORITY OF:
 KENNETH G. SCHROCK, PE
 TEXAS REGISTRATION: 93593
 DATE: 12/22/2016
 IT IS NOT TO BE USED FOR BIDDING, CONSTRUCTION, OR PERMIT PURPOSES.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER(S) THAT PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF ROUND ROCK (OR OTHERS) MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER(S).

REQUIRED SIGNS SHALL BE PLACED IN ACCORDANCE WITH STANDARD SHEETS BC(1)-14 THRU BC(12)-14 AND THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.":



TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES ADOPTED ON NOVEMBER 1, 2014 AND ALL APPLICABLE SPECIAL PROVISIONS AND SPECIAL SPECIFICATIONS AS INDICATED IN THE BID DOCUMENTS SHALL GOVERN ON THIS PROJECT.

LJA Engineering, Inc.
FRN-F-1386



APPROVED BY:
WILLIAMSON COUNTY

DAN A GATTIS
WILLIAMSON COUNTY JUDGE

DATE

APPROVED BY:
WILLIAMSON COUNTY

LISA BERKMAN
WILLIAMSON COUNTY COMMISSIONER,
PRECINCT 1

DATE

APPROVED BY:
HNTB CORPORATION

RICHARD L RIDINGS, PE
ROAD BOND MANAGEMENT TEAM

DATE

APPROVED BY:
CITY OF ROUND ROCK

GARY HUDDER
TRANSPORTATION DIRECTOR

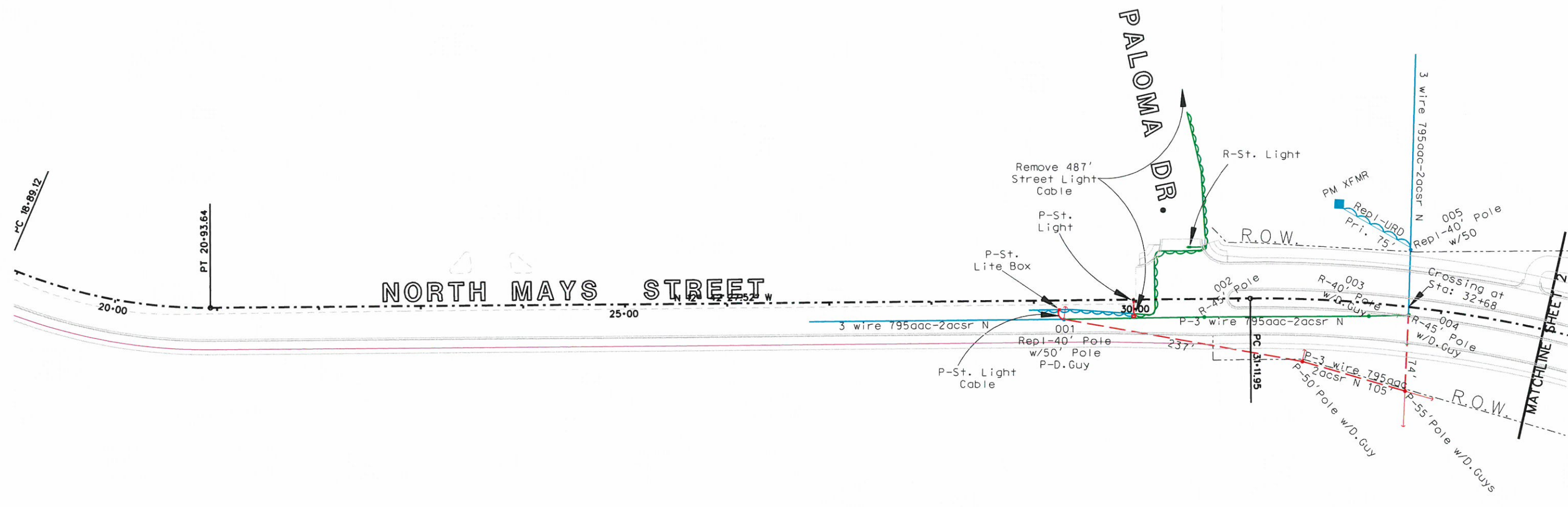
DATE

THIS SHEET



INSTALLED
4 Poles
510 Linear Feet of Conductor

REMOVED
5 Poles
909 Linear Feet of Conductor



NORTH MAYS STREET

PALOMA DR.

MATCHLINE SHEET 2

EXISTING PRIVATE EASEMENT or P.U.E.

001,002,003,004, - Vol: 2003, Pg: 684, Cab: T, SL: 142

005 - Cab: F, SL: 172

LEGEND

- Proposed Poles/Downguys
- Existing Poles/Downguys to be Removed
- Existing Poles/Downguys to Remain in Place
- Proposed Overhead Conductor
- Existing Overhead Conductor to be Removed
- Existing Overhead Conductor to Remain in Place
- Existing URD Conductor to be Removed
- Existing URD Conductor to Remain in Place
- Proposed URD Conductor

Oncor and Contractors will follow MUTCD for Traffic Control. Oncor will provide erosion protection and environmental permit as required.

All Conductor in ROW is 24.9kv or less & Meets or Exceeds Minimum Requirement of 22' Above All Pavement

Sheet 1 of 3 WR 3306699

ONCOR ELECTRIC ROUND ROCK DISTRICT
Williamson County North Mays Street Extension
Scale: 1"=100' Date: 07/18/2017

THIS SHEET

INSTALLED
6 Poles
683 Linear Feet of Conductor

REMOVED
8 Poles
1353 Linear Feet of Conductor

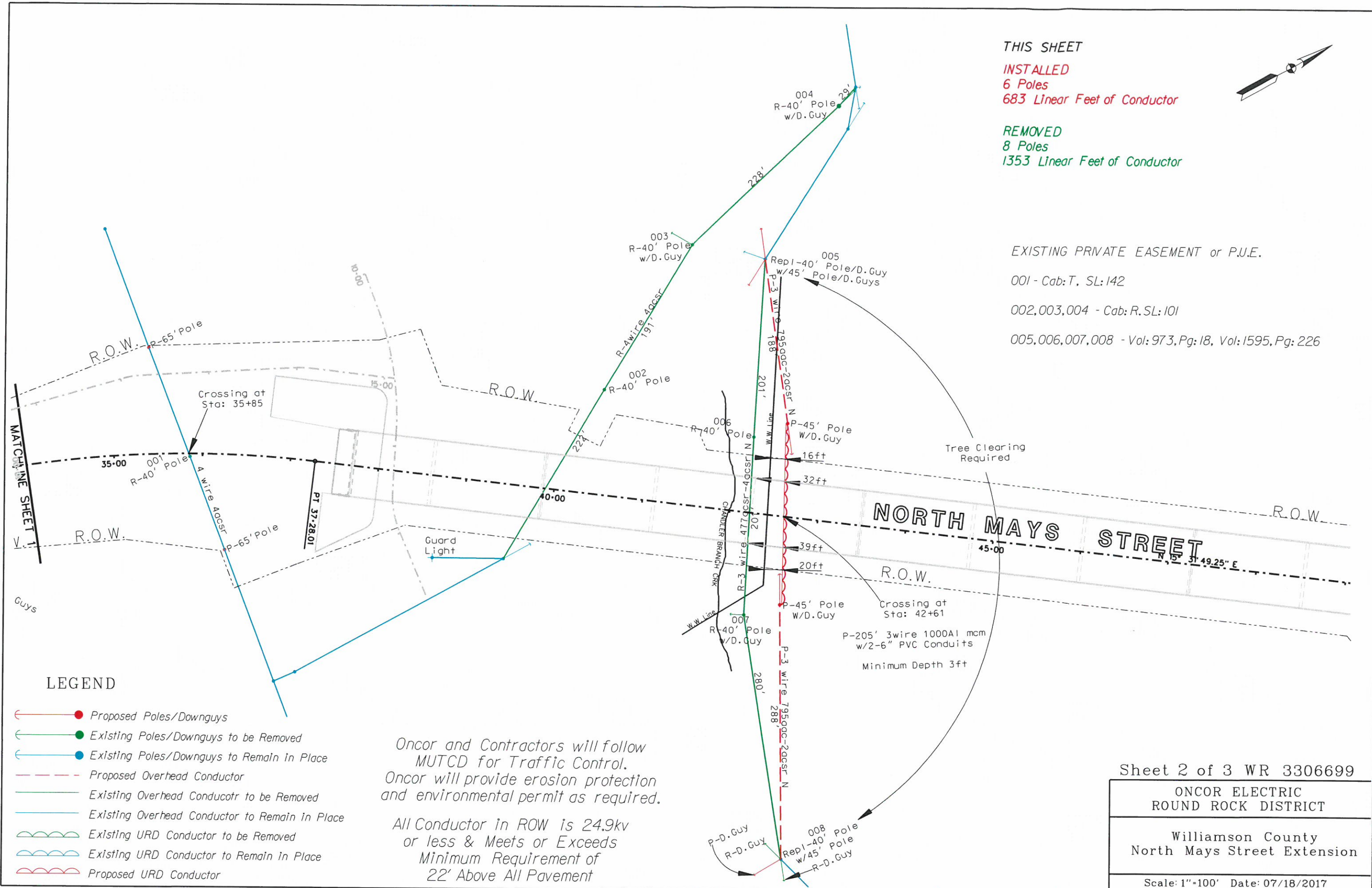


EXISTING PRIVATE EASEMENT or P.U.E.

001 - Cab:T, SL:142

002,003,004 - Cab:R,SL:101

005,006,007,008 - Vol: 973, Pg: 18, Vol: 1595, Pg: 226



LEGEND

- Proposed Poles/Downguys
- Existing Poles/Downguys to be Removed
- Existing Poles/Downguys to Remain in Place
- Proposed Overhead Conductor
- Existing Overhead Conductor to be Removed
- Existing Overhead Conductor to Remain in Place
- Existing URD Conductor to be Removed
- Existing URD Conductor to Remain in Place
- Proposed URD Conductor

Oncor and Contractors will follow MUTCD for Traffic Control. Oncor will provide erosion protection and environmental permit as required.

All Conductor in ROW is 24.9kv or less & Meets or Exceeds Minimum Requirement of 22' Above All Pavement

Sheet 2 of 3 WR 3306699

ONCOR ELECTRIC
ROUND ROCK DISTRICT

Williamson County
North Mays Street Extension

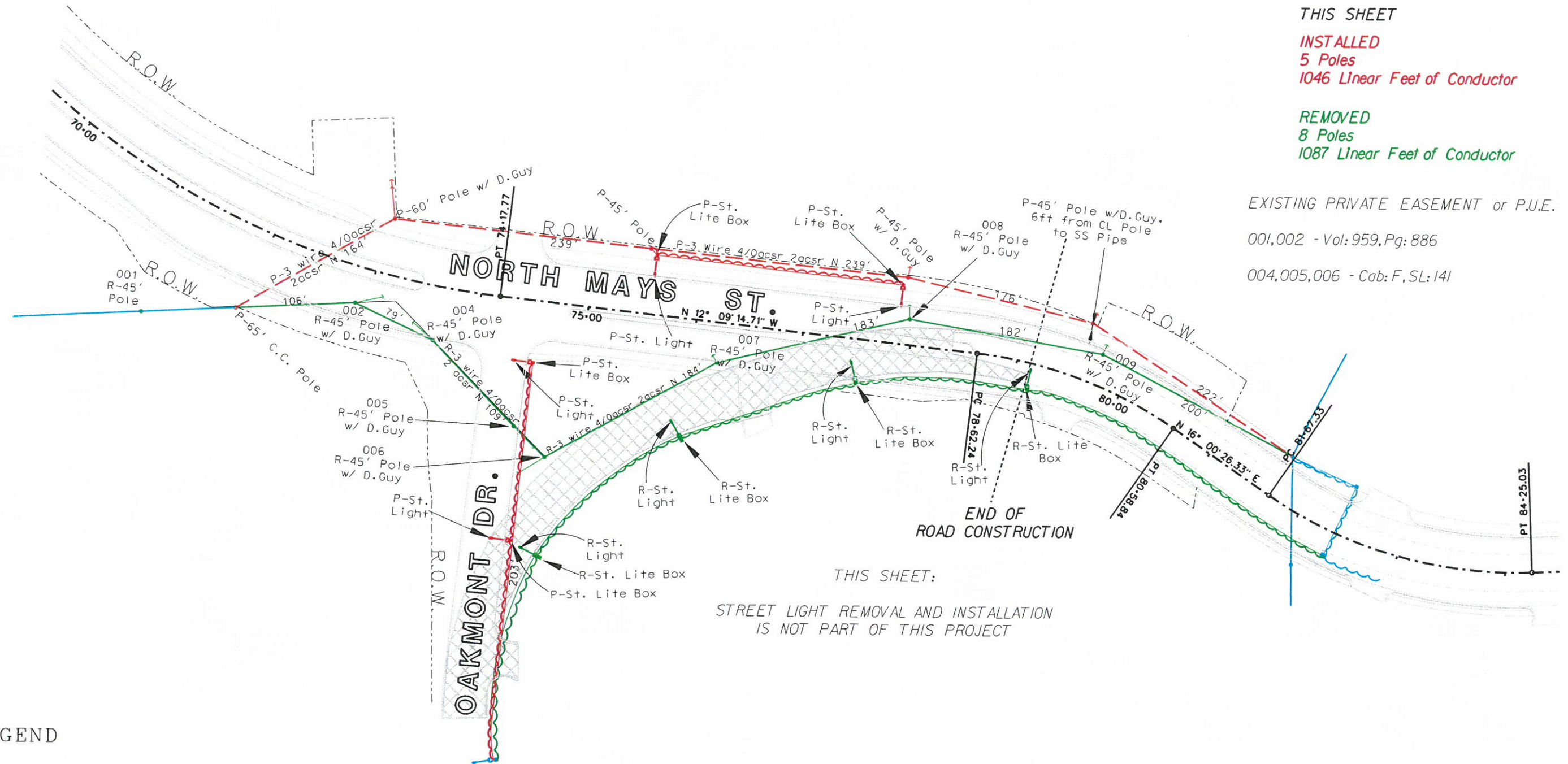
Scale: 1"=100' Date: 07/18/2017



THIS SHEET
INSTALLED
 5 Poles
 1046 Linear Feet of Conductor

REMOVED
 8 Poles
 1087 Linear Feet of Conductor

EXISTING PRIVATE EASEMENT or P.U.E.
 001,002 - Vol: 959, Pg: 886
 004,005,006 - Cab: F, SL: 141



THIS SHEET:
 STREET LIGHT REMOVAL AND INSTALLATION
 IS NOT PART OF THIS PROJECT

LEGEND

- Proposed Poles/Downguys
- Existing Poles/Downguys to be Removed
- Existing Poles/Downguys to Remain in Place
- - - Proposed Overhead Conductor
- Existing Overhead Conductor to be Removed
- Existing Overhead Conductor to Remain in Place
- ~ Existing URD Conductor to be Removed
- ~ Existing URD Conductor to Remain in Place
- ~ Proposed URD Conductor

Oncor and Contractors will follow
 MUTCD for Traffic Control.
 Oncor will provide erosion protection
 and environmental permit as required.

All Conductor in ROW is 24.9kv
 or less & Meets or Exceeds
 Minimum Requirement of
 22' Above All Pavement

Sheet 3 of 3 WR 3306699

ONCOR ELECTRIC
 ROUND ROCK DISTRICT

Williamson County
 North Mays Street Extension

Scale: 1"=100' Date: 07/18/2017



Electric Delivery

ONCOR Project: 3306699
 District: NA
 County: Williamson
 Federal Proj. No.: NA
 ROW CSJ No.: NA
 Road Location: North Mays Extension, Phase 1
 From: Paloma Dr
 To: Oakmont Dr
 Eligibility Ratio: 85.71%

Attachment "B"
Utility Schedule of Work and Estimated Date of Completion

Estimated Start Date *	September 11, 2017
Estimated Number of Days For Completion	working days, does not include holidays, does not include weekends. 82 total days, <u>INCLUDES</u> weekends, (7 days per week) does <u>not</u> include holidays,
Estimated Completion Date **	November 30, 2017

* Start date is based on receipt of signed County contract and acquired Road R.O.W.

** Completion date is for construction phase only. This period does not include time allotment to capture trailing charges needed for project invoicing. Removal of existing poles in the new road ROW is contingent on all foreign pole contacts being removed in an expeditious manner.

Note: In the event that it becomes necessary, and/or at County's request, Oncor will ask if crews will work 7 days per week (their volitional option and does not include holidays) in order to facilitate getting the project done as quickly as possible. This will increase the labor costs. O.E.D. will work with County in the event that a Supplemental Agreement is necessary if the costs exceed 25%.



Electric Delivery LLC

ONCOR Project: 3306699
 District: NA
 County: Williamson
 Federal Proj. No.: NA
 ROW CSJ No.: NA
 Road Location: Road Loc: North Mays Extension, Phase 1
 From: Paloma Dr.
 To: Oakmont Dr.
 Eligibility Ratio: 85.71%

Attachment "C"
Eligibility Ratio

Federal Utility Procedure (FUP) All utility adjustments are eligible for reimbursement by County projects. The necessity for, and justification of, **Interstate** adjustments depends on whether the existing facilities need to be adjusted to accommodate the highway and are in the best interests of the public.

X State Utility Procedure (SUP) Utility adjustments on Federal-aid (non-interstate), Off-System, State, and FM highway, County projects **require a determination of eligibility**. The justification for cost participation depends on whether the existing facilities have real or compensable property rights, in addition to the need to be adjusted to accommodate the highway and are in the best interests of the public. In situations where eligibility is less than 100%, approval of the eligibility ratio will be required.

* This Procedure to be used on County Projects



Electric Delivery LLC

Eligibility Ratio Worksheet

ONCOR Project: 3306699
 TXDOT U-NO.: NA
 District: NA
 County: Williamson
 Federal Proj. No.: NA
 ROW CSJ No.: NA
 Road Location: North Mays Extension, Phase 1
 From: Paloma Drive
 To: Oakmont Drive
 Eligibility Ratio: 85.71%

Pole Count

<u>Poles Removed, Covered by Private Easement, PUE</u>	<u>18</u>
Total Poles Removed, in ROW and Private	21

Sheet 1 $\frac{5}{5}$ _____

Sheet 2 $\frac{8}{8}$ _____

Sheet 3 $\frac{5}{8}$ _____

Sheet 4 _____

Sheet 5 _____

Sheet 6 _____

Sheet 7 _____

Sheet 8 _____

Sheet 9 _____

Sheet 10 _____



Electric Delivery LLC

ONCOR Project: 3306699
District: NA
County: Williamson
Federal Proj. No.: NA
ROW CSJ No.: NA
Road Location: North Mays Extension, Phase 1
From: Paloma Dr
To: Oakmont Dr
Eligibility Ratio: 85.71%

Attachment "D"
Betterment Calculation and Estimates

Forced betterments, also known as non-elective betterments, are those necessitated by transportation project construction. This type is usually a **REIMBURSABLE** cost item. These items **must be properly documented by the utility** and include: (1) non-stocked items that are uneconomical to purchase; (2) items to comply with governmental laws and ordinances; (3) appropriate regulatory commission codes; (4) published, current design practices regularly followed by the utility in its own work; (5) installment of replacements of equivalent standard, although not identical; (6) betterments for which there are direct benefits to, and/or are required for, the transportation project.

**Forced
Betterments**

County cost participation is based on the cost of providing the most economical replacement facility or restoration of functionally equivalent service to the facility being replaced.

Note: Forced Betterment will make the contract have an Eligibility Ratio AND a Reimbursement Ratio

**Elective
Betterments**

The costs of elective betterment items are **ineligible** for County participation. Such elective betterments should be depicted on the plan as part of the work proposed.

**X No
Betterments**

There is no betterment involved in this utility adjustment.



Electric Delivery

ONCOR Project: 3306699
District: NA
County: Williamson
Federal Proj. No.: NA
ROW CSJ No.: NA
Road Location: North Mays Extension, Phase 1
From: Paloma Dr
To: Oakmont Dr
Eligibility Ratio: 85.71%

Attachment "E"
Proof of Property Interest

Utility Joint Use Agreement 80A

Agreement No: WC-JUA-UTILITY-North Mays Phase I
Oncor Electric Delivery LLC

THE STATE OF TEXAS }
COUNTY OF WILLIAMSON }

County: Williamson
Road Location: North Mays Extension:
From: Phase I, Paloma Dr to Oakmont Dr

WHEREAS, Williamson County, hereinafter called the **County**, proposes to make certain roadway improvements on that section of the above indicated roadway; and

WHEREAS, Oncor Electric Delivery Company LLC, hereinafter called the **Owner**, proposes to relocate certain of its facilities on, along or across, and within or over such limits of the roadway right of way as indicated on the plans attached, executed by **Owner** on the 18th day of July, 2017, or on location sketches attached hereto except as provided below;

NOW, THEREFORE, it is hereby mutually agreed that joint use for both roadway and utility purposes will be made of the area within the right of way limits as such area is defined and to the extent indicated on the aforementioned plans or sketches. Where **Owner** by reason of ownership within the area described above of an easement or fee title has the right to alter, modify or add to facilities presently located within the area described or construct additional facilities therein, such right is hereby retained, provided, however, if existing facilities are to be altered or modified or new facilities constructed within said area the **Owner** agrees to notify the **County** prior thereto, to furnish necessary sketches showing location, type of construction and methods to be used for protection of traffic, and if, in the sole opinion of the **County**, such alteration, modification or new construction will injure the roadway or endanger the traveling public using said roadway, the **County** shall have the right, after receipt of such notice, to prescribe such regulations and rules for the work proposed by **Owner** as the **County** deems necessary for the protection of the roadway facility and the traveling public using said roadway; provided further, however, that such regulations and rules shall not extend to the requiring of the placement of intended overhead lines underground or the routing of any lines outside of the area of joint usage above described.

In the event of an emergency, it being evident that immediate action is necessary for protection of the public health and safety and to minimize property damage and loss of investment, either party hereto may at their own responsibility and risk make necessary emergency repairs, notifying the other party hereto of this action as soon as is practical.

Participation in actual costs incurred by the **Owner** for any future adjustment, removal or relocation of utility facilities required by roadway construction shall be in accordance with this Agreement and the laws of the State of Texas. Except as expressly provided herein, (1) the **Owner's** rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations as apply to the general public, and (2) the **Owner** and the **County**, by execution of this agreement, do not waive or relinquish any right which they may have under the law or Constitution of this State.

In the event the **Owner** fails to comply with the requirements as set out herein, the **County** may take such action, as it deems appropriate to compel compliance.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

Owner: Oncor Electric Delivery LLC

Williamson County

Utility Name

By 

By _____

Keith Hull

Authorized Signature

Title: V.P. Distribution Operations

Title: Williamson County Judge

Date: 7-31-2017

Date: _____

Received

8-8-17



HNTB Corporation
Round Rock

LETTER OF TRANSMITTAL

To: HNTB
101 East Old Settlers Blvd. Suite100
Round Rock, Texas 78664

Date: August 7, 2017
CobbFendley Job: 1703-011-01
Re: North Mays Extension Phase I

Oncor's Utility Agreement

ATTENTION: Eddie Church 512-744-9082

WE ARE SENDING YOU THE FOLLOWING VIA: hand delivered

Prints Originals Other _____

QUANTITY	DESCRIPTION
5	Oncor's - Utility Agreement Package

PURPOSE OF TRANSMITTAL:

- For Approval
- For Your Use
- As Requested
- For Review & Comment

Mr. Chruch:
Please see the attached Oncor's Utility Agreement Package for the above project. We have reviewed and approved Atmos' Utility Agreement Package with the eiligibility ratio of 85.71%, which make the agreement reimbursable in the amount of \$170,896.38.

If you have any questions, please let me know.

Thank you,

Copy To File

Received By: _____
Date & Time: _____

SIGNED Melissa Horn
Melissa Horn, Principal

Commissioners Court - Regular Session

30.

Meeting Date: 08/15/2017

1604-075 CR 110 South Change Order No 1

Submitted By: Dawn Haggard, Road Bond

Department: Road Bond

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action regarding Change Order No. 1 in the amount of -\$5,837.31 for CR 110 South, a Road Bond Project in Commissioner Pct 4.

Background

This Change Order modifies the outfall location of Box Culvert 6 to match existing conditions per the request of the downstream property owner. This redesign resulted in a decrease of the total box culvert length and quantity changes for various other drainage structure items. This Change Order also provides a correction to Mozart Street, which was constructed after the design of CR 110 South. Additional plan sheets showing the required tie-in details were added to the plan set and issued to the Contractor for construction. This Change Order documents the required Contract changes and provides payment specifics for the Contractor. The new Contract items are required for the required plan revisions. The unit rates submitted by the Contractor are consistent with the TxDOT average low bid unit prices.

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

1604-075 CR 110S - Change Order No 1

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Dawn Haggard

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:27 AM

Started On: 08/09/2017 02:58 PM

RECEIVED
AUG 07 2017
BY: PST

Received
WILLIAMSON COUNTY, TEXAS
CHANGE ORDER NUMBER: 1

Received
AUG 02 2017

- 1. CONTRACTOR: Chasco Constructors *HNTB Corporation Round Rock*
- 2. Change Order Work Limits: Sta. 208+00 to Sta. 217+00
- 3. Type of Change(on federal-aid non-exempt projects): Minor (Major/Minor)
- 4. Reasons: 1A, 4B (3 Max. - In order of importance - Primary first)

Project: 1604-075
HNTB Corporation Round Rock
 Roadway: CR 110 South
 CSJ Number: _____

5. Describe the work being revised:

1A: Design Error or Omission. Incorrect PS&E. The proposed flow of water from Box Culvert 6 went through the middle of the property; therefore, a redesign and relocation of Culvert 6 was necessary. **4B: Third Party Accommodation. Third party requested work.** The property owner at the downstream end of the proposed culvert requested that the water flow around his property limits, as it does in the current conditions. **2C: Differing Site Conditions. New development (conditions changing after PS&E completed)** The Mozart Street connection to CR 110 South was permitted and built after the completion of the CR 110 South roadway plans and plan revisions were required to tie-in properly.

- 6. Work to be performed in accordance with Items: See attached
- 7. New or revised plan sheet(s) are attached and numbered: 5, 14, 16, 29, 40, 49, 103, 107, 147, 155, 157, 158, 159, 162, 242, 265; X-sections: 86, 87, 88, 89, 90, 91, 92, 93, 94, 95.
- 8. New Special Provisions/Specifications to the contract are attached: No
- 9. New Special Provisions to Item N/A No. N/A, Special Specification Item N/A are attached.

Each signatory hereby warrants that each has the authority to execute this Change Order (CO).

<p><i>The contractor must sign the Change Order and, by doing so, agrees to waive any and all claims for additional compensation due to any and all other expenses; additional changes for time, overhead and profit; or loss of compensation as a result of this change.</i></p> <p>THE CONTRACTOR _____ Date <u>8-2-17</u></p> <p>By <u>Chuck Glue</u></p> <p>Typed/Printed Name <u>Chuck Glue</u></p> <p>Typed/Printed Title <u>President</u></p>	<p>The following information must be provided</p> <p>Time Ext. #: <u>N/A</u> Days added on this CO: <u>0</u></p> <p>Amount added by this change order: <u>(\$5,837.31)</u></p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

RECOMMENDED FOR EXECUTION:

Christina A. Eschberger 8/3/17
 Project Manager Date

N/A
 Design Engineer Date

M. J. W... 8/7/2017
 Program Manager Date

Design Engineer's Seal:
See attached plan sheets

County Commissioner Precinct 1		Date
<input type="checkbox"/>	APPROVED	<input type="checkbox"/>
		REQUEST APPROVAL
County Commissioner Precinct 2		Date
<input type="checkbox"/>	APPROVED	<input type="checkbox"/>
		REQUEST APPROVAL
County Commissioner Precinct 3		Date
<input type="checkbox"/>	APPROVED	<input type="checkbox"/>
		REQUEST APPROVAL
County Commissioner Precinct 4		Date
<input type="checkbox"/>	APPROVED	<input type="checkbox"/>
		REQUEST APPROVAL
County Judge		Date
<input type="checkbox"/>	APPROVED	

WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 1

Project # 1604-075

TABLE A: Force Account Work and Materials Placed into Stock

	LABOR	HOURLY RATE		HOURLY RATE

TABLE B: Contract Items:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/ UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
0104 6022	REMOVING CONC (CURB AND GUTTER)	LF	\$8.00	212	\$1,696.00	204.00	416.00	\$3,328.00	\$1,632.00
0104 6036	REMOVING CONC (SIDEWALK OR RAMP)	SY	\$9.00	28	\$252.00	79.00	107.00	\$963.00	\$711.00
0105 6011	REMOVING STAB BASE AND ASPH PAV (2"-6")	SY	\$3.25	2,571	\$8,355.75	615.00	3,186.00	\$10,354.50	\$1,998.75
0110 6001	EXCAVATION (ROADWAY)	CY	\$8.25	67,838.00	\$559,663.50	891.00	68,729.00	\$567,014.25	\$7,350.75
0132 6003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	\$7.35	44,359.00	\$326,038.65	2,644.00	47,003.00	\$345,472.05	\$19,433.40
0160-WC02	FURNISHING AND PLACING TOPSOIL	SY	\$1.40	117,748.00	\$164,847.20	(1,976.00)	115,772.00	\$162,080.80	(\$2,766.40)
0164-WC01	SEEDING FOR EROSION CONTROL (TY 4)	SY	\$0.16	58,874.00	\$9,419.84	(988.00)	57,886.00	\$9,261.76	(\$158.08)
0164-WC07	SEEDING FOR EROSION CONTROL (TY 7)	SY	\$0.84	117,748.00	\$98,908.32	(1,976.00)	115,772.00	\$97,248.48	(\$1,659.84)
0164-WC10	SEEDING FOR EROSION CONTROL (TY 10)	SY	\$0.13	58,874.00	\$7,653.62	(988.00)	57,886.00	\$7,525.18	(\$128.44)
0168-WC01	VEGETATIVE WATERING	MG	\$16.00	3,533.00	\$56,528.00	(58.90)	3,474.10	\$55,585.60	(\$942.40)
0310 6027	PRIME COAT(MC-30 OR AE-P)	GAL	\$4.00	13,306	\$53,224.00	55.00	13,361.00	\$53,444.00	\$220.00
0316 6005	ASPH (TIER II)	GAL	\$3.05	14,939	\$45,563.95	69.00	15,008.00	\$45,774.40	\$210.45
0316 6193	AGGR(TY-D GR-5 SAC-B)	CY	\$100.00	400	\$40,000.00	2.00	402.00	\$40,200.00	\$200.00
0341 6008	D-GR HMA TY-B PG64-22	TON	\$60.00	15,780	\$946,800.00	221.00	16,001.00	\$960,060.00	\$13,260.00
0341 6027	D-GR HMA TY-C SAC-B PG70-22	TON	\$75.00	6,877	\$515,775.00	32.00	6,909.00	\$518,175.00	\$2,400.00
0401 6001	FLOWABLE BACKFILL	CY	\$114.00	405.00	\$46,170.00	10.00	415.00	\$47,310.00	\$1,140.00
TOTALS					\$2,880,895.83			\$2,923,797.02	\$42,901.19

WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 1

Project # 1604-075

TABLE B: Contract Items (Continued)

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/ UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
0402 6001	TRENCH EXCAVATION PROTECTION	LF	\$1.00	2,625	\$2,625.00	100.00	2,725.00	\$2,725.00	\$100.00
0432 6001	RIPRAP (CONC)(4 IN)	CY	\$360.00	1,377	\$495,720.00	(17.00)	1,360.00	\$489,600.00	(\$6,120.00)
0462 6011	CONC BOX CULV (6 FT X 4 FT)	LF	\$277.00	310.00	\$85,870.00	(138.00)	172.00	\$47,644.00	(\$38,226.00)
0464 6005	RC PIPE (CL III)(24 IN)	LF	\$55.00	1,143.00	\$62,865.00	73.00	1,216.00	\$66,880.00	\$4,015.00
0464 6007	RC PIPE (CL III)(30 IN)	LF	\$70.00	258.00	\$18,060.00	(95.00)	163.00	\$11,410.00	(\$6,650.00)
0467 6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	\$2,200.00	56.00	\$123,200.00	(4.00)	52.00	\$114,400.00	(\$8,800.00)
0496 6007	REMOV STR (PIPE)	LF	\$16.00	947	\$15,152.00	126.00	1,073.00	\$17,168.00	\$2,016.00
0529 6008	CONC CURB & GUTTER (TY II)	LF	\$12.50	8,730	\$109,125.00	33.00	8,763.00	\$109,537.50	\$412.50
0530 6005	DRIVEWAYS (ACP)	SY	\$47.00	3,049.00	\$143,303.00	(5.00)	3,044.00	\$143,068.00	(\$235.00)
0531 6004	CURB RAMPS (TY 1)	EA	\$850.00	4	\$3,400.00	2.00	6.00	\$5,100.00	\$1,700.00
0531 6016	CURB RAMPS (TY 21)	EA	\$2,475.00	0	\$0.00	1.00	1.00	\$2,475.00	\$2,475.00
0644 6071	RELOCATE SM RD SN SUP&AM TY TWT	EA	\$370.00	0	\$0.00	1.00	1.00	\$370.00	\$370.00
0666 6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	\$7.00	433	\$3,031.00	24.00	457.00	\$3,199.00	\$168.00
0666 6182	REFL PAV MRK TY II (W) 24" (SLD)	LF	\$1.50	433	\$649.50	24.00	457.00	\$685.50	\$36.00
The "Totals" from Table B of the previous work sheet:						\$2,880,895.83		\$2,923,797.02	\$42,901.19
TOTALS						\$3,943,896.33		\$3,938,059.02	(\$5,837.31)

CHANGE ORDER REASON(S) CODE CHART

<p>1. Design Error or Omission</p>	<p>1A. Incorrect PS&E 1B. Other</p>
<p>2. Differing Site Conditions (unforeseeable)</p>	<p>2A. Dispute resolution (expense caused by conditions and/or resulting delay) 2B. Unavailable material 2C. New development (conditions changing after PS&E completed) 2D. Environmental remediation 2E. Miscellaneous difference in site conditions (unforeseeable)(Item 9) 2F. Site conditions altered by an act of nature 2G. Unadjusted utility (unforeseeable) 2H. Unacquired Right-of-Way (unforeseeable) 2I. Additional safety needs (unforeseeable) 2J. Other</p>
<p>3. County Convenience</p>	<p>3A. Dispute resolution (not resulting from error in plans or differing site conditions) 3B. Public relations improvement 3C. Implementation of a Value Engineering finding 3D. Achievement of an early project completion 3E. Reduction of future maintenance 3F. Additional work desired by the County 3G. Compliance requirements of new laws and/or policies 3H. Cost savings opportunity discovered during construction 3I. Implementation of improved technology or better process 3J. Price adjustment on finished work (price reduced in exchange for acceptance) 3K. Addition of stock account or material supplied by state provision 3L. Revising safety work/measures desired by the County 3M. Other</p>
<p>4. Third Party Accommodation</p>	<p>4A. Failure of a third party to meet commitment 4B. Third party requested work 4C. Compliance requirements of new laws and/or policies (impacting third party) 4D. Other</p>
<p>5. Contractor Convenience</p>	<p>5A. Contractor exercises option to change the traffic control plan 5B. Contractor requested change in the sequence and/or method of work 5C. Payment for Partnering workshop 5D. Additional safety work/measures desired by the contractor 5E. Other</p>
<p>6. Untimely ROW/Utilities</p>	<p>6A. Right-of-Way not clear (third party responsibility for ROW) 6B. Right-of-Way not clear (County responsibility for ROW) 6C. Utilities not clear 6D. Other</p>

Williamson County Road Bond Program

**County Road 110 South
Williamson County Project No. 1604-075**

Change Order No. 1

Reason for Change

This Change Order modifies the outfall location of Box Culvert 6 to match existing conditions, per the request of the downstream property owner. This redesign resulted in a decrease of the total box culvert length and quantity changes for various other drainage structure items.

This Change Order also provides a correction to Mozart Street, which was constructed after the design of CR 110 South. Additional plan sheets showing the required tie-in details were added to the plan set and issued to the Contractor for construction. This Change Order documents the required Contract changes and provides payment specifics for the Contractor. The following new Contract items are required for the required plan revisions. The unit rates submitted by the Contractor are consistent with the TxDOT average low bid unit prices.

Following is a summary of new items required for this Change Order.

ITEM	DESCRIPTION	QTY	UNIT
0531 6016	CURB RAMPS (TY 21)	1	EA
0644 6071	RELOCATE SM RD SN SUP&AM TY TWT	1	EA

This Change Order results in a net decrease of \$5,837.31 to the Contract amount, for an adjusted Contract total of \$11,218,751.71. The original Contract amount was \$11,224,589.02. Because of this and all Change Orders to-date, \$5,837.31 has been removed from the Contract, resulting in a 0.05% net decrease in the Contract cost. No additional days will be added to or deducted from the Contract as a result of this Change Order.

HNTB Corporation

James Klotz, P.E.

AVERAGE LOW BID UNIT PRICE - CONSTRUCTION - AUSTIN DISTRICT

531 6016	CURB RAMPS (TY 21)	EA		4.000		913.71000	1
644 6071	RELOCATE SM RD SN SUP&AM TY TWT	EA		26.000		193.00000	3

AVERAGE LOW BID UNIT PRICE - CONSTRUCTION – STATEWIDE

531 6016	CURB RAMPS (TY 21)	EA	19.000	1,698.81474	124.000	2,029.59097	33			
644 6071	RELOCATE SM RD SN SUP&AM TY TWT	EA	5.000	481.25000	161.000	253.10559	15			

TABLE B: Contract Items:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
0110 6001	EXCAVATION (ROADWAY)	CY	\$8.25	67,838.00	\$559,663.50	752.00	68,590.00	\$565,867.50	\$6,204.00
0132 6003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	\$7.35	44,359.00	\$326,038.65	2,602.00	46,961.00	\$345,163.35	\$19,124.70
0160-WC02	FURNISHING AND PLACING TOPSOIL	SY	\$1.40	117,748.00	\$164,847.20	(1,994.00)	115,754.00	\$162,055.60	(\$2,791.60)
0164-WC01	SEEDING FOR EROSION CONTROL (TY 4)	SY	\$0.16	58,874.00	\$9,419.84	(997.00)	57,877.00	\$9,260.32	(\$159.52)
0164-WC07	SEEDING FOR EROSION CONTROL (TY 7)	SY	\$0.84	117,748.00	\$98,908.32	(1,994.00)	115,754.00	\$97,233.36	(\$1,674.96)
0164-WC10	SEEDING FOR EROSION CONTROL (TY 10)	SY	\$0.13	58,874.00	\$7,653.62	(997.00)	57,877.00	\$7,524.01	(\$129.61)
0168-WC01	VEGETATIVE WATERING	MG	\$16.00	3,532.60	\$56,521.60	(59.90)	3,472.70	\$55,563.20	(\$958.40)
0401 6001	FLOWABLE BACKFILL	CY	\$114.00	405.00	\$46,170.00	(4.00)	401.00	\$45,714.00	(\$456.00)
0462 6011	CONC BOX CULV (6 FT X 4 FT)	LF	\$277.00	310.00	\$85,870.00	(138.00)	172.00	\$47,644.00	(\$38,226.00)
0464 6005	RC PIPE (CL III)(24 IN)	LF	\$55.00	1,143.00	\$62,865.00	(43.00)	1,100.00	\$60,500.00	(\$2,365.00)
0464 6007	RC PIPE (CL III)(30 IN)	LF	\$70.00	258.00	\$18,060.00	(95.00)	163.00	\$11,410.00	(\$6,650.00)
0467 6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	\$2,200.00	56.00	\$123,200.00	(6.00)	50.00	\$110,000.00	(\$13,200.00)
0530 6005	DRIVEWAYS (ACP)	SY	\$47.00	3,049.00	\$143,303.00	(5.00)	3,044.00	\$143,068.00	(\$235.00)
TOTALS					\$1,702,520.73			\$1,661,003.34	(\$41,517.39)

RFI #2 Quantity Changes Box Culvert #6 Redesign		BID	CHANGE ORDER	QUANTITY	QUANTITY	DELTA
ITEM	DESCRIPTION	UNIT	QUANTITY	QUANTITY	QUANTITY	DELTA
0110 6001	EXCAVATION (ROADWAY)	CY	67838	68590	752	
0132 6003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	44359	46961	2602	
0160-WC02	FURNISHING AND PLACING TOPSOIL	SY	117748	115754	-1994	
0164-WC01	SEEDING FOR EROSION CONTROL (TY 4)	SY	58874	57877	-997	
0164-WC07	SEEDING FOR EROSION CONTROL (TY 7)	SY	117748	115754	-1994	
0164-WC10	SEEDING FOR EROSION CONTROL (TY 10)	SY	58874	57877	-997	
0168-WC01	VEGETATIVE WATERING	MG	3532.6	3472.7	-59.9	
0401 6001	FLOWABLE BACKFILL	CY	405	401	-4	
0462 6011	CONC BOX CULV (6 FT X 4 FT)	LF	310	172	-138	
0464 6005	RC PIPE (CL III)(24 IN)	LF	1143	1100	-43	
0464 6007	RC PIPE (CL III)(30 IN)	LF	258	163	-95	
0467 6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	56	50	-6	
0530 6005	DRIVEWAYS (ACP)	SY	3049	3044	-5	

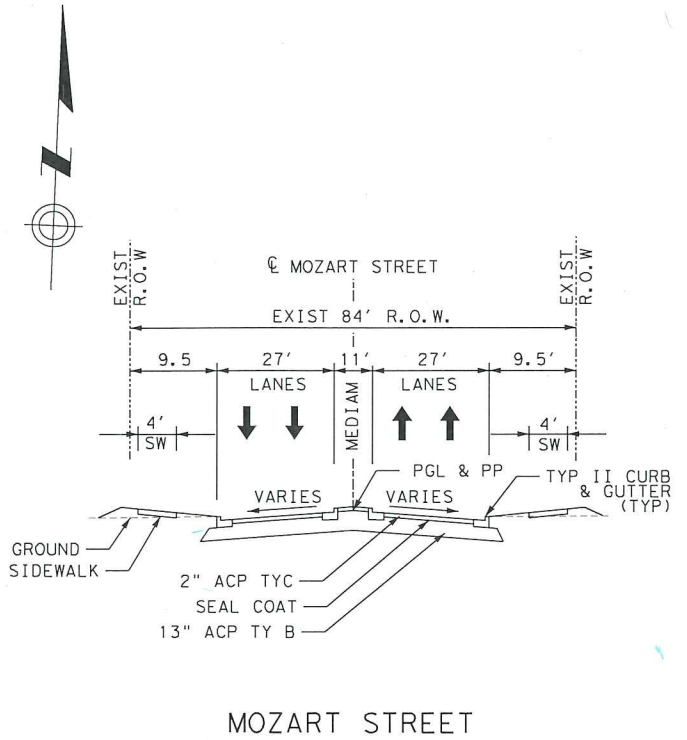
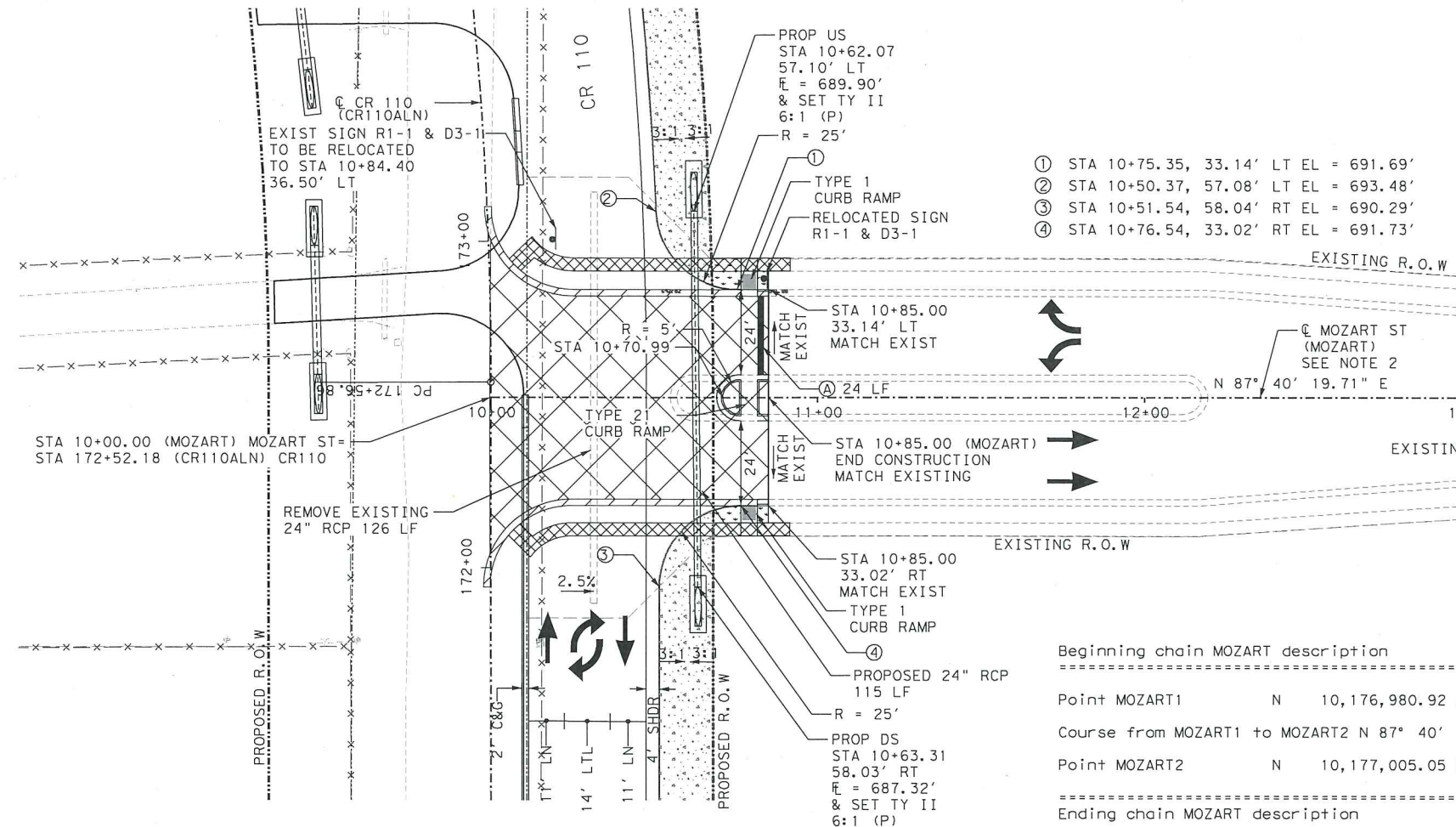
TABLE B: Contract Items (Continued)

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
0104 6022	REMOVING CONC (CURB AND GUTTER)	LF	\$8.00	212	\$1,696.00	204.00	416.00	\$3,328.00	\$1,632.00
0104 6036	REMOVING CONC (SIDEWALK OR RAMP)	SY	\$9.00	28	\$252.00	79.00	107.00	\$963.00	\$711.00
0105 6011	REMOVING STAB BASE AND ASPH PAV (2'-6")	SY	\$3.25	2,571	\$8,355.75	615.00	3,186.00	\$10,354.50	\$1,998.75
0110 6001	EXCAVATION (ROADWAY)	CY	\$8.25	67,838	\$559,663.50	139.00	67,977.00	\$560,810.25	\$1,146.75
0132 6003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	\$7.35	44,359	\$326,038.65	42.00	44,401.00	\$326,347.35	\$308.70
0160-WC02	FURNISHING AND PLACING TOPSOIL	SY	\$1.40	117,748	\$164,847.20	18.00	117,766.00	\$164,872.40	\$25.20
0164-WC01	SEEDING FOR EROSION CONTROL (TY 4)	SY	\$0.16	58,874	\$9,419.84	9.00	58,883.00	\$9,421.28	\$1.44
0164-WC07	SEEDING FOR EROSION CONTROL (TY 7)	SY	\$0.84	117,748	\$98,908.32	18.00	117,766.00	\$98,923.44	\$15.12
0164-WC10	SEEDING FOR EROSION CONTROL (TY 10)	SY	\$0.13	58,874	\$7,653.62	9.00	58,883.00	\$7,654.79	\$1.17
0168-WC01	VEGETATIVE WATERING	MG	\$16.00	3,533	\$56,528.00	1.00	3,534.00	\$56,544.00	\$16.00
0310 6027	PRIME COAT(MC-30 OR AE-P)	GAL	\$4.00	13,306	\$53,224.00	55.00	13,361.00	\$53,444.00	\$220.00
0316 6005	ASPH (TIER II)	GAL	\$3.05	14,939	\$45,563.95	69.00	15,008.00	\$45,774.40	\$210.45
0316 6193	AGGR(TY-D GR-5 SAC-B)	CY	\$100.00	400	\$40,000.00	2.00	402.00	\$40,200.00	\$200.00
0341 6008	D-GR HMA TY-B PG64-22	TON	\$60.00	15,780	\$946,800.00	221.00	16,001.00	\$960,060.00	\$13,260.00
0341 6027	D-GR HMA TY-C SAC-B PG70-22	TON	\$75.00	6,877	\$515,775.00	32.00	6,909.00	\$518,175.00	\$2,400.00
0401 6001	FLOWABLE BACKFILL	CY	\$114.00	405	\$46,170.00	14.00	419.00	\$47,766.00	\$1,596.00
0402 6001	TRENCH EXCAVATION PROTECTION	LF	\$1.00	2,625	\$2,625.00	100.00	2,725.00	\$2,725.00	\$100.00
0432 6001	RIPRAP (CONC)(4 IN)	CY	\$360.00	1,377	\$495,720.00	(17.00)	1,360.00	\$489,600.00	(\$6,120.00)
0464 6005	RC PIPE (CL III)(24 IN)	LF	\$55.00	1,143	\$62,865.00	116.00	1,259.00	\$69,245.00	\$6,380.00
0467 6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	\$2,200.00	56	\$123,200.00	2.00	58.00	\$127,600.00	\$4,400.00
0496 6007	REMOV STR (PIPE)	LF	\$16.00	947	\$15,152.00	126.00	1,073.00	\$17,168.00	\$2,016.00
0529 6008	CONC CURB & GUTTER (TY II)	LF	\$12.50	8,730	\$109,125.00	33.00	8,763.00	\$109,537.50	\$412.50
0531 6004	CURB RAMPS (TY 1)	EA	\$850.00	4	\$3,400.00	2.00	6.00	\$5,100.00	\$1,700.00
0531 6016	CURB RAMPS (TY 21)	EA	\$2,475.00	0	\$0.00	1.00	1.00	\$2,475.00	\$2,475.00
0644 6071	RELOCATE SM RD SN SUP&AM TY TWT	EA	\$370.00	0	\$0.00	1.00	1.00	\$370.00	\$370.00
0666 6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	LF	\$7.00	433	\$3,031.00	24.00	457.00	\$3,199.00	\$168.00
0666 6182	REFL PAV MRK TY II (W) 24" (SLD)	LF	\$1.50	433	\$649.50	24.00	457.00	\$685.50	\$36.00
TOTALS					\$3,696,663.33			\$3,732,343.41	\$35,680.08

RFI #3 Quantity Changes
Mozart Street Tie-in

ITEM	DESCRIPTION	UNIT	QUANTITY	QUANTITY	QUANTITY	DELTA
0104 6022	REMOVING CONC (CURB AND GUTTER)	LF	212	416	204	
0104 6036	REMOVING CONC (SIDEWALK OR RAMP)	SY	28	107	79	
0105 6011	REMOVING STAB BASE AND ASPH PAV (2'-6")	SY	2571	3186	615	
0110 6001	EXCAVATION (ROADWAY)	CY	68590	68729	139	
0132 6003	EMBANKMENT (FINAL)(ORD COMP)(TY B)	CY	46961	47003	42	
0160-WC02	FURNISHING AND PLACING TOPSOIL	SY	115754	115772	18	
0164-WC04	SEEDING FOR EROSION CONTROL (TY 4)	SY	57877	57886	9	
0164-WC07	SEEDING FOR EROSION CONTROL (TY 7)	SY	115754	115772	18	
0164-WC10	SEEDING FOR EROSION CONTROL (TY 10)	SY	57877	57886	9	
0168-WC01	VEGETATIVE WATERING	MG	3473	3474	1	
0310 6027	PRIME COAT(MC-30 OR AE-P)	GAL	13306	13361	55	
0316 6005	ASPH (TIER II)	GAL	14939	15008	69	
0316 6193	AGGR(TY-D GR-5 SAC-B)	CY	400	402	2	
0341 6008	D-GR HMA TY-B PG64-22	TON	15780	16001	221	
0341 6027	D-GR HMA TY-C SAC-B PG70-22	TON	6877	6909	32	
0401 6001	FLOWABLE BACKFILL	CY	401	415	14	
0402 6001	TRENCH EXCAVATION PROTECTION	LF	2625	2725	100	
0432 6001	RIPRAP (CONC)(4 IN)	CY	1377	1360	-17	
0464 6005	RC PIPE (CL III)(24 IN)	LF	1100	1216	116	
0467 6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	50	52	2	
0496 6007	REMOV STR (PIPE)	LF	947	1073	126	
0529 6008	CONC CURB & GUTTER (TY II)	LF	8730	8763	33	
0531 6004	CURB RAMPS (TY 1)	EA	4	6	2	
0531 6016	CURB RAMPS (TY 21)	EA	0	1	1	
0644 6071	RELOCATE SM RD SN SUP&AM TY TWT	EA	0	1	1	
0666 6148	REFL PAV MRK TY I (Y)36"(SLD)(060MIL)	LF	433	457	24	
0666 6182	REFL PAV MRK TY II (W) 24" (SLD)	LF	433	457	24	

FILE: pw:\us-hou-pw01.dannnbaum\local\dannnbaum\Documents\Trns\pwr\4862-01\Design\Side Streets\4862MOZART.rvt.dgn
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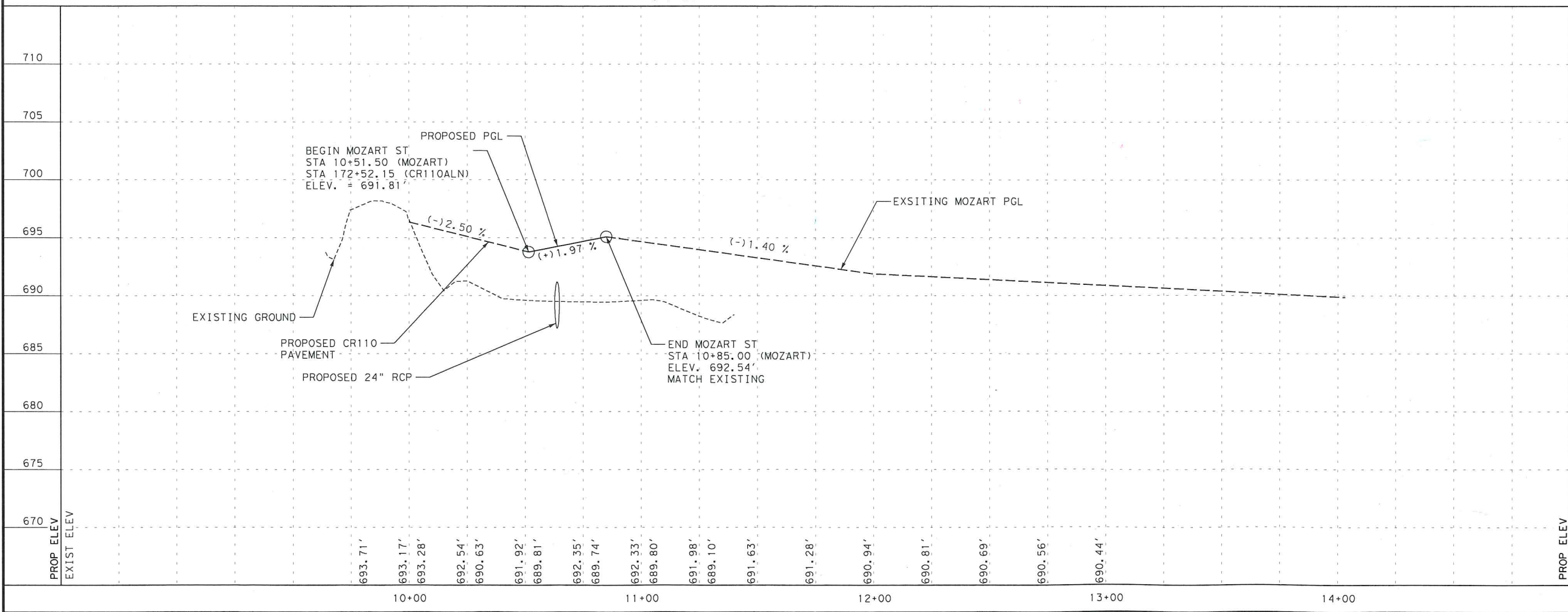
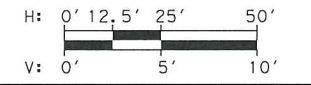


- LEGEND**
- REMOVE PAVEMENT
 - REMOVE SIDEWALK CONC OR RAMP
 - REMOVE CONC (CURB & GUTTER)
 - PROPOSED 4" CONC RIPRAP
 - VEGETATION
 - REFL PAV MRK TY I (W) 24" (SLD)

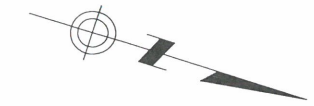
- NOTES:**
1. ALL WORK TO BE COORDINATED WITH ANY ONGOING UTILITY RELOCATIONS AND WITH ANY WORK ASSOCIATED WITH ADJACENT PROJECTS.
 2. EXISTING MOZART STREET SHOWN BASED ON SIENA SECTION 20 PLANS. CONTRACTOR TO TIE AND MATCH EXISTING MOZART STREET SECTION.
 3. CONTRACTOR TO FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
 4. CONSTRUCT MOZART STREET INTERSECTION DURING PHASE I USING "INTERSECTION PHASING" SHEET DETAIL SHEET 52
 5. CONTRACTOR TO SALVAGE AND RE-USE EXISTING LANDSCAPING ROCKS ON MOZART MEDIAN ISLAND

- ① STA 10+75.35, 33.14' LT EL = 691.69'
- ② STA 10+50.37, 57.08' LT EL = 693.48'
- ③ STA 10+51.54, 58.04' RT EL = 690.29'
- ④ STA 10+76.54, 33.02' RT EL = 691.73'

Beginning chain MOZART description
 =====
 Point MOZART1 N 10,176,980.92 E 3,156,708.68 Sta 10+00.00
 Course from MOZART1 to MOZART2 N 87° 40' 19.71" E Dist 594.13
 Point MOZART2 N 10,177,005.05 E 3,157,302.31 Sta 15+94.13
 =====
 Ending chain MOZART description



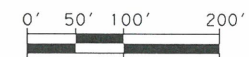
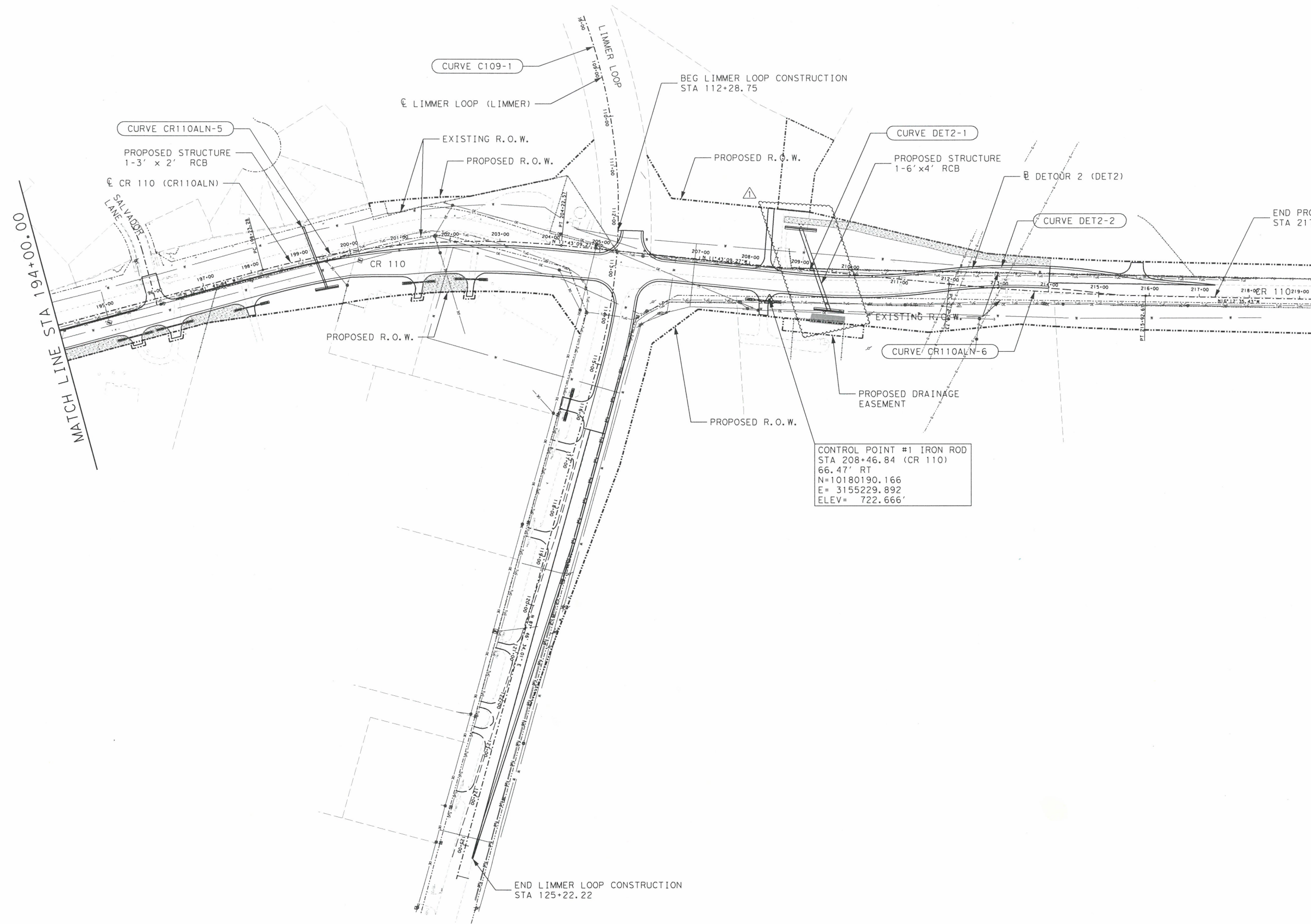
710	710	<p><i>Tommy Levario</i> 3-10-17</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>BY</th> <th>REV</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DATE	BY	REV	REVISION										
DATE	BY		REV	REVISION												
705	705															
700	700															
695	695															
690	690															
685	685	<p>DANNENBAUM ENGINEERING COMPANY - AUSTIN, LLC T.B.P.E. FIRM REGISTRATION #8995 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8995</p>														
680	680	<p>© 2015 BY WILLIAMSON COUNTY, TEXAS; ALL RIGHTS RESERVED.</p>														
675	675	<p>CR 110 SOUTH</p> <p>ROADWAY PLAN AND PROFILE</p> <p>MOZART ST</p> <p>SCALE: HORIZONTAL 1"=50' VERTICAL 1"=10'</p>														
670	670	<p>SHEET 12A OF 12</p> <table border="1"> <tr> <td>DESIGNED:</td> <td>NA</td> </tr> <tr> <td>DRAWN:</td> <td>NA</td> </tr> <tr> <td>CHECKED:</td> <td>TL</td> </tr> <tr> <td>STATE:</td> <td>COUNTY:</td> <td>PRECINCT:</td> <td>SHEET NO.:</td> </tr> <tr> <td>TEXAS</td> <td>WILLIAMSON</td> <td>4</td> <td>105A</td> </tr> </table>	DESIGNED:	NA	DRAWN:	NA	CHECKED:	TL	STATE:	COUNTY:	PRECINCT:	SHEET NO.:	TEXAS	WILLIAMSON	4	105A
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DRAWN:	NA															
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STATE:	COUNTY:	PRECINCT:	SHEET NO.:													
TEXAS	WILLIAMSON	4	105A													



Received

NOV 14 2016

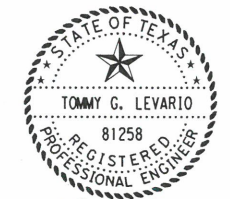
HNTB Corporation
Round Rock



NOTE:

ALL PROJECT COORDINATES ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD-83 (1993)/NAVD-88, U.S. SURVEY FEET. ALL DISTANCES AND COORDINATES SHOWN HEREON ARE SURFACE VALUES AND MAY BE CONVERTED TO GRID BY DIVIDING BY A COMBINED ADJUSTMENT FACTOR OF 1.00012.

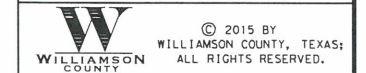
SEE HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA.



Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
ENGINEERING COMPANY - AUSTIN, LLC
T.B.P.E. FIRM REGISTRATION #8995
3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505



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**CR 110 SOUTH
PROJECT LAYOUT
AND
SURVEY CONTROL**

STA 194+00 TO END

SCALE: HORIZONTAL 1"=200'

SHEET 3 OF 3

DESIGNED:	PRP		
DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	5

ROADWAY SUMMARY

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	0100 6002	0110 6001	0132 6003	0247 6044	0260 6001	0260 6027	0310 6027	0316 6005	0316 6193	0341 6008	0341 6027	0432 6001	0432 6045
			PREPARING ROW	EXCAVATION (ROADWAY)	EMBANKMENT (FINAL) (ORD COMP) (TY B)	FL BS (CMP IN PLC) (TYA GR 4) (FNAL POS)	LIME (HYDRATED LIME (DRY))	LIME TRT (EXST MATL) (8")	PRIME COAT (MC-30 OR AE-P)	ASPH (TIER II)	AGGR (TY-D GR-5 SAC-B)	D-GR HMA TY-B PG64-22	D-GR HMA TY-C SAC-B PG70-22	RIPRAP (CONC) (4 IN)	RIPRAP (MOW STRIP) (4 IN)
			STA	CY	CY	CY	TON	SY	GAL	GAL	CY	TON	TON	CY	CY
1 OF 12	CR110ALN	98+86.87 TO 110+00.00	11.0	6586	9437	1974	82	4553	888	1109	30	1403	510		14
2 OF 12	CR110ALN	110+00.00 TO 122+00.00	12.0	7386	1820	2919	121	6725	1313	1329	36	1242	612	224	
3 OF 12	CR110ALN	122+00.00 TO 134+00.00	12.0	5009	1720	2816	117	6497	1267	1413	38	1532	650	55	11
4 OF 12	CR110ALN	134+00.00 TO 146+00.00	12.0	394	15096	2890	120	6674	1301	1445	39	1662	665		5
5 OF 12	CR110ALN	146+00.00 TO 158+00.00	12.0	4546	2199	2837	118	6547	1277	1419	38	1555	653	219	
6 OF 12	CR110ALN	158+00.00 TO 170+00.00	12.0	4700	1886	2889	120	6662	1300	1351	36	1265	622	222	
7 OF 12	CR110ALN	170+00.00 TO 182+00.00	12.0	6584	2290	3067	127	7063	1380	1439	38	1346	663	109	
8 OF 12	CR110ALN	182+00.00 TO 194+00.00	12.0	8355	2042	2925	121	6738	1316	1340	36	1251	617	259	
9 OF 12	CR110ALN	194+00.00 TO 206+00.00	12.0	13069	2868	2994	124	6878	1347	1629	43	1592	750	119	
10 OF 12	CR110ALN	206+00.00 TO 218+50.00	12.0	6304	7556	2181	91	5030	982	1146	31	1107	528	97	
11 OF 12	CR122	10+99.80 TO 13+50.00	3.0	1259	41	266	11	606	120	317	8	635	146		
12 OF 12	LIMMER	112+28.75 TO 125+22.22	13.0	4398	6	1812	75	4180	815	1002	27	1190	461		
PROJECT TOTALS			135.0	68590	46961	29570	1227	68153	13306	14939	400	15780	6877	1304	30

ROADWAY SUMMARY CON'T

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	0529 6008	0530 6004	0530 6005	0530 6016	0531 6002	0531 6004	0540 6001	0540 6016	0540 6021	0544 6001	0618 6029	0624 6009
			CONC CURB & GUTTER (TY 11)	DRIVEWAYS (CONC)	DRIVEWAYS (ACP)	DRIVEWAYS (BASE)	CONC SIDEWALKS (5")	CURB RAMPS (TY 1)	MTL W-BEAM GD FEN (TIM POST)	DOWNSTREAM ANCHOR TERMINAL SECTION	MTL THRIE-BEAM GD FEN (TIM POST)	GUARDRAIL END TREATMENT (INSTALL)	CONDT (PVC) (SCH 40) (3")	GROUND BOX TY D (162922)
			LF	SY	SY	SY	SY	EA	LF	EA	EA	EA	LF	EA
1 OF 12	CR110ALN	98+86.87 TO 110+00.00	323		441		318		225	1	1	1	560	2
2 OF 12	CR110ALN	110+00.00 TO 122+00.00	1157		339		83							
3 OF 12	CR110ALN	122+00.00 TO 134+00.00	1013		513		6	2	325			1		
4 OF 12	CR110ALN	134+00.00 TO 146+00.00	1437			10				1				
5 OF 12	CR110ALN	146+00.00 TO 158+00.00	1093		135									
6 OF 12	CR110ALN	158+00.00 TO 170+00.00	990		539									
7 OF 12	CR110ALN	170+00.00 TO 182+00.00	949	143	142	177								
8 OF 12	CR110ALN	182+00.00 TO 194+00.00	1200	175	144			100	1		1			
9 OF 12	CR110ALN	194+00.00 TO 206+00.00	568	191	274								1635	4
10 OF 12	CR110ALN	206+00.00 TO 218+50.00		124	305									
11 OF 12	CR122	10+99.80 TO 13+50.00			32									
12 OF 12	LIMMER	112+28.75 TO 125+22.22			180									
PROJECT TOTALS			8730	633	3044	177	417	4	650.0	3	1	4	2195	6

SMALL STRUCTURE SUMMARY

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	0401 6001	0402 6001	0432 6002	0462 6001	0462 6008	0462 6011	0464 6026	0464 6003	0464 6005	0464 6007
			FLOWABLE BACKFILL	TRENCH EXCAVATION PROTECTION	RIPRAP (CONC) (5 IN)	CONC BOX CULV (3 FT X 2 FT)	CONC BOX CULV (5 FT X 4 FT)	CONC BOX CULV (6 FT X 4 FT)	RC PIPE (CL V) (24 IN)	RC PIPE (CL III) (18 IN)	RC PIPE (CL III) (24 IN)	RC PIPE (CL III) (30 IN)
			CY	LF	CY	LF	LF	LF	LF	LF	LF	LF
1 OF 12	CR110ALN	98+86.87 TO 110+00.00	102	126					222			126
2 OF 12	CR110ALN	110+00.00 TO 122+00.00	14	118							104	
3 OF 12	CR110ALN	122+00.00 TO 134+00.00	37	142								
4 OF 12	CR110ALN	134+00.00 TO 146+00.00		50	44		160			50		
5 OF 12	CR110ALN	146+00.00 TO 158+00.00	8	95								
6 OF 12	CR110ALN	158+00.00 TO 170+00.00	21	321							90	126
7 OF 12	CR110ALN	170+00.00 TO 182+00.00		237							237	
8 OF 12	CR110ALN	182+00.00 TO 194+00.00	30	183	7	114					183	
9 OF 12	CR110ALN	194+00.00 TO 206+00.00	47	220	9	130					220	
10 OF 12	CR110ALN	206+00.00 TO 218+50.00	3	37	26			172			26	37
11 OF 12	CR122	10+99.80 TO 13+50.00		26							26	
12 OF 12	LIMMER	112+28.75 TO 125+22.22	3	40							40	
PROJECT TOTALS			271	1595	86	244	160	172	222	50	1144	163

SMALL STRUCTURE SUMMARY CON'T

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	0464 6008	0465 6014	0466 6178	0466 6179	0466 6182	0466 6183	0466 6184	0467 6395	0467 6423	0467 6453	0467 6454
			RC PIPE (CL III) (36 IN)	INLET (COMPL) (PCO) (3 FT) (LEFT)	WINGWALL (PW - 1) (HW=3 FT)	WINGWALL (PW - 1) (HW=4 FT)	WINGWALL (PW - 1) (HW=7 FT)	WINGWALL (PW - 1) (HW=8 FT)	WINGWALL (PW - 1) (HW=9 FT)	SET (TYP II) (24 IN) (RCP) (6: 1) (P)	SET (TYP II) (30 IN) (RCP) (6: 1) (P)	SET (TYP II) (36 IN) (RCP) (6: 1) (C)	SET (TYP II) (36 IN) (RCP) (6: 1) (P)
			LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
1 OF 12	CR110ALN	98+86.87 TO 110+00.00								6			
2 OF 12	CR110ALN	110+00.00 TO 122+00.00		2						6			
3 OF 12	CR110ALN	122+00.00 TO 134+00.00	38							4		1	
4 OF 12	CR110ALN	134+00.00 TO 146+00.00					2						
5 OF 12	CR110ALN	146+00.00 TO 158+00.00	95								4		
6 OF 12	CR110ALN	158+00.00 TO 170+00.00	105							4	8		4
7 OF 12	CR110ALN	170+00.00 TO 182+00.00								6			
8 OF 12	CR110ALN	182+00.00 TO 194+00.00				1				8			
9 OF 12	CR110ALN	194+00.00 TO 206+00.00			1					10			
10 OF 12	CR110ALN	206+00.00 TO 218+50.00						1	1		2		
11 OF 12	CR122	10+99.80 TO 13+50.00								4			
12 OF 12	LIMMER	112+28.75 TO 125+22.22								2			
PROJECT TOTALS			238	2	1	1	2	1	1	50	14	1	4

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DATE	BY	REV	REVISION
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05/23/17	NA	2	CULVERT 2-2 REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505

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CR 110 SOUTH

QUANTITY SHEETS

SHEET 2 OF 4

DESIGNED:	RP		
DRAWN:	RP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	14

EROSION CONTROL SUMMARY

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	PERMANENT					
			0160-WC02 FURNISHING AND PLACING TOPSOIL	0161-WC01 3" EROSION CONTROL COMPOST (ECC) *	0164-WC07 SEEDING FOR EROSION CONTROL (TY 7)	0168-WC01 VEGETATIVE WATERING	0169 6001 RETENTION BLANKETS (CL 1) (TYA)	0432 6031 RIPRAP (STONE PROTECTION) (12 IN)
			SY	SY	SY	MG	SY	CY
1 OF 6	CR110ALN	99+40.00 TO 122+00.00	19398	19398	19398	388.0	7437	1
2 OF 6	CR110ALN	110+00.00 TO 146+00.00	23827	23827	23827	476.5	12367	118
3 OF 6	CR110ALN	146+00.00 TO 170+00.00	19877	19877	19877	397.5	7106	
4 OF 6	CR110ALN	170+00.00 TO 194+00.00	21174	21174	21174	423.5	7784	
5 OF 6	CR110ALN	194+00.00 TO 217+31.00	26103	26103	26103	522.1	10431	295
6 OF 6	LIMMER	112+28.75 TO 125+22.22	5375	5375	5375	107.5	2073	
PROJECT TOTALS			115754	115754	115754	2315.1	47198	414

* FOR CONTRACTORS INFORMATION ONLY

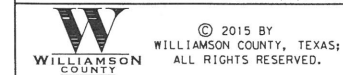
EROSION CONTROL SUMMARY CON'T

PLAN SHEET NUMBER	ALIGNMENT	STATIONS	TEMPORARY										
			0164-WC04 SEEDING FOR EROSION CONTROL (TY 4)	0164-WC10 SEEDING FOR EROSION CONTROL (TY 10)	0168-WC01 VEGETATIVE WATERING	0432 6031 RIPRAP (STONE PROTECTION) (12 IN)	0496 6072 REMOVING ROCK RIPRAP	0506 6003 ROCK FILTER DAMS (INSTALL) (TY 3)	0506 6011 ROCK FILTER DAMS (REMOVE)	0506 6020 CONSTRUCTION EXITS (INSTALL) (TY 1)	0506 6024 CONSTRUCTION EXITS (REMOVE)	0506 6041 BIODEG EROSN CONT LOGS (INSTL) (12")	0506 6043 BIODEG EROSN CONT LOGS (REMOVE)
			SY	SY	MG	CY	LF	LF	LF	SY	SY	LF	LF
1 OF 6	CR110ALN	99+40.00 TO 122+00.00	9699.0	9699.0	194.0	153	148	68	68	500	500	3723	3723
2 OF 6	CR110ALN	110+00.00 TO 146+00.00	11913.5	11913.5	238.3			86	86			2882	2882
3 OF 6	CR110ALN	146+00.00 TO 170+00.00	9938.5	9938.5	198.8			21	21			3336	3336
4 OF 6	CR110ALN	170+00.00 TO 194+00.00	10587.0	10587.0	211.7			26	26			2396	2396
5 OF 6	CR110ALN	194+00.00 TO 217+31.00	13051.5	13051.5	261.0			35	35			2158	2158
6 OF 6	LIMMER	112+28.75 TO 125+22.22	2687.5	2687.5	53.8							125	125
PROJECT TOTALS			57877	57877	1157.6	153	148	236	236	500	500	14620	14620

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DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505



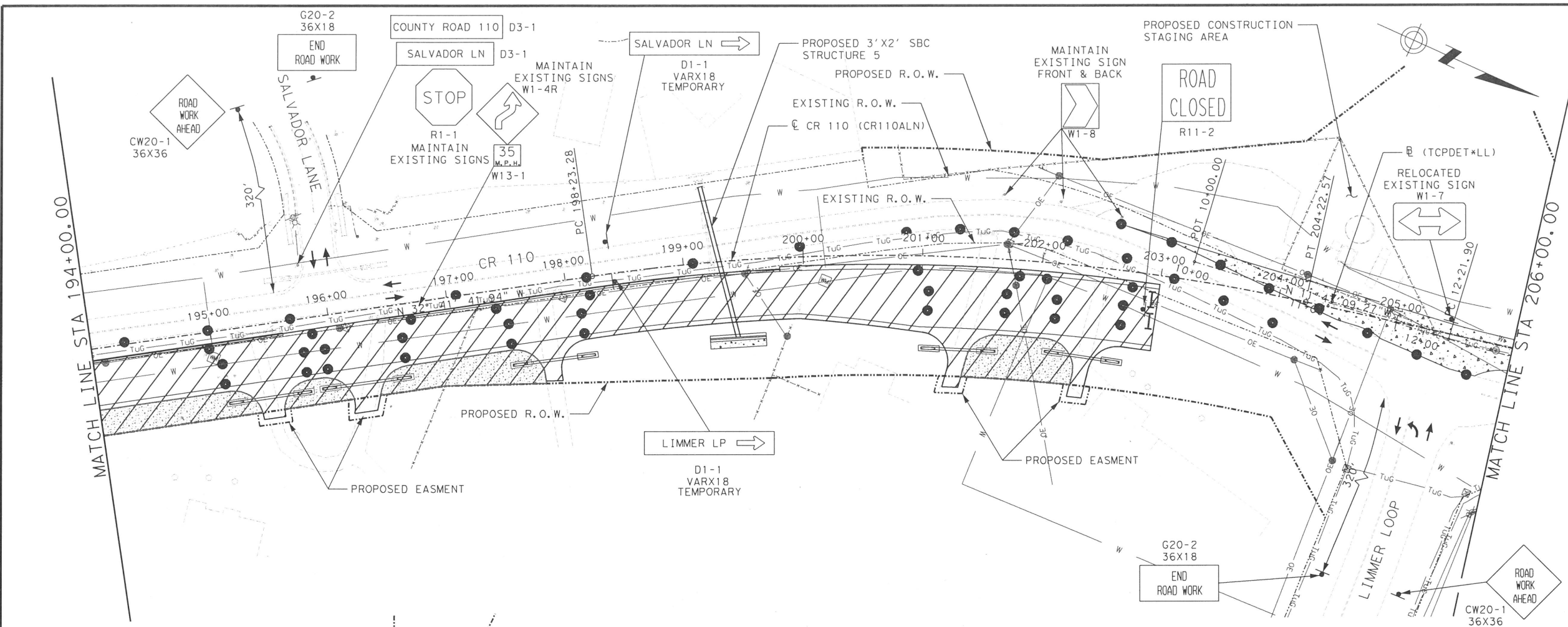
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CR 110 SOUTH
 QUANTITY SHEETS

SHEET 4 OF 4

DESIGNED:	RP		
DRAWN:	RP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	16

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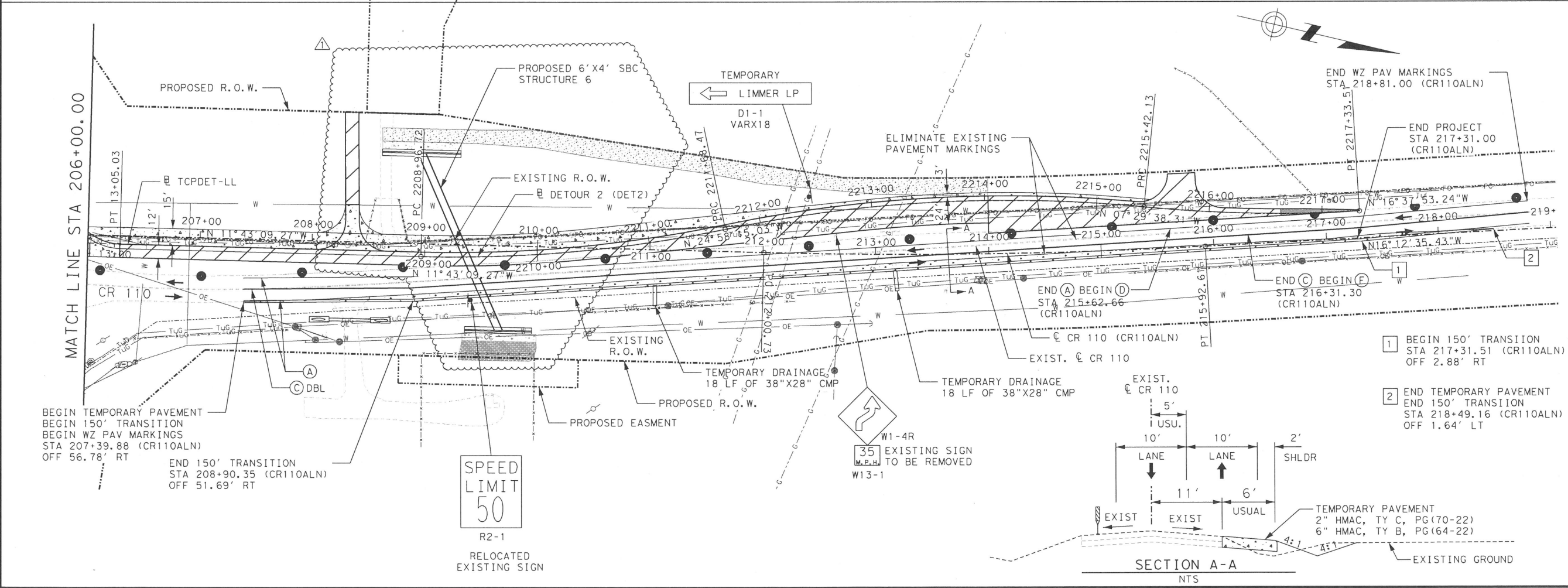


LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- TEMP PAVEMENT THIS PHASE
- TEMP PAVEMENT PREVIOUS PHASE
- REMOVE EXISTING PAVEMENT
- HMAC BASE

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (C) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (F) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (G) ELIM EXT PAV MRK & MRKS (4")
- (H) ELIM EXT PAV MRK & MRKS (24")
- I TYPE III BARRICADE
- ⬇ SIGN
- ➔ TRAFFIC FLOW
- CHANNELIZING DEVICES
45' C-C ON TAPER
90' C-C ON TANGENT

H: 0' 25' 50' 100'



Tommy G. Levario
11/2/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505

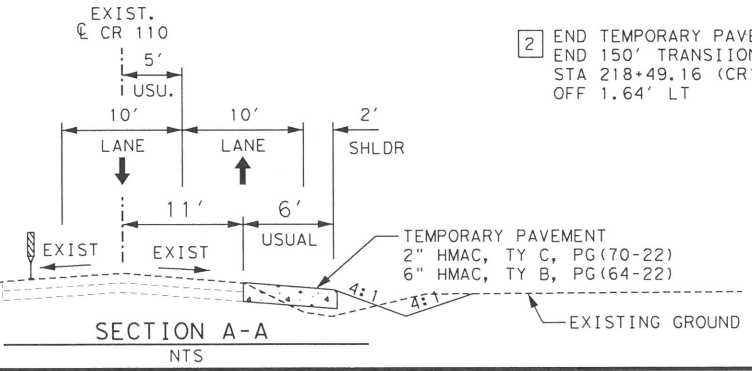
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CR 110 SOUTH TRAFFIC CONTROL PHASE I PLANS

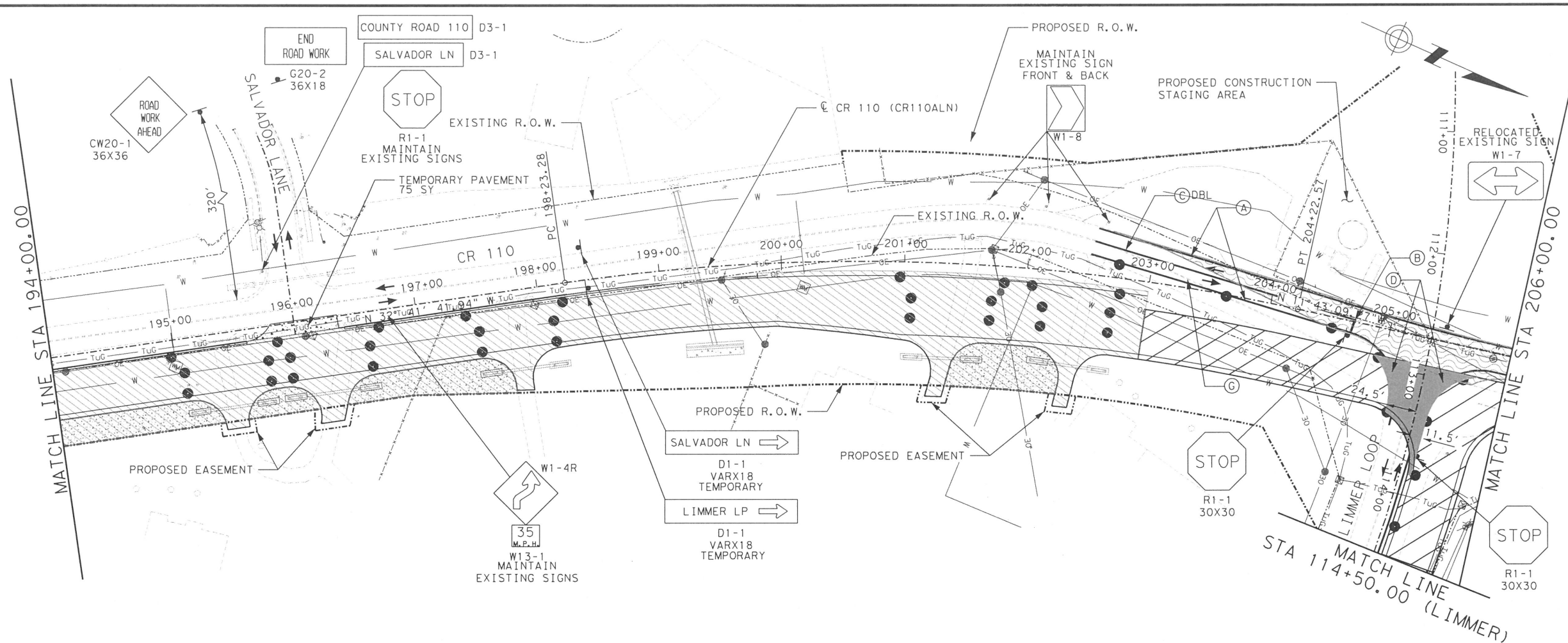
STA 194+00 TO STA END
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SHEET 5 OF 5

DESIGNED:	TGL		
DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	29



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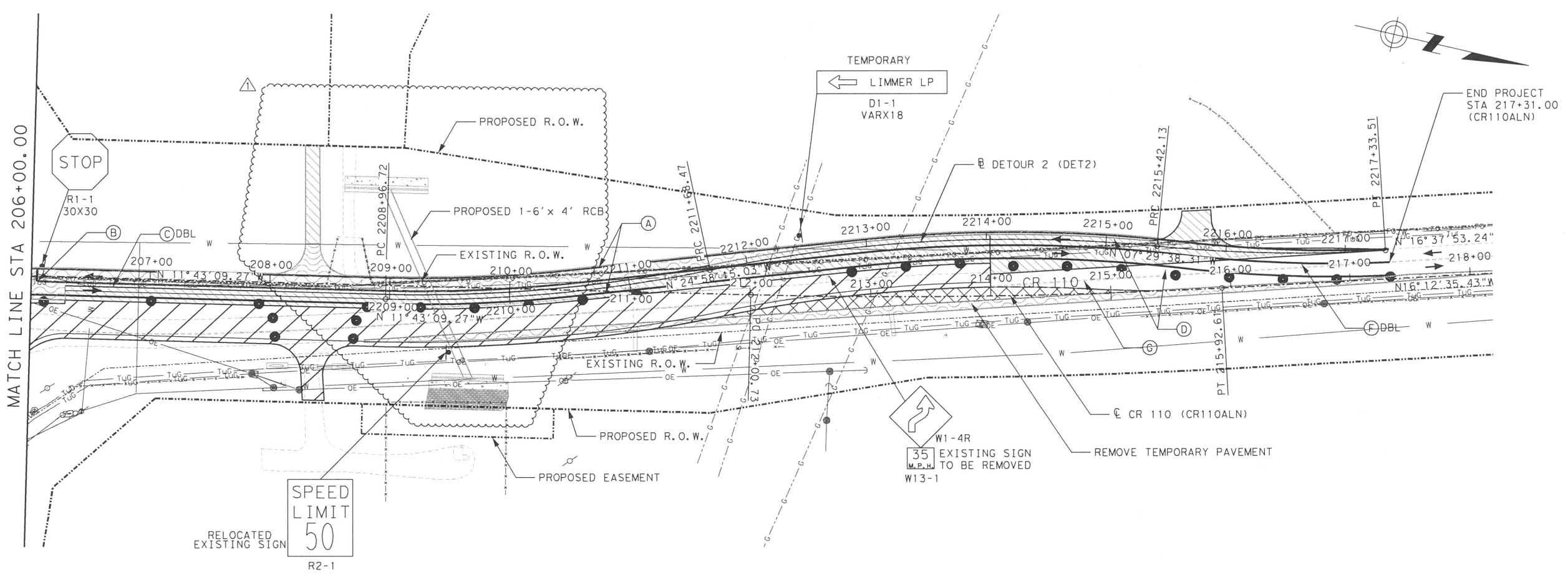


LEGEND

- CONSTRUCTION THIS PHASE
- CONSTRUCTION PREVIOUS PHASE
- TEMP PAVEMENT THIS PHASE
- TEMP PAVEMENT PREVIOUS PHASE
- REMOVE EXISTING PAVEMENT
- HMAC BASE

- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (C) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (F) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (G) ELIM EXT PAV MRK & MRKS (4")
- (H) ELIM EXT PAV MRK & MRKS (24")
- I TYPE III BARRICADE
- ⊥ SIGN
- TRAFFIC FLOW
- CHANNELIZING DEVICES
45' C-C ON TAPER
90' C-C ON TANGENT

H: 0' 25' 50' 100'



Tommy G. Levario
11/2/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3499 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505

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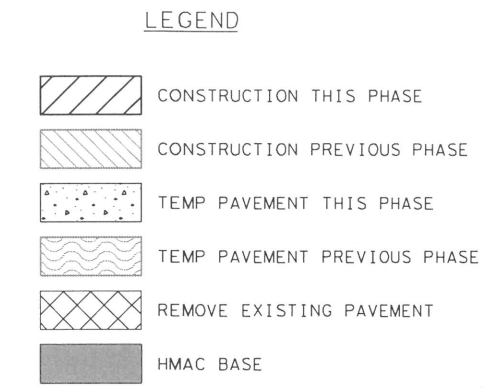
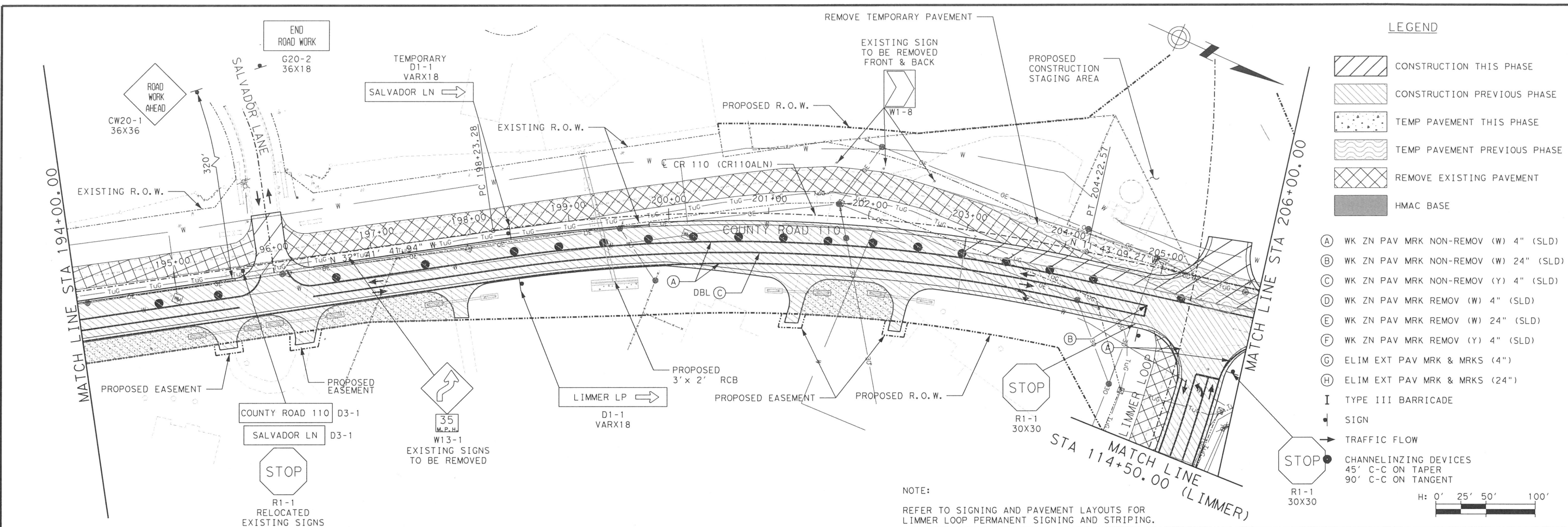
CR 110 SOUTH TRAFFIC CONTROL PHASE II PLANS

STA 194+00 TO STA END
 SCALE: HORIZONTAL 1"=100'

SHEET 5 OF 6

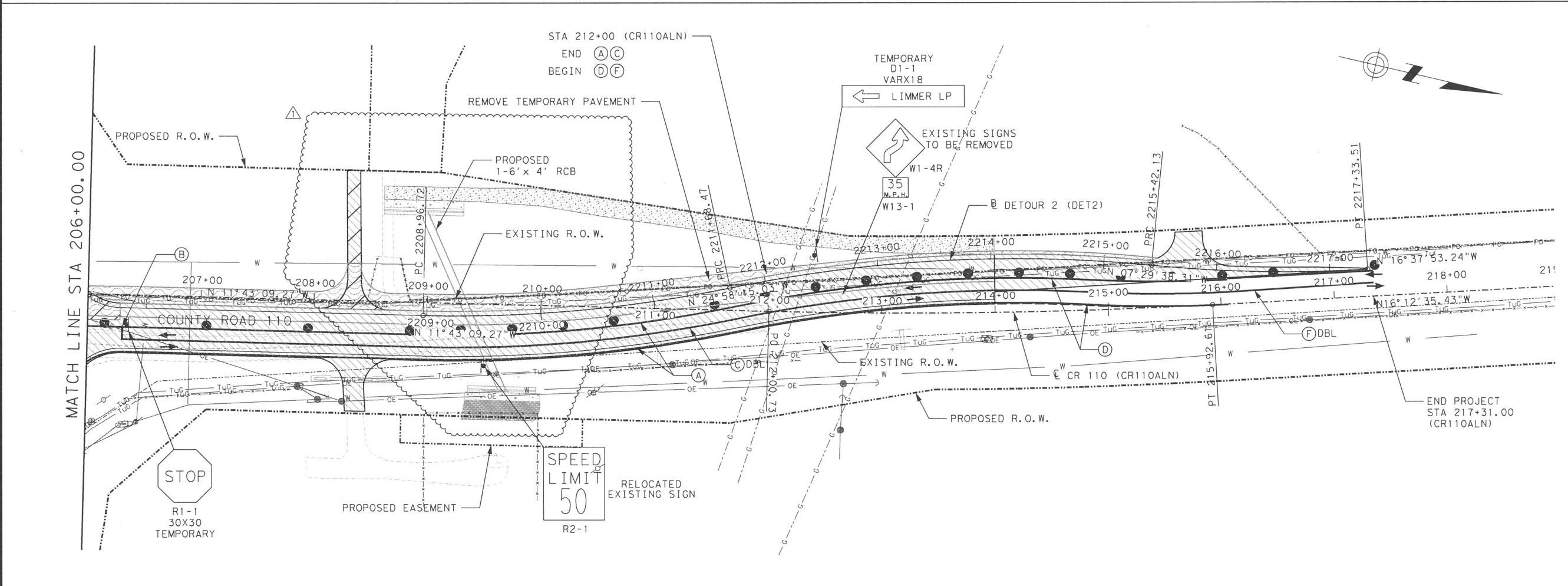
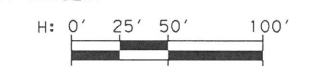
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DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	40

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 DATE: 11/11/2016 TIME: 1:06:25 PM USER: najib.azouggagh



- (A) WK ZN PAV MRK NON-REMOV (W) 4" (SLD)
- (B) WK ZN PAV MRK NON-REMOV (W) 24" (SLD)
- (C) WK ZN PAV MRK NON-REMOV (Y) 4" (SLD)
- (D) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (E) WK ZN PAV MRK REMOV (W) 24" (SLD)
- (F) WK ZN PAV MRK REMOV (Y) 4" (SLD)
- (G) ELIM EXT PAV MRK & MRKS (4")
- (H) ELIM EXT PAV MRK & MRKS (24")
- I TYPE III BARRICADE
- ◆ SIGN
- TRAFFIC FLOW
- CHANNELIZING DEVICES
 45' C-C ON TAPER
 90' C-C ON TANGENT

NOTE:
 REFER TO SIGNING AND PAVEMENT LAYOUTS FOR
 LIMMER LOOP PERMANENT SIGNING AND STRIPING.



Tommy G. Levario
 11/2/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-4505

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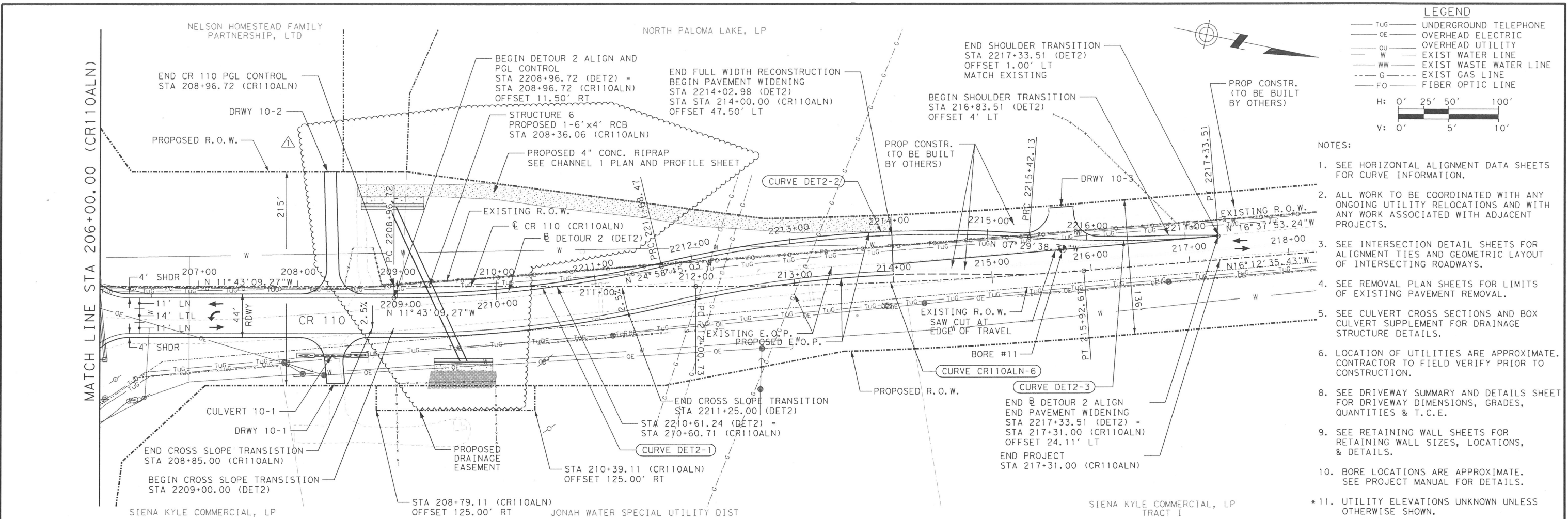
**CR 110 SOUTH
 TRAFFIC CONTROL
 PHASE III
 PLANS**

STA 194+00 TO STA END
 SCALE: HORIZONTAL 1"=100'

SHEET 5 OF 6

DESIGNED:	TGL		
DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	49

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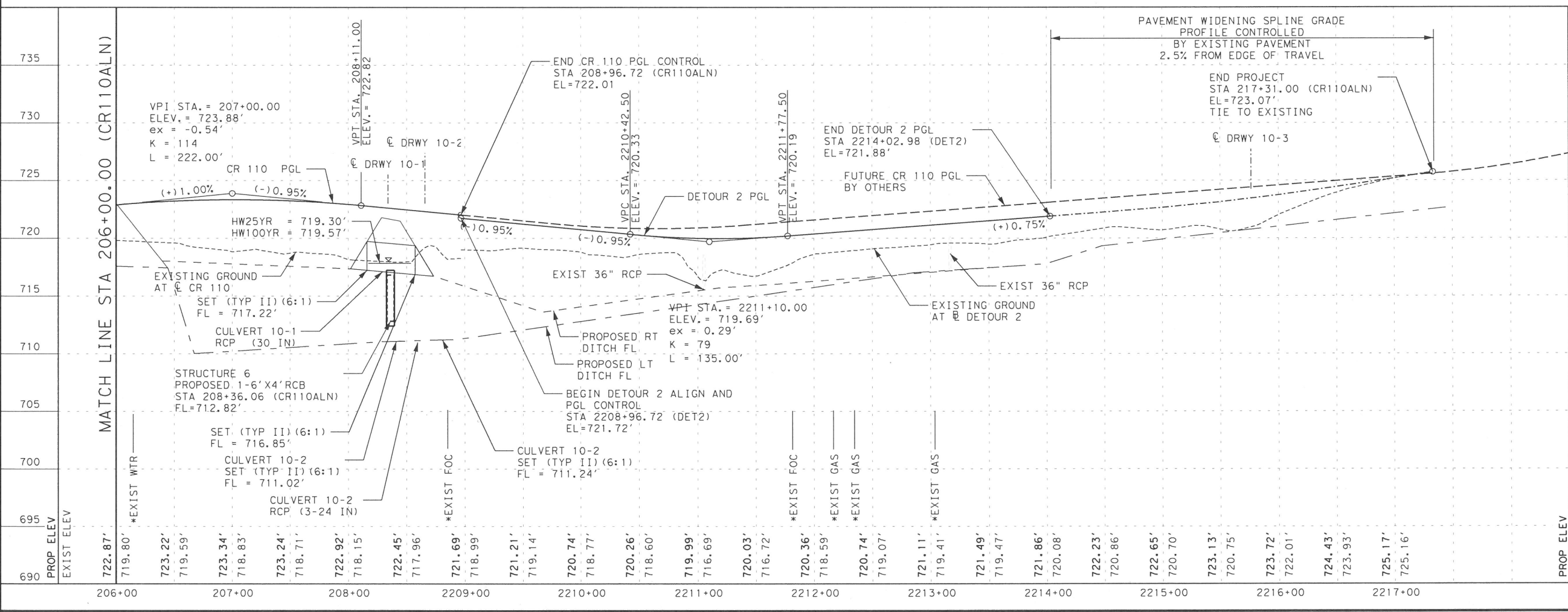
LEGEND

- TUG UNDERGROUND TELEPHONE
- OE OVERHEAD ELECTRIC
- OU OVERHEAD UTILITY
- W EXIST WATER LINE
- WW EXIST WASTE WATER LINE
- G EXIST GAS LINE
- FO FIBER OPTIC LINE

H: 0' 25' 50' 100'
 V: 0' 5' 10'

NOTES:

- SEE HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE INFORMATION.
- ALL WORK TO BE COORDINATED WITH ANY ONGOING UTILITY RELOCATIONS AND WITH ANY WORK ASSOCIATED WITH ADJACENT PROJECTS.
- SEE INTERSECTION DETAIL SHEETS FOR ALIGNMENT TIES AND GEOMETRIC LAYOUT OF INTERSECTING ROADWAYS.
- SEE REMOVAL PLAN SHEETS FOR LIMITS OF EXISTING PAVEMENT REMOVAL.
- SEE CULVERT CROSS SECTIONS AND BOX CULVERT SUPPLEMENT FOR DRAINAGE STRUCTURE DETAILS.
- LOCATION OF UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.
- SEE DRIVEWAY SUMMARY AND DETAILS SHEET FOR DRIVEWAY DIMENSIONS, GRADES, QUANTITIES & T.C.E.
- SEE RETAINING WALL SHEETS FOR RETAINING WALL SIZES, LOCATIONS, & DETAILS.
- BORE LOCATIONS ARE APPROXIMATE. SEE PROJECT MANUAL FOR DETAILS.
- UTILITY ELEVATIONS UNKNOWN UNLESS OTHERWISE SHOWN.



STATE OF TEXAS
 TOMMY G. LEVARIQ
 81258
 REGISTERED PROFESSIONAL ENGINEER
 Tommy Levario
 11/2/16

DATE	BY	REVISION
11/02/16	NA	1 CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8995

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CR 110 SOUTH
ROADWAY PLAN AND PROFILE
 STA 206+00 TO END
 SCALE: HORIZONTAL 1"=100'
 VERTICAL 1"=10'

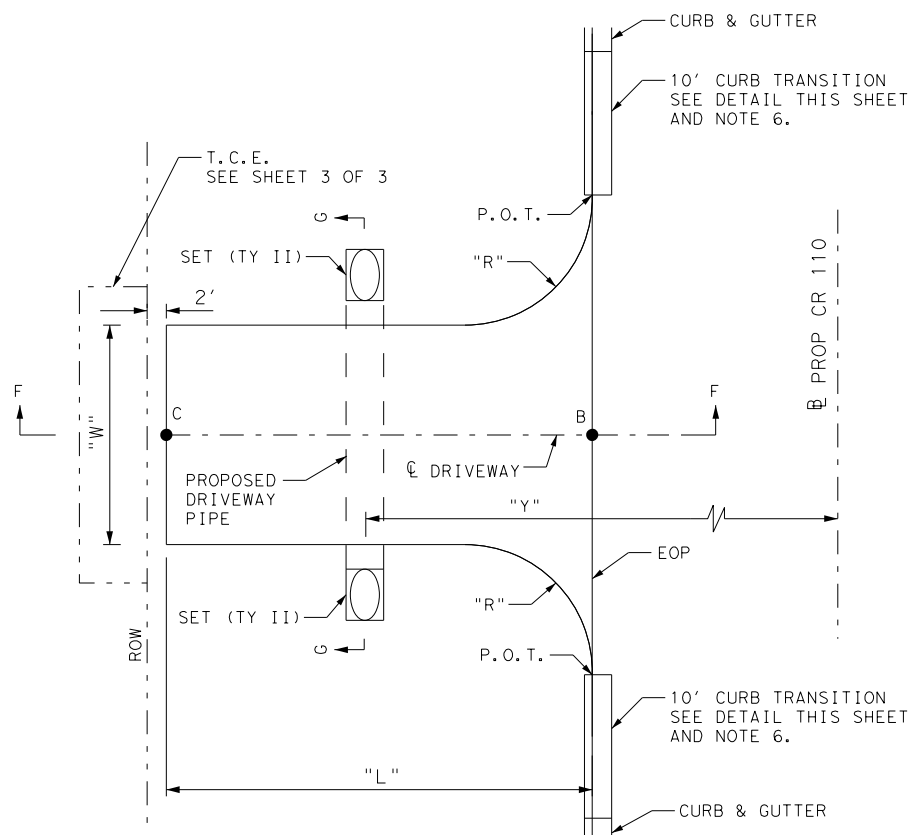
SHEET 10 OF 12

DESIGNED:	TGL		
DRAWN:	PRP		
CHECKED:	GV		
STATE:	COUNTY:	PRECINCT:	SHEET NO.:
TEXAS	WILLIAMSON	4	103

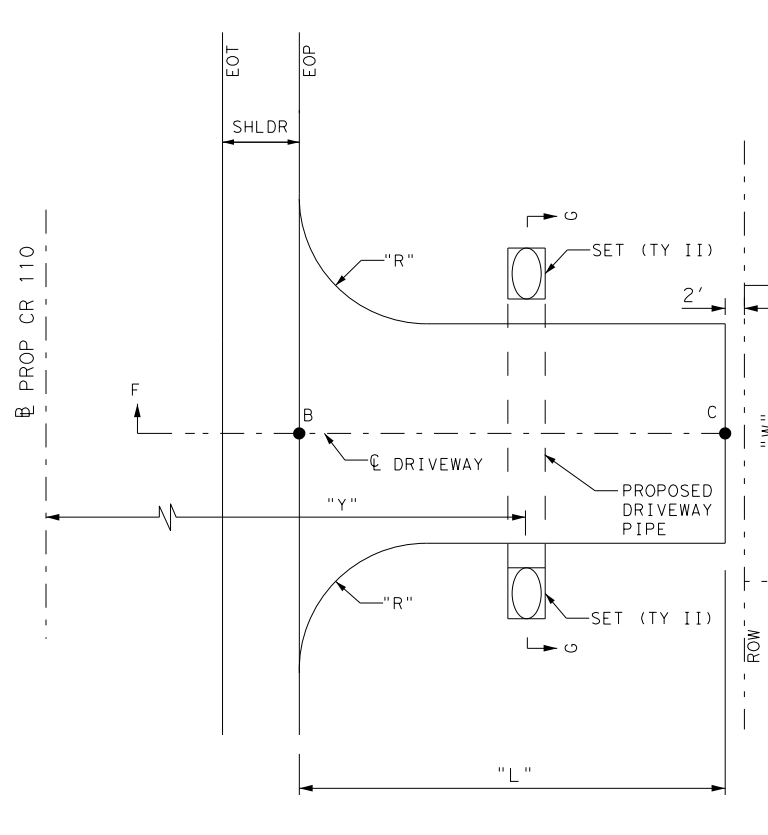
DRIVEWAY SUMMARY

PLAN AND PROFILE SHEET	DRIVEWAY NO.	COMM/ RESD	ALIGN.	STATION	LEFT OR RIGHT	DRIVEWAY DIMENSIONS					0530 * 6004	0530 * 6005	0530 * 6016	0464 * 6005	0464 * 6007	0464 * 6008	0467 * 6395	0467 * 6423	0467 * 6454
						DRIVE WIDTH (W)	DRIVE LENGTH (L)	DRIVE RADIUS (R)	CULVERT OFFSET (Y)	GRADE B-C	DRIVEWAYS (CONC)	DRIVEWAYS (ACP)	DRIVEWAYS (BASE)	RC PIPE (CL III) (24 IN)	RC PIPE (CL III) (30 IN)	RC PIPE (CL III) (36 IN)	SET (TY II) (24 IN) (RCP) (6: 1) (P)	SET (TY II) (30 IN) (RCP) (6: 1) (P)	SET (TY II) (36 IN) (RCP) (6: 1) (P)
						LF	LF	LF	LF	%	SY	SY	SY	LF	LF	LF	EA	EA	EA
1 OF 12	1-1	R	DET1	2101+93.88	RT	12.00	70.00	25.00	33.70	-0.84		151					2		
	1-2	C	DET1	2102+31.73	LT	30.00	62.00	30.00	56.90	2.97		290					2		
2 OF 12	2-1	C	CR110ALN	111+27.68	LT	20.00	76.00	25L & 50R	54.36	-1.90		244					4		
	2-2	R	CR110ALN	120+88.72	RT	17.00	32.20	25.00	66.71	-0.54		95					2		
3 OF 12	3-1	R	CR110ALN	124+44.60	LT	24.00	76.00	25.00	50.15	1.90		233					2		
	3-2	C	CR110ALN	126+81.50	LT	30.00	75.00	25.00	50.97	2.40		280					2		
5 OF 12	5-1	R	CR110ALN	154+74.75	LT	12.00	77.00	25.00	44.20	-0.23		135			95				4
	6-1	R	CR110ALN	158+01.83	LT	12.00	76.50	25.00	46.79	0.44		133			105				4
6 OF 12	6-2	R	CR110ALN	163+28.84	LT	13.00	76.00	25.00	52.74	0.50		140		66			4		
	6-3	R	CR110ALN	165+27.15	LT	12.00	76.00	25.00	52.33	0.40		140		60			4		
7 OF 12	6-4	R	CR110ALN	169+81.31	LT	12.00	72.00	25.00	51.71	2.10		126				4			
	7-1	R	CR110ALN	172+85.79	LT	13.00	76.40	25.00	53.30	0.40		142				2			
8 OF 12	7-2	R	CR110ALN	173+74.89	LT	17.00	76.30	25.00	52.63	-0.45			177			2			
	7-3	C	CR110ALN	179+76.35	RT	30.00	30.00	30.00	73.61	-2.38	143					2			
9 OF 12	8-1	C	CR110ALN	183+14.01	RT	24.00	25.00	25.00	65.88	-1.77	97					2			
	8-2	R	CR110ALN	186+68.28	RT	12.00	30.00	25.00	67.86	5.65		72				2			
10 OF 12	8-3	R	CR110ALN	189+00.76	RT	15.00	25.20	25.00	65.70	7.59		72				2			
	8-4	R	CR110ALN	192+21.00	RT	17.00	25.00	25.00	65.57	7.01		78				2			
11 OF 12	9-1	C	CR110ALN	195+41.20	RT	18.00	27.64	25.00	68.35	5.99		81				2			
	9-2	C	CR110ALN	196+32.36	RT	18.00	35.60	25.00	85.01	5.73	110					2			
12 OF 12	9-3	R	CR110ALN	197+79.44	RT	14.00	30.60	25.00	69.44	5.40		78				2			
	9-4	R	CR110ALN	201+38.40	RT	13.00	46.76	25.00	77.55	9.63		103				2			
13 OF 12	9-5	R	CR110ALN	202+44.59	RT	12.00	46.63	25.00	80.08	10.17		93				2			
	10-1	C	CR110ALN	208+34.12	RT	18.00	46.70	25.00	69.53	2.62	124			43			2		
14 OF 12	10-2	R	CR110ALN	208+35.13	LT	12.00	123.20	25.00		6.25		195							
	10-3	R	DET2	2215+76.42	LT	24.00	28.80	25.00		4.50		110							
15 OF 12	11-1	R	CR122	12+09.74	RT	12.00	16.93	13.00	30.60	-3.20		32					2		
	12-1	R	LIMMER	115+93.85	RT	24.00	56.06	25.00	34.18	0.02		180							
16 OF 12	12-2	R	LIMMER	116+77.96	RT	16.00	54.60	25.00	39.16	EXIST.									
	12-3	R	LIMMER	118+60.92	RT	17.00	55.60	25.00	38.22	EXIST.									
17 OF 12	12-4	R	LIMMER	120+95.32	RT	12.00	45.60	25.00	37.66	EXIST.									
	12-5	R	LIMMER	122+18.84	RT	12.00	40.00	25.00		EXIST.									
18 OF 12	12-6	R	LIMMER	122+71.47	RT	12.00	37.60	25.00		EXIST.									
	12-7	R	LIMMER	124+05.33	RT	12.00	30.80	25.00	38.30	EXIST.									

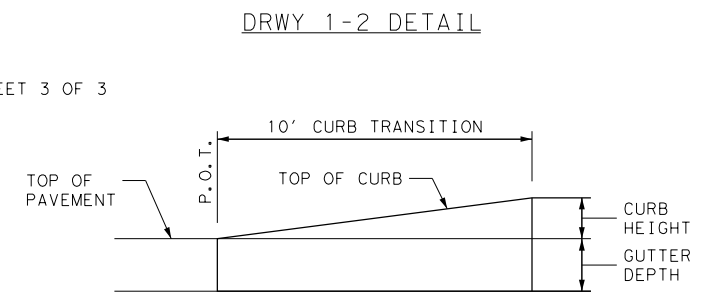
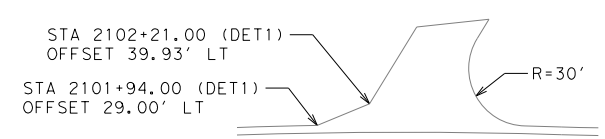
* CONTRACTOR'S INFORMATION ONLY. QUANTITIES FOR DRIVEWAYS INCLUDED IN ROADWAY SUMMARY AND QUANTITIES FOR DRAINAGE INCLUDED IN SMALL STRUCTURE SUMMARY.



DRIVEWAY PLAN TYPICAL
(CR 110 WITH CURB & GUTTER)

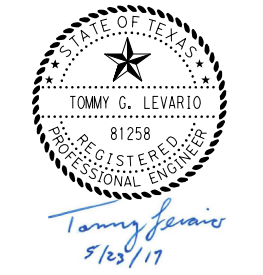


DRIVEWAY PLAN TYPICAL
(CR 110 WITH SHOULDERS)



CURB TRANSITION DETAIL

- NOTES:
1. PAYMENT FOR DRIVEWAYS WILL BE IN ACCORDANCE WITH ITEM 530, "DRIVEWAYS".
 2. REMOVAL OF EXISTING DRIVEWAY PIPES SHALL PAID FOR UNDER ITEM 496. HEADWALLS AND/OR SETS TO BE REMOVED SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO ITEM 496.
 3. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAYS 30 FEET AND WIDER. USE 1/2" ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB & GUTTER EXPANSION JOINTS, SIDEWALK, AT THE R.O.W. LINE, AND AT MIDWIDTH.
 4. SEE REMOVAL PLAN SHEETS FOR LIMITS OF PAVEMENT REMOVAL.
 5. MAX COMMERCIAL DRIVEWAY SLOPE IS 6%. MAX PUBLIC DRIVEWAY SLOPE IS 10%. MAX PRIVATE DRIVEWAY SLOPE IS 15%. PREFERRED DRIVEWAY SLOPE IS 6% OR LESS.
 6. INSTALL 10' CURB TRANSITIONS WHERE PROPOSED DRIVEWAYS INTERSECT PROPOSED CURB AND GUTTER SECTIONS ON CR 110.



DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION
05/23/17	NA	2	CULVERT 2-2 REVISION

DANNENBAUM
ENGINEERING COMPANY - AUSTIN, LLC
T.B.P.E. FIRM REGISTRATION #8995
3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505

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CR 110 SOUTH

DRIVEWAY
SUMMARY AND
DETAILS

SHEET 1 OF 3

DESIGNED:	TGL		
DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	107

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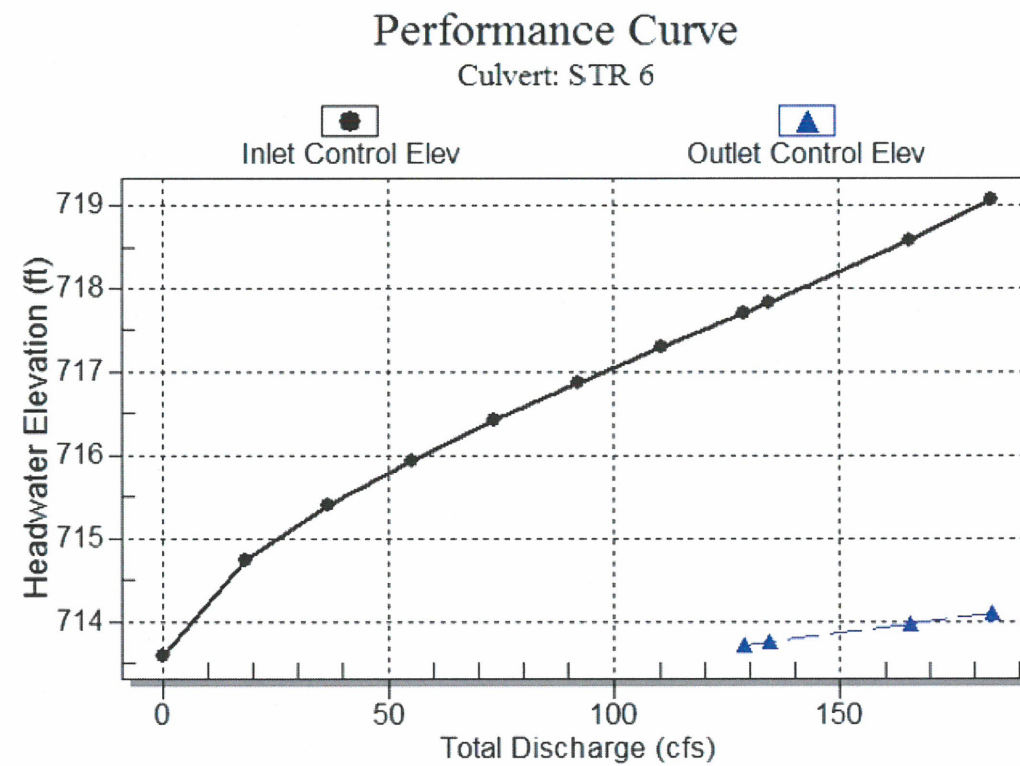
Table 5 - Culvert Summary Table: STR 6

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	713.60	0.000	0.0*	0-NF	0.000	0.000	0.000	0.000	0.000	0.000
18.41	18.41	714.74	1.136	0.0*	1-S2n	0.480	0.665	0.485	0.569	6.325	1.938
36.83	36.83	715.40	1.797	0.0*	1-S2n	0.765	1.056	0.770	0.851	7.971	2.464
55.24	55.24	715.94	2.339	0.0*	1-S2n	0.997	1.384	1.007	1.073	9.142	2.825
73.65	73.65	716.42	2.821	0.0*	1-S2n	1.219	1.676	1.221	1.264	10.052	3.100
92.06	92.06	716.87	3.266	0.0*	1-S2n	1.417	1.945	1.424	1.433	10.775	3.330
110.48	110.48	717.29	3.692	0.0*	1-S2n	1.613	2.196	1.615	1.586	11.398	3.525
128.89	128.89	717.71	4.112	0.127	5-S2n	1.794	2.434	1.834	1.727	11.712	3.698
134.27	134.27	717.84	4.236	0.168	5-S2n	1.847	2.501	1.853	1.768	12.076	3.741
165.72	165.72	718.59	4.985	0.382	5-S2n	2.148	2.878	2.213	1.982	12.479	3.991
184.13	184.13	719.06	5.458	0.500	5-S2n	2.319	3.088	2.395	2.100	12.815	4.117

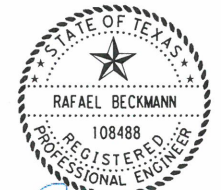
* theoretical depth is impractical. Depth reported is corrected.

 Inlet Elevation (invert): 713.60 ft, Outlet Elevation (invert): 712.00 ft
 Culvert Length: 171.72 ft, Culvert Slope: 0.0093

Culvert Performance Curve Plot: STR 6



1



Rafael Beckmann
 11/02/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8995

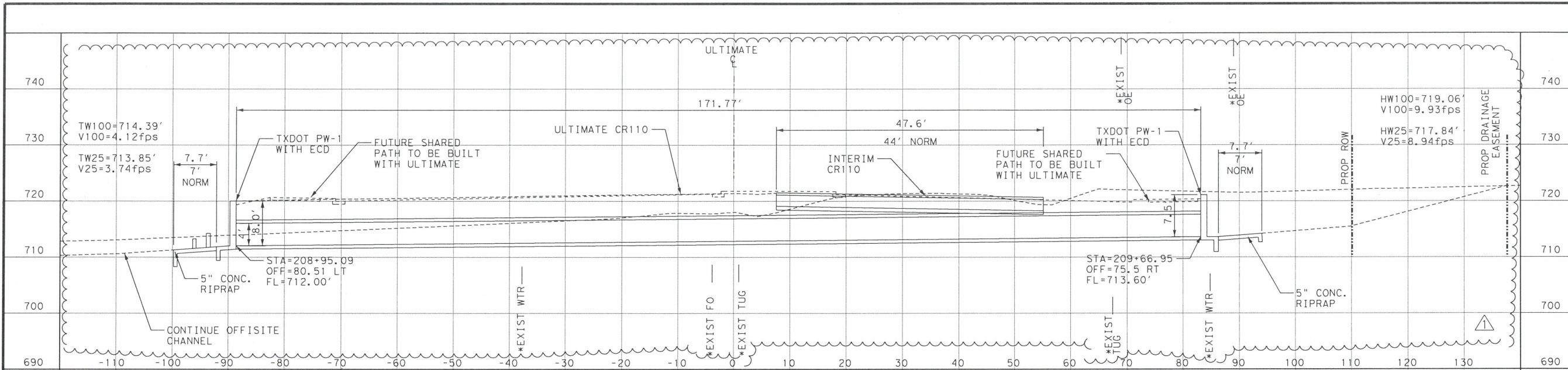
WILLIAMSON COUNTY
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CR 110 SOUTH
 HYDRAULIC SUMMARY
 HY-8 RESULTS

SHEET 5 OF 5

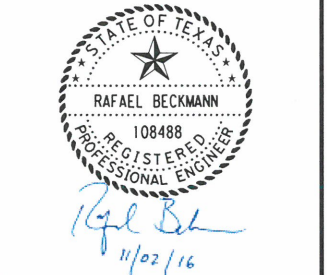
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DRAWN:	RB		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	147

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CROSSOVER STA 209+32.17
 (STRUCTURE 6
 6' X 4' BOX CULVERT)

- NOTES:
1. SEE HYDRAULIC CONFIGURATION AND DATA SHEETS FOR CULVERT HYDRAULIC DATA.
 2. SEE TYPE RR8 RIPRAP DETAILS IN CRR STANDARD FOR 5" CONCRETE RIPRAP TOE WALL DETAILS.
 - * 3. UTILITY ELEVATIONS UNKNOWN UNLESS OTHERWISE SHOWN.



DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8995

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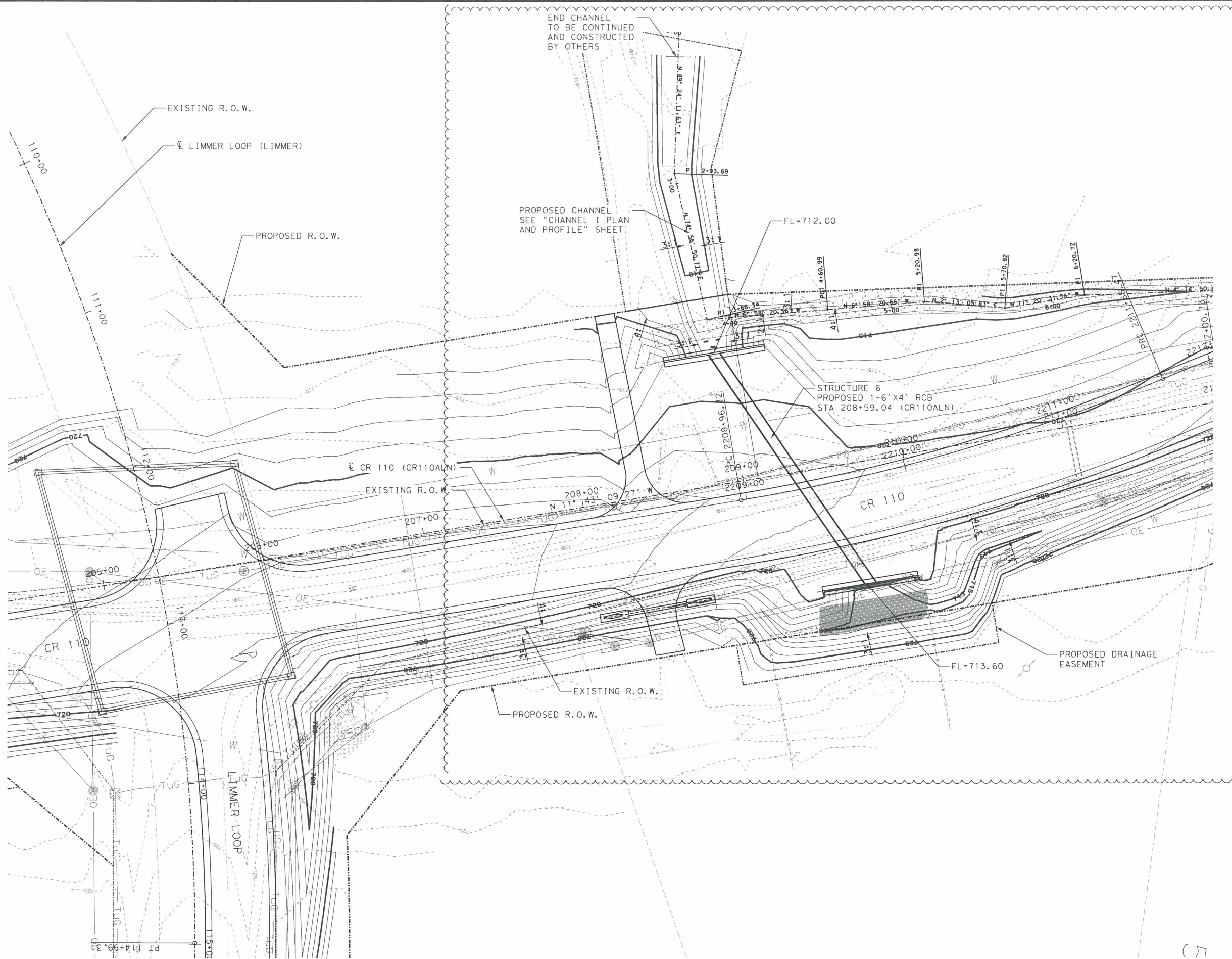
CR 110 SOUTH
 CULVERT
 CROSS
 SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=20'

SHEET 3 OF 3

DESIGNED:	RB		
DRAWN:	RB		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	155

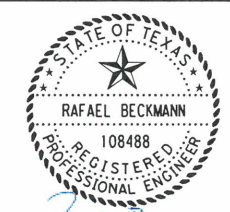
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LEGEND

- 720— PROPOSED CONTOURS
- - -720- - - EXISTING CONTOURS
- · - · - LIDAR CONTOURS (2FT INTERVAL)*

*OUTSIDE OF SURVEY. CONTRACTOR TO FIELD VERIFY ELEVATIONS AND STRUCTURES THAT MIGHT INTERFERE.



DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 1209 AUSTIN, TX 78731 (512) 345-8995

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CR 110 SOUTH

CULVERT GRADING

SCALE: HORIZONTAL 1"=60'

SHEET 2 OF 2

DESIGNED:	RB		
DRAWN:	RB		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	157

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1

CHANNEL 1

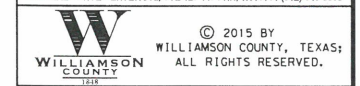
Beginning chain ZCHAN description
 =====

Point Z1	N	10,180,075.71 E	3,154,859.56 Sta	1+00.00
Course from Z1 to Z2 N 8° 22' 18.98" E Dist 102.82				
Point Z2	N	10,180,177.43 E	3,154,874.53 Sta	2+02.82
Course from Z2 to Z3 N 89° 24' 11.63" E Dist 90.88				
Point Z3	N	10,180,178.38 E	3,154,965.40 Sta	2+93.69
Course from Z3 to Z4 N 74° 56' 50.77" E Dist 92.65				
Point Z4	N	10,180,202.44 E	3,155,054.87 Sta	3+86.34
Course from Z4 to Z5 N 6° 58' 20.56" W Dist 74.65				
Point Z5	N	10,180,276.54 E	3,155,045.81 Sta	4+60.99
Course from Z5 to Z11 N 6° 58' 20.56" W Dist 59.99				
Point Z11	N	10,180,336.08 E	3,155,038.53 Sta	5+20.98
Course from Z11 to Z12 N 2° 13' 05.83" E Dist 49.95				
Point Z12	N	10,180,385.99 E	3,155,040.46 Sta	5+70.92
Course from Z12 to Z13 N 11° 20' 31.56" W Dist 49.79				
Point Z13	N	10,180,434.81 E	3,155,030.67 Sta	6+20.72
Course from Z13 to Z14 N 4° 14' 50.41" W Dist 140.01				
Point Z14	N	10,180,574.43 E	3,155,020.30 Sta	7+60.73
Course from Z14 to Z15 N 14° 58' 28.36" W Dist 131.91				
Point Z15	N	10,180,701.86 E	3,154,986.22 Sta	8+92.63
=====				
Ending chain ZCHAN description				



DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

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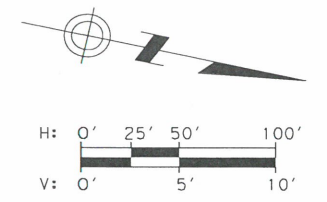
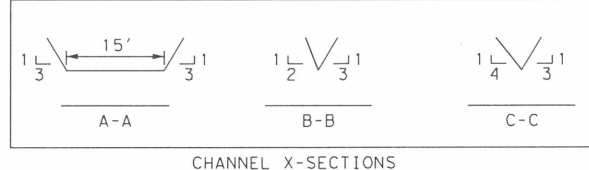
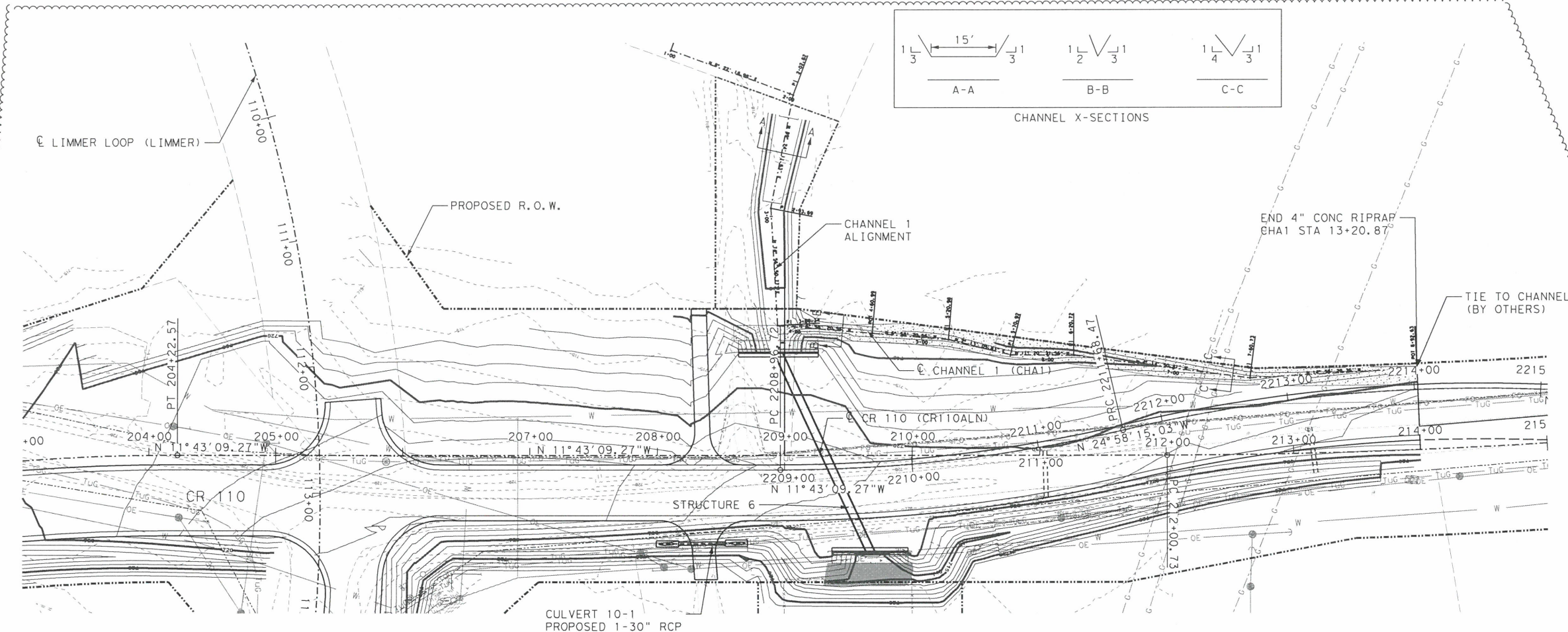


CR 110 SOUTH

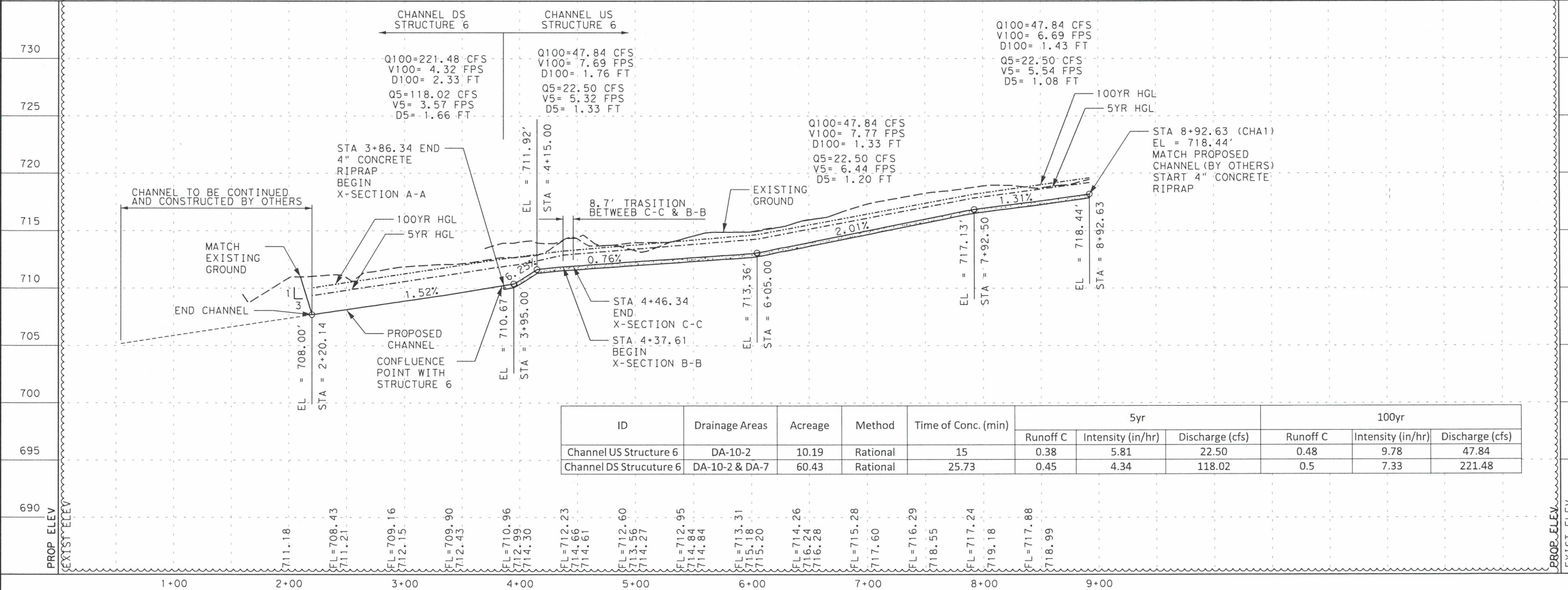
 CHANNEL 1
 ALIGNMENT DATA

DESIGNED:	RB		
DRAWN:	EM		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	158

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LEGEND
 - - - - - PROPOSED CONTOUR
 - - - - - EXISTING CONTOUR FROM SURVEY DATA
 - - - - - EXISTING LIDAR CONTOURS



ID	Drainage Areas	Acreage	Method	Time of Conc. (min)	5yr			100yr		
					Runoff C	Intensity (in/hr)	Discharge (cfs)	Runoff C	Intensity (in/hr)	Discharge (cfs)
Channel US Structure 6	DA-10-2	10.19	Rational	15	0.38	5.81	22.50	0.48	9.78	47.84
Channel DS Structure 6	DA-10-2 & DA-7	60.43	Rational	25.73	0.45	4.34	118.02	0.5	7.33	221.48



DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

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CR 110 SOUTH
CHANNEL 1 PLAN AND PROFILE

SCALE: HORIZONTAL 1" = 100'
 VERTICAL 1" = 10'

DESIGNED:	RB		
DRAWN:	EM		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	159

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Culvert Station and/or Creek name followed by applicable end (Lt, Rt or Both)	Description of Box Culvert No. Spans ~ Span X Height	Max Fill Height (Ft)	Applicable Box Culvert Standard ④	Applicable Wingwall or End Treatment Standard	Skew Angle (0°, 15°, 30° or 45°)	Side Slope or Channel Slope Ratio (SL:1)	T Culvert Top Slab Thickness (In)	U Culvert Wall Thickness (In)	C Estimated Curb Height (Ft)	Hw Height of Wingwall ① (Ft)	A Curb to End of Wingwall (Ft)	B Offset of End of Wingwall (Ft)	Lw Length of Longest Wingwall (Ft)	Ltw Culvert Toewall Length (Ft)	Atw Anchor Toewall Length (Ft)	Riprap Apron (C.Y.)	Class "C" Conc (Curb) ② (C.Y.)	Class "C" Conc (Wingwall) ③ (C.Y.)	Total Wingwall Area (S.F.)
Structure 3 STA 135+13.30 (Lt)	1 ~ 5'x 4'	9'	SCP-5	PW-1	45°	3:1	6"	6"	4.500'	9.000'	N/A	N/A	38.184'	8.485'	N/A	0.0	1.4	44.3	687
Structure 3 STA 135+13.30 (Rt)	1 ~ 5'x 4'	6.5'	SCP-5	PW-1	45°	3:1	6"	6"	2.000'	6.500'	N/A	N/A	27.577'	8.485'	N/A	0.0	0.6	21.8	359
Structure 4 STA 188+26.74 (Rt)	1 ~ 3'x 2'	4.25'	SCP-3	PW-1	15°	3:1	4"	4"	1.250'	3.583'	N/A	N/A	11.129'	3.796'	N/A	0.0	0.2	6.2	80
Structure 5 STA 188+26.75 (Rt)	1 ~ 3'x 2'	3.25'	SCP-3	PW-1	0°	3:1	4"	4"	0.250'	2.583'	N/A	N/A	7.750'	3.667'	N/A	0.0	0.0	3.5	40
Structure 6 STA 208+59.04 (Lt)	1 ~ 6'x 4'	8'	SCP-6	PW-1	30°	3:1	7"	7"	3.417'	8.000'	N/A	N/A	27.713'	8.275'	N/A	0.0	1.0	27.4	443
Structure 6 STA 208+59.04 (Rt)	1 ~ 6'x 4'	7.5'	SCP-6	PW-1	30°	3:1	7"	7"	2.917'	7.500'	N/A	N/A	25.981'	8.275'	N/A	0.0	0.9	24.2	390

NOTES:

Skew Angle = 0° for SW-0, FW-0, SETB-CD, SETB-SW-0, and SETB-FW-0 standards.
30° Maximum for Safety End Treatment

SL:1 = Horizontal:1 Vertical
Side Slope at culvert for Flared or Straight Wingwalls. Channel Slope for Parallel Wingwalls.
Slope shall be 3:1 or flatter for Safety End Treatments.

T = Box Culvert Top Slab Thickness. Dimension can be found on the applicable Box Culvert Standard.

U = Box Culvert Wall Thickness. Dimension can be found on the applicable Box Culvert Standard.

C = Curb Height.

See applicable wing or end treatment standards for calculations of Hw, A, B, Lw, Ltw, Atw, and Total Wingwall Area.

Hw = Height of Wingwall.
A = Distance from Face of Curb to End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
B = Offset of End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
Lw = Length of Longest Wingwall.
Ltw = Length of Culvert Toewall (Not applicable when using Riprap Apron).
Atw = Length of Anchor Toewall (Applicable to Safety End Treatment only).
Total Wingwall Area = Wingwall area in S.F. for two wingwalls (one structure end) if Lt or Rt.
Area for four wingwalls (two structure ends) if Both.

- ① The wall heights shown will be rounded to the nearest Foot for bidding purposes.
- ② Concrete volume shown is for box culvert curb only. For curbs using the RAC standard, quantities shown must be increased by a factor of 2. If Class "S" concrete is required for the top slab of the culvert, the curb concrete shall also be Class "S". Curb concrete is considered part of the Box Culvert for payment.
- ③ Concrete volume shown is total of wing, footing, culvert toewall (if any), anchor toewall (if any) and wingwall toewall. Riprap apron, culvert and curb quantities are not included.
- ④ Regardless of the type of culvert shown on this sheet, the Contractor shall have the option of furnishing cast-in-place or precast culverts unless otherwise shown elsewhere on the plans. If the Contractor elects to provide culverts of a different type than those shown on this sheet, it shall be the Contractor's responsibility to make the necessary adjustments to the dimensions and quantities shown.



Rafel Beckmann
11/02/16



**BOX CULVERT SUPPLEMENT
WINGS AND END TREATMENTS**

BCS

FILE: bcsstde1.dgn	DW: TxDOT	CK: TxDOT	DW: TxDOT	CK: GAF
©TxDOT February 2010 REVISIONS	CONT	SECT	JOB	HIGHWAY
				CR 110
	DIST	COUNTY	SHEET NO.	
	14	WILLIAMSON	162	

DATE:

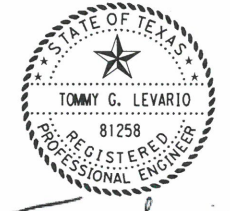
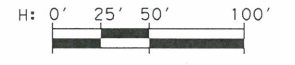
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* CONTINUE TWLTL PAVEMENT MARKINGS FROM STA 200+07 TO STA 204+94 OR INSTALL LEFT TURN PAVEMENT MARKINGS (SHOWN) AS DIRECTED BY THE COUNTY OBSERVER OR GEC DEPENDING ON WHETHER LIMMER LOOP WESTBOUND EXTENSION HAS BEEN CONSTRUCTED. ADDITIONAL QUANTITIES HAVE BEEN INCLUDED IN THE QUANTITY SUMMARY FOR BOTH SCENARIOS.

- LEGEND**
- ⬡ SIGN NUMBER
 - ⊠-X PROPOSED SIGNS
 - ⊠-X EXISTING SIGN TO BE REMOVED
 - ⊠-X EXISTING SIGN TO BE RELOCATED
 - Ⓐ REFL PAV MRK TY I (W) (4") (SLD)
 - Ⓑ REFL PAV MRK TY I (W) (8") (SLD)
 - Ⓒ REFL PAV MRK TY I (W) (36") (YLD TRI)
 - Ⓓ REFL PAV MRK TY I (W) (24") (SLD)
 - Ⓔ REFL PAV MRK TY I (W) (WORD)
 - Ⓕ REFL PAV MRK TY I (W) (ARROW)
 - Ⓖ REFL PAV MRK TY I (Y) (4") (SLD)
 - Ⓗ REFL PAV MRK TY I (Y) (4") (BRK)
 - Ⓘ RAISED PAV MRK CL B (REFL) TY I-C
 - Ⓝ RAISED PAV MRK CL B (REFL) TY II-A-A
 - Ⓚ REFL PAV MRK TY I (W) 8" (DOT)
 - Ⓛ REFL PAV MRK TY II (Y) (4") (SLD)
 - Ⓜ BI-DIRECTIONAL DELINEATOR
 - Ⓝ DELINEATOR
 - Ⓞ OBJECT MARKER (OM-2)
 - Ⓟ OBJECT MARKER (OM-3)

- NOTES:**
- FINAL LOCATION OF ALL PROPOSED SIGNS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.
 - UNLESS OTHERWISE NOTED, EXISTING SIGNS TO REMAIN IN PLACE.



Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

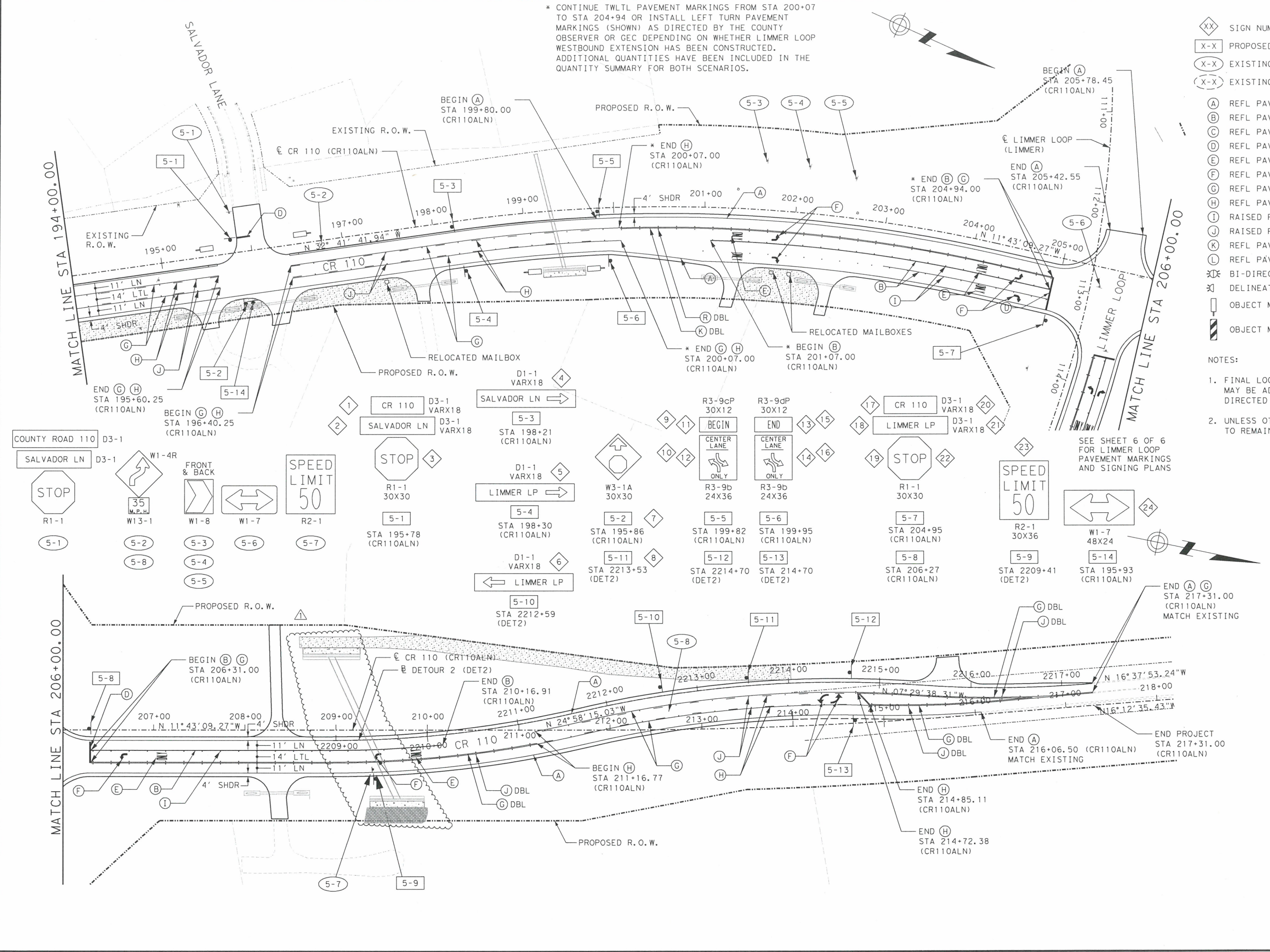
DANNENBAUM
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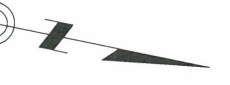
**CR 110 SOUTH
 PAVEMENT
 MARKINGS AND
 SIGNING PLANS**

STA 194+00 TO END
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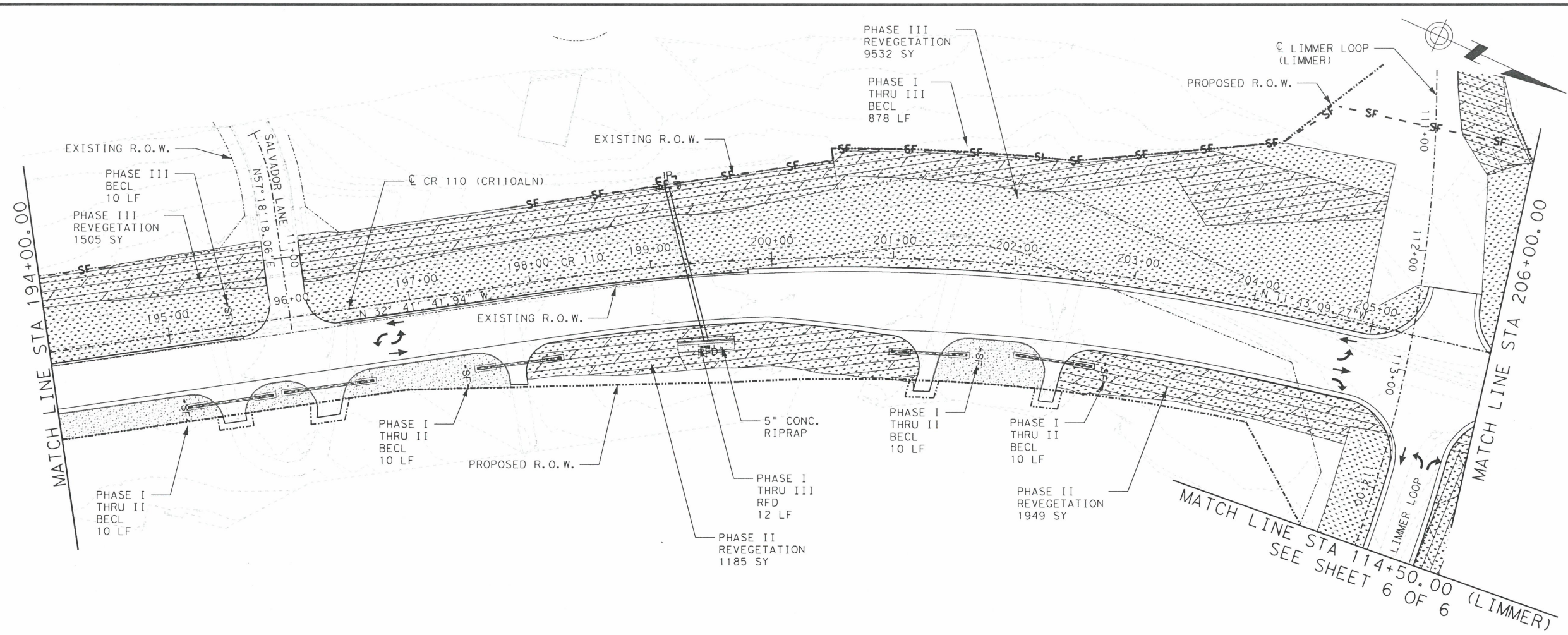
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DRAWN:	PRP		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	242



SEE SHEET 6 OF 6 FOR LIMMER LOOP PAVEMENT MARKINGS AND SIGNING PLANS



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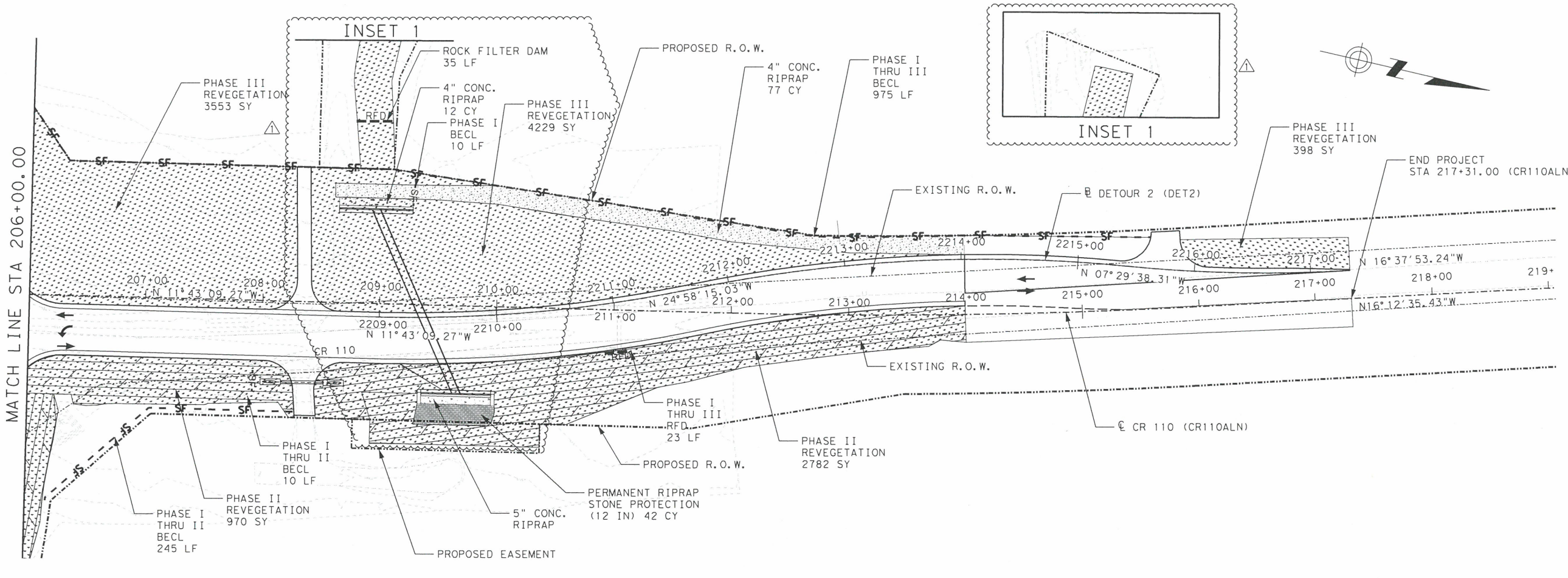
- RFD ROCK BERM*
- SF BIODEGRADABLE* EROSION CONTROL LOGS (BECL)
- IP INLET PROTECTION*
- DITCH FLOWLINE
- REVEGETATION
- RIPRAP - CONCRETE
- RIPRAP - ROCK
- SOIL RETENTION BLANKET

* TEMPORARY EROSION CONTROL DEVICES

NOTES:

OFFSET BIODEGRADABLE EROSION CONTROL LOGS 2' FROM ROW WHERE SPACE PERMITS, OTHERWISE PLACE AT THE ROW LINE.

USE BECL FOR INLET SEDIMENT PROTECTION.



Rafael Beckmann
11/02/16

DATE	BY	REV	REVISION
11/02/16	NA	1	CULVERT REVISION

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CR 110 SOUTH

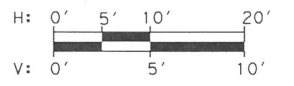
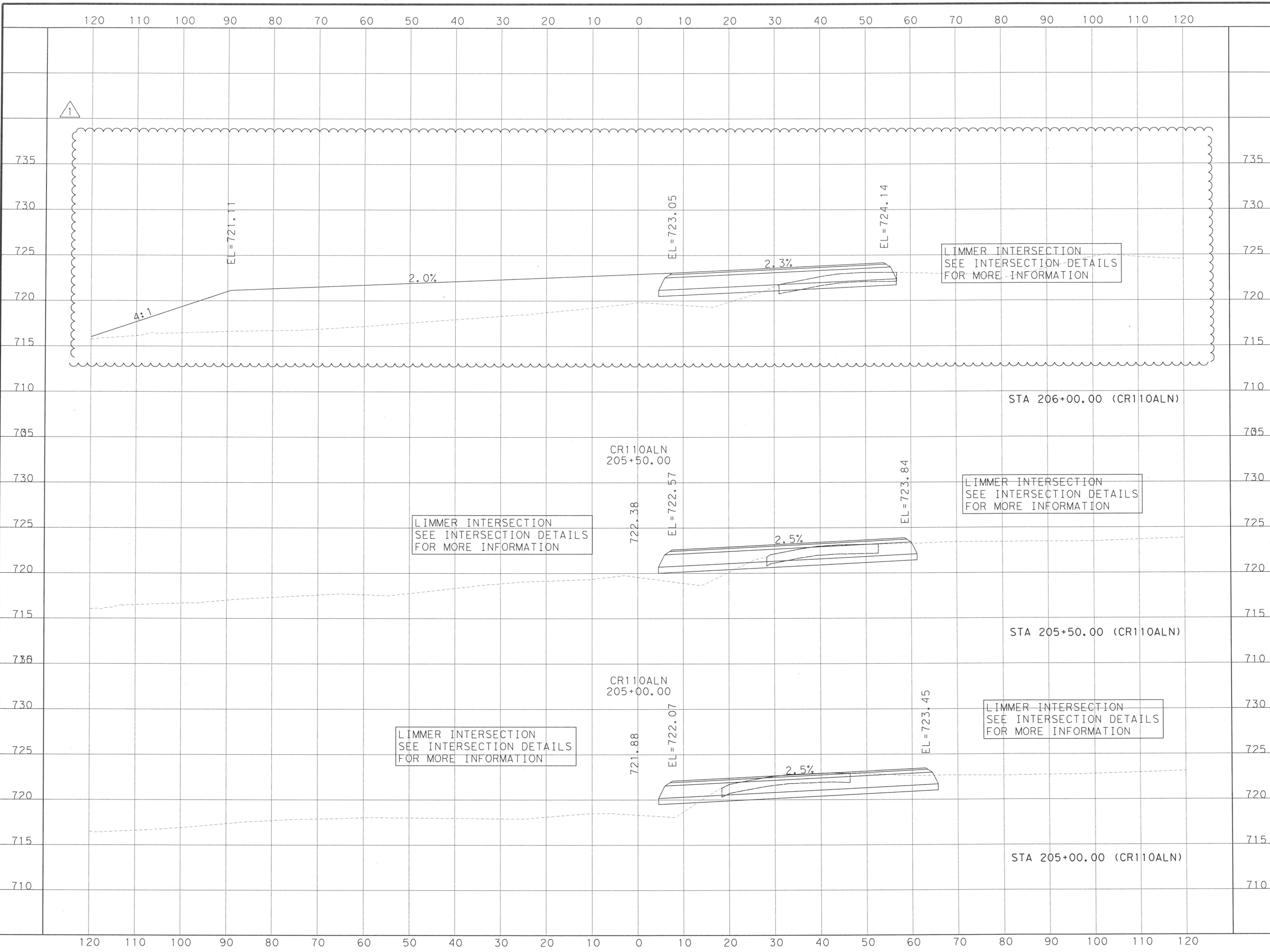
SW3P LAYOUT

STA 194+00 TO STA END
 SCALE: HORIZONTAL 1"=100'

SHEET 5 OF 6

DESIGNED:	RB		
DRAWN:	EM		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	265

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Tommy Levario
 11/2/16

DATE	BY	REV	REVISION
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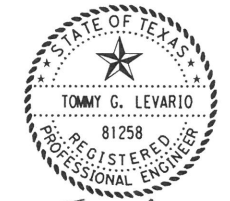
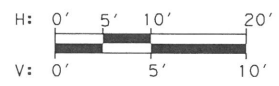
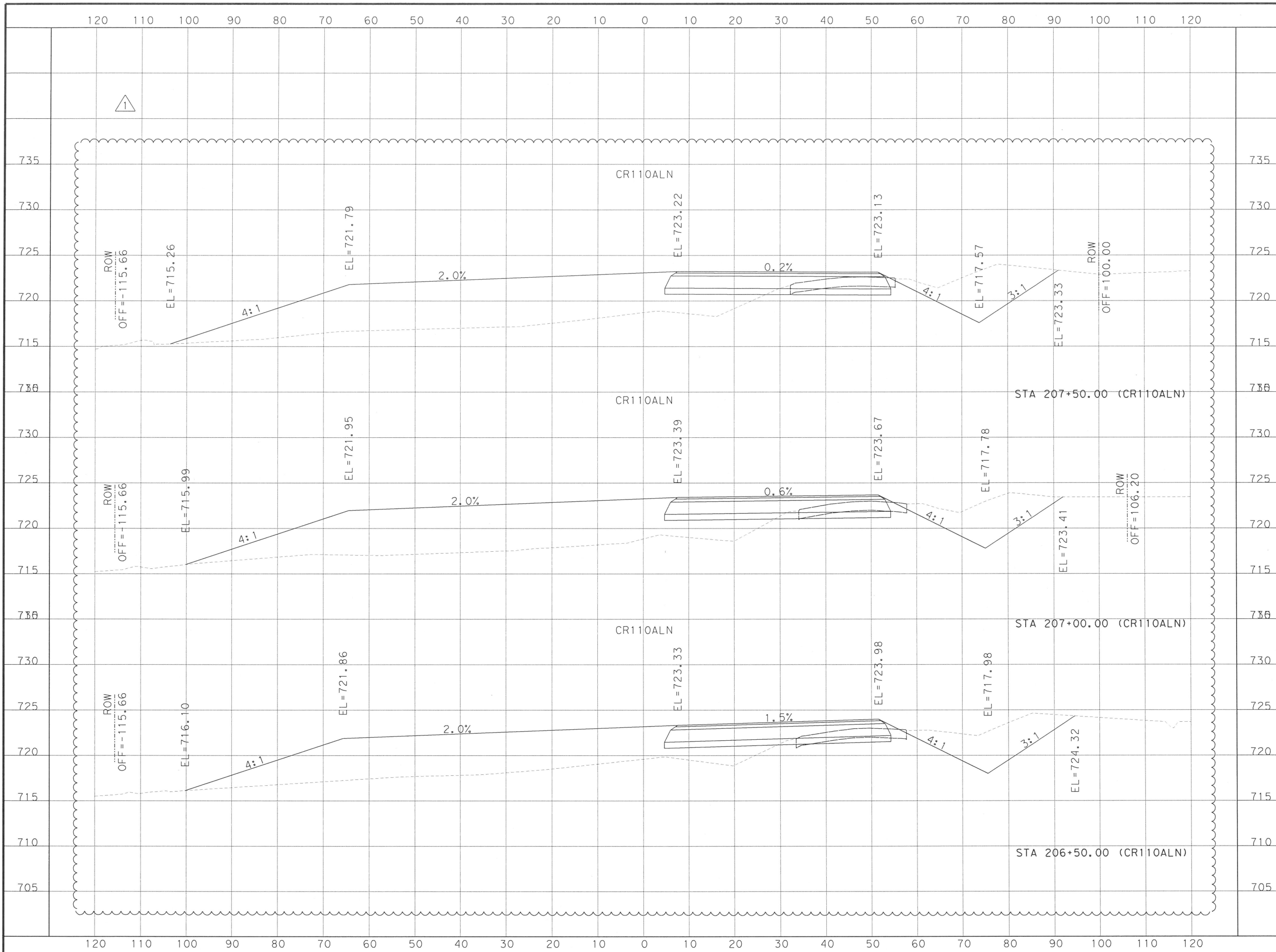
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CR 110 SOUTH
 CR 110
 CROSS SECTIONS
 SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 86 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	86

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Tommy Levario
 11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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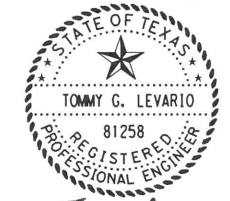
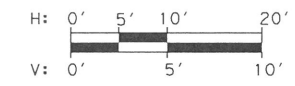
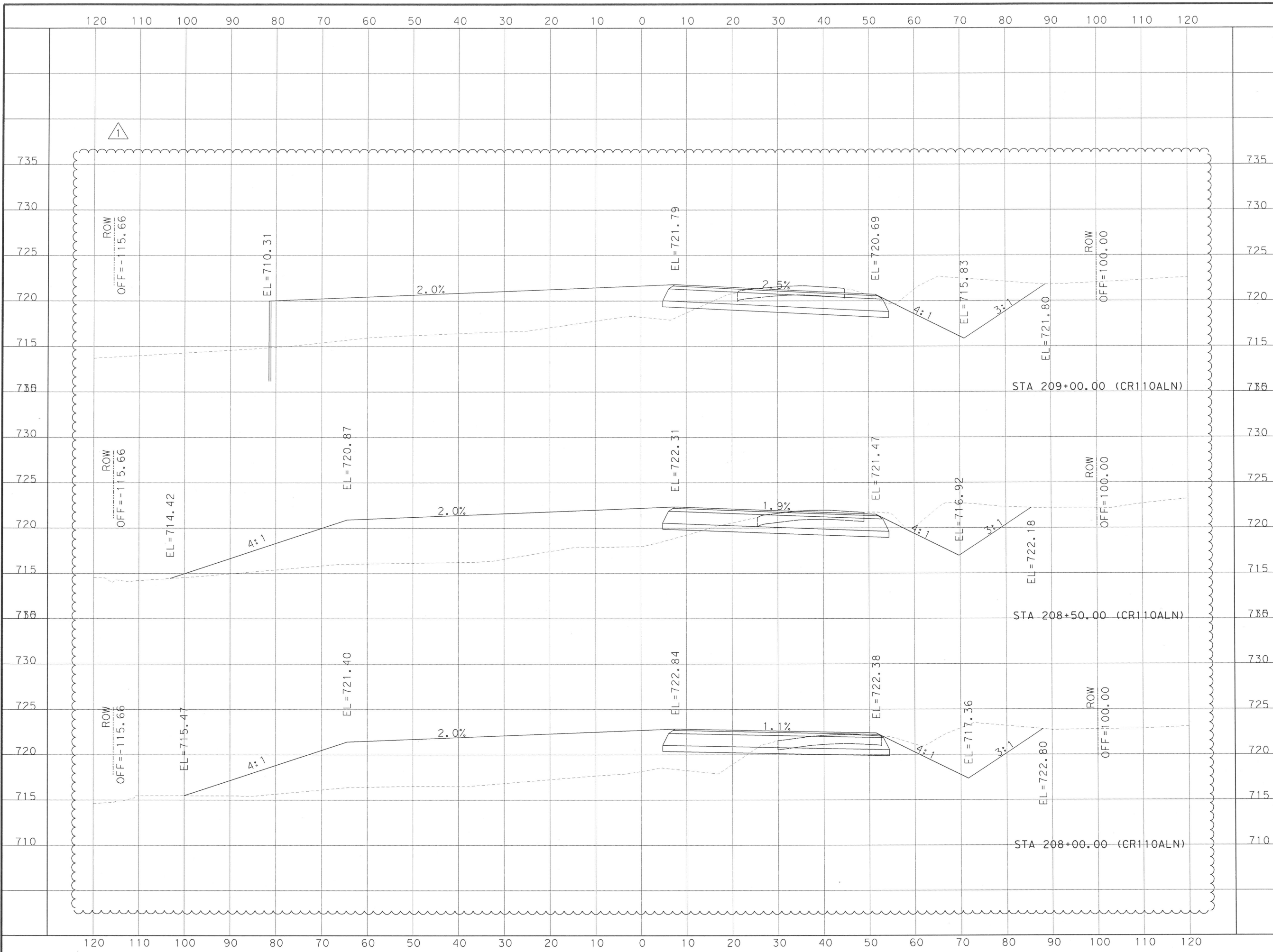
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CR 110 SOUTH
 CR 110
 CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 87 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	87

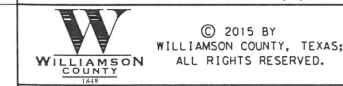
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Tommy Levario
 11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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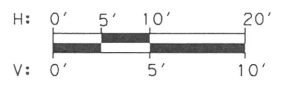
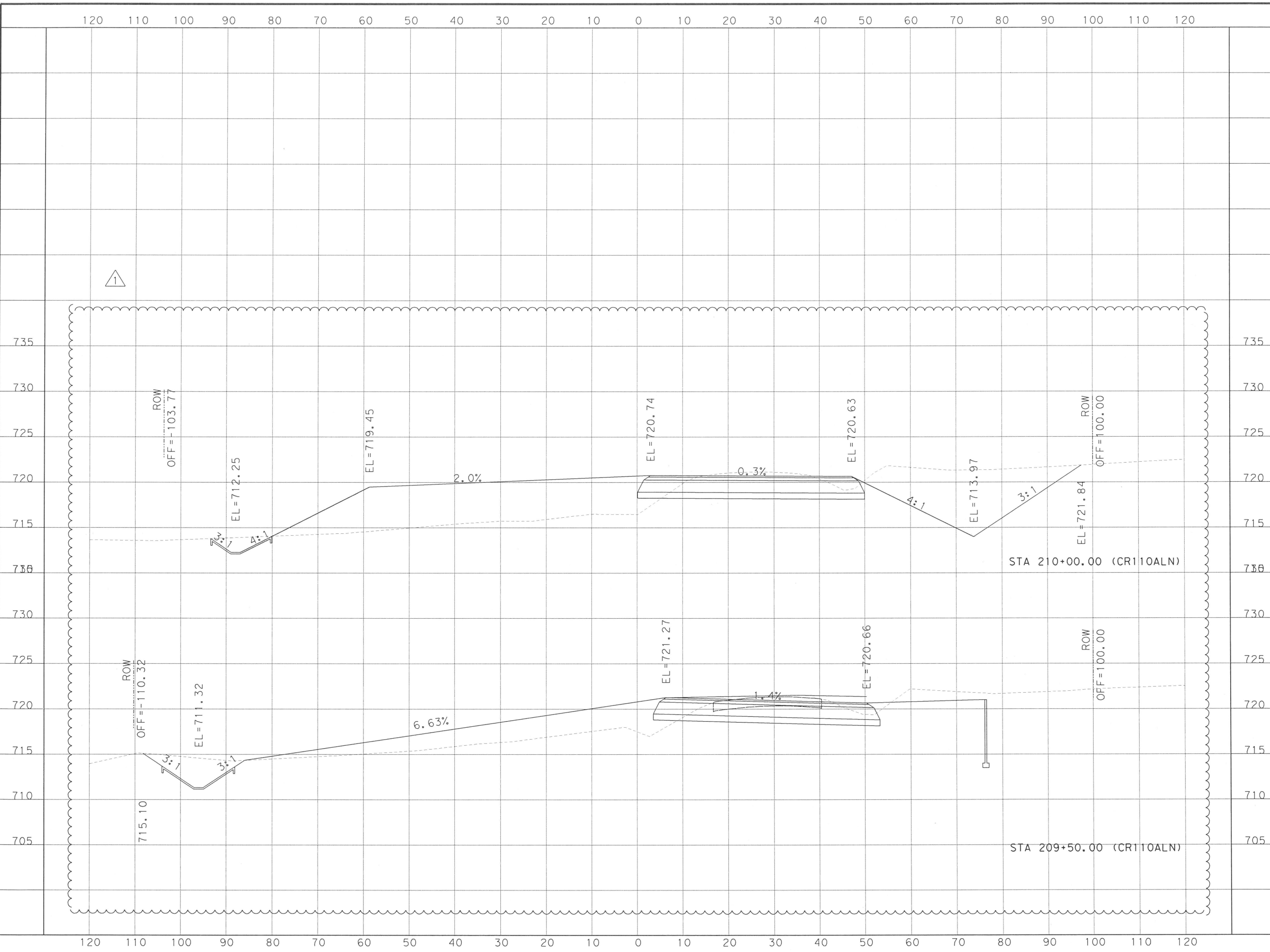


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CR 110 SOUTH
CR 110
CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 88 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	88

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Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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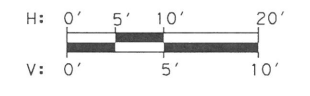
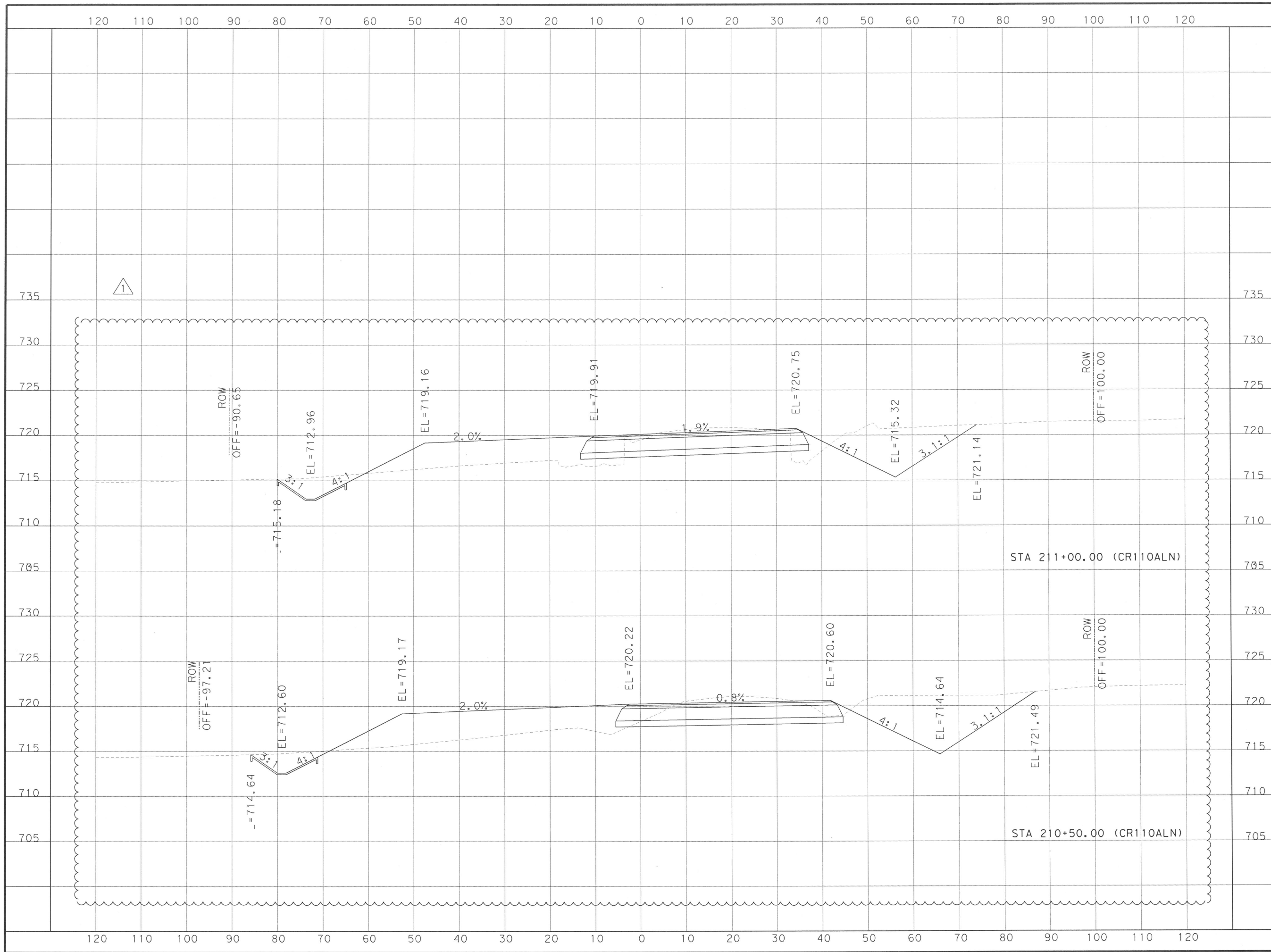


CR 110 SOUTH
 CR 110
 CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
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 SHEET 89 OF 95

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TEXAS	WILLIAMSON	4	89

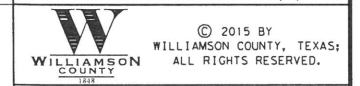
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Tommy Levario
 11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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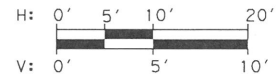
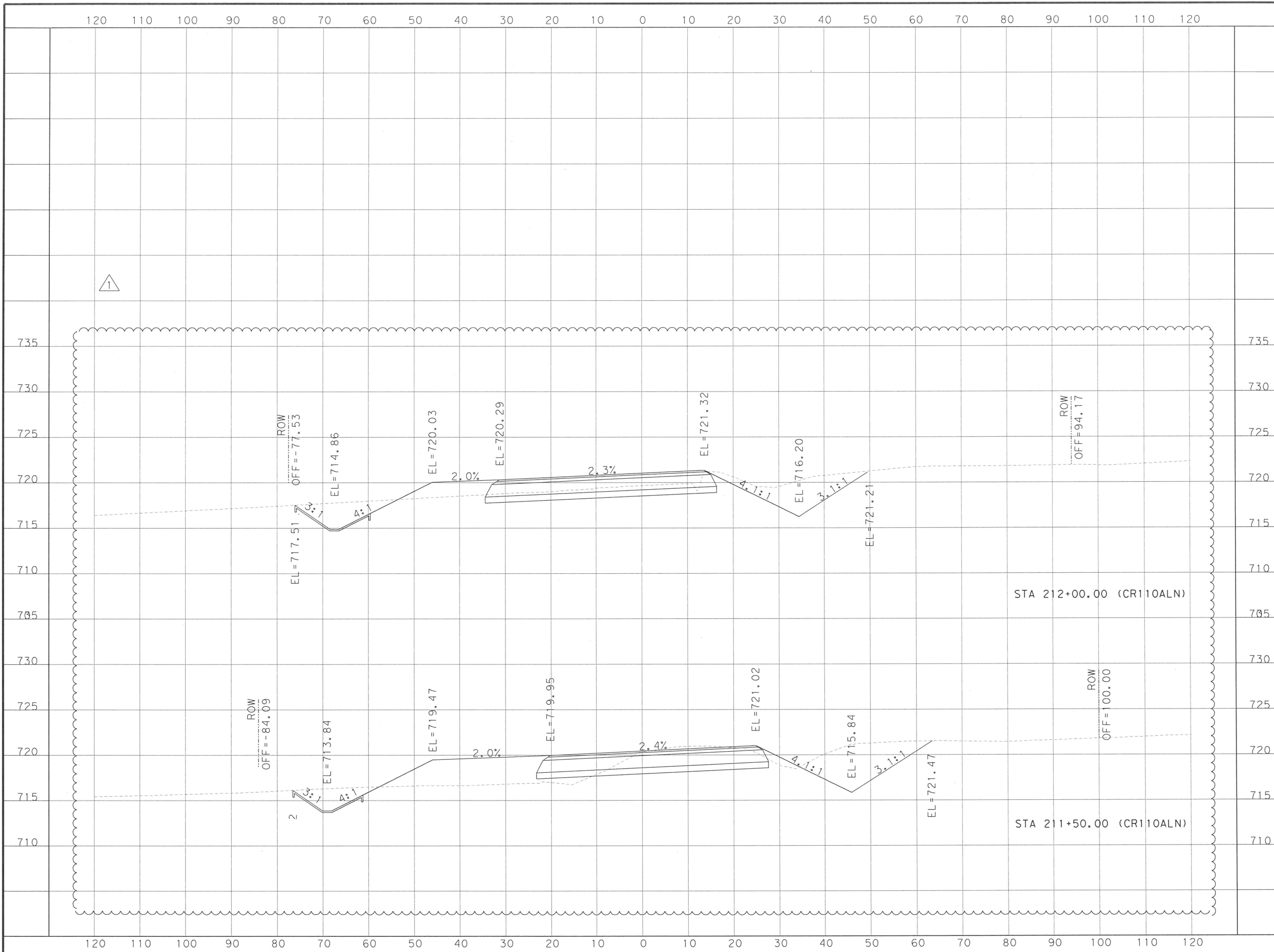


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CR 110 SOUTH
CR 110
CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 90 OF 95

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CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	90

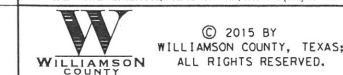
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Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

DANNENBAUM
 ENGINEERING COMPANY - AUSTIN, LLC
 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8905

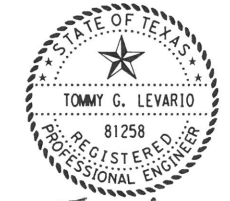
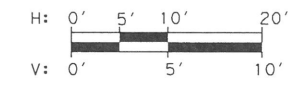
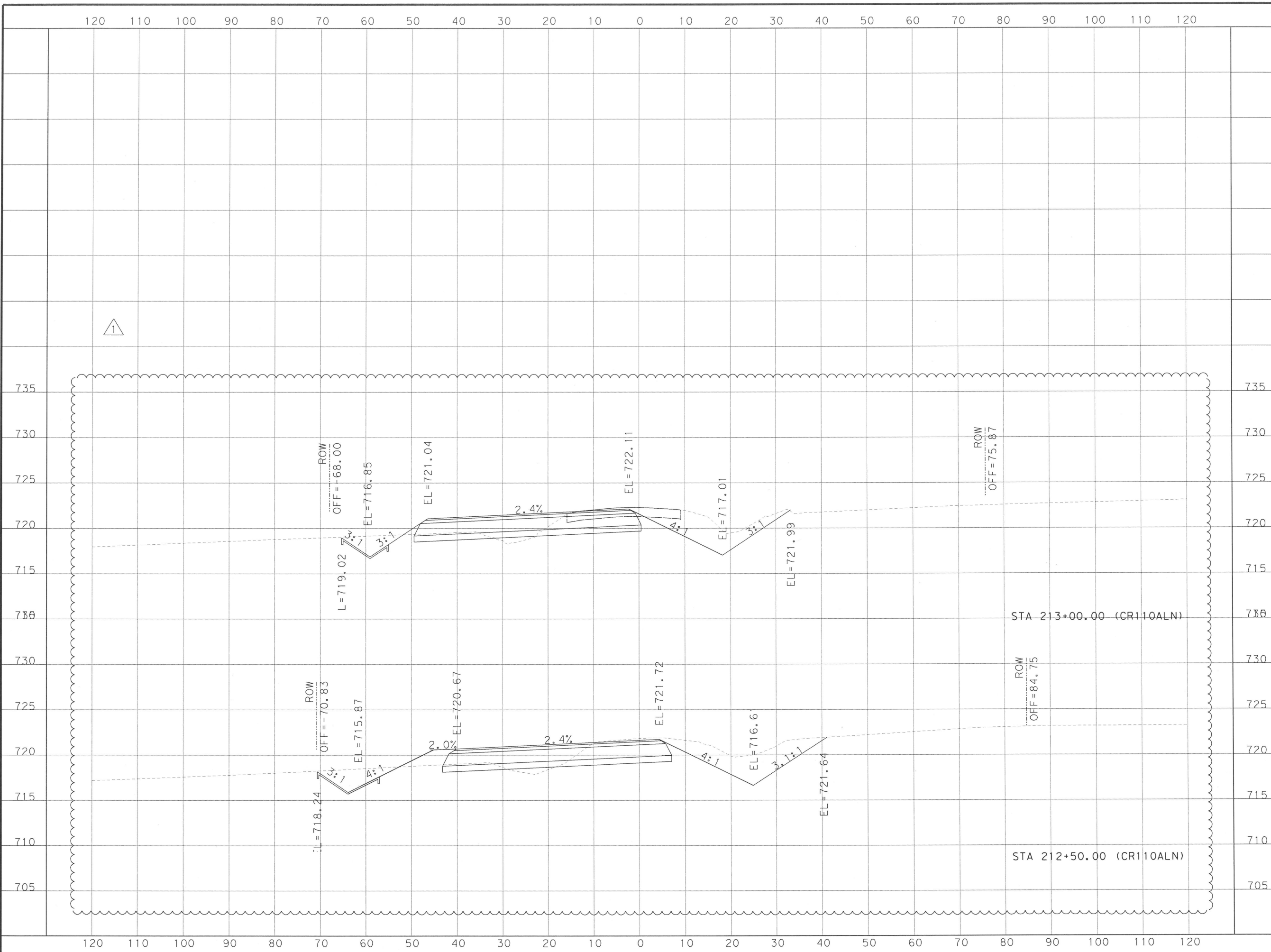


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CR 110 SOUTH
CR 110
CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 91 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	91

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Tommy Levario
 11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8505

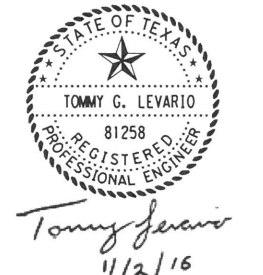
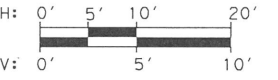
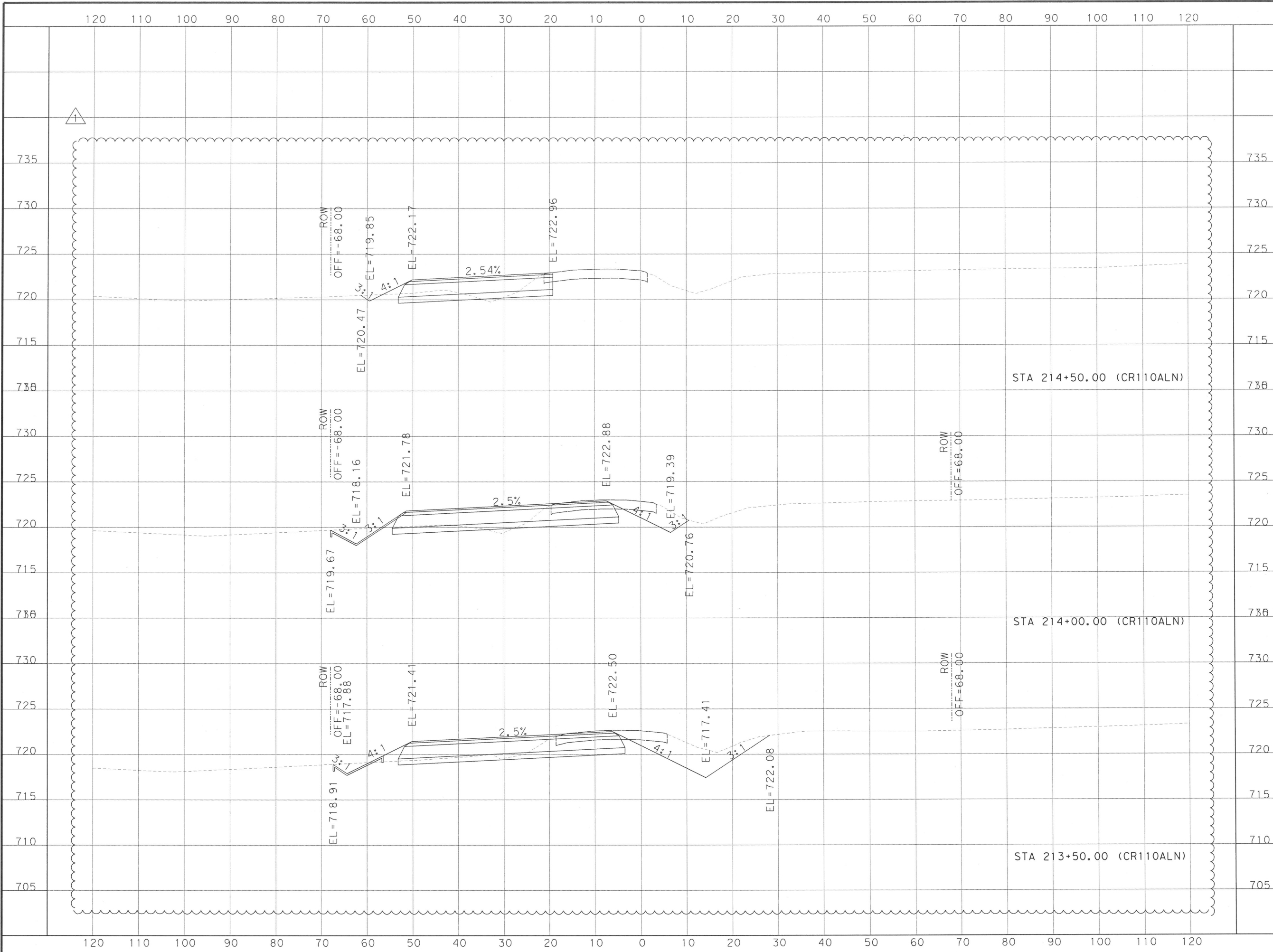
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CR 110 SOUTH
 CR 110
 CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 92 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	92

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DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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 T.B.P.E. FIRM REGISTRATION #8995
 3409 EXECUTIVE CENTER DR., STE 129 AUSTIN, TX 78731 (512) 345-8595

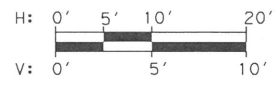
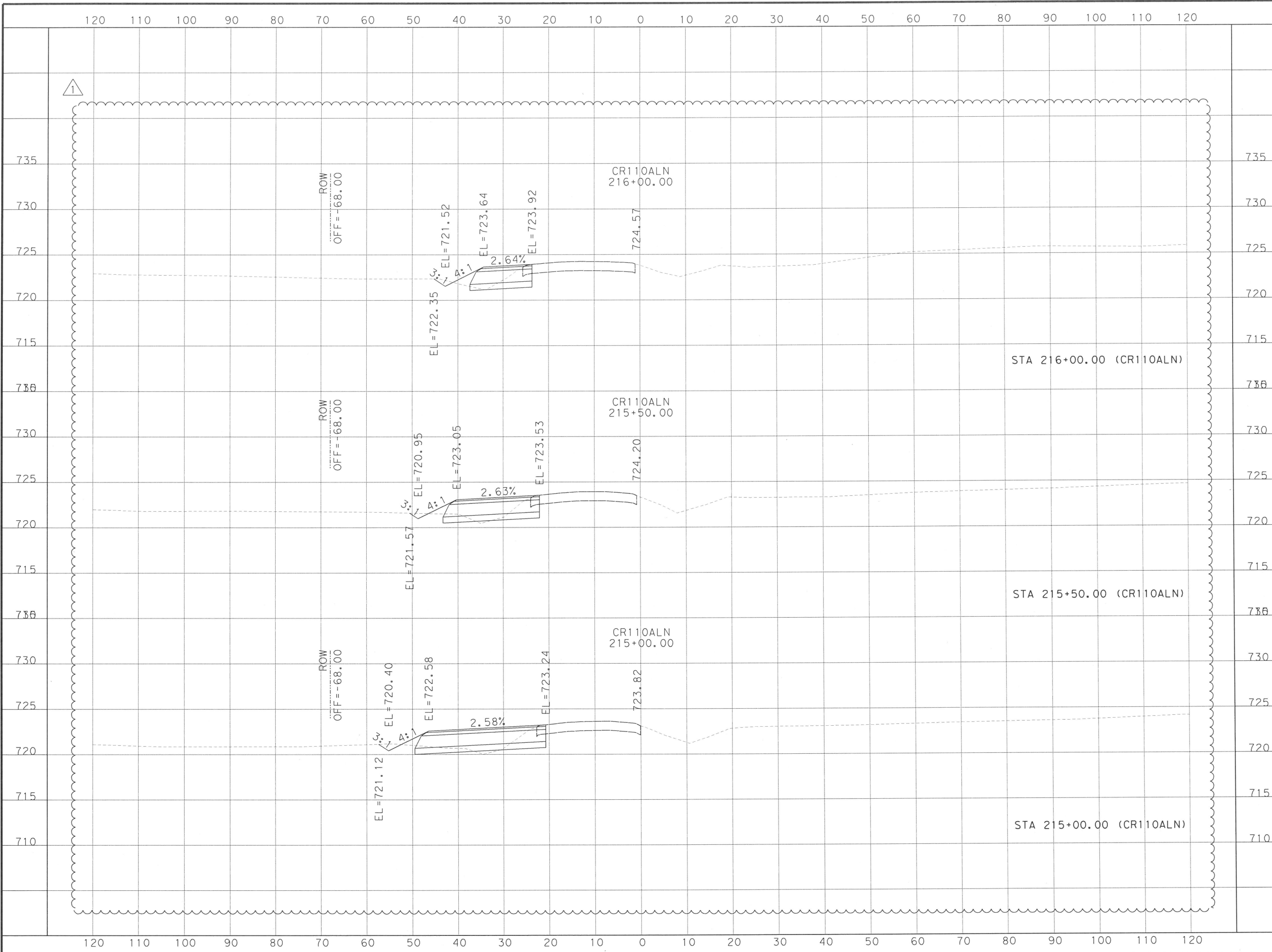
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CR 110 SOUTH
 CR 110
 CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 93 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	93

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 DATE: 11/11/2016 TIME: 1:12:23 PM USER: najib.azougagh



Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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 T.B.P.E. FIRM REGISTRATION #8995
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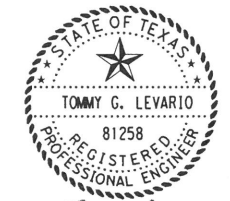
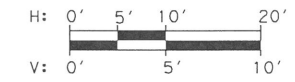
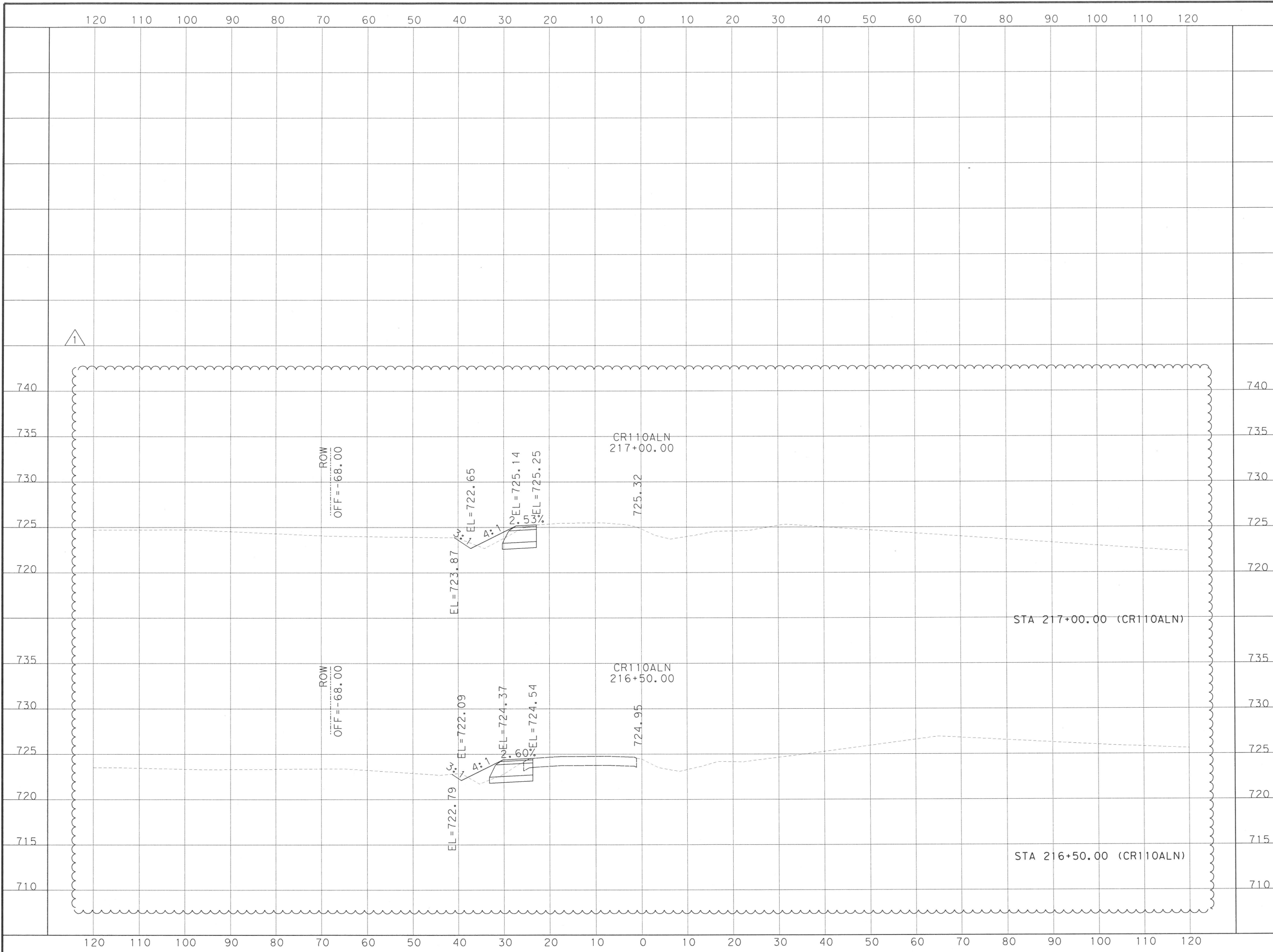
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CR 110 SOUTH
 CR 110
 CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 94 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	94

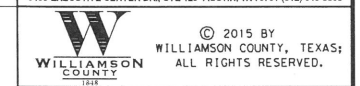
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Tommy Levario
11/2/16

DATE	BY	REV	REVISION
11/01/16	NA	1	CULVERT REVISION

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CR 110 SOUTH
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CROSS SECTIONS

SCALE: HORIZONTAL 1"=20'
 VERTICAL 1"=10'
 SHEET 95 OF 95

DESIGNED:	JH		
DRAWN:	JH		
CHECKED:	GV		
STATE	COUNTY	PRECINCT	SHEET NO.
TEXAS	WILLIAMSON	4	95

Commissioners Court - Regular Session

31.

Meeting Date: 08/15/2017

2006 Road Bond Transfer

Submitted By: Emmeline Palma, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on approving 2006 Road Bond Budget Transfer per Mike Weaver, Road Bond Manager, to move \$525,000 from 2006 Road Bond Non-Departmental (P156) to Cedar Park ILA (P268).

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[2006 Road Bond Transfer](#)

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Emmeline Palma

Final Approval Date: 08/04/2017

Reviewed By

Wendy Coco

Date

08/04/2017 11:36 AM

Started On: 08/03/2017 03:00 PM

1508 S. Lamar Blvd.
Austin, Texas 78704
(512) 445-7074 voice
(512) 445-7064 fax

Prime Strategies, Inc.

Memo

To: Emmeline Palma, Williamson County Auditor's Office
Cc: Tomika Lynce, Williamson County Auditor's Office
From: Michael J. Weaver
Date: August 3, 2017
Re: 2006 Road Bond Budget Adjustments

Please make the following budget transfer for the 2006 Road Bond project:

- Move \$525,000.00 from P-156 2006 Unallocated Interest to P-268 Cedar Park ILA

If you have any questions, please let me know.

Cc: Bob Daigh, Williamson County Sr. Director of Infrastructure
Marie Walters, PSI
Christen Eschberger, P.E., HNTB

Commissioners Court - Regular Session

32.

Meeting Date: 08/15/2017

10:00AM Public Hearing on the Williamson County proposed 2017 tax rate

Submitted For: Larry Gaddes

Submitted By: Judy Kocian, County Tax Assessor
Collector

Department: County Tax Assessor Collector

Agenda Category: Regular Agenda Items

Information

Agenda Item

10:00 a.m. Public Hearing on the proposed 2017 tax rate for Williamson County.

Background

This is the first of two public hearings on the proposed 2017 tax rate. The proposed rate was voted on August 1, 2017 and is the combined rate of M&O, I&S and R/FM. The second public hearing will be held on August 15, 2017. The individual tax rates will be adopted August 29, 2017.

Proposed Tax Rate: \$0.476529

Preceding Year's Tax Rate: \$0.476529

Effective Tax Rate: \$0.456040

Rollback Tax Rate: \$0.486545

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Tax Assessor (Originator)

Form Started By: Judy Kocian

Final Approval Date: 08/03/2017

Reviewed By

Wendy Coco

Judy Kocian

Date

07/26/2017 02:47 PM

08/03/2017 10:24 AM

Started On: 07/25/2017 02:00 PM

Commissioners Court - Regular Session

33.

Meeting Date: 08/15/2017

FY 18 Budget Discussion

Submitted By: Ashlie Koenig, Budget Office

Department: Budget Office

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss 2017-2018 Budget.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Ashlie Koenig

Final Approval Date: 07/27/2017

Reviewed By

Rebecca Clemons

Date

07/27/2017 08:39 AM

Started On: 07/26/2017 05:14 PM

Commissioners Court - Regular Session

34.

Meeting Date: 08/15/2017

Elected Official Compensation for 2017-2018

Submitted By: Ashlie Koenig, Budget Office

Department: Budget Office

Agenda Category: Regular Agenda Items

Information

Agenda Item

Consider adopting salaries and other compensation (per diem) for elected officials and authorize publication of notice.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Ashlie Koenig

Final Approval Date: 07/27/2017

Reviewed By

Wendy Coco

Date

07/27/2017 09:48 AM

Started On: 07/26/2017 05:25 PM

Commissioners Court - Regular Session

35.

Meeting Date: 08/15/2017

Elected Official Compensation for 2017-2018

Submitted By: Ashlie Koenig, Budget Office

Department: Budget Office

Agenda Category: Regular Agenda Items

Information

Agenda Item

Consider authorizing written notice to each elected official of his/her salary and other compensation to be included in the 2017-2018 budget.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Ashlie Koenig

Final Approval Date: 07/27/2017

Reviewed By

Wendy Coco

Date

07/27/2017 09:48 AM

Started On: 07/26/2017 05:27 PM

Commissioners Court - Regular Session

36.

Meeting Date: 08/15/2017

FY18 Compensation

Submitted By: Tara Raymore, Human Resources

Department: Human Resources

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on approving the FY18 compensation increases.

Background

HR recommendations presented in previous weeks: 2% Elected Officials salary increase with the exception of the County Attorney receiving no increase, 3% merit funding for all merit eligible positions and a step increase for the L and C pay charts for all eligible employees.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Tara Raymore
Final Approval Date: 08/08/2017

Reviewed By

Wendy Coco

Date

08/08/2017 04:59 PM
Started On: 08/08/2017 02:34 PM

Commissioners Court - Regular Session

37.

Meeting Date: 08/15/2017

Beneplace Service Agreement

Submitted For: Tara Raymore

Submitted By: Shelley Loughrey, Human Resources

Department: Human Resources

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the County Judge to execute the Agreement between Beneplace, Inc., Voluntary Benefits Platform which offers special access to a variety of programs, goods and/or services from third parties at discounted or preferred prices made available by Beneplace through such platform, the "Beneplace Services".

Background

The Beneplace Platform is a Voluntary Benefit Platform that will provide Voluntary Employee Paid benefits e.g. Legal Services, Pet Insurance, Identify Theft and Critical Incident and Accident Insurance. There is no cost to Williamson County and all programs elected voluntarily by the employee will be paid by through employees payroll deduction. The Discount Program will be available to all employees at no cost to Williamson County and/or the employee.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[Beneplace Agreement](#)

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Shelley Loughrey
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:12 AM
Started On: 08/03/2017 11:47 AM

Agreement

This is an agreement (the "Agreement") between Beneplace, Inc. ("Beneplace"), a Texas corporation, and Williamson County, a political subdivision of Texas ("Client"). The effective date of this Agreement is July 31, 2017 (the "Effective Date"). The parties agree as follows:

1. Recitals.

- (a) Beneplace provides an online voluntary benefits platform which offers special access to a variety of programs, goods and/or services from third parties at discounted or preferred prices (such platform, along with the features, functionality, and information made available by Beneplace by or through such platform, the "Beneplace Services").
- (b) Client desires for Beneplace (i) to provide Client's employees, members and/or other Client-designated participants meeting mutually defined eligibility standards (such persons, collectively, the "Eligible Participants") with access to the Beneplace Services via a Client-customized online portal developed, hosted and provided by Beneplace (the "Client Portal") and (ii) to provide Client with certain other services relating thereto, all subject to and in accordance with the terms and conditions of this Agreement.
- (c) Each of Beneplace and Client acknowledges and agrees that each has given and received good, valuable, present and sufficient consideration to support each of the provisions of each of the parties under this Agreement.

2. Beneplace Services.

- (a) Offering Packages.
 - (i) Development of Offering Packages. Client hereby authorizes and directs Beneplace to secure from appropriate third party providers ("Providers") illustrative materials, descriptions, prices, terms and incentives for selected goods and services offered by those Providers (the "Offering Packages"); for Client's consideration, and Beneplace agrees to do so.
 - (ii) Client's Responsibility to Select Vendors and Offering Packages. Client shall select the Offering Packages that Client wishes to make available to its Eligible Participants through the Client Portal. At Client's request, Beneplace will assist with Client's selection of the Providers and the Offering Packages. Beneplace will present to Client only those Offering Packages from Providers that Beneplace believes to be reliable, however, Beneplace does not warrant any goods or services included in an Offering Package. It is Client's

responsibility to determine the suitability of the Offering Packages for Eligible Participants and whether to make any particular Offering Package available to Eligible Participants through the Client Portal.

- (iii) Client's Offering Package Selections. The initial Offering Packages that Client has selected are listed on Exhibit "A". From time to time Beneplace may make additions to the Offering Packages that Client has selected that are in-line with the Client's general direction. Upon Client's request, Beneplace will remove from the Client Portal any Offering Package that Client no longer wants to make available to Eligible Participants.
 - (iv) Modification of Offering Packages. The content of any Offering Packages is subject to replacement or substitution at the Provider's discretion. Client may elect not to make the modified Offering Package available to Eligible Participants. Providers may discontinue the availability of Offering Packages, in their discretion.
 - (v) Information and Reports. On a regular basis, Beneplace will provide Client with reports containing aggregated, non-personally identifiable data collected by Beneplace concerning Eligible Participants' usage of the Client Portal, including general usage, click-through and similar data. For the avoidance of doubt, Beneplace will not provide Client with any personally identifiable data concerning any Eligible Participant's usage of the Client Portal to Client.
- (b) Website Development and Maintenance.
- (i) Presentation of Offering Packages. Beneplace will make the Offering Packages available to Eligible Participants via the Client Portal and via a link from Client's intranet to the Client Portal.
 - (ii) Transactions directly with the Provider. The Client Portal will describe the Offering Packages and will provide links to the Provider websites for more information about the goods and services included in the Offering Packages. No purchase transactions shall take place on the Client Portal. Eligible Participants who wish to purchase goods and services from any provider shall do so directly through the Provider.
 - (iii) Access; Security. As a condition to being granted access to the Client Portal, each Eligible Participant will be required to accept Beneplace's then-current standard terms of use as authorized user of the Beneplace Services. Access to the Client Portal will be made available through the Client's intranet. Client is responsible for the security of access to the Client's intranet. Beneplace will not have any responsibility for verifying the identity or authorization of Eligible

Participants. Beneplace may assume that any user who obtains access through Client's intranet is an Eligible Participant. Beneplace will use its reasonable commercial efforts to make the Client Portal continuously available to Eligible Participants accessing it through Client's intranet, subject to reasonable allowances for maintenance and short-term technical disruptions.

- (iv) Changes in Eligible Participant Status. During the Term, Beneplace will permit an Eligible Participant to access and use the Beneplace Services (through the Client Portal) without assessing such person any separate subscription fee. Client will use reasonable efforts to provide Beneplace with periodic reports (on at least a weekly basis) advising Beneplace of any person who has ceased to qualify as an Eligible Participant (e.g., the person is no longer an employee of Client). In the event that Beneplace receives notice that a person is no longer an Eligible Participant, Beneplace may (a) notify such person of the effect that such change has on their status as an authorized user of the Beneplace Services (through the Client Portal), including options for continuing their eligibility for insurance products, discounts and other benefits as a direct subscriber to the Beneplace Services through a separate Beneplace-provided portal and (b) to the extent that such person previously purchased an insurance product that is/was part of the Offering Package, notify the Carrier (as defined in Section 4(a) below) of such change in status and, to the extent applicable, continuation of eligibility as a direct subscriber to the Beneplace Services.

(c) Communications.

- (i) Communications by Beneplace. Beneplace will communicate the Offering Packages to Eligible Participants through (A) the Client Portal, (B) direct electronic communications (e.g., email promotions) authorized by Client, (C) direct email communications that Eligible Participants have affirmatively consented to receive, and/or (D) such other communications means approved by Client or the Eligible Participant.
- (ii) Communications by Client. Client may also communicate the Offering Package or any related information to Eligible Participants in any way Client deems appropriate. Client agrees to make Client's selected Offering Packages available to Eligible Participants during the Term of this Agreement, subject to Client's right to select and remove particular Offering Packages.
- (iii) Trademarks. Beneplace and Client each grant each other a non-exclusive, non-transferable, royalty free license to use its name, trademarks, brands and logos with respect to the presentation of the Offering Package contemplated under this Agreement. Beneplace

and Client also agree to submit any such use of the other's name, trademarks, brands and logos to the other party for approval prior to use, which approval shall not be unreasonably withheld. Neither Beneplace nor Client shall otherwise use the name, trademarks, brands and logos of the other without the other's written consent. Client further grants Providers a limited, non-exclusive, non-transferable, royalty free license to use Client's name, trademarks, brands and logos solely in connection with the Offering Packages listed in this Agreement and only with Client's written consent.

3. Compensation to Beneplace.

- (a) Compensation for Service. During the Term, Client agrees to pay Beneplace the compensation described on Exhibit "B" for Beneplace's services provided under this Agreement (the "Services Compensation"). Beneplace will not be entitled to any other compensation from Client unless Client expressly agrees in writing to the same.
- (b) Fees from Providers. Client acknowledges that Beneplace may receive compensation from the Providers who supply Offering Packages to Client, and Client consents to Beneplace's receipt of such compensation.

4. Insurance Brokerage Provisions. During the Term:

- (a) Beneplace shall act as the exclusive insurance agent/broker for all products listed on Exhibit "A" that require insurance licenses, and shall be entitled to be paid such compensation from the Providers of such products ("Carriers") as may be negotiated between Beneplace and such Carriers from time to time; and
- (b) Client shall maintain in force written instructions to each of the Carriers to the effect that Beneplace is the exclusive agent/broker of record with respect to the applicable products; and
- (c) Beneplace shall be solely responsible for ensuring that the agreements between Beneplace and the Providers of insurance products contain provisions reflecting the forgoing compensation arrangement and for collecting from the Providers the compensation that is due as a result of Eligible Participants purchasing insurance services and/or products that are part of the Offering Package, and Client will have no responsibility or liability in such regard, other than notifying the applicable Providers that Beneplace is the exclusive agent/broker of record with respect to the applicable products.

5. Privacy and Use of data.

- (a) Beneplace agrees that any non-public information concerning Client, Eligible Participants, or Client's business that Client discloses to Beneplace during the Term of this Agreement, whether in print or electronic format, will be deemed

the confidential information of Client (collectively, "Confidential Information"). Without limiting the foregoing, Confidential Information includes any list or compilation of Eligible Participants furnished by Client to Beneplace; however, Beneplace may share aggregated, non-personally identifiable information regarding Eligible Participants with Providers in connection with marketing activities relating to the Offering Packages (e.g., in connection with soliciting preferred rates or offers based on the demographics/group size of Eligible Participants). Client represents and warrants that it has all necessary rights to disclose the Confidential Information to Beneplace and to permit Beneplace to use such information in its performance of this Agreement. Beneplace will use the same degree of care to protect the Confidential Information as it uses to protect its own confidential information of like importance, but in no event will Beneplace use less than reasonable care. Beneplace may use the Confidential Information only in its performance of this Agreement, and for no other purpose, commercial or otherwise. Beneplace may disclose the Confidential Information only to (1) those Beneplace employees, contractors and representatives who need to know the Confidential Information in order to assist Beneplace in its performance of this Agreement (provided, that such persons are bound by obligations of confidentiality and nonuse (without further rights of distribution) no less restrictive than those contained herein), (2) those other persons expressly permitted under the provisions of this Agreement (but only to the extent permitted under such provisions), and (3) those other persons approved by Client. Notwithstanding anything to the contrary, disclosure or use of any Confidential Information will not be restricted to the extent that: (i) it is or becomes generally available to the public without any breach of this Agreement, (ii) it is known to Beneplace prior to the date of disclosure by or on behalf of Client hereunder; (iii) Beneplace rightfully obtains it from a third party who Beneplace reasonably believes has the right to transfer or disclose it without restriction; or (iv) it is developed independently by Beneplace without any breach of this Agreement and without any use of the Confidential Information. These obligations survive termination of this Agreement. Upon termination of this Agreement, Beneplace will return to Client (or, at Beneplace's election, destroy and certify the destruction of) all Confidential Information and Beneplace will not retain copies of it, nor continue to use it.

6. **Term and Termination.**

- (a) Term. The initial term of this Agreement shall commence on the Effective Date and shall continue for five years (the "Initial Term"). Unless either Beneplace or Client provides written notice of non-renewal to the other more than ninety (90) days prior to the expiration of the Initial Term or any Renewal Term (defined below), upon the expiration of the Initial Term or Renewal Term (as applicable), this Agreement shall automatically renew for an additional twelve month period (each, a "Renewal Term"). The "Term" of this Agreement shall include the Initial Term and any Renewal Terms, but shall nevertheless terminate upon the termination of this Agreement in accordance with either of Sections 60 or 6(b) below.

Termination for Convenience. This agreement may be terminated at any time at the option of either party, without future or prospective liability for performance upon giving ninety (90) days written notice thereof. In the event of termination, Client will only be liable for its pro rata share of services rendered and goods actually received.

(b) Termination for Cause. Either party may terminate this Agreement at any time during any part of the Term by written notice to the other:

- (i) in the event of material breach by the other party of this Agreement that remains uncured for thirty (30) business days after the terminating party gives written notice to the breaching party of the breach; or
- (ii) in the event that the other party is unable to generally pay its debts as due, or enters into or files (or has filed or commenced against it) a petition of, arrangement, action or other proceeding seeking relief or protection under the bankruptcy laws of the United States or similar laws of the United States or any state or other jurisdiction.

(c) Effect of Expiration or Termination. In the event of the expiration or termination of this Agreement:

- (i) Within fifteen (15) business days after such expiration or termination, Beneplace shall take appropriate action to remove Client's connection to the Client Portal, and all compensation to be paid to Beneplace by Provider under this Agreement shall become due and payable; and
- (ii) Client shall have the right to engage another insurance agent/broker for insurance products offered to Eligible Participants following such expiration or termination (subject to the rights and obligations of the parties under Section 6(d)(iii) below) and to implement any other program for its Eligible Participants; and
- (iii) Client agrees that Beneplace shall continue to be designated as the agent/broker, and shall continue to be paid all agent/broker compensation, with respect to insurance products of Providers that were purchased by Eligible Participants during the Term and which continue in effect (including any extensions or renewals thereof) following the expiration or termination of this Agreement for so long as such Eligible Participant(s) continues such coverage(s) in force. At Beneplace's request, Client shall (A) provide prompt written notice to each Provider of insurance products purchased by Eligible Participants during the Term instructing the Provider to continue to designate Beneplace as the agent/broker, and to continue to pay Beneplace all agent/broker compensation, with respect to such insurance products that were purchased by Eligible Participants during the Term and which continue in effect following the expiration or termination of this Agreement and (B)

execute and deliver such further documents, and take such further action, as may be reasonably requested by Beneplace, to effect the intent and purpose of this Section 6(d)(iii); and

- (iv) Any insurance agent or broker providing services in connection with insurance products offered to Eligible Participants shall be entitled only to receive agent/broker compensation with respect to insurance products that are first offered to and purchased by the Eligible Participant after the expiration or termination of this Agreement; and
- (v) Beneplace shall have no obligations to provide any additional services or make any Offering Packages or other products available to Eligible Participants; and
- (vi) Anything to the contrary notwithstanding, the expiration or termination of this Agreement will not affect any of the parties' respective rights or obligations that (A) are vested pursuant to this Agreement as of the effective date of such expiration or termination (including obligations for payment and remedies for breach of this Agreement), or (B) arise under Sections 5, 6(d), 6(e) 7 and 8 of this Agreement, all of which will survive any expiration or termination of this Agreement.

(d) Communication to Providers

- (i) Beneplace will provide written notice of termination ("Termination Notice") to each of the Providers at least ____ () days prior to the termination or expiration of this Agreement; provided, that in the event either Client or Beneplace effects the termination of the Beneplace/Client Agreement on less than ____ () days written notice, Beneplace shall provide a termination notice to each of the Providers within ten (10) days of receiving or giving timely notice of such termination.
- (ii) Subject to Beneplace providing to the Providers a timely Termination Notice pursuant to Section 6(e)(i) above, Client will continue to make payments under all applicable payroll deduction programs through the date of termination or expiration of this Agreement.
- (iii) Client agrees to cooperate in good faith to enable Eligible Participants who wish to continue their relationship with one or more Providers after the termination or expiration of this Agreement to continue such relationship and to facilitate payments to such Providers on a payroll deduction basis subject to Client's rights under Section 6(e)(iv) below. Client agrees to continue payroll deduction of monies from employee paychecks in the event of termination of Beneplace and its duties. Client further agrees to remit these monies promptly to the payroll aggregator or directly to the provider of goods or services, as per established

routine, until current purchases are completely paid or until a new benefit manager can be engaged and/or remittance schedule established.

- (iv) Client reserves the right to terminate its payroll deduction program with respect to any Eligible Participant or Provider at any time upon 90 days' written notice to Beneplace. Beneplace agrees promptly to provide written notice to each of the Providers in the event it receives notice from Client that it is terminating its payroll deduction program with respect to any Eligible Participant or Provider.
- (v) Client acknowledges and agrees that, in the event that this Agreement is terminated or expires or in the event that Client terminates the Payroll Deduction Program, each of Providers shall have the right to terminate the availability of its products to Eligible Participants at any time thereafter.

7. **Disclaimers and Limitations of Liability.**

- (a) Beneplace is not a party to any transaction between Client and any Provider, or between Eligible Participants and any Provider. Instead, the Client Portal acts solely as a venue to allow Providers to present Offering Packages to Eligible Participants, and for Eligible Participants to contract with Providers if they wish. Beneplace is not involved in the transaction between Eligible Participants and Providers. As a result, Beneplace has no control over and shall not have responsibility for the quality, performance, terms and conditions, or legality of any product or service included in an Offering Package, or the truth or accuracy of any representation made by a Provider.
- (b) No Warranty. Beneplace provides Beneplace's site and services as is and is available and without any warranty or condition express, implied or statutory. Beneplace specifically disclaims any implied warranties of title, merchantability, fitness for a particular purpose, non-infringement or any warranties that may arise from the usage of trade or course of dealing. The foregoing disclaimer also applies to any recommendation, content, products, services or transactions that may be obtained through the site.
- (c) Liability Limit. In no event shall either party or any of its respective directors, officers, employees or agents be liable to the other party or any person or entity affiliated with it for lost profits or any special, incidental or consequential damages or any other claims arising out of or in connection with Beneplace's site, Beneplace's services or this agreement, however arising, including the negligence of such party, and regardless of whether that party has been advised of the possibility of such damages or claim and regardless of any claim or finding that a remedy suffers a failure of its essential purpose. This liability limit shall not apply to client's indemnity obligations set forth in section 7(d) below.

- (d) Indemnity. To the extent authorized under Texas Law Client agrees to indemnify, defend and hold harmless Beneplace, its affiliates, officers, directors, employees and agents (each, an "Indemnified Party") and hold them harmless against all liability or damages (including reasonable attorney fees and costs) arising out of any claim concerning the privacy or use of data relating to eligible participants or others who may access the Client Portal through Client's intranet, including, without limitation, claims arising out of the negligence of any of the indemnified parties but excluding from the obligations to indemnify, defend and hold harmless any claims arising out of the intentional misconduct or gross negligence of the indemnified party. Beneplace agrees to defend and indemnify client, its affiliates, officers, directors, employees and agents (each an indemnified party) and hold them harmless against all liability or damages (including reasonable attorney fees and costs) arising out of any claim caused by the gross negligence or misconduct of Beneplace or its employees.
- (e) The Client may request Beneplace to add providers of goods and services to the site at various times. Beneplace, as the manager of the site and the offerings contained therein, will undertake a due diligence examination to determine the fitness of the offer. After this examination, Beneplace will make a recommendation to the Client as to whether to add the offer or will make a recommendation to the Client to NOT add the offer. Should the Client wish to override the advice from Beneplace regarding the fitness of the offer and insist on adding the product or service to the site, Client agrees to indemnify Beneplace in accordance with Exhibit C to this Agreement.

8. **Miscellaneous.**

- (a) Choice of Law. The Client Portal is controlled, operated and administered by Beneplace from its offices in Austin, Travis County, Texas, United States of America. Beneplace makes no representation that materials at this site are appropriate or available for use at other locations outside of the United States and access to them from territories where their contents are illegal is prohibited. Client agrees not to use the Client Portal or export the materials in violation of U.S. export laws and regulations. If Client or Eligible Participants access this site from locations outside of the United States, Client is responsible for compliance with all laws.

This Agreement shall be governed by the laws of the State of Texas, U.S.A., without giving effect to any provisions of Texas law that direct the application of the laws of a different jurisdiction.

- (b) Assignment. This Agreement may not be assigned by either party without the written consent of the other party. Subject to foregoing, this Agreement shall

inure to the benefit of and be binding upon the permitted successors, legal representatives, and assigns of the parties hereto.

- (c) No Third Party Beneficiary. This Agreement is for the benefit of the parties only. No person shall be a third party beneficiary to it, including but not limited to any Provider or any Eligible Participants.
- (d) Independent Contractor. Notwithstanding anything else set forth herein to the contrary, the relationship between Client and Beneplace is a contractual relationship only, and nothing herein shall be construed to create a partnership, joint venture, franchise, employment, or any agency relationship between the Parties. Beneplace has no authority to act on Client's behalf or to bind Client in any respect with third party vendors.
- (e) Severability. If any provision hereof is declared invalid by a court of competent jurisdiction, such provision shall be ineffective only to the extent of such invalidity, so that the remainder of that provision and all remaining provisions of this Agreement will continue in full force and effect.
- (f) Waiver. No waiver shall be effective unless in writing and signed by the party sought to be charged.
- (g) Entire Agreement. This constitutes the entire Agreement between the parties relating to the subject matter hereof. Any modification to this Agreement must be in writing and signed by both parties.
- (h) Notice. Notices given by one party to the other party under this Agreement shall be in writing and shall be deemed given upon the first to occur of transmittal by facsimile with verification of receipt, the next day following deposit with an overnight delivery service, or three (3) days after placed in U.S. first class mail, certified mail, return receipt requested, postage prepaid and addressed to the respective parties as follows:

Client

Williamson County
County Judge
710 Main Street, Suite 101
Georgetown, TX 78626
Fax No: 512-943-1662

Williamson County
Director of Benefits Administration
301 S.E. Inner Loop, Suite 108
Georgetown, TX 78626
Fax No: 512-943-1535


Beneplace, Inc.

Beneplace, Inc.
P.O. Box 203550
Austin, TX 78720
Attn. - President
Fax No: 512-795-0155

Either party may change its designated notice address or e-mail by written notice served in accordance with the preceding sentence.

Intending to be legally bound, the Parties execute this Agreement, effective as of the Effective date above.

Beneplace, Inc.

By: 

Name: Rusty Stein

Title: President

Date: 31 Jul 17

[Client]

By: _____

Name: Dan Gattis

Title: County Judge

Date: _____

Exhibit "A"

Initial Offering Package

The Offering Package agreed upon shall include the following Providers. From time to time Beneplace may make additions to the Offering Packages that Client has selected that are in-line with the Client's general direction. A Provider may be removed from the Offering Package upon the mutual written consent of both parties to this Agreement without amending this Agreement.

<u>Program</u>	<u>Description</u>
Auto/Home	Provider TBD
Critical Illness	Provider TBD
Accident	Provider TBD
Hospital Indemnity	Provider TBD
Legal Insurance	Provider TBD
ID Theft Protection	Provider TBD
Pet Insurance	Provider TBD
Long Term Care	Provider TBD

Exhibit "B"

Beneplace Compensation Schedule

Agency Services: Annual Client Maintenance Charge: \$0.00
Includes costs of building and maintaining the Client Portal with updated provider supplied content.

Agency Services: Client initiated changes and enhancements due to customization and those projects outside the scope of services outlined in the Beneplace proposal. Time and Materials based on an hourly rate of \$150.00 billed in 15 minute increments.

Payment Due: Texas Prompt Payment Act Compliance: Payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. An invoice shall be deemed overdue the 31st day after the later of (1) the date licensee receives the goods under the contract; (2) the date the performance of the service under the contract is completed; or (3) the date the Williamson County Auditor receives an invoice for the goods or services. Interest charges for any overdue payments shall be paid by licensee in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of licensee's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

Exhibit "C"

Area Providers and Pre-Existing Providers

Client understands and acknowledges that Beneplace has not researched, performed due diligence with respect to, or otherwise approved the Providers described on Exhibit C-1 attached or any other Providers selected by Client with respect to whom Beneplace has no contractual relationship (collectively, "Unapproved Providers"). Beneplace does not assume any responsibility or liability for these Unapproved Providers and furthermore does not make any warranty, express or implied, including but not limited to, those of title, merchantability or fitness for a particular purpose, concerning the content of any products offered by them.

Neither Beneplace, nor any of its directors, officers, employees or agents, shall be liable or obligated for any direct, indirect, incidental, special, consequential or punitive damages arising out of any failings between client or its eligible participants and any unapproved providers, regardless of the theory of relief, including negligence, even if a party has been advised of the possibility of these damages, and regardless of any claim or finding that a remedy suffers a failure of its essential purposes.

Furthermore, Client agrees to indemnify Beneplace, its directors, officers, employees or agents from any liability whatsoever caused by area providers and pre-existing providers.

Exhibit "C-1"

List of Unapproved Providers

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Commissioners Court - Regular Session

38.

Meeting Date: 08/15/2017

Paylogix Common Remitter Service Agreement

Submitted For: Tara Raymore

Submitted By: Shelley Loughrey, Human Resources

Department: Human Resources

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the County Judge to execute the Agreement between Paylogix, Common Remitter Service Agreement which works with the Beneplace Platform for the Voluntary Employee Discount Program, by remitting Voluntary Employee Elections and remitting payment for these Voluntary Employee Elections to the appropriate Voluntary Benefit Vendors.

Background

Paylogix will work with the Beneplace Platform to reconcile, remit elections and payments to the appropriate Voluntary Employee Elected Paid benefit vendors. Williamson County Benefits Team will submit an employee eligibility census to Beneplace and Paylogix on a semimonthly basis. Paylogix will use the Wilco Census provided to reconcile eligibility, total count of elections made and for total count of deduction amount to be received.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Paylogix Common Remitter Service Agreement

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Shelley Loughrey

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:12 AM

Started On: 08/03/2017 11:52 AM

Common Remitter® Agreement

This Agreement dated as of the _____ day of August, 2017 between Williamson County, a political subdivision of the State of Texas with offices at 301 S.E. Inner Loop, Suite #108, Georgetown, TX 78626 (hereinafter referred to as "Employer") and PAYLOGIX, LLC, a New York limited liability company with offices at 1025 Old Country Road, Suite 310, Westbury, New York 11590 (hereinafter referred to as "PAYLOGIX").

Recitals

Employer has provided or intends to provide its eligible employees with a Employee Paid Voluntary Benefit & Discount program known as Employee Paid Voluntary Benefit & Discount Program Plan (the "Plan").

Employer wishes to retain the common remitter to perform the functions necessary to act in that capacity.

In consideration of the mutual covenants of this Agreement, the parties, intending to be legally bound, agree as follows:

- Master Allocation List; Information. (a) The Employer shall provide to Paylogix a complete listing of the name and unique employee identifier ("Employee ID") of each individual participant employee, the contribution types and the carrier allocations attributed to each participant utilizing an electronic template provided by Paylogix or in another electronic format approved in writing by Paylogix on or before the effective date of this Agreement.

(b) Additions, or deletions to the listing must be in a format previously approved by Paylogix and must be sent prior to or along with the payment. Employer shall be responsible for notifying Paylogix of the termination of employment of each individual participant employee.

(c) Paylogix is hereby authorized to act on any information provided to it by Employer, carrier, provider and/or any of their agents.

(d) Any and all payments instructions must be transmitted in writing or documented by other means acceptable to Paylogix.
- Payroll Remittance List. The Employer shall provide, in a format previously approved by Paylogix, a list of periodic contributions attributed to each participant (payroll remittance list) at a frequency agreed upon by both parties.
- Remittance Processing Facility. The Employer shall forward the contributions to the following remittance processing facility in a format and via means approved by Paylogix:

Paylogix f/b/o Williamson County
1025 Old Country Road, Suite 310
Westbury, New York 11590

Only contributions sent to this facility will be credited to the accounts of Participating employees.



Common Remitter® Agreement

If there is a discrepancy between the amount of the payment forwarded and the amount listed on the payroll remittance list, the payment will be deemed not to have been received, until and unless such time as the discrepancy has been resolved to the satisfaction of both the Employer and Paylogix.

4. Discrepancies. Paylogix will review each payroll remittance list and contact the administrative representative of the Employer should there be any perceived discrepancies between payments received and amounts billed. The Employer will use its “best efforts” to resolve any and all discrepancies on the date the Employer is contacted by Paylogix. Contributions will be refunded on all unresolved discrepancies.

5. Indemnification. To the extent authorized under Texas Law:
 - (a) Paylogix shall indemnify and hold Employer and its affiliates, subsidiaries, successors, assigns, agents, officers, directors, representatives, and employees harmless from any and all claims, demands, losses, actions, causes of action, damages, judgments, fines, fees (including attorney’s fees), penalties, settlements, and any and all other sums of money resulting from Paylogix’ breach of this Agreement, or the negligence or willful misconduct on the part of Paylogix or any of its employees.

 - (b) Employer shall indemnify and hold Paylogix and its affiliates, subsidiaries, successors, assigns, agents, officers, directors, representatives, and employees harmless from any and all claims, demands, losses, actions, causes of action, damages, judgments, fines, fees (including attorney’s fees), penalties, settlements, and any and all other sums of money resulting from Employer’s breach of this Agreement, or the negligence or willful misconduct on the part of Employer or any of its employees.

6. Fees. Paylogix will not charge Employer any fees during the Term of this Agreement. Paylogix will be charging other members involved in the program (by way of example only, Paylogix may be charging the writing agent and/or the insurance carrier) for the services provided in this Agreement. Employer agrees that Paylogix may terminate this Agreement in the event of a failure by such other participant to timely pay such fees.

7. Term and Termination.
 - (a) Term. The initial term of this Agreement shall commence on the Effective Date and shall continue for three [3] years (the “Initial Term”). Unless either Paylogix or Employer provides written notice of non-renewal to the other no less than thirty (30) days prior to the expiration of the Initial Term of any Renewal Term (defined below), upon the expiration of the Initial Term or Renewal Term (as applicable), this Agreement shall automatically renew for an additional twelve-month period (each, a “Renewal Term”). The “Term” of this Agreement shall include the Initial Term and any Renewal Terms, but shall nevertheless terminate upon the termination of this Agreement in accordance with either of Sections 7(b) or 7(c) below.



Common Remitter® Agreement

(b) Termination for Convenience. After the end of the Initial Term, either party may terminate this Agreement for any reason, at any time, upon no less than thirty (30) days prior written notice to the other party.

(c) Termination for Cause. Either party may terminate this Agreement at any time during any part of the Term immediately upon written notice to the other:

(i) in the event of material breach by the other party of this Agreement that remains uncured for thirty (30) days after the terminating party gives written notice to the breaching party of the breach; or

(ii) in the event that the other party is unable to generally pay its debts as due, or enters into or files (or has filed or commenced against it) a petition of, arrangement, action or other proceeding seeking relief or protection under the bankruptcy laws of the United States or similar laws of the United States or any state or other jurisdiction; or

(iii) by Paylogix upon notice to Employer in the event of a failure by the obligated party to timely pay Paylogix the fees for services hereunder (see Section 6 above).

(d) Effect of Termination. In the event this Agreement terminates either at the expiration of the Term or as a result of termination under Sections 7(b) or 7(c) above, upon termination of this Agreement, the parties agree to cooperate reasonably with one another to help assure a smooth and orderly transfer of the administrative services and functions provided hereunder.

8. Data Security. Paylogix will maintain security procedures with respect to its access and maintenance of any Employer data, including but not limited to data relating to Employer's employees. Paylogix will use commercially reasonable efforts to secure and defend its location and equipment against "hackers" and others who may seek to modify or access Paylogix' systems or the information found therein without authorization. Paylogix will also use commercially reasonable efforts to secure and defend Employer's data from other third party users of Paylogix' systems and applications.
9. Notice. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given when delivered by hand or upon the third business day following mailing, which shall be by certified or registered mail, with first-class postage paid, or one business day following pick-up by (or delivery to) a nationally recognized overnight courier for priority overnight delivery (a) if to Employer, to the address written below, or to such other person or place as Employer shall furnish to PAYLOGIX in writing, and (b) if to PAYLOGIX, to the address written above or to such other place as PAYLOGIX shall furnish to Employer in writing.
10. Assignment. This Agreement shall inure to the benefit of and be binding upon the parties and their respective successors and assigns.
11. Governing Law. This Agreement shall be interpreted, construed and performed, and the rights and liabilities of the parties hereto determined, in accordance with the laws of the State of Texas, without regard to any conflicts or choice of law principles.



Common Remitter® Agreement

No Waiver of Sovereign Immunity or Powers: Nothing in this agreement will be deemed to constitute a waiver of sovereign immunity or powers of Employer, the Williamson County Commissioners Court, or the Williamson County Judge. Notwithstanding the foregoing, the parties agree that this agreement and the services to be provided by Paylogix hereunder are in connection with proprietary, and not governmental, matters.

Mediation: The parties agree to use mediation for dispute resolution prior to and formal legal action being taken on this Contract.

Venue: Venue of this contract shall be Williamson County, Texas.

Right to Audit: Paylogix agrees that Employer or its duly authorized representatives (reasonably acceptable to Paylogix) shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Paylogix which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Such audit right may be exercised no more than one (1) time in any twelve (12) month period. Paylogix agrees that Employer shall have reasonable access during normal working hours to all necessary Paylogix facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Employer shall give Paylogix reasonable advance notice of intended audits (but in no event less than ten (10) business days). Both parties agree that to the extent the information sought in the audit is available remotely (e.g. online), Employer shall perform the audit remotely.

12. Compliance with Laws. Each of the Employer and Paylogix agrees to abide by all applicable laws and regulations of Federal and State agencies having jurisdiction over this Agreement, including without limitation the Health Insurance Portability and Accountability Act of 1996 and related regulations, as may be amended from time to time (“HIPAA”).
13. Entire Agreement; Modifications. This Agreement constitutes the entire agreement between the parties hereto and supersedes any prior agreements, promises and representations with respect to the subject matter hereof, whether oral or written. This Agreement may be modified or amended only by a writing executed by the parties hereto.
14. Counterparts; Facsimile. This Agreement may be executed in one or more counterparts, each of which shall be considered an original, but all of which together shall be considered as but one instrument. Delivery of an executed counterpart of this Agreement by facsimile shall be equally as effective as delivery of a manually executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized officers as of the day first above written.

[NEXT PAGE IS THE SIGNATURE PAGE]



Common Remitter® Agreement

WILLIAMSON COUNTY

By: _____

Name: Dan Gattis

Title: _County Judge

Date:

PAYLOGIX, LLC

By: Richard Pfadenhauer

Name: Richard Pfadenhauer

Title: President

Date: 02 August 2017

BENEPLACE, INC.

[NAME OF AGENT FOR EMPLOYER]

(agreeing to the above in its capacity as agent for the Employer (and it will act as a liaison for the Employer) and, with respect to Section 6 above, agreeing to be primarily liable to Paylogix for the compensation as set forth in an agreement between Paylogix and Beneplace, dated 01 October 2016)

By: _____

Name: _____

Title: _____



Commissioners Court - Regular Session

39.

Meeting Date: 08/15/2017

Voluntary Employee Benefit Payroll Deduction

Submitted For: Tara Raymore

Submitted By: Shelley Loughrey, Human Resources

Department: Human Resources

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take any appropriate action regarding authorizing employee payroll deduction(s) for voluntary insurance platform through Beneplace Services.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Shelley Loughrey

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:12 AM

Started On: 08/07/2017 04:49 PM

Commissioners Court - Regular Session

40.

Meeting Date: 08/15/2017

CO Auth Cedar Park Tax

Submitted For: Dan Gattis

Submitted By: Hal Hawes, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action approving the appointment of Bob Lubecker, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with Falkenberg Construction Co., Inc. relating to the Williamson County Cedar Park Tax Office Remodel Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Bob Lubecker to sign non-contractual permit applications associated with the construction of the Project.

Background

Section 262.031 of the Local Government Code allows for the grant of such authority up to \$50,000.00 (see below). Any change orders that are approved pursuant to this item will be placed on the Commissioners Court’s Consent Agenda the following week so that they are acknowledged and made a part of the minutes. Local Government Code Sec. 262.031. CHANGES IN PLANS AND SPECIFICATIONS. (b) If a change order involves an increase or decrease in cost of \$50,000 or less, the commissioners court may grant general authority to an employee to approve the change orders. However, the original contract price may not be increased by more than 25 percent unless the change order is necessary to comply with a federal or state statute, rule, regulation, or judicial decision enacted, adopted, or rendered after the contract was made. The original contract price may not be decreased by 18 percent or more without the consent of the contractor.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Hal Hawes
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM
Started On: 08/09/2017 03:37 PM

Commissioners Court - Regular Session

41.

Meeting Date: 08/15/2017

CO Authority Justice Center Roof

Submitted For: Dan Gattis

Submitted By: Hal Hawes, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action approving the appointment of Dwayne Gossett, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement for Construction Services with L. Wallace Construction Co., Inc. relating to the Williamson County Justice Center Roof Reconstruction and Improvements Project for any increase or decrease in cost of \$5,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dwayne Gossett to sign non-contractual permit applications associated with the construction of the Project.

Background

Section 262.031 of the Local Government Code allows for the grant of such authority up to \$50,000.00 (see below). Any change orders that are approved pursuant to this item will be placed on the Commissioners Court’s Consent Agenda the following week so that they are acknowledged and made a part of the minutes. Local Government Code Sec. 262.031. CHANGES IN PLANS AND SPECIFICATIONS. (b) If a change order involves an increase or decrease in cost of \$50,000 or less, the commissioners court may grant general authority to an employee to approve the change orders. However, the original contract price may not be increased by more than 25 percent unless the change order is necessary to comply with a federal or state statute, rule, regulation, or judicial decision enacted, adopted, or rendered after the contract was made. The original contract price may not be decreased by 18 percent or more without the consent of the contractor.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Hal Hawes
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM
Started On: 08/09/2017 03:38 PM

Commissioners Court - Regular Session

42.

Meeting Date: 08/15/2017

CO Auth Tx Ave

Submitted For: Dan Gattis

Submitted By: Hal Hawes, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action approving the appointment of Bob Lubecker, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with Trimbuilt Construction, Inc. relating to the Williamson County Texas Avenue Facility Remodel (WCCHD Office Renovations) Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Bob Lubecker to sign non-contractual permit applications associated with the construction of the Project.

Background

Section 262.031 of the Local Government Code allows for the grant of such authority up to \$50,000.00 (see below). Any change orders that are approved pursuant to this item will be placed on the Commissioners Court’s Consent Agenda the following week so that they are acknowledged and made a part of the minutes. Local Government Code Sec. 262.031. CHANGES IN PLANS AND SPECIFICATIONS. (b) If a change order involves an increase or decrease in cost of \$50,000 or less, the commissioners court may grant general authority to an employee to approve the change orders. However, the original contract price may not be increased by more than 25 percent unless the change order is necessary to comply with a federal or state statute, rule, regulation, or judicial decision enacted, adopted, or rendered after the contract was made. The original contract price may not be decreased by 18 percent or more without the consent of the contractor.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Hal Hawes
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM
Started On: 08/09/2017 03:40 PM

Commissioners Court - Regular Session

43.

Meeting Date: 08/15/2017

CO Auth Animal Shelter

Submitted For: Dan Gattis

Submitted By: Hal Hawes, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action approving the appointment of Dale Butler, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Construction Manager-at-Risk with J. T. Vaughn Construction, LLC relating to the Williamson County Animal Shelter Expansion Project for any increase or decrease in cost of \$30,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dale Butler to sign non-contractual permit applications associated with the construction of the Project.

Background

Section 262.031 of the Local Government Code allows for the grant of such authority up to \$50,000.00 (see below). Any change orders that are approved pursuant to this item will be placed on the Commissioners Court’s Consent Agenda the following week so that they are acknowledged and made a part of the minutes. Local Government Code Sec. 262.031. CHANGES IN PLANS AND SPECIFICATIONS. (b) If a change order involves an increase or decrease in cost of \$50,000 or less, the commissioners court may grant general authority to an employee to approve the change orders. However, the original contract price may not be increased by more than 25 percent unless the change order is necessary to comply with a federal or state statute, rule, regulation, or judicial decision enacted, adopted, or rendered after the contract was made. The original contract price may not be decreased by 18 percent or more without the consent of the contractor.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Hal Hawes

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM

Started On: 08/09/2017 03:41 PM

Commissioners Court - Regular Session

44.

Meeting Date: 08/15/2017

CO Auth Jail Kitchen

Submitted For: Dan Gattis

Submitted By: Hal Hawes, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action approving the appointment of Dale Butler, Williamson County Facilities Project Manager, with general authority to approve change orders for the Agreement between Owner and Contractor with STR Constructors, Ltd. relating to the Williamson County Jail Kitchen and Plumbing Remodel Project for any increase or decrease in cost of \$50,000.00 or less in accordance with Section 262.031 of the Local Government Code – Changes in Plans and Specifications; and further authorize Dale Butler to sign non-contractual permit applications associated with the construction of the Project.

Background

Section 262.031 of the Local Government Code allows for the grant of such authority up to \$50,000.00 (see below). Any change orders that are approved pursuant to this item will be placed on the Commissioners Court’s Consent Agenda the following week so that they are acknowledged and made a part of the minutes. Local Government Code Sec. 262.031. CHANGES IN PLANS AND SPECIFICATIONS. (b) If a change order involves an increase or decrease in cost of \$50,000 or less, the commissioners court may grant general authority to an employee to approve the change orders. However, the original contract price may not be increased by more than 25 percent unless the change order is necessary to comply with a federal or state statute, rule, regulation, or judicial decision enacted, adopted, or rendered after the contract was made. The original contract price may not be decreased by 18 percent or more without the consent of the contractor.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Hal Hawes
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM
Started On: 08/09/2017 03:43 PM

Commissioners Court - Regular Session

45.

Meeting Date: 08/15/2017

1033 Program to excess Dept of Defense surplus property

Submitted For: Robert Chody

Submitted By: Starla Hall, Sheriff

Department: Sheriff

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on a State Plan of Operation (SPO) agreement between the State of Texas and the Williamson County Sheriff's Office setting forth the terms and conditions which will be binding on the parties with respect to excess Department of Defense personal property transferred pursuant to 10 USC 2576a.

Background

Williamson County Sheriff's Office has been participating in this program with the Federal Government for a while now however just recently it was decided by the government that an agreement be done with the State of Texas and the LE agencies. The Secretary of Defense is authorized to transfer to LE agencies personal property that is excess to the needs of the Dept of Defense and that the Secretary determines is suitable to be used by such agencies in law enforcement activities, with preferences for counter drug/counter terrorism or border security activities. The Governor of Texas has designated in writing effective 8-26-15 to implement this program statewide as well as conduct management and oversight of this program. WCSO is required to submit an updated Application Packet to the State Coordinator's office no later than December 1 each year.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

State Plan of Operations Agreement

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Starla Hall
Final Approval Date: 08/07/2017

Reviewed By

Wendy Coco

Date

08/07/2017 03:07 PM
Started On: 08/04/2017 01:51 PM

New
 Update

LAW ENFORCEMENT AGENCY (LEA) APPLICATION FOR PARTICIPATION

This application must be updated and resubmitted within 30 days of any changes

Federal State Tribal Federal Agencies only: (Parent Affiliate i.e. DOJ): _____

2YTXXX DODAAC (Update Only): 2YTNQF

AGENCY: Williamson County Sheriff's Office

PHYSICAL ADDRESS (No P.O. Box): 508 S. Rock St.

CITY: Georgetown STATE: Texas ZIP: 78626

AGENCY MUST HAVE AT LEAST 1 FULL-TIME OFFICER TO PARTICIPATE IN THE PROGRAM
INDICATE THE NUMBER OF COMPENSATED OFFICERS WITH ARREST AND APPREHENSION AUTHORITY

FULL-TIME: 230 PART-TIME: _____

SCREENER POC(s): INCLUDE EMAIL ADDRESS AND DIRECT CONTACT PHONE NUMBER IF AVAILABLE

*MAIN POC: Is the Primary POC for requests and property pickup

	NAME: LAST, FIRST	EMAIL	PHONE #
*SCREENER/MAIN POC	Lt. Derrick Dutton	ddutton@wilco.org	512-943-1300
SCREENER/POC #2	Sgt. Leonard Stewart	lstewart@wilco.org	512-943-1300
SCREENER/POC #3	Dep. Derek Trabal	dtrabal@wilco.org	512-943-1300
SCREENER/POC #4	Dep. Gabriel Martin	gmartin@wilco.org	512-943-1300
WEAPON/POC	Lt. Derrick Dutton	ddutton@wilco.org	512-943-1300
AIRCRAFT/POC	Lt. Derrick Dutton	ddutton@wilco.org	512-943-1300
VEHICLE/POC	Lt. Derrick Dutton	ddutton@wilco.org	512-943-1300

NOTICE: LAW ENFORCEMENT ACTIVITIES ARE DEFINED AS: GOVERNMENTAL AGENCIES WHOSE PRIMARY FUNCTION IS THE ENFORCEMENT OF APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND WHOSE OFFICERS HAVE THE POWERS OF ARREST AND APPREHENSION.

Upon acceptance into the Program, I understand that I have 30 days to familiarize myself with the State Plan of Operation and all Program guidance that is provided by the State Coordinator and that by signing, I certify that all information contained above is valid and accurate. (N/A for Federal Agencies)

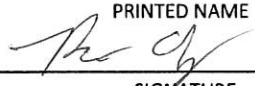
By signing this I/we certify under penalty of perjury that the foregoing is true and correct. Making a false statement may result in judicial actions or prosecution under 18USC § 1001.

CHIEF LAW ENFORCEMENT OFFICIAL/
HEAD OF LOCAL AGENCY

Sheriff Robert Chody

DATE: 8-4-17

PRINTED NAME



SIGNATURE

STATE COORDINATOR/SPOC:
(NOT REQUIRED FOR FEDERAL AGENCIES)

PRINTED NAME

DATE: _____

SIGNATURE



TEXAS LESO PROGRAM
SUPPLEMENTAL DATA SHEET

Date: August 4th, 2017

Agency Name: Williamson County Sheriff's Office

ORI (Originating Agency Identification) number: TX2460000

(Please enter same screeners in the order as listed on front page)

Screener #1: Lt. Derrick dutton
NAME / TITLE

Screener #2: Sgt. Leonard Stewart
NAME / TITLE

Screener #3: Dep. Derek Trabal
NAME / TITLE

Screener #4: Dep. Gabrial Martin
NAME / TITLE

STATE PLAN OF OPERATIONS
BETWEEN THE STATE OF
TEXAS
AND THE
Williamson County Sheriff's Office

I. PURPOSE

This State Plan of Operation (SPO) is entered into between the State of Texas and the (*LEA name*) Williamson County Sheriff's Office, to set forth the terms and conditions which will be binding on the parties with respect to excess Department of Defense (DOD) personal property transferred pursuant to 10 USC § 2576a in order to promote the efficient and expeditious transfer of property and to ensure accountability of the same.

II. AUTHORITY

The Secretary of Defense is authorized by 10 USC § 2576a to transfer to State Law Enforcement Agencies, personal property that is excess to the needs of the DOD and that the Secretary determines is suitable to be used by such agencies in law enforcement activities, with preferences for counter-drug / counter-terrorism or border security activities, under such terms prescribed by the Secretary. The authorities granted to the Secretary of Defense have been delegated to the Defense Logistics Agency (DLA) in determining whether property is suitable for use by agencies in Law Enforcement Activities (LEAs). DLA defines law enforcement activities as activities performed by governmental agencies whose primary function is the enforcement of applicable Federal, State, and local laws and whose compensated law enforcement officers have powers of arrest and apprehension. This program is also known as the "1033 Program" or the "LESO Program" and is administered by DLA Disposition Services, Law Enforcement Support Office (LESO).

III. GENERAL TERMS AND CONDITIONS

A. OPERATIONAL AUTHORITY

The Governor of the State of Texas has designated in writing with an effective date of August 26, 2015 to implement this program statewide as well as conduct management and oversight of this program. Funding / Budgeting to administer this program are provided by the Texas Department of Public Safety.

The provided funding is used to support assistance to the LEAs with customer service to include

computer / telephone assistance and physical visits to the LEAs to assist with acquiring access to the LESO Program. The staffing to provide the support to the LEAs within the State of Texas is as follows:

State Coordinator (SC): Skylor Hearn

State Point of Contact (SPOC): Rolando Ayala

State Point of Contact (SPOC): Laurie Patterson

State Point of Contact (SPOC): John Riddick

The following is the facility / physical location and business hours to provide customer service to those LEAs currently enrolled, as well as interested participants of the LESO Program:

Agency Address / Location: 5805 N Lamar Blvd Austin, Texas 78752

EMAIL / Contact Phone Numbers: Texas1033Program@dps.texas.gov 512-424-7590

Fax Number: 512-424-7591

Hours of Operation: 7AM – 5PM

B. The DLA LESO has final authority to determine the type, quantity, and location of excess DOD personal property suitable for law enforcement activities, if any, which will be transferred to the (*LEA name*) Williamson County Sheriff's Office.

C. This agreement creates no entitlement to the LEA to receive excess DOD personal property.

D. The (*LEA name*) Williamson County Sheriff's Office understands that property made available under this agreement is for the use of authorized program participants only. Property may not be obtained for any individual, organization, or agency that has not been approved as a participant in the LESO Program. All requests for property must be based on bona fide law enforcement requirements. Property will not be obtained by any authorized participant for the purpose of sale, lease, loan, personal use, rent, exchange, barter, transfer, or to secure a loan.

E. Controlled property (equipment) includes any property that has a demilitarization (DEMIL) Code of B, C, D, F, G, and Q; and property, regardless of demilitarization code, that was specifically identified in the Law Enforcement Equipment Working Group Report from May 2015, created pursuant to Executive Order 13688 (EO). The Working Group Report mandates that the following items be treated as controlled property:

- 1) Manned Aircraft, fixed or rotary wing
- 2) Unmanned Aerial Vehicles
- 3) Wheeled Armored Vehicles
- 4) Wheeled Tactical Vehicles
- 5) Command and Control Vehicles
- 6) Specialized Firearms and Ammunition Under .50 Cal (excluded firearms and ammunition for service-issued weapons)
- 7) Explosives and Pyrotechnics
- 8) Breaching apparatus

- 9) Riot Batons
- 10) Riot Helmets
- 11) Riot Shields

F. LEAs that request items in Paragraph E above must provide all required information outlined in the Law Enforcement Equipment Working Group Report and all information on the LESO request form. Among other specific requirements identified in these documents, LEAs will be required to certify and submit:

- 1) A detailed written justification with a clear and persuasive explanation of the need for the property and the law enforcement purposes it will serve;
- 2) Evidence of approval or concurrence by the LEA's civilian governing body (city council, mayor, etc.);
- 3) The LEA's policies and protocols on deployment of this type of property;
- 4) Certifications on required training for use of this type of property; and
- 5) Information on whether the LEA has applied, or has pending an application, for this type of property from another Federal agency.

G. The (*LEA name*) Williamson County Sheriff's Office must maintain and enforce regulations designed to impose adequate security measures for controlled property to mitigate the risk of loss or theft.

H. Under no circumstances will controlled property be sold or otherwise transferred to non-U.S. persons, or exported. All transfers must be approved by the State and DLA Disposition Services LESO.

I. Cannibalization requests for controlled property must be submitted in writing to the State, with final approval by the LESO. The LESO will consider cannibalization requests on a case-by-case basis.

J. The LESO conditionally transfers all excess DOD property to States / LEAs enrolled in the LESO Program. Title or ownership of controlled property will remain with the LESO in perpetuity and will not be relinquished to the LEAs. When the LEA no longer has legitimate law enforcement uses for controlled property, the LEA must notify the State, who will then notify the LESO, and the controlled property must either be transferred to another enrolled LEA (via standard transfer process) or returned to DLA Disposition Services for disposal. The LESO reserves the right to recall controlled and non-controlled property issued through the LESO Program at any time.

K. Property with a DEMIL Code of "A" is also conditionally transferred to the LEA. However, after one year from the Ship Date, the LESO will relinquish ownership and title to the LEA. Prior to this date, the State and LEA remains responsible for the accountability and physical control of the item(s) and the LESO retains the right to recall the property. Title will not be relinquished to any property with DEMIL Code of "A" that is controlled property identified in Paragraph III E.

- 1) Property with DEMIL Code of "A" will automatically be placed in an archived status on the LEAs property book upon meeting the one year mark.
- 2) Once archived, the property is no longer subject to annual inventory requirements and will not be inventoried during a LESO Program Compliance Review (PCR).
- 3) Ownership and title of DEMIL "A" items that have been archived will pass automatically from the LESO to the LEA when they are archived at the one year mark (from Ship Date) without issuance of any further documentation.
- 4) LEAs receive title and ownership of DEMIL "A" items as governmental entities. Title and ownership of DEMIL "A" property does not pass from DOD to any private individual or LEA official in their private capacity. Accordingly, such property should be maintained and ultimately disposed of in accordance with provisions in State and local law that govern public property. Sales or gifting of DEMIL "A" property after the one year mark in a manner inconsistent with State or local law may constitute grounds to deny future participation in the LESO Program.

L. The LEAs are not authorized to transfer controlled property or DEMIL Code "A" property carried on their inventory without LESO notification and approval. Property will not physically move until the State and LESO approval process is complete.

IV. ENROLLMENT

A. An LEA must have at least one full-time law enforcement officer in order to enroll and/or receive property via the LESO Program. Only full-time and part-time law enforcement officers are authorized to receive property. Reserve officers are not authorized to receive property.

- 1) The LEA shall submit an updated Application Packet to the State Coordinator's office no later than December 1 each year and/or any time there is a change in personnel or LEA contact information. Failure to do so may result in suspension and/or termination from the program.
- 2) Once approved for participation in the program, at least one of the LEA's authorized screeners must attend a mandatory training class prior to any requests for property being approved. The class will be conducted free of charge to the LEA and will be held at location determined by the State Coordinator's office.
- 3) LEA transfer of responsibility – program property assigned to the LEA. A change in the Chief Law Enforcement Official (CLEO), due to any reason, will not relinquish responsibility from the LEA for properly maintaining existing program property in the LEA's possession. If the new CLEO does not wish to be responsible for existing property, they shall notify the State Coordinator's office in writing that they wish to return the equipment to the nearest Disposition Site or transfer it to a qualifying LEA. The new CLEO remains responsible for existing property until the property is officially transferred or returned.

B. The State shall:

- 1) Implement LESO Program eligibility criteria in accordance with 10 USC § 2576a, DLA Instructions and Manuals, and the DLA MOA the State signs.
- 2) Receive and process applications for participation from LEAs currently enrolled and those LEAs that wish to participate in the LESO Program.
- 3) Receive and recommend approval or disapprove LEA applications for participation in the LESO Program. The State Coordinators have sole discretion to disapprove LEA applications on behalf of the Governor of their State. The LESO should be notified of any applications disapproved at the State Coordinator level. The State Coordinator will only forward and recommend certified LEAs to the LESO that are government agencies whose primary function is the enforcement of applicable Federal, State, and local laws and whose compensated officers have the powers of arrest and apprehension. The LESO retains final approval / disapproval authority for all LEA applications forwarded by State Coordinators.
- 4) Ensure LEAs enrolled in the LESO Program update the LEAs account information annually (accomplished during the FY Annual Inventory in the Federal Excess Property Management Information System [FEPMIS]).
- 5) Provide a comprehensive overview of the LESO Program to all LEAs once they are approved for enrollment. This comprehensive overview must be done within thirty (30) days and include, verbatim, the information contained in Paragraph III E of this SPO.
- 6) Ensure that screeners of property are employees of the LEA. Contractors may not conduct screening on behalf of the LEA.
- 7) Ensure that at least one person per LEA maintains access to the FEPMIS. Account holders must be employees of the LEA.

V. ANNUAL INVENTORY REQUIREMENTS

A. Per the DLA Instructions and Manuals and the DLA MOA, each State and participating LEA within is required to conduct an annual inventory certification of controlled property, which includes DEMIL "A" for one (1) year from Ship Date. Annual inventories start on October 1 of each year and end December 1 of each year.

B. The State shall:

- 1) Receive, validate, and reconcile incoming certified inventories from the LEAs.
- 2) Ensure LEAs provide serial numbers and photos identified during the annual inventory process for inclusion in the LESO property accounting system for all controlled property identified in Paragraph III E, small arms and other unique

items as required. For equipment that does not contain a serial number, such as riot control or breaching equipment, a photograph will suffice.

- 3) Suspend the LEA as a result of the LEAs failure to properly conduct and/or certify and submit certified inventories, according to the aforementioned requirements.

C. The LEA shall:

- 1) Complete the annual physical inventory as required.
- 2) Provide serial numbers and photos identified in the annual inventory process for inclusion in the LESO property accounting system for all controlled property identified in Paragraph III E, small arms and other unique items, as required. For equipment that does not contain serial number, such as riot control or breaching equipment, a photograph will suffice.
- 3) Certify the accountability of all controlled property received through the LESO Program annually by conducting and certifying the physical inventory. The LEA must adhere to additional annual certification requirements as identified by the LESO.
 - a. The State requires each LEA to submit certified inventories for their Agency by December 1 of each year. The Fiscal Year (FY) is defined as October 1 through September 30 of each year. This gives the LEA two (2) months to physically inventory LESO Program property in their possession and submit their certified inventories to the State Coordinators.
 - (1) The LESO requires a front or side and data plate photo for Aircraft and Tactical Vehicles that are serial number controlled, received through the LESO Program.
 - (2) The LESO requires serial number photos for each small arm received through the LESO Program.
 - b. The LEAs failure to submit the certified annual inventory by December 1 may result in the agency being suspended from operations within the LESO Program. Further failure to submit the certified annual inventory may result in a LEA termination.
- 4) Be aware that High Profile Commodities (Aircraft, Tactical Vehicles and Small Arms) and High Awareness (controlled) property are subject to additional controls.

VI. PROGRAM COMPLIANCE REVIEWS

A. The LESO conducts a Program Compliance Review (PCR) for each State that is enrolled in the LESO Program every two (2) years. The LESO reserves the right to require an annual PCR, or similar inspection on a more frequent basis for any State. The LESO PCRs are performed in order to ensure that State Coordinators, SPOCs and all LEAs within a State are compliant with the terms and conditions of the LESO Program as required by 10 USC § 2576a, DLA Instructions and

Manuals, and the DLA MOA signed by the State.

- 1) If a State and/or LEA fails a PCR, the LESO will immediately suspend their operations and will subsequently issue corrective actions (with suspense dates) to the State Coordinator, which will identify what is needed to rectify the identified deficiencies within the State and/or LEA.
- 2) If a State and/or LEA fails to correct identified deficiencies by the given suspense dates, the LESO will move to terminate the LESO Program operations within the State and/or LEA.

B. The State shall:

- 1) Support the LESO PCR process by:
 - a. Contacting LEAs selected for the PCR review via phone and/or email to ensure they are aware of the PCR schedule and prepared for review.
 - b. Receiving inventory selection from the LESO. The LEA POCs shall gather the selected items in a centralized location to ensure that the LESO can efficiently inventory the items.
 - c. Providing additional assistance to the LESO as required, prior to and during the course of the PCR.
- 2) Conduct internal Program Compliance Reviews of LEAs participating in the LESO Program in order to ensure accountability, program compliance and validate annual inventory submissions are accurate. The State Coordinator must ensure an internal PCR of at least 5% of LEAs that have a property book from the LESO Program within his / her State is completed annually. This may result in a random review of all or selected property at the LEA.
 - a. The internal PCR will include, at minimum:
 - (1) A review of each selected LEAs LESO Program files.
 - (2) A review of the signed State Plan of Operation (SPO).
 - (3) A review of the LEA application and screener's letter.
 - (4) A physical inventory of the LESO Program property at each selected LEA.
 - (5) A specific review of each selected LEAs files for the following:
DD Form 1348-1A for each item currently on inventory, small arms documentation, transfer documents, turn-in documents, inventory adjustment documents, exception to policy letters (if any), approved cannibalization requests (if any), and other pertinent documentation as

required.

- b. The State and/or LEA will bear all expenses related to the repossession and/or turn-in of LESO Program property to the nearest DLA Disposition Services site.

VII. STATE PLAN OF OPERATION (SPO)

A. The State shall:

- 1) Identify, establish, and issue minimum criteria to be included in the SPO for the State and each participating LEA.
- 2) Establish a State Plan of Operation, developed in accordance with Federal and State law, and conforming (at minimum) to the provisions of the DLA Instruction and Manuals and the DLA MOA.
 - a. The SPO will include detailed organizational and operational authority including: staffing, budget, facilities, and equipment that the State believes is sufficient to manage the LESO Program within their State.
 - b. The SPO must address procedures for making determinations of LEA eligibility, allocation, and equitable distribution of material, accountability and responsibility concerning excess DOD personal property, inventory requirements, training and education, State-level internal Program Compliance Reviews (PCR), and procedures for turn-in, transfer, and disposal.
- 2) Enter into written agreement with each LEA, via the LESO approved State Plan of Operation, to ensure the LEA fully acknowledges the terms, conditions, and limitations applicable to property transferred pursuant to this agreement. The State Plan of Operation must be signed by the Chief Law Enforcement Official (CLEO), or assigned designee of the respective LEA, and the current State Coordinator.
- 3) Request that the LESO Suspend or Terminate an LEA(s) from the LESO Program when an LEA fails to comply with any term of DLA MOA, the DLA Instruction and Manuals, any Federal statute or regulation, or the State Plan of Operation.

VIII. REPORTING REQUIREMENTS FOR LOST, MISSING, STOLEN, DAMAGED OR DESTROYED LESO PROGRAM PROPERTY

A. All property Lost, Missing, Stolen, (LMS) damaged, or destroyed carried on a LEA's current inventory must be reported to the LESO.

- 1) Controlled property must be reported to the State and the LESO within twenty-four (24) hours. The aforementioned property may require a police and National Crime Information Center (NCIC) report submitted to the LESO, to include DEMIL "A" items that are considered controlled items in Paragraph III E.

- 2) Property with a DEMIL Code of "A" must be reported to the State and the LESO within seven (7) days.
- 3) All reports are subject to review by the DLA Office of the Inspector General (OIG).

B. LESO may grant extensions to the reporting requirements listed above on a case-by-case basis.

IX. AIRCRAFT AND SMALL ARMS

A. All aircraft are considered controlled property, regardless of DEMIL Code. Aircraft may not be sold and must be returned to the LESO at the end of their useful life. This State Plan of Operation ensures that all LEAs and all subsequent users are aware of and agree to provide all required controls and documentation in accordance with applicable laws and regulations for these items.

B. LEAs no longer requiring small arms issued through the LESO Program must request authorization to transfer or turn-in small arms. Transfers and turn-ins must be forwarded and endorsed by the State Coordinator's office first, and then approved by the LESO. Small Arms will not physically transfer until the approval process is complete.

C. Small Arms that are issued must have a documented chain of custody, with the chain of custody including a signature of the receiving officer indicating that he / she has received the appropriate small arm(s) with the correct, specific serial number(s). Small Arms that are issued to an officer will be issued utilizing an Equipment Custody Receipt (ECR); this Custody Receipt obtains the signature of the officer responsible for the small arm.

X. RECORDS MANAGEMENT

The LESO, State Coordinator, and LEAs enrolled in the LESO Program must maintain all records in accordance with the DLA Records Schedule. Records for property acquired through the LESO Program have retention controls based on the property's DEMIL Code. All documents concerning a property record must be retained.

- 1) Property records for items with DEMIL Code of "A" must be retained for two (2) calendar years from the date the property is removed from the LEA's property book before being destroyed.
- 2) Property records for controlled property must be retained for five (5) calendar years from the date the property is removed from the LEA's property book before being destroyed.
- 3) Environmental Property records must be retained for fifty (50) years, regardless of DEMIL Code (Chemicals, Batteries, Hazardous Material / Hazardous Waste).
- 4) LESO Program files must be segregated from all other records.

- 5) All property records must be filed, retained, and destroyed in accordance with DLA Records Schedule. These records include, but are not limited to, the following: DD Form 1348-1A, requests for transfer, turn-in, or disposal, approved Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) Forms 10 and 5, Certificate of Aircraft Registration (AC Form 8050-3), Aircraft Registration Application (AC 8050-1) and any other pertinent documentation and/or records associated with the LESO Program.

XI. LESO PROGRAM ANNUAL TRAINING

A. 10 USC § 380 provides that the Secretary of Defense, in cooperation with the U.S. Attorney General, shall conduct an annual briefing of law enforcement personnel of each state. The briefing will include information on training, technical support, equipment, and facilities that are available to civilian law enforcement personnel from the Department of Defense.

B. The State shall organize and conduct training pertaining to information, equipment, technical support and training available to LEAs via the LESO Program.

C. The State shall ensure at least one representative (i.e. the State Coordinator or SPOC) attend the annual training that the LESO conducts.

XII. PROPERTY ALLOCATION

A. The State Shall:

- 1) Provide the LEA with a website that will afford timely and accurate guidance, information, and links for all LEAs who work, or have an interest in, the LESO Program.
- 2) Upon receipt of a valid State / LEA request for property through the DLA Disposition Services RTD website, a preference will be given to those applications indicating that the transferred property will be used in the counter-drug, counter-terrorism, or border security activities of the recipient agency. Additionally, to the greatest extent possible, the State will ensure fair and equitable distribution of property based on current LEAs inventory and justification for property.
- 3) The State and the LESO reserve the right to determine and/or adjust allocation limits. Generally, no more than one of any item per officer will be allocated to an LEA. Quantity exceptions may be granted on a case-by-case basis by the LESO. Currently, the following quantity limits apply:
 - a. Small Arms: one (1) type for each qualified officer, full-time / part-time;
 - b. HMMWVs: one (1) vehicle for every three (3) officers;
 - c. MRAPs: one (1) vehicle per LEA.
- 4) The State and the LESO reserve final authority on determining the approval and/or disapproval for requests of specific types and quantities of excess DOD property.

B. The LEA shall:

- 1) Ensure an appropriate justification is submitted when requesting excess DOD property via the LESO Program and will ensure LESO Program property will be used for the law enforcement activity and for law enforcement purposes only within his / her State and agency.
- 2) When requesting property, provide a justification to the State and the LESO on how the requests for property will be used in counter-drug, counter-terrorism, or border security activities of the recipient agency. Additionally, the LEA should be fair and equitable when making requisitions based on current LEA inventory and the justification for property. Generally, no more than one of any item per officer will be allocated.
- 3) Ensure screeners of property are employees of the LEA. Contractors may not conduct screening on behalf of the LEA.
- 4) Obtain access to FEPMIS to ensure the property book is properly maintained, to include but not limited to transfers, turn-ins, and disposal requests and to generate these requests at the LEA level and forward all approvals to the State for action.
- 5) Ensure at least one person per LEA maintains access to FEPMIS. FEPMIS account holders must be employees of the LEA.

XIII. PROGRAM SUSPENSION & TERMINATION

A. The State and LEA are required to abide by the terms and conditions of the DLA MOA in order to maintain active status.

B. The State shall:

- 1) Suspend LEAs for a minimum of sixty (60) days in all situations relating to the suspected or actual abuse of LESO Program property or requirements and/or repeated failure to meet the terms and conditions of the DLA MOA. Suspension may lead to TERMINATION.
- 2) The State and/or the LESO have final discretion on reinstatement requests. Reinstatement to full participation from a suspension and/or termination is not automatic.
- 3) In coordination with the LESO, issue corrective action guidance to the LEA with suspense dates to rectify issues and/or discrepancies that caused suspension and/or termination.
- 4) Require the LEA to submit results regarding all completed police investigations and/or reports regarding lost, missing, stolen and/or damaged LESO Program property, to include the LEAs Corrective Action Plan (CAP).

- 5) Suspend or terminate an LEA from the LESO Program if an LEA fails to comply with any term of the DLA MOA, the DLA Instruction and Manuals, any Federal statute or regulation, or the State Plan of Operation.
 - a. In the event of an LEA termination, the State Coordinator will make every attempt to transfer the LESO Program property of the terminated LEA to an authorized State or LEA, as applicable, prior to requesting a turn-in of the property to the nearest DLA Disposition Services location.
 - b. In cases relating to an LEA termination, the LEA will have ninety (90) days to complete the transfer or turn-in of all LESO Program property in their possession.

C. The LEA shall:

- 1) Notify the State Coordinator's office and initiate an investigation into any questionable activity or actions involving LESO property issued to the LEA that comes to the attention of the CLEO, and is otherwise within the authority of the Governor / State to investigate. LEAs must understand that the State Coordinators, acting on behalf of their Governor, may revoke or terminate their concurrence for LEA participation in the LESO Program at any time, and for any reason.
- 2) Understand that the State may suspend LEA(s) and/or LEA POC(s) from within their State, based upon their findings during internal Program Compliance Reviews and/or spot checks at the State level.
- 3) Initiate corrective action to rectify suspensions and/or terminations placed upon the LEA for failure to meet the terms and conditions of the LESO Program.
- 4) Be required to complete and submit results regarding all completed police investigations and/or reports regarding lost, missing, stolen and/or damaged LESO Program property. The LEA must submit all documentation to the State and the LESO upon receipt.
- 5) Provide documentation to the State and the LESO when actionable items are rectified for the State and/or LEA(s).
- 6) The LEAs Chief Law Enforcement Official must request reinstatement as required, via the State Coordinator or SPOC(s), to full participation status at the conclusion of a suspension period.

XIV. COSTS & FEES

- 1) All costs associated with the transportation, turn-in, transfer, repair, maintenance, insurance, disposal, repossession or other expenses related to property obtained through the LESO Program is the sole responsibility of the LEA. In the event an agency is dissolved or disbanded and no civilian governing body exists, the costs associated with the transportation and turn-in of all property in the possession of the

dissolved or disbanded LEA then becomes responsibility of the State.

XV. NOTICES

Any notices, communications, or correspondence related to this agreement shall be provided by E-mail, the United States Postal Service, express service, or facsimile to the State Coordinators office or cognizant DLA office. The LESO may, from time to time, make unilateral modifications or amendments to the provisions of this SPO. Notice of these changes will be provided to State Coordinators in writing. Unless State Coordinators take immediate action to terminate this SPO in accordance with Section XVIII, such modifications or amendments will become binding. In such cases, reasonable opportunity will, insofar as practicable, be afforded the State Coordinator to conform changes affecting their operations.

XVI. ANTI-DISCRIMINATION

A. By signing this SPO, or accepting excess DOD personal property under this SPO, the State pledges that it and each LEA agrees to comply with applicable provisions of the following national policies prohibiting discrimination:

- 1) On the basis of race, color, or national origin, in Title VI of the Civil Rights Act of 1964 (42 USC 2000d et seq.) as implemented by DOD regulations 32 CR Part 195.
- 2) On the basis of age, in the Age Discrimination Act of 1975 (42 USC 6101, et seq) as implemented by Department of Health and Human Services regulations in 45 CFR Part 90.
- 3) On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973, P.L. 93-112, as amended by the Rehabilitation Act Amendments of 1974, P.L. 93-516 (29 USC 794), as implemented by Department of Justice regulations in 28 CFR Part 41 and DOD regulations at 32 CFR Part 56.

B. These elements are considered the minimum essential ingredients for establishment of a satisfactory business agreement between the State and the DOD.

XVII. INDEMNIFICATION CLAUSE

The LEA is required to maintain adequate insurance to cover damages or injuries to persons or property relating to the use of property issued under the LESO program. Self-insurance by the LEA is considered acceptable. The U.S. Government and the Texas Department of Public Safety assumes no liability for damages or injuries to any person(s) or property arising from the use of property issued under the LESO program. It is recognized that State and local law generally limit or preclude State Coordinators / LEAs from agreeing to open-ended indemnity provisions. However, to the extent permitted by State and local laws, the LEA shall indemnify and hold the U.S. Government and the Texas Department of Public Safety harmless from any and all actions, claims, debts, demands, judgments, liabilities, cost, and attorney's fees arising out of, claimed on account of, or in any manner predicated upon loss of, or damage to property and injuries, illness or disabilities to, or death of any and all persons whatsoever, including members of the general public, or to the property of any legal or political entity including states, local and interstate

bodies, in any manner caused by or contributed to by the LEA, its agents, servants, employees, or any person subject to its control while the property is in the possession of, used by, or subject to the control of the LEA, its agents, servants, or employees after the property has been removed from U.S. Government control.

XVIII. TERMINATION

A. This SPO may be terminated by either party, provided the other party receives thirty (30) days' notice, in writing, or as otherwise stipulated by Public Law.

B. The undersigned State Coordinator and CLEO hereby agree to comply with all provisions set forth herein and acknowledge that any violation of the terms and conditions of this SPO may be grounds for immediate termination and possible legal consequences, to include pursuit of criminal prosecution if so warranted.

XIX. IN WITNESS THEREOF, the parties hereto have executed this agreement as of the last date written below.

Sheriff Robert Chody
Type / Print Chief Law Enforcement Official Name


Chief Law Enforcement Official Signature

8/14/17
Date (MM/DD/YYYY)

Judge Dan Gattis
Type/Print Civilian Governing Body Authorized Official

CGB Authorized Official Signature

Date (MM/DD/YYYY)

Type / Print State Coordinator Name

State Coordinator Signature

Date (MM/DD/YYYY)

Commissioners Court - Regular Session

46.

Meeting Date: 08/15/2017

Coupland Caboose Agreement

Submitted For: Larry Madsen

Submitted By: Julia Cooper, Commissioner Pct. #4

Department: Commissioner Pct. #4

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on a Public Interest Contract between Williamson County and Coupland Civic Organization, Inc. for disbursement of \$10,000.00 from the Landfill Community Recreation Facility Fund for renovations to be made to the Caboose situated in the Historic Depot of Coupland, Texas.

Background

Susan Schmidt, President of the Coupland Civic Organization, previously submitted the information required by the Williamson County Community Recreational Fund Policy and made application for this funding. The application was approved by the Commissioners Court on July 11, 2017 and this agreement memorializes the terms and conditions of the parties' agreement.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Caboose Agreement

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Julia Cooper

Final Approval Date: 08/09/2017

Reviewed By

Wendy Coco

Date

08/09/2017 12:12 PM

Started On: 08/09/2017 10:06 AM

STATE OF TEXAS
COUNTY OF WILLIAMSON

§
§

**CONTRACT
IN THE PUBLIC INTEREST
BETWEEN
WILLIAMSON COUNTY, TEXAS
AND
COUPLAND CIVIC ORGANIZATION, INC.
(COMMUNITY RECREATION FACILITY FUND)**

This Contract in the Public Interest, hereinafter the "Contract", is entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, hereinafter referred to as "Williamson County", and the Coupland Civic Organization, Inc., a 501(c)(3) non-profit corporate entity, hereinafter referred to as the "CCO".

WITNESSETH

WHEREAS, Williamson County has an interest in supporting the efficient and effective administration of the public health and safety, including but not limited to promoting recreational facilities;

WHEREAS, CCO has an interest in supporting the provision of community recreational facilities, including proposed renovations to the Caboose located in the Historic Depot in Coupland, Texas;

WHEREAS, Williamson County believes that it is in the public interest to enter into this Contract with CCO;

WHEREAS, Williamson County has available Community Recreation Facility Funds, and such funds are intended to be used for public health and safety obligations of Williamson County.

NOW, THEREFORE, THE PARTIES agree as follows:

1. Public Purpose and Public Benefit. CCO will operate as an independent contractor in Williamson County, Texas to perform or otherwise procure independent contract labor to commence construction renovations to the Caboose located in the Historic Depot in Coupland, Texas. CCO shall use the funding paid hereunder for the performance of the below described

construction services and to achieve the broad goals outlined in this Contract. CCO hereby agrees and acknowledges that Williamson County will not be obligated to perform or provide any construction services, labor or supplies and that Williamson County's only obligation hereunder is to provide funding pursuant to the terms of this Contract.

The construction renovations to the Caboose located in the Historic Depot in Coupland, Texas shall include the following:

- A. Leveling of the train tracks upon which the Caboose will be situated;
- B. Repainting the metal underpinning of the Caboose;
- C. Repair of the Caboose's doors and windows; and
- D. Interior repairs of the Caboose.

CCO shall strictly comply with the Williamson County Community Recreational Facility Fund Policy, hereinafter referred to as the Policy, which attached hereto as **Exhibit "A"** and is incorporated herein by reference. CCO acknowledges that it has expressly agreed to the terms and conditions set forth in the Policy, as evidenced in **Exhibit "B"**, which is also incorporated herein by reference. Williamson County reserves the right and discretion to determine applicable provisions where there is any conflict between this Contract and the Policy.

2. Reports/Payment. Upon request, CCO shall provide to Williamson County financial reports in a form agreed upon by Williamson County. CCO shall cooperate with inspections by the Williamson County Facilities Director and audits that Williamson County or the auditor on behalf of Williamson County may make to ensure service standards and fiscal responsibility.

In return, Williamson County agrees to pay from the Community Recreation Facility Fund to CCO the full amount of **\$10,000.00 payable in two (2) draws based on project progress as follows:**

Initial Draw: \$5,000.00 upon signing of Agreement by both parties

Final Draw: \$5,000 upon completion of renovations to the Caboose

3. Reimbursement of Funds. Despite the agreed upon method of payment set forth above, CCO agrees to return to Williamson County all funds distributed to CCO if (a.) CCO's project progress is insufficient; (b.) this Contract is terminated for any reason; (c.) CCO fails in any other respect under this Contract; (d.) CCO violates any provision of the Policy; (e.) CCO changes the use of the Caboose in such a way that, in Williamson County's opinion, the Caboose no longer serves a public purpose; or (f.) CCO conveys, leases or otherwise transfers its interest in the Caboose to another entity without the prior written consent of Williamson County, which such consent shall not be unreasonably withheld provided the successor entity continues to use the Caboose for a public purpose consistent with the terms of the Policy and the spirit of this Contract.

4. Records. CCO shall keep sufficient records of all of its expenditures in connection with services rendered pursuant to this Contract and the Williamson County Facilities Director and Williamson County or the auditor on behalf of the Williamson County shall have the right to inspect such records at all reasonable times. CCO further agrees that Williamson County's auditors shall have the right to audit CCO records on an annual basis along with their regular review of records in a manner and form to be agreed upon by Williamson County and CCO.

CCO further agrees Williamson County or the Williamson County Auditor, on behalf of the Williamson County, shall, until the expiration of three (3) years after the disbursement of the last amount of funds is tendered under this Contract, have access to and the right to examine and photocopy any and all books, documents, papers and records of CCO relating to the renovation project for the purposes of making audits, examinations, excerpts, and transcriptions. CCO agrees that Williamson County shall have access during normal working hours to all necessary CCO facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Williamson County shall give CCO reasonable advance notice of intended audits.

5. Independent Contractor/Indemnity. It is understood and agreed that CCO is not and shall not in any sense be considered an employee, partner or joint venturer with Williamson County, additionally neither shall CCO be considered or in any manner hold itself out as an agent or official representative of Williamson County. CCO shall be considered an independent contractor for purposes of this Contract and shall in no manner incur any expenses or liability on behalf of the Williamson County and/or WILLIAMSON County, Texas.

INDEMNIFICATION - EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CCO SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF COUNTY'S CHOOSING), AND HOLD HARMLESS COUNTY, AND COUNTY'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") AND SHALL ASSUME ENTIRE RESPONSIBILITY AND LIABILITY (OTHER THAN AS A RESULT OF INDEMNITEES' GROSS NEGLIGENCE) FOR ANY CLAIM OR ACTION BASED ON OR ARISING OUT OF THE PERSONAL INJURY, OR DEATH, OF ANY EMPLOYEE OF CCO, OR OF ANY SUBCONTRACTOR, OR OF ANY OTHER ENTITY FOR WHOSE ACTS THEY MAY BE LIABLE, WHICH OCCURRED OR WAS ALLEGED TO HAVE OCCURRED ON THE PROJECT SITE OR IN CONNECTION WITH THE PERFORMANCE OF ANY WORK ASSOCIATED WITH THIS CONTRACT. CCO HEREBY INDEMNIFIES THE INDEMNITEES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE SOLE, COMPARATIVE OR CONCURRENT NEGLIGENCE OF THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

INDEMNIFICATION - OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CCO SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF COUNTY'S CHOOSING), AND HOLD HARMLESS COUNTY, AND COUNTY'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") FROM AND AGAINST CLAIMS,

DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS CONTRACT OR ANY WORK ASSOCIATED WITH THIS CONTRACT, TO THE EXTENT CAUSED BY THE NEGLIGENCE, ACTS, ERRORS, OR OMISSIONS OF CCO OR ITS SUBCONTRACTORS, ANYONE EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY A PARTY INDEMNIFIED HEREUNDER.

6. Compliance with All Laws. CCO and Williamson County each agree, in connection with the services or any related items to the subject matter of this Contract, to comply with any and all local, state or federal requirements.

7. Notice. Any notice required to be given under the terms of this Contract shall be effective if and when given in writing and mailed by certified mail to the addresses listed below or subsequently provided in writing:

Williamson County:

Williamson County Judge
710 Main Street, Suite 101
Georgetown, Texas 78626

CCO:

Coupland Civic Organization, Inc.
Attn: Susan Schmidt, President
P.O. Box 64
Coupland, Texas 78615

GENERAL COUNSEL:

General Counsel
Office of Williamson County Judge
710 Main Street, Suite 200
Georgetown, Texas 78626

8. No Assignment. This Contract may not be assigned.

9. Termination. Notwithstanding the agreed upon term, this Contract may be terminated upon the occurrence of any of the following:

- a. the termination of the corporate existence of CCO;
- b. the insolvency of CCO, the filing of a petition in bankruptcy either by or against CCO, or an assignment by CCO for the benefit of creditors;
- c. the breach by CCO of any of the terms of this Contract and the continuation of such breach for a period of ten (10) days after written notice is given by Williamson County to CCO of such breach.
- d. upon Williamson County's sole discretion with or without cause by providing thirty (30) days written notice.

10. Term. The stated term of this Contract shall be until the sooner of completion of the project or **September 1, 2019**, whichever occurs first, but with on-going contractual obligations by CCO extending beyond the termination date.

11. Employees. The parties covenant and agree that each party will pay its own salaries, and all Social Security taxes, Federal and State Unemployment Insurance, Worker's Compensation Insurance and any similar taxes or expenses related to its own employees, including, but not limited to, license fees, insurance premiums and outfitting expenses. The Parties shall be responsible for complying with all Federal, State and Local laws, ordinances and regulations regarding its own employees.

12. Venue & Applicable Law. Venue of this Contract shall be Williamson County, Texas, and the laws of the State of Texas shall govern all terms and conditions.

13. Severability. In case any one or more of the provisions contained in this Contract shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision in this Contract and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained in it

14. Mediation. The parties agree to use mediation for dispute resolution prior to and formal legal action being taken on this Contract.

15. Proof of Non-Profit Status. CCO has provided proof of status as a 501(c)(3) non-profit corporate entity, which is attached and marked as **Exhibit "C"** and is incorporated herein by reference.

EXECUTED to be effective as of the date of the last party's execution below.

For Williamson County:

Dan A. Gattis, County Judge
Williamson County, Texas

Date: _____, 20____

For Coupland Civic Organization, Inc.:

By: Susan Schmidt
Susan Schmidt,
President

Date: Aug. 02, 2017

STATE OF TEXAS *
COUNTY OF WILLIAMSON *

This instrument was acknowledged before me on the 2nd day of August, 2017, by Susan Schmidt, as President of the Coupland Civic Organization, Inc., a Texas non-profit corporation, on behalf of the corporation.

Julia Kay Cooper
Notary Public, State of Texas

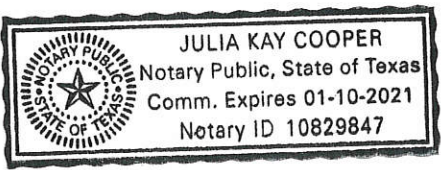


EXHIBIT "A"

**WILLIAMSON COUNTY COMMUNITY
RECREATIONAL FACILITY FUND POLICY**

Williamson County Community Recreational Facility Fund Policy

PURPOSE

The purpose of this Williamson County Community Recreational Facility Fund Policy is to provide guidelines and regulations relating to the distribution of funds from the Williamson County Community Recreational Facility Fund which was established by Williamson County through collections of fees at the Williamson County Landfill.

LEGAL CONSIDERATIONS

The Texas Constitution bars a transfer of county funds to a private entity unless the transfer serves a public purpose of the county and the transfer is subject to adequate controls, contractual or otherwise, to ensure that the public purpose is accomplished. This Policy has been created to ensure that funds from the Williamson County Community Recreational Facility Fund Policy are transferred and used to serve a public purpose of Williamson County and to ensure that adequate controls, as set out herein and as may be further required by the Williamson County Commissioners Court, are in place in order to ensure that the public purpose is accomplished.

FUNDING POLICY

1. Request for Funding.

Community organizations, groups and individuals may submit to Williamson County a request for funding of the construction, improvement or remodel of community recreational facilities located in Williamson County. Such request for funding must provide and include the following:

- a. The name of the community recreational facility subject of the request.
- b. The name of the organization, entity or individual(s) that manage and control the community recreational facility.
- c. The amount of funding that is requested.
- d. A description of the current and future public purposes and public uses of the community recreational facility.
- e. A description of how the community recreational facility is primarily used for public purposes as opposed to use by private parties for the purpose of making a business profit.

- f. A description of the planned construction, improvement or remodel of the community recreational facility, along with any available plans, sketches and diagrams.
- g. A detailed description of how the funding will be used in relation to the community recreational facility, along with any budgets that outline or otherwise detail the planned use of the funding.
- h. A description of how the funding will assist or aid the community recreational facility in providing a public purpose to citizens of Williamson County.
- i. Provide a signed acknowledgement and agreement to comply with this Policy, which must be in the form attached to this Policy.

2. Consideration of Request for Funding.

Once the funding request is submitted to Williamson County, the request will be placed on the Williamson County Commissioners Court's agenda for consideration.

In the event the members of the Williamson County Commissioners Court determines that the requested funding of the construction, improvement or remodel of a specific community recreational facility will serve a public purpose of Williamson County, the members of the Williamson County Commissioners Court will set the specific amount of funding to be granted.

The Williamson County Commissioners Court may also set out additional controls, contractual or otherwise, to ensure that the public purpose of the funding is accomplished. No funds shall be distributed until which time any additional controls have been satisfied.

3. Right to Audit.

Williamson County or its duly authorized representatives shall, until the expiration of three (3) years after the final disbursement of funds to a community organization, group or individual(s) under this Policy, have access to and the right to examine and photocopy any and all books, documents, papers and records of the community organization, group or individual(s) which are directly pertinent to its expenditure of funds from the Williamson County Community Recreational Facility Fund for the purposes of making audits, examinations, excerpts, and transcriptions. By accepting funds from the Williamson County Community Recreational Facility Fund, the community organization, group or individual(s) agrees that Williamson County shall have access during normal working hours to all of its facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Williamson County will give reasonable advance notice of intended audits.

4. Suspension or Termination of Funding.

The Williamson County Commissioners Court shall have the right, at any time, to suspend or deny any transfers of any funds from the Williamson County Community Recreational Facility Fund to a particular organization, group or individual should Williamson County determine that such organization, group or individual is not using the funds in the manner that was approved by Williamson County or in any manner that violates any provision of this Policy.

5. Reimbursement.

In the event Williamson County determines that an organization, group or individual(s) has not used the funds in the manner that was approved by Williamson County or in any manner that violates any provision of this Policy, the organization, group or individual must, upon Williamson County's notice and demand, immediately return all funds that were previously transferred to the organization, group or individual.

6. Presentation.

Upon the completion of the construction, improvement or remodel of a funded community recreational facility project, the community organization, group or individual(s) that was granted the funding must provide, at the request of the Williamson County Commissioners Court, a report and presentation to the Court which sets forth an overview of the completed project and a description of the items purchased, constructed and/or developed through the use of the funds.

This Williamson County Community Recreational Facility Fund Policy was considered and approved in a duly called session of the Commissioners' Court of Williamson County, Texas, on December 10, 2013.

Williamson County, Texas

By: 

Dan A. Gattis,
Williamson County Judge

Date: 12-12, 2013

EXHIBIT "B"

AGREEMENT AND ACKNOWLEDGMENT OF POLICY

ACKNOWLEDGEMENT AND AGREEMENT

I, the undersigned, on behalf of myself and the organization, group or individual(s) named below, hereby acknowledge and understand the terms and conditions of the Williamson County Community Recreational Facility Fund Policy and hereby agree to comply with all such terms and conditions of the said Policy.

Name of Organization: The Coupland Civic Organization

Name of Community Recreational Facility: Depot and Caboose

By: Susan Schmidt

Printed Name: Susan Schmidt

Title: President

Date: 06 13, 2017

EXHIBIT "C"

PROOF OF NON-PROFIT STATUS

CINCINNATI OH 45999-0038

In reply refer to: 024818804
May 08, 2017 LTR 4168C 0
94-3415576 000000 00

0001770
BODC: TE

COUPLAND CIVIC ORGANIZATION
% BRIAN BIRCH
PO BOX 56
COUPLAND TX 78615



051390

Employer ID Number: 94-3415576
Form 990 required: Yes

Dear Taxpayer:

This is in response to your request dated Apr. 27, 2017, regarding your tax-exempt status.

We issued you a determination letter in July 2002, recognizing you as tax-exempt under Internal Revenue Code (IRC) Section 501(c)(3).

Our records also indicate you're not a private foundation as defined under IRC Section 509(a) because you're described in IRC Section 509(a)(2).

Donors can deduct contributions they make to you as provided in IRC Section 170. You're also qualified to receive tax deductible bequests, legacies, devises, transfers, or gifts under IRC Sections 2055, 2106, and 2522.

In the heading of this letter, we indicated whether you must file an annual information return. If a return is required, you must file Form 990, 990-EZ, 990-N, or 990-PF by the 15th day of the fifth month after the end of your annual accounting period. IRC Section 6033(j) provides that, if you don't file a required annual information return or notice for three consecutive years, your exempt status will be automatically revoked on the filing due date of the third required return or notice.

For tax forms, instructions, and publications, visit www.irs.gov or call 1-800-TAX-FORM (1-800-829-3676).

If you have questions, call 1-877-829-5500 between 8 a.m. and 5 p.m., local time, Monday through Friday (Alaska and Hawaii follow Pacific Time).

COUPLAND CIVIC ORGANIZATION
% BRIAN BIRCH
PO BOX 56
COUPLAND TX 78615

Sincerely yours,



Kim A. Billups, Operations Manager
Accounts Management Operations 1

Commissioners Court - Regular Session

47.

Meeting Date: 08/15/2017

Georgetown Annex

Submitted By: Wendy Coco, County Judge

Department: County Judge

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on approving Guaranteed Maximum Price Proposal from Chasco Constructors, LTD, L.L.P. for the Williamson County Georgetown Annex.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Georgetown Annex

Form Review

Form Started By: Wendy Coco
Final Approval Date: 08/10/2017

Started On: 08/10/2017 01:02 PM



GMP Cost Estimate

**Williamson County Annex Facility
151 Wilco Way
Georgetown, Texas 78626**

August 09, 2017

TABLE OF CONTENTS

Section 1	Description of Work
	➤ Documents
	➤ Clarifications, Assumptions, and Qualifications
	➤ Exclusions
Section 2	Cost Summary
	➤ Cost Estimate
	➤ Price Breakdown

Section 1 – Description of Work**Document List**

<u>Sheet</u>	<u>Title</u>	<u>Issue Date</u>	<u>Issued By</u>
C1	COVER	6/5/2017	STEGER BIZZELL
C2	GENERAL NOTES	6/5/2017	STEGER BIZZELL
C3	GENERAL NOTES (CONT.)	6/5/2017	STEGER BIZZELL
C4	EXISTING CONDITIONS	6/5/2017	STEGER BIZZELL
C5	EROSION CONTROL PLAN	6/5/2017	STEGER BIZZELL
C6	EROSION CONTROL DETAILS	6/5/2017	STEGER BIZZELL
C7	SITE PLAN	6/5/2017	STEGER BIZZELL
C8	DRAINAGE PLAN EXISTING	6/5/2017	STEGER BIZZELL
C9	DRAINAGE PLAN DELOPED	6/5/2017	STEGER BIZZELL
C10	UTILITY PLAN	6/5/2017	STEGER BIZZELL
C11	WASTEWATER PLAN AND PROFILE	6/5/2017	STEGER BIZZELL
C12	WASTEWATER DETAILS	6/5/2017	STEGER BIZZELL
C13	WATER DETAILS	6/5/2017	STEGER BIZZELL
C14	STORM SEWER PLAN	6/5/2017	STEGER BIZZELL
C15	STORM SEWER PLOFILES	6/5/2017	STEGER BIZZELL
C16	STORM SEWER PROFILES (CONT)	6/5/2017	STEGER BIZZELL
C17	DETAILED GRADING PLAN	6/5/2017	STEGER BIZZELL
C18	PAVING PLAN	6/5/2017	STEGER BIZZELL
C19	PAVING AND DRAINAGE DETAILS	6/5/2017	STEGER BIZZELL
C20	STRIPING AND SIGNAGE PLAN	6/5/2017	STEGER BIZZELL
C21	STRIPING AND SIGNAGE DETAILS	6/5/2017	STEGER BIZZELL
C22	WATER QUALITY PLAN AND DETAILS	6/5/2017	STEGER BIZZELL
C23	CRAWLSPACE GRADING AND DRAINAGE PLAN	6/5/2017	STEGER BIZZELL
C24	DETENTION POND PLAN AND DETAILS	6/5/2017	STEGER BIZZELL
L-01 (1 OF 2)	LANDSCAPE PLATING PLAN	6/5/2017	LARSON BURNS SMITH
L-02 (2 OF 2)	LANDSCAPE NOTES & DETAILS	6/5/2017	LARSON BURNS SMITH
A100	COVER SHEET	6/5/2007	KAH Architecture
A101	CODE REVIEW PLAN - AREAS	6/5/2017	KAH Architecture
A102	CODE REVIEW PLAN - EXITING	6/5/2017	KAH Architecture
A103	CODE REVIEW PLAN - EXITING	6/5/2017	KAH Architecture
A104	ABBREVIATIONS AND SYMBOLS	6/5/2017	KAH Architecture
A105	TAS & ADA DETAILS	6/5/2017	KAH Architecture
A200	ARCHITECTURAL SITE PLAN	6/5/2017	KAH Architecture
A201	ARCHITECTURAL SITE DETAILS	6/5/2017	KAH Architecture
A301	FIRST FLOOR PLAN	6/5/2017	KAH Architecture
A302	SECOND FLOOR PLAN	6/5/2017	KAH Architecture
A303	PAVILION PLAN & DETAILS	6/5/2017	KAH Architecture

A311	FIRST FLOOR PLAN - PARTITION TYPES	6/5/2017	KAH Architecture
A312	SECOND FLOOR PLAN - PARTITION TYPES	6/5/2017	KAH Architecture
A401	ROOF PLAN	6/5/2017	KAH Architecture
A411	ROOF DETAILS	6/5/2017	KAH Architecture
A413	ROOF DETAILS	6/5/2017	KAH Architecture
A412	ROOF DETAILS	6/5/2017	KAH Architecture
A14	ROOF DETAILS	6/5/2017	KAH Architecture
A501	BUILDING ELEVATIONS	6/5/2017	KAH Architecture
A502	BUILDING ELEVATIONS	6/5/2017	KAH Architecture
A601	BUILDING SECTIONS	6/5/2017	KAH Architecture
A602	BUILDING SECTIONS	6/5/2017	KAH Architecture
A603	BUILDING SECTIONS	6/5/2017	KAH Architecture
A701	WALL SECTIONS	6/5/2017	KAH Architecture
A702	WALL SECTIONS	6/5/2017	KAH Architecture
A703	WALL SECTIONS	6/5/2017	KAH Architecture
A704	WALL SECTIONS	6/5/2017	KAH Architecture
A711	PARTITION TYPES	6/5/2017	KAH Architecture
A712	PARTITION TYPES	6/5/2017	KAH Architecture
A722	ENVELOPE DETAILS	6/5/2017	KAH Architecture
A721	ENVELOPE DETAILS	6/5/2017	KAH Architecture
A801	ENLARGED PLANS	6/5/2017	KAH Architecture
A802	ENLARGED PLANS	6/5/2017	KAH Architecture
A803	ENLARGED PLANS	6/5/2017	KAH Architecture
A804	ENLARGED PLANS	6/5/2017	KAH Architecture
A805	ENLARGED PLANS	6/5/2017	KAH Architecture
A806	ENLARGED PLANS	6/5/2017	KAH Architecture
A807	ENLARGED PLANS	6/5/2017	KAH Architecture
A808	ENLARGED PLANS	6/5/2017	KAH Architecture
A809	ENLARGED PLANS	6/5/2017	KAH Architecture
A810	ENLARGED PLANS	6/5/2017	KAH Architecture
A811	ENLARGED RESTROOM PLANS	6/5/2017	KAH Architecture
A812	ENLARGED RESTROOM PLANS	6/5/2017	KAH Architecture
A901	ENLARGED STAIR PLANS - FIRST FLOOR	6/5/2017	KAH Architecture
A902	ENLARGED STAIR PLANS - SECOND FLOOR	6/5/2017	KAH Architecture
A911	STAIR SECTIONS	6/5/2017	KAH Architecture
A912	STAIR SECTIONS	6/5/2017	KAH Architecture
A913	STAIR SECTIONS	6/5/2017	KAH Architecture
A914	STAIR SECTIONS	6/5/2017	KAH Architecture
A915	STAIR SECTIONS	6/5/2017	KAH Architecture
A921	STAIR DETAILS	6/5/2017	KAH Architecture
A1001	FINISH SCHEDULE - FIRST FLOOR	6/5/2017	KAH Architecture
A1002	FINISH SCHEDULE - SECOND FLOOR	6/5/2017	KAH Architecture

A1011	FIRST FLOOR PLAN - FLOOR FINISHES	6/5/2017	KAH Architecture
A1012	SECOND FLOOR PLAN - FLOOR FINISHES	6/5/2017	KAH Architecture
A1101	DOOR SCHEDULE - FIRST FLOOR	6/5/2017	KAH Architecture
A1101A	DOOR SCHEDULE - SECOND FLOOR	6/5/2017	KAH Architecture
A1101B	DOOR SCHEDULE - EXT. DOORS	6/5/2017	KAH Architecture
A1102	DOOR SCHEDULE - SECOND FLOOR	6/5/2017	KAH Architecture
A1103	STOREFRONT SCHEDULE	6/5/2017	KAH Architecture
A1104	STOREFRONT SCHEDULE	6/5/2017	KAH Architecture
A1111	DOOR & WINDOW DETAILS	6/5/2017	KAH Architecture
A1131	STOREFRONT DETAILS	6/5/2017	KAH Architecture
A1132	STOREFRONT DETAILS	6/5/2017	KAH Architecture
A1141	EXTERIOR DOOR DETAILS	6/5/2017	KAH Architecture
A1201	MILLWORK DETAILS	6/5/2017	KAH Architecture
A1202	MILLWORK DETAILS	6/5/2017	KAH Architecture
A1203	MILLWORK DETAILS	6/5/2017	KAH Architecture
A1301	FIRST FLOOR REFLECTED CEILING PLAN	6/5/2017	KAH Architecture
A1302	SECOND FLOOR REFLECTED CEILING PLAN	6/5/2017	KAH Architecture
A1303	COURTROOM REFLECTED CEILING PLAN	6/5/2017	KAH Architecture
X101	SECURITY CAMERAS - SITE	6/5/2017	KAH Architecture
X102	SECURITY CAMERAS - PLANS	6/5/2017	KAH Architecture
S101	STRUCTURAL NOTES	6/5/2017	JQ Engineering, LLP.
S102	STRUCTURAL NOTES	6/5/2017	JQ Engineering, LLP.
S103	SPECIAL INSTRUCTIONS	6/5/2017	JQ Engineering, LLP.
S200	LIVE LOAD LEGEND	6/5/2017	JQ Engineering, LLP.
S201	FOUNDATION PLAN	6/5/2017	JQ Engineering, LLP.
S202	SECOND FLOOR FRAMING PLAN	6/5/2017	JQ Engineering, LLP.
S203	ROOF FRAMING PLAN	6/5/2017	JQ Engineering, LLP.
S204	HIGH ROOF FRAMING PLAN	6/5/2017	JQ Engineering, LLP.
S205	PAVILION PLANS & DETAILS - ALTERNATE NO.2	6/5/2017	JQ Engineering, LLP.
S206	PAVILION DETAILS - ALTERNATE NO.2	6/5/2017	JQ Engineering, LLP.
S207	HIGH DENSITY STORAGE MODIFICATIONS - ALTERNATE NO. 3	6/5/2017	JQ Engineering, LLP.
S301	PIER SCHEDULE AND TYPICAL CONCRETE DETAILS	6/5/2017	JQ Engineering, LLP.
S302	TYPICAL CONCRETE DETAILS	6/5/2017	JQ Engineering, LLP.
S303	CONCRETE DETAILS	6/5/2017	JQ Engineering, LLP.
S304	CONCRETE DETAILS	6/5/2017	JQ Engineering, LLP.
S310	MASONRY DETAILS	6/5/2017	JQ Engineering, LLP.
S401	CONCRETE BEAM & JOIST SCHEDULE AND DETAILS	6/5/2017	JQ Engineering, LLP.
S501	TYPICAL STEEL DETAILS	6/5/2017	JQ Engineering, LLP.

S502	TYPICAL STEEL DETAILS	6/5/2017	JQ Engineering, LLP.
S503	TYPICAL STEEL DETAILS	6/5/2017	JQ Engineering, LLP.
S504	TYPICAL STEEL DETAILS	6/5/2017	JQ Engineering, LLP.
S505	STEEL DETAILS	6/5/2017	JQ Engineering, LLP.
S506	STEEL DETAILS	6/5/2017	JQ Engineering, LLP.
S601	WIND BRACE ELEVATIONS AND DETAILS	6/5/2017	JQ Engineering, LLP.
M101	SCHEDULES, NOTES, AND LEGENDS - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M102	SCHEDULES - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M103	SCHEDULES - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M104	DETAILS - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M105	DETAILS - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M106	DETAILS - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M107	RANGE HOOD INFORMATION	6/5/2017	Hendrix Consulting Eng.
M108	RANGE HOOD INFORMATION	6/5/2017	Hendrix Consulting Eng.
M109	RANGE HOOD INFORMATION	6/5/2017	Hendrix Consulting Eng.
M110	RANGE HOOD INFORMATION	6/5/2017	Hendrix Consulting Eng.
M201	FIRST FLOOR PLAN - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M202	SECOND FLOOR PLAN - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M301	SECTIONS MECHANICAL	6/5/2017	Hendrix Consulting Eng.
M302	2ND FLOOR MECH SECTIONS	6/5/2017	Hendrix Consulting Eng.
M401	ROOF PLAN - MECHANICAL	6/5/2017	Hendrix Consulting Eng.
P101	SCHEDULES, NOTES, AND LEGENDS - PLUMBING	6/5/2017	Hendrix Consulting Eng.
P102	DETAILS - PLUMBING	6/5/2017	Hendrix Consulting Eng.
P103	DETAILS - PLUMBING	6/5/2017	Hendrix Consulting Eng.
P201	FIRST FLOOR PLAN - PLUMBING	6/5/2017	Hendrix Consulting Eng.
P202	SECOND FLOOR PLAN - PLUMBING	6/5/2017	Hendrix Consulting Eng.
P401	ROOD PLAN - PLUMBING	6/5/2017	Hendrix Consulting Eng.
E100	SITE PLAN - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E101	SCHEDULES, NOTES, AND LEGENDS - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E102	SCHEDULES - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E103	SCHEDULES - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E104	SCHEDULES - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E105	SCHEDULES - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E106	SCHEDULES - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E107	DETAILS - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E108	DETAILS - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
E201	FIRST FLOOR PLAN - LIGHTING	6/5/2017	Hendrix Consulting Eng.
E202	SECOND FLOOR PLAN - LIGHTING	6/5/2017	Hendrix Consulting Eng.
E301	FIRST FLOOR PLAN - POWER	6/5/2017	Hendrix Consulting Eng.
E302	SECOND FLOOR PLAN - POWER	6/5/2017	Hendrix Consulting Eng.
E401	ROOF PLAN - ELECTRICAL	6/5/2017	Hendrix Consulting Eng.
MEP201	CRAWLSPACE PLAN - MEP	6/5/2017	Hendrix Consulting Eng.

AV101	RISER DIAGRAMS AND DETAILS -AV	6/5/2017	SJCF Architecture
ET101	FIRST FLOOR PLAN	6/5/2017	SJCF Architecture
ET102	SECOND FLOOR PLAN AV	6/5/2017	SJCF Architecture
ET103	REFLECTED CEILING PLAN FIRST FLOOR AV	6/5/2007	SJCF Architecture
ET104	SECOND FLOOR REFLECTED CEILING PLAN -AV	6/5/2017	SJCF Architecture
	Addendum 1		
	NARRATIVE	6/20/2017	KAH Architecture
P201	FIRST FLOOR PLAN - PLUMBING	6/20/2017	Hendrix Consulting Eng.
C10	UTILITY PLAN	6/20/2017	Steger Bizzell
C11	WASTEWATER PLAN AND PROFILE	6/20/2017	Steger Bizzell
A901	ENLARGED STAIR PLANS - FIRST FLOOR	6/20/2017	KAH Architecture
SK-1	SOUTH ELEVATION - NIGHT DEPOSITORY	6/20/2017	KAH Architecture
SK-2	NIGHT DEPOSITORY	6/20/2017	KAH Architecture
ET101	FIRST FLOOR PLAN - AV	6/20/2017	SJCF Architecture
ET102	SECOND FLOOR PLAN - AV	6/20/2017	SJCF Architecture
	Post Bid Addendum 1	7/06/2012	KAH Architecture

Clarifications, Assumptions and Qualifications

Design Services

- Architectural and Engineering design services are excluded
- Geotechnical Engineering and soils analysis reports are excluded

GENERAL REQUIREMENTS

Supervision and Administration

- Project supervision includes a Project Superintendent with Project Management, Safety Coordinator, Estimating, and Administrative Assistant as necessary to complete the project as scheduled
- Document Reproduction as required for shop drawings
- Postage and delivery services

Temporary Facilities

- Project field office
- Project office equipment as required
- Project sign and safety signs
- Temporary toilets
- Site fencing and gates
- Barricades and guard rails as required

Project Services

- Field engineering and layout
- Jobsite clean-up and trash haul off
- Final cleaning
- After hours or weekend job site security is **not** included in our price

Personnel Hoisting

- None required for this project

Temporary Utilities

- Field telephone service
- Project electrical service

Equipment

- Project pickup trucks
- Expendable tools
- Small equipment rental

Permits, Bonds, and Insurance

- The cost of all site and building permits is excluded in the budget
- Mechanical, Electrical, & Plumbing trade permits are included
- Plan review Fees are excluded
- Price excludes Utility connection fees, Impact fees, and Assessment fees
- General Liability, Auto, Worker Compensation, and Builders Risk Insurance are included
- The price includes the cost of performance and payment bonds

Project Schedule, Weather, and Work Hours**Schedule**

- The Project Schedule will include pre-construction and construction activities and when fully developed will serve as the basis for the time required to complete the project

Work Hours

- Normal working days are Monday through Friday, excluding holidays. Work may take place at night or on weekends as coordinated with the Owner

Environmental

- We have assumed that all environmental investigations and permits will be accomplished and paid for by the Owner if required
- The handling or abatement of hazardous materials is not included in this estimate

Building Inspections

- Inspections will be provided as required by local jurisdiction

Jobsite Equipment

- Scaffolding and hoisting for construction access
- Equipment for excavation, structural steel, and concrete construction

Layout & Engineering

- Layout and engineering as required

Materials Testing

- The cost of materials testing is to be by the Owner. The Cost of re-testing due to test failures shall be done by the Construction Manager.

BIM CAD Coordination

- Layout and CAD services as required

Temporary Power and Lighting

- Price includes electrical power consumption and temporary lighting required for construction. Electrical service costs shall be transferred to the Owner when permanent power is hooked up and operational

Erosion Control, Dirt Work and Paving

- Silt fence
- Construction entrance
- Concrete washout
- Tree protection
- Inlet protection
- Maintenance of temporary erosion control and SWPPP during construction
- Remove all erosion controls and tree protection after acceptance of project
- Miscellaneous sawcut and site demolition
- Stripping and stockpiling of topsoil
- Excavation
- Embankment
- Haul off spoils
- Select fill per specifications
- Re-spread topsoil
- Finish grade site as per drawings
- Backfill curb
- 8" Lime stabilized subgrade at HMAC paving
- 10" Compacted base at HMAC paving
- 2" HMAC paving
- 8" Subgrade prep at concrete paving
- 4" Compacted base at concrete paving (concrete paving by others)
- Subgrade preparation +/- 0.1ft.
- Excavate for building crawl space to subgrade below mud slab
- Over excavate for building crawl space to 4 ft. outside of building line and lay back slope to allow for construction of perimeter beams and structural 1st floor pan slab
- Grade below mud slab to drain as per elevations on Civil drawings
- Backfill at perimeter of 1st floor perimeter retaining walls/beams as per Geotechnical report and structural notes on Sheet S101 (GC to furnish and install all soil retainers prior to backfilling)
- Construct water quality pond including 12" clay liner. Storm piping, rip rap and concrete weir by others
- Striping and signs
- Construct dry stack wall and footing as shown on sheet C17
- Excavation for sidewalk areas
- All final grading around buildings, walkways, sidewalks and curbs per site plan and per ADA requirements
- Haul excess concrete waste, asphalt spoil, rubbish and trash to a legal offsite disposal area
- Price shall include cleaning parking lots and paved areas for the final acceptance of the project
- Prepare Original SWPPP and updates
- Price includes revisions from post bid addendum #1
- Price includes revision to haul off of excess spoils to Wilco dump site
- Price includes earthwork at Pavilion Alternate #2
- Misc. earthwork and paving costs

Site Utilities and Storm Drainage

- Potable water lines
- Offsite potable water lines
- Sanitary sewer lines
- Fire water lines
- Storm sewer lines
- Layout, control and all staking required for the work included in this subcontract
- Excavation, trenching, bedding, backfill and compaction for all utility work as per plans and specifications
- Potholing
- Trench safety / shoring.
- Competent individual to inspect all trenching and shoring and provide daily inspections and reports to certify that all trenching and shoring is in strict compliance with applicable laws and regulations
- Water and wastewater piping and fittings
- Cleanouts, valves and accessories
- Fire hydrant assemblies
- Fire Department Connection
- Domestic and irrigation meter assemblies
- Backflow preventers
- Tapping sleeves and valves
- Concrete vault
- Valve boxes
- Manholes
- Tie-ins to existing water and wastewater lines
- Storm piping
- Inlets, and concrete headwalls with aprons
- Concrete rip-rap with velocity dissipaters and sediment depth marker at Storm Sewer Line A
- Sedimentation riser pipe and trash rack and 48" square concrete vault with batch pond controller, actuator and butterfly valve as per sheet C22. Power to pond control system by electrical subcontractor
- 2" Sleeves as shown on sheet C10
- Roof drain tie-ins from 5' outside building to downspout termination
- 6" and 8" Under drain below building including grate inlets (4 ea) and concrete rip-rap at outflow
- Includes Flowable fill trench backfill at the underdrain from 2 ft. inside building to 4' outside building where under drain transitions from interior to exterior of building line
- Pressure and leak testing
- De-watering of trenches
- Disinfection and system certification
- Tie-ins, taps and connections to public utility lines
- Traffic control required for utility construction
- Removal of spoils from site
- Connections to domestic and sanitary sewer lines at 5 ft. Outside of building
- Any street and drive demolition and repair back in public R.O.W. and private drives
- All trade permits and licenses and required to complete the scope of work
- All hoisting and lifting required to complete the scope of work
- Certifications and testing of site utilities as required
- Misc. utility costs

Gas Line

▪ 2" Poly Gas Line	889	lf
▪ 2" Riser	2	ea
▪ Clearing and ROW prep		
▪ Erosion control and revegetation		
▪ Haul off excavated materials	89	cy

Landscaping and Irrigation

- Trees
- Shrubs
- Groundcover
- Topsoil
- Irrigation
- Irrigation system
- Misc. Landscape & Irrigation cost

Site and Building Concrete

- Drilled piers
- Mud slab
- Foundation walls
- Suspended 1st floor slab
- Slab on 2nd floor metal deck
- Stairs & landings
- Shoring
- Reshoring
- Bracing
- Forming systems
- Bulkheads, keyways, blockouts, sleeves, pockets and accessories
- Soil retainers
- Install all anchor bolt assemblies (furnished by others)
- Rebar
- Sawcut
- Grouting structural steel baseplates
- Stairs/Stair pans/ landings
- Steps and ramps
- Equipment bases and foundations and housekeeping pads
- Transformer pads and Dumpster pads
- Light pole bases
- Monolithic Curbs and/or curb and gutter as shown
- Concrete paving and flatwork
- Concrete overflow weir at water quality pond (headwalls and rip-rap by others)
- Concrete slab on void box forms (Pavilion, Alternate 2)
- Granular course and fine grading
- Structural excavation and backfill of beams, footings, plinths, etc. at buildings
- Structural excavation for retaining walls and footings as well as backfill and compaction at site concrete
- Finishing and curing of all concrete work as specified
- Concrete floor sealers and hardeners as specified

- Bilco floor hatch
- Temporary lighting in crawl space
- Structural Concrete Allowance \$10,000.00
- Structural Reinforcing Allowance \$10,000.00
- Additional foundation work for high future density storage

Masonry

- 8" Regular CMU
- 8" Burnished CMU (Refuge Enclosure)
- Cast Stone (Windows Sills and Monument Sign Caps)
- Leuders Limestone Ranging from 2" to 10"
- Rock Mortar Type N and CMU Mortar Type S
- Grout, Rebar, Wire
- Dumpster Enclosure
- Monument Sign
- Masonry Anchors
- Mortar Net, Weeps
- Mock-up
- Scaffold

Structural and Miscellaneous Steel

- Columns
- Beams
- Girders
- Architectural steel
- Anchor bolt assemblies (fabricate and deliver only)
- Beam seats
- Studs
- Channels
- Pour stops
- Joist seats
- Joist and bridging
- Joist and bridging anchors
- Steel stairs, roof ladders
- Steel stair pan assemblies
- Risers
- Landings
- Stair nosings
- Steel stringers
- Steel stair rails and wall rails (excludes aluminum handrails and railings)
- Floor deck
- Roof deck
- Roof opening frames
- Lintels
- Misc. angles, plate, tube & channel
- Steel support tubes at Courtroom divider walls, counter walls, counters and other areas as shown on architectural plans
- All required connection bolts, expansion bolts and other required fasteners
- All handrails at site steps as shown on Architectural and Civil drawings
- Dumpster gate/frame

- Bollards (furnish and deliver only)
- All materials shall either be prime finished or galvanized as indicted and/or specified
- Labor to install furnish only items
- Perimeter safety cabling at 1st and 2nd floors
- Paint Touch up at welds
- Structural Steel Allowance \$10,000.00
- Install furnish only items
- Rooftop gas pipe supports
- Includes structural steel associated with Alternate #3 for future high density storage

Decorative Handrail

- Allow the sum of \$75,000.00 to furnish and install decorative handrail system at stair 101 and balcony

Finish Carpentry, Cabinets and Countertops

- Furnish and install all plastic laminated and wood clad cabinetry and plastic laminated and counter tops per section 06 20 00, 06 40 23 and 06 65 00
- Cabinet door locks, drawer locks and other millwork hardware
- Frameless concealed hinges
- Aluminum reveals
- Plastic laminate and wood clad shelves
- Plam paneling
- Fire retardant materials where indicated
- Sealants
- Plam veneer countertops
- Wilsonart Quartz countertops
- Solid surface window sills
- Stainless steel transaction tray
- Shop finish all architectural woodwork items
- Standing and running trim where shown
- Mock ups
- Furnish and install all cabinet hardware
- Provide shop drawings and samples
- Stainless steel countertop and pass through trays

Waterproofing, Dampproofing, Sealants & Flashing

- Weather Resistive Barrier applied to all exterior walls and transition membrane applied to base of wall, transitions and perimeter of all openings
- Weather Barrier system is priced as WrapShield SA by VaproShield LLC as specified
- Cementitious waterproofing at elevator pits
- 1" 25 psi Extruded Polystyrene Insulation applied to exterior walls behind masonry (Rigid insulation behind the metal wall panels is included in the Metal Wall Panels and ACM pricing line item)
- Closed Cell Foam Insulation MD-1, at Crawl Space Concrete Flat Surfaces and Vertical Surfaces in the crawl space applied to the R value specified
- The crawl space foam priced is Quadfoam 2.0 Closed -Cell Spray Polyurethane Foam Insulation as manufactured by Quadrant Urethane Technologies. This material has been

certified as per ICC-ES Report ESR-3459 to be installed in an attic or crawl space without a prescriptive ignition barrier

- Approximately 6 inches of closed cell spray foam wall cavity air barrier MD-2, placed on top of the blanket exterior wall insulation creating a wall cavity air barrier for the perimeter walls of the structure
- 1" EPS insulation - below grade at beams
- Stainless Steel flashing, applied behind Masonry only, at:
 - Window, Door & Louver Heads
 - Lintels or Shelf Angles
 - Base of Wall
- Flashings at metal panels, storefront and curtainwall assemblies and roofing related flashings are not included in this line item and are part of the pricing for those respective trades
- Cement Waterproofing applied to interior surfaces of below grade elevator pits
- Exterior Silicone Sealant applied to:
 - Masonry CJ
 - Masonry to Hollow Metal Door frames
 - Masonry to Soffits
 - Masonry to Parapet Caps
 - Masonry to Metal Panel transitions
- Site Sealants applied to:
 - Sidewalk EJ
 - Concrete Pavement CJ & EJ
 - Site Concrete to Building EJ

Mechanical Screens

- Linea equipment screens for rooftop units by Modworks
- Qty (4), 4-sided screens
- Heights to match the RTU height, elevated to match roof curb height
- Horizontal or vertical ribbed R-Panel
- 2" Tube framing, 14 ga. red primed steel
- Galvanized steel mounting hardware
- Custom non-metallic colors are included
- Freight, installation, crane, and coordination meeting
- Standard screen design is suitable for use on Category C buildings, up to 200 ft. tall, and 130 MPH wind loads
- ModWerks screens are built to ASCE 7-10 standards and are compliant with IBC 2012

Metal Wall Panels and ACM

- Furnish and install MBCI, or equal 22 gauge prefinished 7.2 corrugated panels with matching trim and flashings at designated walls over 1" rigid insulation and a Knight Wall framing system
- Furnish and install MBCI, or equal 22 gauge prefinished 7.2 corrugated roof panels with matching trim and flashings at eyebrow roofs and soffits over a 1" rigid insulation and ½" Securock cover board
- Price includes custom non-metallic colors
- 20 Year Finish Warranty
- 2 Year Workmanship Warranty
- Fabricate and install a 4mm prefinished composite panels with aluminum extrusions and matching aluminum flashings over a 1" rigid insulation and a Knight Wall framing system
- 5 Year Workmanship Warranty
- Bond

Roofing and Sheet Metal

- Fully adhered 60mil TPO Roofing over mechanically fastened 'A" DensDeck Primed and 2 layers 2.6" 25psi ISO (R30)
- Insulation through fastened by Cover Board Fastener
- 25psi Tapered ISO Crickets to drains as required per roof plan on 1/A401
- Membrane flashing up and over parapets (ex: 1/A701)
- Coping - shop fabricated 24g prefinished steel cap, Kynar custom non-metallic color using ES-1 tested design (wood nailer at top of parapet)
- 24g Prefinished steel counterflashings below metal wall panel siding at rooftop penthouses. Shop fabricated, Kynar custom non-metallic color
- 24g prefinished steel conductor heads and downspouts at penthouse primary scuppers. Shop fabricated, Kynar custom non-metallic color
- Roof Hatch, Ladder Up Post, and Safety Rail System
- Flash rooftop mechanical units
- Flash square support column penetrations for louver equipment screen per manufacturer's standard detail
- Walkway pad layout around RTUs and roof hatch only. Additional walk pad available at \$14.00 per linear foot
- 20 Year NDL and 90mph wind speed rating manufacturer's warranty
- FM 1 - 90 rated insulation attachment
- 2 Year workmanship warranty from roofing company
- Bond

Doors, Frames, and Hardware

▪ Hollow metal doors	19	ea
▪ Hollow metal frames	14	ea
▪ Wood Doors	202	ea
▪ Wood Doors with w/Glass inserts		
▪ Wood Doors Fire Rated		
▪ Prefinished steel frames	202	ea
▪ Finish Hardware	1	ls
▪ Storefront Hardware	1	ls
▪ Misc. Hdw expenses, unloading & sorting	1	ls

Access Doors & Hatches

- Floor hatch
- Coiling Shutter at Kitchen
- Security Grille - motorized

Glass, Glazing and Storefronts

- Oldcastle BE Reliance 2 ½" x 7 ¼" Curtain Wall System - 1" Insulated Glass Units, Class II Clear Anodized, Elevations R1.2, R1.3, R1.4, R1.5, Sunshades Included
- Oldcastle BE MP-3000 2" x 4 ½" Storefront System - 1" Insulated Glass Units, Class II Clear Anodized, Center Set, Thermally Broken, Sunshades Included
- PPG Solarban 70XL Azuria + Clear - 1" Insulated Glass Units, Tempered Where Required, Elevations A-P

- PPG Solarban 90 Azuria + Clear - 1" Insulated Glass Units, Tempered Where Required, Elevations R
- 1/4" Clear Tempered Glass in interior frames by others
- Oldcastle BE Wide Stile Doors - Class II Clear Anodized, Hardware furnished by others, Door Tags: 100, 100A, HA108A
- Mirrors at elevations 108, 109, 110, 116, 117, C121, C122, C126, 207, 212, 216, JP224, JP229
- CRL Sliding Transaction Windows at Window Type E and F
- Level 3 Amortex Bullet Resistant Window at elevation HR102
- 1/4" Fireglass 20 fire rated glazing at 20-minute door lites
- Exterior Perimeter Waterproofing Sealant
- Shop Drawings and Stamped Structural Calculations Included
- Bond

Drywall and Acoustical

- Cold formed framing
- Engineered shop drawings
- Exterior gyp sheathing 1/2" glass mat
- Install doors frames and hardware furnished by GC
- Exterior thermal batt insulation in metal framed walls
- Interior metal framing and gypsum board
- Acoustical ceilings per finish schedule on plans not spec book. Air Care tile included
- In wall blocking
- Parapet cap and back of parapet sheathing
- Bullet resistant panels in type P walls – up to ceiling height or 10' in courtroom
- FRP
- Cloud framing in courtroom including C channels
- Caulking and sealants incidental to drywall construction

Ceramic Tile

- PT1 supplied and installed - herring bone pattern
- CWT-1 Shower wall tile supplied and installed
- PWT-1 supplied and installed -
- PTB1-1 supplied and installed - cove base material not available in this tile
- Vertical wall edge trim supplied and installed
- Marble threshold, 2 x 36 x 3/8 DBL bevel
- Waterproofing supplied and installed - Hydroban waterproofing
- Thinset latex modified supplied and installed
- Epoxy grout supplied and installed
- Crack suppression
- Excludes moisture suppression system

Carpet and Rubber Base

- C- 1A
- C- 1B
- C- 2
- C- 3
- Vinyl tile 1

- Vinyl tile 2
- RB 1
- RB 2
- RTR – Treads
- Transitions
- For 5% attic stock add the sum of \$8,500.00 to the Base Bid

Painting and Finishing

- Tape, float, texture, and Paint walls, ceilings, and furrdowns
- Firetape
- Exposed Deck at Main Hallway and Meeting Room - paint
- Stair Railings, stringer, riser, etc. @ Stair Landings – paint
- HM Doors and Frames - paint
- Ships Ladder and Cage – Paint
- Concrete Floors (SC-1) – Clear Sealer
- All non-prefinished exposed metals
- Wallcoverings are not included in price

Window Treatments

- 225 ea Draper XD model manual shades 5% open with fascia
- Interior Blind Allowance \$2,500

Cubicle Curtain and Track

- Cubicle curtain track assemblies with curtain -2 ea

Signage

- ADA signage at all rooms and bathrooms
- Wayfinding/egress
- Bronze plaque
- Installation of all signs
- Exterior Building letters
- Monument sign
- Allow the sum of \$70,000

Flagpoles

- Two (2) each flag poles with lighted beacons

Louvers

- Louvers at foundation vents

Knox Box

- Knox box 1 ea

Fire Extinguishers and Cabinets

- Fire extinguishers and cabinets 30 ea

Restroom Partitions & Accessories

- Solid plastic overhead braced toilet partitions 22 ea
- Urinal screens with post 8 ea
- Manufacture standard colors
- Toilet accessories as scheduled

Night Deposit

- Kingsley through-wall payment drop Model 12-1800 1 ls
- Install night deposit box 1 ls

Food Service Equipment

- Allow the sum of \$60,000.00 for commercial kitchen equipment

Residential Appliances

- Allow the sum of \$10,000.00 to furnish and install residential appliances

Courtroom Seating

Courtroom Benches by Sauder Courtroom Furniture

- 14 pews totaling 218 linear feet
- Wood Specie: Maple
- Fabric: Not specified; choose from Sauder standard selections
- Body: Sauder #301-4026:
- Seat: Contoured substrate, plywood core, 5-ply construction, upholstered with 3.25” foam
- Back: plywood core, 5-ply construction with genuine veneers front and rear
- Intermediate supports: solid maple
- End Style: Sauder #302-2200 - No end cap
- Complete coordination, field measurements, and approval drawings included
- Delivery and installation included

Sauder Clarity Jury Chairs

- 6 Jury chairs on swivel bases
- Wood Specie: Maple
- Fabric: Not specified; choose from Sauder standard selections

Elevator

- Two (2) ea ThyssenKrupp Endura MRL, Standard Class A passenger elevators
- 3500 lbs. capacity, 150 FPM, 16 ft 0 in travel, 2 stops
- Single-speed center-opening doors
- 460 Volts, 60 Hz power supply, 40 HP
- Opening size: 3 ft 6 in X 7 ft 0 in
- Clear ceiling height: 7 ft 4 in
- Clear inside cab width: 6 ft 8 in

- Clear Inside cab depth: 5 ft 5 in
- Hoistway width: 8 ft 4 in
- Hoistway depth: 6 ft 11 in
- Pit Depth: 4 ft 0 in
- Overhead: 12 ft 11 in
- Controller: TAC 32
- Emergency Power: battery lowering (Hydro)
- Jack Type: twinpost holeless - 2 stage
- Cab Type: TKLP - laminate walls, plastic laminate finish
- Front return, transom: brushed stainless steel
- Cab Doors: brushed stainless Steel
- Canopy: 14 ga. Cold rolled steel
- Ceiling: downlight
- Ceiling finish: brushed stainless steel
- Lighting: LED
- Cab sill: aluminum
- Handrail type: 1.5" cylindrical
- Handrail finish: brushed stainless steel
- Handrail location: rear and side walls cab finished floor: by others (not to exceed 3/8")
- Car fixtures: vandal resistant
- Finish: brushed stainless
- Fixtures included: swing return, car position indicator, car-riding lantern
- Hall fixtures: vandal resistant
- Finish: brushed stainless
- Fixtures included: hall stations, position indicators at all floors
- Two (2) powder coated entrance doors
- Two (2) powder coated entrance frames
- Two (2) aluminum entrance sills
- New product service: three (3) months; 24-hour service available
- Two speed fan, automatic fan/light shutdown, vista remote monitoring, fire service provisions, hoistway access at top & bottom landings, ADA phone, non-proprietary controller, solid state starting, biodegradable oil, pit ladder

Fire Protection

- Drawings, hydraulic calculations and permits
- Hydrostatic testing of the fire protection system
- All heads to be installed on the center of ceiling tiles
- Interior work is to begin at a flange 1'-0" AFF inside the building
- All required sleeving, fire safing and core drilling
- Hydraulic density as required by NFPA #13 and the City of Georgetown
- Sprinkler head spacing as required by NFPA #13
- Concealed sprinkler heads in the finished ceilings
- Backflow Preventer included inside the fire riser room

- Clear Inside cab depth: 5 ft 5 in
- Hoistway width: 8 ft 4 in
- Hoistway depth: 6 ft 11 in
- Pit Depth: 4 ft 0 in
- Overhead: 12 ft 11 in
- Controller: TAC 32
- Emergency Power: battery lowering (Hydro)
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- Handrail location: rear and side walls cab finished floor: by others (not to exceed 3/8")
- Car fixtures: vandal resistant
- Finish: brushed stainless
- Fixtures included: swing return, car position indicator, car-riding lantern
- Hall fixtures: vandal resistant
- Finish: brushed stainless
- Fixtures included: hall stations, position indicators at all floors
- Two (2) powder coated entrance doors
- Two (2) powder coated entrance frames
- Two (2) aluminum entrance sills
- New product service: three (3) months; 24-hour service available
- Two speed fan, automatic fan/light shutdown, vista remote monitoring, fire service provisions, hoistway access at top & bottom landings, ADA phone, non-proprietary controller, solid state starting, biodegradable oil, pit ladder

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- All heads to be installed on the center of ceiling tiles
- Interior work is to begin at a flange 1'-0" AFF inside the building
- All required sleeving, fire safing and core drilling
- Hydraulic density as required by NFPA #13 and the City of Georgetown
- Sprinkler head spacing as required by NFPA #13
- Concealed sprinkler heads in the finished ceilings
- Backflow Preventer included inside the fire riser room

Plumbing

- Cast iron waste and vent below slab to 5' outside building line
- Cast Iron waste and vent above slab
- Copper domestic water
- Insulation of domestic water
- Fixtures
- Sleeves
- Roof drains and overflow drains
- Excavation as needed
- Drains and carriers
- All fixtures as scheduled
- Gas distribution
- Oil interceptor
- Sewer pump
- Fire caulk for this scope of work

HVAC

- 4 – Rooftop units
- 6 – Ductless split system units
- 5 – Exhaust fans
- 1 – Type 1 kitchen hood
- 1 – Kitchen exhaust fan
- 1 – Kitchen MAU supply fan
- 1 – Electric unit heater
- 38 – VAV boxes
- 48 – Fan powered boxes
- 1 – Roof hood
- 11 – Fire dampers
- 4 – Motorized dampers
- 1 – Barometric dampers
- 4 – Pressure relief doors
- 462 – Air devices
- Refrigerant piping and condensate drains
- DDC controls and low voltage wiring
- Galvanized sheet metal ductwork and accessories
- Thermal insulation
- Equipment hoisting
- Certified test and balance
- HVAC permit
- Bond

Electrical

- Primary Conduits
- Communications conduits
- Secondary conduits and conductors
- Site Power Distribution
- Site lighting
- Basic electrical materials and methods

- Raceways
- Wire
- Cable
- Connectors
- Outlets
- Pull boxes and junction boxes
- Switches and receptacles
- Panel boards
- Disconnects
- Over current protection devices
- Fuses
- Equipment and raceway support systems
- Switchboards
- Transient voltage surge suppression
- Grounding and bonding
- Transformers
- Interior lighting
- Site lighting
- Back boxes, conduits and other infrastructure systems for communications systems, data systems, security systems Audio Visual systems, HVAC Controls, Irrigation Controls and other special systems as identified in the Project Documents
- Required conduit/pull boxes associated with site distribution of power, lighting, telecom, data, security and other systems
- Fire alarm system
- Backfill and compaction of any underground electrical
- Electrical service entrance
- Telephone system conduits
- Telephone stub ups
- Electrical identification
- Wiring devices
- Supporting devices
- Cabinets and enclosures as per electrical plan notes
- Trenching
- Fire proofing and fire sealants to be provided for electrical penetrations of rated assemblies
- Warranties and maintenance manuals
- Coordinate with Commissioning Agent and complete commissioning requirements as specified
- Bond

Security Systems

- Allow the sum of \$100,000.00 to furnish and install security systems and equipment

Audio/Visual Systems

- Allow the sum of \$240,000.00 to furnish and install Audio Visual systems and equipment

Data / Communications Equipment

- Allow the sum of \$100,000.00 to furnish and install Data, Communication and other technology related systems and equipment

Project Cleanup

▪ Daily jobsite clean	69	wk
▪ Dumpsters	30	ea
▪ Final Clean	59,964	sf
▪ Street Cleaning	25	wk

Owner's Project Contingency

- The GMP includes an Owner's Project Contingency in the amount of \$300,000.00

Contingency

- The GMP includes a Construction Manager's Contingency in the amount of \$423,742.00 for the exclusive use of the Construction Manager in accordance with the project documents. All unused contingency amounts shall be returned to the Owner upon project completion.

Exclusions

The following items are **not included** in our Cost Estimate:

- Hazardous material assessment, removal, or abatement
- Materials testing
- Site and building permits
- Plan review fees
- TAS fees
- Final survey
- Sales tax
- Landscape maintenance
- Fire pumps
- Electrical coordination studies
- Any items noted in this scope narrative as "not included" or "not included in price"

Section 2 – Cost Summary

Cost Estimate

Chasco’s GMP Cost Estimate for this project is: **\$14,665,377.00**

Price Breakdown

A price breakdown is attached

Alternates

- 1. Finish out Meeting Room 226**
Provide and Install all work associated with Flooring, Walls Ceiling Finish Out and Lighting for Meeting Room 226 as shown on Drawings and in the Specifications.
Add the sum of \$108,047 to base bid

- 2. Construct Pavilion**
Provide and Install all work associated with the Pavilion, Sheet A303 – Pavilion Plan and Details as shown on the Drawings and in the Specifications.
Add the sum of \$253,704 to the base bid

Drilled Pier Unit Prices

Unit Prices for 24" dia. Drilled Piers	Add	Deduct
	\$81.00/lf	\$16.00/lf
Casing if Required	\$60.00/lf	

Breakdown of Cost for Williamson County Annex GMP Budget

Estimate #:	15092		
		GMP	
Item	59,964 SF	8/9/17	SF
General Conditions		449,503	7.50
Layout, Eng. & CAD		25,000	0.42
Temporary Power and Lighting		18,000	0.30
Jobsite Equipment		60,000	1.00
Erosion Controls Dirt Work and Paving		795,500	13.27
Site Utilities and Storm Drainage		480,995	8.02
Gas Line		18,811	0.31
Landscaping and Irrigation		147,310	2.46
Site and Building Concrete		2,081,660	34.72
Masonry		322,794	5.38
Structural Steel		1,179,500	19.67
Decorative Handrails		75,000	1.25
Finish Carpentry & Cabinets		254,663	4.25
Dampproofing, Caulking, Flashing and Insulation		251,710	4.20
Mechanical Screens		57,708	0.96
Metal Wall Panels and ACM		408,910	6.82
Roofing		236,428	3.94
Doors, Frames, and Hardware		237,465	3.96
Access Doors & Hatches		16,621	0.28
Glass, Glazing and Storefronts		459,000	7.65
Drywall & Acoustical		1,220,513	20.35
Ceramic Tile		103,821	1.73
Carpet and Base		228,405	3.81
Paint & Wallcovering		229,622	3.83
Window Treatment		37,390	0.62
Cubicle Curtain and Track		1,500	0.03
Signage		70,000	1.17
Flagpoles		7,280	0.12
Louvers		2,543	0.04
Knox Box		2,000	0.03
Fire Extinguishers and Cabinets		5,000	0.08
Night Deposit		3,000	0.05
Toilet Room Partitions & Acc		39,500	0.66
Food Demonstration Equipment		60,000	1.00
Courtroom Seating		32,927	0.55
Residential Appliances		10,000	0.17
Conveying Systems		143,500	2.39
Fire Protection		148,750	2.48
Plumbing		418,085	6.97
HVAC		1,071,179	17.86
Electrical		1,398,100	23.32
Security Systems		100,000	1.67
Audio Visual Systems		240,000	4.00
Data-Communications Eqpt.		100,000	1.67
Project Cleanup		88,124	1.47
Owner's Project Contingency		300,000	5.00
Subtotal		<u>\$13,637,817</u>	<u>\$227.43</u>
Builders Risk Insurance		46,929	0.78
Excess Liability Insurance		28,597	0.48
Subtotal		<u>\$13,713,343</u>	<u>\$228.69</u>
Bond		116,891	1.95
Fee	3.00%	411,400	6.86
Construction Manager's Contingency	3.00%	423,742	7.07
Total		<u>\$14,665,377</u>	<u>\$244.57</u>

Alternate No. 1 Finish out Meeting Room 226

General Conditions		2,013
Drywall & Acoustical		29,000
Carpet and Base		29,822
Paint & Wallcovering		3,738
Electrical		36,100
Subtotal		<u>\$100,673</u>
Builders Risk & Liability Insurance	0.50%	503
Subtotal		\$101,177
Bond	0.7002%	708
Fee	3.00%	3,035
Construction Manager's Contingency	3.00%	<u>3,126</u>
Total		\$108,047

Alternate No. 2 Pavilion - Alternate Price

General Conditions		4,728
Concrete		89,000
Masonry		46,945
Structural Steel		4,500
Carpentry & Trusses		30,000
Caulking & Flashing		7,956
Metal Roofing		18,550
Doors, Frames & Hardware		9,174
Paint & Finish		3,738
Fire Extinguishers		500
Electrical		<u>21,300</u>
Subtotal		\$236,391
Builders Risk & Liability Insurance	0.50%	1,182
Subtotal		\$237,573
Bond	0.7002%	1,663
Fee	3.00%	7,127
Construction Manager's Contingency	3.00%	<u>7,341</u>
Total		\$253,704

Respectfully Submitted:
CHASCO CONSTRUCTORS, LTD., L.L.P.

By: Charles J. Glace, Jr.

Printed Name: Charles J. Glace, Jr.

Title: President

Date: August 09, 2017

Accepted:
WILLIAMSON COUNTY, TEXAS

By: _____

Title: _____

Date: _____

Commissioners Court - Regular Session

48.

Meeting Date: 08/15/2017

Metal Beam Guard Fence

Submitted For: Randy Barker

Submitted By: Dianne West, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action on authorizing the extension of Metal Beam Guard Fence Contract #1507-002, for the same pricing, terms and conditions as the existing contract for the term of September 8, 2017 - September 7, 2018, with RHB Construction.

Background

This is the second extension of two (2) possible, 1 year renewal options. The user department submitted an annual Vendor Performance Report (VPR) that reflected the Vendor meeting our requirements on this contract and request to renew for the last renewal period.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Metal Beam Guard Fence renewal

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Dianne West

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM

Started On: 08/09/2017 03:44 PM



Summary Agreement for Renewal of Williamson County Contract

Purchase/Contract Type:	Services	Department:	Road & Bridge
Vendor Name:	RHB Construction		
Vendor Address:	402 W Palm Valley Blvd A, Round Rock, TX 78664		
Purpose/Intended Use of Product or Service (summary):			
Metal Beam Guard Fence			
P.O./Contract Number:	1507-002	Effective Date:	09/08/17
Purchaser/Contract Specialist:	Dianne West	Expiration Date:	09/07/18
Requested By:	Terron Evertson, Department Director		
Detailed description of renewal of product and/or service.			
<ul style="list-style-type: none"> • Williamson County wishes to extend this bid/proposal for the same pricing, terms and conditions as the existing contract. • Please refer to the new Work Plan, labeled Attachment A, which includes the work locations for New MBGF (#1), as well as, the On-Call Services noted (#2). • PLEASE INCLUDE THE FOLLOWING: <ul style="list-style-type: none"> - COMPLETED 1295 FORM; AND - RENEWED INSURANCE CERTIFICATE IF IT WAS REQUIRED IN BID/PROPOSAL. • Extend Contract for the 2nd of two (2) one year renewal option periods: 			
Renewal Option Period 2	September 8, 2017 – September 07, 2018		
Renewal Option Period 1	September 8, 2016 – September 07, 2017		
Initial Contract Period	September 8, 2015 – September 07, 2016		
BY SIGNING BELOW, THE PARTIES AGREE TO THE TERMS OF EXTENSION SET OUT HEREIN			
Vendor <u>RHB Construction</u>	Williamson County, 710 Main St., Georgetown, TX 78626		
Name <u>Tracey Hummel</u>	Dan A. Gattis		
Title <u>president</u>	Williamson County Judge		
Signature <u>[Signature]</u>	Signature _____		
Date <u>08-07-17</u>	Date _____		

**Work Plan FY18
Metal Beam Guard Fence**

1. New MBGF to be installed

<u>County Roads</u>	<u>Limits</u>
CR 240	SH 195 to State DPS
CR 266	1800' south of SH 29 to Caughtfield Subdivision
CR 139	At Brushy Creek
CR 305	I-35 to the eastern low water crossing on Salado Creek

2. On-Call services for replacing unforeseen damaged MBGF

All county roads including, but not limited to, the following high ADT county roads:

- Chandler Road
- Ronald Reagan Blvd.
- Limmer Loop
- McNeil Road
- Williams Drive

Metal Beam Guard Fence Replacement and Installation 1507-002

Bid Tabulation/ Vendor contract pricing

Initial contract Period 9-8-15 to 9-7-16

First Renewal Option Period exercised for 9/08/2016 - 09/07/2017

Second Renewal Option Period exercised for 9/8/17 – 09/08/2018

with same pricing, terms and conditions.

RHB Awarded 9-8-15

Item	Description	Unit	Estimated	Unit	
			Quantity	Price	COST
500 2001	MOBILIZATION	LS	1	\$1,000	\$1,000
540 2001	MTL W-BEAM GD FEN (TIM POST)	LF	2,200	\$29	\$63,800
540 2002	MTL W-BEAM GD FEN (STEEL POST)	LF	100	\$29	\$2,900
540 2005	TERMINAL ANCHOR SECTION	EA	2	\$580	\$1,160
540 2011	MTL BEAM GD FEN TRANS (THRIE-BEAM)	EA	8	\$1,525	\$12,200
540 2012	MTL BEAM GD FEN TRANS (TL2)	EA	2	\$850	\$1,700
540 2013	MTL BEAM GD FEN TRANS (T101)	EA	2	\$825	\$1,650
540 2015	MTL W-BEAM GD FEN(TIM POST)RADIUS RAIL	LF	100	\$40	\$4,000
540 2022	MTL W-BEAM GD FEN(STL POST)RADIUS RAIL	LF	100	\$25	\$2,500
540 2023	RADIAL TERMINAL ANCHOR SECTION (DRWY)	EA	2	\$750	\$1,500
540 2036	DRIVEWAY TERMINAL ANCHOR SECTION	EA	2	\$700	\$1,400
540 6014	SHORT RADIUS	LF	100	\$28	\$2,800
542 2001	REMOVING METAL BEAM GUARD FENCE	LF	1,200	\$3	\$3,600
542 2002	REMOVING TERMINAL ANCHOR SECTION	EA	8	\$140	\$1,120
542 2003	RM MTL BM GD FEN TRANS (THRIE-BEAM)	EA	8	\$140	\$1,120
542 2004	REMOVING MTL BM GD FEN TRANS (TL2)	LF	2	\$100	\$200
542 2005	RM MTL BM GD FENCE TRANS (T101)	EA	2	\$195	\$390
544 2001	GUARDRAIL END TREATMENT (INSTALL)	EA	42	\$3,800	\$159,600
544 2003	GUARDRAIL END TREATMENT (REMOVE)	EA	14	\$485	\$6,790

Commissioners Court - Regular Session

49.

Meeting Date: 08/15/2017

Dunbar Armored, Inc courier services contract renewal

Submitted For: Randy Barker

Submitted By: Dianne West, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the extension of armored courier service contract #1605-078, for the same pricing, terms and conditions as the existing contract for the term of October 1, 2017 - September 30, 2018, with Dunbar Armored, Inc.

Background

This contract is for armored courier services with Dunbar Armored, Inc. The initial contract term is 1 October 2016 - 30 September 2017. This renewal is the 1st of two possible renewal periods.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Dunbar Armored, Inc renewal 1605-078

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Dianne West

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 09:13 AM

Started On: 08/09/2017 03:56 PM



Summary Agreement for Renewal of Williamson County Contract

Purchase/Contract Type:	Service	Department:	Williamson County Treasury Office
Vendor Name:	Dunbar Armored, Inc		
Vendor Address:	50 Schilling Road, Hunt Valley, MD 21031		
Purpose/Intended Use of Product or Service (summary):			
Armored Courier Service (RFP#1605-078)			
P.O./Contract Number:	48000883	Effective Date:	10/01/2017
Purchaser/Contract Specialist:	Dianne West	Expiration Date:	09/30/2018
Requested By:	D. Scott Heselmeyer, Williamson County Treasurer		

Detailed description of renewal of product and/or service.

- Williamson County wishes to extend this bid/proposal (Dunbar Armored, Inc. Service Contract #48000883) for the same pricing, terms and conditions as the existing contract, with the following revisions:
 1. The parties agree that the Contract is to be extended for the first year renewal option period, from October 1, 2017 through September 30, 2018.
 2. Section 13 of the Terms and Conditions is amended to delete each reference to "the effective date" in such section and replace each such reference with "October 1, 2017".

BY SIGNING BELOW, THE PARTIES AGREE TO THE TERMS OF EXTENSION SET OUT HEREIN

Vendor Dunbar Armored, Inc.

Williamson County, 710 Main St., Georgetown, TX 78626

Name Seth McElroy

Dan A. Gattis

Title SVP Admin & Mktg.

Williamson County Judge

Signature [Handwritten Signature]

Signature _____

Date 8/1/17

Date _____

Commissioners Court - Regular Session

50.

Meeting Date: 08/15/2017

Approve Advertisement RFCSP 1708-180 River Ranch Park Residence

Submitted For: Randy Barker

Submitted By: Thomas Skiles, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing Purchasing Agent to advertise and receive competitive sealed proposals for River Ranch County Park Residence under RFCSP # 1708-180.

Background

Williamson County is requesting competitive sealed proposals for construction of a park residence at River Ranch County Park located at 1751 CR 282 Liberty Hill, TX. The County is open to existing builder plans; custom home not a requirement. Estimated expenditure on this project is \$250,000 with an estimated completion time of 9 months.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[RFCSP Packet](#)

Form Review

Inbox

Purchasing (Originator)
 County Judge Exec Asst.
 Form Started By: Thomas Skiles
 Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
 Wendy Coco

Date

08/10/2017 10:14 AM
 08/10/2017 10:27 AM
 Started On: 08/10/2017 08:12 AM

Solicitation 1708-180

River Ranch County Park Residence

Bid Designation: Public



Williamson County, Texas

Bid 1708-180

River Ranch County Park Residence

Bid Number 1708-180
 Bid Title River Ranch County Park Residence
 Expected Expenditure **\$250,000.00** (This price is expected - not guaranteed)

Bid Start Date In Held
 Bid End Date Sep 4, 2017 3:00:00 PM CDT
 Question & Answer End Date Sep 1, 2017 5:00:00 PM CDT

Bid Contact Blake Skiles
 Purchasing Specialist III
 512-943-1478
 blake.skiles@wilco.org

Contract Duration **9 months**
 Contract Renewal Not Applicable
 Prices Good for **365 days**
 Pre-Bid Conference **Aug 28, 2017 1:00:00 PM CDT**
Attendance is optional
Location: 1751 CR 282
Liberty Hill, Texas

Bid Comments **Williamson County is requesting competitive sealed proposals for construction of a park residence at River Ranch County Park located at 1751 CR 282 Liberty Hill, TX. The County is open to existing builder plans; custom home not a requirement.**

Item Response Form

Item 1708-180--01-01 - Please Attached All Documents To This Line
 Quantity 1 each

Prices are not requested for this item.

Delivery Location **Williamson County, Texas**

No Location Specified

Qty 1

Description

Please Attached All Documents To This Line

Item 1708-180--01-02 - Total Proposal Price
 Quantity 1 each
 Unit Price
 Delivery Location **Williamson County, Texas**

No Location Specified

Qty 1

Description

Total Proposal Price





PUBLIC ANNOUNCEMENT AND GENERAL INFORMATION

WILLIAMSON COUNTY PURCHASING DEPARTMENT SOLICITATION 1708-180 RIVER RANCH COUNTY PARK RESIDENCE

**PROPOSALS MUST BE RECEIVED ON OR BEFORE:
Monday, September 4, 2017 at 3:00 PM**

**PROPOSALS WILL BE PUBLICLY OPENED:
Monday, September 4, 2017 at 3:00 PM**

Notice is hereby given that competitive sealed Proposals for the above-mentioned construction services will be accepted by the Williamson County Purchasing Department. Williamson County uses BidSync to distribute and receive proposals. Specifications for this RFCSP may be obtained by registering at www.bidsync.com.

Williamson County prefers and requests electronic submittal of this Proposal.

All electronic proposals must be submitted via: www.bidsync.com

Electronic proposals are requested, however paper proposals will currently still be received, until further notice and may be mailed or delivered to the address listed below.

Respondents are strongly encouraged to carefully read this entire RFCSP.

All interested Respondents are invited to submit a Proposal in accordance with the Instructions and General Requirements, Proposal Format, Proposal Specifications, and Definitions, Terms and Conditions stated in this RFCSP.

Please note that a complete package must be submitted choosing one of the above two methods. Split packages where a partial submittal is received in paper and a partial submittal is received via BidSync will be considered “unresponsive” and will not be accepted or evaluated.

Williamson County will not accept any Proposals received after the submittal deadline, and shall return such Proposals unopened to the Respondent.

General Information:

- If mailed or delivered in person, Proposal and Proposal addenda are to be delivered in sealed envelope on or before the submittal deadline, as noted in the Public Announcement and General Information listed above for this RFCSP, to:

Williamson County Purchasing Department
Attn: **PROPOSAL NAME AND NUMBER**
901 South Austin Avenue
Georgetown, Texas 78626

- Respondents should list the Proposal Number, Proposal Name, Name and Address of Respondent, and the Date of the Proposal opening on the outside of the box or envelope and note "Competitive Sealed Proposal Enclosed."
 - Respondent should submit one (1) original.
 - Williamson County will NOT be responsible for unmarked or improperly marked envelopes.
 - Williamson County will not accept any responsibility for Proposals being delivered by third party carriers.
 - Facsimile transmittals will NOT be accepted.
- Proposals will be opened publicly and the names of the offerors and any monetary proposals made by the offerors, will be read aloud.
 - All submitted questions with their answers will be posted and updated on www.bidsync.com.
 - It is the Respondent's responsibility to review all documents in BidSync, including any Addenda that may have been added after the document packet was originally released and posted.
 - Any Addenda and/or other information relevant to the RFCSP will be posted on www.bidsync.com.
 - The Williamson County Purchasing Department takes no responsibility to ensure any interested Respondent has obtained any outstanding addenda or additional information.



Williamson County – Request for Competitive Sealed Proposal (RFCSP)

SECTION 1 - DEFINITIONS

Addendum/Addenda – means any written or graphic instruments issued by the County prior to the consideration of Proposals which modify or interpret the Proposal Documents by additions, deletions, clarifications, or corrections.

Agreement/Ensuing Agreement(s) – means the Successful Respondent may be required by the County to sign an additional Agreement containing terms necessary to ensure compliance with the RFCSP and the Respondent's Proposal. Such Ensuing Agreement(s) shall contain the Proposal specifications, terms and conditions that are derived from the RFCSP.

Contract – means this RFCSP and the Proposal of the Successful Respondent shall become a Contract between the Successful Respondent and the County once the Successful Respondent Proposal is properly accepted by the Williamson County Commissioners Court (sometimes referred to herein as the Commissioner's Court").

Commissioner's Court – means the Williamson County Commissioners Court.

County – means Williamson County, a political subdivision of the State of Texas.

Executive Summary – means the document submitted by Respondent that represents a concise summary of the contents of the Proposal. It does not include any information concerning costs.

Proposal Documents – means the Legal Notice, RFCSP including attachments, and any Addenda issued by the County prior to the consideration of any Proposals.

Proposal – means the complete, properly signed document, and ALL required forms and documentation listed in the proposal package which have been submitted in accordance with this RFCSP package. A Proposal submitted in accordance with this RFCSP is irrevocable during the specified time period for evaluation and acceptance of Proposals, unless a waiver is obtained from the Williamson County Purchasing Agent.

Respondent – means a person or entity who submits a Proposal in response to this RFCSP.

Request for Competitive Sealed Proposals (RFCSP) – means this document, together with the attachments thereto and any future Addenda issued by the County.

Successful Respondent– means the responsible Respondent who, in the County's sole opinion, submits the Proposal which is in the best interest of the County, taking into account factors identified

herein, and to whom the County intends to award the Contract.

SECTION 2 - RESPONSE FORMAT AND SUBMISSION

2.1 INTRODUCTION

Each Proposal submitted in response to this RFCSP should clearly reference the numbered sections of this RFCSP that require a response. Failure to arrange the Proposal as requested may result in the disqualification of the Proposal.

Though there is not a page limit for Proposals, to save natural resources including paper, and to allow the County staff to efficiently evaluate all submitted Proposals, the County requests that Proposals be orderly, concise, but comprehensive in providing the requested information. Conciseness and clarity of content are emphasized and encouraged. If mailed or delivered in person, please limit additional, non requested information.

Please provide your Proposal response using:

- A. 8 ½" x 11" pages, inclusive of any cover letter or supporting materials.
- B. The least amount of plastic/laminate or other non-recyclable binding materials.
- C. Single-sided printing.

Vague and general Proposals will be considered non-responsive, and may, at the County's sole discretion, result in disqualification. Proposals must be legible and complete. Failure to provide the required information may result in the disqualification of the Proposal. All pages of the Proposal should be numbered and the Proposal should contain an organized, paginated table of contents corresponding to the sections and pages of the Proposal.

2.2 ORGANIZATION OF PROPOSAL CONTENTS AND TABLE OF CONTENTS

Each Proposal should be submitted with a table of contents that clearly identifies and denotes the location of all enclosures of the Proposal. The table of contents should follow the RFCSP's structure as much as is practical.

Each Proposal should be organized in the manner described below:

- A. Transmittal Letter. Please see Section 2.3, Transmittal Letter, for more information.
- B. Table of Contents.
- C. Executive Summary. Please see Section 2.4, Executive Summary.
- D. Proposal Response to Criteria. (Please see the sections in this RFCSP package that list the Specifications & Cost Proposal, Experience and Qualifications, References, and Implementation Strategy to respond to our criteria in a clear and concise manner)
- E. Price Sheet.
- F. References: Identification of three (3) references within the last four (4) years, for which the Respondent is providing, or has provided, the goods and/or services (public sector) of the type requested in this RFCSP. Include the name, position/title, and telephone number of a contact person at each entity.

- G. Conflict of Interest Questionnaire.
- H. Proposal Affidavit (Signature Page).
- I. Attach your entities sample Contract, if applicable, for the County's review and consideration. This should include any additional terms or conditions. The County is not required to use the sample Contract submitted.

2.3 TRANSMITTAL LETTER

The Respondent should submit a Transmittal Letter that provides the following information:

- A. Name and address of individual or business entity submitting the Proposal.
- B. Respondent's type of business entity (i.e., Corporation, General Partnership, Limited Partnership, LLC, etc.). See Section 3.5, Signature of Respondent, for more information.
- C. Place of incorporation or organization, if applicable.
- D. Name and location of major offices and other facilities that relate to the Respondent performance under the terms of this RFCSP.
- E. Name, physical address, email address, business and fax number of the Respondent's principal contact person regarding all contractual matters relating to this RFCSP.
- F. The Respondent's Federal Employer Identification Number.
- G. A commitment by the Respondent to provide the services required by the County;
- H. A statement that the Proposal is valid for the time specified on page three (3), under the section named *Prices Good for*, of this Proposal packet. Any Proposal containing a term of less than the required amount, may at the County's sole discretion, be rejected as non-responsive.
- I. If the Proposal being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Respondent is encouraged to provide information in narrative indicating the anticipated air quality impact. See Section 4.40, Air Quality for more information.

The Transmittal Letter should be signed by a person legally authorized to bind the Respondent to the representations in the Transmittal Letter and the Proposal. In the case of a joint Proposal, each party must sign the Transmittal Letter.

2.4 EXECUTIVE SUMMARY

The Respondent should provide an Executive Summary of its Proposal that asserts that the Respondent is providing in its response all of the requirements of this RFCSP. The Executive Summary should not include any information concerning the cost of the Proposal, but instead must represent a full and concise summary of the contents of the Proposal. It is recommended the Executive Summary include the following information:

- A. Identify any goods and/or services that are provided beyond those specifically requested. If the Respondent is providing services and/or goods that do not meet the specific requirements of this RFCSP, but in the opinion of the Respondent are equivalent or superior to those specifically

requested, any such differences should be noted in the Executive Summary. However, the Respondent must realize that failure to provide the goods and/or services specifically required, at the County's sole discretion, may result in disqualification of the Proposal.

- B. Indicate why the Respondent believes that it is the most qualified Respondent to provide the services described in this RFCSP. The Successful Respondent must demonstrate extensive experience and understanding of the intent of this project. The Respondent should describe in detail the current and historical experience the Respondent and its subcontractors have that would be relevant to completing the project. References must contain the name of key personnel and telephone numbers for each contact, as described in Section 3.14, References.
- C. Briefly state why the Respondent believes its proposed goods and/or services best meet the County's needs and RFCSP requirements, and the Respondent also should concisely describe any additional features, aspects, or advantages of its goods and/or services in any relevant area not covered elsewhere in its Proposal.

2.5 CONFLICT OF INTEREST

No public official shall have interest in a contract, in accordance with Vernon's Texas Codes Annotated, Local Government Code, Title 5, Subtitle C, Chapter 171, as amended.

As of January 1, 2006, all Respondents are responsible for complying with Local Government Code, Title 5, Subtitle C, Chapter 176. Additional information may be obtained from the County's website at the following link:

<http://www.wilco.org/CountyDepartments/Purchasing/ConflictofInterestDisclosure/tabid/689/language/en-US/Default.aspx>

Each Respondent must disclose any existing or potential conflict of interest relative to the performance of the requirements of this RFCSP. **Examples of potential conflicts of interest may include an existing business or personal relationship between the Respondent, its principal, or any affiliate or subcontractor with the County or any other entity or person involved in any way with the project that is subject to this RFCSP.** Similarly, any personal or business relationship between the Respondent, the principals, or any affiliate or subcontractor with any employee, or official of the County or its suppliers must be disclosed.

Any such relationship that might be perceived or represented as a conflict must be disclosed. Failure to disclose any such relationship or reveal personal relationships with the County employees or officials may be cause for termination.

The County will decide if an actual or perceived conflict should result in Proposal disqualification.

By submitting a Proposal in response to this RFCSP, all Respondents affirm they have not given, nor intend to give, at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a County public servant or any employee, official or representative of same, in connection with this procurement.

Each Respondent must provide a Conflict of Interest Statement.

2.6 CERTIFICATE OF INTERESTED PARTIES – FORM 1295

As of January 1, 2016, all Respondents are responsible for complying with the Texas Government Code, Section 2252.908. The law states that the County may not enter into certain contracts with a Respondent unless the Respondent submits a disclosure of interested parties to the County at the time the Respondent submits the signed contract. The law applies only to a contract of the County on or after January 1, 2016 that either:

- A. Requires an action or vote by the Commissioners Court before the contract may be signed (all contracts that fall under the jurisdiction of the Commissioners Court approval, such as contracts resulting from an Initiation for Bid (IFB), RFCSP, Request for Qualifications (RFQ), etc., excluding, but not limited to, certain Juvenile Service contracts, contracts funded with Sheriff seized fun monies, etc.); or
- B. Has a value of at least \$1,000,000.

By January 1, 2016, the Texas Ethics Commission will make available on its website, a new filing application that must be used to file Form 1295. Information regarding how to use the filing application is available on the Texas Ethics Commission website at the following link:

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

A Respondent must:

- A. Use the online application to process the required information on Form 1295.
- B. Print a copy of the form which will contain a unique certification number.
- C. An authorized agent of the Respondent must sign the printed copy of the form.
- D. Have the form notarized.
- E. File the completed Form 1295 and certification of filing (scanning and emailing form is sufficient) with Williamson County Purchasing Agent at the time the signed Contract is submitted for approval.

After the Commissioners Court award of the contract, the County shall notify the Texas Ethics Commission, using the Texas Ethics Commission's filing application, of the receipt of the filed Form 1295 and certification of filing not later than the 30th day after the date the contract binds all parties to the contract. The Texas Ethics Commission will post the completed Form 1295 to its website within seven business days after receiving notice from the County.

2.7 PROPOSAL SUBMITTAL DEADLINE

The Proposal is due no later than the submittal date and time set forth in the Public Announcement and General Information listed in this RFCSP package. Contents of each Proposal shall be submitted in accordance with this RFCSP.

2.8 ETHICS

The Respondent shall not accept or offer gifts or anything of value, nor enter into any business arrangement with any employee, official or agent of the County.

2.9 DELIVERY OF PROPOSALS

The County uses BidSync to distribute and receive bids and Proposals. It is preferred that Proposals be submitted electronically through BidSync; however, Respondents can submit a hard copy.

Refer to www.bidsync.com for further information on how to submit electronically.

If mailed or delivered in person, Proposal and Proposal Addenda are to be delivered in sealed envelope

on or before the submittal deadline, as noted in the Public Announcement and General Information listed in this RFCSP package, to:

Williamson County Purchasing Department
Attn: **Proposal Name and Number**
901 South Austin Avenue
Georgetown, Texas 78626

Also, all Respondents should list their Name and Address, and the Date of the Proposal opening on the outside of the box or envelope and note "Competitive Sealed Proposal Enclosed." Williamson County will not accept any Proposals after the submittal deadline, and shall return such Proposals unopened to the Respondent. The County will not accept any responsibility for Proposals being delivered by third party carriers.

Proposals will be opened publicly and the names of the offerors and any monetary proposals made by the offerors, will be read aloud.

SECTION 3 - INSTRUCTIONS AND GENERAL REQUIREMENTS

3.1 INSTRUCTIONS

Read this document carefully, and follow all instructions and requirements. All Respondents are responsible for fulfilling all requirements and specifications. Be sure to have a clear understanding of this RFCSP.

General requirements apply to all advertised RFCSPs; however, these may be superseded, in whole or in part, by the proposal specifications, Addenda and modifications issued as a part of this RFCSP. Be sure your Proposal package is complete.

3.2 AMBIGUITY, CONFLICT, OR OTHER ERRORS IN THIS RFCSP

If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in this RFCSP, the Respondent shall immediately notify the County Purchasing Department of such error in writing and request modification or clarification of the document.

Modifications will be made by issuing Addenda. If the Respondent fails to notify the County prior to the date and time fixed for submission of Proposals of an error or ambiguity in the RFCSP known to the Respondent, or an error or ambiguity that reasonably should have been known to the Respondent, then the Respondent shall be deemed to have waived the error or ambiguity or its later resolution.

The County may also modify the RFCSP, no later than forty-eight (48) hours prior to the date and time fixed for submission of Proposals, by issuance of an Addendum. All Addenda will be numbered consecutively, beginning with one (1).

3.3 NOTIFICATION OF MOST CURRENT ADDRESS

All Respondents in receipt of this RFCSP shall notify the Williamson County Purchasing Department any address changes, contact person changes, and/or telephone number changes no later than forty eight (48) hours prior to the date and time fixed for submission of Proposals.

3.4 SIGNATURE OF RESPONDENT

A Transmittal Letter, which shall be considered an integral part of the Proposal as stated in Section 2.3, Transmittal Letter, shall be signed by an individual who is authorized to bind the Respondent contractually.

- A. If the Respondent is a Corporation or Limited Liability Company, the legal name of the Corporation or Limited Liability Company shall be provided together with the signature of the officer or officers authorized to sign on behalf of such entity.
- B. If the Respondent is a General Partnership, the true name of the firm shall be provided with the signature of each partner authorized to sign.
- C. If the Respondent is a Limited Partnership, the name of the Limited Partner's General Partner shall be provided with the signature of the officer authorized to sign on behalf of the General Partner.
- D. If the Respondent is a Sole Proprietor(s) (individual), each Sole Proprietor(s) shall sign.
- E. If signature is by an agent, other than the Sole Proprietor(s) or an officer of a Corporation, Limited

Liability Company, General Partner or a member of a General Partnership, a power of attorney equivalent document must be submitted to the Williamson County Purchasing Department.

3.5 ASSUMED BUSINESS NAME

If the Respondent operates business under an Assumed Business Name, the Respondent must have file with the Williamson County Clerk a current Assumed Name Certificate and provide a file marked copy of same prior to contract award.

3.6 ECONOMY OF PRESENTATION

Proposals should not contain promotional or display materials, except as they may directly answer in whole or in part questions contained in the RFCSP. Such exhibits shall be clearly marked with the applicable reference number of the question in the RFCSP. Proposals must address the technical requirements as specified in the RFCSP. All questions posed by the RFCSP must be answered concisely and clearly. Proposals that do not address each criterion may be, at the sole discretion of the County, rejected and not considered.

3.7 PROPOSAL OBLIGATION

The contents of the RFCSP, Proposal, and any clarification thereof submitted by the Successful Respondent shall become part of the contractual obligation and incorporated by reference into the Contract and any Ensuing Agreement(s).

3.8 COMPLIANCE WITH RFCSP SPECIFICATIONS

It is intended that this RFCSP describe the requirements and the Proposal format in sufficient detail to secure comparable Proposal. Failure to comply with all provisions of the RFCSP may, at the sole discretion of the County, result in disqualification.

3.9 EVALUATION

The County reserves the right to use all pertinent information (also learned from sources other than disclosed in the RFCSP process) that might affect the County's judgment as to the appropriateness an award to the best evaluated Respondent. This information may be appended to the Proposal evaluation process results. Information on a Respondent from reliable sources, and not within the Respondent's Proposal, may also be noted and made part of the evaluation file. The County shall have sole discretion for determining the reliability of the source. The County reserves the right to conduct written and/or oral discussions/interviews after the Proposal opening. The purpose of such discussions/interviews is to provide clarification and/or additional information to make an award that is in the best interest of the County.

3.10 WITHDRAWAL OF PROPOSAL

The Respondent may withdraw its Proposal by submitting a written request with the company letterhead and the signature of an authorized individual, as described in Section 3.4, Signature of Respondent, to the Williamson County Purchasing Department any time prior to the submission deadline.

The Respondent may submit a new Proposal prior to the deadline. Alterations of the Proposal in any manner will not be considered if submitted after the deadline. Withdrawal of a Proposal after the deadline will be subject to written approval of the Williamson County Purchasing Agent.

3.11 RESPONSIBILITY

It is expected that a Respondent will be able to affirmatively demonstrate responsibility. A prospective Respondent should be able to meet the following requirements:

- A. Have adequate financial resources, or the ability to obtain such resources as required;
- B. Be able to comply with the required or proposed delivery schedule;
- C. Have a satisfactory record of performance that can be determined thru references provided; and
- D. Be otherwise qualified and eligible to receive an award.

The County may request representation and other information sufficient to determine the Respondent ability to meet these minimum standards listed above.

3.12 PURCHASE ORDERS

If required by the Williamson County Purchasing Department, a purchase order(s) may be generated to the Successful Respondent for goods and/or services. If a purchase order is issued, the purchase order number must appear on all itemized invoices and/or requests for payment.

3.13 SILENCE OF SPECIFICATIONS

The apparent silence of any RFCSP specifications as to any detail or to the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

3.14 REFERENCES

Respondents shall furnish a list of contracts where similar responsibilities and goods and/or services have been required and/or performed for the past five (5) years, to include names, titles, phone numbers and email addresses of reference contacts, contract numbers and dates of performance.

Also, Respondents shall include a list of any contracts that have been cancelled or terminated within the last five (5) years, along with an explanation of the cancellation and the names, email address and phone number of a reference person with that institution.

The County may contact some or all of the references in order to determine the Respondent performance record on work similar to that described in this RFCSP. The County reserves the right to contact references other than those provided in the response and to use the information gained from them in the evaluation process.

References should be provided in accordance with this RFCSP. Proposal may not be deemed complete without the inclusion of requested references.

SECTION 4 - TERMS AND CONDITIONS

4.1 VENUE AND GOVERNING LAW

The Respondent hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this RFCSP, the Contract and any Ensuing Agreement(s), shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this RFCSP, the Contract and any Ensuing Agreement(s) is governed by the laws of the United States, this RFCSP, the Contract and any Ensuing Agreement(s) shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.

4.2 INCORPORATION BY REFERENCE AND PRECEDENCE

- A. The Contract shall be derived from the RFCSP and its Addenda (if applicable), and the Respondent's Proposal. In the event of a dispute under the Contract, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. The RFCSP and its Addenda (if applicable); and
 2. The Respondent's Proposal.
- B. In the event the County requires that an Ensuing Agreement be executed following award and a dispute arises between the terms and conditions of the Ensuing Agreement, the RFCSP and its Addenda (if applicable), and the Respondent's Proposal, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. The terms and conditions of the Ensuing Agreement;
 2. The RFCSP and its Addenda; and
 3. The Respondent's Proposal.

4.3 OWNERSHIP OF PROPOSAL

Each Proposal shall become the property of the County upon submittal and will not be returned to Respondents unless received after the submittal deadline.

4.4 DISQUALIFICATION OF RESPONDENT

Upon signing and submittal of the Proposal, a Respondent offering to sell supplies, materials, services, or equipment to the County, certifies that the Respondent has not violated the antitrust laws of the State of Texas codified in Business & Commerce Code, Section 15.01, or the Federal Antitrust Laws, and has not communicated directly or indirectly the offer made to any competitor or any other person engaged such line of business. Any or all Proposals may be rejected if the County believes that collusion exists among the Respondents.

4.5 FUNDING

The County intends to budget and make sufficient funds available and authorize funds for expenditure to finance the costs of the Contract. All Respondents understand and agree that the County's payment of amounts under the Contract shall be contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to make payments under this Contract.

A. ASSIGNMENT, SUCCESSORS AND ASSIGNS

The Successful Respondent may not assign, sell, or otherwise transfer the Contract or any other rights or interests obtained under the Contract without written permission of the Williamson County the Commissioners Court. The Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the contracting parties hereto and their respective successors and permitted assigns.

4.6 IMPLIED REQUIREMENTS

Products or services not specifically described or required in the RFCSP, but are necessary to provide the functional capabilities described by the Respondent, shall be implied and deemed to be included in the Proposal.

4.7 TERMINATION

- A. Termination for Cause:** The County reserves the right to terminate the Contract and/or any Ensuing Agreement(s) for default if the Successful Respondent breaches any of the Proposal specifications, terms and conditions, including warranties of the Respondent, if any, or if the Successful Respondent becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies the County may have at law or equity or as may otherwise be provided hereunder. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all other requirements to the County's satisfaction, and/or to meet all other obligations and requirements.
- B. Termination for Convenience:** The County may terminate the Contract and/or any Ensuing Agreement(s) for convenience and without cause or further liability, upon no less than thirty (30) calendar days written notice to the Successful Respondent. The County reserves the right to extend this period if it is in the best interest of the County. In the event the County exercises its right to terminate without cause, it is understood and agreed that only the amounts due to the Successful Respondent for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for the County's termination for convenience.

4.8 NON-PERFORMANCE

It is the objective of the County to obtain complete and satisfactory performance of the requirements set forth herein. In addition to any other remedies available at law, in equity or that may be set out herein, failure to perform may result in a deduction of payment equal to the amount of the goods and/or services that were not provided and/or performed to the County's satisfaction.

In the event of such non-performance, the County shall have the right, but shall not be obligated, to complete the services itself or by others and/or purchase the goods from other sources. If the County elects to acquire the goods or perform the services itself or by others, pursuant to the foregoing, the Successful Respondent shall reimburse the County, within ten (10) calendar days of demand, for all

costs incurred by the County (including, without limitation, applicable, general, and administrative expenses, and field overhead, and the cost of necessary equipment, materials, and field labor) in correcting the nonperformance which the Successful Respondent fails to meet pursuant to the requirements set out herein. In the event the Successful Respondent refuses to reimburse the County as set out in this provision, the County shall have the right to deduct such reimbursement amounts from any amounts that may be then owing or that may become owing in the future to the Successful Respondent.

4.9 PROPRIETARY INFORMATION AND THE TEXAS PUBLIC INFORMATION ACT

All material submitted to the County shall become public property and subject to the Texas Public Information Act upon receipt. If a Respondent does not desire proprietary information in the Proposal to be disclosed, each page must be clearly identified and marked proprietary at time of submittal or, more preferably, all proprietary information may be placed in a folder or appendix and be clearly identified and marked as being proprietary. Failure to clearly identify and mark information as being proprietary as set forth under this provision will result in all unmarked information being deemed non-proprietary and available to the public. For all information that has not been clearly identified and marked as proprietary by the Respondent, the County may choose to place such information on the County's website and/or a similar public database without obtaining any type of prior consent from the Respondent.

The County will, to the extent allowed by law, endeavor to protect from public disclosure the information that has been identified and marked as proprietary. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General.

To the extent, if any, that any provision in this RFCSP or in the Respondent's Proposal is in conflict with Texas Government Code, Chapter 552, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood, and agreed, that the County, and its officers and employees, may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to the County as to whether or not the same are available to the public. It is further understood that that the County, and its officers and employees, shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that the County, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to the County by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

4.10 RIGHT TO AUDIT

The Successful Respondent agrees that the County or its duly authorized representatives shall, until the expiration of three (3) years after termination or expiration of the services to be performed, have access to and the right to examine and photocopy any and all books, documents, papers and records of the Successful Respondent, which are directly pertinent to the services to be performed or goods to delivered for the purposes of making audits, examinations, excerpts and transcriptions. The Successful Respondent agrees that the County shall have access during normal working hours to all necessary facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. The County shall give the Successful Respondent reasonable advance notice of intended audits.

4.11 TESTING AND INSPECTIONS

The County reserves the right to inspect and test equipment, supplies, materials and goods for quality and compliance with this RFCSP, and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the County can deem the Respondent to be in breach and terminate the Contract and/or any Ensuing Agreement(s).

4.12 PROPOSAL PREPARATION COSTS

The cost of developing Proposals is the sole responsibility of the Respondents and shall not be charged to the County. There is no expressed or implied obligation for the County to reimburse the Respondents for any expense incurred in preparing a Proposal in response to this RFCSP and the County will not reimburse the Respondents for such expenses.

4.13 INDEMNIFICATION

The Successful Respondent shall indemnify, defend and save harmless, the County, its officials, employees, agents and agent's employees from, and against, all claims, liability, and expenses including reasonable attorneys' fees, arising from activities of the Respondent, its agents, servants or employees, performed hereunder that result from the negligent act, error, or omission of the Respondent or any of the Respondent's agents, servants or employees, as well as all claims of loss or damage to the Respondent's and the County's property, equipment, and/or supplies.

Furthermore, the County, its officials, employees, agents and agents' employees shall not be liable for damages to the Successful Respondent arising from any act of any third party, including, but not limited to, theft. The Successful Respondent further agrees to indemnify, defend and save harmless, the County from its officials, employee, agents and agents' employees against all claims of whatever nature arising from any accident, injury, or damage whatsoever, caused to any person, or the property of any person, occurring in relation to the Successful Respondent's performance of any services requested hereunder during the term of the Contract and/or any Ensuing Agreement(s).

The Successful Respondent shall timely report all claims, demands, suits, actions, proceedings, liens or judgements to the County and shall, upon the receipt of any claim, demand, suit, action, proceeding, lien or judgement, not later than the fifteenth (15th) day of each month; provide the County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of the County required by the Successful Respondent in the defense of each matter. The Successful Respondent's duty to defend, indemnify and hold the County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of the Contract and/or any Ensuing Agreement(s), unless otherwise agreed by the County in writing. The provisions of this section shall survive the termination of the Contract and shall remain in full force and effect with respect to all such matters no matter when they arise.

In the event of any dispute between the parties, as to whether a claim, demand, suit, action, proceeding, lien or judgement, that appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of the County, the Respondent shall nevertheless fully defend such claim, demand, suit or action, proceeding, lien or judgement, until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of the Respondent are not an issue in the matter.

The Successful Respondent's indemnification shall cover, and the Successful Respondent agrees to, indemnify the County, in the event the County is found to have been negligent for having selected the Successful Respondent to perform the work described in this request. The provision by the Successful Respondent of insurance shall not limit the liability of the Successful Respondent under the Contract and/or any Ensuing Agreement(s).

4.14 WAIVER OF SUBROGATION

The Successful Respondent and the Successful Respondent's insurance carrier waive any and all rights

whatsoever with regard to subrogation against the County as an indirect party to any suit arising out of personal or property damages resulting from the Respondent's performance under this Contract and any Ensuing Agreement(s).

4.15 RELATIONSHIP OF THE PARTIES

The Successful Respondent shall be an independent contractor and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions herein which may appear to give the County the right to direct the Successful Respondent as to details of doing work herein covered, or to exercise a measure of control over the work, shall be deemed to mean that the Successful Respondent shall follow the desires of the County in the results of the work only. The County shall not retain or have the right to control the Successful Respondent's means, methods or details pertaining to the Successful Respondent's performance of the work. The County and the Successful Respondent hereby agree and declare that the Successful Respondent is an independent contractor and as such meets the qualifications of an "Independent Contractor" under Texas Workers Compensation Act, Texas Labor Code, Section 406.141, that the Successful Respondent is not an employee of the County, and that the Successful Respondent and its employees, agents and subcontractors shall not be entitled to workers compensation coverage or any other type of insurance coverage held by the County.

4.16 SOLE PROVIDER

The Successful Respondent agrees and acknowledges that it shall not be considered a sole provider of the goods and/or services described herein and that the County may contract with other providers of such goods and/or services if the County deems, at its sole discretion, that multiple providers of the same goods and/or services will serve the best interest of the County.

4.17 FORCE MAJEURE

If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

4.18 SEVERABILITY

If any provision of this RFCSP, the Contract or any Ensuing Agreement(s) shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision thereof, but rather the entire RFCSP, Contract or any Ensuing Agreement(s) will be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligation of the parties shall be construed and enforced in accordance therewith. The parties acknowledge that if any provision of this RFCSP, the Contract or any Ensuing Agreement(s) is determined to be invalid or unenforceable, it is the desire and intention of each that such provision be reformed and construed in such a manner that it will, to the maximum extent practicable, give effect to the intent of this RFCSP, the Contract or any Ensuing Agreement(s) and be deemed to be validated and enforceable.

4.19 EQUAL OPPORTUNITY

Neither party shall discriminate against any employee or applicant for employment because of race, color, sex, religion or national origin.

4.20 NOTICE

Any notice to be given shall be in writing and may be distributed by personal delivery, or by registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

The County: Williamson County Purchasing Department
Attn: Purchasing Agent
901 South Austin Avenue
Georgetown, Texas 78626

The Respondent: Address set out in Respondent's Transmittal Letter

Notices given in accordance with this provision shall be effective upon (1) receipt by the party to which notice is given, or (2) on the third (3rd) calendar day following mailing, whichever occurs first.

4.21 SALES AND USE TAX EXEMPTION

The County is a body, corporate and politic, under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code, Section 151.309, as amended, and the services and/or goods subject hereof are being secured for use by the County.

4.22 COMPLIANCE WITH LAWS

The County and the Successful Respondent shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of the Contract and any Ensuing Agreement(s), including, without limitation, Workers' Compensation laws, salary and wage statutes and regulations, licensing laws and regulations. When required, the Successful Respondent shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

4.23 INCORPORATION OF EXHIBITS, APPENDICES AND ATTACHMENTS

All of the Exhibits, Appendices and Attachments referred to herein are incorporated by reference as if set forth verbatim herein. Any conflicting terms in the Contract documents will be resolved at the sole discretion of the Commissioners Court.

4.24 NO WAIVER OF IMMUNITIES

Nothing herein shall be deemed to waive, modify or amend any legal defense available at law or in equity to the County, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. The County does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

4.25 NO WAIVER

The failure or delay of any party to enforce at any time or any period of time any of the provisions of this RFCSP, the Contract or any Ensuing Agreement(s) shall not constitute a present or future waiver of such provisions nor the right of either party to enforce each and every provision. Furthermore, no term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether expressed or implied, shall not constitute a consent to, waiver of or excuse for any other, different or subsequent breach.

4.26 CURRENT REVENUES

The obligations of the parties under the Contract and any Ensuing Agreement(s) do not constitute a general obligation or indebtedness of the County for which the County is obligated to levy, pledge, or collect any of taxation. It is understood and agreed that the County shall have the right to terminate the Contract and any Ensuing Agreement(s) at the end of any the County fiscal year if the governing body of the County does not appropriate sufficient funds as determined by the County's budget for the fiscal year in question. The County may effect such termination by giving written notice of termination to the Successful Respondent at the end of its then-current fiscal year.

4.27 BINDING EFFECT

This Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

4.28 SAFETY

The Successful Respondent is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with any services to be provided hereunder. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

4.29 GENERAL OBLIGATIONS AND RELIANCE

The Successful Respondent shall perform all services and/or provide all goods, as well as those reasonably inferable and necessary for completion and provision of services and/or goods required hereunder. The Successful Respondent shall keep the County informed of the progress and quality of the services. The Successful Respondent agrees and acknowledges that the County is relying on the Successful Respondent's represented expertise and ability to provide the goods and/or services described herein. The Successful Respondent agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of the County in accordance with the County's requirements and procedures. The Successful Respondent's duties, as set forth herein, shall at no time be in any way diminished by reason of any approval by the County, nor shall the Successful Respondent be released from any liability by reason of such approval by the County, it being understood that the County at all times is ultimately relying upon the Successful Respondent's skill and knowledge in performing the services and providing any goods required hereunder.

4.30 CONTRACTUAL DEVELOPMENT

The Commissioners Court may award the Contract on the basis of the initial Proposals received, without any further or additional discussions. Therefore, each initial Proposal should contain the Respondent's best terms and offer. The contents of the RFCSP and the selected Proposal will become an integral part of the Contract, but may be modified, at Williamson County's sole discretion, by provisions of an Ensuing Agreement. Therefore, the Respondent must agree to inclusion in an Ensuing Agreement of the Proposal specifications, terms and conditions of this RFCSP. Williamson County may, at its discretion, opt to conduct further discussions with responsible offerors and request the highest ranked firm's Best and Final Offer (BAFO).

4.31 ENTIRE AGREEMENT

The Contract and any Ensuing Agreement(s) shall supersede all prior Agreements, written or oral between the Successful Respondent and the County and shall constitute the entire Agreement and understanding between the parties with respect to the services and/or goods to be provided. Each of the provisions herein shall be binding upon the parties and may not be waived, modified, amended or altered, except by writing signed by the Successful Respondent and the County.

4.32 SURVIVABILITY

All applicable agreements that were entered into between the Successful Respondent and the County, under the terms and conditions of the Contract and/or any Ensuing Agreement(s), shall survive the expiration or termination thereof for ninety (90) days unless a new contract has been awarded.

The County may exercise, by written notice to the Successful Respondent no later than ten (10) calendar days of the Contract expiration, this clause for emergency cases only.

4.33 PAYMENT

The County's payment for goods and services shall be governed by the Texas Government Code, Chapter 2251. An invoice shall be deemed overdue the thirty-first (31st) day after the later of the following:

- A. The date the County receives the goods under the Contract;
- B. The date the performance of the service under the Contract is completed; or
- C. The date the Williamson County Auditor receives an invoice for the goods or services.

Interest charges for any overdue payments shall be paid by the County in accordance with Texas Government Code, Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of the County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one (1) percent and the prime rate published in the Wall Street Journal on the first (1st) day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice submitted by the Successful Respondent, the County shall notify the Successful Respondent of the error not later than the twenty-first (21st) day after the date the County receives the invoice. If the error is resolved in favor of the Successful Respondent, the Successful Respondent shall be entitled to receive interest on the unpaid balance of the invoice submitted by the Successful Respondent beginning on the date that the payment for the invoice became overdue. If the error is resolved in favor of the County, the Successful Respondent shall submit a corrected invoice that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by the Texas Government Code, Chapter 2251, if the corrected invoice is not paid by the appropriate date.

As a minimum, invoices shall include:

- A. Name, address, and telephone number of the Successful Respondent and similar information in the event the payment is to be made to a different address.
- B. The County Contract, Purchase Order.
- C. Identification of items or service as outlined in the Contract.
- D. Quantity or quantities, applicable unit prices, total prices and total amount.
- E. Any additional payment information which may be called for by the Contract.

Payment inquiries should be directed to the following address:

Williamson County Auditor's Office, Accounts Payable Department
Email: accountspayable@wilco.org
Phone: 512-943-1500

4.34 CONTRACTUAL FORMATION AND ENSUING AGREEMENT

The RFCSP and the Respondent's Proposal, when properly accepted by the Commissioners Court, shall constitute a Contract equally binding between the Successful Respondent and the County. The Successful Respondent may be required by Williamson County to sign an additional Agreement containing terms necessary to ensure compliance with the RFCSP and Respondent's Proposal.

4.35 LEGAL LIABILITY INFORMATION

The Successful Respondent shall disclose all legal liability information by listing any pending litigation anticipated litigation that your firm is involved in including, but not limited to, potential or actual legal matters with private parties and any local, state, federal or international governmental entities. The County reserves the right to consider legal liability information in the recommendation of any proposed contract to the Commissioners Court.

4.36 CONFIDENTIALITY

Respondent expressly agrees that it will not use any direct or incidental confidential information that may be obtained while working in a governmental setting for its own benefit, and agrees that it will not access unauthorized areas or confidential information and it will not disclose any information to unauthorized third parties, and will take care to guard the security of the information at all times.

4.37 INCLEMENT WEATHER

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a Proposal submission deadline, the Proposal closing will automatically be postponed until the next business day the County is open. If inclement weather conditions or any other unforeseen event causes delays in carrier service operations, the County may issue an Addendum to all known Respondents interested in the project to extend the deadline. It will be the responsibility of the Respondent to notify the County of their interest in the project if these conditions are impacting their ability to turn in a submission within the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

4.38 AIR QUALITY

In determining the overall best Proposal, the County may, to the extent applicable, exercise the option granted to local governments under the Texas Local Government Code, Section 271.907.

This option allows the County to evaluate Proposals and give preference to goods and/or services of Respondent that demonstrates that the Respondent meets or exceeds any and all state or federal environmental standards, including voluntary standards, relating to air quality. If the Proposal being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Respondent is encouraged to provide information in narrative indicating anticipated air quality impact. All Respondents are expected to meet all mandated state and federal air quality standards.

4.39 COOPERATIVE PURCHASING PROGRAM

During the term of the Contract resulting from this RFCSP, the County would like to afford the same prices, terms and conditions to other political subdivisions or public entities. Another entity's participation in the Contract resulting from this RFCSP is subject to a properly authorized Purchasing Cooperative Inter-local Agreement (ILA) with the County. Any liability created by purchase orders issued against the

Contract shall be the sole responsibility of the governmental agency placing the order.

4.40 PREVAILING WAGE RATES

To the extent this procurement is for the construction of a public work, including a building, highway, road, excavation, and repair work or other project development or improvement, paid for in whole or in part from public funds, without regard to whether the work is done under public supervision or direction, Texas Government Code, Chapter 2258, shall apply and the contractor shall pay not less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule" provided by the County. Pursuant to Texas Government Code, Section 2258.022(a)(2), the County has determined the general prevailing rate of the "Prevailing Wage Schedule" in the locality in which the public work is to be performed for each craft or type of worker needed to execute the contract and the prevailing rate for legal holiday and overtime work by using the prevailing wage rate as determined by the United States Department of Labor in accordance with the United States Code, Section 276a (Davis-Bacon Act).

The specified wage rates are minimum rates only, and are not representations that qualified labor adequate to perform the work is available locally at the prevailing wage rates. The County is not bound to pay—and will not consider—any claims for additional compensation made by any contractor because the contractor pays wages in excess of the applicable minimum rate contained in the Contract Documents. The "Prevailing Wage Schedule" is not a representation that quantities of qualified labor adequate to perform the work may be found locally at the specified wage rates.

For classifications not shown, workers shall not be paid less than the wage indicated for laborers. The contractor shall notify each worker commencing work on the project the worker's job classification and the established minimum wage rate required to be paid, as well as the actual amount being paid. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the monetary wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by the County, competent evidence of compliance with the Texas Prevailing Wage Law shall be furnished by contractor. A copy of each worker wage rate notification shall be submitted to the County with the Application for Payment for the period during which the worker began on-site activities.

Should the contractor at any time become aware that a particular skill or trade not reflected on the County's "Prevailing Wage Schedule" will be or is being employed in the work, whether by the contractor or by a subcontractor, the contractor shall promptly inform the County and shall specify a wage rate for that skill or trade, which shall bind the contractor.

The contractor and any subcontractor shall pay to the County a penalty of sixty dollars (\$60.00) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the "Prevailing Wage Schedule" or any supplement thereto. The contractor and each subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all workers employed in connection with the work, and showing the actual per diem wages paid to each worker, which records shall be open at all reasonable hours for the inspection by the County.

Within thirty-one (31) days of receipt of information concerning a violation of the Texas Government Code Chapter 2258, the County shall make an initial determination as to whether good cause exists to believe a violation occurred. The County's decision on the initial determination shall be reduced to writing and sent to the contractor or subcontractor against whom the violation was alleged, and to the affected worker. When a good cause finding is made, the County shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the "Prevailing Wage Schedule" and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

After the County makes its initial determination, the affected contractor or subcontractor and worker have fourteen (14) calendar days in which to resolve the issue of whether a violation occurred, including the

amount that should be retained by the County or paid to the affected worker. If the contractor or subcontractor and affected worker reach an agreement concerning the worker's claim, the contractor shall promptly notify the County in a written document signed by the worker. If the contractor or Subcontractor and affected worker do not agree before the fifteenth (15th) calendar day after the County determination, the contractor or subcontractor and affected worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Chapter 171, (Texas Civil Practice and Remedies Code). The parties to the arbitration have ten (10) calendar days after the expiration of the fifteen (15) calendar days referred to above, to agree on an arbitrator; if by the eleventh (11th) calendar day there is no agreement to an arbitrator, a district court shall appoint an arbitrator on the petition of any of the parties to the arbitration.

If an arbitrator determines that a violation has occurred, the arbitrator shall assess and award against the contractor or subcontractor the amount of penalty as provided above and the amount owed the worker. The County may use any amounts retained hereunder to pay the worker the amount as designated in the arbitration award. If the County has not retained enough from the contractor or subcontractor to pay the worker in accordance with the arbitration award, the worker has a right of action against the contractor and subcontractor as appropriate, and the surety of either to receive the amount owed, attorneys' fees and court costs. The contractor shall promptly furnish a copy of the arbitration award to the County.

Money retained pursuant to the provisions above shall be used to pay the claimant or claimants the difference between the amount the worker received in wages for labor on the project at the rate paid by the contractor or subcontractor and the amount the worker would have received at the general prevailing wage rate as provided by the agreement of the claimant and the contractor or subcontractor affected, or in the arbitrator's award. The full statutory penalty of sixty dollars (\$60.00) per calendar day of violation per worker shall be retained by Williamson County to offset its administrative costs, pursuant to Texas Government Code, Section, 2258.023. Any retained funds in excess of these amounts shall be paid to the contractor on the earlier of the next progress payment or final payment. Provided, however, that the County shall have no duty to release any funds to either the claimant or the contractor until it has received the notices of agreement or the arbitration award as provided under the provision herein-above.

4.41 CONFIDENTIALITY

The Respondent expressly agrees that it will not use any direct or incidental confidential information that may be obtained while working in a governmental setting for its own benefit, and agrees that it will not access unauthorized areas or confidential information and it will not disclose any information to unauthorized third parties, and will take care to guard the security of the information at all times.



Additional Stipulations

1 Additional Stipulations

1.1 Introduction

The Proposal evaluation and selection process is detailed in this section, as are other factors, and the format in which the Price Proposal of each Proposal should be submitted.

1.2 Proposal Evaluation and Selection

1.2.1 Evaluation/Selection Criteria

No later than the 45th day after the date on which the Proposals are opened, all Proposals received by the designated date and time will be evaluated based on the Respondent's Proposal and the published evaluation Criteria. Other information may be taken into consideration when that information potentially provides an additional benefit to the County, and further helps the County in receiving the services listed in the RFCSP.

Respondents' Proposals must meet all mandatory (minimum) requirements in order to be scored. Scoring may also be based on total information gathered by the County at its discretion, including but not limited to respondent's ability to perform "without delay or interference, character, responsibility, integrity, and experience or demonstrated capability; quality of prior work; compliance with laws; and noncompliance with requirements as to submission of relevant information."

Additional Stipulations - Proposal

1.2.2 Evaluation Committee and Selection Process

Williamson County will conduct a comprehensive, fair and impartial evaluation of all proposals received in response to the RFCSP. All Proposals will be evaluated by a County appointed Evaluation Committee. The Evaluation Committee may be composed of County Staff that may have expertise, knowledge or experience with the services and/or goods being procured hereunder. Those Respondents meeting all requirements and deemed most qualified may receive further evaluation via telephone or in-person interviews with members of the Evaluation Committee. Respondents may be interviewed and re-scored based upon the same criteria or other criteria, to be determined by the Evaluation Committee. The County will select a Respondent determined best and most responsible Respondent meeting minimum specifications and qualifications.

Respondents are advised that the Evaluation Committee, at its option, may recommend an award strictly on the basis of the initial RFCSP responses, or in addition, may have interviews with firms to determine its final recommendation. Williamson County then selects the proposal that offers the best value based on the published selection criteria and its ranking evaluation. Following the selection, the contract negotiation process begins. The County negotiates first with the highest ranked offeror. At this stage, the County and its architect or engineer may discuss modifications to the proposed score, time and price. Modifications are not required, and if they are discussed and not agreed to by the County and the offeror, a final contract may still be negotiated and agreed upon based on the original response to the RFCSP.

If the two parties are unable to reach a final agreement, the County must inform the offeror in writing that negotiations are ended. The County may then negotiate with the next ranked offeror. This continues in the order of the selection ranking until a contract is reached or all proposals are rejected. In this form of contract procurement, the County is not restricted to considering price alone in its selection, but may consider any other factor from among the established selection criteria to determine which offeror offers the County the best value. The Evaluation Committee will present its recommendation to the Williamson County Commissioners Court for approval and award of contract.

1.2.3 Mandatory Criteria

Minimum requirements (if applicable) must be passed in order to be considered for scoring as described in section 1.3.4.

1.2.4 Graded Evaluation Factors

The following graded evaluation factors will be used to determine how well a Respondent(s) meet(s) the desired performance.

Additional Stipulations - Proposal

1.2.5 Interviews

Interview scoring (if applicable) will be provided along with invitation to interview candidates.

1.2.6 Additional Evaluation Information

The County reserves the right to award a contract for any or all areas of this RFCSP.

It is the responsibility of the Respondent to provide sufficient information/data in a convincing manner to the County to assure all of the terms, conditions and expectations for satisfactory performance of the services requested herein will be met.

All contact during the evaluation phase shall be through the Williamson County Purchasing Department only. The Respondent shall neither contact nor lobby evaluators during the evaluation process. Attempts by the Respondent to contact and/or influence members of the Evaluation Committee may result in disqualification of Proposal.

1.3 Technical Contact

Randy Bell (or successor), Senior Director of Parks, Williamson County shall serve as the County's Technical Contact with designated responsibility to ensure compliance with the requirements of the Contract and any Ensuing Agreement, such as, but not limited to, acceptance, inspection and delivery. The Technical Contact together with the Purchasing Department will serve as a liaison between the Williamson County Commissioners Court and the Successful Respondent.

1.4 Time for Performance

A time frame of nine (9) months is given for completion of plans on this proposal. This may begin at the time specified by the County within the three hundred sixty-five (365) days of the pricing quoted on this proposal, starting on the day of award. The Contractor will be given written notice to begin work on this project. The Work on this project shall begin within ten (10) calendar days after such notification.

Liquidated damages for failure to substantially complete the work within the allotted time will be applied. Liquidated damages are \$200 per working day.

The Contractor will be given written notice to begin work on this project. Work on this project shall begin within five (5) working days after such notification. Failure to begin work within the allotted time will result in liquidated damages being incurred at the rate of \$200.00 per working day

Additional Stipulations - Proposal

1.5 Insurance Requirements

By signing its Proposal, the Respondent agrees to maintain at all times during any term of the Contract and any ensuing Agreement at Respondent's cost, insurance in accordance with this provision.

Respondent will be required to submit Certificates of Insurance **prior to commencing work.**

All certificates of insurance coverage as specified below must be provided to the following location:

Williamson County Purchasing Department
901 S Austin Ave
Georgetown, Texas 78626

Failure to comply with these Insurance Requirements may result in the termination of the Contract and any ensuing Agreement(s) between the Successful Respondent and County.

The following coverage limits shall be required at a minimum:

- A. Worker's Compensation Statutory – Texas Law
- B. Employer's Liability:

Bodily Injury by Accident	\$500,000 Ea. Accident
Bodily Injury by Disease	\$500,000 Ea. Employee
Bodily Injury by Disease	\$500,000 Policy Limit

- C. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:

COVERAGE	PER PERSON	PER OCCURRENCE
Comprehensive General Liability	\$1,000,000	\$1,000,000
Aggregate policy limits:	\$1,000,000	

Successful Respondent's property will not be covered by any insurance that may be carried by Williamson County. Successful Respondent assumes the risk of loss on its contents and property that are situated on/in/around the County property. The Successful Respondent is strongly encouraged to obtain insurance on its property to the extent deemed necessary by the Successful Respondent.

The deductible for an insurance policy required hereunder shall not exceed \$100,000. **The County shall be named as an additional insured under any policy of insurance required hereunder.**

Successful Respondent shall not commence any work until it has obtained all required insurance and such insurance has been approved by County. Successful Respondent shall not allow any subcontractor(s) to commence work to be performed until all required insurance has been obtained by such subcontractor(s) and approved by County. Approval of the insurance by County shall not relieve or decrease the liability of Successful Respondent or its subcontractor(s) hereunder.

Additional Stipulations - Proposal

The required insurance must be written by a company approved to do business in the State of Texas with a financial standing of at least an A- rating, as reflected in Best's insurance ratings or by a similar rating system recognized within the insurance industry at the time the policy is issued. Successful Respondent shall furnish County with a certificate of coverage issued by the insurer. Successful Respondent shall not cause any insurance to be canceled nor permit any insurance to lapse. ALL INSURANCE CERTIFICATES SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT BE CANCELED OR REDUCED, RESTRICTED OR LIMITED UNTIL TEN (10) CALENDAR DAYS AFTER COUNTY HAS RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURN RECEIPT OF REGISTERED OR CERTIFIED LETTER.

It is the intention of the County, and agreed to and hereby acknowledged by the Successful Respondent, that no provision of this Contract or any ensuing Agreement shall be construed to require the County to submit to mandatory arbitration or mediation in the settlement of any claim, cause of action or dispute, except as specifically required in direct connection with an insurance claim or threat of claim under an insurance policy required hereunder which absolutely requires arbitration or mediation of such claim, or as otherwise required by law or a court of law with jurisdiction over the provisions of this Contract or any ensuing Agreement.

Workers' Compensation Coverage Requirements

The Texas Labor Code, Section 406.096, requires workers' compensation insurance coverage for all persons providing services on a building or construction project for a governmental entity such as the County. The rule requires the County to timely obtain certificates of coverage and retain them for the duration of the project. The rule also sets out the language to be included in the Bid specifications and in contracts awarded by a governmental entity and the information required to be in the posted notice to employees. The rule is adopted under the Texas Labor Code, Section 402.061.

The information provided below is a result of this rule. By submitting your Bid to the County, you are acknowledging that this rule is a part of these Bid specifications, and that you will observe and abide by all of the requirements outlined in the rule. You are further agreeing that should your Bid be accepted by the Williamson County Commissioners Court, the necessary certificates of coverage showing workers' compensation coverage, will be provided to the following name and address prior to beginning work:

Williamson County Purchasing Department
901 S. Austin Ave.
Georgetown, TX 78626

Failure to comply with this request may result in termination of the Contract and any ensuing Agreement. If you have any questions related to this ruling and/or requirement, you are encouraged to contact either the Williamson County Purchasing Department at (512) 943-1546, or you may call the Texas Workers' Compensation Commission at (800) 372-7713.

- A. The following words and terms, when used in this provision, shall have the following meanings. Terms not defined in this rule shall have the meaning defined in the Texas Labor Code, if so defined.

Additional Stipulations - Proposal

1. Certificate of coverage (certificate) – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a workers' compensation coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees (including those subject to a coverage agreement) providing services on a project, for the duration of the project.
 2. Building or Construction – Has the meaning defined in the Texas Labor Code, Section 406.096(e)(1).
 3. Contractor – A person bidding for or awarded a building or construction project by Williamson County.
 4. Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, Section 401.011(44).
 5. Coverage agreement – A written agreement on form TWCC-81, form TWCC-82, form TWCC-83, or form TWCC-84, filed with the Texas Workers' Compensation Commission which establishes a relationship between the parties for purposes of the Texas Workers' Compensation Act, pursuant to the Texas Labor Code, Chapter 406, Subchapters F and G, as one of employer/employee and establishes who will be responsible for providing workers' compensation coverage for persons providing services on the project.
 6. Duration of the project--Includes the time from the beginning of work on the project until the work on the project has been completed and accepted by the County.
 7. Persons providing services on the project ("subcontractor" in the Texas Labor Code, Section 406.096) – includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
 8. Project – Includes the provision of all services related to a building or construction contract for the County.
- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of the Texas Labor Code, Section 401.011(44), for all employees of the contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of workers compensation coverage to Williamson County prior to being awarded the Contract.

Additional Stipulations - Proposal

- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with Williamson County showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the County:
 - 1. A certificate of coverage, prior to that person beginning work on the project, so Williamson County will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - 2. No later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the County in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
 - 1. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44), for all of its employees providing services on the project, for the duration of the project;
 - 2. Provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - 3. Provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

Additional Stipulations - Proposal

4. Obtain from each other person with whom it contracts, and provide to the contractor:
 - i. (a) a certificate of coverage, prior to the other person beginning work on the project; and
 - ii. (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 5. Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
 6. Notify the County in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 7. Contractually require each person with whom it contracts, to perform as required by paragraphs 1 – 7, with the certificates of coverage to be provided to the person for whom they are providing services
- J. By signing this Contract or providing or causing to be provided a certificate of coverage, the contractor is representing to Williamson County that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- K. The contractor's failure to comply with any of these provisions is a breach of Contract by the contractor which entitles the County to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the County.

Statement of Work

Williamson County is requesting competitive sealed proposals for construction of a park residence at River Ranch County Park located at 1751 CR 282 Liberty Hill, TX. The County is open to existing builder plans; custom home not a requirement.

The proposal must include a plan and specification package for the proposed residence building. This should include but is not limited to the following:

1. Plans for the structural foundation
2. Plans for framing
3. Architectural drawings/plans, to include Mechanical, Electrical, and Plumbing elements
4. A description of the building material being used for each scope of work to include equipment brands stated, with options for equivalent substitutions.

Although the construction site has no Authority Having Jurisdiction, the construction materials and methods of the residence will be subject to Owner and third-party inspections.

A sealed set of plans and specifications will be required once the bid is awarded, and before construction begins.

- A. Residence must have:
 - a. 4 bedrooms or equivalent
 - b. 2 ½ bathrooms
 - c. Mud room
 - d. 2 car-garage
 - e. Approximately 1900 square feet of living space
- B. Contractor must coordinate with the County and their park design consultant on connections to:
 - a. Sidewalks
 - b. Roads
 - c. Utilities (water, wastewater, electrical)
- C. Allowances to be included in the proposal price:
 - a. Sidewalk & driveway concrete flatwork: Allow 2000 SF
 - i. Include price for additional flatwork per SF.
 - b. Residential Appliance Package
 - c. Flooring Allowances
 - d. Electrical Fixture Package
 - e. Plumbing Fixture Package
 - f. Water yard line: Allow 100 LF
 - g. Underground electrical service beyond meter: Allow 100 LF
 - h. Tie-in to septic system (septic system by others): Allow 100 LF

Evaluation Criteria

An evaluation committee of at least three County representatives will evaluate the qualified respondents and make the determination regarding the successful company to proceed with negotiations and award.

The evaluation committee will review the following:

- **Qualifications (40 Points)**
 - *Respondents will be scored on their qualifications in relation to this project. The following factors will be considered to determine respondent's qualifications and appropriate score:*
 - *Proposed management team's experience with similar projects.*
 - *Respondents years of experience conducting business in the State of Texas as a general contractor.*
 - *Proposed project schedule.*
- **Pricing (35 Points)**
 - *Points for pricing shall be determined by the following formula. 25 maximum points for pricing x (lowest respondents price proposal amount/respondents price proposal amount). Lowest respondent will receive the maximum 25 points.*
- **Location of office (10 Points)**
 - *10 maximum points for location of office. Points will be awarded in the following manner. 10 points for respondents with office location in Williamson County or an adjacent county. 5 points for respondents with an office in the State of Texas but outside of Williamson County or an adjacent county. 0 points for respondents with no office location in the State of Texas.*
- **Reputation (15 Points)**
 - *Respondents will be scored a maximum of 25 points on their reputation. Reputation of the respondents will be determined by the following factors:*
 - *References*
 - *Respondents safety record*
 - *Prior experience with Williamson County*

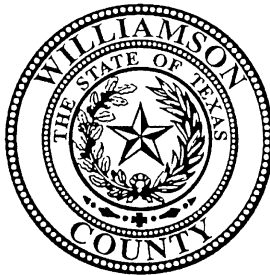
Contract negotiations, interviews and reference verification may also be a part of the selection process. Additional criteria if necessary for interviews will be provided to those selected respondents.

Bonds

5% Bid Bond is required with each proposal. After evaluation and before formal award the selected respondent will be required to provide payment, performance and warranty bonds.

NOTE: The successful respondent will be required to execute a formal contract at Williamson County's offices in Georgetown, Texas within ten (10) days after the award. Said contract shall be in the same form as the Agreement Between Owner and Contractor that has been made a part of this RFP package. The only anticipated changes in the contract will be to include additional exhibits, to fill in blanks to identify the contractor, and terms relating to the contract price, or to revise the contract to accommodate corrections, changes in the scope of services, or changes pursuant to addenda issued. **Respondents should raise any questions regarding the terms of the contract, or submit requested changes in said terms, in the form of written questions or submittals.** Because the signed contract will be substantively and substantially derived from the Agreement Between Owner and Contractor that has been made a part of this RFP package, each respondent is urged to seek independent legal counsel as to any questions about the terms, conditions or provisions contained in the Agreement Between Owner and Contractor **before** submitting a proposal.

Again, the Agreement Between Owner and Contractor that has been made a part of this RFP package contains important legal provisions and is considered part and parcel of this Request for Proposals. Failure or refusal to sign aforesaid contract shall be grounds for Williamson County to revoke any award which has been issued, forfeit bid security, if applicable, and select another respondent.



**AGREEMENT
BETWEEN OWNER AND CONTRACTOR**

The **Owner:** Williamson County
710 Main Street, Ste. 101
Georgetown, Texas 78626

and **Contractor**

for the **Project:** Williamson County River Ranch County Park
(RFCSP # 1708-180 River Ranch County Park Residence)
1751 CR 282
Liberty Hill, Texas

Architect:

AGREEMENT, this Agreement Between Owner and Contractor (hereinafter called "Agreement") is entered into effective as of the date indicated herein below and all attachments (the "Effective Date"), by and between Williamson County a political subdivision of the State of Texas (hereinafter called the "Owner") and (hereinafter called "Contractor").

WHEREAS, the Owner desires to retain a Contractor for the Williamson County River Ranch County Park [RFCSP 1708-180 River Ranch County Park Residence] (hereinafter called the "Project"),

WHEREAS, the Owner desires a Contractor who will render, diligently and competently in accordance with the highest standards used in the profession, all Contractor services which shall be necessary or advisable for the expeditious, economical and satisfactory completion of the Project, and

NOW, THEREFORE, in consideration of the mutual undertakings herein contained, the parties hereto agree as follows:

ARTICLE 1 SCOPE OF WORK

The Contractor has overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the Work, or any phase of the Work, in accordance with the Specifications and Drawings for the Project and the Owner's requirements. The Specifications and Drawings were prepared for Williamson County by the Architect. The Contractor shall do everything required by the Contract Documents.

ARTICLE 2 CONTRACT DOCUMENTS

2.1 The Contract Documents consist of the following, which are incorporated by reference for all purposes:

- a. This Agreement and all exhibits and attachments listed, contained or referenced in this Agreement;
- b. The Uniform General Conditions for Williamson County ("General Conditions");
- c. The Supplementary or Special Conditions, if any;
- d. All Addenda issued prior to the Effective Date of this Agreement;
- e. The Bid/Proposal Documents as defined by the Invitation for Bidders/Request for Proposals;
- f. All Change Orders issued after the Effective Date of this Agreement;
- g. Minimum Insurance Coverages and Minimum Coverage Amounts, which is attached here to as **Exhibit 1**;
- h. Williamson County Vendor Reimbursement Policy, which is attached here to as **Exhibit 2**; and
- i. The Drawings, Specifications, details and other documents developed by Architect to describe the Project and accepted by Owner, which are attached hereto **Exhibit 3**.

2.2 The Contract Documents form the entire and integrated Contract and Agreement between Owner and Contractor and supersede all prior negotiations, representations or agreements, written or oral. Contractor acknowledges receipt of all Contract Documents as of the date of its execution hereof.

2.3 The term "Contractor" shall be interchangeable with the terms "Proposer," "Bidder," "Respondent" and "General Contractor" or other similar terms as appropriate in the Contract Documents.

ARTICLE 3 CONTRACT TIME

The Owner shall provide a Notice to Proceed in which a date for commencement of the work shall be started. The Contractor shall achieve Substantial Completion of the Work within [REDACTED] after such commencement date, as such completion date may be extended by approved Change Orders. Unless otherwise specified in writing, Contractor shall achieve Final Completion within [REDACTED] of Substantial Completion. The time set forth for completion of the work is an essential element of the Contract.

ARTICLE 4 CONTRACTOR REPRESENTATIONS

- 4.1** In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bid/Proposal Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
 - E. Based on the information and observations referred to in Paragraph 4.1.D above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

- F. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- G. Contractor has given Architect written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Architect is acceptable to Contractor.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 5 THE CONTRACT PRICE; OWNER'S CONSTRUCTION CONTINGENCY

5.1 Contract Price. Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents a lump sum amount of:

5.2 Contract Payments. Method and terms of payment of the Contract Price shall be in accordance with the Contract Documents.

ARTICLE 6 TIME

6.1 TIME LIMITS STATED IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT.

6.2 Unless otherwise approved in writing, the Owner and the Contractor shall perform their respective obligations under the Contract Documents as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Work.

6.3 Liquidated Damages. Contractor and Owner recognize that time is of the essence and that Owner will suffer financial loss if the Work is not completed within the times specified in Article 3 above, plus any extensions thereof allowed in accordance with the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, for each consecutive calendar day after the date of Substantial Completion that the Work is not substantially completed, the Owner may deduct the amount of:

Two Hundred Dollars per calendar day (\$200.00/calendar day)

from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion. The parties stipulate and agree that calculating Owner's actual damages for late completion of the Project would be impractical, unduly burdensome, and cause unnecessary delay and that the amounts of daily liquidated damages set forth are reasonable. Contractor expressly agrees that the amounts of daily liquidated damages are a reasonable forecast of the actual damages Owner will incur due to any such delay.

ARTICLE 7 NOTICES

Notices of claims, disputes or other legal notices shall be in writing and shall be deemed to have been given when delivered in person to the representative of the Contractor or Owner for whom it is intended, as set out below or sent by U. S. Mail to the representative of the Contractor or Owner for whom it is intended, as set out below. Mail notices are deemed effective upon receipt or on the third business day after the date of mailing, whichever is sooner.

If to Owner: Williamson County Judge
710 Main Street, Ste. 101
Georgetown, Texas 78626

with copy to: Hal C. Hawes
General Counsel to the
Williamson County Commissioners Court
710 Main Street, Suite 102
Georgetown, Texas 78626

If to Contractor: 

The parties may make reasonable changes in the person or place designated for receipt of notices upon advance written notice to the other party.

ARTICLE 8 PARTY REPRESENTATIVES

The Owner's Designated Representative (sometimes referred to as the "ODR") authorized to act in the Owner's behalf with respect to the Project is:

The Contractor's designated representative authorized to act on the Contractor's behalf and bind the Contractor with respect to the Project is:

The parties may make reasonable changes in their designated representatives upon advance written notice to the other party.

ARTICLE 9 ENTIRE AGREEMENT

This Agreement supersedes all prior agreements, written or oral, between Contractor and Owner and shall constitute the entire agreement and understanding between the parties with respect to the Project. This Agreement and the terms of the Contact Documents shall be binding upon the parties and may not be waived, modified, amended or altered except by a writing signed by Contractor and Owner.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution below (the "Effective Date").

WILLIAMSON COUNTY
Williamson County, Texas,

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____, 20____

Date: _____, 20____

EXHIBIT 1

**Minimum Insurance Coverages
and
Minimum Coverage Amounts**

- A. All policies of insurance provided by the Contractor must comply with the requirements of this Exhibit, the Contract Documents and the laws of the State of Texas.
- B. The Contractor shall provide and maintain, until the Work covered in the Agreement Between Owner and Contractor is completed and accepted by the Owner, the minimum insurance coverages in the minimum amounts as described below. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company, or otherwise acceptable to Owner.

Type of Coverage	Limits of Liability
1. Worker's Compensation	Statutory
2. Employer's Liability	
Bodily Injury by Accident	\$500,000 Ea. Accident
Bodily Injury by Disease	\$500,000 Ea. Employee
Bodily Injury by Disease	\$500,000 Policy Limit
3. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:	
COVERAGE	PER OCCURRENCE
Comprehensive General Liability (including premises, completed operations and contractual)	\$1,000,000
Aggregate policy limits:	\$2,000,000
4. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):	

COVERAGE	PER PERSON	PER OCCURRENCE
Bodily injury (including death)	\$1,000,000	\$1,000,000
Property damage	\$1,000,000	\$1,000,000
Aggregate policy limits	No aggregate limit	

5. **Builder's Risk Insurance (all risks)**
 An all risk policy, in the amount equal at all times to 100% of the Contract Price or Contract Sum. The policy shall be issued in the name of the Contractor and shall name its Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:
- a. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.
 - b. This insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss as well as coverage for building materials while in transit or building materials suitably stored at a temporary location. Property insurance provided by the Contractor shall not cover any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, and other similar items commonly referred to as construction equipment that may be on the site and the capital value of which is not included in the Work. The Contractor shall make its own arrangements for any insurance it may require on such construction equipment. Any such policy obtained by the Contractor under this section shall include a waiver of subrogation in accordance with the requirements of Section 11.3.4 of the General Conditions.

C. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions in the Contract Documents. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

6. Flood insurance when specified in Supplementary General Conditions or Special Conditions.
7. Umbrella coverage in the amount of not less than \$5,000,000.

C. Workers' Compensation Insurance Coverage:

a. Definitions:

(1) Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the Project.

(2) Duration of the Project - includes the time from the beginning of the work on the Project until the Contractor's/person's work on the Project has been completed and accepted by the Owner.

(3) Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).

(4) Persons providing services on the Project ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- b. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, §401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.
- c. The Contractor must provide a certificate of coverage prior to execution of the Agreement Between Owner and Contractor, and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.
- d. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner showing that coverage has been extended.
- e. The Contractor shall obtain from each person providing services on a project, and provide to the Owner:
 - (1) a certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
 - (2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
- f. The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
- g. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- h. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- i. The Contractor shall contractually require each person with who it contracts to provide services on a project, to:
 - (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;

- (2) provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
 - (3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - (4) obtain from each other person with whom it contracts, and provide to the Contractor:
 - a. a certificate of coverage, prior to the other person beginning work on the Project; and
 - b. a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - (5) retain all required certificate of coverage on file for the duration of the Project and for one year thereafter;
 - (6) notify the Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
 - (7) contractually require each person with whom it contracts, to perform as required by paragraphs (1)-(7), with the certificates of coverage to be provided to the person for whom they are providing services.
- j. By signing the Agreement Between Owner and Contractor or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- k. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Owner to declare the Agreement Between Owner and Contractor void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Owner.

- D. If insurance policies are not written for the amounts specified in this Exhibit, Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of primary coverage.
- E. The furnishing of the above listed insurance coverage, as may be modified by the Contract Documents, must be tendered prior to execution of the Agreement Between Owner and Contractor, and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.
- F. Owner shall be entitled, upon request and without expense, to receive copies of the policies and all endorsements as they apply to the limits set out in this Exhibit.
- G. Contractor shall be responsible for payment of premiums for all of the insurance coverages required under this Exhibit. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. Any deductibles or self-insured retentions over **\$75,000** in the Contractor's insurance must be declared and approved in writing by Owner in advance.

Exhibit 2

Williamson County Vendor Reimbursement Policy

The purpose of this Williamson County Vendor Reimbursement Policy ("Policy") is to provide clear guidelines to vendors on Williamson County's expectations and requirements regarding allowable reimbursable expenditures and required backup. The Policy will also minimize conflicts related to invoice payments and define non-reimbursable items. This Policy is considered a guideline and is not a contract.

This Policy may be altered, deleted or amended, at any time and without prior notice to vendors, by action of the Williamson County Commissioners Court. Unenforceable provisions of this Policy, as imposed by applicable law, regulations, or judicial decisions, shall be deemed to be deleted. Any revisions to this Policy will be distributed to all current vendors doing business with the County.

1. Invoices and Affidavits

- 1.1 Invoices must adequately describe the goods or services provided to County and include all required backup (i.e. reimbursable expenses, mileage log, timesheets, receipts detailing expenses incurred etc.) that is in a form acceptable to the Williamson County Auditor. Invoices that do not adequately describe the goods or services provided to County or contain backup that is satisfactory to the Williamson County Auditor will be returned to vendor for revisions and the provision above relating to invoice errors resolved in favor of the County shall control as to the required actions of vendor and when such invoice must be paid by the County.
- 1.2 In the event an invoice includes charges based upon hourly billing rates for services or any other rates based upon the amount of time worked by an individual or individuals in performing services, whether the charges are being billed directly to the County or whether they are the basis of invoices from subcontractors for which the vendor seeks reimbursement from the County, the charges shall be accompanied by an affidavit signed by an officer or principal of the vendor certifying that the work was performed, it was authorized by the County and that all information contained in the invoice that is being submitted is true and correct.
- 1.3 Upon County's request, vendor must submit all bills paid affidavits wherein vendor must swear and affirm that vendor has paid each of its subcontractors, laborers, suppliers and material in full for all labor and materials provided to vendor for or in connection with services and work performed for County and, further, vendor must swear and affirm that vendor is not aware of any unpaid bills, claims, demands, or causes of action by any of its subcontractors, laborers, suppliers, or material for or in connection with the furnishing of labor or materials, or both, for services and work performed for County.

2. Travel Reimbursement

- 2.1 The County will only cover costs associated with travel on vendors outside a 50 mile radius from Williamson County, Texas.
- 2.2 The County will only cover costs associated with travel as documented work for County. If a vendor is also doing business for another client, the travel costs must be split in proportion to the amount of work actually performed for County and the other client. The only allowable travel expense will be for the specific days worked for Williamson County.
- 2.3 No advance payments will be made to vendor for travel expenditures. The travel expenditure may only be reimbursed after the expenditure/trip has already occurred and vendor has provided the Williamson County Auditor with all necessary and required backup.
- 2.4 Vendors must submit all travel reimbursement requests on each employee in full. Specifically, a travel reimbursement request must include all related travel reimbursement expenses relating to a particular trip for which vendor seeks reimbursement. Partial travel reimbursement requests will not be accepted (i.e. vendor should not submit hotel and mileage one month then the next month submit rental car and airfare). If the travel reimbursement appears incomplete, the invoice will be sent back to the vendor to be submitted when all information is ready to submit in full.
- 2.5 Reimbursement for transportation costs will be at the most reasonable means of transportation (i.e.: airline costs will be reimbursed for coach rate, rental car costs will only be reimbursed if rental car travel was most reasonable means of travel as compared to travel by air).
- 2.6 The County will not be responsible for, nor will the County reimburse additional charges due to personal preference or personal convenience of individual traveling.
- 2.7 The County will not reimburse airfare costs if airfare costs were higher than costs of mileage reimbursement.
- 2.8 Additional expenses associated with travel that is extended to save costs (i.e. Saturday night stay) may be reimbursed if costs of airfare would be less than the cost of additional expenses (lodging, meals, car rental, mileage) if the trip had not been extended. Documentation satisfactory to the Williamson County Auditor will be required to justify expenditure.
- 2.9 County will only reimburse travel expense to necessary personnel of the vendor (i.e. no spouse, friends or family members).
- 2.10 Except as otherwise set forth herein, a vendor must provide a paid receipt for all expenses. If a receipt cannot be obtained, a written sworn statement of the expense from the vendor may be substituted for the receipt.
- 2.11 Sales tax for meals and hotel stays are the only sales taxes that will be reimbursed. Sales tax on goods purchased will not be reimbursed. A sales tax exemption form is available from the Williamson County Auditor's Office upon request.

- 2.12 The County will not pay for any late charges on reimbursable items. It is the responsibility of the vendor to pay the invoice first and seek reimbursement from the County.

3. Meals

- 3.1 Meal reimbursements are limited to a maximum of \$50.00 per day on overnight travel. On day travel (travel that does not require an overnight stay), meal reimbursements are limited to a maximum of \$20.00 per day. The travel must be outside the Williamson County, Texas line by a 50 mile radius.
- 3.2 Receipts are required on meal reimbursement amounts up to the maximum per day amount stated for overnight or day travel. If receipts are not presented, the vendor can request per diem (per diem limits refer to 3.2). However, a vendor cannot combine per diem and meal receipts. Only one method shall be allowed.
- 3.3 Meals are reimbursable only for vendors who do not have the necessary personnel located within a 50 mile radius of Williamson County, Texas that are capable of carrying the vendor's obligations to County. Meals will not be reimbursed to vendors who are located within a 50 mile radius of Williamson County, Texas.
- 3.4 County will not reimburse for alcoholic beverages.
- 3.5 Tips are reimbursable but must be reasonable to limitation of meal allowance
- 3.6 No meals purchased for entertainment purposes will be allowed.
- 3.7 Meal reimbursement must be substantiated with a hotel receipt.

4. Lodging

- 4.1 Hotel accommodations require an itemized hotel folio as a receipt. The lodging receipt should include name of the motel/hotel, number of occupant(s), goods or services for each individual charge (room rental, food, tax, etc.) and the name of the occupant(s). Credit card receipts or any other form of receipt are not acceptable.
- 4.2 Vendors will be reimbursed for a single room rate charge plus any applicable tax. If a single room is not available, the vendor must provide documentation to prove that a single room was not available in order to justify the expense over and above the single room rate. A vendor may also be required to provide additional documentation if a particular room rate appears to be excessive.
- 4.3 Personal telephone charges, whether local or long distance, will not be reimbursed.

5. Airfare

- 5.1 The County will only reimburse up to a coach price fare for air travel.
- 5.2 The County will exclude any additional charges due to personal preference or personal convenience of the individual traveling (i.e. early bird check in, seat preference charges, airline upgrades, etc. will not be an allowable reimbursement)
- 5.3 Air travel expenses must be supported with receipt copy of an airline ticket or an itinerary with actual ticket price paid. If tickets are purchased through a website, vendor must submit a copy of the webpage showing the ticket price if no paper ticket was issued.
- 5.4 Cancellation and/or change flight fees may be reimbursed by the County but vendor must provide the Williamson County Auditor with documentation in writing from a County department head providing authorization for the change.
- 5.5 The County will not reimburse vendor for tickets purchased with frequent flyer miles.

6. Car Rental

- 6.1 Vendors that must travel may rent a car at their destination when it is less expensive than other transportation such as taxis, airport shuttles or public transportation such as buses or subways.
- 6.2 Cars rented must be economy or mid-size. Luxury vehicle rentals will not be reimbursed. Any rental costs over and above the cost of a mid-size rental will be adjusted.
- 6.3 Vendors will be reimbursed for rental cars if the rental car cost would have been less than the mileage reimbursement cost (based on the distance from vendor's point of origin to Williamson County, Texas) had the vendor driven vendor's car.
- 6.4 Vendors must return a car rental with appropriate fuel levels as required by rental agreement to avoid the car rental company from adding fuel charges.
- 6.5 Rental agreement and credit card receipt must be provided to County as back up for the request for reimbursement.
- 6.6 Insurance purchased when renting vehicle may also be reimbursed.
- 6.7 Car Rental optional extras such as GPS, roadside assistance, and administrative fees on Tolls will not be reimbursed.

7. Personal Car Usage

- 7.1 Personal vehicle usage will be reimbursed in an amount equal to the standard mileage rate allowed by the IRS.

- 7.2 Per code of Federal Regulations, Title 26, Subtitle A, Chapter 1, Subchapter B, Part IX, Section 274(d), all expense reimbursement requests must include the following:
 - 7.2.1.1 Date
 - 7.2.1.2 Destination
 - 7.2.1.3 Purpose
 - 7.2.1.4 Name of traveler(s)
 - 7.2.1.5 Correspondence that verifies business purpose of the expense
- 7.3 The mileage for a personal vehicle must document the date, location of travel to/from, number of miles traveled and purpose of trip.
- 7.4 Mileage will be reimbursed on the basis of the most commonly used route.
- 7.5 Reimbursement for mileage shall not exceed the cost of a round trip coach airfare.
- 7.6 Reimbursement for mileage shall be prohibited between place of residence and usual place of work.
- 7.7 Mileage should be calculated from employee's regular place of work or their residence, whichever is the shorter distance when traveling to a meeting or traveling to Williamson County, Texas for vendors who are located outside of Williamson County, Texas by at least a 50 mile radius.
- 7.8 When more than one person travels in same vehicle, only one person may claim mileage reimbursement.
- 7.9 Tolls, if reasonable, are reimbursable. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement (administrative fees on Tolls will not be reimbursed).
- 7.10 Parking fees, if reasonable are reimbursable for meetings and hotel stays. For vendors who contract with a third party for visitor parking at vendor's place of business, Williamson County will not reimburse a vendor based on a percentage of its contracted visitor parking fees. Rather, Williamson County will reimburse Vendor for visitor parking on an individual basis for each time a visitor uses Vendor's visitor parking. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement.
- 7.11 Operating and maintenance expenses as well as other personal expenses, such as parking tickets, traffic violations, and car repairs and collision damage are not reimbursable.

8. Other Expenses

- 8.1 Taxi fare, bus tickets, conference registrations, parking, etc. must have a proper original receipt.

9. Repayment of Nonreimbursable Expense.

Vendors must, upon demand, immediately repay County for all inappropriately reimbursed expenses whenever an audit or subsequent review of any expense reimbursement documentation finds that such expense was reimbursed contrary to these guidelines and this Policy. Williamson County reserves the right to retain any amounts that are due or that become due to a vendor in order to collect any inappropriately reimbursed expenses that a vendor was paid.

10. Non-Reimbursable Expenses

In addition to the non-reimbursable items set forth above in this Policy, the following is a non-exhaustive list of expenses that will not be reimbursed by Williamson County:

- 10.1 Alcoholic beverages/tobacco products
- 10.2 Personal phone calls
- 10.3 Laundry service
- 10.4 Valet service (excludes hotel valet)
- 10.5 Movie rentals
- 10.6 Damage to personal items
- 10.7 Flowers/plants
- 10.8 Greeting cards
- 10.9 Fines and/or penalties
- 10.10 Entertainment, personal clothing, personal sundries and services
- 10.11 Transportation/mileage to places of entertainment or similar personal activities
- 10.12 Upgrades to airfare, hotel and/or car rental
- 10.13 Airport parking above the most affordable rate available
- 10.14 Excessive weight baggage fees or cost associated with more than two airline bags
- 10.15 Auto repairs
- 10.16 Babysitter fees, kennel costs, pet or house-sitting fees
- 10.17 Saunas, massages or exercise facilities
- 10.18 Credit card delinquency fees or service fees
- 10.19 Doctor bills, prescription and other medical services
- 10.20 Hand tools
- 10.21 Safety Equipment (hard hats, safety vests, etc.)
- 10.22 Office Supplies
- 10.23 Lifetime memberships to any association
- 10.24 Donations to other entities
- 10.25 Any items that could be construed as campaigning
- 10.26 Community outreach items exceeding \$2 per item
- 10.27 Sales tax on goods purchased
- 10.28 Any other expenses which Williamson County deems, in its sole discretion, to be inappropriate or unnecessary expenditures.

EXHIBIT 3 –DRAWINGS AND SPECIFICATIONS

PROPOSAL AFFIDAVIT

This form must be completed, signed, notarized and returned with Proposal package

The undersigned certifies that the RFCSP and the Respondent's Proposal have been carefully reviewed and are submitted as correct and final. Respondent further certifies and agrees to furnish any and/or all goods and/or services upon which prices are extended at the price Proposal, and upon the conditions contained in the RFCSP.

I hereby certify that the foregoing Proposal has not been prepared in collusion with any other Respondent or other person or persons engaged in the same line of business prior to the official opening of this Proposal. Further, I certify that the Respondent is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities Proposal on, or to influence any person or persons to submit a Proposal or not to submit a Proposal thereon."

Name of Respondent:	<input style="width: 90%;" type="text"/>
Address of Respondent:	<input style="width: 90%;" type="text"/>
Email:	<input style="width: 90%;" type="text"/>
Telephone:	<input style="width: 90%;" type="text"/>
Printed Name of Person Submitting Affidavit:	<input style="width: 90%;" type="text"/>
Signature of Person Submitting Affidavit:	<input style="width: 90%;" type="text"/>

Cooperative Purchasing Program

Check one of the following options below. A non-affirmative Proposal will in no way have a negative impact on the County's evaluation of the Proposal.

<input type="checkbox"/>	I will offer the quoted prices to all authorized entities during the term of the County's Contract.
<input type="checkbox"/>	I will not offer the quoted prices to all authorized entities.

***If no box is checked, the Respondent agrees to make best efforts in good faith to offer the quoted prices to all authorized entities. ***

BEFORE ME, the undersigned authority, a Notary Public, personally appeared <input style="width: 150px;" type="text"/>
(<i>Name of Signer</i>), who after being by me duly sworn, did depose and say: "I, <input style="width: 150px;" type="text"/> ,
(<i>Name of Signer</i>) am a duly authorized officer of/agent for <input style="width: 150px;" type="text"/> (<i>Name of Respondent</i>)
and have been duly authorized to execute the foregoing on behalf of the said <input style="width: 150px;" type="text"/>
(<i>Name of Respondent</i>).
 SUBSCRIBED AND SWORN to before me by the above-named <input style="width: 150px;" type="text"/>
on this the <input style="width: 50px;" type="text"/> day of <input style="width: 100px;" type="text"/> , 20 <input style="width: 50px;" type="text"/> .
<input style="width: 250px;" type="text"/>
Notary Public in and for
The State of <input style="width: 150px;" type="text"/>
The County of <input style="width: 150px;" type="text"/>

SIGNATURE AND NOTARY NOT REQUIRED IF COMPLETING IN BIDSYNC ELECTRONICALLY.

Proposal References

List the last three (3) companies or governmental agencies, where the same or similar goods and/or services as contained in this RFP package, were recently provided by Respondent.

Reference 1

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

Reference 2

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

Reference 3

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

CONFLICT OF INTEREST QUESTIONNAIRE		Form CIQ
For vendor or other person doing business with local governmental entity		
<p>This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.</p> <p>By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>		<p>OFFICE USE ONLY</p> <p>Date Received</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
1	<p>Name of person doing business with local governmental entity.</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div>	
2	<p style="text-align: center;">Check this box if you are filing an update to a previously filed questionnaire.</p> <p><input type="checkbox"/></p> <p style="font-size: small;">(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)</p>	
3	<p>Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div>	<div style="border: 1px solid black; width: 15px; height: 15px; margin: 0 auto; text-align: center;">5</div> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 0 auto; text-align: center;">6</div>
4	<p>Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div>	<div style="border: 1px solid black; width: 15px; height: 15px; margin: 0 auto; text-align: center;">5</div> <div style="border: 1px solid black; width: 15px; height: 15px; margin: 0 auto; text-align: center;">6</div>

CONFLICT OF INTEREST QUESTIONNAIRE For vendor or other person doing business with local governmental entity		Form CIQ Page 2
5	<p style="text-align: center;">Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)</p> <p>This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or other relationship. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>D. Describe each affiliation or business relationship.</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
	<p>6. Describe any other affiliation or business relationship that might cause conflict of interest:</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
7	<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>
	Signature of person doing business with the governmental entity	Date
Signature not required if completing in BIDSYNC electronically.		

Question and Answers for Bid #1708-180 - River Ranch County Park Residence

Overall Bid Questions

There are no questions associated with this bid.

Commissioners Court - Regular Session

51.

Meeting Date: 08/15/2017

IFB 1708-182 River Rd and Old Windmill Rd authorization to Advertise

Submitted For: Randy Barker

Submitted By: Will Hutchinson, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action on authorizing Purchasing Agent to advertise and receive sealed bids for River Rd and Old Windmill Rd rehabilitation under IFB # 1708-182

Background

Williamson County is seeking qualified Contractors to provide materials and equipment to rehabilitate River Rd and Old Windmill Rd with an estimated budget of \$1,400,000.00 and a completion schedule of sixty (60) days.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Packet for Bid

Form Review

Inbox

Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Will Hutchinson
Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
Wendy Coco

Date

08/10/2017 10:53 AM
08/10/2017 11:14 AM
Started On: 08/10/2017 08:59 AM

Solicitation 1708-182

River Rd & Old Windmill Rd

Bid Designation: Public



Williamson County, Texas

Bid 1708-182 River Rd & Old Windmill Rd

Bid Number 1708-182
 Bid Title River Rd & Old Windmill Rd
 Bid Start Date In Held
 Bid End Date Sep 5, 2017 3:00:00 PM CDT
 Question & Answer End Date Aug 30, 2017 5:00:00 PM CDT

Bid Contact Will Hutchinson
 Purchasing Specialist III
 512-943-1553
 will.hutchinson@wilco.org

Contract Duration 1 year
 Contract Renewal Not Applicable
 Prices Good for 365 days
 Pre-Bid Conference Aug 29, 2017 9:00:00 AM CDT
 Attendance is optional
 Location: 3151 South East Inner Loop
 Georgetown, TX 78626

Bid Comments **Williamson County is seeking qualified Contractors to provide materials and equipment to rehabilitate River Rd and Old Windmill Rd.**

Item Response Form

Item 1708-182--01-01 - Attach Documents Here

Quantity 1 each

Prices are not requested for this item.

Delivery Location **Williamson County, Texas**

No Location Specified

Qty 1

Description

Attach Documents Here

Item 1708-182--01-02 - Total Price

Quantity 1 lump sum

Unit Price

Delivery Location **Williamson County, Texas**

No Location Specified

Qty 1

Description

Place Bid Total here. Note this does not replace the bid Tabulation that you must upload.

[Empty input field for bid total]



PUBLIC ANNOUNCEMENT AND GENERAL INFORMATION

WILLIAMSON COUNTY PURCHASING DEPARTMENT SOLICITATION 1708-182 River Rd & Old Windmill Rd

**BIDS MUST BE RECEIVED ON OR BEFORE:
Sep 5, 2017 3:00:00 PM CDT**

**BIDS WILL BE PUBLICLY OPENED:
Sep 5, 2017 3:00:00 PM CDT**

Notice is hereby given that sealed Bids for the above-mentioned goods and/or services will be accepted by the Williamson County Purchasing Department. Williamson County uses BidSync to distribute and receive bids. Specifications for this IFB may be obtained by registering at www.bidsync.com.

Williamson County prefers and requests electronic submittal of this Bid.

All electronic bids must be submitted via: www.bidsync.com

Electronic bids are requested, however paper bids will currently still be received, until further notice and may be mailed or delivered to the address listed below.

Bidders are strongly encouraged to carefully read this entire IFB.

All interested Bidders are invited to submit a Bid in accordance with the Instructions and General Requirements, Bid Format, Bid Specifications, and Definitions, Terms and Conditions stated in this IFB.

Please note that a complete package must be submitted choosing one of the above two methods. Split packages submitted will be considered “unresponsive” and will not be accepted or evaluated.

Williamson County will not accept any Bids received after the submittal deadline, and shall return such Bids unopened to the Bidder.

General Information:

- If mailed or delivered in person, Bids and Bid addenda are to be delivered in sealed envelope on or before the submittal deadline, as noted in the Public Announcement and General Information listed above for this IFB, to:

Williamson County Purchasing Department
Attn: **BID NAME AND NUMBER**
901 South Austin Avenue
Georgetown, Texas 78626

- Bidders should list the Bid Number, Bid Name, Name and Address of Bidder, and the Date of the Bid opening on the outside of the box or envelope and note "Sealed Bid Enclosed."
 - Bidder should submit one (1) original.
 - Williamson County will NOT be responsible for unmarked or improperly marked envelopes.
 - Williamson County will not accept any responsibility for Bids being delivered by third party carriers.
 - Facsimile transmittals will NOT be accepted.
- Bids will be opened publicly in a manner; however, to avoid public disclosure of contents only the names and of Bidders and prices will be read aloud.
 - All submitted questions with their answers will be posted and updated on www.bidsync.com.
 - It is the Bidder's responsibility to review all documents in BidSync, including any Addenda that may have been added after the document packet was originally released and posted.
 - Any Addenda and/or other information relevant to the IFB will be posted on www.bidsync.com.
 - The Williamson County Purchasing Department takes no responsibility to ensure any interested Bidder has obtained any outstanding addenda or additional information.



Williamson County – Invitation for Bid (IFB)

SECTION 1 - DEFINITIONS

Addendum/Addenda – means any written or graphic instruments issued by the County prior to the consideration of Bids which modify or interpret the Bid Documents by additions, deletions, clarifications, or corrections.

Agreement/Ensuing Agreement(s) – means the Successful Bidder may be required by the County to sign an additional Agreement containing terms necessary to ensure compliance with the IFB and the Bidder's Bid. Such Ensuing Agreement(s) shall contain the Bid specifications, terms and conditions that are derived from the IFB.

Bid Documents – means the Legal Notice, IFB including attachments, and any Addenda issued by the County prior to the consideration of any Bids.

Bid – means the completed and signed bid form, (sometimes referred to as the Price Sheet), and ALL required forms and documentation listed in the IFB package which have been submitted in accordance with the terms and conditions described in the IFB package. A Bid submitted in accordance with this IFB is irrevocable during the specified period for evaluation and acceptance of Bids unless a waiver is obtained from the Williamson County Purchasing Agent.

Bidder – means a person or entity who submits a Bid in response to this IFB.

Contract – means this IFB and the Bid of the Successful Bidder shall become a Contract between the Successful Bidder and the County once the Successful Bidder's Bid is properly accepted by the Williamson County Commissioners Court.

Commissioner's Court – means the Williamson County Commissioners Court.

County – means Williamson County, a political subdivision of the State of Texas.

Invitation for Bid (IFB) – means this document, together with the attachments thereto and any future Addenda issued by the County.

Successful Bidder – means the liable Bidder to whom the County intends to award the Contract.

SECTION 2 - BID FORMAT AND SUBMISSION

2.1 ORGANIZATION OF BID CONTENTS FOR SUBMITTAL

Each Bid should be organized and items submitted in the order described below:

- A. Transmittal Letter. Please see Section 2.3, Transmittal Letter, for more information.
- B. Price Sheet.
- C. Conflict of Interest Questionnaire. Please see Section 2.2, Conflict of Interest, for more information in regards to this. Please note that even if you deem there to be no Conflict of Interest, this signed questionnaire must be included in your package.
- D. References. Please see Section 3.15, References, for more information.
- E. Bid Affidavit.
- F. Form 1295. Please see Section 2.4, Certificate of Interested Parties – Form 1295.

2.2 CONFLICT OF INTEREST

No public official shall have interest in a Contract, in accordance with Vernon's Texas Codes Annotated, Local Government Code, Title 5, Subtitle C, Chapter 171, as amended.

As of January 1, 2006, all Bidders are responsible for complying with Local Government Code, Title 5, Subtitle C, Chapter 176. Additional information may be obtained from the County's website at the following link:

<http://www.wilco.org/CountyDepartments/Purchasing/ConflictofInterestDisclosure/tabid/689/language/en-US/Default.aspx>

Each Bidder must disclose any existing or potential conflict of interest relative to the performance of the requirements of this IFB. **Examples of potential conflicts of interest may include an existing business or personal relationship between the Bidder, its principal, or any affiliate or subcontractor with the County or any other entity or person involved in any way with the project that is subject to this IFB.** Similarly, any personal or business relationship between the Bidder, the principals, or any affiliate or subcontractor with any employee, or official of the County or its suppliers must be disclosed. Any such relationship that might be perceived or represented as a conflict must be disclosed. Failure to disclose any such relationship or reveal personal relationships with the County employees or officials may be cause for termination.

The County will decide if an actual or perceived conflict should result in Bid disqualification.

By submitting a Bid in response to this IFB, all Bidders affirm they have not given, nor intend to give, at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a the County public servant or any employee, official or representative of same, in connection with this procurement.

Each Bidder must provide a Conflict of Interest Statement with their Bid Package. Package may be deemed incomplete without this form.

2.3 TRANSMITTAL LETTER

The Bidder should submit a Transmittal Letter that provides the following information:

- A. Name and address of individual or business entity submitting the Bid.
- B. Name, physical address, email address, business and fax number of the Bidder's principal contact person regarding all contractual matters relating to this IFB.
- C. The Bid's Federal Employer Identification Number.
- D. If the Proposal being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Respondent is encouraged to provide information in narrative indicating the anticipated air quality impact. See Section 4.36, Air Quality for more information.

2.4 CERTIFICATE OF INTERESTED PARTIES – FORM 1295

As of January 1, 2016, all Successful Bidders are responsible for complying with the Texas Government Code, Section 2252.908. The law states that the County may not enter into certain contracts with a Bidder unless the Bidder submits a disclosure of interested parties to the County at the time the Bidder submits the signed Contract. The law applies only to a Contract of the County on or after January 1, 2016 that either:

- A. Requires an action or vote by the Commissioners Court before the Contract may be signed (all contracts that fall under the jurisdiction of the Commissioners Court approval, such as contracts resulting from an Initiation for Bid (IFB), RFP, Request for Qualifications (RFQ), etc., excluding, but not limited to, certain Juvenile Service contracts, contracts funded with Sheriff's seized monies, etc.); or
- B. Has a value of at least \$1,000,000.

By January 1, 2016, the Texas Ethics Commission will make available on its website, a new filing application that must be used to file Form 1295. Information regarding how to use the filing application is available on the Texas Ethics Commission website at the following link:

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

A Respondent must:

- A. Use the online application to process the required information on Form 1295.
- B. Print a copy of the form which will contain a unique certification number.
- C. An authorized agent of the Bidder must sign the printed copy of the form.
- D. Have the form notarized.
- E. File the completed Form 1295 and certification of filing (scanning and emailing form is sufficient) with Williamson County Purchasing Agent at the time the signed Contract is submitted for approval.

After the Commissioners Court award of the Contract, the County shall notify the Texas Ethics Commission, using the Texas Ethics Commission's filing application, of the receipt of the filed Form 1295 and certification of filing not later than the 30th day after the date the Contract binds all parties to the Contract. The Texas Ethics Commission will post the completed Form 1295 to its website within seven business days after receiving notice from the County.

2.5 ETHICS

The Bidder shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official or agent of the County.

2.6 BID SUBMITTAL DEADLINE

The Bid is due no later than the submittal date and time set forth in the Public Announcement and General Information listed in this IFB package. Contents of each Bid shall be submitted in accordance with this IFB.

2.7 DELIVERY OF BIDS

The County uses BidSync to distribute and receive Bids and proposals. It is preferred that Bids submitted electronically through BidSync; however, Bidders can submit a hard copy.

Refer to www.bidsync.com for further information on how to submit electronically.

If mailed or delivered in person, Bids and Bid Addenda are to be delivered in sealed envelope on or before the submittal deadline, as noted in the Public Announcement and General Information listed in this IFB package, to:

Williamson County Purchasing Department
Attn: **Bid Name and Number**
901 South Austin Avenue
Georgetown, Texas 78626

Also, all Bidders should list their Name and Address, and the Date of the Bid opening on the outside the box or envelope and note "Sealed Bid Enclosed." The County will not accept any Bids received after the submittal deadline, and shall return such Bids unopened to the Bidder. The County will not accept any responsibility for Bids being delivered by third party carriers.

Bids will be opened publically and the names of Bidders and pricing will be read aloud.

SECTION 3 - INSTRUCTIONS AND GENERAL REQUIREMENTS

3.1 INSTRUCTIONS

Read this document carefully, and follow all instructions and requirements. All Bidders are responsible for fulfilling all requirements and specifications. Be sure to have a clear understanding of this IFB.

General requirements apply to all advertised IFBs; however, these may be superseded, in whole or in part, by the bid specifications, Addenda and modifications issued as a part of this IFB. Be sure your Bid package is complete.

3.2 AMBIGUITY, CONFLICT, OR OTHER ERRORS IN THIS IFB

If a Bidder discovers any ambiguity, conflict, discrepancy, omission or other error in this IFB, the Bidder shall immediately notify the County Purchasing Department of such error in writing and request modification or clarification of the document.

Modifications will be made by issuing Addenda. If the Bidder fails to notify the County prior to the date and time fixed for submission of Bids of an error or ambiguity in the IFB known to the Bidder, or an error or ambiguity that reasonably should have been known to the Bidder, then the Bidder shall be deemed to have waived the error or ambiguity or its later resolution.

The County may also modify the IFB, no later than forty-eight (48) hours prior to the date and time fixed for submission of Bids, by issuance of an Addendum. All Addenda will be numbered consecutively, beginning with one (1).

3.3 NOTIFICATION OF MOST CURRENT ADDRESS

All Bidders in receipt of this IFB shall notify the Williamson County Purchasing Department of any address changes, contact person changes, and/or telephone number changes no later than forty-eight (48) hours prior to the date and time fixed for submission of Bids.

3.4 SIGNATURE OF BIDDER

- A. If the Bidder is a Corporation or Limited Liability Company, the legal name of the Corporation Limited Liability Company shall be provided together with the signature of the officer or officers authorized to sign on behalf of such entity.
- B. If the Bidder is a General Partnership, the true name of the firm shall be provided with the signature of each partner authorized to sign.
- C. If the Bidder is a Limited Partnership, the name of the Limited Partner's General Partner shall be provided with the signature of the officer authorized to sign on behalf of the General Partner.
- D. If the Bidder is a Sole Proprietor(s) (individual), each Sole Proprietor(s) shall sign.
- E. If signature is by an agent, other than the Sole Proprietor(s) or an officer of a Corporation, Limited Liability Company, General Partner or a member of a General Partnership, a power of attorney equivalent document must be submitted to the Williamson County Purchasing Department.

3.5 ASSUMED BUSINESS NAME

If the Bidder operates business under an Assumed Business Name, the Bidder must have on file with the

Williamson County Clerk a current Assumed Name Certificate and provide a file marked copy of same.

3.6 BID OBLIGATION

The contents of the IFB, Bid, and any clarification thereof submitted by the Successful Bidder shall become part of the contractual obligation and incorporated by reference into the Contract and any Ensuing Agreement(s).

3.7 COMPLIANCE WITH IFB SPECIFICATIONS

It is intended that this IFB describe the requirements and the Bid format in sufficient detail to secure comparable Bids. Failure to comply with all provisions of the IFB may, at the sole discretion of the County, result in disqualification.

3.8 WITHDRAWAL OF BID

The Bidder may withdraw its Bid by submitting a written request with the company letterhead and the signature of an authorized individual, as described in Section 3.4, Signature of Bidder, to the Williamson County Purchasing Department any time prior to the submission deadline.

The Bidder may submit a new Bid prior to the deadline. Alterations of the Bid in any manner will not be considered if submitted after the deadline. Withdrawal of a Bid after the deadline will be subject to written approval of the Williamson County Purchasing Agent.

3.9 EVALUATION AND AWARD

The County reserves the right to use all pertinent information (also learned from sources other than disclosed in the Bid process) that might affect the County's judgment as to the appropriateness of award to the lowest and best evaluated Bid. This information may be appended to the Bid evaluation process results. Information on a Bidder from reliable sources, and not within the Bidder's Bid, may also be noted and made part of the evaluation file. The County shall have sole discretion for determining the reliability of the source.

To ensure the proper and fair evaluation of a solicitation, the County prohibits unsolicited communication initiated by the Bidder to the County Official or Employee evaluating or considering the Bids prior to the time an award has been made. Unsolicited communication may be ground for disqualifying the offending Bidder from consideration or award of the solicitation, or any future solicitation.

Communication between the Bidder and the County will be initiated by the appropriate County Official Employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the solicitation.

The County intends to award a Contract to the most responsible and responsive Bidder whose Bid will be most advantageous to the County. In accordance with Texas Government Code and Local Government Code, the County may consider, to the extent allowed by law, the following:

- A. Price;
- B. The Bidder's experience and reputation;
- C. Quality of the Bidder's goods and/or services;
- D. The Bidder's safety record;
- E. The Bidder's proposed personnel;
- F. The Bidder's financial capabilities; and
- G. Any other relevant factors specifically listed in this IFB or authorized by law.

3.10 CONSIDERATION OF LOCATION OF PRINCIPAL OFFICE

Pursuant to Texas Local Government Code, Section 271.905, in purchasing any real property or personal property that is not affixed to real property, if the County receives one or more Bids from a Bidder whose principal place of business is in Williamson County and whose Bid is within three (3) percent of the lowest Bid price received by the County from a Bidder who is not a resident of Williamson County, the County may enter into a contract with:

- A. The lowest Bidder; or the Bidder whose principal place of business is in Williamson County if the Commissioners Court determines, in writing, that the local Bidder offers the County the best combination of contract price and additional economic development opportunities Williamson County created by the contract award, including the employment of residents Williamson County and increased tax revenues to Williamson County.

It is understood that the Commissioners Court of Williamson County, Texas, reserves the right to accept or reject any and/or all Bids for any or all goods and/or services covered in this IFB, and to waive informalities or defects in the Bid or to accept such Bid, if it shall deem to be in the best interest of the County.

Awards should be made approximately sixty (60) business days after the Bid opening date. Results may be obtained by viewing the Williamson County vendor portal at the following link:

<http://www.wilco.org/CountyDepartments/Purchasing/SearchforaPastBid/tabid/5213/language/en-US/Default.aspx>

3.11 RESPONSIBILITY

It is expected that a prospective Bidder will be able to affirmatively demonstrate responsibility. A prospective Bidder should be able to meet the following requirements:

- A. Have adequate financial resources, or the ability to obtain such resources as required;
- B. Be able to comply with the required or proposed delivery schedule;
- C. Have a satisfactory record of performance that can be determined thru references provided; and
- D. Be otherwise qualified and eligible to receive an award.

The County may request representation and other information sufficient to determine the Bidder's ability to meet these minimum standards listed above.

3.12 FIRM PRICING

For unit price items, all of the items listed are to be on a "per unit" basis, stating a firm price per unit or unit quantity of each item. The Bidder must submit a firm price that must be good from the date of Bid opening for the fixed period of time set out in this IFB. Unless the IFB expressly states otherwise, this period shall be until the end of the Initial Contract Period.

Bids which do not state a fixed price, or which are subject to change without notice, will not be considered. The Court may award a Contract for the period implied or expressly stated in the lowest and best Bid.

3.13 PURCHASE ORDERS

If required by the Williamson County Purchasing Department, a purchase order(s) may be generated to the Successful Bidder for goods and/or services. If a purchase order is issued, the purchase order number must appear on all itemized invoices and/or requests for payment.

3.14 SILENCE OF SPECIFICATIONS

The apparent silence of these specifications as to any detail or to the apparent omission from it of a

detailed description concerning any point, shall be regarded as meaning that only the best practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

3.15 REFERENCES

The County may require the Bidder to supply a list of at least three (3) references where like services and/or goods have been supplied by their firm within the past five (5) years, to include names, titles, phone numbers and email addresses of key personnel, and dates of performance.

The County may contact some or all of the references in order to determine the Respondent performance record on work similar to that described in this RFP. The County reserves the right to contact references other than those provided in the response and to use the information gained from them in the evaluation process.

References, if requested, should be provided in accordance with this IFB. Bid may not be deemed complete without the inclusion of requested references.

SECTION 4 - TERMS AND CONDITIONS

4.1 VENUE AND GOVERNING LAW

The Bidder hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this IFB, the Contract and any Ensuing Agreement(s), shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this IFB, the Contract and any Ensuing Agreement(s) is governed by the laws of the United States, this IFB, the Contract and any Ensuing Agreement(s) shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.

4.2 INCORPORATION BY REFERENCE AND PRECEDENCE

- A. The Contract shall be derived from the IFB and its Addenda (if applicable), and the Bidder's Bid. In the event of a dispute under the Contract, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. The IFB and its Addenda (if applicable); and
 2. The Bidder's Bid.
- B. In the event the County requires that an Ensuing Agreement be executed following award and a dispute arises between the terms and conditions of the Ensuing Agreement, the IFB and its Addenda (if applicable), and the Bidder's Bid, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. Terms and conditions of the Ensuing Agreement;
 2. The IFB its Addenda; and
 3. The Bidder's Bid.

4.3 OWNERSHIP OF BID

Each Bid shall become the property of the County upon submittal and will not be returned to Bidders unless received after the submittal deadline.

4.4 DISQUALIFICATION OF BIDDER

Upon signing and submittal of the Bid, a Bidder offering to sell supplies, materials, services, or equipment to the County, certifies that the Bidder has not violated the antitrust laws of the State of Texas codified in Business & Commerce Code, Section 15.01, or the Federal Antitrust Laws, and has not communicated directly or indirectly the offer made to any competitor or any other person engaged in such line of business. Any or all Bids may be rejected if the County believes that collusion exists among the Bidders.

4.5 FUNDING

The County intends to budget and make sufficient funds available and authorize funds for expenditure to finance the costs of the Contract. All Bidders understand and agree that the County's payment of amounts under the Contract shall be contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to make payments under this Contract.

4.6 ASSIGNMENT, SUCCESSORS AND ASSIGNS

The Successful Bidder may not assign, sell, or otherwise transfer the Contract or any other rights or interests obtained under the Contract without written permission of the Commissioners Court. The Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the contracting parties hereto and their respective successors and permitted assigns.

4.7 IMPLIED REQUIREMENTS

Products or services not specifically described or required in the IFB, but are necessary to provide the functional capabilities described by the Bidder, shall be implied and deemed to be included in the Bid.

4.8 TERMINATION

- A. Termination for Cause:** The County reserves the right to terminate the Contract and/or any Ensuing Agreement(s) for default if the Successful Bidder breaches any of the Bid specifications, terms and conditions, including warranties of the Bidder, if any, or if the Successful Bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies the County may have at law or in equity or as may otherwise provided hereunder. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all other requirements to the County's satisfaction, and/or to meet all other obligations and requirements.
- B. Termination for Convenience:** The County may terminate the Contract and/or any Ensuing Agreement(s) for convenience and without cause or further liability, upon no less than thirty (30) calendar days written notice to the Successful Bidder. The County reserves the right to extend this period if it is in the best interest of the County. In the event the County exercises its right to terminate without cause, it is understood and agreed that only the amounts due to the Successful Bidder for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for the County termination for convenience.

4.9 NON-PERFORMANCE

It is the objective of the County to obtain complete and satisfactory performance of the requirements set forth herein. In addition to any other remedies available at law, in equity or that may be set out herein, failure to perform may result in a deduction of payment equal to the amount of the goods and/or services that were not provided and/or performed to the County's satisfaction.

In the event of such non-performance, the County shall have the right, but shall not be obligated, to complete the services itself or by others and/or purchase the goods from other sources. If the County elects to acquire the goods or perform the services itself or by others, pursuant to the foregoing, the Successful Bidder shall reimburse the County, within ten (10) calendar days of demand, for all costs incurred by the County (including, without limitation, applicable, general, and administrative expenses, and field overhead, and the cost of necessary equipment, materials, and field labor) in correcting the nonperformance which the Successful Bidder fails to meet pursuant to the requirements set out herein. In the event the Successful Bidder refuses to reimburse the County as set out in this provision, the County shall have the right to deduct such reimbursement amounts from any amounts that may be then owing or that may become owing in the future to the Successful Bidder.

4.10 PROPRIETARY INFORMATION AND THE TEXAS PUBLIC INFORMATION ACT

All material submitted to the County shall become public property and subject to the Texas Public Information Act upon receipt. If a Bidder does not desire proprietary information in the Bid to be

disclosed, each page must be clearly identified and marked proprietary at time of submittal or, more preferably, all proprietary information may be placed in a folder or appendix and be clearly identified and marked as being proprietary. Failure to clearly identify and mark information as being proprietary as set forth under this provision will result in all unmarked information being deemed non-proprietary and available to the public. For all information that has not been clearly identified and marked as proprietary by the Bidder, the County may choose to place such information on the County's website and/or a similar public database without obtaining any type of prior consent from the Bidder.

The County will, to the extent allowed by law, endeavor to protect from public disclosure the information that has been identified and marked as proprietary. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General.

To the extent, if any, that any provision in this IFB or in the Bidder's Bid is in conflict with Texas Government Code, Chapter 552, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood, and agreed, that the County, and its officers and employees, may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to the County as to whether or not the same are available to the public. It is further understood that the County, and its officers and employees, shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that the County, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to the County by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

4.11 RIGHT TO AUDIT

The Successful Bidder agrees that the County or its duly authorized representatives shall, until the expiration of three (3) years after termination or expiration of the services to be performed, have access to and the right to examine and photocopy any and all books, documents, papers and records of the Successful Bidder, which are directly pertinent to the services to be performed or goods to be delivered for the purposes of making audits, examinations, excerpts and transcriptions. The Successful Bidder agrees that the County shall have access during normal working hours to all necessary facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. The County shall give the Successful Bidder reasonable advance notice of intended audits.

4.12 TESTING AND INSPECTIONS

The County reserves the right to inspect and test equipment, supplies, materials and goods for quality and compliance with this IFB, and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the County can deem the Bidder to be in breach and terminate the Contract and/or any Ensuing Agreement(s).

4.13 BID PREPARATION COSTS

The cost of developing Bids is the sole responsibility of the Bidders and shall not be charged to the County. There is no expressed or implied obligation for the County to reimburse the Bidders for any expense incurred in preparing a Bid in response to this IFB and the County will not reimburse the Bidders for such expenses.

4.14 INDEMNIFICATION

The Successful Bidder shall indemnify, defend and save harmless, the County, its officials, employees, agents and agent's employees from, and against, all claims, liability, and expenses including reasonable attorneys' fees, arising from activities of the Bidder, its agents, servants or employees, performed

hereunder that result from the negligent act, error, or omission of the Bidder or any of the Bidder agents, servants or employees, as well as all claims of loss or damage to the Bidder's and the County property, equipment, and/or supplies.

Furthermore, the County, its officials, employees, agents and agents' employees shall not be liable for damages to the Successful Bidder arising from any act of any third party, including, but not limited to, theft. The Successful Bidder further agrees to indemnify, defend and save harmless, the County from its officials, employee, agents and agents' employees against all claims of whatever nature arising from any accident, injury, or damage whatsoever, caused to any person, or the property of any person, occurring in relation to the Successful Bidder's performance of any services requested hereunder during the term of the Contract and/or any Ensuing Agreement(s).

The Successful Bidder shall timely report all claims, demands, suits, actions, proceedings, liens or judgements to the County and shall, upon the receipt of any claim, demand, suit, action, proceeding, lien or judgement, not later than the fifteenth (15th) day of each month; provide the County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of the County required by the Successful Bidder in the defense of each matter. The Successful Bidder's duty to defend, indemnify and hold the County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of the Contract and/or any Ensuing Agreement(s), unless otherwise agreed by the County in writing. The provisions of this section shall survive the termination of the Contract and shall remain in full force and effect with respect to all such matters no matter when they arise.

In the event of any dispute between the parties, as to whether a claim, demand, suit, action, proceeding, lien or judgement, that appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of the County, the Bidder shall nevertheless fully defend such claim, demand, suit or action, proceeding, lien or judgement, until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of the Bidder are not an issue in the matter.

The Successful Bidder's indemnification shall cover, and the Successful Bidder agrees to, indemnify the County, in the event the County is found to have been negligent for having selected the Successful Bidder to perform the work described in this request. The provision by the Successful Bidder of insurance shall not limit the liability of the Successful Bidder under the Contract and/or any Ensuing Agreement(s).

4.15 WAIVER OF SUBROGATION

The Successful Bidder and the Successful Bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against the County as an indirect party to any suit arising out of personal or property damages resulting from the Bidder's performance under this Contract and any Ensuing Agreement(s).

4.16 RELATIONSHIP OF THE PARTIES

The Successful Bidder shall be an independent contractor and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions herein which may appear to give the County the right to direct the Successful Bidder as to details of doing work herein covered, or to exercise a measure of control over the work, shall be deemed to mean that the Successful Bidder shall follow the desires of the County in the results of the work only. The County shall not retain or have the right to control the Successful Bidder's means, methods or details pertaining to the Successful Bidder's performance of the work. The County and the Successful Bidder hereby agree and declare that the Successful Bidder is an independent contractor and as such meets the qualifications of an "Independent Contractor" under Texas Workers Compensation Act, Texas Labor Code, Section 406.141, that the Successful Bidder is not an employee of the County, and that the Successful Bidder and its employees, agents and subcontractors shall not be entitled to workers compensation coverage or any other type of insurance coverage held by the County.

4.17 SOLE PROVIDER

The Successful Bidder agrees and acknowledges that it shall not be considered a sole provider of the goods and/or services described herein and that the County may contract with other providers of such goods and/or services if the County deems, at its sole discretion, that multiple providers of the same goods and/or services will serve the best interest of the County.

4.18 FORCE MAJEURE

If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

4.19 SEVERABILITY

If any provision of this IFB, the Contract or any Ensuing Agreement(s) shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision thereof, but rather the entire IFB, Contract or any Ensuing Agreement (s) will be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligation of the parties shall be construed and enforced in accordance therewith. The parties acknowledge that if any provision of this IFB, the Contract or any Ensuing Agreement(s) is determined to be invalid or unenforceable, it is the desire and intention of each that such provision be reformed and construed in such a manner that it will, to the maximum extent practicable, give effect to the intent of this IFB, the Contract or any Ensuing Agreement(s) and be deemed to be validated and enforceable.

4.20 EQUAL OPPORTUNITY

Neither party shall discriminate against any employee or applicant for employment because of race, color, sex, religion or national origin.

4.21 NOTICE

Any notice to be given shall be in writing and may be distributed by personal delivery, or by registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

The County: Williamson County Purchasing Department
Attn: Purchasing Agent
901 South Austin Avenue
Georgetown, Texas 78626

The Bidder: Address set out in Bidder's Transmittal Letter.

Notices given in accordance with this provision shall be effective upon (1) receipt by the party to which notice is given, or (2) on the third (3rd) calendar day following mailing, whichever occurs first.

4.22 SALES AND USE TAX EXEMPTION

The County is a body, corporate and politic, under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code, Section 151.309, as amended, and the services and/or goods subject hereof are being secured for use by the County.

4.23 COMPLIANCE WITH LAWS

The County and the Successful Bidder shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of the Contract and any Ensuing Agreement(s), including, without limitation, Workers' Compensation laws, salary and wage statutes and regulations, licensing laws and regulations. When required, the Successful Bidder shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

4.24 INCORPORATION OF EXHIBITS, APPENDICES AND ATTACHMENTS

All of the Exhibits, Appendices and Attachments referred to herein are incorporated by reference as if set forth verbatim herein. Any conflicting terms in the Contract documents will be resolved at the sole discretion of the Commissioners Court.

4.25 NO WAIVER OF IMMUNITIES

Nothing herein shall be deemed to waive, modify or amend any legal defense available at law or in equity to the County, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. The County does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

4.26 NO WAIVER

The failure or delay of any party to enforce at any time or any period of time any of the provisions of this IFB, the Contract or any Ensuing Agreement(s) shall not constitute a present or future waiver of such provisions nor the right of either party to enforce each and every provision. Furthermore, no term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether expressed or implied, shall not constitute a consent to, waiver of or excuse for any other, different or subsequent breach.

4.27 CURRENT REVENUES

The obligations of the parties under the Contract and any Ensuing Agreement(s) do not constitute a general obligation or indebtedness of the County for which the County is obligated to levy, pledge, or collect any of taxation. It is understood and agreed that the County shall have the right to terminate the Contract and any Ensuing Agreement(s) at the end of any the County fiscal year if the governing body of the County does not appropriate sufficient funds as determined by the County's budget for the fiscal year in question. The County may effect such termination by giving written notice of termination to Successful Bidder at the end of its then-current fiscal year.

4.28 FOB DESTINATION

To the extent applicable to this IFB, all of the items listed are to be Free On Board to final destination (FOB Destination) with all transportation charges if applicable to be included in the Bid, unless otherwise specified in the Invitation for Bids. The title and risk of loss of the goods shall not pass to the County until receipt and acceptance takes place at the FOB Destination point.

4.29 BINDING EFFECT

This Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the parties

and their respective permitted assigns and successors.

4.30 ASSIGNMENT

The Successful Bidder's interest and duties hereunder may not be assigned or delegated to a third party without the express written consent of the County.

4.31 SAFETY

The Successful Bidder is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with any services to be provided hereunder. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

4.32 GENERAL OBLIGATIONS AND RELIANCE

The Successful Bidder shall perform all services and/or provide all goods, as well as those reasonably inferable and necessary for completion and provision of services and/or goods required hereunder. The Successful Bidder shall keep the County informed of the progress and quality of the services. The Successful Bidder agrees and acknowledges that the County is relying on the Successful Bidder's represented expertise and ability to provide the goods and/or services described herein. The Successful Bidder agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of the County accordance with the County's requirements and procedures. The Successful Bidder's duties, set forth herein, shall at no time be in any way diminished by reason of any approval by the County, nor shall the Successful Bidder be released from any liability by reason of such approval by the County, it being understood that the County at all times is ultimately relying upon the Successful Bidder's skill and knowledge in performing the services and providing any goods required hereunder.

4.33 ESTIMATED QUANTITIES

To the extent applicable to this IFB, the estimated quantity of each item listed in this IFB is only estimate; the actual quantity to be purchased may be more or less. The County is not obligated purchase any minimum amount, and the County may purchase any reasonable amount greater than the estimate for the same unit price. Any limit on quantities available must be stated expressly in the Bid.

4.34 CONTRACTUAL DEVELOPMENT

The contents of the IFB and the Successful Bidder's Bid will become an integral part of the Contract, but may be modified, at the County's sole discretion, by provisions of an Ensuing Agreement. Therefore, the Bidder must agree to an inclusion of an Ensuing Agreement of the Bid specifications, terms and conditions of this IFB. If an Ensuing Agreement is required under this IFB, information relative to the Agreement will be located in the Special Provisions Section of this IFB.

4.35 SURVIVABILITY

All applicable agreements that were entered into between the Successful Bidder and the County, under the terms and conditions of the Contract and/or any Ensuing Agreement(s), shall survive the expiration or termination thereof for ninety (90) days unless a new contract has been awarded.

The County may exercise, by written notice to the Successful Bidder no later than ten (10) calendar days of the Contract expiration, this clause for emergencies only.

4.36 AIR QUALITY

In determining the overall best Bid, the County may, to the extent applicable, exercise the option granted to local governments under the Texas Local Government Code, Section 271.907.

This option allows the County to evaluate Bids and give preference to goods and/or services of a Bidder that demonstrates that the Bidder meets or exceeds any and all state or federal environmental standards, including voluntary standards, relating to air quality. If the Bid being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Bidder is encouraged to provide information in narrative indicating the anticipated air quality impact. All Bidders are expected to meet all mandated state and federal air quality standards.

4.37 ENTIRE AGREEMENT

The Contract and any Ensuing Agreement(s) shall supersede all prior Agreements, written or oral between the Successful Bidder and the County and shall constitute the entire Agreement and understanding between the parties with respect to the services and/or goods to be provided. Each of the provisions herein shall be binding upon the parties and may not be waived, modified, amended or altered, except by writing signed by the Successful Bidder and the County.

4.38 PAYMENT

The County's payment for goods and services shall be governed by the Texas Government Code, Chapter 2251. An invoice shall be deemed overdue the thirty-first (31st) day after the later of the following:

- A. The date the County receives the goods under the Contract;
- B. The date the performance of the service under the Contract is completed; or
- C. The date the Williamson County Auditor receives an invoice for the goods or services.

Interest charges for any overdue payments shall be paid by the County in accordance with Texas Government Code, Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of the County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one (1) percent, and the prime rate published in the Wall Street Journal on the first (1st) day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice submitted by the Successful Bidder, the County shall notify the Successful Bidder of the error not later than the twenty-first (21st) day after the date the County receives the invoice. If the error is resolved in favor of the Successful Bidder, the Successful Bidder shall be entitled to receive interest on the unpaid balance of the invoice submitted by the Successful Bidder beginning on the date that the payment for the invoice became overdue. If the error is resolved in favor of the County, the Successful Bidder shall submit a corrected invoice that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by the Texas Government Code, Chapter 2251, if the corrected invoice is not paid by the appropriate date.

As a minimum, invoices shall include:

- A. Name, address, and telephone number of the Successful Bidder and similar information in the event the payment is to be made to a different address.
- B. The County Contract, Purchase Order.
- C. Identification of items or service as outlined in the Contract.
- D. Quantity or quantities, applicable unit prices, total prices and total amount.

E. Any additional payment information which may be called for by the Contract.

Payment inquiries should be directed to the following address:

Williamson County Auditor's Office, Accounts Payable Department
Email: accountspayable@wilco.org
Phone: 512-943-1500

4.39 CONTRACTUAL FORMATION AND ENSUING AGREEMENT

The IFB and the Bidder's Bid, when properly accepted by the Commissioners Court, shall constitute a Contract equally binding between the Successful Bidder and the County.

If an Ensuing Agreement is required by this IFB, that information will be provided in Special Provisions section of this IFB. The Successful Bidder shall be required to execute the Agreement at the Williamson County Purchasing Department approximately ten (10) calendar days after the Successful Bidder is notified of award. The Ensuing Agreement shall be in the same form as the Agreement which is attached to the end of this IFB. The only anticipated changes in the Ensuing Agreement will be to include additional exhibits, to fill in blanks to identify the Successful Bidder, and terms relating to the compensation, or to revise the Agreement to accommodate corrections, changes in the scope of services, or changes pursuant to Addenda issued. **Bidders should raise any questions regarding the terms of the Agreement in the form of written questions or submittals as described in the Public Announcement and General Information portion of this IFB.** Because the signed Ensuing Agreement will be substantively and substantially derived from the attached Agreement, each Bidder is urged to seek independent legal counsel as to any questions about the terms, conditions or provisions contained in the Agreement *before* submitting a Bid. Again, the attached Agreement, if applicable, contains important legal provisions and is considered part and parcel of this IFB. Failure or refusal to sign aforesaid Agreement shall be grounds for the County to revoke any award which has been issued, forfeit Bid security, if applicable, and select another Bidder.

4.40 COOPERATIVE PURCHASING PROGRAM

During the term of the Contract resulting from this IFB, the County would like to afford the same prices, terms and conditions to other political subdivisions or public entities. Another entity's participation in the Contract resulting from this IFB is subject to a properly authorized Purchasing Cooperative Inter-local Agreement with the County. Any liability created by purchase orders issued against the Contract shall be the sole responsibility of the governmental agency placing the order.

4.41 INSURANCE REQUIREMENTS

To the extent applicable Insurance information will appear in the Additional Stipulations section that is in this IFB Package.

4.42 BIDDERS BOND, WARRANTY BOND, PERFORMANCE AND PAYMENT BONDS

To the extent applicable Bond information will appear in the Additional Stipulations section that is in this IFB Package.

4.43 LEGAL LIABILITY INFORMATION

The Successful Bidder shall disclose all legal liability information by listing any pending litigation anticipated litigation that your firm is involved in including, but not limited to, potential or actual legal matters with private parties and any local, state, federal or international governmental entities. The County reserves the right to consider legal liability information in the recommendation of any proposed contract to the Commissioners Court.

4.44 INCLEMENT WEATHER

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a Bid submission deadline, the Bid closing will automatically be postponed until the next business day the County is open. If inclement weather conditions or any other unforeseen event causes delays in carrier service operations, the County may issue an Addendum to all known Bidders interested in the project to extend the deadline. It will be the responsibility of the Bidder to notify the County of their interest in the project if these conditions are impacting their ability to turn in a submission within the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

4.45 PREVAILING WAGE RATES

To the extent this procurement is for the construction of a public work, including a building, highway, road, excavation, and repair work or other project development or improvement, paid for in whole or in part from public funds, without regard to whether the work is done under public supervision or direction, Texas Government Code, Chapter 2258, shall apply and the contractor shall pay not less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule" provided by the County. Pursuant to Texas Government Code, Section 2258.022(a)(2), the County has determined the general prevailing rate of the "Prevailing Wage Schedule" in the locality in which the public work is to be performed for each craft or type of worker needed to execute the contract and the prevailing rate for legal holiday and overtime work by using the prevailing wage rate as determined by the United States Department of Labor in accordance with the United States Code, Section 276a (Davis-Bacon Act).

The specified wage rates are minimum rates only, and are not representations that qualified labor adequate to perform the work is available locally at the prevailing wage rates. The County is not bound to pay—and will not consider—any claims for additional compensation made by any contractor because the contractor pays wages in excess of the applicable minimum rate contained in the Contract Documents. The "Prevailing Wage Schedule" is not a representation that quantities of qualified labor adequate to perform the work may be found locally at the specified wage rates.

For classifications not shown, workers shall not be paid less than the wage indicated for laborers. The contractor shall notify each worker commencing work on the project the worker's job classification and the established minimum wage rate required to be paid, as well as the actual amount being paid. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the monetary wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by the County, competent evidence of compliance with the Texas Prevailing Wage Law shall be furnished by contractor. A copy of each worker wage rate notification shall be submitted to the County with the Application for Payment for the period during which the worker began on-site activities.

Should the contractor at any time become aware that a particular skill or trade not reflected on the County's "Prevailing Wage Schedule" will be or is being employed in the work, whether by the contractor or by a subcontractor, the contractor shall promptly inform the County and shall specify a wage rate for that skill or trade, which shall bind the contractor.

The contractor and any subcontractor shall pay to the County a penalty of sixty dollars (\$60.00) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the "Prevailing Wage Schedule" or any supplement thereto. The contractor and each subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all workers employed in connection with the work, and showing the actual per diem wages paid to each worker, which records shall be open at all reasonable hours for the inspection by the County.

Within thirty-one (31) days of receipt of information concerning a violation of the Texas Government Code Chapter 2258, the County shall make an initial determination as to whether good cause exists to believe a violation occurred. The County's decision on the initial determination shall be reduced to writing and sent to the contractor or subcontractor against whom the violation was alleged, and to the affected

worker. When a good cause finding is made, the County shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the "Prevailing Wage Schedule" and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

After the County makes its initial determination, the affected contractor or subcontractor and worker have fourteen (14) calendar days in which to resolve the issue of whether a violation occurred, including the amount that should be retained by the County or paid to the affected worker. If the contractor or subcontractor and affected worker reach an agreement concerning the worker's claim, the contractor shall promptly notify the County in a written document signed by the worker. If the contractor or Subcontractor and affected worker do not agree before the fifteenth (15th) calendar day after the County determination, the contractor or subcontractor and affected worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Chapter 171, (Texas Civil Practice and Remedies Code). The parties to the arbitration have ten (10) calendar days after the expiration of the fifteen (15) calendar days referred to above, to agree on an arbitrator; if by the eleventh (11th) calendar day there is no agreement to an arbitrator, a district court shall appoint an arbitrator on the petition of any of the parties to the arbitration.

If an arbitrator determines that a violation has occurred, the arbitrator shall assess and award against the contractor or subcontractor the amount of penalty as provided above and the amount owed the worker. The County may use any amounts retained hereunder to pay the worker the amount as designated in the arbitration award. If the County has not retained enough from the contractor or subcontractor to pay the worker in accordance with the arbitration award, the worker has a right of action against the contractor and subcontractor as appropriate, and the surety of either to receive the amount owed, attorneys' fees and court costs. The contractor shall promptly furnish a copy of the arbitration award to the County.

Money retained pursuant to the provisions above shall be used to pay the claimant or claimants the difference between the amount the worker received in wages for labor on the project at the rate paid by the contractor or subcontractor and the amount the worker would have received at the general prevailing wage rate as provided by the agreement of the claimant and the contractor or subcontractor affected, or in the arbitrator's award. The full statutory penalty of sixty dollars (\$60.00) per calendar day of violation per worker shall be retained by Williamson County to offset its administrative costs, pursuant to Texas Government Code, Section, 2258.023. Any retained funds in excess of these amounts shall be paid to the contractor on the earlier of the next progress payment or final payment. Provided, however, that the County shall have no duty to release any funds to either the claimant or the contractor until it has received the notices of agreement or the arbitration award as provided under the provision herein-above.

4.46 CONFIDENTIALITY

The Bidder expressly agrees that it will not use any direct or incidental confidential information that may be obtained while working in a governmental setting for its own benefit, and agrees that it will not access unauthorized areas or confidential information and it will not disclose any information to unauthorized third parties, and will take care to guard the security of the information at all times.



Additional Stipulations

1 Additional Stipulations

1.1 Introduction

The Bid evaluation and selection process is detailed in this section, as are other factors, and the format in which the Price Bid of each Bid should be submitted.

1.2 Contract Administrator

J. Terron Evertson, P.E. (or successor), County Engineer, Williamson County 3151 South East Inner Loop, Suite B, Georgetown, Texas shall serve as the County's Technical Contact with designated responsibility to ensure compliance with the requirements of the Contract and any Ensuing Agreement, such as, but not limited to, acceptance, inspection and delivery. The Technical Contact together with the Purchasing Department will serve as a liaison between the Williamson County Commissioners Court and the Successful Bidder.

1.3 Time for Performance

A time frame of sixty (60) days (fifty (50) to substantial completion / Sixty (60) to final completion) is given for completion of plans on this bid. This may begin at the time specified by the County within the three hundred sixty-five (365) days of the pricing quoted on this bid, starting on the day of award. The Contractor will be given written notice to begin work on this project. The Work on this project shall begin within five (5) calendar days after such notification.

Liquidated damages for failure to substantially complete the work within the allotted time will be applied. Liquidated damages are \$200 per working day.

The Contractor will be given written notice to begin work on this project. Work on this project shall begin within five (5) working days after such notification. Failure to begin work within the allotted time will result in liquidated damages being incurred at the rate of \$200 per working day.

Additional Stipulations - Bid

1.4 Performance and Payment Bonds

To the extent, this IFB is for the procurement of a public work contract, and the following shall apply:

Texas Local Government Code, Chapter 262.032, governs the requirements for performance bonds for government entities making public work contracts. A performance bond is required if the contract is in excess of \$50,000 and is to be made for the full amount of the contract.

Texas Government Code, Chapter 2253.021, governs the requirements for payment bonds for government entities making public work contracts. A payment bond is required if the contract is in excess of \$25,000 and is to be made for the full amount of the contract.

The bonds are to be executed and delivered to the County **prior to issuing Notice to Proceed**. The bonds must be executed by a corporate surety or sureties in accordance with the Texas Insurance Code. For unit price contracts, the total contract price shall be estimated and calculated by multiplying the estimated quantities to the Bidder's unit bid price.

If the public works contract is less than \$50,000, the performance bond will not be required as long as the contract provides that payment is not due until the work is completed and accepted by the County.

1.5 Bidder's Bonds

All Bids requiring a Bid Bond shall be accompanied by a certified cashier's check upon a National or State bank in an amount not less than five (5) percent of the total maximum bid price, payable without recourse to the County, or a bid bond in the same amount from a reliable surety company, as a guarantee that the Bidder will enter into a contract and **execute and deliver to the County performance and payment bonds prior to being recommended for award of the Contract. Bid guarantees must be submitted in the same sealed envelope with the Bid.** Bids submitted without check or bid bonds will not be considered. For unit price contracts, the total maximum bid price shall be estimated and calculated by multiplying the estimated quantities to the unit bid price.

1.6 Warranty Bonds

When a Warranty Bond is required it shall be submitted by the Successful Bidder prior to issuing Notice to Proceed, and shall be in the amount of **twenty (20) percent of the total project construction cost**. This Warranty Bond shall be security for the true and faithful performance of all warranties for one (1) year from the date of final payment. For unit price contracts, the total project construction cost shall be estimated and calculated by multiplying the estimated quantities to the bidder's unit bid price.

Additional Stipulations - Bid

1.7 Insurance Requirements

By signing its Bid, the Bidder agrees to maintain at all times during any term of the Contract and any ensuing Agreement at Bidder's cost, insurance in accordance with this provision.

Bidder will be required to submit Certificates of Insurance **prior to contract award and any renewals.**

All certificates of insurance coverage as specified below must be provided to the following location:

Williamson County Purchasing Department
901 S Austin Ave
Georgetown, Texas 78626

Failure to comply with these Insurance Requirements may result in the termination of the Contract and any ensuing Agreement(s) between the Successful Bidder and County.

The following coverage limits shall be required at a minimum:

A.	Worker's Compensation	Statutory – Texas Law	
B.	Employer's Liability:		
	Bodily Injury by Accident	\$500,000 Ea. Accident	
	Bodily Injury by Disease	\$500,000 Ea. Employee	
	Bodily Injury by Disease	\$500,000 Policy Limit	
C.	Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:		
	COVERAGE	PER PERSON	PER OCCURRENCE
	Comprehensive General Liability	\$1,000,000	\$1,000,000
	Aggregate policy limits:	\$1,000,000	

Successful Bidder's property will not be covered by any insurance that may be carried by the County. Successful Bidder assumes the risk of loss on its contents and property that are situated on/in/around the County property. The Successful Bidder is strongly encouraged to obtain insurance on its property to the extent deemed necessary by the Successful Bidder.

The deductible for an insurance policy required hereunder shall not exceed \$100,000. **The County shall be named as an additional insured under any policy of insurance required hereunder.**

Successful Bidder shall not commence any work until it has obtained all required insurance and such insurance has been approved by County. Successful Bidder shall not allow any subcontractor(s) to commence work to be performed until all required insurance has been obtained by such subcontractor(s) and approved by County. Approval of the insurance by County shall not relieve or decrease the liability of Successful Bidder or its subcontractor(s) hereunder.

Additional Stipulations - Bid

The required insurance must be written by a company approved to do business in the State of Texas with a financial standing of at least an A- rating, as reflected in Best's insurance ratings or by a similar rating system recognized within the insurance industry at the time the policy is issued. Successful Bidder shall furnish County with a certificate of coverage issued by the insurer. Successful Bidder shall not cause any insurance to be canceled nor permit any insurance to lapse. ALL INSURANCE CERTIFICATES SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT BE CANCELED OR REDUCED, RESTRICTED OR LIMITED UNTIL TEN (10) CALENDAR DAYS AFTER COUNTY HAS RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURN RECEIPT OF REGISTERED OR CERTIFIED LETTER.

It is the intention of the County, and agreed to and hereby acknowledged by the Successful Bidder, that no provision of this Contract or any ensuing Agreement shall be construed to require the County to submit to mandatory arbitration or mediation in the settlement of any claim, cause of action or dispute, except as specifically required in direct connection with an insurance claim or threat of claim under an insurance policy required hereunder which absolutely requires arbitration or mediation of such claim, or as otherwise required by law or a court of law with jurisdiction over the provisions of this Contract or any ensuing Agreement.

Workers' Compensation Coverage Requirements

The Texas Labor Code, Section 406.096, requires workers' compensation insurance coverage for all persons providing services on a building or construction project for a governmental entity such as the County. The rule requires the County to timely obtain certificates of coverage and retain them for the duration of the project. The rule also sets out the language to be included in the Bid specifications and in contracts awarded by a governmental entity and the information required to be in the posted notice to employees. The rule is adopted under the Texas Labor Code, Section 402.061.

The information provided below is a result of this rule. By submitting your Bid to the County, you are acknowledging that this rule is a part of these Bid specifications, and that you will observe and abide by all of the requirements outlined in the rule. You are further agreeing that should your Bid be accepted by the Williamson County Commissioners Court, the necessary certificates of coverage showing workers' compensation coverage, will be provided to the following name and address prior to beginning work:

Williamson County Purchasing Department
901 S. Austin Ave.
Georgetown, TX 78626

Failure to comply with this request may result in termination of the Contract and any ensuing Agreement. If you have any questions related to this ruling and/or requirement, you are encouraged to contact either the Williamson County Purchasing Department at (512) 943-1546, or you may call the Texas Workers' Compensation Commission at (800) 372-7713.

- A. The following words and terms, when used in this provision, shall have the following meanings. Terms not defined in this rule shall have the meaning defined in the Texas Labor Code, if so defined.

Additional Stipulations - Bid

1. Certificate of coverage (certificate) – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a workers' compensation coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees (including those subject to a coverage agreement) providing services on a project, for the duration of the project.
 2. Building or Construction – Has the meaning defined in the Texas Labor Code, Section 406.096(e)(1).
 3. Contractor – A person bidding for or awarded a building or construction project by Williamson County.
 4. Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, Section 401.011(44).
 5. Coverage agreement – A written agreement on form TWCC-81, form TWCC-82, form TWCC-83, or form TWCC-84, filed with the Texas Workers' Compensation Commission which establishes a relationship between the parties for purposes of the Texas Workers' Compensation Act, pursuant to the Texas Labor Code, Chapter 406, Subchapters F and G, as one of employer/employee and establishes who will be responsible for providing workers' compensation coverage for persons providing services on the project.
 6. Duration of the project--Includes the time from the beginning of work on the project until the work on the project has been completed and accepted by the County.
 7. Persons providing services on the project ("subcontractor" in the Texas Labor Code, Section 406.096) – includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
 8. Project – Includes the provision of all services related to a building or construction contract for the County.
- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of the Texas Labor Code, Section 401.011(44), for all employees of the contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of workers compensation coverage to Williamson County prior to being awarded the Contract.

Additional Stipulations - Bid

- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with Williamson County showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the County:
 - 1. A certificate of coverage, prior to that person beginning work on the project, so Williamson County will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - 2. No later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the County in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
 - 1. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44), for all of its employees providing services on the project, for the duration of the project;
 - 2. Provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - 3. Provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

Additional Stipulations - Bid

4. Obtain from each other person with whom it contracts, and provide to the contractor:
 - i. (a) a certificate of coverage, prior to the other person beginning work on the project; and
 - ii. (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 5. Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
 6. Notify the County in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 7. Contractually require each person with whom it contracts, to perform as required by paragraphs 1 – 7, with the certificates of coverage to be provided to the person for whom they are providing services
- J. By signing this Contract or providing or causing to be provided a certificate of coverage, the contractor is representing to Williamson County that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- K. The contractor's failure to comply with any of these provisions is a breach of Contract by the contractor which entitles the County to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the County.

GENERAL NOTES AND TECHNICAL SPECIFICATIONS

DEFINITION OF TERMS

Asphalt Season: April 1 through September 30.

County: Williamson County acting through the Road and Bridge Division.

Contractor: Successful bidder of the IFB.

Engineer: Williamson County Engineer of Road and Bridge, or designee.

Inspector: Engineer, or designee, supplied full time or part time to the contractor's crew for the oversight of the work.

Specifications: Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2014.

TxDOT: Texas Department of Transportation

Working Day: Monday through Friday (excluding County approved holidays), if weather permits the performance of the contract (as determined by the Inspector) for a continuous period of at least 8 hrs. (excluding lunch) between 8:00 A.M. and 5:00 P.M. Time begins with crews on site with equipment and ready for operation.

CONTROL OF MATERIALS

Source Control. The Contractor shall use only materials that meet Contract requirements. Unless otherwise specified or approved by the Engineer, the Contractor shall use new materials for the work. The Contractor shall secure the Engineer's approval of the proposed source of materials to be used before their delivery to the site. Materials can be approved by the Engineer at a supply source or staging area but may be re-inspected at the job site. Contractor shall be responsible for cost of additional sampling and testing if material source changes.

Material Quality. It is the Contractor's responsibility to correct or remove materials that fail to meet the Contract requirements.

Materials not meeting Contract requirements will be rejected, unless the Engineer approves corrective actions. Upon rejection by the Engineer, the Contractor must immediately remove and replace rejected materials.

If the Contractor does not comply with this Article, the County may remove and replace defective material. The cost of testing, removal, and replacement will be deducted from invoice submitted to the County.

Manufacturer Warranties. Contractor shall transfer to the County warranties and guarantees required by the Contract, from Contractor sources, or received as part of normal trade practice.

Plant Inspection and Testing

The Engineer may, but is not obligated to, inspect materials at the acquisition or manufacturing source. Material samples will be obtained and tested for compliance with quality requirements. Materials produced under County inspection are for County use only unless released in writing by the Engineer.

If inspection is at the plant, Contractor shall meet the following conditions unless otherwise specified:

- Cooperate fully and assist the Engineer during the inspection.
- Ensure the Engineer has full access to all parts of the plant used to manufacture or produce materials.
- In accordance with pertinent Items and the Contract, provide a facility at the plant for use by the Engineer as an office or laboratory.

The Engineer may provide inspection for periods other than daylight hours if:

- Continuous production of materials for County use is necessary due to the production volume being handled at the plant, and
- The lighting is adequate to allow satisfactory inspection.

The Contractor shall provide copies of all test results to the County and the Engineer prior to the County's acceptance of improvements.

The Contractor shall coordinate with the County's field representative 48 hours prior to schedule density testing. The County's field representative shall witness all testing.

GENERAL NOTES

Unless set forth otherwise, all Work performed shall comply with requirements which pertain to the various items of Work included as *Standard Specification for Construction of Highways, Streets and Bridges* of the Texas Department of Transportation, adopted November 1, 2014, and as amended and/or updated, which is incorporated herein by reference for all purposes. In the event that any specification set out herein conflicts with the said TxDOT specifications, the specification set out herein shall control and govern.

The Contractor will be given written Notice to Proceed on this project. The project shall begin within five (5) working days after such notification and shall continue for sixty (60) working days.

Contractor shall not begin asphalt work prior to the beginning of the asphalt season (April 1), nor after the ending of the asphalt season (September 30), except with the approval of the Engineer.

Contractor specifically acknowledges that Williamson County will sustain damages for each working day beyond the date in which construction work is to begin. Once the written Notice to Proceed is given by Williamson County, the Contractor has five (5) working days to begin the work. Contractor agrees that two-hundred and No/100 Dollars (\$200.00) per working day shall be retained by Williamson County from any amounts due Contractor for every day that Contractor does not begin the construction work.

Contractor specifically acknowledges that Williamson County will sustain damages for each working day beyond the required dates of substantial completion of the project. Because of the impracticality and extreme difficulty of fixing and ascertaining Williamson County's actual damages, Contractor agrees that two-hundred and No/100 Dollars (\$200.00) per working day shall be retained by Williamson County from any amounts due Contractor for every day that Contractor does not complete the project.

Periods of time (i) during which Williamson County suspends the work by written notice to Contractor, or (ii) during which contractor has performed work and is waiting for Williamson County's acceptance, or (iii) during which a delay directly related to delays caused by "Acts of God", non-county governmental processes, national emergency, or any other causes beyond Contractor's or Williamson County's reasonable control, shall not be taken into account in computing the amount retained. In the event that work received by Williamson County is found to be incomplete, the period of time from the end of the performance of the work to the receipt of subsequent performance necessary to produce completed work will be taken into account in computing the number of days and the amount retained.

Contractor shall submit a basic work plan, bar chart, or schedule for the Engineer to review one week prior to commencement of work.

Once work begins, Contractor shall continuously execute the work until completion, unless otherwise directed by the Engineer.

Weekend and holiday work is allowed with prior approval by the Engineer.

The Contractor shall perform work during appropriate weather conditions, unless otherwise directed by the Engineer. If work is performed at the Contractor's option during, or prior to, inclement weather conditions and the work is damaged, the Contractor is responsible for all costs associated with replacing the work.

Do not park equipment or make stockpiles where driver sight distance to residences and side street intersections is obstructed, especially after work hours. If it is necessary

to park where drivers' views are blocked, Contractor shall make every effort to flag traffic accordingly. Give the travelling public first priority.

An English-speaking Superintendent shall be available on the project at all times when work is being performed. The Contractor shall provide the Inspector with contact information for the Superintendent.

Contractor shall provide at least one portable restroom near the work site at all times in order to provide a bathroom to individuals providing work hereunder.

If multiple days are required to complete work, Contractor shall not leave work in hazardous conditions, as determined by the Engineer.

Contractor shall maintain positive drainage for permanent and temporary site conditions for duration of project.

The actual quantity required may vary from the estimated quantities in the contract. The Contractor shall be compensated for satisfactory completed work based on actual quantities per bid Item. This price shall be full compensation for furnishing all labor, equipment, time, materials and incidentals necessary to complete the work.

Testing may be performed at the request of the County any time during the length of the contract through an independent testing laboratory. Testing may be requested by the County on any and/or all items on this contract. If the results determine the item did not meet specifications, then the cost of the testing will be borne by the Contractor. If the results of the test determine that the item did meet specifications, the cost of the testing will be borne by the County.

Final cleanup will include the removal of excess material considered detrimental to vegetation growth within the working area. Materials such as excess concrete and other materials, as specified by the Engineer, will be removed at the Contractor's expense.

All construction equipment involved in roadway work shall be equipped with a permanently mounted 360 degree revolving or strobe warning light with amber lens. This light shall have a minimum lens height of 5 inches and a diameter of 5 inches.

This light shall have a mounting height of not less than 6 feet above the roadway surface and shall be visible from all sides. This equipment shall also have attached at each side of the rear end of the vehicle an approved orange warning flag mounted not less than 6 feet above the roadway surface.

Contractor's equipment and vehicles shall not be maintained on-site during construction, except at designated sites as approved by the Inspector.

Contractor shall mark and maintain 100 ft stations for the duration of the project, as directed. This work shall be considered subsidiary to the various bid items.

BLASTING

No Blasting will be allowed on the project.

ENTRY INTO AND PROTECTION OF ADJACENT PROPERTIES

Design of this project did not contemplate a need to enter adjacent properties except where permanent or temporary work easements are shown on the Plans. Should it be necessary during construction of the work to enter on adjacent properties, the County shall be notified. The contractor shall be responsible for all arrangements to enter and shall be liable for repair of fences and restoration of any property damage outside the right-of-way and easements shown in the plans.

Access to the right-of-way and easements adjacent to private property shall be coordinated with the adjacent property owner at least 48 hours in advance.

LOCATION AND PROTECTION OF UTILITIES

The Contractor shall determine the exact location of all existing utilities before commencing work, and is fully responsible for any and all damages associated by Contractor's failure to locate and preserve utilities.

Notwithstanding any other provision of this Contract, the Contractor shall be solely responsible for the location and protection of any and all public and/or private utility lines and utility customer service lines in the work area. The Contractor shall exercise due care to locate and to mark, uncover, or otherwise protect all such lines in the construction zone and any of the Contractor's work or storage areas.

Upon request, the County may provide such information that it has about the location and grade of water, telephone, cable, and electric lines and other utilities on the work area, but such information shall not relieve or be deemed to be in satisfaction of the Contractor's obligation hereunder, which shall be primary and nondelegable. Any such lines damaged by the Contractor's operations shall be immediately repaired by the Contractor or damage shall be repaired at Contractor's expense.

SURPLUS MATERIAL

Excavated or surplus natural soil and rock material, unless otherwise noted in the Plans or Specifications, shall be known as "spoil" and the Contractor shall be responsible for hauling and disposing of all excavated materials off the project site, unless otherwise directed by the Engineer. Consider subsidiary to the pertinent Items.

RESTORATION/REVEGETATION

All disturbed areas within the right of way, easements, and limits of construction shall be restored. Restoration shall include all topsoil, seeding/sodding, watering, fertilizer, labor and equipment necessary to complete the project in accordance with the Plans and Specifications.

Restoration shall be installed and vegetation established prior to final acceptance of the project, or as approved by the County.

Care shall be exercised to prevent damage to all property in and around the construction zone. The Contractor shall be liable for the repair and restoration of any property damaged as a result of the contractor's prosecution of the work. This shall include, but is not limited to, re-vegetation of all areas damaged or destroyed by construction. The Contractor will be held liable and responsible for such areas until growth is reestablished to the satisfaction of the County.

Ornamental landscape plantings of trees, shrubs and grasses that are damaged or destroyed during construction shall be replaced with plant material of comparable size and quality approved by the County.

Revegetation measures will begin as soon as practical. The County reserves the right to require the immediate installation of revegetation measures whenever deemed necessary.

The County reserves the right to require additional revegetation measures deemed necessary at any time after construction has begun until the County has accepted the erosion control measures and revegetation measures.

The Contractor shall be responsible for maintaining, repairing or replacing all erosion control devices as may be directed by the Inspector. This work shall be considered subsidiary to the various bid Items.

ITEM 100 – PREPARING ROW

The Contractor shall notify the Inspector prior to clearing operations. Upon notification, the Inspector will schedule a walk-through with the Contractor and designate all trees and other features to be protected during construction. The Contractor shall not begin any clearing of the right-of-way prior to this walk-through. The designated trees shall be protected in accordance with the plans and specifications, or as directed by the Inspector. No fences shall be removed without notification to the Inspector.

Removal of any obstructions on the right-of-way that are not shown on the plans is included under preparing of right-of-way. The Inspector shall be notified prior to removal of obstructions. All right-of-way clearing operations will be coordinated with the project's SW3P and as directed or approved by the Inspector.

Burning of brush will not be permitted, unless otherwise directed by the Engineer.

The Contractor may be required to trim or prune and remove brush and trees in order to construct the project or to provide a horizontal clearance of approximately 2 feet inside the right-of-way line and a vertical clearance of at least 14 feet. For this operation, the selected method shall be approved by the Inspector.

ITEM 110 – EXCAVATION

To the extent possible, all existing topsoil shall be salvaged, stockpiled and redistributed to the graded areas.

ITEM 132 – EMBANKMENT

All materials brought to project site shall have a maximum PI of 25 and minimum PI of 6. Borrow sources shall be submitted and approved by the Inspector prior to delivery to project.

To the extent possible, all existing topsoil shall be salvaged, stockpiled and redistributed to the graded areas.

ITEM 160 – TOPSOIL

Obtain approval of all topsoil sources before digging begins. Ensure off-site topsoil has a minimum PI of 25, liquid limit of 75, and plastic limit of 35 or as directed. The County reserves the right to take samples, as needed, to assure that the material meets the PI, levels of nitrogen, phosphorus and potassium content, and other requirements as indicated in the Specifications (Fertility, Organics, Erodability, etc.).

No Sandy Loam allowed, unless the project dictates otherwise.

Construct topsoil stockpiles of no more than five (5) feet in height.

Track ALL topsoiled slopes left idle for more than 14 days, within or at the end of the 14-day idle period, to prevent erosion. Tracking consists of operating a tracked vehicle or equipment up and down the slope, leaving track marks perpendicular to the direction of the slope. Retrack slopes after rain event, as directed. Consider the tracking of slopes to prevent erosion as subsidiary to the pertinent Items.

Upon final grading, immediately track all topsoiled slopes to prevent erosion as directed. Consider subsidiary to the pertinent Items.

Place topsoil four (4) inches thick to the areas of seeding and sod as shown in the Plans.

Contractor is fully responsible for maintenance/repair of placed topsoil, including damage caused by travelling public, until topsoil is compacted and vegetation is fully established.

ITEM 164 – SEEDING FOR EROSION CONTROL

Drill seeding to be distributed uniformly over the area shown on the Typical Section in the Plans.

After 60 days, areas with little or no growth shall be re-seeded at contractor's expense.

ITEM 166 – FERTILIZER

Fertilizer shall be applied before seeding.

The fertilizer required by the County maybe adjusted to help establish vegetation, verify County approval of fertilizer prior to purchasing.

Fertilizer shall be delivered in bags unless otherwise specified or approved prior to delivery. Bags shall be clearly labeled showing contents. When non-bagged, loose fertilizer is approved, documentation will be required for each load of material delivered verifying authenticity of material.

Fertilizer shall be granular and essentially dust free.

ITEM 168 – VEGETATIVE WATERING

The Contractor shall obtain water at a source that is metered or shall furnish the manufacturer's specifications showing tank capacity for each truck used.

The Contractor shall notify the Inspector prior to watering that the Inspector may verify meter readings or truck counts.

Water all areas of the project to be top soiled and seeded. Maintain the seed bed in a condition favorable for the growth of grass.

Watering can be postponed immediately after a rainfall on the site of ½ inch or grater, but shall be resumed before the soil dries out, continue watering until final acceptance.

The County is not responsible for the source of water to be used on the project even during a drought condition.

Watering rates shall be 12,000 gallons/acre per working day for 15 consecutive working days.

Rate and frequency may be adjusted with the approval of the Engineer, to meet site

conditions.

ITEM 204 – SPRINKLING

Apply water for dust control as directed. When dust control is not being maintained, cease operations until dust control is maintained. Consider subsidiary to the pertinent Items.

ITEM 216 – PROOF ROLLING

Correct and perform “Proof Rolling” retest at the Contractor’s expense, to the satisfaction of the Engineer, when initial “Proof Rolling” yields a failing result. Consider subsidiary to the pertinent Items.

ITEM 247 – FLEXIBLE BASE

Complete all subgrade, ditches, slopes, and place all drainage structures to conform to required line, grades, and cross-sections, as shown and directed, prior to the placement of Flex Base.

Do not use a vibratory roller to compact the material directly over a box culvert.

ITEM 260 – LIME TREATMENT (ROAD-MIXED)

Stabilize subgrade with 6% lime slurry. Once lime is cured, place and proof-roll 1” of Flex Base material as a temporary riding surface for traffic. The Flex Base material will be compensated by Item 247. The temporary riding surface shall be maintained uniformity until the final grade of Flex Base is placed and this work is subsidiary to the pertinent Items.

ITEM 300 – ASPHALTS, OILS, AND EMULSIONS

Asphalt season starts April 1 and ends September 30.

No engine oil shall be used as a component of any asphalt or emulsion.

ITEM 316 – SURFACE TREATMENTS

Previously tested aggregates delivered to the project which are found to contain excessive quantities of dust (more than 0.5 percent passing the no. 40 sieve) during pre-coating, stockpiling or hauling operations, will be rejected, unless otherwise directed. Use test method Tex-200-F, Part I, for testing.

Perform work during appropriate weather conditions, unless otherwise directed. If work is performed at the Contractor’s option, during, or prior to, inclement weather conditions,

and the work is damaged, the Contractor is responsible for all costs associated with replacing the work.

All accepted sealing will be measured by the gallon of asphalt (oil) and by cubic yard of aggregate. Thickness of sealing shall be no greater than ¼" per single course.

Do not apply asphalt within 1½ hours of sunset, or later, unless otherwise directed.

Ensure the accuracy of the Distance Measuring Instrument (DMI) with the Engineer, prior to marking the Asphalt and Rock Land shots.

Surface all transitions, tapers, climbing lanes and intersections to the limits as directed.

Continue sweeping excess aggregate off the roadway and concrete area riprap up to two weeks after completing the work. This work is subsidiary to the pertinent Items.

ITEM 354 – PLANING AND TEXTURING PAVEMENT

Mill existing roadway to proposed subgrade elevation. This work shall only be performed in 1,500 ft sections at a time. Ramp existing driveways at 10:1 slopes or flatter according to detail in the Plans. The Contractor shall provide drainage outfall to the ditch at ponding areas. Consider this work as subsidiary to the pertinent Items.

ITEM 460 – CORRUGATED METAL PIPE

Field adjust pipe end to maintain the necessary slope. Field cutting of pipe end is allowed. Coat all field cuts with asphalt paint.

ITEM 462, 464, 466 & 467 – CONCRETE BOX CULVERT, REINFORCED CONCRETE PIPE & END TREATMENTS

For precast units, the fill material between the boxes shall consist of concrete aggregate with two sacks of Portland Cement per cubic yard (two sack concrete). The two sacks of cement are considered subsidiary to the pertinent bid items.

If required, concrete collars, as approved, will be used at pipe joints. Collars will be reinforced as directed. No direct compensation will be made for concrete collars and they will be subsidiary to the pertinent Items.

Trench excavation protection and temporary special shoring are required for headwalls 5' and taller. Those work are considered subsidiary to the pertinent bid Items.

Structural excavation and bedding shall be considered subsidiary to the pertinent Items.

ITEM 465 –INLET

If necessary, place concrete (CL B) on the bottom of inlet in order to match flow line grades of the adjacent storm drain lines. This work will not be paid for directly but will be subsidiary to the pertinent Items.

ITEM 466 – HEADWALLS AND WINGWALLS

Use Class C concrete for headwalls or wingwalls.

Remove all loose formwork and other materials from the Floodplain or drainage areas, daily, which could float off in a stormwater event, as directed.

ITEM 496 – REMOVING STRUCTURES

If necessary, Contractor shall perform traffic control for any structure removal, as directed by the Engineer.

Material removed under this Item will not be deemed salvageable.

ITEM 502 - BARRICADES, SIGNS, AND TRAFFIC HANDLING

The contractor shall provide two (2) “electronic” Portable Changeable Message Signs at locations requiring lane closures for one-week prior to the closures, or as directed. Obtain approval from Engineer for the actual message that will appear on the boards. If more than two phases of a message are required per board, then provide additional PCMS’s to meet the two-phases-per-board requirement. This shall not be paid for directly, but shall be considered subsidiary to this bid Item.

Contractor shall provide all traffic control measures to prosecute the work and to ensure a minimum inconvenience to traffic around the construction area. Should the contractor’s traffic control measures be found unsatisfactory by the Engineer or Inspector, work will cease.

Traffic Control Plans shown in Plans are a minimum requirement. The contractor shall be responsible for any additional signs, barricades, flagmen or other traffic control devices as necessary for the safety of the traveling public. All traffic control devices shall be compliant with the current Texas Manual of Uniform Traffic Control Devices.

The Contractor shall notify the County when any traffic changes are to be made. The Contractor shall also notify all affected emergency service districts, school districts, and U.S. Postal Offices. The notifications must be made TWO DAYS prior to any change.

Maintain enough workers to revise traffic control as directed.

Necessary barricades, sufficient lighting, signage and other traffic control methods may be necessary for the protection and safety of the public; and shall be provided by the Contractor and maintained during the construction operation. Any open trenches shall

be covered and protected overnight as needed. The traffic control shall be adjusted in the morning prior to beginning any work.

Within the limits of the project, provide standard barricades, warning signs, delineators, lights, 28-inch cones, and flaggers in sufficient numbers and combinations, as directed. All traffic control devices are listed in TxDOT's WZTCDL.

Maintain access to all streets and driveways at all times, unless otherwise approved. Consider subsidiary to the pertinent Items.

Cover or remove any existing sign(s), which conflict with temporary traffic control operations. Install all permanent signs, delineation, and object markers necessary for the operation of any roadway before opening that section of roadway to traffic, regardless of the phase during which the roadway construction occurs. Erect the signs on temporary mounts until the permanent mounts are installed. Consider any costs associated with the temporary mounts as subsidiary. Repair or replace any signs which are damaged by the Contractor's operations during construction or which are deemed not sufficient. The Engineer will be the sole judge of the adequacy of the sign(s). Consider this work as subsidiary to the pertinent Items.

Maintain Sandbags that are used for ballast, as directed. Consider subsidiary to the pertinent Items.

The Contractor's crew leader shall be a competent person who will be responsible and available on the project site or in the immediate area to insure compliance with the TCP.

ITEM 506 – TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

The County will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown in Plans.

ITEM 530 – DRIVEWAYS

The Contractor shall notify the County and property owners a minimum of 48 hours in advance of beginning work on their driveways, and provide the County a list of each notification and contact prior to each closure.

The Contractor will be required to maintain access to adjacent properties at all times. Construct driveways in one-half sections, to allow access. Do not completely close driveways for reconstruction purposes, unless a reasonable alternate access exists to the property, as approved by the Engineer. If any temporary closure of driveways should be needed, contractor shall coordinate with county and property owner a minimum of 24 hrs prior to temporary closure.

The Contractor shall repair any damages to adjacent properties to equal or better conditions at the Contractor's expense.

ITEM 560 – MAILBOXES

The Contractor shall coordinate the locations of temporary mailboxes with the Engineer and homeowners. The Contractor shall install the temporary mailboxes by using the relocated existing mailboxes. This work shall be considered subsidiary to this bid Item.

The Contractor shall replace all mailboxes disturbed by the work with the existing mailboxes removed or with mailboxes approved by the Engineer. This work shall be coordinated with the sequence of construction within the Plans. All permanent replacement products used shall match the existing mailboxes removed or be replaced with Gibraltar mailboxes Freemont post mount mailbox and post kit model #FC000B01 or equivalent approved by the Engineer.

ITEMS CIP AND W PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS

The Contractor shall notify the Engineer when unforeseen water lines are damaged and/or in conflict with the proposed roadway work during construction.

These Items only will be used and compensated for the repair and/or relocation of unforeseen water lines. All the repair and/or relocation of water lines must be inspected and tested by Aqua Texas, Inc.

GOVERNING SPECIFICATIONS (STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND SPECIAL SPECIFICATIONS)

WHERE DISCREPENCIES OCCUR BETWEEN THE VARIOUS GOVERNING SPECIFICATIONS, THE SPECIAL PROVISIONS SHALL GOVERN OVER BOTH STANDARD SPECIFICATIONS AND SPECIAL SPECIFICATIONS.

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

() REFERENCE ITEMS USED ON THIS CONTRACT

ITEMS 1 – 9 ARE SUPERSEDED BY THE CONTRACT GENERAL AND SPECIAL CONDITIONS, WHERE APPLICABLE. WHEREVER, IN THE TXDOT STANDARD SPECIFICATIONS, REFERENCE IS MADE TO THE STATE OF TEXAS, THE DEPARTMENT AND ITS REPRESENTATIVES, SUCH REFERENCE SHALL BE TAKEN TO MEAN WILLIAMSON COUNTY AND ITS REPRESENTATIVES.

ITEM 100 PREPARING ROW
 ITEM 110 EXCAVATION (132)
 ITEM 132 EMBANKMENT (100)(160)(204)(210)(216)(400)
 ITEM 160 FURNISHING AND PLACING TOPSOIL (168)
 ITEM 162 SODDING FOR EROSION CONTROL (166)(168)
 ITEM 164 SEEDING FOR EROSION CONTROL (166)(168)
 ITEM 166 FERTILIZER
 ITEM 168 VEGETATIVE WATERING
 ITEM 169 SOIL RETENTION BLANKET
 ITEM 247 FLEXIBLE BASE (204)(210)(216)(520)
 ITEM 260 LIME TREATMENT (204)(210)(216)(247)
 ITEM 300 ASPHALTS, OILS, AND EMULSIONS
 ITEM 302 AGGREGATES FOR SURFACE TREATMENTS (300)(301)
 ITEM 310 PRIME COAT (300)(316)
 ITEM 316 SURFACE TREATMENTS (210)(300)(302)(520)
 ITEM 354 PLANE ASPHALT CONCRETE PAVEMENT
 ITEM 432 RIPRAP (420)(421)(440)
 ITEM 460 CORRUGATED METAL PIPE (400)(445)(467)
 ITEM 462 REINFORCED CONCRETE BOX
 (400)(402)(403)(420)(421)(424)(440)(467)
 ITEM 464 REINFORCED CONCRETE PIPE
 (400)(402)(403)(420)(421)(424)(440)(467)

- ITEM 465 JUNCTION BOXES, MANHOLES, AND INLETS
(400)(420)(421)(424)(440)(471)
- ITEM 466 WINGWALL (400)(402)(403)(420)(421)(432)(440)(462)(464)
- ITEM 467 SAFETY END TREATMENT
(400)(420)(421)(432)(440)(442)(445)(460)(464)
- ITEM 496 REMOVE STRUCTURE
- ITEM 500 MOBILIZATION
- ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
- ITEM 506 EROSION CONTROL (432)
- ITEM 530 DRIVEWAYS (316)
- ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)
- ITEM 560 MAILBOX INSTALL

SPECIAL PROVISIONS: THE CONTENT OF THE SPECIAL PROVISIONS ARE INCLUDED ON THE FOLLOWING PAGES.

- SPECIAL PROVISION TO ITEM 7 (007-004)
- SPECIAL PROVISION TO ITEM 132 (132-002)
- SPECIAL PROVISION TO ITEM 300 (300-005)
- SPECIAL PROVISION TO ITEM 506 (506-003)

STANDARD SPECIFICATIONS: ADOPTED BY CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS, SERIES CIP, G, W, ADOPTED JUNE 21, 2006, AS AMENDED. CONSTRUCTION SPECIFICATIONS, AND STANDARDS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

WHEREVER, IN THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS, REFERENCE IS MADE TO THE CITY OF GEORGETOWN, THE CITY AND ITS REPRESENTATIVES, SUCH REFERENCE SHALL BE TAKEN TO MEAN WILLIAMSON COUNTY AND ITS REPRESENTATIVES.

CAPITAL IMPROVEMENT PROJECT REQUIREMENTS

- CIP6 Control of Work
- CIP11 Trench Safety Requirements
- CIP12 Testing of Pipelines and Manholes

GENERAL SPECIFICATIONS

- G2 Site Preparation
- G3 Site Clearing
- G4 Pipe Excavation, Trenching, Embedment, Encasement and Backfilling
- G5 Granular Fill Materials
- G8 Miscellaneous Work and Clean-up

WATER SPECIFICATIONS

- W1 Ductile Iron Pipe and Fittings
- W2 Polyvinyl Chloride (PVC) Pipe – Water
- W3 Valves, Hydrants and Appurtenances

CONCRETE SPECIFICATIONS

- C9 Flowable Backfill

SPECIAL PROVISIONS: THE CONTENT OF THE SPECIAL PROVISIONS ARE INCLUDED ON THE FOLLOWING PAGES.

- SPECIAL PROVISION W1 Ductile Iron Pipe and Fittings
- SPECIAL PROVISION W2 Polyvinyl Chloride (PVC) Pipe

Special Provision to Item 7

Legal Relations and Responsibilities



Item 7, "Legal Relations and Responsibilities," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 7.7.2., "Texas Pollutant Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention Plans (SWP3)," is voided and replaced by the following:

7.2. Texas Pollution Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention Plans (SWP3).

7.2.1. Projects with less than one acre of soil disturbance including required associated project specific locations (PSL's) per TPDES GP TXR 150000.

No posting or filing will be required for soil disturbances within the right of way. Adhere to the requirements of the SWP3.

7.2.2. Projects with one acre but less than five acres of soil disturbance including required associated PSL's per TPDES GP TXR 150000.

The Department will be considered a primary operator for Operational Control Over Plans and Specifications as defined in TPDES GP TXR 150000 for construction activity in the right of way. The Department will post a small site notice along with other requirements as defined in TPDES GP TXR 150000 as the entity of having operational control over plans and specifications for work shown on the plans in the right of way.

The Contractor will be considered a Primary Operator for Day-to-Day Operational Control as defined in TPDES GP TXR 150000 for construction activity in the right of way. In addition to the Department's actions, the Contractor will post a small site notice along with other requirements as defined in TPDES GP TXR 150000 as the entity of having day-to-day operational control of the work shown on the plans in the right of way. This is in addition to the Contractor being responsible for TPDES GP TXR 150000 requirements for on- right of way and off- right of way PSL's. Adhere to all requirements of the SWP3 as shown on the plans. The Contractor will be responsible for Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed.

7.2.3. Projects with 5 acres or more of soil disturbance including required associated PSL's per TPDES GP TXR 150000.

The Department will be considered a primary operator for Operational Control Over Plans and Specifications as defined in TPDES GP TXR 150000 for construction activities in the right of way. The Department will post a large site notice, file a notice of intent (NOI), notice of change (NOC), if applicable, and a notice of termination (NOT) along with other requirements per TPDES GP TXR 150000 as the entity having operational control over plans and specifications for work shown on the plans in the right of way.

The Contractor will be considered a primary operator for Day-to-Day Operational Control as defined in TPDES GP TXR 150000 for construction activities in the right of way. In addition to the Department's actions, the Contractor shall file a NOI, NOC, if applicable, and NOT and post a large site notice along with other requirements as the entity of having day-to-day operational control of the work shown on the plans in the right of way. This is in addition to the Contractor

007-004

being responsible for TPDES GP TXR 150000 requirements for on- right of way and off- right of way PSL's. Adhere to all requirements of the SWP3 as shown on the plans.

Special Provision to Item 132

Embankment



Item 132, "Embankment" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 132.3.4., "Compaction Methods." The last sentence is replaced by the following.

Compact embankments in accordance with Section 132.3.4.1., "Ordinary Compaction," or Section 132.3.4.2., "Density Control," as shown on the plans. The Contractor may use Section 132.3.4.3., "Density Control by Computer-Generated (CG) Curve," as an option for density control.

Article 132.3.4., "Compaction Methods," is supplemented by the following.

3.4.3. Density Control by Computer-Generated (CG) Curve. At the Contractor's discretion, CG curves may be used for density control.

Compact each layer to the required density using equipment complying with Item 210, "Rolling." Determine the maximum lift thickness based on the ability of the compacting operation and equipment to meet the required density. Do not exceed layer thickness of 12 in. loose or 10 in. compacted material, unless otherwise approved. Maintain a level layer with consistent thickness to ensure uniform compaction.

When using this method for each source and type of material, or when directed, sample and conduct testing according to the input parameters specified in Table 3 and provide CG field moisture-density curves based on each soil-compactors-lift thickness combination and CG Tex-114-E moisture-density curves based on each lift of soil. The CG field dry density (D_{fcg}) must be greater than or equal to the CG Tex-114-E maximum dry density (D_{acg}). The Engineer may obtain independent soil samples for supplemental Tex-114-E lab tests to check a supplemental maximum dry density (D_a) and optimum moisture content (W_{opt}) for reference when new CG curves are submitted. Provide access to the computer program used to generate the curve, when directed.

Table 3
Computer-Generated Lab and Field Compaction Curve Input Criteria

Input Variables	Test Method
Liquid Limit, %	Tex-104-E
Plasticity Index (PI), %	Tex-106-E
Soil gradation	Tex-110-E Tex-111-E
Soil classification	Tex-112-E
Compaction roller brand, type, and model	N/A
Loose lift thickness, in.	N/A
Soil specific gravity	Use 2.65 for soil type SC. Use 2.68 for soil type CL. Use 2.69 for soil type CH.

Provide a compaction control report showing all input and output parameters and CG compaction curves, including:

- CG Tex-114-E laboratory maximum dry density (D_{acg}),
- CG Tex-114-E laboratory optimum moisture content (W_{optcg}),
- CG field maximum dry density (D_{fcg}),

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- CG field optimum moisture content ($W_{f_{optcg}}$),
- graph of CG laboratory and field compaction curves and the “Zero Air Voids Line,” and
- minimum number of roller passes to achieve the required density and moisture content.

Meet the requirements for field maximum dry density (D_{fcg}) and field optimum moisture content ($W_{f_{optcg}}$) specified in Table 4, unless otherwise shown on the plans. Use only the specific roller and soil properties utilized in lift construction as input parameters to generate the CG field curve used to meet moisture-density requirements in construction.

Table 4
Computer-Generated Lab and Field Compaction Curve Input Criteria

Description	Density	Moisture Content
	Tex-115-E	
$PI \leq 15$	$\geq 98\% D_{fcg}$	$\geq W_{f_{optcg}}$
$15 < PI \leq 35$	$\geq 98\% D_{fcg}$ and $\leq 102\% D_{fcg}$	$\geq W_{f_{optcg}}$
$PI > 35$	$\geq 95\% D_{acg}$ and $\leq 100\% D_{acg}$	$\geq W_{f_{optcg}}$

Each layer is subject to testing by the Engineer for density and moisture content. During compaction, the moisture content of the soil should be above CG optimum moisture content but should not exceed the value shown on the moisture-density curve, above optimum, required to achieve 98% dry density.

When the CG field maximum dry density (D_{fcg}) is not achieved, perform the following steps in order.

- Verify that construction controls including lift soil properties, minimum number and uniformity of compactor passes, lift thickness, and moisture content are correct.
- If needed, rework the lift with the corrected controls using the original CG curve.
- Generate a new CG field compaction curve based on actual in-place soil properties and rework the lift.
- Generate a non-CG Tex-114-E moisture-density reference standard and rework the material using this reference standard.

When required, remove small areas of the layer to allow for density tests. Replace the removed material and recompact at no additional expense to the Department. Proof-roll in accordance with Item 216, “Proof Rolling,” when shown on the plans or as directed. Correct soft spots as directed.

Article 132.3.5., “Maintenance of Moisture and Reworking.” The first sentence is replaced by the following.

Maintain the density and moisture content once all requirements in Table 2 or 4 are met.

Special Provision to Item 300

Asphalts, Oils, and Emulsions



For this project, Item 300, "Asphalts, Oils, and Emulsions," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 300.2.4, "Emulsified Asphalt." Table 10 is voided and replaced by the following:

Table 10
Polymer Modified Cationic Emulsified Asphalt

Type-Grade	Test Procedure	Rapid Setting						Slow Setting	
		CRS-1P		CRS-2P		CRS-2TR		CSS-1P	
Property		Min	Max	Min	Max	Min	Max	Min	Max
Viscosity, Saybolt Furol 77°F, sec.	T 72	-	-	-	-	-	-	20	100
122°F, sec.		50	150	150	400	150	500	-	-
Sieve Test, %	T 59	-	0.1	-	0.1	-	0.1	-	0.1
Demulsibility, 35 ml of 0.8% sodium dioctyl sulfosuccinate, %	T 59	60	-	70	-	40	-	-	-
Storage Stability, 1 day, %	T 59	-	1	-	1	-	1	-	1
Breaking Index, g	Tex-542-C	-	80	-	-	-	-	-	-
Particle Charge	T 59	positive		positive		positive		positive	
Distillation Test: ¹	T 59								
Residue by Distillation, % by wt.		65	-	65	-	65	-	62	-
Oil Distillate, % by volume of emulsion		-	3	-	0.5	-	3	-	0.5
Tests on Residue from Distillation:									
Modifier type		Polymer		Polymer		Tire Rubber		Polymer	
Modifier Content, wt. % (solids basis)		-	-	3.0	-	5.0	-	3.0	-
Penetration, 77°F, 100 g, 5 sec.	T 49	225	300	90	150	90	150	-	90
Viscosity, 140°F, poise	T 202	-	-	1300	-	1000	-	-	-
Solubility in Trichloroethylene, %	T 44	97.0	-	97.0	-	98	-	97.0	-
Softening Point, °F	T 53	-	-	-	-	-	-	135	-
Ductility, 77°F, 5 cm/min., cm	T 51	-	-	-	-	40	-	70	-
Ductility ² , 39.2°F, 5 cm/min., cm	T 51	-	-	50	-	-	-	-	-
Elastic Recovery ² , 50°F, %	Tex-539-C	45	-	55	-	-	-	-	-

¹Exception to T 59: Bring the temperature on the lower thermometer slowly to 350°F ± 0°F. Maintain at this temperature for 20 min. Complete total distillation in 60 ± 5 min. from the first application of heat.

²CRS-2P must meet one of either the ductility or elastic recovery requirements.

Special Provision to Item 506

Temporary Erosion, Sedimentation, and Environmental Controls



Item 506, "Temporary Erosion, Sedimentation, and Environmental Controls," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 506.1., "Description." The second paragraph is voided and replaced by the following.

Contractor is considered primary operator to have day-to-day operational control as defined in TPDES GP TXR150000.

- 1.1. For projects with soil disturbance of less than 1 acre, no submittal to TCEQ will be required but Contractor will follow SWP3. For projects with soil disturbance of 1 acre to less than 5 acres a small site notice will be posted at the site. For projects with soil disturbance of 5 acres or more a notice of intent (NOI) is required and a large site notice posted at site. Postings will be in accordance with TPDES GP TXR150000. Postings not associated with project specific locations will be in same location as Department's postings.
- 1.2. **Notice of Intent (NOI).** Submit a NOI, if applicable, with the TCEQ under the TPDES GP TXR150000 at least 7 days prior to commencement of construction activities at the project site. Provide a signed copy to the Engineer and any other MS4 operators at the time of submittal. The Department will submit their NOI prior to contractor submission and will provide a copy for Contractor's use in completing the Contractor's NOI form.
- 1.3. **Notice of Change (NOC).** Upon concurrence of the Engineer, submit a NOC, if applicable, to the TCEQ within 14 days of discovery of a change or revision to the NOI as required by the TPDES GP TXR150000. Provide a signed copy of the NOC to the Engineer and any other MS4 operators at the time of submittal.
- 1.4. **Notice of Termination (NOT).** Upon concurrence of the Engineer, submit a NOT, if applicable, to the TCEQ within 30 days of the Engineer's approval that 70% native background vegetative cover is met or equivalent permanent stabilization have been employed in accordance with the TPDES GP TXR 150000. Provide a signed copy of the NOT to the Engineer and any other MS4 operators at the time of submittal.

Section 506.3.3., "Training," is supplemented by the following:

Training is provided by the Department at no cost to the Contractor and is valid for 3 yr. from the date of completion. The Engineer may require the following training at a frequency less than 3 yr. based on environmental needs:

- "Environmental Management System: Awareness Training for the Contractor" (English and Spanish) (Approximate running time 20 min.), and
- "Storm Water: Environmental Requirements During Construction" (English and Spanish) (Approximate running time 20 min.)

The CRPE, alternate CRPE designated for emergencies, Contractor's superintendent, Contractor, and subcontractor lead personnel involved in soil disturbing or SWP3 activities must enroll in and complete the training listed below and provide the certificate of completion to the Engineer before performing soil disturbing or SWP3 activities on the project. Coordinate enrollment as prescribed by the Department and pay associated fees for the following training:

- "Revegetation During Construction"
- "Construction General Permit Compliance," and

506-003

- "Construction Stage Gate Checklist (CSGC)."

Training and associated fee will not be measure or paid for directly but are subsidiary to this Item.

TECHNICAL SPECIFICATIONSSECTION CIP6 – CONTROL OF WORKCIP6.01 SCOPE OF WORK

- A. This specification covers the requirements for exercising control of work performed on the Project.

CIP6.02 AUTHORITY OF ENGINEER OR INSPECTOR

- A. The work will be done in accordance with the Contract, Plans and Specifications. The Engineer or Inspector will decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and the interpretations of the Plans and Specifications. His decisions will be final, and he will have executive authority to enforce and make effective such decisions and orders.

CIP6.03 CONFORMITY WITH PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS

- A. All work performed and all materials furnished shall be in reasonable close conformity with the lines, grades, cross sections, dimensions, details, gradations, physical and chemical characteristics of materials in accordance with tolerances shown on the Plans or indicated in the Specifications and Special Provisions. The limits establishing reasonable close conformity will be as defined in these items of the contract.
- B. In the event the City finds that the work performed or the materials used are not within reasonable close conformity with the Plans, Specifications and Special Provisions, the affected material or product shall be removed and replaced or otherwise satisfactorily corrected by and at the expense of the Contractor.
- C. Deviations from the Plans and approved working drawings as may be required will in all cases be determined by the City and authorized in writing. Before final acceptance of the project is issued by the City, the Contractor shall provide the City with a set of record drawings for the project certified by the Engineer of record.

CIP6.04 COORDINATION OF PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS

- A. The Specifications, the accompanying Plans, Special Provisions, and Supplemental Agreements, are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be co-operative and to describe and provide for a complete work. In cases of disagreement, figured dimensions shall govern over scaled dimensions, the Plans shall govern over Specifications, and Special Provisions shall govern over both Specifications and Plans.

CIP6.05 AUTHORITY AND DUTIES OF INSPECTORS

- A. Inspectors will be authorized to inspect all work done and all materials furnished. Such inspection may extend to all or to any part of the work and to the preparation or Manufacturer of the materials to be used. Such inspection will not relieve the Contractor from any obligation to perform the work in accordance with the requirements of the Specifications. In case of any dispute arising between the Contractor and the Inspector as to materials furnished or the manner of performing the work, the Inspector will have authority to reject materials or suspend work until the question at issue can be referred to and decided by the City. The Inspector will not be authorized to revoke, alter, enlarge, or release any requirement of these Specifications, nor to approve or accept any portion of work, nor to issue instruction contrary to the Plans and Specifications. He will in no case act as foreman or perform other duties for the Contractor nor interfere with the management of the work.

CIP6.06

PLANT

- A. The Contractor shall furnish plant and equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Proposal. If at any time such plant appears to the Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the plant and equipment, and the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his obligations to secure the quality of work and rate of progress required.

CIP6.07

PRIVATE LAND

- A. The Contractor shall not enter or occupy private land outside of easements, except by written permission of the respective landowner.

CIP6.08

PIPE LOCATIONS

- A. Pipelines shall be located substantially as indicated on the Plans, but the Engineer and the City reserve the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the Plans, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional items where required.

CIP6.09

OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access during construction shall be removed when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Engineer. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Engineer may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street, and requiring that the trench shall not remain open overnight. The Contractor shall take precautions, such as fences and barricades, to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles, which could be dangerous to the public, shall be well lighted at night. All trenches shall conform to the requirements of OSHA.

CIP6.10

TEST PITS

- A. Test pits for the purpose of locating underground pipelines or structures in advance of the construction shall be excavated and backfilled by the Contractor at the direction of the Engineer or the City. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer and the City.

CIP6.11

MAINTENANCE OF TRAFFIC

- A. Unless permission to close a street is received in writing from the proper authority, all excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he shall repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Engineer and the City.
- B. Detours around construction will be subject to the approval of the City and the Engineer. Where detours are permitted, the Contractor shall provide all necessary barricades and signs as required to divert the flow of traffic. While traffic is detoured, the Contractor shall expedite construction operations and periods when traffic is being detoured will be strictly controlled by the City.
- C. The Contractor shall take precautions to prevent injury to the public due to open trenches. Night watchmen may be required where special hazards exist, or police protection provided for traffic while work is in

progress. The Contractor shall be fully responsible for damage or injuries whether or not police protection has been provided.

CIP6.12 BLASTING

- A. No blasting shall be allowed unless approved in writing by the City of Georgetown.

CIP6.13 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition equal or better than existing before the damage was done, or he shall make good the damage in some other manner acceptable to the Engineer and the City.

CIP6.14 MAINTENANCE OF FLOW

- A. The Contractor shall, at his own cost, provide for the flow of sewers, drains and water courses interrupted during the progress of the work, and shall immediately cart away and remove all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the Engineer and the City well in advance of the interruption of any flow.

CIP6.15 COOPERATION WITHIN THIS CONTRACT

- A. The Contractor shall cooperate with Subcontractors or trades, and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the Contractor and his Subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Engineer or the City.

CIP6.16 CLEANUP

- A. During the course of the work, the Contractor shall keep the site of his operations in as clean and neat a condition as is possible. The Contractor shall dispose of all rubbish resulting from the construction work and, at the conclusion of the work, he shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures, and any other refuse remaining from the construction operations, and shall leave the entire site of the work in a neat and orderly condition.

CIP6.17 FINAL INSPECTION

- A. Whenever the work provided for in, and contemplated under, the contract has been satisfactorily completed, the City will make the "Final Inspection". If the work is found to be satisfactory, the Contractor will be notified in writing of the acceptance of the same. The City will require a Certificate of Completion and Final Acceptance from the Inspector before any building, electric or plumbing permits will be issued or any City utilities provided. No such Certificate will be issued until all monuments have been set and record drawing reviewed by the Engineer of Record are provided to the City. If items are found in need of repair or completion, a final punch list will be generated and the items shall be completed by the Contractor. The City will inspect the punch list items one time following their completion. Any subsequent inspections due to inadequate repair or completion of the punch list items shall be paid for by the Contractor or Developer at \$200.00 per inspection.
- B. Final acceptance of the Project or Development does not relieve the Contractor or Developer of the responsibility of insuring all work shown on the Plans has been completed. If any portion of the work is found at a later date to be inferior or incomplete, the Contractor or Developer shall replace or complete the work at no expense to the City.

CIP6.18 PAYMENT

- A. No separate payment will be made for work performed in accordance with this section of the specifications, and the cost thereof shall be included in the appropriate items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION CIP11 – TRENCH SAFETY REQUIREMENTS

CIP11.01

SCOPE OF WORK

- A. This specification covers the requirements to plan, design, construct, install, maintain, monitor, modify as necessary, and remove upon completion, a Trench Safety System as specified herein.
- B. The requirements of this Section apply to all trenches which equal or exceed a depth of five (5) feet, measured from the ground surface at the highest side of the trench to the trench bottom.
- C. All applicable and non-conflicting portions of Section G4- TRENCHING, BACKFILLING AND COMPACTION apply as appropriate.

CIP11.02

SUBMITTALS

- A. Within 30 days after the Notice to Proceed, but not less than 10 calendar days prior to execution of any trench excavation operations, the Contractor shall submit a site specific Trench Safety System Conformance Affidavit stating that operations will be conducted in full conformance with the OSHA Standards.
 - 1. The Conformance Letter shall also describe the Trench Safety System techniques proposed to be used on the Project.
 - 2. Specific references to the applicable OSHA Standards sections shall be included for each technique to be used.
- B. The Trench Safety System Plan shall be in writing, site specific and sufficiently detailed and clear to be understandable and usable by all personnel who will be executing, supervising and witnessing the trenching operations. A copy of the Trench Safety System Plan shall be available at the site of trenching operations at all times.
- C. If borings and/or detailed geotechnical analyses are required to develop the Trench Safety System Plan, they shall be executed by the Contractor at his cost.
- D. For trenches having depths greater than the various limits given in the OSHA Standards (8, 12 or 20 feet, depending on the techniques used), a site specific protective system shall be designed by a Registered Professional Engineer, registered in the State of Texas experienced in soil mechanics and structural design. The design shall be signed, sealed and dated by the Professional Engineer, and it shall identify those specific locations where the design is applicable.

CIP11.03

GENERAL

- A. All materials and products incorporated into the Trench Safety System shall be suitable for their intended uses; shall meet all design criteria and parameters used by the Trench Safety System designer; and shall meet all applicable requirements of OSHA Standards.

CIP11.04

METHODS OF PROVIDING FOR TRENCH SAFETY

- A. Protective systems referenced in this Section shall be as defined and described in 29 CFR 1962.652, "Requirements for Protective Systems."
- B. It is the duty, responsibility and prerogative of the Contractor to determine the specific applicability of a proposed Trench Safety System for each field condition encountered on the Project. Contractor specifically holds the City, Engineer, and any of their designated representatives harmless in any actions resulting from the failure or inadequacy of the Trench Safety System used to complete the Project.
- C. Unless otherwise noted on the drawings or excluded below, Sloping/Benching, Trench Shielding with trench boxes, and/or Sheet piling/Shoring/Bracing protective systems may be used on this Project.

- D. Restrictions on the use of the various protective systems for this Project are as follows:
1. Sloping or Benching. Allowed with prior approval from the City.
 2. Trench Shields/Boxes. No restrictions.
 3. Sheeting/Shoring/Bracing. No restrictions.

CIP11.05

INSPECTION DUTIES OF CONTRACTOR

- A. Provide a Competent Person, as defined in the OSHA Standards, to make frequent inspections of the trenching operations and the Trench Safety System in full conformance with the OSHA Standards.
- B. If evidence of a possible cave-in or landslide is apparent, all work in the trench shall immediately cease and not be resumed until all necessary precautions have been taken to safeguard personnel entering the trench.
- C. In an emergency situation, which may threaten or affect the safety or welfare of any persons or properties, the Contractor shall act at his discretion to prevent possible damage, injury or loss. Any additional compensation or time extension claimed for such actions shall be considered in view of the cause of the emergency and in accordance with the General Conditions.

CIP11.06

MEASUREMENT AND PAYMENT

- A. Payment for the Trench Safety Plan shall be on a Lump Sum price basis, the Lump Sum price being as given in the Bid Proposal.
- B. Payment for the Trench Safety Plan Implementation shall be on a unit price basis, the unit price being as given in the Bid Proposal, and the unit of measure being linear feet of trench and/or square foot of bore pit or structure, without regard to whether specific trench safety precautions are required or used for the trench reach being measured.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION CIP12 – TESTING OF PIPELINES AND MANHOLESCIP12.01 SCOPE OF WORK

- A. This specification covers the requirements to perform ex-filtration testing and deflection testing of gravity pipelines and to perform pressure and leakage testing of pressure pipelines.

CIP12.02 SUBMITTALS

- A. Within 30 days after the Notice to Proceed, the Contractor shall submit to the Engineer or the City for approval, technical product literature including a description of the deflection test procedure for flexible pipe greater than 27-inches in diameter, video inspection of gravity wastewater lines, and all other pertinent data to illustrate conformance to the specification found within.

CIP12.03 GENERAL

- A. The entire length of the installed gravity line and the force main shall be field tested for water tightness. Gravity wastewater lines shall be video taped by camera.
- B. Hydrostatic pressure and leakage tests shall be made on all pressure pipelines carrying wastewater or water.
- C. All labor and equipment, including, but not limited to test pump with regulated by-pass meters and gauges required for conducting pipeline tests, shall be furnished by the Contractor. The Contractor shall furnish equipment and necessary piping as required to transport water used in testing from source to test location.
- D. Time and sequence of testing shall be scheduled by the Contractor, subject to observation and approval by the City. The Contractor shall provide adequate labor, tools and equipment to operate valves and to locate and repair any leaks discovered during the initial filling of the pipeline prior to actual testing or during the course of the tests.

CIP12.04 CLEANING

- A. At the conclusion of the work, thoroughly clean all pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may have entered the pipes during the construction period. Debris cleaned from the lines shall be removed from the low end of the pipeline. If after this cleaning, obstructions remain, they shall be removed. After the pipelines are cleaned and if the groundwater level is above the pipe or following a heavy rain, the Engineer will examine the pipes for leaks. If any defective pipes or joints are discovered, they shall be repaired, and/or replaced by the Contractor at his expense.

CIP12.05 TEST PROCEDURES FOR GRAVITY PIPELINES, FORCE MAINS AND MANHOLES

- A. Scope: After sewers and manholes have been installed and backfilled, subject newly laid gravity lines and manholes to a leakage test. Contractor to furnish all labor, materials, tools and equipment to test lines. Take such precautions as required to prevent damage to lines and appurtenances being tested. Repair any damage resulting from test at Contractor's expense. Conduct test in presence of Engineer or designated City Representative.
- B. Test Procedures for Leakage Test of Gravity Sewer: Contractor, at his option, may test lines by hydrostatic or low pressure air test as specified below. However, the Engineer may direct a specific test be performed in specified areas of the Project.

C. Infiltration or Exfiltration Test (for Gravity Sewer)

1. Preparation: Seal ends of line section being tested with water tight plugs, equipped with pipe riser inserted and braced in the inlet of the manholes. Fill section with water 24-hours prior to start of test. Fill slowly from downstream manhole in test section so that no air is trapped in the line. Leave outlets of stacks and service lines exposed and unplugged until after exfiltration test has been made. Outlets terminating below level of test water surface to be temporarily extended upward by installing additional lengths of pipe. After completion of satisfactory test, remove lengths of pipe added for test.
2. Duration of Test: Test for 24-hours. Minimum head of either two (2) feet measured above the crown, inside pipe at upper end of section or four (4) feet measured above trench water table, whichever is higher, so that a net positive of two (2) feet TCEQ is used for testing.
3. Allowable Leakage: Allowable leakage or exfiltration in any individual section under construction shall not exceed 10 gallons per inch of inside diameter per mile of pipe per 24 hours.

D. Low Pressure Air Test

1. Preparation: Clean pipe to be tested by propelling snug fitting inflated rubber ball through the pipe with water or by use of water jet cleaning equipment. After manhole to manhole reach of pipe has been backfilled and cleaned, pneumatic plugs shall be placed in the line at each manhole and inflated to 25 psig. Add air slowly to the section under test until the internal pressure of 4.0 psig is obtained. Allow at least two (2) minutes for air temperature to stabilize, adding only the amount of air required to maintain pressure.

2. Duration of Test and Allowable Leakage

Decrease pressure to 3.5 psig and start stopwatch. Determine the time in seconds that is required for the internal air pressure to reach 2.5 psig. Minimum permissible pressure holding times are indicated in seconds and shall be computed by the following equation:

$$T = (0.085 \times D \times K) / Q$$

T = time for pressure to drop 1.0 pound per square inch gauge in seconds

K = $0.000419 \times D \times L$, but not less than 1.0

D = average inside diameter in inches

L = length of line of same pipe size being tested, in feet

Q = rate of loss assume 0.0015 cubic feet per minute per square foot internal surface shall be used

Since K value of less than 1.0 shall not be used, there are minimum times for each pipe diameter as outlined below:

Pipe Diameter (inches)	Minimum Time (seconds)	Length for Minimum Time (feet)	Time for Longer Length (seconds)
6	340	398	0.855(L)
8	454	298	1.520(L)
10	567	239	2.374(L)
12	680	199	3.419(L)
15	850	159	5.342(L)
18	1020	133	7.693(L)
21	1190	114	10.471(L)
24	1360	100	13.676(L)

Pipe Diameter	Minimum Time	Length for Minimum Time	Time for Longer Length
27	1530	88	17.309(L)
30	1700	80	21.369(L)
33	1870	72	25.856(L)
36	2040	66	30.771(L)

The test may be stopped if no pressure loss has occurred during the first 25% of the calculated testing time. If any pressure loss or leakage has occurred during the first 25% of the testing period, then the test shall continue for the entire test duration as outlined above or until failure. Lines with a 27-inch average inside diameter and larger may be air tested at each joint. If the joint test is used, a visual inspection of the joint shall be performed immediately after testing. The pipe is to be pressurized to 3.5 psi greater than the pressure exerted by groundwater above the pipe. Once the pressure has stabilized, the minimum time allowable for the pressure to drop from 3.5 psi gauge to 2.5 psi gauge shall be 10 seconds.

E. Test Procedures for Hydrostatic Test for Manholes

1. Manholes shall be tested for leakage separately and independently of the wastewater lines by hydrostatic exfiltration testing, or other methods acceptable to the City. If a manhole fails a leakage test, the manhole must be made water tight and retested. The maximum leakage for hydrostatic testing shall be 0.025 gallon per vertical foot per hour. Alternative test methods must ensure compliance with the above allowable leakage. Hydrostatic exfiltration testing shall be performed as follows: all wastewater lines coming into the manhole shall be sealed with an internal pipe plug, then the manhole shall be filled with water and maintained full for at least one (1) hour. For concrete manholes a wetting period of 24-hours may be used prior to testing in order to allow saturation of the concrete.

F. Test Procedures for Vacuum Testing Manholes

1. In lieu of the hydrostatic exfiltration test, manholes may be tested by vacuum. Manholes tested by vacuum shall be performed by the Contractor in compliance with these specifications.
2. Manholes shall be tested after installation of all connections (existing and/or proposed) in place. All lift holes shall be plugged with an approved non-shrink grout and all drop connections and gas sealing connections shall be installed prior to testing. The lines entering the manhole shall be temporarily plugged with the plugs braced to prevent them from being drawn into the manhole. The plugs shall be installed in the lines beyond the drop-connections, gas sealing connections, etc. The test head shall be placed inside the frame at the top of the manhole and inflated in accordance with the manufacturer's recommendations. A vacuum of 10-inches of mercury shall be drawn, and the vacuum pump shall be turned off. With the valve closed, the level of vacuum shall be read after the required test time as shown in the following table. If the drop in the level is less than one (1) inch of mercury (final vacuum of nine (9) inches of mercury), the manhole will have passed the vacuum test. The required test time shall be 120-seconds.
3. Manholes which have a final vacuum of nine (9) inches of mercury after the time indicated will be accepted. Any manhole which fails the vacuum test as described above shall be repaired with an approved non-shrink grout or other material acceptable to the Engineer and the City based on the material from which the manhole is constructed. The manhole shall be retested as described above until a successful test is made.

G. Exfiltration Test

1. Preparation: Seal ends of manhole being tested with watertight plugs. Fill manhole 24-hours prior to start of test. Manholes to be filled to top of manhole cone section.
2. Duration of Test: The test shall be performed for a 24-hour duration.
3. Allowable Leakage: No leakage is allowed. The water elevation shall be the same at beginning and end of test period.

H. Deflection Testing

1. Deflection tests shall be performed on all flexible pipes. For pipes with inside diameters less than 27-inches, a rigid mandrel shall be used to measure deflection. For pipelines with an inside diameter of 27-inches and greater, the Contractor shall submit to the Engineer the proposed method, with which shall provide a precision of \pm two tenths of one percent (0.2%) deflection, for review and approval by the Texas Commission on Environmental Quality. The test shall be conducted after final backfill has been in place at least 30 days in the presence of a representative of the City's Utilities Department. No pipe shall exceed a deflection of five percent (5%). If a pipe should fail to pass the deflection test, the problem shall be corrected and a second test shall be conducted after the final backfill has been in place an additional 30 days. Test shall be performed without mechanical pulling devices.
 2. Mandrel Sizing: The rigid mandrel shall have an outside diameter (O.D.) equal to 95% of the inside diameter (I.D.) of the pipe. The inside diameter of the pipe, for the purpose of determining the outside diameter of the mandrel, shall be the average outside diameter of the pipe minus two minimum wall thickness for O.D. controlled pipe and the average inside diameter for the I.D. Controlled pipe, all dimensions shall be per appropriate standard. Statistical or other "tolerance packages" shall not be considered in mandrel sizing.
 3. Mandrel Design: The rigid mandrel shall be constructed of a metal or rigid plastic material that can withstand 200 psi without being deformed. The mandrel shall have nine or more "runners" or "legs" as long as the total number of legs is an odd number. The barrel section of the mandrel shall have a length of at least 75% of the inside diameter of the pipe. A proving ring shall be provided and used for each size mandrel in use.
 4. Method Options: Adjustable or flexible mandrels are prohibited. A television inspection is not a substitute for the deflection test. A deflectometer may be approved provided the Contractor notifies the Engineer in a timely manner and submits adequate information for the Engineer to submit to the Texas Commission on Environmental Quality for review and approval. Mandrels with removable legs or runners may also be approved provided the Contractor notifies the Engineer in a timely manner and submits adequate information for the Engineer to submit to the Texas Commission on Environmental Quality for review and approval.
- I. Repairs of Lines: Remove and replace or make approved corrective repairs to any section of line or manhole which has leakage that exceeds above amounts. Repair any individual leaks that may appear whether or not overall section meets leakage requirements. Individual leaks will ordinarily be revealed by looking through sewer with a light while groundwater level is over sewer, during water tamping operations or immediately after water leakage is emptied from sewer.
 - J. Retest: Sewers and/or manholes failing to meet requirements of leakage test will, after repair by Contractor, be tested again for leakage. No sewer or manhole will be accepted until leakage is less than allowable amount.

K. Video Inspection

1. The use of a television camera for inspection prior to placing the sewer in service will be required. Video inspection is at the cost of the Contractor, and copies of the DVD will be presented to the City prior to final acceptance. One (1) copy of the DVD shall be submitted to the City.
2. Post construction video of the gravity wastewater lines will be evaluated on a case-by-case basis for acceptance. Preparation for video taping of wastewater line shall be as follows:
 - a. Flush and clean the gravity wastewater line prior to video taping.
 - b. The videotape shall display the station, in accordance with the Plans and Standards, and counter on the screen. Manhole numbers and stations shall correspond to the contract documents.
 - c. If debris is evident in the line during the video, the line will be flushed and cleaned to allow a clean video.
 - d. All manholes will be identified at the beginning and end of the video corresponding to contract documents with upstream and downstream ends identified.
 - e. Additional video inspections shall be performed prior to completion of one-year warranty period and submitted on DVD.

L. Force Main

1. Force Main shall be pressure tested one and one-half (1 1/2) times the maximum output of the pumps. The allowable hydrostatic leakage rate shall be based on CIP 12.06 Table 6A.

CIP12.06

TEST PROCEDURES FOR PRESSURE PIPELINESA. General

1. After the pipe has been laid and backfilled and the backfill has been otherwise consolidated, all newly laid pipe, or any valved section thereof, shall be subjected to the hydrostatic pressure specified below for that particular type of pipe. The duration of the hydrostatic test shall be at least two (2) hours. Unless otherwise specified or noted on the Plans. All meters, fixtures, devices or appliances which are connected to the pipeline system and which might be damaged if subjected to the specified test pressure shall be disconnected and the ends of the branch lines plugged or capped during the testing procedures.
2. Each valved (capped or plugged) section of pipe shall be filled slowly with water and all air shall be expelled. If permanent air vents are not located at all high points, the Contractor shall install, at his own expense, corporation or blow-off cocks at such points so that air can be expelled as filling takes place. After verification that all air has been expelled, the cocks shall be closed and the pipe kept filled until tested. All exposed pipe, fittings, valves, hydrants and joints shall be examined while under test pressure and all visible leaks shall be stopped. Any cracked or defective pipe, fittings, valves or hydrants discovered during testing shall be removed and replaced by the Contractor. Replacement shall be with sound material and the test shall be repeated until satisfactory to the City.

B. Special Requirements: Where any section of pipeline is provided with concrete reaction blocking, the hydrostatic pressure shall not be made until at least five (5) days have elapsed after installation of the blocking. However, if high-early-strength cement is used in the concrete, two (2) days shall have elapsed prior to testing.

C. Leakage Test: A Leakage Test will be conducted on each valved section over the entire Project. The leakage test shall be at 150 psi for at least four (4) hours. Fire lines shall be tested at 200 psi for two (2)

hours with 0 loss.

D. Allowable Leakage

1. The allowable hydrostatic leakage rate shall be based on the following formula:

Fire lines 0 loss

$$L = \frac{SD}{133,200} \sqrt{P}$$

L = testing allowance in gallons per hour

S = length of pipe tested in feet

D = nominal diameter of the pipe in inches

P = average test pressure during the hydrostatic test in pounds per square inch (gauge)

Table 6A
Hydrostatic testing allowance per 1,000 ft of pipeline[†] - *gph*[†]

Avg. Test Pressure <i>psi</i>	Nominal Pipe Diameter – in.																	
	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48	54	60	64
450	.48	.64	.95	1.27	1.59	1.91	2.23	2.55	2.87	3.18	3.82	4.78	5.73	6.69	7.64	8.60	9.56	10.19
400	.45	.60	.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00	3.60	4.50	5.41	6.31	7.21	8.11	9.01	9.61
350	.42	.56	.84	1.12	1.40	1.69	1.97	2.25	2.53	2.81	3.37	4.21	5.06	5.90	6.74	7.58	8.43	8.99
300	.39	.52	.78	1.04	1.30	1.56	1.82	2.08	2.34	2.60	3.12	3.90	4.68	5.46	6.24	7.02	7.80	8.32
275	.37	.50	.75	1.00	1.24	1.49	1.74	1.99	2.24	2.49	2.99	3.73	4.48	5.23	5.98	6.72	7.47	7.97
250	.36	.47	.71	.95	1.19	1.42	1.66	1.90	2.14	2.37	2.85	3.56	4.27	4.99	5.70	6.41	7.12	7.60
225	.34	.45	.68	.90	1.13	1.35	1.58	1.80	2.03	2.25	2.70	3.38	4.05	4.73	5.41	6.03	6.76	7.21
200	.32	.43	.64	.85	1.06	1.28	1.48	1.70	1.91	2.12	2.55	3.19	3.82	4.46	5.09	5.73	6.37	6.80
175	.30	.40	.59	.80	.99	1.19	1.39	1.59	1.79	1.98	2.38	2.98	3.58	4.17	4.77	5.36	5.96	6.36
150	.28	.37	.55	.74	.92	1.10	1.29	1.47	1.66	1.84	2.21	2.76	3.31	3.86	4.41	4.97	5.52	5.88
125	.25	.34	.50	.67	.84	1.01	1.18	1.34	1.51	1.68	2.01	2.52	3.02	3.53	4.03	4.53	5.04	5.37
100	.23	.30	.45	.60	.75	.90	1.05	1.20	1.35	1.50	1.80	2.25	2.70	3.15	3.60	4.05	4.50	4.80

* If the pipeline under test contains sections of various diameters, the testing allowance will be the sum of the testing allowance for each size.

† Calculated on the basis of Eq. 1.

- a. These formulas are based on a testing allowance of 11.65 gpd/mi/in. (1.079 L/d/km/mm) of nominal diameter at a pressure of 150 psi (1,034 kPa).
- b. 5.2.1.6.1 Testing allowance at various pressures is shown in Tables 6A and 6B.
- c. 5.2.1.6.2 When testing against closed metal-seated valves, an additional testing allowance per closed valve of 0.0078 gal/h/in. (1.2 mL/h/mm) of nominal valve size shall be allowed.
- d. 5.2.1.6.3 When hydrants are in the test section, the test shall be made against the main valve in the hydrant.
- e. 5.2.1.7 Acceptance of installation. Acceptance shall be determined on the basis of testing allowance. If any test of laid pipe discloses a testing allowance greater than that specified in Sec. 5.2.1.6, repairs or replacements shall be accomplished in accordance with the specifications.
- f. 5.2.1.7.1 All visible leaks are to be repaired regardless of the allowance used for

testing.

2. If such testing discloses leakage in excess of this specified allowable, the Contractor, at his expense, shall locate and correct all defects in the pipeline until the leakage is within the specified allowance. All known leaks, irregardless of this test, shall be repaired.
- E. Pressure Test: After satisfactorily completing the leakage test, each valved section over the entire project, shall be tested at 200 psi for a sufficient period (approximately 10 min) to discover all leaking or defective materials and/or workmanship.
- F. Disinfecting Water Mains: The Contractor shall disinfect all water mains before the new facilities are placed into service. Disinfection must be performed in accordance with AWWA C651, latest revision and water samples must be submitted to a laboratory approved by the Texas Department of Health. Sample must be collected by the Contractor or his representative in the presence of the City or his representative. The Contractor shall be responsible for delivering the samples to an approved laboratory for testing. Sample results must indicate the facility is free of microbiological contamination before it is placed into service. It shall be the Contractor's responsibility to obtain a current copy of AWWA C651 to determine the correct forms of chlorine for disinfection, the basic disinfection procedure, preventive and corrective measures during construction, methods of chlorination, final flushing procedures, procedures for bacteriological tests, procedures for re-disinfection and disinfection procedures when cutting into existing mains. The Contractor, at its expense, will supply the concentrated chlorine disinfecting material, the City's personnel will supervise and direct the overall sterilization procedure. The Contractor, at his own expense, shall provide all other equipment, supplies and necessary labor to perform the sterilization under general supervision by the City.
- G. General
1. All valves shall be arranged to prevent the strong disinfecting dosage from flowing back into the existing water supply piping. The new pipeline shall then be completely filled with disinfecting solution by feeding the concentrated chlorine and approved water from the existing system uniformly into the new piping in such proportions that every part of the line has a minimum concentration of chlorine as prescribed in AWWA C651.
 2. Unless otherwise identified, all quantities called for herein refer to measurements by the testing procedures in the current edition of "Standard Methods of Examination of Water and Wastewater". The chlorine concentration of each step in the sterilization procedure shall be verified by chlorine residual determinations. This disinfecting solution shall be retained in the piping for at least twenty-four (24) hours, and all valves, hydrants, etc., shall be operated to disinfect all their parts. After this retention period, the water shall contain no less than the chlorine residual prescribed in AWWA C651 throughout the treated section of the pipeline.
 3. This heavily chlorinated water shall then be carefully flushed from the line until the chlorine concentration is not higher than the residual generally prevailing in the existing distribution system, or approximately 1.0 parts per million. Proper planning and appropriate preparations to handle, dilute and dispose of this strong chlorine solution without causing injury or damage to the public, the water system, the environment must be approved by the City before flushing of the line may begin, and the flushing shall be witnessed by an authorized representative of the City.
- H. Bacteriological Testing
1. After final flushing of the strong disinfecting solution, water samples from the line shall be tested for bacteriological quality, at the Contractor's expense, and must be found free of coliform organisms before the pipeline may be placed in service. One (1) test sample shall be drawn from the end of the main and additional samples collected at intervals of not more than one-thousand (1,000) feet along the pipeline. A minimum of three (3) samples must be collected.
 2. The Contractor, at his own expense, shall install sufficient sampling taps at proper locations along the pipeline. Each sampling tap shall consist of a standard corporation cock installed in

the line and extended with a copper tubing gooseneck assembly. After samples have been collected, the gooseneck assembly shall be removed and retained for future use.

3. Samples for bacteriological analysis shall be collected only from suitable taps, in sterile bottles. Collection of the test samples shall be made in the presence of City personnel. If the initial disinfection fails to produce acceptable sample tests, the disinfection procedure shall be repeated (without extra compensation) until satisfactory test results have been obtained, before the piping may be placed in service.

CIP12.07

FINAL ACCEPTANCE

- A. No pipe installation will be accepted until all known leaks have been repaired whether or not leakage is within allowable limits. Locating and repairing of leaks shall be performed by the Contractor at no additional cost to the City.
- B. The City will certify that all required pressure and leakage tests have been successfully completed before the pipeline is accepted.

CIP12.08

PAYMENT

- A. No separate payment will be made for work completed in accordance with this specification, and the cost thereof will be included in the appropriate items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION G2 – SITE PREPARATIONG2.01 SCOPE OF WORK

- A. This specification covers the requirements for performing all clearing, grubbing and stripping of topsoil complete as shown on the Plans and as specified herein.

G2.02 SUBMITTALS

- A. None required unless specifically called for in the Plans, Standards or requested by the City or the Engineer.

G2.03 CLEARING AND GRUBBING

- A. Except as otherwise directed, cut, grub, remove and dispose of all trees, stumps, brush, shrubs, roots and any other objectionable material within the limits defined on the Plans.
- B. All trees, stumps, brush, shrubs, roots and other objectionable material shall be cut, grubbed, removed and disposed of from areas to be occupied by buildings, structures, roads, pipelines and any other areas to be stripped. Trees and brush shall be removed to a depth at least three (3) feet below the finished grade.
- C. In addition, heavy growths of weeds or other plants shall be stripped from the surface in order to provide clear access to the work site and to prevent their inclusion in stockpiled soil which is to be reused later. Trees, stumps, surface plants and all debris removed from the site shall be disposed of off-site by the Contractor at his own expense.
- D. Before the start of construction, protect trees or groups of trees, designated by the Engineer to remain, from damage by all construction operations by erecting suitable barriers, or by other approved means. Clearing operations shall be conducted in a manner to prevent falling trees from damaging trees designated to remain.
- E. Areas outside the limits of clearing shall be protected from damage and no equipment or materials shall be stored in these areas.
- F. No stumps, trees, limbs, or brush shall be buried in any fills or embankments.

G2.04 STRIPPING

- A. Strip topsoil from all areas to be occupied by buildings, structures, roadways and all areas to be excavated or filled. Avoid mixing topsoil with subsoil and stockpile topsoil in areas on the site as approved by the Engineer. Topsoil shall be free from brush, trash, large stones and other extraneous material and protected until it is placed as specified under Section G7- LOAMING, HYDROSEEDING AND PERMANENT EROSION CONTROL. Dispose of any remaining topsoil as directed by the City. All excess topsoil shall remain property of the City at its option, and Contractor shall place extra materials at a site designated by the City.

G2.05 DISPOSAL OF MATERIALS

- A. All tree trunks, limbs, roots, stumps, brush, foliage, other vegetation and objectionable material shall be removed from the site and disposed of in a permitted disposal site in a manner satisfactory to the Engineer.
- B. Burning of cleared and grubbed materials will not be permitted.
- C. Disposal of Excavated Materials
1. Suitable excavated materials may be stockpiled to be used for backfilling. Excess excavated

materials and unsuitable backfill materials shall be disposed of by the Contractor in the following manner:

- a. Clays, sands and gravel in excess of project requirements shall be disposed of by the Contractor at such locations and under consideration arranged by the Contractor at his expense.
 - b. Limestone and other rock excavation shall be disposed of by the Contractor at such locations and under consideration arranged by the Contractor at his expense.
2. The classification of clays, sands, gravel, limestone and rock shall be made in accordance with the Unified Soil Classification System, U.S. Army Corps of Engineers, T.M. 3-357.
 3. Desirable topsoil, sod, or area fill shall be carefully removed and piled separately adjacent to the work when required. Excavated materials shall be handled at all times in such a manner as to cause a minimum of inconvenience to the City's operations, and to permit safe and convenient access to private and public property adjacent to the work

G2.06 UNAUTHORIZED EXCAVATION

- A. Whenever the excavation is carried beyond or below the lines and grades as shown on the plans, except as specified above, all such excavated space shall be refilled with such material and in such a manner, as may be directed by the City, so as to insure the stability of the affected structure. Beneath all structures, space excavated without authority shall be refilled by the Contractor, at his own expense, with Class "C" concrete, crushed stone or selected fill materials, as directed by the City.

G2.07 PAYMENT

- A. Payment will be made for work performed in accordance with this specification by the unit quantity for the item for right-of-way preparation in the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION G3 – SITE CLEARINGG3.01 SCOPE OF WORK

- A. This specification covers the requirements for site clearing operations for this Project.

G3.02 SUBMITTALS

- A. None required unless specifically called for in the Plans, Standards, or requested by the City or the Engineer.

G3.03 TRAFFIC

- A. Conduct site-clearing operations to ensure minimum interference with roads, streets, walks and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction.

G3.04 PROTECTION

- A. Provide temporary fences, barricades, coverings, or other protection to preserve existing items indicated to remain and to prevent injury or damage to persons or property. Provide protection for adjacent properties as required.
- B. Restore damaged work to condition existing prior to start of work.
- C. Protect existing trees and vegetation that are indicated to remain from physical damage. Do not store materials or equipment within tree drip line. Replace damaged trees that cannot be restored to full growth, as determined by arborist, unless otherwise acceptable to the Engineer or the City.
- D. Protect existing property and easement corners and pins. In the event that property or easement corners or pins are moved, disturbed or destroyed the Contractor shall replace them at his own expense. They shall be replaced by a Registered Professional Land Surveyor registered in the State of Texas.

G3.05 EXISTING SERVICES

- A. Locations indicated are approximate; determine exact location before commencing work. Coordinate with local utility service requirements and comply with their instructions.

G3.06 SITE CLEARING

- A. Remove trees, shrubs, grass and other vegetation, improvements, or obstructions as indicated or that interfere with new construction. Removal includes digging out stumps and roots, together with subsequent off-site disposal.
- B. Strip and stockpile topsoil that will be reused in the Work.
- C. Remove existing improvements, both above-grade and below-grade, to extent indicated or as otherwise required to permit new construction.

G3.07 SALVAGEABLE ITEMS

- A. Carefully remove items indicated to be salvaged and store on the City's premises where indicated or directed.

G3.08 AIR POLLUTION

- A. Control air pollution caused by dust and dirt; comply with governing regulations.

G3.09

REGRADING

- A. Fill depressions and voids resulting from site-clearing operations. Using satisfactory soil materials, place in maximum six (6) inch deep horizontal layers and compact each layer to density of surrounding original ground.
- B. Grade ground surface to conform to required contours and to provide surface drainage.

G3.10

DISPOSAL OF MATERIAL

- A. Dispose of waste materials including trash, debris and excess topsoil. No waste material shall remain on the City's property.
- B. Burning waste materials on site is not permitted.

G3.11

PAYMENT

- A. No separate payment will be made for work performed in accordance with this specification, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION G4 - PIPE EXCAVATION, TRENCHING, EMBEDMENT,
ENCASEMENT AND BACKFILLINGG4.01 SCOPE OF WORK

- A. This specification covers the requirements for furnishing all labor, equipment and material and performing all work necessary, in connection with excavation, trenching, embedment, encasement, and backfilling, for the installation of water lines, storm sewer lines, wastewater lines, etc. in this Project.

G4.02 SUBMITTALS

- A. Within 30 days after the Notice to Proceed, the Contractor shall submit to the Engineer or the City for approval, technical product literature including a Trench Safety Plan (which shall be sealed by a Professional Engineer registered in the State of Texas, if required) embedment material (source, gradation and type), backfill material (source, gradation and type), encasement material (if required), equipment and all other pertinent data to illustrate conformance to the specification found within.

G4.03 EXCAVATIONA. General

1. Excavation shall include the removal of any trees, stumps, brush, debris, or other obstacles that may obstruct the line of work, and the excavation and removal of all earth, rock or other materials to the extent necessary to install the pipe and appurtenances in conformance with the line and grades shown in the Plans, or as specified.

B. Maximum and Minimum Width of Trenches

1. The sides of all trenches shall be cut as nearly vertical as possible. Unless otherwise specified on the Plans, the minimum width of trench in which the pipe may be installed shall not be less than 12-inches plus the outside diameter of the pipe, and the maximum width shall not be more than 24-inches plus the outside diameter of the pipe, measured at an elevation in the trench which is 12-inches above the top of the pipe when it is laid to grade.
2. Wherever the prescribed maximum trench width is exceeded, the Contractor shall use the class embedment or encasement required by the Engineer to provide the load carrying capacity for the trench width as actually cut, and the additional cost incurred will be borne by the Contractor.

C. Sheeting and Shoring

1. Where required in the Contractor's Trench Safety System, or where required for other reasons in caving ground, or in wet, saturated or flowing materials, the sides of all trenches and excavations shall be adequately sheeted and braced so as to maintain the excavation free from slides or cave-ins.
2. Sheeting and shoring shall not be left in place unless its removal is impractical.

D. Dewatering Excavations

1. There shall be sufficient pumping equipment, in good working order, available at all times to remove any water that accumulates in excavations. Where the pipeline crosses natural drainage channels, the work shall be conducted in such a manner that unnecessary damage or delays in the prosecution of the work will be prevented. Provisions shall be made for the

satisfactory disposal of surface water pumped so as to prevent damage to public or private property. The Contractor shall be responsible for maintaining safe working conditions and suitable construction techniques.

E. Disposal of Excavated Materials

1. Suitable excavated materials may be piled adjacent to the work to be used for backfilling. Excavated materials unsuitable for backfilling, or in excess of that required for backfilling, shall be disposed of by the Contractor. Desirable topsoil, sod, etc. shall be carefully removed and piled separately adjacent to the work when required. Excavated materials shall be handled at all times in such a manner as to cause a minimum of inconvenience to public travel. Suitable selected bedding or backfill material shall be provided at no additional cost to the City.

F. Trench Depth

1. Excavation for the pipeline shall be removed to a depth below the pipe barrel and pipe bell as shown in the Plans for the type of embedment specified, and the bottom of the trench brought to true subgrade with the embedment or encasement shown in the Plans.

G. Soft Subgrade

1. Where soft or spongy material is encountered in the excavation at subgrade level, it shall be removed to such a depth that a stable foundation is achieved by replacing the unsuitable material with tamped gravel, brought to the level of the bottom of bedding.
2. Gravel used shall be washed gravel or crushed stone and may fit any gradation of size up to three (3) inches. The particular gradation shall take into consideration the actual field conditions.

H. Excavated Materials

1. Excavated materials shall be piled adjacent to the work to be used for backfilling as required. After the trench has been refilled, topsoil shall be replaced to the extent that rock excavated from the trench will be completely covered and the area is returned to its original condition.
2. Where required on the Plans or when otherwise specified, desirable topsoil shall be piled separately in a careful manner and replaced in its original position.
3. Where a trench is required to cross a paved area, the asphalt or concrete shall be saw cut and removed for a total width that is two (2) feet greater than the trench width. The Contractor shall dispose of all excavated concrete, asphalt and subgrade material that is unsuitable for backfilling or in excess of that required for backfilling.

I. Damage to Existing Utilities

1. Where existing utilities are damaged, they shall be replaced immediately with material equal to or better than the existing material. Such work shall be at the entire expense of the Contractor.

G4.04 EMBEDMENT AND ENCASEMENT

A. General

1. Embedment shall be as required in the Plans or Standards. All embedment materials shall be free of grass, roots, vegetation, and other deleterious materials. Embedment Standards are shown on the Plans or Standards.

2. When the pipe has been checked for line and grade, the trench shall be backfilled with enough granular material or concrete on both sides to hold the pipe firmly in position. When placing granular material or concrete around the pipe, care shall be taken to fill all voids around the pipe. The pipe shall not be floated. The embedment or encasement material shall be carefully tamped to assure uniform pipe support and density.

B. Embedment Materials

1. Material for embedment shall conform to the following sieve analysis:

<u>Sieve Size</u>	<u>$\frac{3}{8}$" F % Retained</u>	<u>$\frac{1}{2}$" D % Retained</u>
$\frac{1}{2}$ "	0	0
$\frac{3}{8}$ "	0-2	5-25
4m	40-85	80-100
10m	95-100	96-100

C. Concrete Embedment and Encasement

1. Concrete embedment and encasement and cap shall have a minimum compressive strength of 2,000 pounds per square inch at 28 days.
2. Dry mix will not be permitted. The concrete cushion portion of the embedment or encasement will be mixed moist or damp to give a slump of not more than one (1) inch. Concrete for the sides and top, if specified, shall be mixed to obtain a slump of not less than one (1) inch or more than three (3) inches.
3. After pipe joints are completed, the voids at the joints in the embedment section shall be filled with concrete, and the embedment shall be brought up to proper grade. Where concrete is placed over or along the pipe, it shall be placed in such a manner as not to damage or injure the joints or displace the pipe. Care shall be taken in the placement of concrete to assure that a uniform pad, free of voids and of specified thickness, is constructed under the entire pipe section.
4. A cleavage line between the base concrete and the side embedment concrete will not be allowed. Backfilling shall be done in a careful manner and at such time, after concrete embedment or encasement has been placed, as not to damage the concrete in any way.

G4.05 BACKFILLING

A. General

1. Backfilling shall include the refilling and consolidating of the fill in trenches and excavations up to the surrounding ground surface or road grade at crossings. No backfill shall be placed until the Engineer, the City or his authorized Inspector has inspected the trench and pipe in place and has authorized the placing of backfill.
2. Backfilling shall be done with select material or concrete backfill as described hereafter and shown on the Plans. No material of a perishable, spongy or otherwise unsuitable nature shall be used in backfilling.

B. Select Backfill Material

1. Unless otherwise shown on the Plans, or approved by the Engineer, the select material backfill shall be Specification Section SD4 Flexible Base, Type A Grade 1.

2. If approved by the Engineer, good, sound earth may be used as select material for backfill over the pipe. Good, sound earth as defined as gravel, sandy loam or loam, free from excessive clay. Select material shall not have rocks with an average dimension larger than one (1) inch, and no dimension greater than two (2) inches.
3. An alternative to the flexible base as select backfill will be on-site or imported select material so long as it is properly moisture-conditioned, placed and compacted.
4. It shall be the full responsibility of the Contractor to explore the project and subsurface materials to determine if the trench excavation will be suitable for use as select materials and to follow as closely as possible this Specification to insure a good, sound pipeline when completed.

C. Concrete Trench Cap

1. Where 36-inch minimum cover cannot be obtained or due to potential surface loading, the City may require a cap to be installed.

D. Concrete Backfill

1. Where shown on the Plans, concrete backfill shall consist of selected rock material or granular sand material mixed with a minimum of three sacks of cement per cubic yard. All material shall be mixed in a concrete mixer or transit mixed unless otherwise approved by the City.

E. Backfilling Operation

1. Backfilling operation outside of pavement shall be compacted to the required density without damaging the pipe or bedding. Backfill under non paved areas, two feet outside of any structure or utilities and excluding lines within a floodplain, streams and watercourses shall be compacted to 90% of the maximum dry density in accordance Tex-114-E. Areas within two feet of structures or existing utilities and areas within a floodplain, streams and water courses shall be compacted to 95% in accordance with Tex-114-E. Prior to any compaction, moisture shall be within $\pm 3\%$ of the optimum moisture content.
2. All trenches under proposed or existing concrete roadways, driveways and sidewalks, paved waterways, brick roadways, asphaltic roadways with concrete base, gravel roadways, and roadways with gravel base and asphalt surface, shall be backfilled to the required density in six (6) inch maximum lifts without damaging the pipe or bedding except the first lift over the pipe bedding will be twelve (12) inches in depth. Swelling soils (soils with a plasticity index of 20 or more) shall be sprinkled as required to provide not less than optimum moisture nor more than 3% over the optimum moisture content to the extent necessary to provide not less than 95% nor more than 102% of the maximum dry density as determined in accordance with Tex-114-E. Non-swelling soils (soils with a plasticity index less than 20) shall be sprinkled as required and compacted to the extent necessary to provide not less than 95% of the optimum dry density with the moisture within $\pm 3\%$ of the optimum moisture content in accordance with Tex-114-E. Jetting with water will not be permitted. Flexible base used as select backfill shall be compacted to 95% of Tex-113E at $\pm 3\%$ of the optimum moisture content.
3. After the trench has been refilled, topsoil shall be replaced to the extent that rock excavated from the trench will be completely covered or removed and the area is returned to its original condition, except that in cultivated areas a minimum of six (6) inches of topsoil shall be replaced.

G4.06

PAYMENT

G4-4

PIPE EXCAVATION, TRENCHING,
EMBEDMENT, ENCASEMENT
AND BACKFILLING

- A. No separate payment will be made for work performed under this Specification for excavating, trenching, embedment, and backfilling. All costs incurred shall be included in the contract price for the appropriate items in the Proposal and Bid Schedule.
- B. No separate payment will be made for the bedding used in embedment. All costs incurred shall be included in the contract price for the appropriate bid item.
- C. Separate payment, if authorized by the City, will be made for crushed stone or washed gravel as described in these specifications under Section G4.02(G), SOFT SUBGRADE, at the contract unit price per cubic yard as provided in the Proposal and Bid Schedule under "Extra Gravel for Embedment."
- D. Separate payment will be made for 2,000 psi Concrete Encasement or Backfill at the contract unit price per cubic yard or linear foot as provided in the Proposal and Bid Schedule under 2,000 psi Concrete Encasement. Concrete and three (3) sack granular sand or rock material mix backfill will be measured in cubic yards or linear feet actually placed based on actual trench width not to exceed the specified maximum trench width and will be paid for at the contract price per cubic yard or linear foot as provided in the Proposal and Bid Schedule.
- E. Where authorized by the Engineer, gravel used to replace unsuitable material will be paid for at the unit bid price for Extra Gravel for embedment.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION G5 – GRANULAR FILL MATERIALSG5.01 SCOPE OF WORK

- A. This specification covers the requirements for the use of granular fill materials for this Project.

G5.02 SUBMITTALS

- A. Within 30 days after the Notice to Proceed, the Contractor shall submit to Engineer or the City for approval, technical product literature including the source of the material, gradation, type of material, and all other pertinent data to illustrate conformance to the specification found within.

G5.03 GENERAL

- A. Granular fill materials are specified in this Section, but their use for bedding pipe, pavement base, are specified in detail in sections G4 TRENCHING, BACKFILLING AND COMPACTION and SD4 FLEXIBLE BASE. The Engineer may respectively order the use of fill materials for purposes other than those specified in other Sections if, in his/her opinion, such use is advisable.

G5.04 MATERIALS

- A. Common fill shall consist of mineral soil, substantially free of clay, organic material, loam, wood, trash, and other objectionable material which may be compressible, or which cannot be compacted properly. Common fill shall not contain stones larger than six (6) inches in any dimension, broken concrete, masonry, rubble, asphalt pavement, or other similar materials. It shall have physical properties, as approved by the Engineer, such that it can be readily spread and compacted.
- B. Select common fill shall be as specified above for common fill except that the material shall contain no stones larger than two (2) inches in its largest dimension.
- C. Crushed Stone Backfill shall consist of hard, durable, particles of proper size and gradation, free from sand, loam, clay, excess fines and deleterious materials. The size of the particles shall be uniformly graded such that the following bedding specifications are met:

<u>Sieve Size</u>	<u>$\frac{3}{8}$" F % Retained</u>	<u>$\frac{1}{2}$" D % Retained</u>	<u>Washed Gravel % Retained</u>
$\frac{1}{2}$ "	0	0	0
$\frac{3}{8}$ "	0-2	5-25	---
4m	40-85	80-100	---
10m	95-100	96-100	---
$\frac{3}{4}$ "	---	---	100

- D. Crushed Stone Base shall consist of sound, durable stone, free of any foreign material, angular in shape, free from structural defects and comparatively free of chemical decay. This material shall comply with Texas Department of Transportation Item 248, Type "A", Grade 1 unless otherwise shown on the Plans or Standards. The stone shall have a maximum size of $\frac{7}{8}$ -inch.
- E. Cement Stabilization Sand Backfill shall consist of a mixture of ASTM C33 fine aggregate and Type I cement. The mix shall be proportioned of two (2) sacks of cement per cubic yard.

G5.05 PAYMENT

- A. No separate payment will be made for work performed in accordance with this specification, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION G8 – MISCELLANEOUS WORK AND CLEANUPG8.01 SCOPE OF WORK

- A. This specification covers the requirements to do the miscellaneous work not specified in other sections but obviously necessary for the proper completion of the work as shown on the Plans.

G8.02 SUBMITTALS

- A. Within 10 days after the Notice to Proceed, the Contractor shall submit to the Engineer, in triplicate, a breakdown of any lump sum included in the Proposal and Bid Form. This breakdown shall be subject to approval by the Engineer and when so approved shall become the basis for determining progress payments and for negotiation of change orders, if required. In some contracts a lump sum item shall not be provided in the Proposal and Bid Form and shall be subsidiary to the other work items.

G8.03 GENERAL

- A. When applicable, the Contractor will perform the work in accordance with other sections of this Specification. When no applicable specification exists the Contractor shall perform the work in accordance with the best modern practice and/or as directed by the Engineer.
- B. The work of this Section includes, but is not limited to, the following:
1. Crossing and Relocating Existing Utilities
 2. Restoring Driveways, Fences and Curbing
 3. Cleaning Up
 4. Incidental Work
 5. Restoring Easements and Rights-of-Way

G8.04 CROSSING AND RELOCATING EXISTING UTILITIES

- A. This item includes any extra work required in crossing culverts, water courses including streams and drainage ditches, drains, gas mains, water mains and water services and other utilities. This work shall include but is not limited to the following: bracing, hand excavation and backfill (except screened gravel) and any other work required for crossing the utility or obstruction not included for payment in other items of this specification. Notification of Utility Companies shall be the Contractor's responsibility.
- B. In locations where existing utilities cannot be crossed without interfering with the construction of the work as shown on the Plans, the Contractor shall remove and relocate the utility as directed by the Engineer or Representative of the City or cooperate with the Utility Companies concerned if they relocate their own utility.
- C. At pipe crossings and where designated by the Plans, the Contractor shall furnish and place crushed stone bedding so that the existing utility or pipe is firmly supported for its entire exposed length. The bedding shall extend to the mid-diameter of the pipe crossed.

G8.05 RESTORING OF DRIVEWAYS AND FENCES

- A. Existing public and private driveways disturbed by the construction shall be replaced. Paved drives shall be repaved to the limits and thicknesses existing prior to construction. Gravel dirt roads and drives shall be replaced and regraded.
- B. Fences in the vicinity of the work shall be protected from damage. If damaged, fences shall be replaced in condition equal to that prior to being damaged and the work shall be satisfactory to the City.

G8.06 CLEANING UP

- A. The Contractor shall remove all construction material, excess excavation, buildings, equipment and other debris remaining on the job as a result of construction operations and shall restore the site of the work to a neat and orderly condition. All stored materials shall be kept in a neat manner, secured and protected from the public.

G8.07 INCIDENTAL WORK

- A. Do all incidental work not otherwise specified, but obviously necessary to the proper completion of the Contract as specified and as shown on the Plans.

G8.08 RESTORING THE EASEMENTS AND RIGHTS-OF-WAY

- A. Portions of the work may be within easements through private property. The Contractor shall be responsible for all damage to private property due to his/her operations. The Contractor shall protect from injury all walls, fences, cultivated shrubbery and vegetables, fruit trees, pavement, underground facilities, such as water pipes, or other utilities which may be encountered along the easement. If removal and replacement are required, it shall be done in a workmanlike manner so that replacement is equivalent to that which existed prior to construction.
- B. Existing lawn and sod surfaces damaged by construction in easements shall be replaced. The Contractor may cut and replace the lawn and sod, or may restore the areas with an equivalent depth and quality of loam, seeded and fertilized as specified in Section G7- LOAMING, HYDROSEEDING AND PERMANENT EROSION CONTROL if acceptable to the owner of the private property and the City. These areas shall be maintained and re-seeded or re-sodded at the option of the owner of the private property and the City, if necessary, until all work under this Contract has been completed and accepted. Any additional work required to restore easements to their original condition shall be performed by the Contractor.

G8.09 PAYMENT

- A. No separate payment shall be made for work performed in accordance with this section of the specifications, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION W1 – DUCTILE IRON PIPE AND FITTINGSW1.01 SCOPE OF WORK

- A. This specification covers the requirements to furnish and install ductile iron pipe and ductile iron pipe fittings including bracing, pipe laying, jointing, testing, blocking, and any other work that is required or necessary to complete the installation as shown on the Plans and as specified herein.

W1.02 SUBMITTALS

- A. Within 30 days of the Notice to Proceed, the Contractor shall submit to the Engineer for approval, technical product literature including the name of the pipe and fitting suppliers and a list of materials to be furnished, completely detailed working drawings and schedules of all ductile-iron pipe and fittings required, prior to each shipment of pipe, submit certified test reports that the pipe for this Contract was manufactured and tested in accordance with the ASTM and ANSI/AWWA Standards specified herein.

W1.03 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)
1. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs 60,000 PSI Tensile Strength.
- B. American Water Works Association (AWWA)
1. AWWA C104 - Cement-Mortar Lining for Ductile-Iron Pressure Pipe and Fittings.
 2. AWWA C105 - Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.
 3. AWWA C110 - Ductile-Iron and Gray-Iron Fittings, 3-inch Through 48-in for Water and Other Liquids.
 4. AWWA C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 5. AWWA C115 - Standard for Flanged Ductile-Iron Pipe with Threaded Flanges.
 6. AWWA C151 - Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds for Water or Other Liquids.
 7. AWWA C153 - Ductile-Iron Compact Fittings, 3-inch Through 16-inch for Water and Other Liquids.
 8. AWWA C600 - Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances.
 9. AWWA C651 - Disinfection Water Mains
- C. American National Standards Institute (ANSI)
1. ANSI B16.1 - Cast Iron Pipe Flanges and Flanged Fittings.
- D. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

W1.04 QUALITY ASSURANCE

- A. All ductile-iron pipe and fittings shall be from a single Manufacturer. All ductile-iron pipe to be installed under this Contract may be inspected at the foundry for compliance with these Specifications by an independent testing laboratory provided by the City. The Contractor shall require the Manufacturer's cooperation in these inspections. The cost of foundry inspection of all pipe approved for this Contract, plus the cost of inspection of disapproved pipe will be borne by the Contractor.
- B. Inspection of the pipe will be made by the Engineer or other representatives of the City after delivery. The pipe shall be subject to rejection at any time on account of failure to meet any of the Specification requirements, even though pipes may have been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery shall be marked for identification and shall immediately be removed from the job.

W1.05

MATERIALS

- A. Ductile iron pipe shall conform to AWWA C151, be manufactured from metal having a minimum tensile strength of 60,000 psi, a minimum yield strength of 42,000 psi, and a minimum elongation of 10 percent (60-42-10), and be provided in the following minimum pressure classes:
 - 1. 12-inch and smaller, Class 350.
 - 2. 14-inch through 20-inch, Class 250.
 - 3. 24-inch, Class 200.
 - 4. 30-inch and larger, Class 150.
- B. Ductile iron fittings shall conform to AWWA C110 or C153.
- C. All pipe and fittings shall have a bituminous outside coating in accordance with AWWA C151 and C110, respectively. All pipe and fittings shall be cement-mortar lined and seal coated in accordance with AWWA C104. Cement mortar lining shall be double thickness.
- D. Ductile iron pipe with push-on or mechanical joints shall be centrifugally cast pipe in accordance with AWWA C150 and C151.
- E. Restrained joints shall be restrained push-on joints, TR Flex by U.S. Pipe and Foundry; Lok-Fast by American Cast Iron Pipe Company, or equal. Joints shall be suitable for 250 psi working pressure and be fabricated of heavy section ductile iron casting. Bolts and nuts shall be low carbon steel conforming to ASTM A307, Grade B.
- F. Sleeve type couplings shall be of steel and shall be Style 38 by Dresser Manufacturing Division, Smith-Blair or equal. Couplings shall be furnished with black steel bolts and nuts and with pipe stop removed. Gaskets shall be of a material suitable for exposure to liquid within the pipe.

W1.06

POLYETHYLENE ENCASEMENT

- A. All buried ductile iron pipe and metallic fittings shall be encased with 8 mil, Type I, Grade E-1, polyethylene film conforming to AWWA C105. Class usage shall be:
 - 1. Class A - Natural Color where exposure to weather (including sunlight) is less than 48 hours total before burial.
 - 2. Class C - Black where exposure to weather (including sunlight) may be more than 48 hours.
- B. Exposure to weather shall be kept to a minimum, and in no case shall it exceed 10 days. The Class of polyethylene used shall be approved by the Engineer.
- C. Polyethylene encasement shall not be paid for separately, but the cost there of shall be included in the appropriate item of the Proposal and Bid Schedule.

W1.07

LAYING DUCTILE IRON PIPE AND FITTINGS

- A. Care shall be taken in loading, transporting and unloading to prevent injury to the pipe, lining or coatings. Pipe or fittings shall not be dropped. All pipe or fittings shall be examined before laying and no piece shall be installed which is found to be defective. Any damage to the pipe linings or coatings shall be repaired as directed by the Engineer. Handling and laying of pipe and fittings shall be in accordance with the Manufacturer's instruction and as specified herein.
- B. All pipe and fittings shall be thoroughly cleaned before laying, shall be kept clean until they are used in the work, and when laid, shall conform to the lines and grades required. Pipe shall not be laid unless the subgrade is free of water and in a satisfactory condition. Ductile iron pipe and fittings shall be installed in accordance with the requirements of AWWA C600 except as otherwise provided herein. All piping on this project regardless of size or class shall be placed in the embedment as shown on the detail sheets in the Plans. If any defective pipe is discovered after it has been laid, it shall be removed and replaced with a sound pipe in a satisfactory manner by the Contractor, at his own expense.
- C. All pipe shall be sound and clean before laying. When laying is not in progress, including lunchtime, the open ends of the pipe shall be closed by watertight plugs or other approved means. Good alignment shall be preserved in laying. The deflection at joints shall not exceed that recommended by the Manufacturer. Fittings, in addition to those shown on the Plans, shall be provided, if required, for crossing utilities which may be encountered upon opening the trench. Solid sleeves shall be used only where approved by the Engineer and the City.
- D. When cutting pipe is required, the cutting shall be done by machine, leaving a smooth cut at right angles to the axis of the pipe. Cut ends of pipe to be joined with a bell shall be beveled to conform to the manufactured spigot end. Cement lining shall be undamaged.
- E. Joints shall be protected by eight (8) mil. Polyethylene film prior to placing concrete. Concrete shall be placed against undisturbed material, and shall not cover joints, bolts or nuts, or interfere with the removal of any joint.

W1.08

PUSH-ON JOINTS

- A. Push-on joints shall be made in accordance with AWWA C111 and the Manufacturer's instructions. Pipe shall be laid with bell ends in the direction of trenching. A rubber gasket shall be inserted in the groove of the bell end of the pipe, and the joint surfaces cleaned and lubricated. The plain end of the pipe to be laid shall then be aligned and inserted in the bell of the pipe to which it is to be joined and pushed home with a jack or by other means. After joining the pipe, a metal feeler shall be used to make certain that the rubber gasket is correctly located.

W1.09

MECHANICAL JOINTS

- A. Mechanical joints shall be made in accordance with Appendix "A" of AWWA C111 and the Manufacturer's instructions. Thoroughly clean and lubricate the joint surfaces and rubber gasket with soapy water before assembly. Bolts shall be tightened to the specified torque. Under no conditions shall extension wrenches or pipe over the handle of ordinary ratchet wrench be used to secure greater leverage.

W1.10 RESTRAINED JOINTS

- A. Restrained joints shall be installed where shown on the Plans. The joint assemblies shall be made in accordance with the Manufacturer's recommendations.

W1.11 SLEEVE TYPE COUPLINGS

- A. Couplings shall be installed where shown on the Plans. Couplings shall not be assembled until adjoining push-on joints have been assembled. After installation, apply a heavy bitumastic coating to bolts and nuts.

W1.12 POLYETHYLENE ENCASEMENT

- A. The polyethylene encasement shall be installed in accordance with either method specified in AWWA C105.

W1.13 CONCRETE AND BLOCKING

- A. 2,500 psi concrete shall be placed for blocking at each change in direction in the pipeline, in such manner as will substantially brace the pipe against undisturbed trench walls. Concrete blocking, made from Type I cement, shall have been in place four (4) days prior to testing the pipeline as hereinafter specified. Test may be made in two (2) days after completion of blocking if Type III cement is used.
- B. At all points where wet connections are made to existing lines, the existing lines shall be adequately blocked and the tapping connection fittings shall be supported by blocking up to the spring line with 2,500 psi concrete.
- C. Concrete blocking will not be measured or paid for as a separate item but the cost thereof shall be included in the proper items listed in the Proposal and Bid Schedule.

W1.14 CLEANING

- A. At the conclusion of the work thoroughly clean all of the new pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood or other material which may have entered during the construction period. If obstructions remain after this cleaning, the obstructions shall be removed.

W1.15 CONNECTIONS AND APPURTENANCES

- A. The Contractor shall make the alterations and the necessary connections to existing water mains as shown on the Plans. Such connection shall be made at such time and in a manner approved by the City; in each case, when the work is started, it shall be prosecuted expeditiously and continuously until completed.
- B. Fittings, bends, plugs and valves shall be of standard manufacture and mechanical joint type to fit AWWA pipe specifications in Classes A, B, C and D, unless otherwise shown on the Plans.
- C. Payment for fittings and gate valves shall be restrained and shall be made separately under the appropriate bid items listed in the Proposal and Bid Schedule.

W1.16 LEAKAGE TESTING AND STERILIZATION

- A. All Ductile Iron Pipe shall be leak tested and sterilized according to Section CIP12 – TESTING OF PIPELINES.

W1.17

PAYMENT

- A. The pipeline, complete in place, including cleanup, will be measured for payment in linear feet along the centerline of the pipe actually installed. Measurement shall be through all fittings, specials, valves, etc., and no deduction in length shall be made for such appurtenances. Installation of the pipeline will be paid for at the unit contract price per linear foot as provided in the Proposal and Bid Schedule.
- B. Payment of the unit contract price for the items of work performed shall be the total compensation for furnishing all labor, materials, tools, equipment and incidentals and performing all work that is necessary for the installation, testing, and sterilization of the pipe, fittings, connections, blocking, embedment or placing in encasement pipe and all other appurtenances in accordance with the Plans and the provisions of the Specifications.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION W2 – POLYVINYL CHLORIDE (PVC) PIPE-WATERW2.01 SCOPE OF WORK

- A. This specification covers the requirements to install polyvinyl chloride (PVC) water pipe and ductile iron fittings for the water line, including excavation, sheeting, shoring, dewatering, pipe laying, jointing, testing, backfilling and any other work that is required or necessary to complete the installation as shown on the Plans and as specified herein.

W2.02 SUBMITTALS

- A. Within 30 days of the Notice to Proceed, the Contractor shall submit to the Engineer or the City for approval, technical product literature including the name of the pipe and fittings suppliers, a list of materials to be furnished, shop drawings and schedules of all PVC pipe and fittings required, prior to each shipment of pipe, submit certified test reports that the pipe for this Contract was Manufactured and tested in accordance with the ASTM Standards specified herein.

W2.03 QUALITY ASSURANCE

- A. All PVC pipe and fittings shall be from a single Manufacturer. The supplier shall be responsible for the provisions of all test requirements specified in ASTM D3034 or ASTM F789 and/or ASTM F758 as applicable. In addition, all PVC pipe to be installed under this Contract may be inspected at the plant for compliance with these specifications by an independent testing laboratory provided by the City. The Contractor shall require the Manufacturer's cooperation in these inspections. The cost of plant inspection of all pipe approved for this Contract, plus the cost of inspection of disapproved pipe, will be borne by the Contractor.
- B. Inspections of the pipe may also be made by the Engineer or other representatives of the City after delivery. The pipe shall be subject to rejection at any time on account of failure to meet any of the Specification requirements, even though sample pipes may have been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery shall be marked for identification and shall be removed from the job at once.

W2.04 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Polyvinyl chloride pipe for water lines, unless otherwise specifically shown on the Plans, or approved in writing, shall be AWWA C900, C905, or C909 Class 150 psi with a dimension ratio of 18 (DR-18), for water lines and shall be extruded, be of rubber gasket type, and be furnished in 20-foot nominal laying lengths. All such pipe shall bear a mark denoting approval by the Underwriters' Laboratories of Chicago, Illinois, so that it will be acceptable to the Texas State Fire Insurance Commission for use in fire protection lines without penalty. All joints shall be of the type which provides a recession in the bell for the employment of a single rubber gasket to be placed before the insertion of the succeeding spigot. Each size of polyvinyl chloride pipe shall have the same outside diameter as the corresponding size of cast iron pipe.
- B. Fittings shall be ductile iron, mechanical joint or flanged type and shall be Class 250 in accordance with AWWA Specifications C110-77, C-111-80, and C115-75. Flanges shall be faced and drilled in accordance with ASA Standard B16.1, Class 125 unless otherwise shown on the Plans or in the Special Conditions. All fittings shall be tar coated on the outside surface and shall have an interior cement lining with seal coat per AWWA Specifications C104-80 unless otherwise shown or specified.
- C. The Contractor shall obtain installation instructions, including support spacing and solvent welding, from the supplying Manufacturer, shall comply with the instructions, and shall meet the requirements of ASTM D-2855, Standard Recommended Practice for making Solvent Cemented Joints with PVC Pipe and Fittings. The PVC solvent cement shall comply with ASTM D-2564 and shall be furnished by the pipe and fitting Manufacturer for the class and type of pipe supplied to the project.

W2.05

HANDLING AND CUTTING PIPE

- A. Pipe and fittings are slightly brittle. Care shall be taken in shipping, handling and laying to avoid damaging the pipe and fittings. Extra care will be necessary during cold weather construction.
- B. Any pipe or fitting showing a crack or which has received a blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work.
- C. All pipe ends shall be square after cutting.
- D. While stored, pipe shall be adequately supported from below at not more than three (3) foot intervals to prevent deformation. Pipe shall not be stacked higher than six (6) feet. Pipe and fittings shall be stored in a manner which will keep them at ambient outdoor temperatures and out of direct sunlight. Temporary shading as required to meet this requirement shall be provided. Simple covering of the pipe and fittings which allows temperature buildup when exposed to direct sunlight will not be permitted.

W2.06

JOINTING POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. PVC pipe and fittings shall be jointed in accordance with the recommendations of the latest ASTM Standards and detailed instructions of the Manufacturer.

W2.07

INSTALLING POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Unless otherwise specified on the Plans, polyvinyl chloride pipe shall be installed to clear all utility lines and shall have three (3) feet minimum cover. For water lines to be constructed under a future roadway, the cover may be increased to allow for future paving grades. The depth of cover, where shown on the Plans, is that distance from the top of the pipe to the approximate proposed grade line.
- B. No single piece of pipe shall be laid unless it is generally straight. The centerline of the pipe shall not deviate from a straight line drawn between the centers of the openings at the ends of the pipe by more than $\frac{1}{16}$ -inch per foot of length. If a piece of pipe fails to meet this requirement check for straightness, it shall be rejected and removed from the site. Laying instructions of the Manufacturer shall be explicitly followed.
- C. Any pipe or fittings discovered to be defective after laying shall be removed and replaced with a sound piece.
- D. The Engineer or the City may examine each bell and spigot end to determine whether any preformed joint has been damaged prior to installation. Any pipe having defective joint surfaces shall be rejected, marked as such, and immediately removed from the job site.
- E. All pipe shall be sound and clean before laying. When laying is not in progress, including lunch time, the open ends of the pipe shall be closed by watertight plugs or other approved means. Good alignment shall be preserved in laying.
- F. Pipe and fittings shall be installed in accordance with the instructions of the Manufacturer, ASTM D2321 and as specified herein. As soon as the excavation is complete to normal grade of the bottom of the trench, embedment material shall be placed, compacted and graded to provide firm, uniform and continuous support for the pipe. Bell holes shall be excavated so that only the barrel of the pipe bears upon the bedding. The pipe shall be laid accurately to the lines and grades indicated on the Plans. The specified embedment shall be accurately shaped and trimmed to receive the pipe barrel and each pipe section, when in place, shall have a uniform bearing on the subgrade for the full length of the pipe barrel. Pipe shall not be laid unless the subgrade is free of water and in a satisfactory condition. Embedment material shall be placed evenly on each side of the pipe to mid-diameter and hand tools shall be used to force the embedment material under the haunches of the pipe and into the bell holes to give firm continuous support for the pipe. Embedment material shall then be placed to 12-inches above the top of the pipe. Next, the varying depths of select material backfill above the embedment material backfill shall be placed according to the Plan Details and carefully compacted. Generally, the compaction shall be done evenly on each side of the pipe and compaction equipment shall not be operated directly over the

pipe until sufficient select material backfill has been placed to ensure that such compaction equipment will not have a damaging effect on the pipe. Equipment used in compacting the varying depths of select material backfill shall be approved by the pipe Manufacturer's representative prior to use. Adjustments of the pipe to line and grade shall be made by scraping away or filling in with granular material, and not by wedging or blocking up the bell.

- G. Perforated PVC Pipe and fittings shall be installed in accordance with the instructions of the Manufacturer, ASTM F758 and as specified herein. As soon as the excavation for the trench is complete to normal grade of the bottom of the trench, geotextile fabric shall be laid and then the pea gravel bedding shall be carefully placed (so not to damage the geotextile fabric) and graded to provide uniform and continuous support for the pipe. Bell holes shall be excavated so that only the barrel of the pipe bears upon the bedding. Before the perforated pipe is laid on the trench, the perforated pipe shall be wrapped around and closed according to the Manufacturer's closure recommendations with the geotextile fabric. The pipe shall be laid accurately to the lines and grades indicated on the Plans. Blocking under the perforated PVC pipe will not be permitted. Pea gravel shall be placed evenly on each side of the pipe to mid-diameter and hand tools shall be used to gently place the pea gravel under the haunches of the pipe and into the bell holes to give firm continuous support for the pipe. Making sure not to damage the geotextile fabric, pea gravel shall then be carefully placed above the top of the perforated pipe varying from two to three (2-3) feet depending on the Plans. Once the remaining pea gravel has been placed, overlap or close the geotextile fabric according to the Manufacturer's recommendations or six (6) inches minimum overlap. Then one (1) foot of topsoil shall be placed over the pea gravel to the ground level with proper grass sodding on top.
- H. Joints shall not be "pulled" or "cramped". Each joint of pipe shall be completed in compliance with Manufacturer's recommendations.
- I. Before any joint is made, the pipe shall be checked to assure that a close joint with the next adjoining pipe has been maintained and that the inverts are matched and conform to the required grade. The pipe shall not be driven down to grade by striking it.
- J. Precautions shall be taken to prevent flotation of the pipe in the trench.
- K. When moveable trench bracing such as trench boxes, moveable sheeting, shoring or plates are used to support the sides of the trench, care shall be taken in placing and moving the boxes or supporting bracing to prevent movement of the pipe, or disturbance of the pipe bedding and backfill or embedment material. Trench boxes, moveable sheeting, shoring or plates shall not be allowed to extend below mid-diameter of the pipe. As trench boxes, moveable sheeting, shoring or plates are moved, embedment material shall be placed to fill any voids created and the embedment material and backfill shall be recompact to provide uniform side support for the pipe.

W2.08

CONCRETE AND BLOCKING

- A. 2,500 psi concrete shall be placed for blocking at each change in direction in the pipeline, as shown in the Standard Details and in such manner as will substantially brace the pipe against undisturbed trench walls. In no event shall this quantity of concrete blocking be less than those shown in the Plans. Concrete blocking, made from Type I cement, shall have been in place four (4) days prior to testing the pipeline as hereinafter specified. Tests may be made in two (2) days after completion of blocking if Type III cement is used.
- B. At all points where wet connections are made to existing lines, the existing lines shall be adequately blocked and the tapping connection fittings shall be supported by blocking up to the spring line with 2,500 psi concrete.
- C. Concrete blocking will not be measured or paid for as a separate item but the cost thereof shall be included in the various items listed in the Proposal and Bid Schedule.

W2.09

TESTING AND ALLOWABLE LEAKAGE

- A. All PVC pipe and fittings shall be leak tested and sterilized according to Section CIP12.05- TEST PROCEDURES FOR PRESSURE PIPELINES.

W2.10

PAYMENT

- A. The pipeline, complete in place, including cleanup, will be measured for payment in linear feet along the centerline of the pipe actually installed. Measurement shall be through all fittings, specials, valves, etc., and no deduction in length shall be made for such appurtenances. Installation of the pipeline will be paid for at the unit contract price per linear foot as provided in the Proposal and Bid Schedule.
- B. Payment of the unit contract price for the items of work performed shall be the total compensation for furnishing all labor, materials, tools, equipment and incidentals and performing all work that is necessary for the installation, testing, and sterilization of the pipe, fittings, connections, blocking, embedment or placing in encasement pipe and all other appurtenances in accordance with the Plans and the provisions of the Specifications.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION W3 – VALVES, HYDRANTS AND APPURTENANCESW3.01 SCOPE OF WORK

- A. This specification covers the requirements to provide all buried valves, valves in manholes and underground vaults, hydrants and appurtenances complete with actuators and all accessories as shown on the Plans and as specified herein.

W3.02 SUBMITTALS

- A. Within 30 days of the Notice to Proceed, the Contractor shall submit to the Engineer or the City for approval, technical product literature including Manufacturer's literature, illustrations, specifications and engineering data which includes dimensions, size, materials of construction, weight, protection coating, and all other pertinent data to illustrate conformance to the specification found within. The Contractor shall also submit four (4) copies of all certified shop test results specified herein, complete operation and maintenance manuals including all copies of all approved shop drawings, and certificates of compliance where required by referenced standards: For each valve specified to be manufactured and/or installed in accordance with AWWA and other standards, submit an affidavit of compliance with the appropriate standards, including certified results of required tests, and certification of proper installation.

W3.03 REFERENCE STANDARDS

- A. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.
- B. American Water Works Association (AWWA)
1. AWWA C515 - Gate Valves, three (3)-inch through 48-inch NPS, for Water and Sewage Systems.
 2. AWWA C502 - Dry-Barrel Fire Hydrants.
 3. AWWA C509 - Resilient-Seated Gate Valves, three (3) inch through 12-inch NPS, for Water and Sewage Systems.
- C. American National Standards Institute (ANSI)
1. ANSI B16.1 - Cast-Iron Pipe Flanges and Flanged Fittings.
 2. ANSI C111 - Rubber-Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
- D. American Society for Testing and Materials (ASTM)
1. ASTM A48 - Gray Iron Castings.
 2. ASTM A126 - Gray Iron Castings for Valves, Flanges and Pipe Fittings
 3. ASTM A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 4. ASTM A276 - Standard Specification for Stainless and Heat Resisting Steel Bars and Shapes.
 5. ASTM A536 - Ductile Iron Castings.
- E. Steel Structures Painting Council (SSPC)
1. SSPC SP-6 - Commercial Blast Cleaning

- F. Where reference is made to one (1) of the above standards, the revision in effect at the time of bid opening shall apply.

W3.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the site to ensure uninterrupted progress of the work.
- B. Protect threads and seats from corrosion and damage. Rising stems and exposed stem valves shall be coated with a protective oil film which shall be maintained until time of use.
- C. Provide covers for all openings.
1. All valves three (3) inches and larger shall be shipped and stored on site until time of use with wood or plywood covers on each valve end.
 2. All valves smaller than three (3) inches shall be shipped and stored as above except that heavy card board covers may be furnished instead of wood.
- D. Store equipment to permit easy access for inspection and identification. Any corrosion in evidence at the time of City acceptance shall be removed, or the valve shall be removed from the job.
- E. Store all equipment in covered storage off the ground.

W3.05 COORDINATION

- A. Review installation procedures under other Sections and coordinate with the work which is related to this Section including buried piping installation and site utilities.
- B. Contractor shall coordinate the location and placement of concrete thrust blocks when required.

W3.06 GENERAL

- A. All valves shall open counter-clockwise.
- B. The use of a Manufacturer's name and/or model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.
- C. Valves shall be of the size shown on the Plans or as noted, and as far as possible equipment of the same type shall be identical and from one Manufacturer.
- D. Valves shall have the name of the maker, nominal size, flow directional arrows, working pressure for which they are designed and standard to which they are manufactured cast in raised letters on some appropriate part of the body.
- E. Unless otherwise noted, valves shall have a minimum working pressure of 200 psi or be of the same working pressure as the pipe they connect to, whichever is higher, and suitable for the pressures noted where they are installed.
- F. Valves shall be of the same nominal diameter as the pipe or fittings they are connected to. Except as otherwise noted, joints shall be mechanical joints, with joint restraint where the adjacent piping is required to be restrained.
- G. Valves shall be constructed for buried service.

W3.07 VALVE BOXES

- A. All gate valves shall be provided with extension shafts (where the operating nut is greater than five (5) feet below grade), operating nuts and valve boxes as follows:

1. Extension shafts shall be steel and the operating nut shall be two (2) inches square. Shafts shall be designed to provide a factor of safety of not less than four (4). Operating nuts shall be pinned to the shafts.
2. Valve boxes shall be a heavy-pattern cast iron, three (3) piece, telescoping type box with dome base suitable for installation on the buried valves. Inside diameter shall be at least 5¼-inches. Barrel length shall be adapted to the depth of cover, with a lap of at least six (6) inches when in the most extended position. Covers shall be cast iron with integrally-cast direction-to-open arrow and "WATER" shall be cast in the cover when used on a water line or "SEWER" when used on a wastewater force main. Aluminum or plastic are not acceptable. A means of lateral support for the valve extension shafts shall be provided in the top portion of the valve box. The valve box lid shall be furnished with a pentagon-head bolt for locking.
3. The upper section of each box shall have a bottom flange of sufficient bearing area to prevent settling. The bottom of the lower section shall enclose the stuffing box and operating nut of the valve and shall be oval.
4. An approved operating key or wrench shall be provided.
5. All fasteners shall be Type 304 stainless steel.

W3.08

RESILIENT SEATED GATE VALVES

- A. Valves shall be manufactured in accordance with AWWA C509.

Acceptable Gate Valves are:

1. American Flow Control – Series 2500
 2. Mueller – 2360 Series
 3. Clow
- B. Valves shall be provided with a minimum of two (2) O-ring stem seals.
- C. Bonnet and gland bolts and nuts shall be either fabricated from a low alloy-steel for corrosion resistance or electroplated with zinc or cadmium. The hot-dip process in accordance with ASTM A153 is not acceptable.
- D. Wedges shall be totally encapsulated with rubber.
- E. Units shall be, in addition, UL and FM approved.
- F. Resilient wedge gate valves shall be furnished and installed in sizes and shall be manufactured in accordance with the latest AWWA C-509 and cast iron shall conform to the latest ASTM A-126 standards. Gate valves furnished under these specifications shall be of the solid wedge, resilient seat type with cast iron/ductile iron body and bronze stem designed for 250 pounds per square inch working pressure. All gate valves shall be tested hydrostatically to 400 pounds per square inch. Gate valves shall meet the latest AWWA standard specifications (C-509).
- G. The seat shall be made of Styrene Butadiene rubber and provide a positive water tight seal. The seat shall be permanently bonded or mechanically attached to the wedge with stainless steel screws. If bonded, ASTM P-429 requirements shall be followed. Non-rising stem gate valves shall be equipped with "O" ring type packing gland consisting of at least two (2) "O" rings. The thrust collar shall work in an "O" ring seal lubricant reservoir or against bearings or washers, above and below constructed of Delrin or approved equal material. Gate valve stems, shall be fabricated from solid bronze rod having a tensile strength of not less than 60,000 pounds per square inch, and a minimum yield strength of 30,000 pounds per square inch.

- H. Cast iron body shall be of iron with an even grain and shall possess a tensile strength of not less than 32,000 pounds per square inch. All bronze castings, except the stem, shall have a tensile strength of not less than 30,000 pounds per square inch. The entire internal valve body surfaces shall be coated with a factory applied two (2) component epoxy system or approved equal. The seating surface shall be machined or otherwise constructed to provide a smooth, even surface for the resilient seat. All valves shall open left (counter clockwise) and have a two (2) inch square wrench nut unless specified otherwise.

W3.09

TAPPING SLEEVES AND TAPPING VALVES

- A. Tapping sleeves shall be of cast iron epoxy coated, designated for working pressure not less than 200 psi. Armored end gaskets shall be provided for the full area of the sleeve flanges. Sleeves shall be as manufactured by A.P. Smith Division of U.S. Pipe, Mueller, Clow, or equal. Nuts and bolts shall be Type 304 stainless steel.
- B. Size-on-Size tapping sleeve shall be ductile iron or cast iron.
- C. Tapping valves shall conform to the requirements specified above for gate valves except that one (1) end shall be flanged and one (1) mechanical. Tapping valves shall be provided with an oversized opening to permit the use of full size cutters. Tapping valves shall be Ford B81-777 or equal.

W3.10

CHECK VALVES

- A. Controlled Closing Swing Check Valves (lever & weight)
1. Check valves shall be of the controlled closing swing type. The controlled closing swing check valves shall be guaranteed to operate under severe conditions as check valves. The valve shall be designed to open smoothly, provide full pipe line flow, permit minimum head loss and close at a controlled rate of speed for the final predetermined portion of its stroke. All bolts and nuts used in the assembly shall be steel, commercial.
 2. The valve body shall be Cast Iron ASTM A126-B/ductile iron ASTM A536. The disc arm and chamber level shall be of heavy steel construction and keyed to the hinge shaft. The hinge shaft shall be of 18-8 stainless steel and of adequate diameter to withstand a complete hydraulic unbalance pressure of 125 psi on the valve disc. A single cushioning device mounted on the external side of the valve shall control the valve closure by way of the interchange of oil to and from an oil reservoir. The use of air or gas pressurized oil reservoir shall not be permitted. The oil plunger assembly shall be rigidly attached to the valve body by shoulder bolts or dowel pins to prevent fretting.
 3. The Manufacturer, if required by the Engineer or the City, shall submit design calculations of principle component stresses to substantiate the integrity of the valve for the working pressure involved.
 4. The valve when closed shall be tight seating by way of a resilient replaceable seat against a bronze seat ring in the body.

5. Valves shall be as manufactured by GA Industries or Series 6000 as manufactured by APCO. The City reserves the right to inspect all valves before shipment is made. Any failure of valves to operate satisfactorily during the first year of installation due to faulty workmanship or defective material shall be replaced and made good by the Manufacturer. Under these specifications, any valve stuffing box that leaks for any reason or because of excessive wear or deterioration of packing, shall be reason for classification as defective material.

B. Slanted / Tilted Check Valves

1. Slanted or tilted check valves shall be furnished and installed where shown on the Plans.
2. The body of the valve shall be ductile iron or cast iron with access ports to the disc. The disc shall be cast iron. The seat and disc rings shall be bronze. Pivot pins and bushings shall be bronze or stainless steel. The valve shall include a localized indicator of the position of the valve.
3. The valves shall include a top mounted oil dash pot to prevent slamming of the disc. The dash pot shall control the last 10% of closure of the disc. The speed of closure within this 10% shall be adjustable.
4. Valves shall be APCO Slanting Disc, Valmatic or Golden Anderson Tilted Disc or approved equal.

W3.11 FLANGES

- A. Flanges shall be cast solid and faced accurately at right angles to the axis of the casting. Dimensions and drilling of flanges shall be in accordance with the American Standard Association for a working pressure of 125 pounds per square inch. Special drilling shall be provided where necessary.

W3.12 FIRE HYDRANTS

- A. Fire hydrants shall be dry-barrel type conforming to the requirements of the latest revision of AWWA C502. Hydrants shall be designed such that the hydrant valve closes with line pressure preventing loss of water and consequent flooding in the event of traffic damage.
- B. Hydrants shall have six (6)-inch mechanical joint inlet connections, two 2½-inch hose connections and one 4½-inch pumper connection. Threads for the hose and pumper connections shall be in accordance with National Standard Thread. Hydrants shall be according to Manufacturer's standard pattern. Hydrants shall be equipped with "O" ring packing. Each nozzle cap shall be provided with a Buna-N rubber washer.
- C. Hydrants shall be so arranged that the direction of outlets may be turned 90 degrees without interference with the drip mechanism or obstructing the discharge from any outlet. The body of the hydrant shall be equipped with a breakable flange, or breakable cast iron flange bolts, just above the grade line.
- D. A bronze or rustproof steel nut and check nut shall be provided to hold the main hydrant valve on its stem.
- E. Hydrant valve opening shall have an area at least equal to that area of a 4½-inch minimum diameter circle and be obstructed only by the valve rod. Each hydrant shall be able to deliver 500 gallons minimum through its two 2½-inch hose nozzles when opened together with a loss of not more than two (2) psi in the hydrant.
- F. Hydrants shall be designed for installation in a trench that will provide minimum cover as noted on Plans and for the flange to be 3 ½-inches above ground surface. Hydrant extensions shall be as manufactured by the company furnishing the hydrants and of a style appropriate for the hydrants as furnished.
- G. Hydrants shall be provided with an automatic and positively operating, non-corrodible drain or drip valve so as to drain the hydrant completely when the main valve is shut. A drain valve operating by

springs or gravity is not acceptable.

- H. Operating stems whose threads are located in the barrel or waterway shall be of manganese bronze, everdur, or other high-quality non-corrodible metal, and all working parts in the waterway shall be bronze to bronze.
- I. Hydrants shall open by turning operating nut to left (counter-clockwise) and shall be marked with a raised arrow and the word "open" to indicate the direction to turn stem to open hydrant.
- J. Hydrants shall be furnished with caps, double galvanized steel hose cap chain, galvanized steel pumper hose cap chain, a galvanized steel chain holder and any other hooks and/or appurtenances required for proper use.
- K. Hydrant operating nut shall be AWWA Standard pentagonal type measuring 1½-inch point to flat.
- L. Hydrants shall be hydrostatically tested as specified in AWWA C502.
- M. Hydrants shall be of the following:
 - 1. Kennedy – K81
 - 3. American Darling – B84B
 - 2. Clow Medallion
- N. All iron work to be set below ground, after being thoroughly cleaned, shall be painted with two (2) coats of asphalt varnish specified in AWWA C502. Iron work to be left above ground shall be factory primed and painted silver using a high grade enamel paint of quality and color to correspond to the present standard of the City.
- O. Fire hydrants shall be installed on the same side of the street or roadway as the water main and shall be installed plumb and true.
- P. Heel and thrust blocks shall be placed in undisturbed soil as shown in the details of the Plans.
- Q. Double blue reflector "HYE – LITES" brand as manufactured by pavement markers ink shall be installed at the centerline of the street or roadway perpendicular to the hydrant.

W3.13

CORPORATION STOPS

- A. Corporation stops shall be brass, not less than 1-inch in diameter and shall be installed where shown, specified or required.
- B. Provide corporation stops as manufactured by the following:
 - 1. Ford Company

W3.14

COMBINATION AIR-VACUUM RELIEF VALVES

- A. The air-vacuum release valves shall be installed as shown on the Plans. The valve body shall be of cast iron ASTM A126-B; the floats, float guide, and stem shall be of Type 316 stainless steel. The resilient seat shall be of Buna N. The valve shall be suitable for 150 psig working pressure. Valve shall have standard NPT inlets and outlet ports with diameters as indicated on the Plans. Valve shall be Model 200A Series by APCO Valve and Primer Corporation, Schaumburg, IL, or approved equal.

W3.15

SURFACE PREPARATION AND SHOP COATINGS

- A. The interior ferrous metal surfaces, except finished or bearing surfaces, shall be blast cleaned in accordance with SSPC SP-6 and painted with two (2) coats of an approved two (2) component coal tar

epoxy coating specifically formulated for potable water use. The coating used must appear on the current edition of the United States Environmental Protection Agency's list entitled "Accepted Categories and Subcategories of Coatings, Liners and Paints for Potable Water Usage."

- B. Exterior ferrous metal surfaces of all buried valves and hydrants shall be blast cleaned in accordance with SSPC SP-6 and given two (2) shop coats of a heavy coat tar enamel or an approved two (2) component coat tar epoxy paint.

W3.16 INSPECTION AND PREPARATION

- A. During installation of all valves and appurtenances, the Contractor shall verify that all items are clean, free of defects in material and workmanship and function properly.
- B. All valves shall be closed and kept closed until otherwise directed by the Engineer or the City.

W3.17 INSTALLATION OF BURIED VALVES AND VALVE BOXES

- A. Buried valves shall be cleaned and manually operated before installation. Buried valves and valve boxes shall be set with the stem vertically aligned in the center of the valve box. Valves shall be set on a firm foundation and supported by tamping pipe bedding material under the sides of the valve. The valve box shall be supported during backfilling and maintained in vertical alignment with the top flush with finish grade. The valve box shall be set so as not to transmit traffic loads to the valve.
- B. Before backfilling, all exposed portions of any bolts shall be coated with two (2) coats of bituminous paint.

W3.18 INSTALLATION OF TAPPING SLEEVES AND VALVES

- A. The City of Georgetown shall be contacted and their permission granted prior to tapping a line. The required procedures and time table shall be followed exactly.
- B. Installation shall be made under pressure and flow shall be maintained. The diameters of the tap shall be a minimum of $\frac{1}{4}$ -inch less than the inside diameter of the branch line.
- C. The entire operation shall be conducted by workers experienced in the installation of tapping sleeves and valves. The tapping machine shall be furnished by the Contractor.
- D. Determine the location of the line to be tapped to confirm that the proposed location will be satisfactory and that no interference will be encountered such as joints or fittings. No tap or sleeve will be made closer than three (3) feet from a pipe joint.
- E. A tapping sleeve and valve with boxes shall be set squarely centered on the line to be tapped. Adequate support shall be provided under the sleeve and valve during the tapping operation. Thrust blocks or other permanent restraint acceptable to the Engineer and the City shall be provided behind all tapping sleeves. Proper tamping of supporting pipe bedding material around and under the valve and sleeve is mandatory for buried installations.
- F. After completing the tap, the valve shall be flushed to ensure that the valve seat is clean. All proper regulatory procedures (including disinfection) shall be followed exactly.

W3.19 INSTALLATION OF FIRE HYDRANTS

- A. Fire hydrants shall be set at the locations as shown on the Plans and bedded on a firm foundation. Hydrants and connecting pipe shall have at least the same depth of cover as the distributing pipe. A drainage pit as detailed on the Plans shall be filled with $\frac{3}{4}$ -inch washed rock gravel and compacted. The hydrants shall be set upon a slab of concrete not less than four (4)-inches thick and 15-inches square. During backfilling, additional screened gravel shall be brought up around and six (6) inches over the drain port. Each hydrant shall be set in true vertical alignment and properly braced.

- B. 2,500 psi concrete thrust blocks shall be placed between the back of the hydrant inlet and undisturbed soil at the end of the trench. Minimum bearing area shall be as shown on the Plans. Eight (8) mil. Polyethylene film shall be placed around the hydrant elbow before placing concrete. CARE SHALL BE TAKEN TO ENSURE THAT CONCRETE DOES NOT PLUG THE DRAIN PORTS.
- C. All connections from the main to the fire hydrants shall be anchoring mechanical joints designed to prevent movement due to thrust or pressure.
- D. The hydrant shall be tied to the pipe with suitable rods or clamps, and shall be coated with Koppers 300 or approved equal at a minimum of 8 mil. thick. Bolts shall have a zinc bolt cover per AWWA. Hydrant paint shall be touched up as required after installation.
- E. Fire hydrants shall be factory primed and painted silver using a high grade enamel.
- F. Fire sprinkler lines shall be protected by a reduced pressure zone (RPZ). All fire lines shall be ductile iron pipe. All private fire lines shall be separated by double detecta check.

W3.20

FIELD TESTS AND ADJUSTMENTS

- A. Conduct a functional field test of each valve, including actuators and valve control equipment, in presence of Engineer or the Representative of the City to demonstrate that each part and all components together function correctly. All testing equipment required shall be provided by the Contractor at his/her sole expense.

W3.21

PAYMENT

- A. Gate valves, tapping sleeves and tapping valves, fire hydrants, and air and vacuum relief valves complete in place as shown on the Plans and as specified, will be paid for at the unit contract price per each as provided in the Proposal and Bid Schedule.
- B. The unit price per each installation shall be the total compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work including excavation, base blocking, disposal of surplus materials and backfill in conformance with the Plans and these specifications. The six (6) inch connection pipe, six (6) inch gate valve, test station, concrete collar, thrust block, drain pit, concrete pad, rods, bolts, paint, protective coatings, and fittings for fire hydrants shall not be paid for separately.
- C. Fire hydrants shall be furnished with the proper length of barrel to comply with these specifications. Barrel extensions will not be measured and paid for separately.
- D. No separate payment shall be made for work performed in accordance with this specification, other than that listed in Parts A-C of this subsection, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONSSECTION C9 – FLOWABLE BACKFILLC9.01 SCOPE OF WORK

- A. This specification covers the requirements for the furnishing and placing of flowable backfill as indicated on the Plans.

C9.02 SUBMITTALS

- A. Within 30 days after the Notice to Proceed, the Contractor shall submit to the Engineer or the City for approval, technical product literature including flowable backfill mix design, curing method, and all other pertinent data to illustrate conformance to the specification found within.

C9.03 CONSTRUCTION METHODS

- A. All trenches to be backfilled shall be properly prepared according to the Plans and Specifications prior to placement of flowable backfill.

C9.04 FLOWABLE BACKFILL

- A. Flowable backfill shall be placed in accordance with the details and to the dimensions shown on the Plans or as established by the City.
- B. The mixture shall consist of 188 pounds of Type III Portland cement, 94 pounds of fly ash and 3,000 pounds of sand per cubic yard of flowable backfill.
- C. The minimum allowable slump for flowable backfill is 6-inches.
- D. Immediately following the placement of flowable backfill, it shall be cured in accordance with Section C1- CONCRETE STRUCTURES.

C9.05 PAYMENT

- A. Payment for flowable backfill shall be subsidiary to the appropriate bid items of the Proposal and Bid Schedule.

END OF SECTION

Special Provision W1 – Ductile Iron Pipe and Fittings

Delete and Replace the section W1.17 with the following:

- A. The pipeline, complete in place, including cleanup, will be measured for payment in linear feet along the centerline of the pipe actually installed. Measurement shall be through all fittings, specials, valves, etc., and no deduction in length shall be made for such appurtenances. Installation of the pipeline will be paid for at the unit contract price per linear foot as provided in the Proposal and Bid Schedule.
- B. Payment of the unit contract price for the items of work performed shall be the total compensation for furnishing all labor, materials, tools, equipment and incidentals and performing all work that is necessary for the installation, testing, and sterilization of the pipe, blocking, embedment or placing in encasement pipe and all other appurtenances in accordance with the Plans and the provisions of the Specifications.
- C. Fittings:
Ductile iron fittings, furnished in accordance with these specifications, will be paid for at the unit price bid per ton, complete in place, according to the schedule of weights in the City of Austin Standard Products List WW-27C. Bolts, glands, and gaskets will not be paid for separately and shall be included in the contract unit price for fittings.
- D. Wet Connections to Potable Water Mains:
When called for in the bid, wet connections will be paid at the unit price bid per each, complete in place, according to the size of the main that is in service and shall be full compensation for all Work, including labor and materials, required to make the connection and place the pipe in service.
- E. Pressure Connections to Potable Water Mains
When called for in the bid, pressure connections will be paid at the unit price bid per each, complete in place, according to the size of the main that is in service and shall be full compensation for all Work, including labor and materials, required to make the connection and place the pipe in service.
- F. Abandonment of Pipes, Valves, and Appurtenances:
The installation of proposed pipeline shall include the abandonment of existing pipe, valves, and appurtenances affected. The existing pipe under roadways are to be cut, capped, and filled with flowable fill. Existing pipes to be abandoned in place and are not under a roadway or driveway, will be capped. Payment is subsidiary to the cost of the installation of the proposed pipeline.

Special Provision W2 – Polyvinyl Chloride (PVC) Pipe - Water

Delete and Replace the section W2.10 with the following:


- A. The pipeline, complete in place, including cleanup, will be measured for payment in linear feet along the centerline of the pipe actually installed. Measurement shall be through all fittings, specials, valves, etc., and no deduction in length shall be made for such appurtenances. Installation of the pipeline will be paid for at the unit contract price per linear foot as provided in the Proposal and Bid Schedule.
- B. Payment of the unit contract price for the items of work performed shall be the total compensation for furnishing all labor, materials, tools, equipment and incidentals and performing all work that is necessary for the installation, testing, and sterilization of the pipe, blocking, embedment or placing in encasement pipe and all other appurtenances in accordance with the Plans and the provisions of the Specifications.
- C. Fittings:
Ductile iron fittings, furnished in accordance with these specifications, will be paid for at the unit price bid per ton, complete in place, according to the schedule of weights in the City of Austin Standard Products List WW-27C. Bolts, glands, and gaskets will not be paid for separately and shall be included in the contract unit price for fittings.
- D. Wet Connections to Potable Water Mains:
When called for in the bid, wet connections will be paid at the unit price bid per each, complete in place, according to the size of the main that is in service and shall be full compensation for all Work required, including labor and materials, to make the connection and place the pipe in service.
- E. Pressure Connections to Potable Water Mains:
When called for in the bid, pressure connections will be paid at the unit price bid per each, complete in place, according to the size of the main that is in service and shall be full compensation for all Work required, including labor and materials, to make the connection and place the pipe in service.
- F. Abandonment of Pipes, Valves, and Appurtenances:
The installation of proposed pipeline shall include the abandonment of existing pipe, valves, and appurtenances affected. The existing pipe under roadways are to be cut, capped, and filled with flowable fill. Existing pipes to be abandoned in place and are not under a roadway or driveway, will be capped. Payment is subsidiary to the cost of the installation of the proposed pipeline.

ESTIMATE OF QUANTITIES SUMMARY
RIVER RD & OLD WINDMILL RD

ITEM	NO	DESCRIPTION	UNITS	QUANTITY
100	6002	PREPARING ROW	STA	80
100	6017	PREP ROW (TREE) (GREATER THAN 8 IN DIA)	EA	20
110	6001	EXCAVATION (ROADWAY)	CY	3741
110	6002	EXCAVATION (CHANNEL)	CY	226
132	6001	EMBANKMENT (FINAL)(ORD COMP)(TY A)	CY	821
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	24626
162	6002	BLOCK SODDING	SY	379
164	6033	DRILL SEEDING (PERM) (RURAL) (SANDY)	SY	24626
166	6001	FERTILIZER	AC	5
168	6001	VEGETATIVE WATERING	MG	959
169	6001	SOIL RETENTION BLANKETS (CL I) (TY A)	SY	7587
247	6041	FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS	CY	2626
260	6079	LIME TRT (SUBGRADE) (6")	SY	18905
310	6027	PRIME COAT (MC-30 OR AE-P)	GAL	3437
316	6175	AGGR (TY-B GR-4 SAC-B)	CY	300
316	6466	ASPH (CHFRS-2P OR CRS-2P)	GAL	12032
354	6100	PLANE ASPH CONC PAV (5")	SY	18905
432	6002	RIPRAP (CONC)(5 IN)	CY	18
432	6035	RIPRAP (STONE PROTECTION) (24 IN)	CY	350
432	6045	RIPRAP (MOW STRIP) (4 IN)	CY	49
460	6009	CMP AR (GAL STL DES 2)	LF	490
460	6010	CMP AR (GAL STL DES 3)	LF	60
460	6011	CMP AR (GAL STL DES 4)	LF	295
462	6010	CONC BOX CULV (6 FT X 3 FT)	LF	29
464	6017	RC PIPE (CL IV)(18 IN)	LF	49
464	6018	RC PIPE (CL IV)(24 IN)	LF	422
464	6019	RC PIPE (CL IV)(30 IN)	LF	39
464	6020	RC PIPE (CL IV)(36 IN)	LF	40
465	6187	INLET(COMPL)(DROP)(TY 1)(1 GRATE)	EA	1
466	6039	HEADWALL (CH - FW - 30) (DIA= 36 IN)	EA	1
466	6134	HEADWALL (CH - PW - S) (DIA= 36 IN)	EA	1
466	6152	WINGWALL (FW - 0) (HW=5 FT)	EA	1
466	6179	WINGWALL (PW - 1) (HW=4 FT)	EA	1
467	6356	SET (TY II) (18 IN) (RCP) (3: 1) (C)	EA	4
467	6388	SET (TY II) (24 IN) (RCP) (3: 1) (C)	EA	8
467	6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	1
467	6417	SET (TY II) (30 IN) (RCP) (3: 1) (C)	EA	2
467	6525	SET (TY II) (DES 2) (CMP) (6: 1) (P)	EA	32
467	6537	SET (TY II) (DES 3) (CMP) (6: 1) (P)	EA	4
467	6551	SET (TY II) (DES 4) (CMP) (6: 1) (P)	EA	4
496	6006	REMOV STR (HEADWALL)	EA	2
496	6007	REMOV STR (PIPE)	LF	300
496	6050	REMOV STR (DRIVEWAY CULVERT)	EA	12
500	6001	MOBILIZATION	LS	1
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	3
506	6002	ROCK FILTER DAMS (INSTALL) (TY 2)	LF	245
506	6011	ROCK FILTER DAMS (REMOVE) (TY 2)	LF	245
506	6020	CONSTRUCTION EXISTS (INSTALL) (TY 1)	SY	333
506	6024	CONSTRUCTION EXISTS (REMOVE)	SY	333
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	6729
506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	6729
530	6006	DRIVEWAYS (SURF TREAT)	SY	2690
540	6001	MTL W-BEAM GD FEN (TIM POST)	LF	1000
540	6014	SHORT RADIUS	LF	25
540	2005	TERMINAL ANCHOR SECTION	EA	8
560	6001	MAILBOX INSTALL-S (TWG-POST) TY 1	EA	57
UNFORSEEN WATER LINE ITEMS (from Cobb Fendley)				
W2.10.A.6"		Pipe, 6" Dia. PVC Water, Complete in Place, Including Excavation and Backfill	LF	800
W2.10.AR.6"		Pipe, 6" Dia. PVC Water (Restrained), Complete in Place, Including Excavation and Backfill	LF	200
W1.17.A		Ductile Iron Fittings	TON	2
W1.17.B6x6		Wet Connection, 6"x6" Dia.	EA	6
CIP11.06.B		Trench Excavation Safety Protection System (All Depths)	LF	1200
W2.10.A2		Pipe, 2" Dia. SDR-9 PE, New Service Line	LF	100
W3.21.A6		Valves, Gate 6" Dia.	EA	3
W3.21.ARV2		Air Release Valve, 2"	EA	2
W3.21.B		Fire Hydrant Assembly	EA	2
W-04		Reconnect single service connections, incl. new meters per detail W-04	EA	10



Kelly G. Morrelli
8/8/17

ND.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1848			
RIVER RD & OLD WINDMILL RD ESTIMATE OF QUANTITIES SUMMARY			
Designed: KGM	3151 S.E. INNER LOOP, SUITE B		SHEET NO.
Checked: KOK	GEORGETOWN, TEXAS 78626		2
Drawn: KGM	943-3330		
Checked: KOK	www.wilco.org		

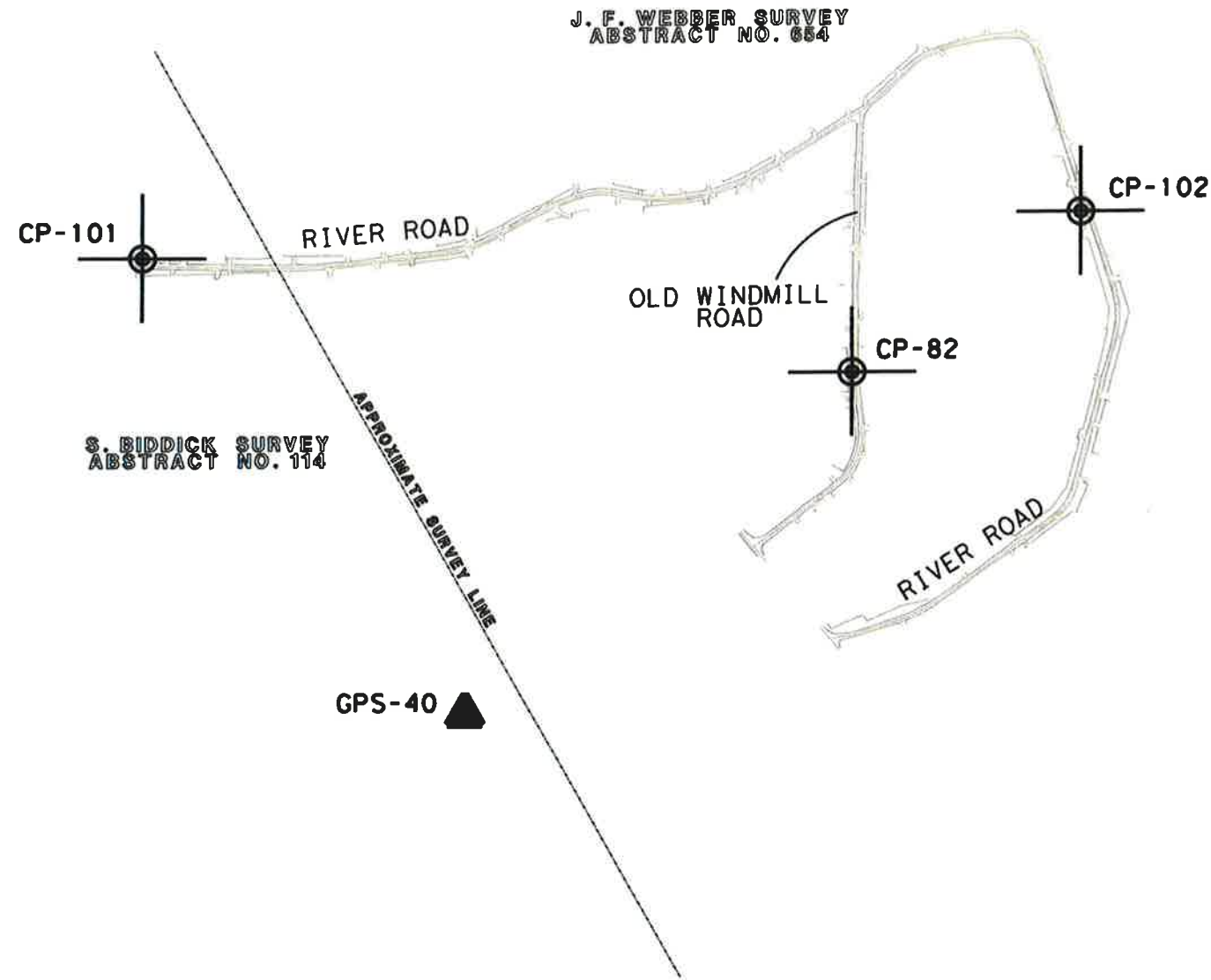
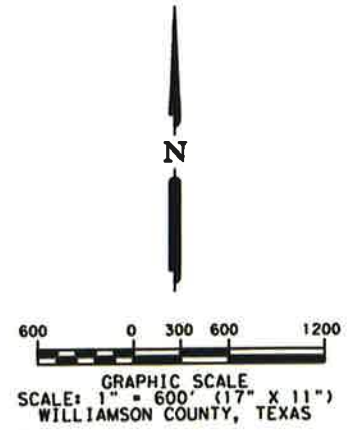
RIVER OLD WINDMILL_EST OF QTY.dgn
8/8/2017 10:28:00 AM

PROJECT CONTROL HORIZONTAL AND VERTICAL VALUES
GRID COORDINATES

Point	North	East	Elevation	Description
40	10233276.43	3058281.76	902.36'	GPS-TYPE II MONUMENT FOUND
82	10234472.27	3059650.82	927.14'	5/8" IR W/WILLIAMSON COUNTY CAP FND
101	10234883.70	3057132.69	960.14'	5/8" IR W/PLASTIC SAM CAP SET
102	10235031.52	3060462.36	891.32'	5/8" IR W/PLASTIC SAM CAP SET

PROJECT CONTROL HORIZONTAL AND VERTICAL VALUES
SURFACE COORDINATES

Point	North	East	Elevation	Description
40	10234763.34	3058726.13	902.36'	GPS-TYPE II MONUMENT FOUND
82	10235959.35	3060095.39	927.29'	5/8" IR W/WILLIAMSON COUNTY CAP FND
101	10236370.84	3057576.89	960.14'	5/8" IR W/PLASTIC SAM CAP SET
102	10236518.68	3060907.05	891.32'	5/8" IR W/PLASTIC SAM CAP SET



NOTES:

1. ALL PROJECT COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD 83(2011) EPOCH 2010.00/NAVD 88. ALL COORDINATES SHOWN HEREON ARE ADJUSTED TO SURFACE BY USING A COMBINED SCALE FACTOR OF 0.99985472 AS PROVIDED BY WILLIAMSON COUNTY. UNITS: U.S. SURVEY FEET
2. ELEVATIONS WERE DERIVED FROM GPS OBSERVATIONS USING GEOID 3 (CONUS) AND VERIFIED WITH DIFFERENTIAL LEVEL RUNS STARTING AT "GPS 40" "2007-40" WILLIAMSON COUNTY GPS MONUMENT ELEVATION: 902.36'. UNITS: U.S. SURVEY FEET
3. PERFORMING A SITE CALIBRATION/LOCALIZATION SHOULD ALWAYS BE DONE WHEN UTILIZING THE CONTROL SHOWN HEREON.

Survey Date: NOVEMBER, 2016



CONTROL INDEX SHEET

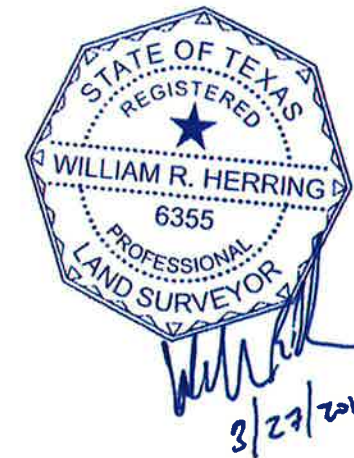
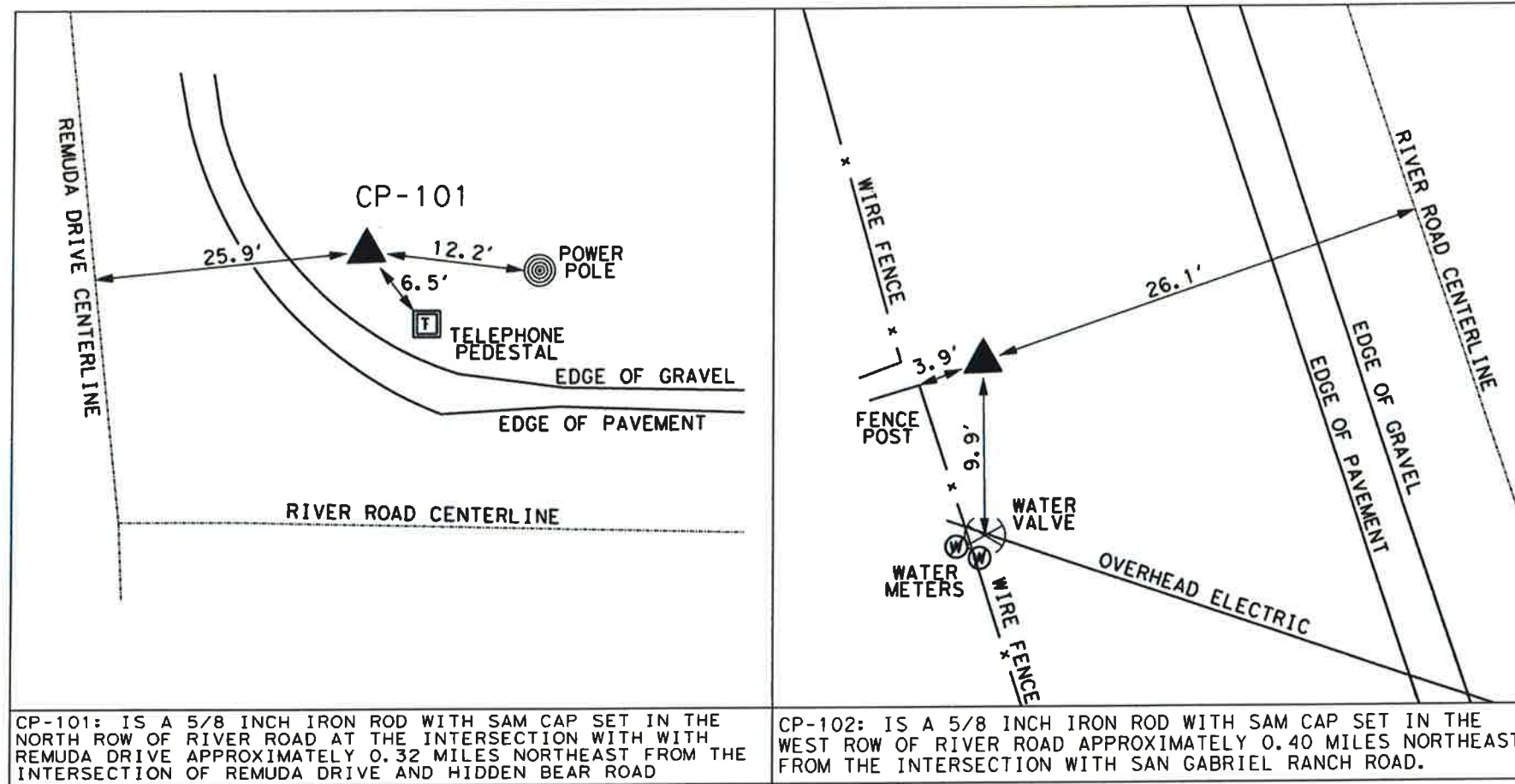
1 OF 2

SAN GABRIEL RANCH	WILLIAMSON COUNTY PROJECT NO.	SHEET NO.
		1
STATE	DISTRICT	COUNTY
TEXAS		WILLIAMSON
CONTROL	SECTION	JOB
		25093
		FIELD BOOK NO.:
		RIVER ROAD

RIVER ROAD - SAN GABRIEL RANCH
WILLIAMSON COUNTY
SAM JOB No. 37470
DATE: FEBRUARY, 2017
FIELD BOOK NO.: 25093



NOT TO SCALE
WILLIAMSON COUNTY, TEXAS



NOTES:

1. ALL PROJECT COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD 83 (2011) EPOCH 2010.00/NAVD 88. ALL COORDINATES SHOWN HEREON ARE ADJUSTED TO SURFACE BY USING A COMBINED SCALE FACTOR OF 0.99985472 AS PROVIDED BY WILLIAMSON COUNTY. UNITS: U. S. SURVEY FEET
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3. PERFORMING A SITE CALIBRATION/LOCALIZATION SHOULD ALWAYS BE DONE WHEN UTILIZING THE CONTROL SHOWN HEREON.

Survey Date: NOVEMBER, 2016

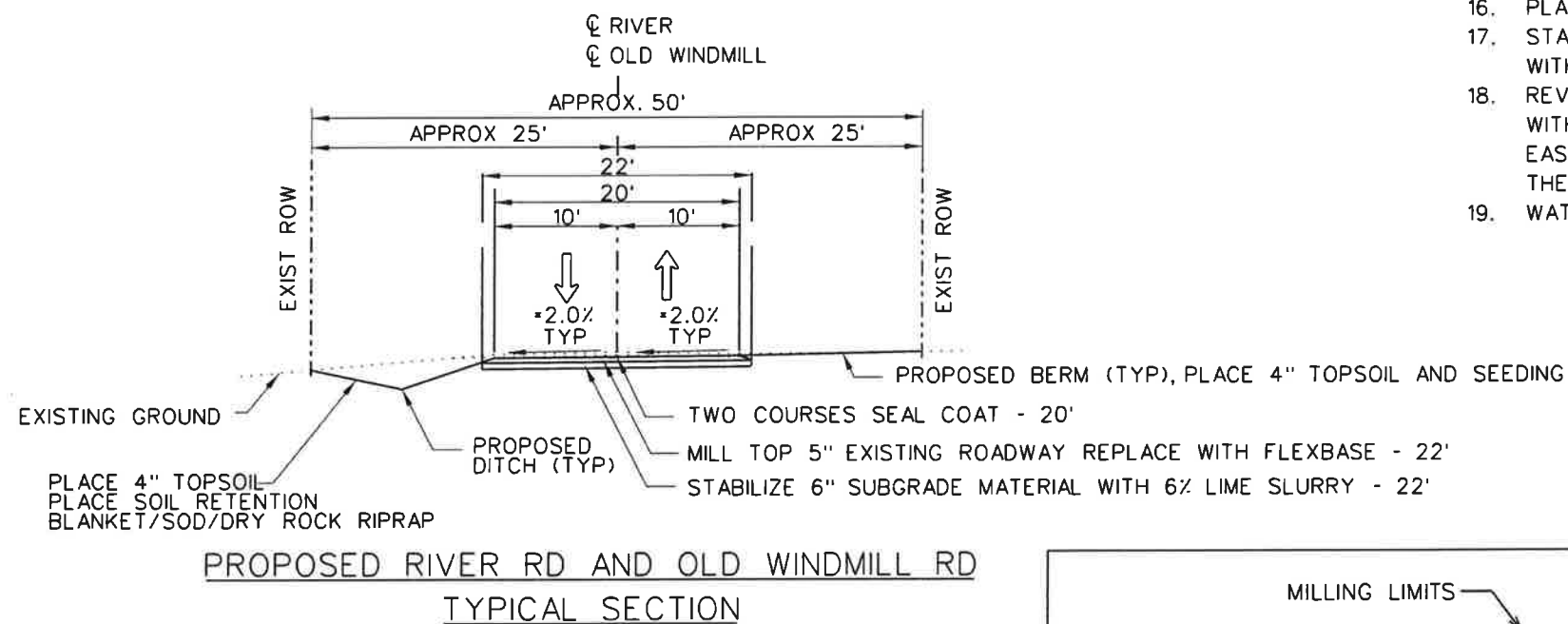
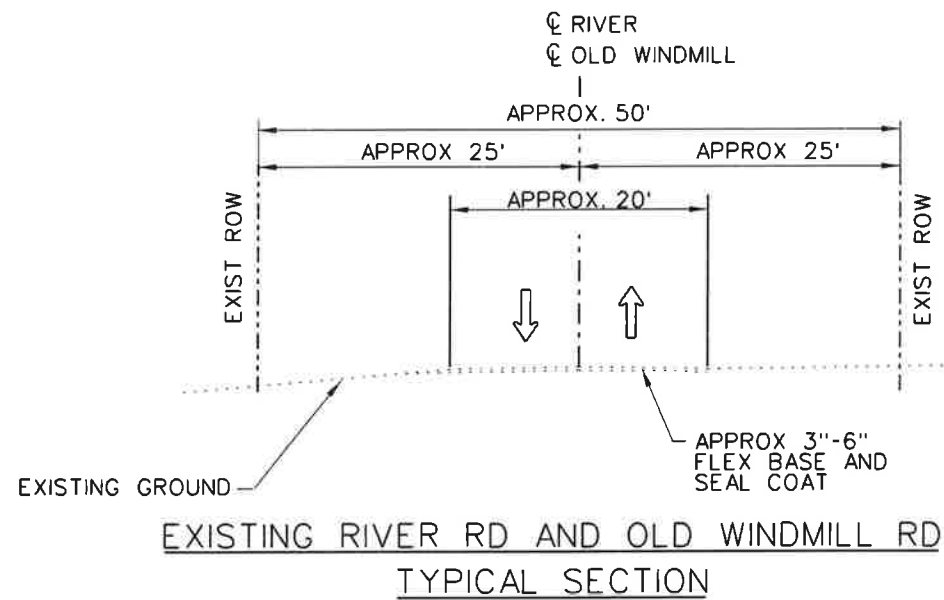


HORIZONTAL AND VERTICAL
SURVEY CONTROL SHEETS

2 OF 2

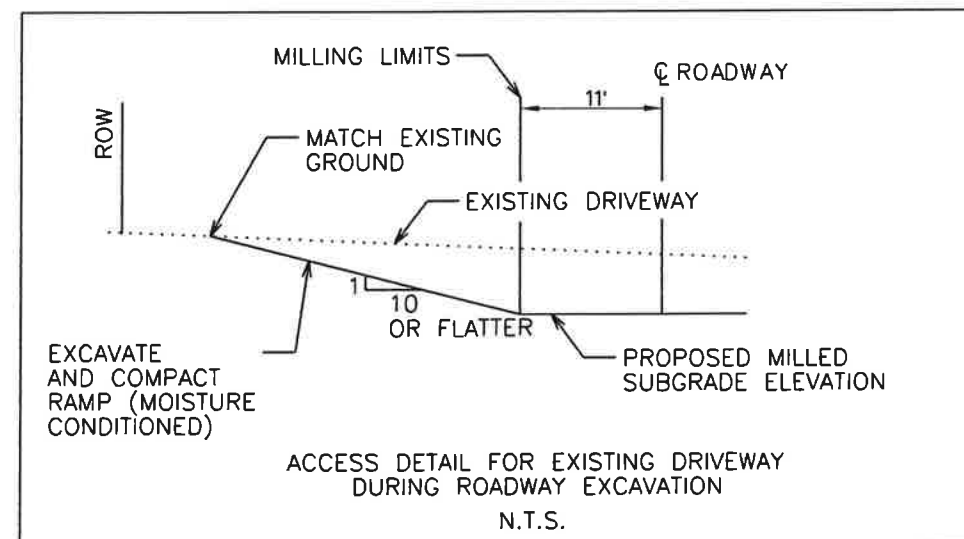
SAN GABRIEL RANCH		WILLIAMSON COUNTY PROJECT NO.		SHEET NO.	
				2	
STATE	DISTRICT	COUNTY			
TEXAS		WILLIAMSON			
CONTROL	SECTION	JOB	HIGHWAY NO.		
			RIVER ROAD		

RIVER ROAD - SAN GABRIEL RANCH
WILLIAMSON COUNTY
SAM JOB No. 37470
DATE: FEBRUARY, 2017
FIELD BOOK NO.: 25093



*NORMAL CROWN ON RIVER RD
 STA 36+50 - STA 39+40
 STA 57+60 - STA 62+60
 STA 64+90 - STA 68+40
 STA 73+00 - STA 73+36.06

NOTE: SEE CROSS SECTIONS FOR MORE INFORMATION



SEQUENCE OF CONSTRUCTION:

1. PLACE SIGNING WITHIN PROJECT LIMITS ACCORDING TO BC (2)-14.
2. REROUTE TRAFFIC THROUGH DETOUR AS SHOWN IN THE PLANS.
3. POST TCEQ LARGE CONSTRUCTION SITE NOTICE AND INSTALL RAIN GAUGE.
4. PLACE TEMPORARY EROSION CONTROL DEVICES AS SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER, PRIOR TO BEGINNING ANY OTHER WORK.
5. CLEAR AND GRUB ROW AND STOCKPILE TOPSOIL.
6. CUT DITCHES TO FINAL GRADE.
7. INSTALL DRAINAGE CULVERTS AND HEADWALLS.
8. MILL EXISTING ROADWAY TO PROPOSED SUBGRADE ELEVATION. THIS WORK SHALL ONLY BE PERFORMED IN 1,500 FT SECTIONS AT A TIME.
9. RAMP EXISTING DRIVEWAYS AT 10:1 SLOPES OR FLATTER ACCORDING TO DETAIL IN PLANS. CONTRACTOR SHALL PROVIDE DRAINAGE OUTFALL TO THE DITCH AT PONDING AREAS.
10. STABILIZE SUBGRADE WITH 6% LIME SLURRY. ONCE LIME IS CURED, PLACE AND PROOF-ROLL 1" OF ROADWAY BASE AS A TEMPORARY RIDING SURFACE FOR TRAFFIC IN 1,500 FT SECTION; CONTRACTOR MAY BEGIN MILLING ON NEXT 1,500 FT SECTION.
11. PLACE ROADWAY BASE AT FINAL GRADE.
12. REGRADE ROADSIDE DITCHES AND PLACE TOPSOIL (4" DEPTH).
13. INSTALL CONCRETE AND DRY ROCK RIPRAP AT CULVERT ENDS AND SPECIFIED SLOPES.
14. APPLY PRIME COAT.
15. APPLY TWO COURSES SEAL COAT.
16. PLACE ROADSIDE SIGNAGE AND PAVEMENT MARKINGS, IF REQUIRED.
17. STABILIZE BARE AREAS AND STOCKPILE AREAS WITH TEMPORARY SEEDING WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN THE AREAS.
18. REVEGETATE ALL DISTURBED AREAS, INCLUDING TEMPORARY SEEDING, WITHIN THE ROW, DRAINAGE EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS WITH PERMANENT SEEDING UNLESS SEASON DICTATES THE USE OF TEMPORARY SEEDING.
19. WATER REVEGETATED AREAS UNTIL GRASS IS ESTABLISHED.



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

RIVER RD & OLD WINDMILL RD
CONSTRUCTION NOTES & TYPICAL SECTIONS

Designed: KGM KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
Checked: KOK KOK		5
Drawn: KGM KGM		
Checked: KOK KOK		

Chain RIVER contains:
RIVER1 CUR RIVER_3 CUR RIVER_6 CUR RIVER_9 CUR RIVER_12 CUR RIVER_15 CUR RIVER_18 CUR RIVER_21 CUR RIVER_24 CUR RIVER_27 CUR RIVER_30 RIVER32

Beginning chain RIVER description

Point RIVER1 N 10,236,350.0550 E 3,057,257.6433 Sta 10+00.00

Course from RIVER1 to PC RIVER_3 S 89° 02' 37.71" E Dist 818.7576

Curve Data

Curve RIVER_3
P.I. Station = 19+45.50 N 10,236,334.2765 E 3,058,203.0134
Delta = 8° 03' 19.77" (LT)
Degree = 3° 10' 59.16"
Tangent = 126.7442
Length = 253.0707
Radius = 1,800.0000
External = 4.4567
Long Chord = 252.8623
Mid. Ord. = 4.4457
P.C. Station = 18+18.76 N 10,236,336.3916 E 3,058,075.2869
P.T. Station = 20+71.83 N 10,236,349.9407 E 3,058,328.7859
C.C. = N 10,238,136.1409 E 3,058,106.3251
Back = S 89° 02' 37.71" E
Ahead = N 82° 54' 02.52" E
Chord Bear = N 86° 55' 42.40" E

Course from PT RIVER_3 to PC RIVER_6 N 82° 54' 02.52" E Dist 353.8479

Curve Data

Curve RIVER_6
P.I. Station = 24+86.72 N 10,236,401.2173 E 3,058,740.4996
Delta = 19° 47' 16.28" (LT)
Degree = 16° 22' 12.80"
Tangent = 61.0466
Length = 120.8771
Radius = 350.0000
External = 5.2839
Long Chord = 120.2773
Mid. Ord. = 5.2054
P.C. Station = 24+25.68 N 10,236,393.6726 E 3,058,679.9211
P.T. Station = 25+46.55 N 10,236,428.8247 E 3,058,794.9469
C.C. = N 10,236,740.9893 E 3,058,636.6648
Back = N 82° 54' 02.52" E
Ahead = N 63° 06' 46.24" E
Chord Bear = N 73° 00' 24.38" E

Course from PT RIVER_6 to PC RIVER_9 N 63° 06' 46.24" E Dist 268.0178

Curve Data

Curve RIVER_9
P.I. Station = 29+37.98 N 10,236,605.8402 E 3,059,144.0577
Delta = 34° 17' 29.92" (RT)
Degree = 14° 19' 26.20"
Tangent = 123.4063
Length = 239.4008
Radius = 400.0000
External = 18.6038
Long Chord = 235.8437
Mid. Ord. = 17.7770
P.C. Station = 28+14.57 N 10,236,550.0316 E 3,059,033.9917
P.T. Station = 30+53.97 N 10,236,589.9365 E 3,059,266.4349
C.C. = N 10,236,193.2720 E 3,059,214.8856
Back = N 63° 06' 46.24" E
Ahead = S 82° 35' 43.83" E
Chord Bear = N 80° 15' 31.21" E

Course from PT RIVER_9 to PC RIVER_12 S 82° 35' 43.83" E Dist 70.7823

Curve RIVER_12
P.I. Station = 33+68.53 N 10,236,549.3986 E 3,059,578.3677
Delta = 38° 24' 04.04" (LT)
Degree = 8° 11' 06.40"
Tangent = 243.7735
Length = 469.1582
Radius = 700.0000
External = 41.2324
Long Chord = 460.4263
Mid. Ord. = 38.9388
P.C. Station = 31+24.75 N 10,236,580.8145 E 3,059,336.6270
P.T. Station = 35+93.91 N 10,236,674.9389 E 3,059,787.3297
C.C. = N 10,237,274.9772 E 3,059,426.8383
Back = S 82° 35' 43.83" E
Ahead = N 59° 00' 12.12" E
Chord Bear = N 78° 12' 14.15" E

Course from PT RIVER_12 to PC RIVER_15 N 59° 00' 12.12" E Dist 345.2183

Curve Data

Curve RIVER_15
P.I. Station = 40+08.83 N 10,236,888.6156 E 3,060,142.9947
Delta = 11° 22' 19.92" (LT)
Degree = 8° 11' 06.40"
Tangent = 69.6978
Length = 138.9376
Radius = 700.0000
External = 3.4613
Long Chord = 138.7097
Mid. Ord. = 3.4443
P.C. Station = 39+39.13 N 10,236,852.7221 E 3,060,083.2500
P.T. Station = 40+78.07 N 10,236,935.5850 E 3,060,194.4890
C.C. = N 10,237,452.7604 E 3,059,722.7586
Back = N 59° 00' 12.12" E
Ahead = N 47° 37' 52.20" E
Chord Bear = N 53° 19' 02.16" E

Course from PT RIVER_15 to PC RIVER_18 N 47° 37' 52.20" E Dist 115.1845


Curve Data

Curve RIVER_18
P.I. Station = 43+30.64 N 10,237,105.7938 E 3,060,381.0953
Delta = 36° 13' 38.51" (RT)
Degree = 13° 38' 30.67"
Tangent = 137.3882
Length = 265.5604
Radius = 420.0000
External = 21.8999
Long Chord = 261.1589
Mid. Ord. = 20.8146
P.C. Station = 41+93.25 N 10,237,013.2079 E 3,060,279.5898
P.T. Station = 44+58.81 N 10,237,120.4921 E 3,060,517.6949
C.C. = N 10,236,702.9026 E 3,060,562.6281
Back = N 47° 37' 52.20" E
Ahead = N 83° 51' 30.71" E
Chord Bear = N 65° 44' 41.46" E

Course from PT RIVER_18 to PC RIVER_21 N 83° 51' 30.71" E Dist 123.8053



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF WILLIAMSON COUNTY INFRASTRUCTURE 1818			
RIVER RD HORIZONTAL ALIGNMENT DATA			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KQK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KQK	www.wilco.org	
			6

RIVER_HORIZ ALIGN DATA.dgn
10/31/2017 10:35:23 AM

Curve Data

Curve RIVER_21
 P.I. Station = 46+71.60 N 10,237,143.2565 E 3,060,729.2568
 Delta = 77° 56' 16.94" (RT)
 Degree = 52° 05' 13.46"
 Tangent = 88.9778
 Length = 149.6303
 Radius = 110.0000
 External = 31.4816
 Long Chord = 138.3580
 Mid. Ord. = 24.4765
 P.C. Station = 45+82.62 N 10,237,133.7373 E 3,060,640.7897
 P.T. Station = 47+32.25 N 10,237,058.7317 E 3,060,757.0528
 C.C. = N 10,237,024.3686 E 3,060,652.5579
 Back = N 83° 51' 30.71" E
 Ahead = S 18° 12' 12.35" E
 Chord Bear = S 57° 10' 20.82" E

Course from PT RIVER_21 to PC RIVER_24 S 18° 12' 12.35" E Dist 854.8893

Curve Data

Curve RIVER_24
 P.I. Station = 56+76.35 N 10,236,161.8822 E 3,061,051.9814
 Delta = 33° 07' 16.05" (RT)
 Degree = 19° 05' 54.94"
 Tangent = 89.2091
 Length = 173.4218
 Radius = 300.0000
 External = 12.9828
 Long Chord = 171.0172
 Mid. Ord. = 12.4443
 P.C. Station = 55+87.14 N 10,236,246.6267 E 3,061,024.1132
 P.T. Station = 57+60.56 N 10,236,075.6798 E 3,061,029.0162
 C.C. = N 10,236,152.9092 E 3,060,739.1272
 Back = S 18° 12' 12.35" E
 Ahead = S 14° 55' 03.71" W
 Chord Bear = S 1° 38' 34.32" E

Course from PT RIVER_24 to PC RIVER_27 S 14° 55' 03.71" W Dist 539.3666

Curve Data

Curve RIVER_27
 P.I. Station = 63+76.49 N 10,235,480.5078 E 3,060,870.4563
 Delta = 40° 03' 46.47" (RT)
 Degree = 27° 17' 01.34"
 Tangent = 76.5643
 Length = 146.8382
 Radius = 210.0000
 External = 13.5220
 Long Chord = 143.8651
 Mid. Ord. = 12.7040
 P.C. Station = 62+99.93 N 10,235,554.4917 E 3,060,890.1663
 P.T. Station = 64+46.76 N 10,235,436.5711 E 3,060,807.7533
 C.C. = N 10,235,608.5522 E 3,060,687.2440
 Back = S 14° 55' 03.71" W
 Ahead = S 54° 58' 50.17" W
 Chord Bear = S 34° 56' 56.94" W

Course from PT RIVER_27 to PC RIVER_30 S 54° 58' 50.17" W Dist 426.6919

Curve Data

Curve RIVER_30
 P.I. Station = 70+50.05 N 10,235,090.3748 E 3,060,313.6899
 Delta = 21° 03' 37.94" (RT)
 Degree = 6° 01' 52.08"
 Tangent = 176.5913
 Length = 349.1970
 Radius = 950.0000
 External = 16.2735
 Long Chord = 347.2344
 Mid. Ord. = 15.9994
 P.C. Station = 68+73.46 N 10,235,191.7124 E 3,060,458.3107
 P.T. Station = 72+22.65 N 10,235,047.7766 E 3,060,142.3135
 C.C. = N 10,235,969.7223 E 3,059,913.1497
 Back = S 54° 58' 50.17" W
 Ahead = S 76° 02' 28.12" W
 Chord Bear = S 65° 30' 39.15" W


Course from PT RIVER_30 to RIVER32 S 76° 02' 28.12" W Dist 275.9742

Point RIVER32 N 10,234,981.2047 E 3,059,874.4890 Sta 74+98.63

Ending chain RIVER description



Kelly G. Morrelli
 8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD HORIZONTAL ALIGNMENT DATA			
Designed: <u>KGM</u>	3151 S.E. INNER LOOP, SUITE B		SHEET NO.
Checked: <u>KOK</u>	GEORGETOWN, TEXAS 78626		7
Drawn: <u>KGM</u>	943-3330		
Checked: <u>KOK</u>	www.wilco.org		

RIVER_HORIZ_ALIGN_DATA_02.dgn
7/12/2017 10:36:37 AM

Chain WINDMILL contains:
10 CUR WINDMILL1 CUR WINDMILL2 11

Beginning chain WINDMILL description

Point 10 N 10,237,050.5943 E 3,060,128.2276 Sta 10+00.00

Course from 10 to PC WINDMILL1 S 1' 13' 55.51" W Dist 966.9690

Curve Data

Curve WINDMILL1
P.I. Station = 20+42.47 N 10,236,008.3663 E 3,060,105.8121
Delta = 7' 12' 00.82" (LT)
Degree = 4' 46' 28.73"
Tangent = 75.5000
Length = 150.8012
Radius = 1,200.0000
External = 2.3728
Long Chord = 150.7020
Mid. Ord. = 2.3681
P.C. Station = 19+66.97 N 10,236,083.8488 E 3,060,107.4355
P.T. Station = 21+17.77 N 10,235,933.2755 E 3,060,113.6623
C.C. = N 10,236,058.0461 E 3,061,307.1581
Back = S 1' 13' 55.51" W
Ahead = S 5' 58' 05.31" E
Chord Bear = S 2' 22' 04.90" E

Course from PT WINDMILL1 to PC WINDMILL2 S 5' 58' 05.31" E Dist 180.5643

Curve Data

Curve WINDMILL2
P.I. Station = 24+11.05 N 10,235,641.5812 E 3,060,144.1566
Delta = 58' 48' 39.78" (RT)
Degree = 28' 38' 52.40"
Tangent = 112.7196
Length = 205.2893
Radius = 200.0000
External = 29.5772
Long Chord = 196.3951
Mid. Ord. = 25.7667
P.C. Station = 22+98.33 N 10,235,753.6899 E 3,060,132.4365
P.T. Station = 25+03.62 N 10,235,573.4983 E 3,060,054.3210
C.C. = N 10,235,732.8948 E 3,059,933.5205
Back = S 5' 58' 05.31" E
Ahead = S 52' 50' 34.47" W
Chord Bear = S 23' 26' 14.58" W


Course from PT WINDMILL2 to 11 S 52' 50' 34.47" W Dist 443.8601

Point 11 N 10,235,305.4057 E 3,059,700.5723 Sta 29+47.48

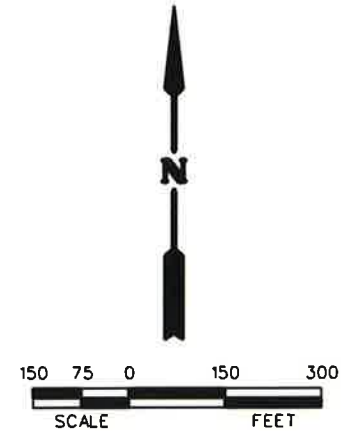
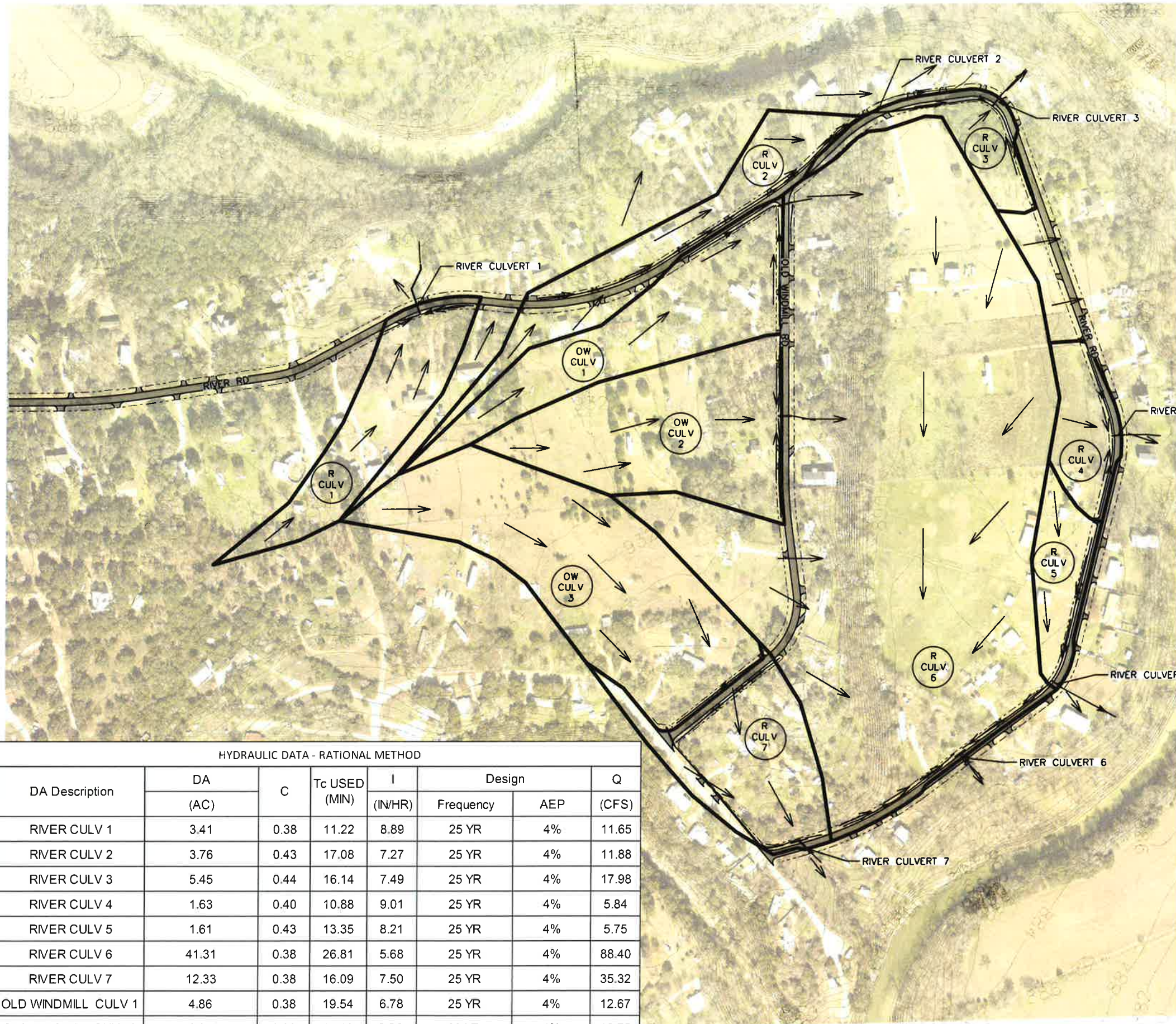
Ending chain WINDMILL description



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF WILLIAMSON COUNTY INFRASTRUCTURE <small>IRIS</small>			
OLD WINDMILL RD HORIZONTAL ALIGNMENT DATA			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	
			SHEET NO. 8

OLD WINDMILL - HORZ ALIGN DATA_01.dgn
7/12/2017 10:37:47 AM



- LEGEND**
- XXX DRAINAGE AREA LABEL
 - DRAINAGE FLOW
 - DITCH FLOW LINE
 - DRAINAGE BOUNDARY

- NOTES:**
1. FLOWS DETERMINED USING RATIONAL METHOD UNLESS OTHERWISE NOTED.
 2. COMPUTATIONS ARE BASED ON TXDOT HYDRAULIC MANUAL USING RAINFALL COEFFICIENTS FOR WILLIAMSON COUNTY.



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8/7/17

NO.	REVISION	BY	DATE

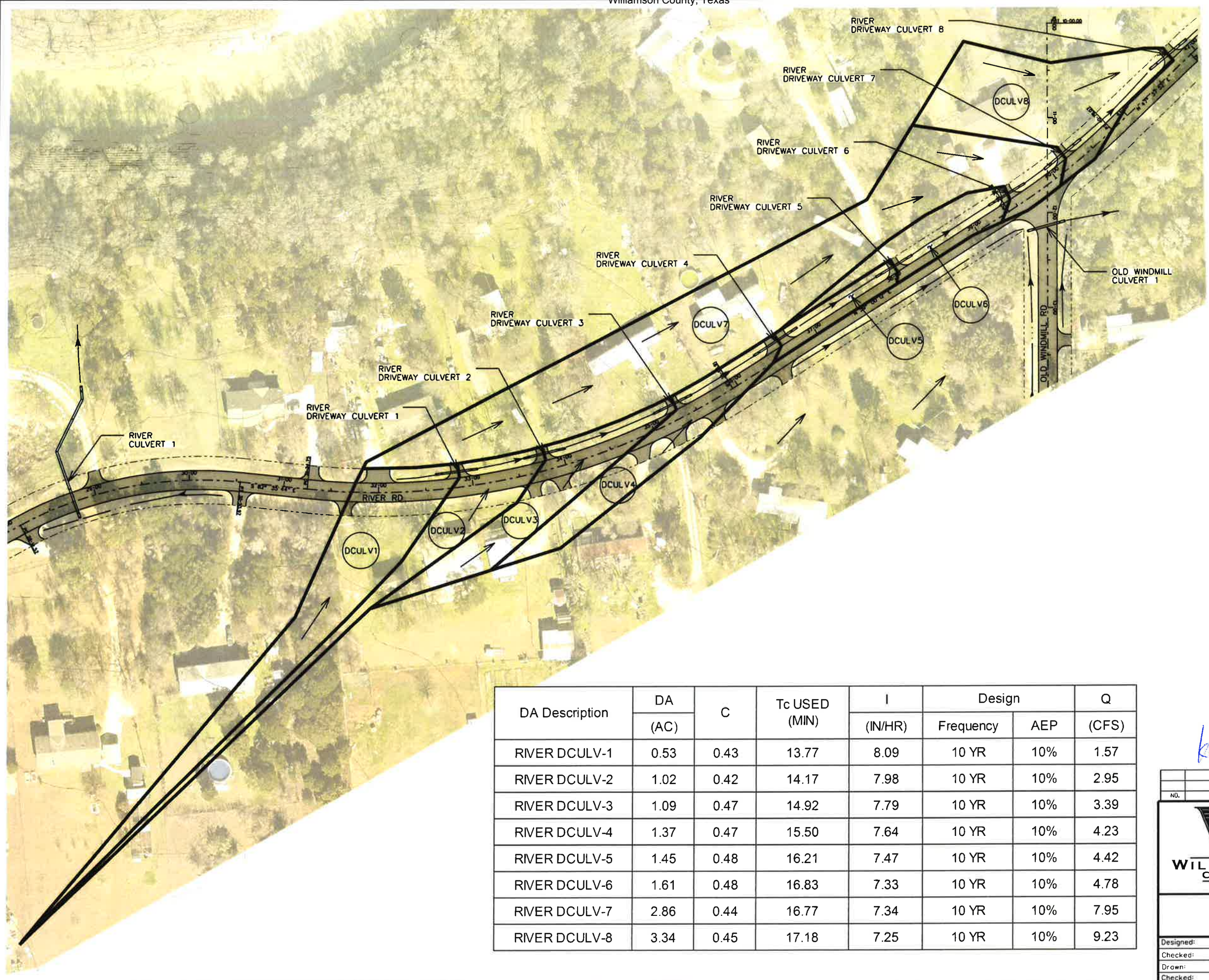
WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1848

**RIVER RD AND OLD WINDMILL RD
EXTERNAL DRAINAGE AREA MAP**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 9
Checked: KQK		
Drawn: KGM		
Checked: KQK		

HYDRAULIC DATA - RATIONAL METHOD							
DA Description	DA (AC)	C	Tc USED (MIN)	I (IN/HR)	Design		Q (CFS)
					Frequency	AEP	
RIVER CULV 1	3.41	0.38	11.22	8.89	25 YR	4%	11.65
RIVER CULV 2	3.76	0.43	17.08	7.27	25 YR	4%	11.88
RIVER CULV 3	5.45	0.44	16.14	7.49	25 YR	4%	17.98
RIVER CULV 4	1.63	0.40	10.88	9.01	25 YR	4%	5.84
RIVER CULV 5	1.61	0.43	13.35	8.21	25 YR	4%	5.75
RIVER CULV 6	41.31	0.38	26.81	5.68	25 YR	4%	88.40
RIVER CULV 7	12.33	0.38	16.09	7.50	25 YR	4%	35.32
OLD WINDMILL CULV 1	4.86	0.38	19.54	6.78	25 YR	4%	12.67
OLD WINDMILL CULV 2	6.09	0.36	15.19	7.72	25 YR	4%	16.75
OLD WINDMILL CULV 3	8.40	0.36	14.53	7.89	25 YR	4%	23.73

RIVER OLD WINDMILL EXT DA MAP.dgn
7/12/2017 4:32:36 PM



LEGEND

- XXX DRAINAGE AREA LABEL
- DRAINAGE FLOW
- DITCH FLOW LINE
- DRAINAGE BOUNDARY

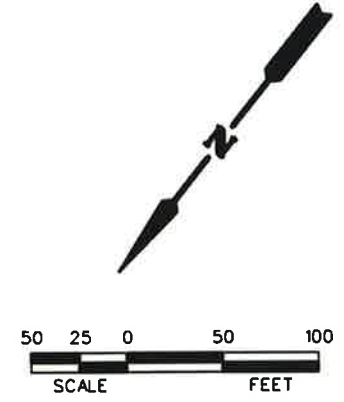
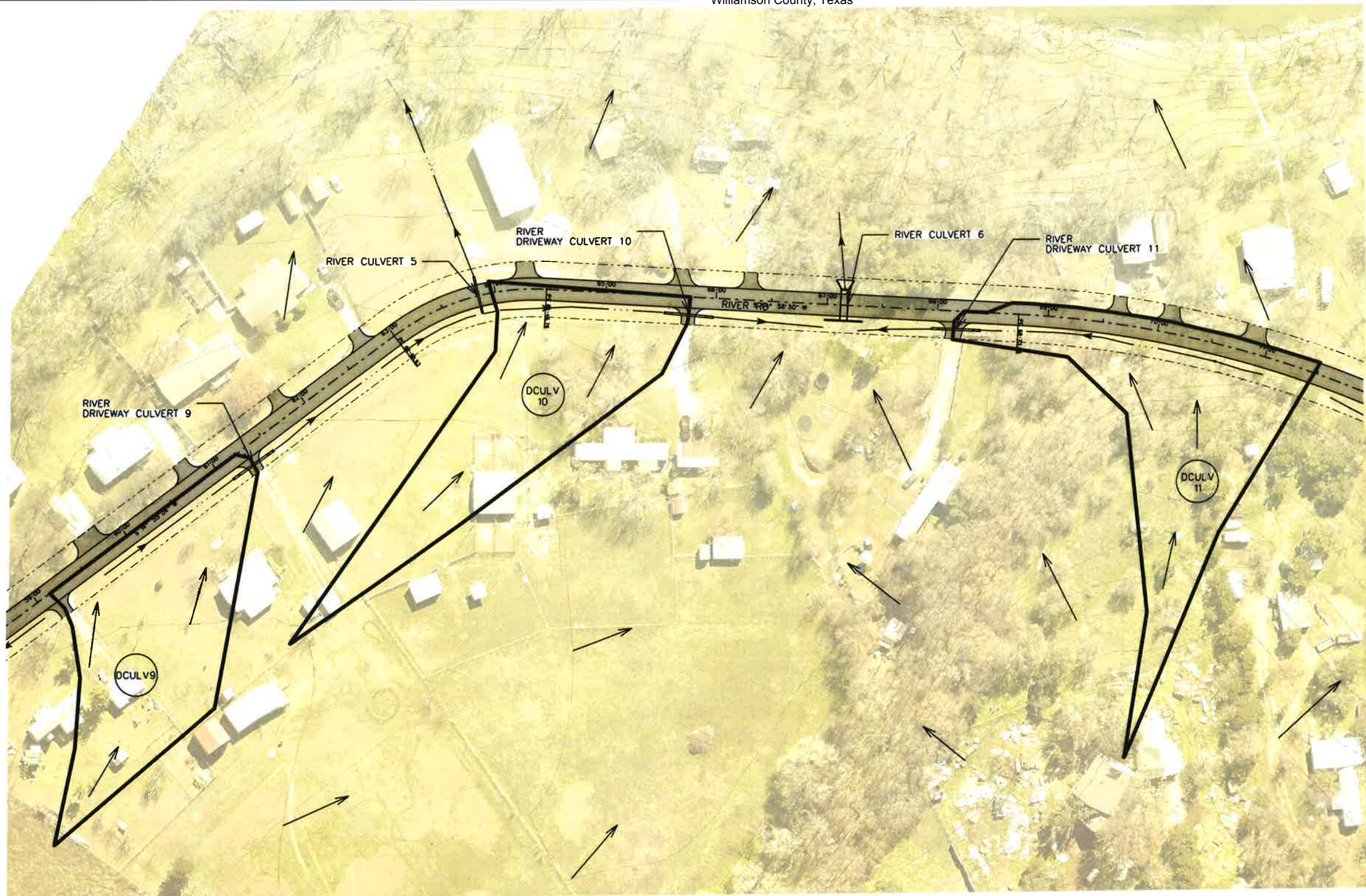
- NOTES:**
1. FLOWS DETERMINED USING RATIONAL METHOD UNLESS OTHERWISE NOTED.
 2. COMPUTATIONS ARE BASED ON TXDOT HYDRAULIC MANUAL USING RAINFALL COEFFICIENTS FOR WILLIAMSON COUNTY.

DA Description	DA (AC)	C	Tc USED (MIN)	I (IN/HR)	Design		Q (CFS)
					Frequency	AEP	
RIVER DCULV-1	0.53	0.43	13.77	8.09	10 YR	10%	1.57
RIVER DCULV-2	1.02	0.42	14.17	7.98	10 YR	10%	2.95
RIVER DCULV-3	1.09	0.47	14.92	7.79	10 YR	10%	3.39
RIVER DCULV-4	1.37	0.47	15.50	7.64	10 YR	10%	4.23
RIVER DCULV-5	1.45	0.48	16.21	7.47	10 YR	10%	4.42
RIVER DCULV-6	1.61	0.48	16.83	7.33	10 YR	10%	4.78
RIVER DCULV-7	2.86	0.44	16.77	7.34	10 YR	10%	7.95
RIVER DCULV-8	3.34	0.45	17.18	7.25	10 YR	10%	9.23



NO.	REVISION	BY	DATE
WILLIAMSON COUNTY 1848			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD INTERNAL DRAINAGE AREA MAP			
Designed: KGM	3151 S.E. INNER LOOP, SUITE B		SHEET NO.
Checked: KQK	GEORGETOWN, TEXAS 78626		10
Drawn: KGM	943-3330		
Checked: KQK	www.wilco.org		

RIVER_INT_DA_MAP_01.dgn 8/12/2017 4:34:52 PM



- LEGEND**
- XXX DRAINAGE AREA LABEL
 - ← DRAINAGE FLOW
 - DITCH FLOW LINE
 - DRAINAGE BOUNDARY

- NOTES:**
1. FLOWS DETERMINED USING RATIONAL METHOD UNLESS OTHERWISE NOTED.
 2. COMPUTATIONS ARE BASED ON TXDOT HYDRAULIC MANUAL USING RAINFALL COEFFICIENTS FOR WILLIAMSON COUNTY.



Kelly G. Morrelli
8/7/17

DA Description	DA (AC)	C	Tc USED (MIN)	Design			Q (CFS)
				I (IN/HR)	Frequency	AEP	
RIVER DCULV-9	0.76	0.40	12.19	8.57	10 YR	10%	2.23
RIVER DCULV-10	0.77	0.40	11.14	8.91	10 YR	10%	2.32
RIVER DCULV-11	0.85	0.44	10.00	9.33	10 YR	10%	2.99

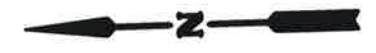
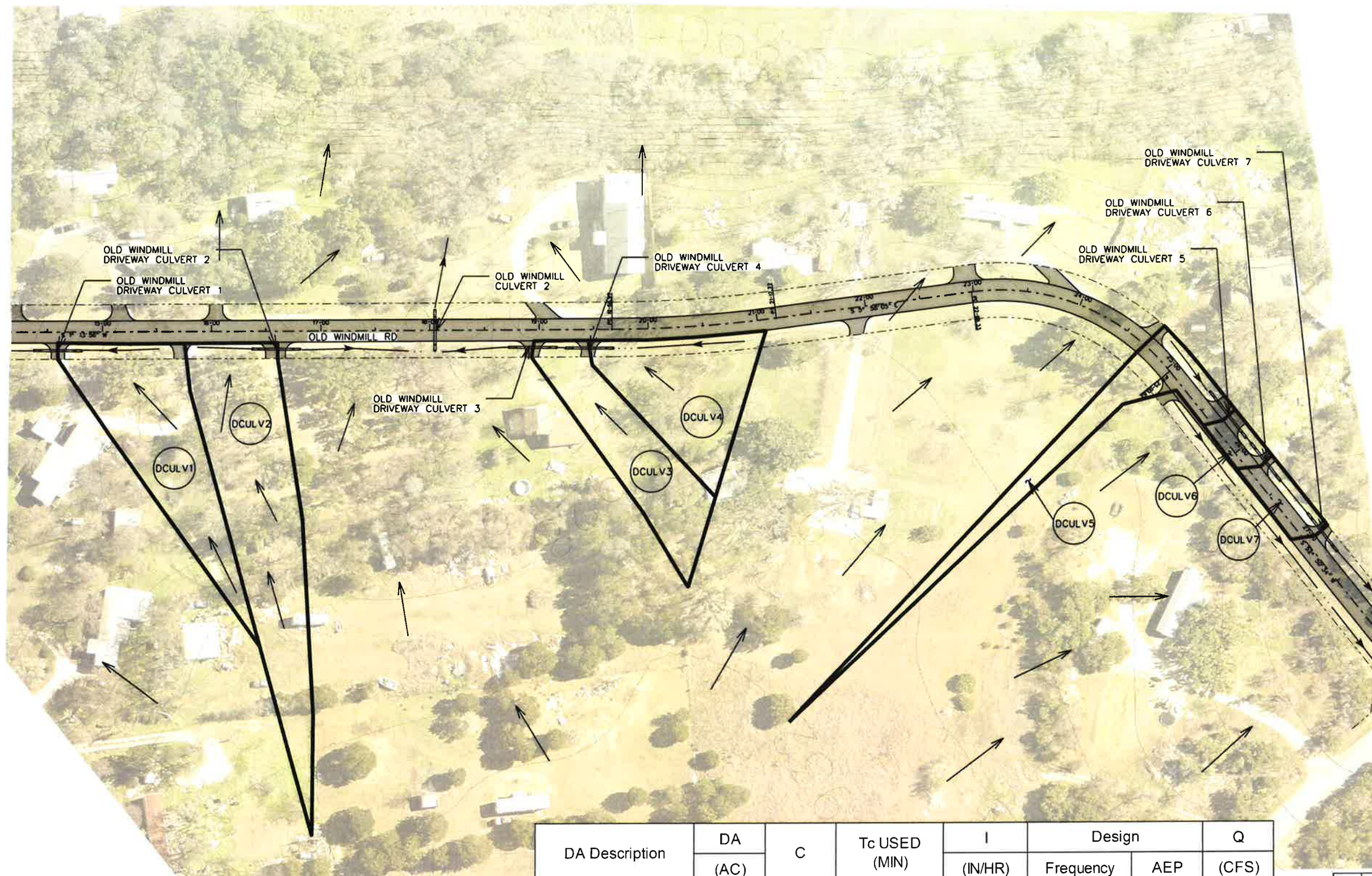
NO.	REVISION	BY	DATE



**RIVER RD
INTERNAL DRAINAGE AREA MAP**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 11
Checked: KQK		
Drawn: KGM		
Checked: KQK		

RIVER INT DA MAP_02.dgn 7/12/2017 4:36:25 PM



- LEGEND**
- XXX DRAINAGE AREA LABEL
 - DRAINAGE FLOW
 - DITCH FLOW LINE
 - DRAINAGE BOUNDARY

- NOTES:**
1. FLOWS DETERMINED USING RATIONAL METHOD UNLESS OTHERWISE NOTED.
 2. COMPUTATIONS ARE BASED ON TXDOT HYDRAULIC MANUAL USING RAINFALL COEFFICIENTS FOR WILLIAMSON COUNTY.

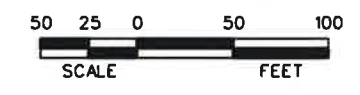
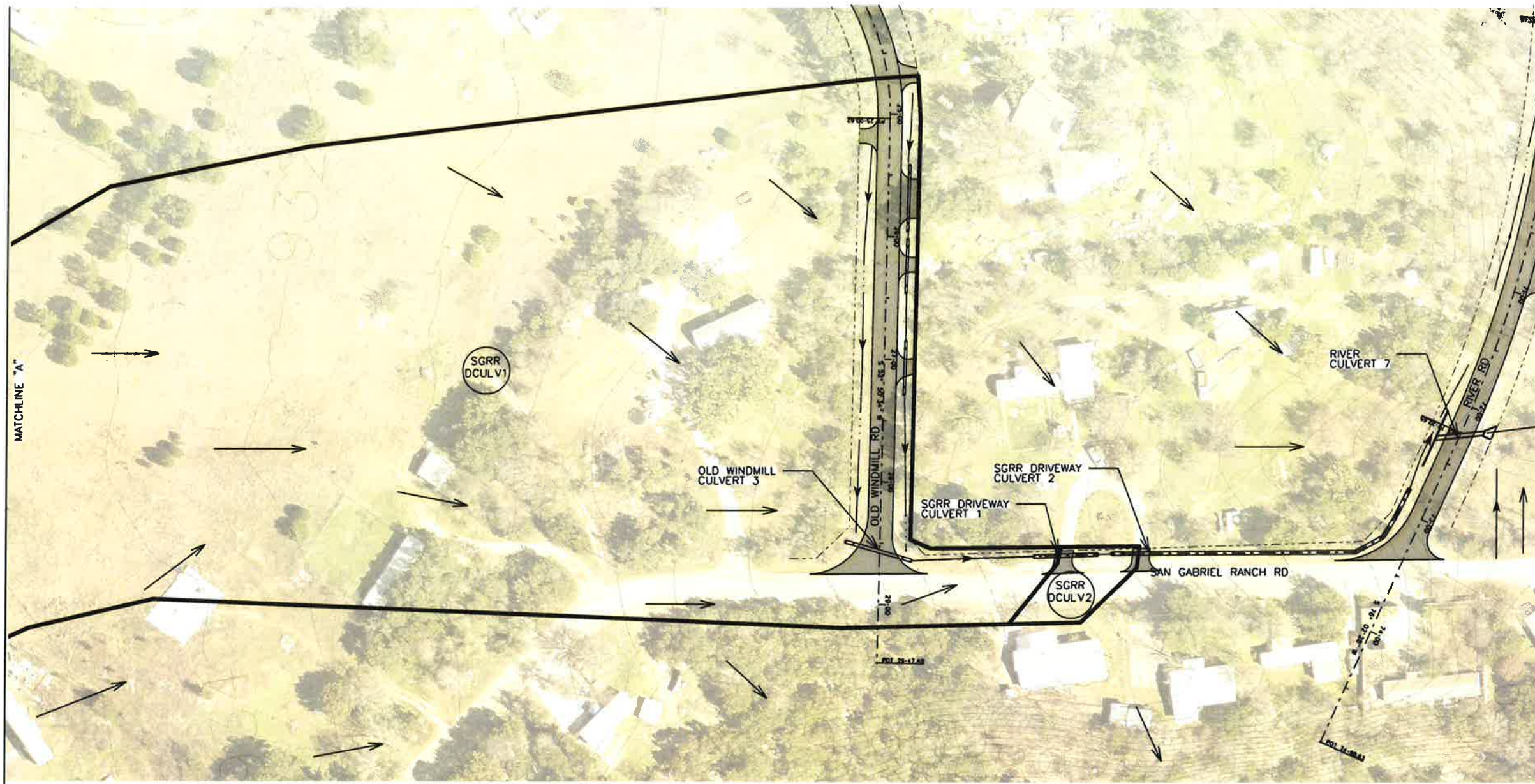


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8/7/17

DA Description	DA (AC)	C	Tc USED (MIN)	I	Design		Q (CFS)
				(IN/HR)	Frequency	AEP	
WINDMILL DCULV-1	0.39	0.35	10.00	9.33	10 YR	10%	1.09
WINDMILL DCULV-2	0.54	0.35	10.26	9.23	10 YR	10%	1.49
WINDMILL DCULV-3	0.57	0.36	10.00	9.33	10 YR	10%	1.64
WINDMILL DCULV-4	0.30	0.36	10.00	9.33	10 YR	10%	0.85
WINDMILL DCULV-5	0.22	0.48	11.13	8.92	10 YR	10%	0.80
WINDMILL DCULV-6	0.26	0.52	11.78	8.70	10 YR	10%	1.00
WINDMILL DCULV-7	0.33	0.55	12.37	8.51	10 YR	10%	1.32

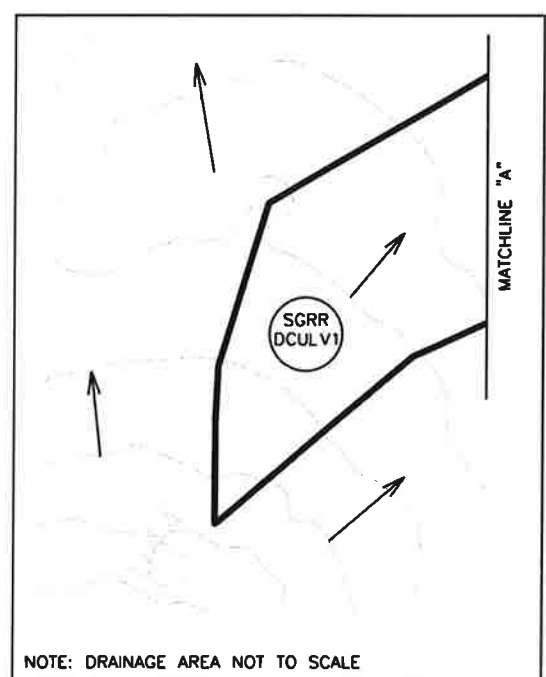
NO.	REVISION	BY	DATE
WILLIAMSON COUNTY 1848 DEPT. OF INFRASTRUCTURE			
OLD WINDMILL RD INTERNAL DRAINAGE AREA MAP			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
Checked:	KQK		12
Drawn:	KGM		
Checked:	KQK		

8/10/2017 9:17 AM
 OLD WINDMILL INT DA MAP_01.dgn
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 7/12/2017



- LEGEND**
- XXX DRAINAGE AREA LABEL
 - DRAINAGE FLOW
 - DITCH FLOW LINE
 - DRAINAGE BOUNDARY

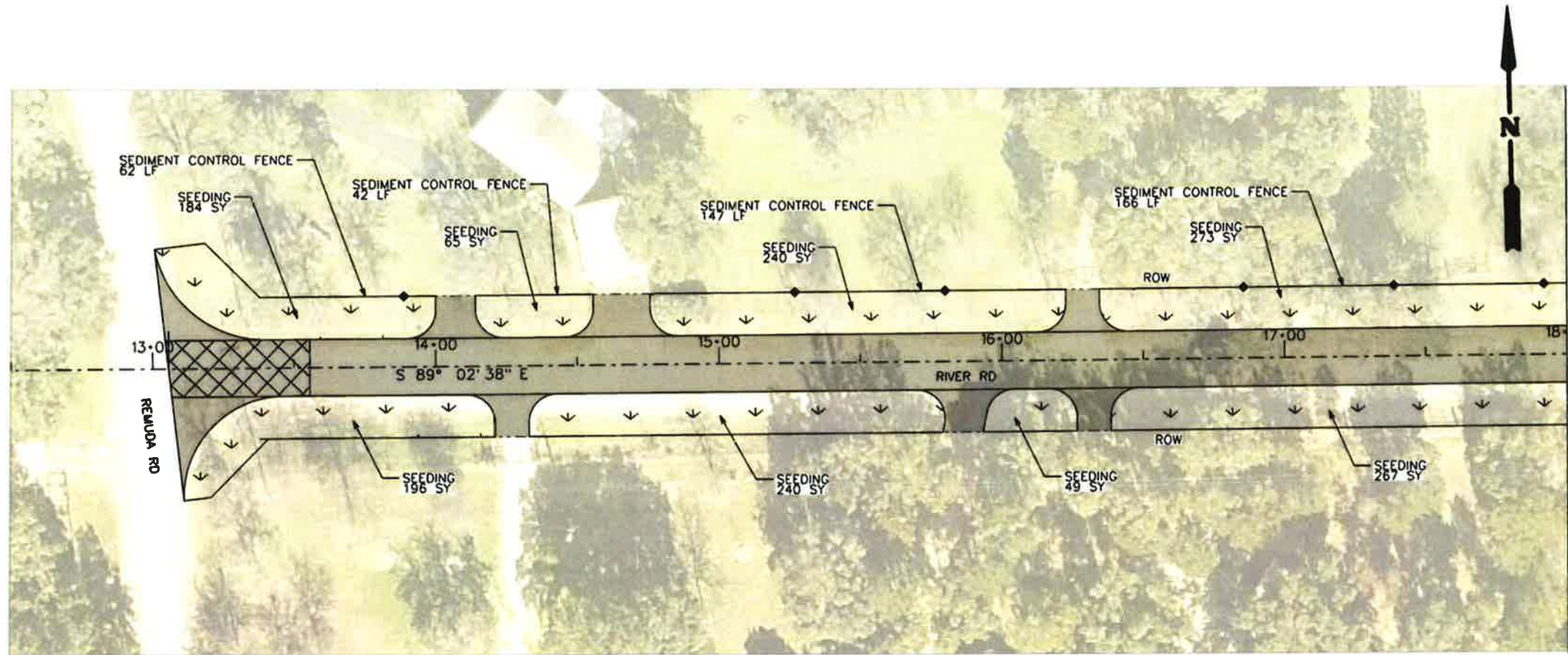
- NOTES:**
1. FLOWS DETERMINED USING RATIONAL METHOD UNLESS OTHERWISE NOTED.
 2. COMPUTATIONS ARE BASED ON TXDOT HYDRAULIC MANUAL USING RAINFALL COEFFICIENTS FOR WILLIAMSON COUNTY.



NOTE: DRAINAGE AREA NOT TO SCALE

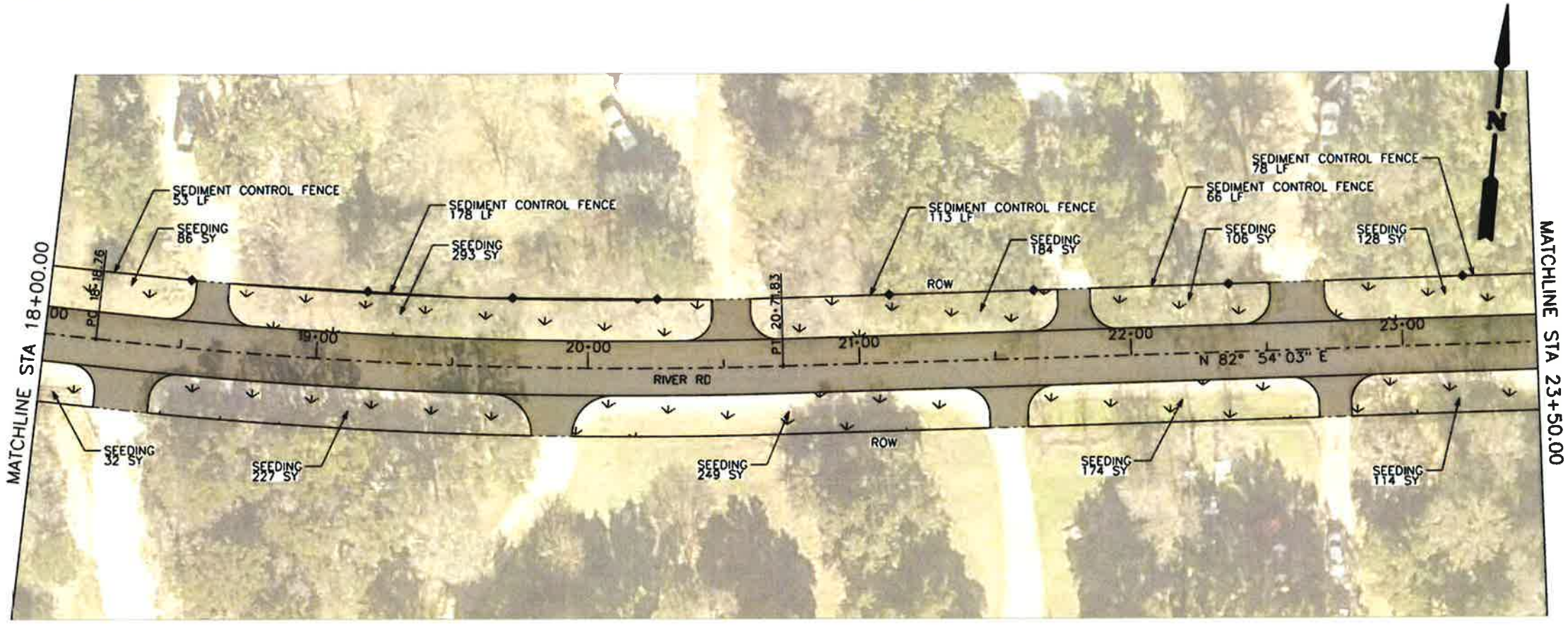
DA Description	DA (AC)	C	Tc USED (MIN)	Design			Q (CFS)
				I (IN/HR)	Frequency	AEP	
SGRR DCULV-1	9.30	0.38	14.96	7.78	10 YR	10%	23.36
SGRR DCULV-2	9.40	0.38	15.19	7.72	10 YR	10%	23.56

NO.	REVISION	BY	DATE
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1848			
SAN GABRIEL RANCH RD INTERNAL DRAINAGE AREA MAP			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 13
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		



- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' x 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

- NOTES:**
1. ALL DEVICES TO BE PLACED AS SHOWN IN TxDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



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8/7/17

NO.	REVISION	BY	DATE

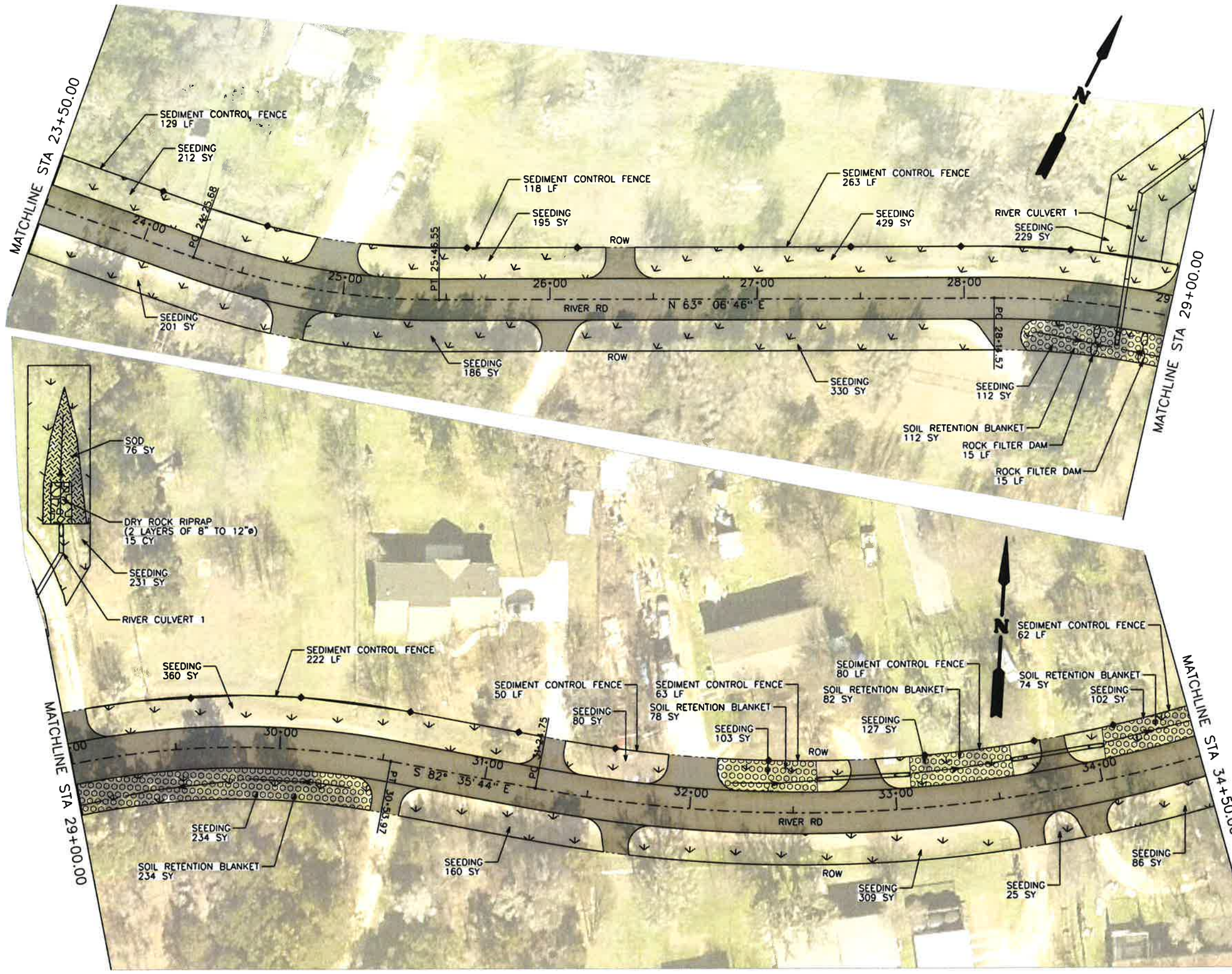
WILLIAMSON COUNTY
181X

WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

**RIVER RD
EROSION CONTROL PLAN**

Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 14
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

RIVER_EROSION_CONTROL01.dgn
7/12/2017 9:59:57 AM



- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' x 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

NOTES:
 1. ALL DEVICES TO BE PLACED AS SHOWN IN TXDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



Kelly G. Morrelli
 8/7/17

NO.	REVISION	BY	DATE

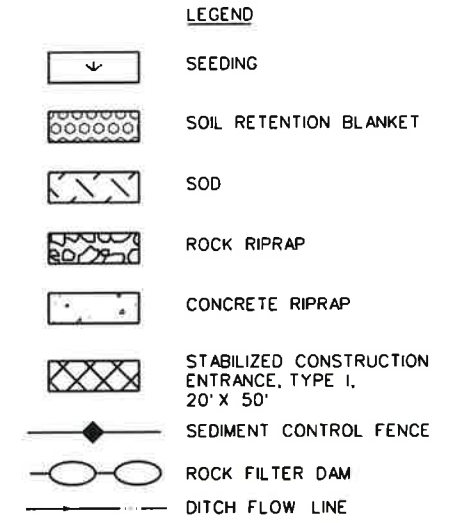
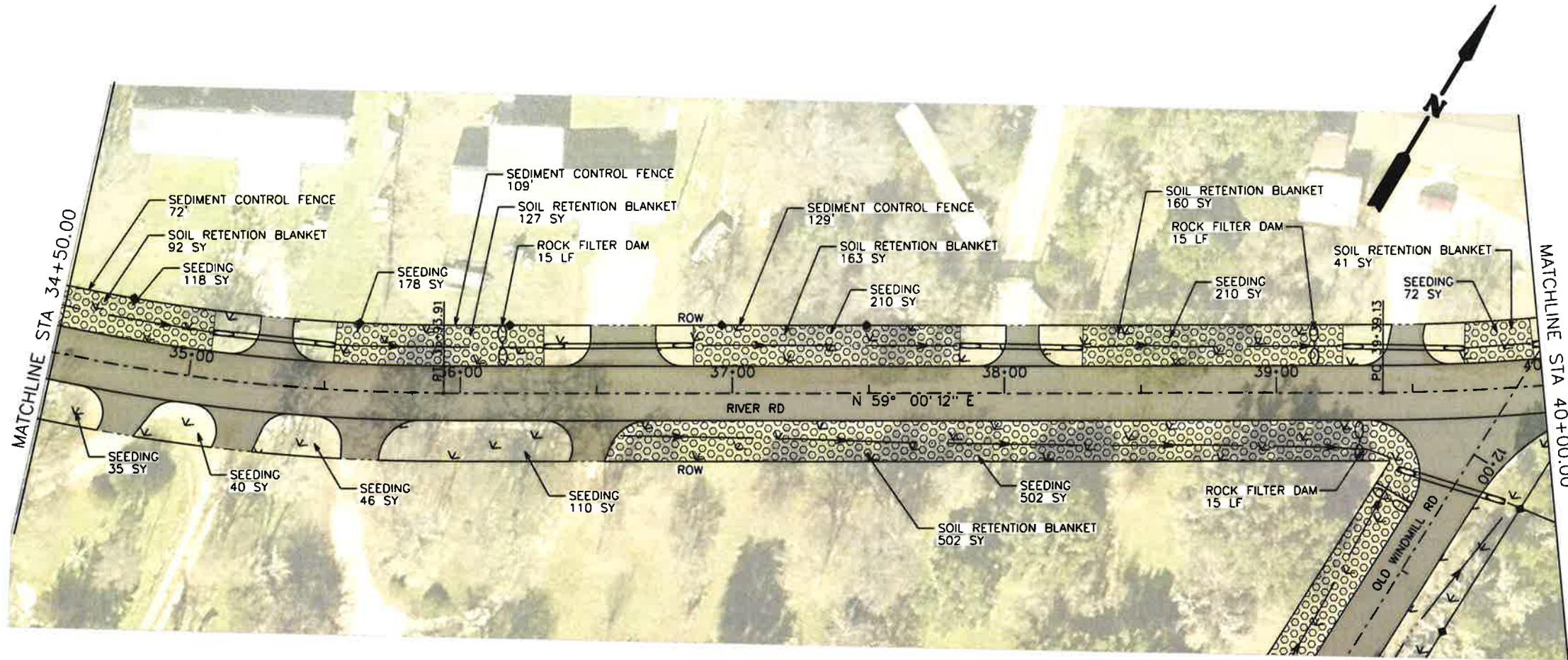
WILLIAMSON COUNTY
 1848

WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE

**RIVER RD
 EROSION CONTROL PLAN**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 15
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

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 7/14/2017 9:38:37 AM
 8/10/2017 9:17 AM



NOTES:

1. ALL DEVICES TO BE PLACED AS SHOWN IN TXDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



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8/7/17

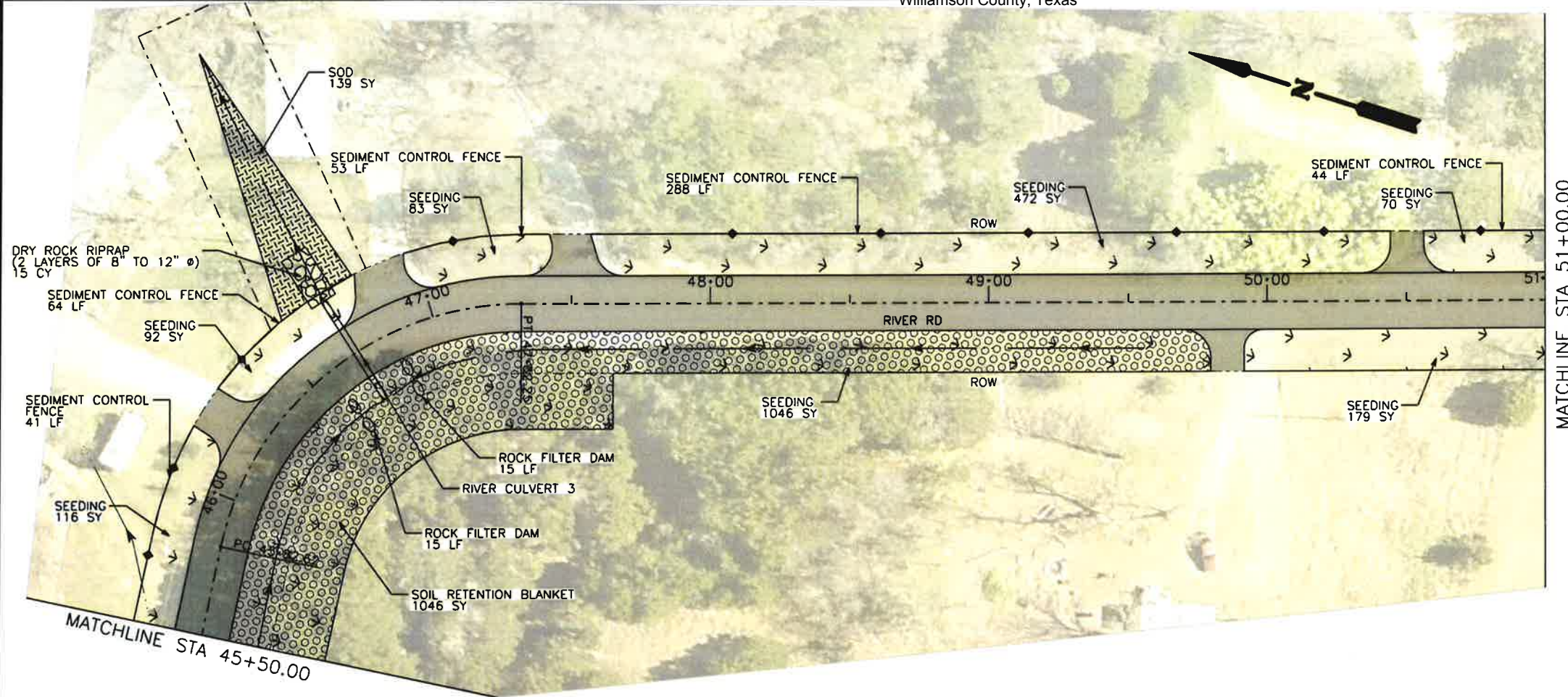
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1818

RIVER RD
EROSION CONTROL PLAN

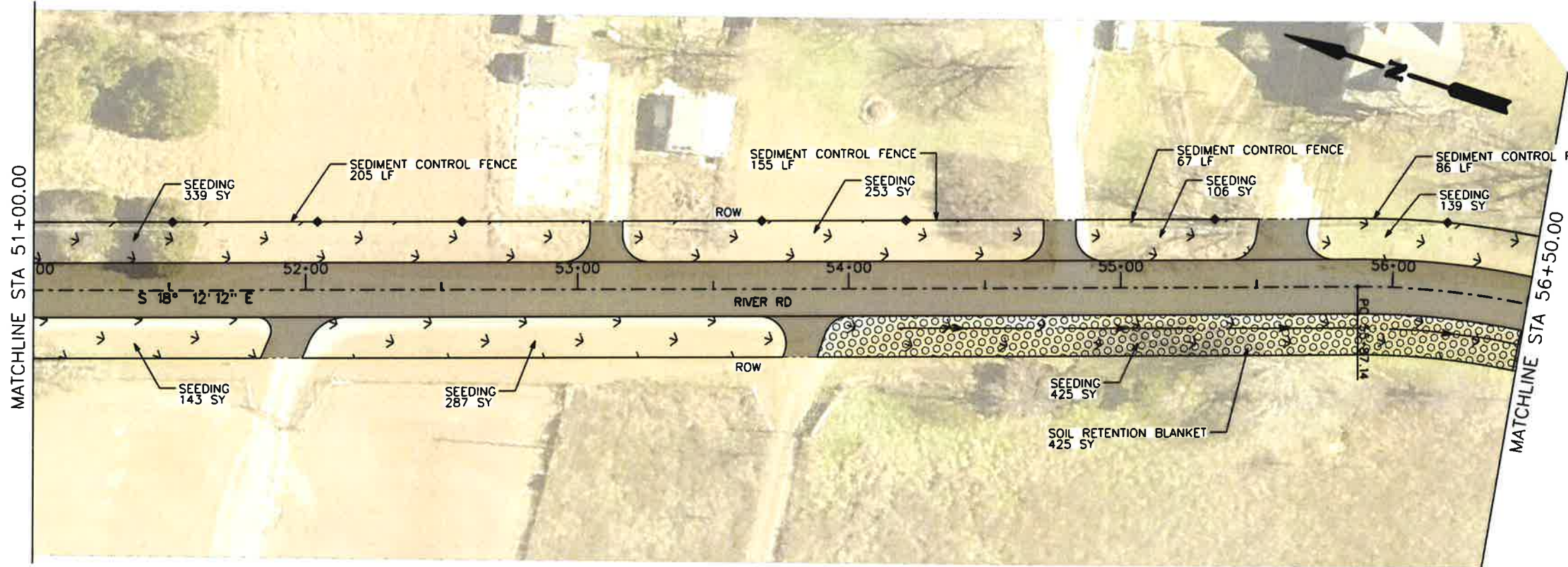
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Checked: KOK	GEORGETOWN, TEXAS 78626	16
Drawn: KGM	943-3330	
Checked: KOK	www.wilco.org	

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7/14/2017 9:38:54 AM




- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE 1, 20' X 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

- NOTES:**
1. ALL DEVICES TO BE PLACED AS SHOWN IN TXDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



NO.	REVISION	BY	DATE



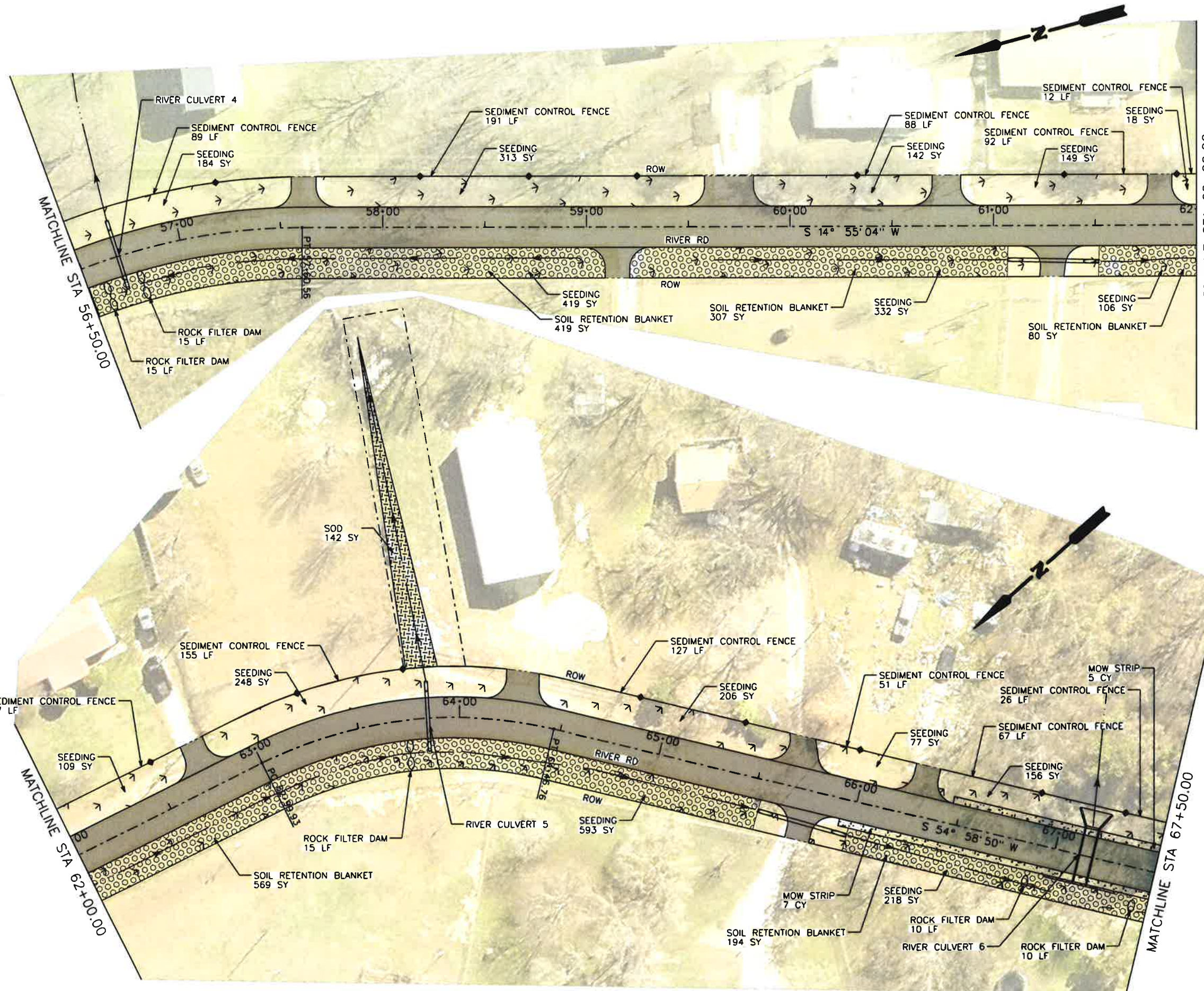
WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

**RIVER RD
EROSION CONTROL PLAN**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 17
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

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- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' X 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

NOTES:
 1. ALL DEVICES TO BE PLACED AS SHOWN IN TXDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



Kelly G. Morrelli
 8/7/17

NO.	REVISION	BY	DATE

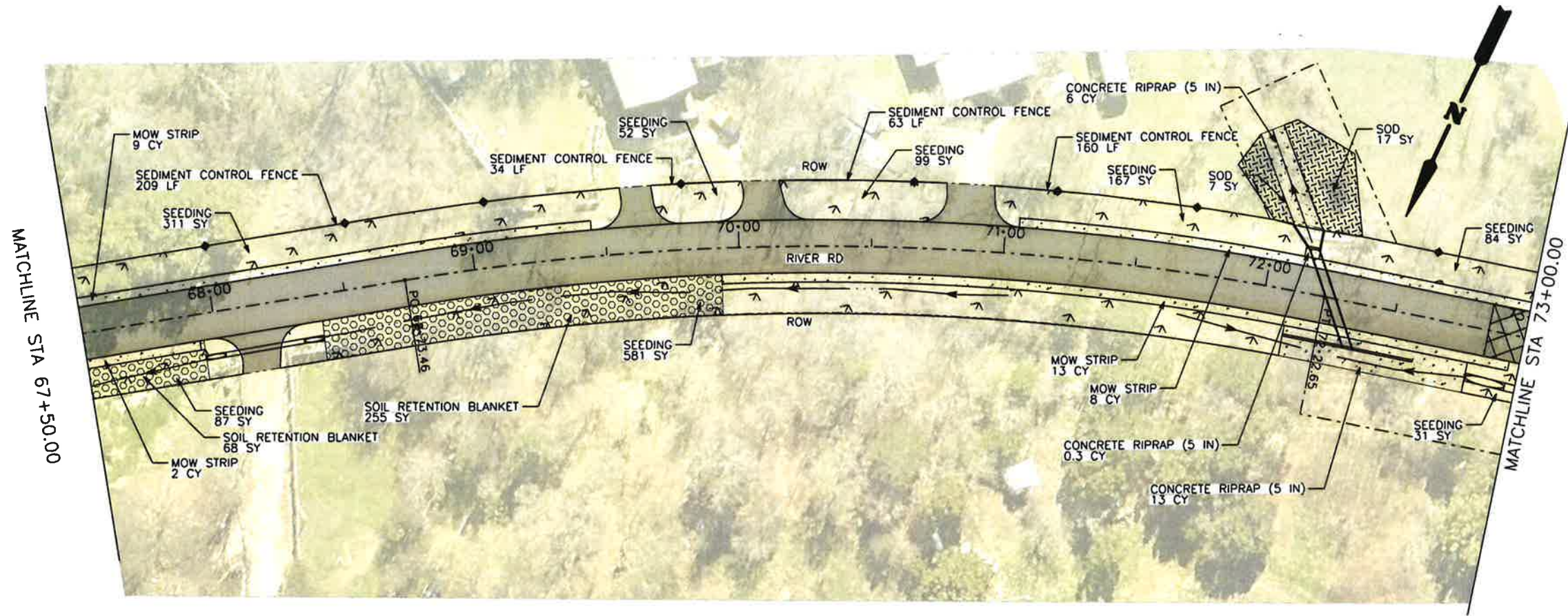
WILLIAMSON COUNTY
 1848

WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE

RIVER RD
EROSION CONTROL PLAN

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 18
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

RIVER_EROSION_CONTROL.05.dgn
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LEGEND

- SEEDING
- SOIL RETENTION BLANKET
- SOD
- ROCK RIPRAP
- CONCRETE RIPRAP
- STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' X 50'
- SEDIMENT CONTROL FENCE
- ROCK FILTER DAM
- DITCH FLOW LINE

- NOTES:**
- ALL DEVICES TO BE PLACED AS SHOWN IN TXDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 - ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



Kelly G. Morrelli
8/7/17

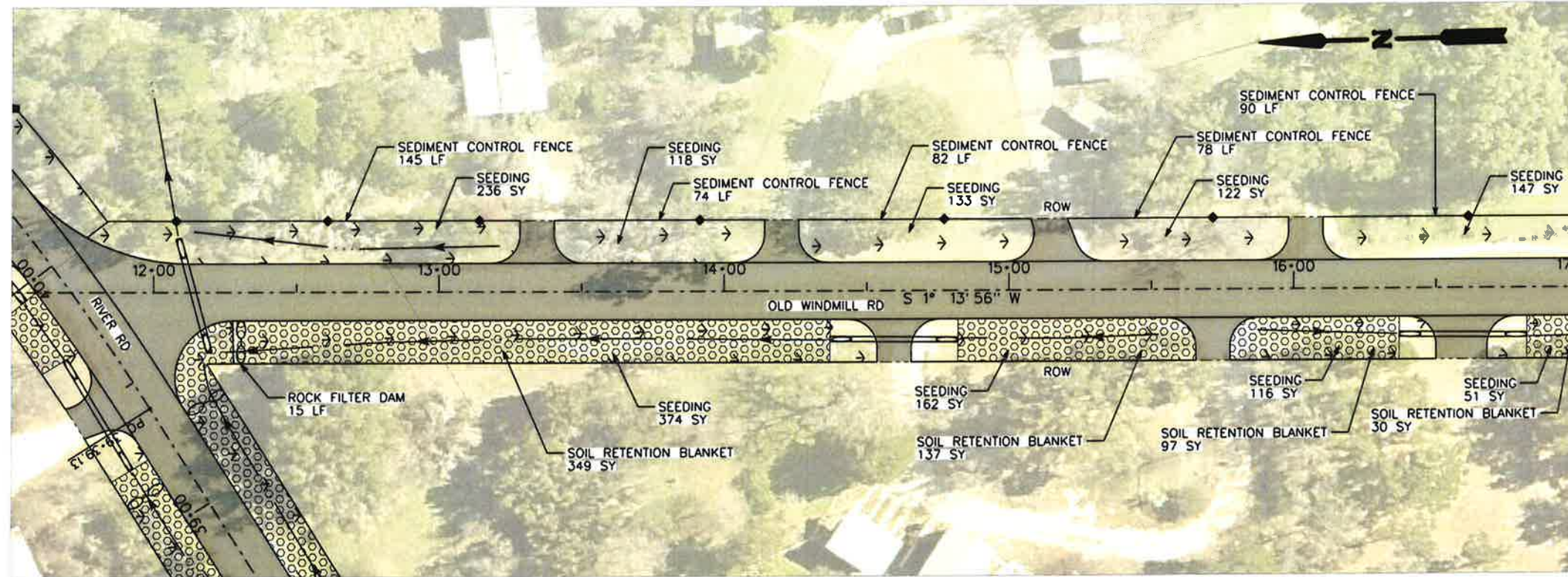
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

RIVER RD
EROSION CONTROL PLAN

Designed: KGM	3151 S.E. INNER LOOP, SUITE B	SHEET NO. 19
Checked: KOK	GEORGETOWN, TEXAS 78626	
Drawn: KGM	943-3330	
Checked: KOK	www.wilco.org	

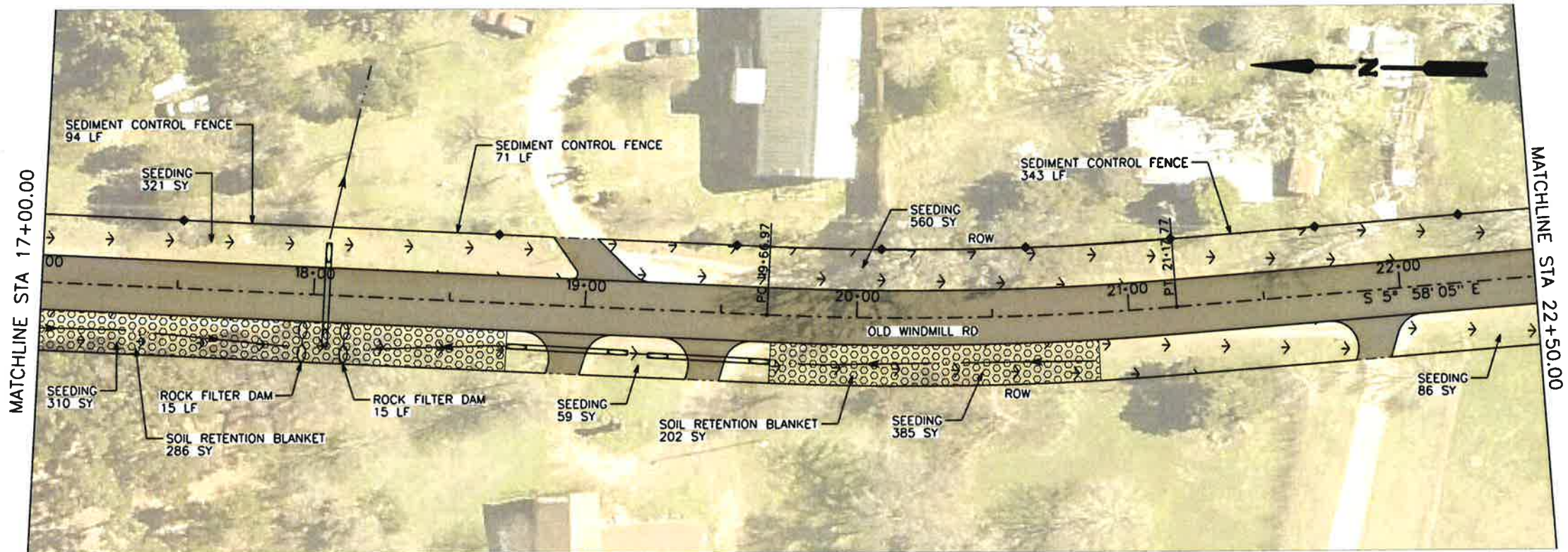


MATCHLINE STA 17+00.00



- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' X 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

- NOTES:**
1. ALL DEVICES TO BE PLACED AS SHOWN IN TxDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



MATCHLINE STA 17+00.00

MATCHLINE STA 22+50.00



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

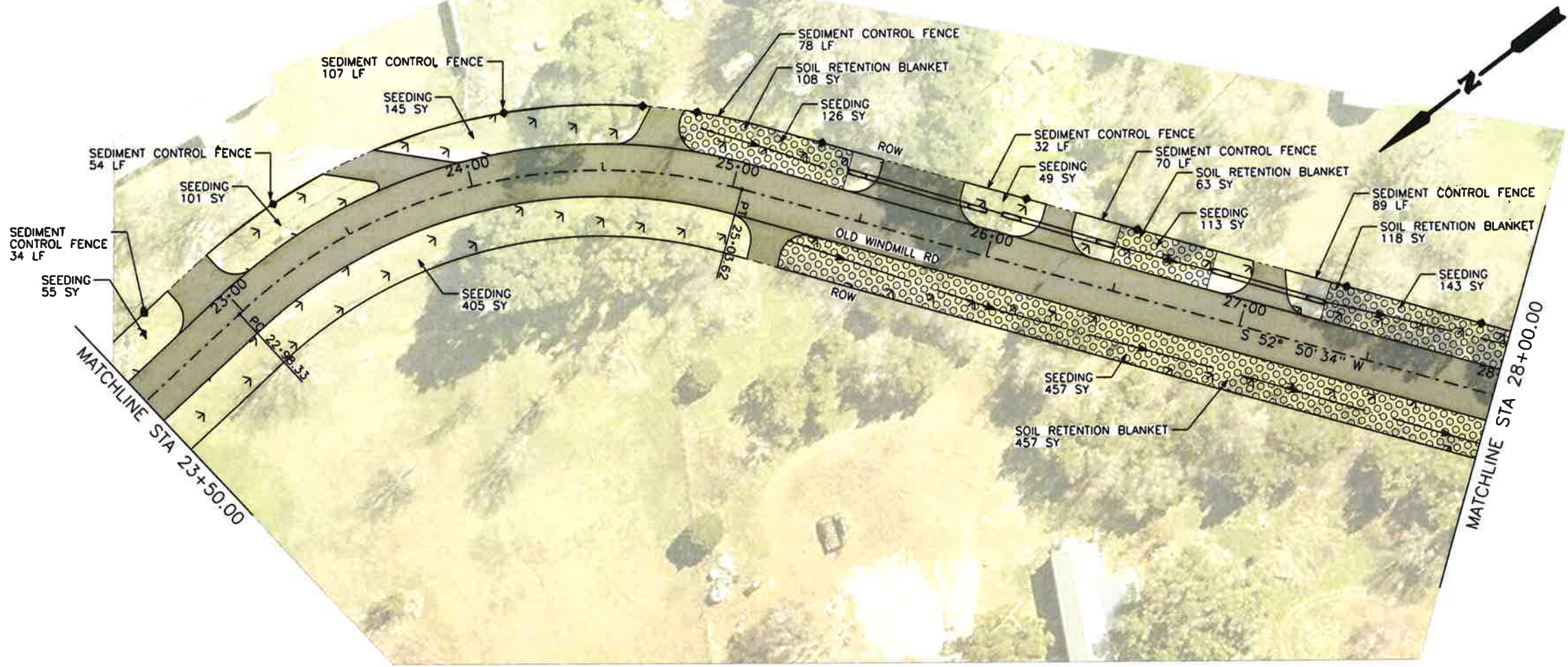
WILLIAMSON COUNTY
 1848

WILLIAMSON COUNTY
 DEPT. OF
 INFRASTRUCTURE

**OLD WINDMILL RD
EROSION CONTROL PLAN**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
Checked: KQK		20
Drawn: KGM		
Checked: KQK		

OLD WINDMILL-EROSION CONTROL01.dgn
7/14/2017 9:41:44 AM



- LEGEND**
- SEEDING
 - SOIL RETENTION BLANKET
 - SOD
 - ROCK RIPRAP
 - CONCRETE RIPRAP
 - STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' X 50'
 - SEDIMENT CONTROL FENCE
 - ROCK FILTER DAM
 - DITCH FLOW LINE

- NOTES:**
1. ALL DEVICES TO BE PLACED AS SHOWN IN TxDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
 2. ALL PERIMETER SEDIMENT CONTROL FENCE AND ROCK FILTER DAMS TO REMAIN UNTIL END OF CONSTRUCTION.



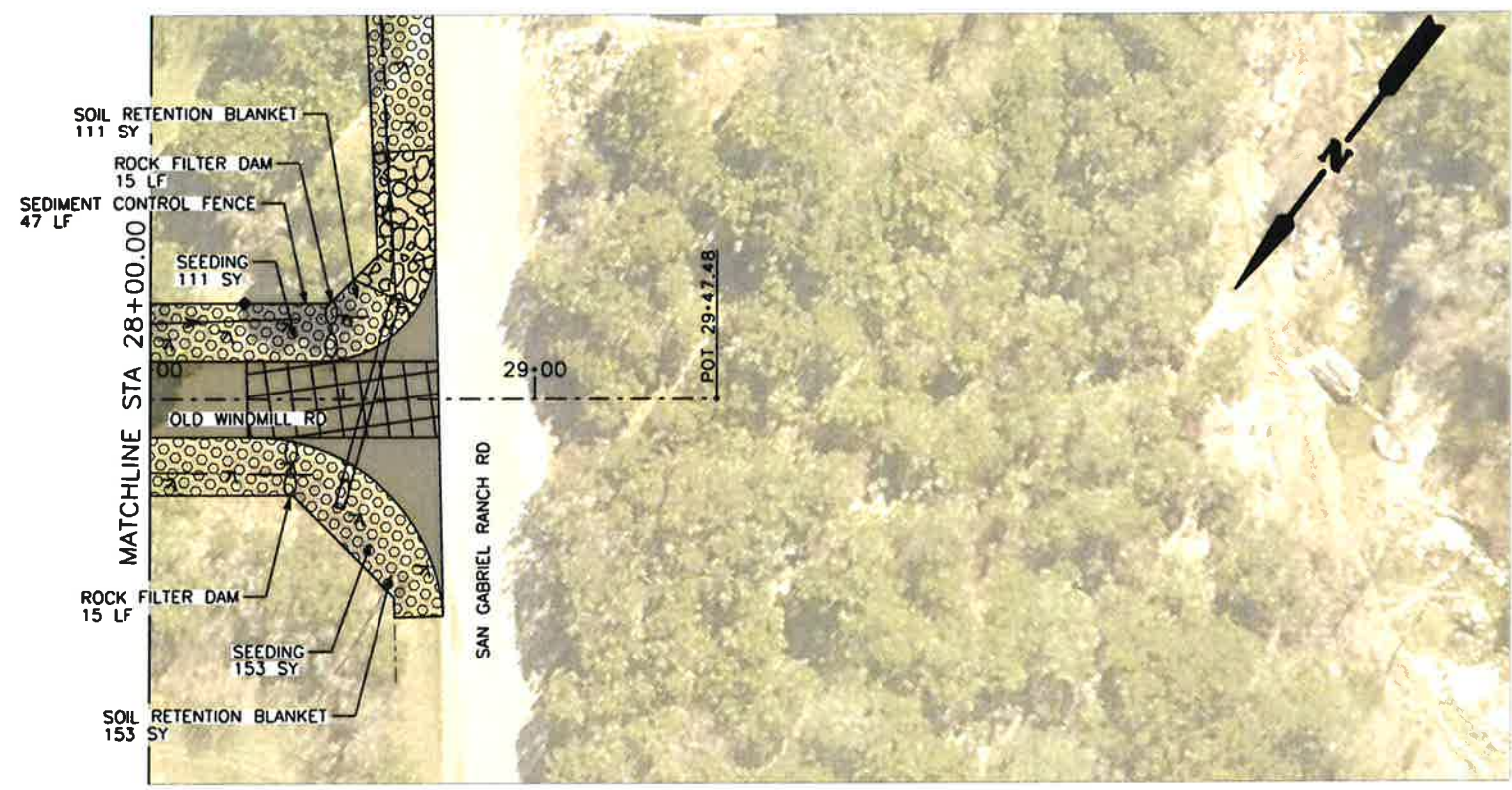
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

**OLD WINDMILL RD
EROSION CONTROL PLAN**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	21
Checked: KQK		
Drawn: KGM		
Checked: KQK		



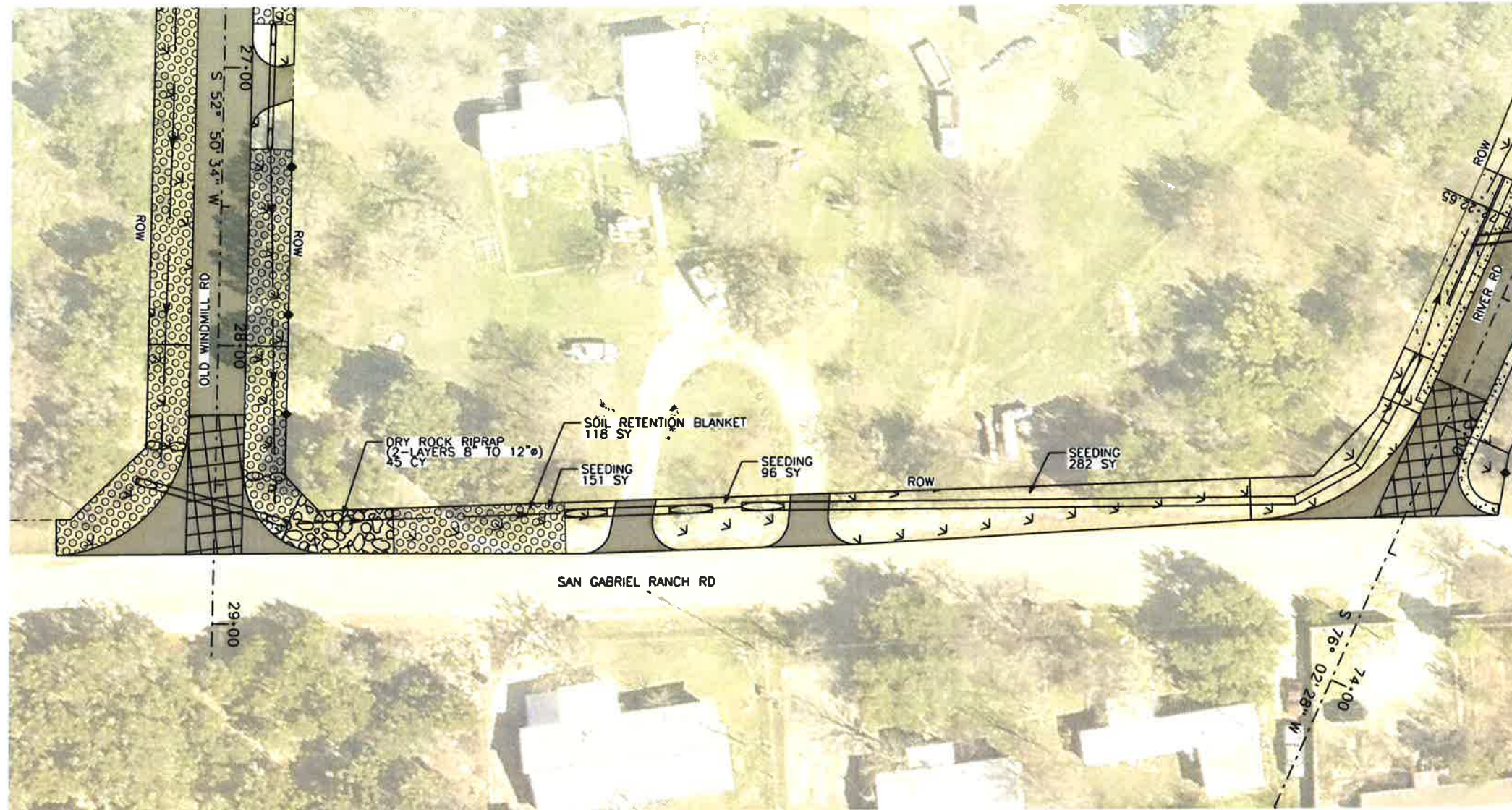
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LEGEND

- SEEDING
- SOIL RETENTION BLANKET
- SOD
- ROCK RIPRAP
- CONCRETE RIPRAP
- STABILIZED CONSTRUCTION ENTRANCE, TYPE I, 20' x 50'
- SEDIMENT CONTROL FENCE
- ROCK FILTER DAM
- DITCH FLOW LINE

- NOTES:**
1. ALL DEVICES TO BE PLACED AS SHOWN IN TxDOT STANDARDS EC(1)-EC(3) EXCEPT AS DIRECTED BY THE ENGINEER.
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Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

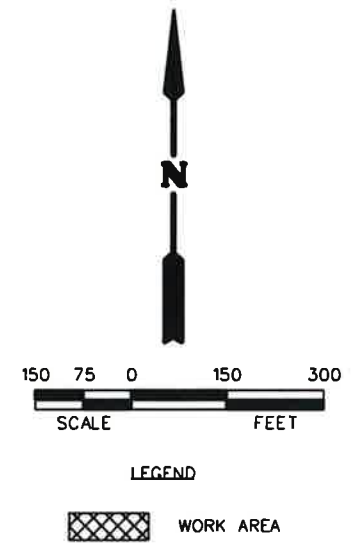
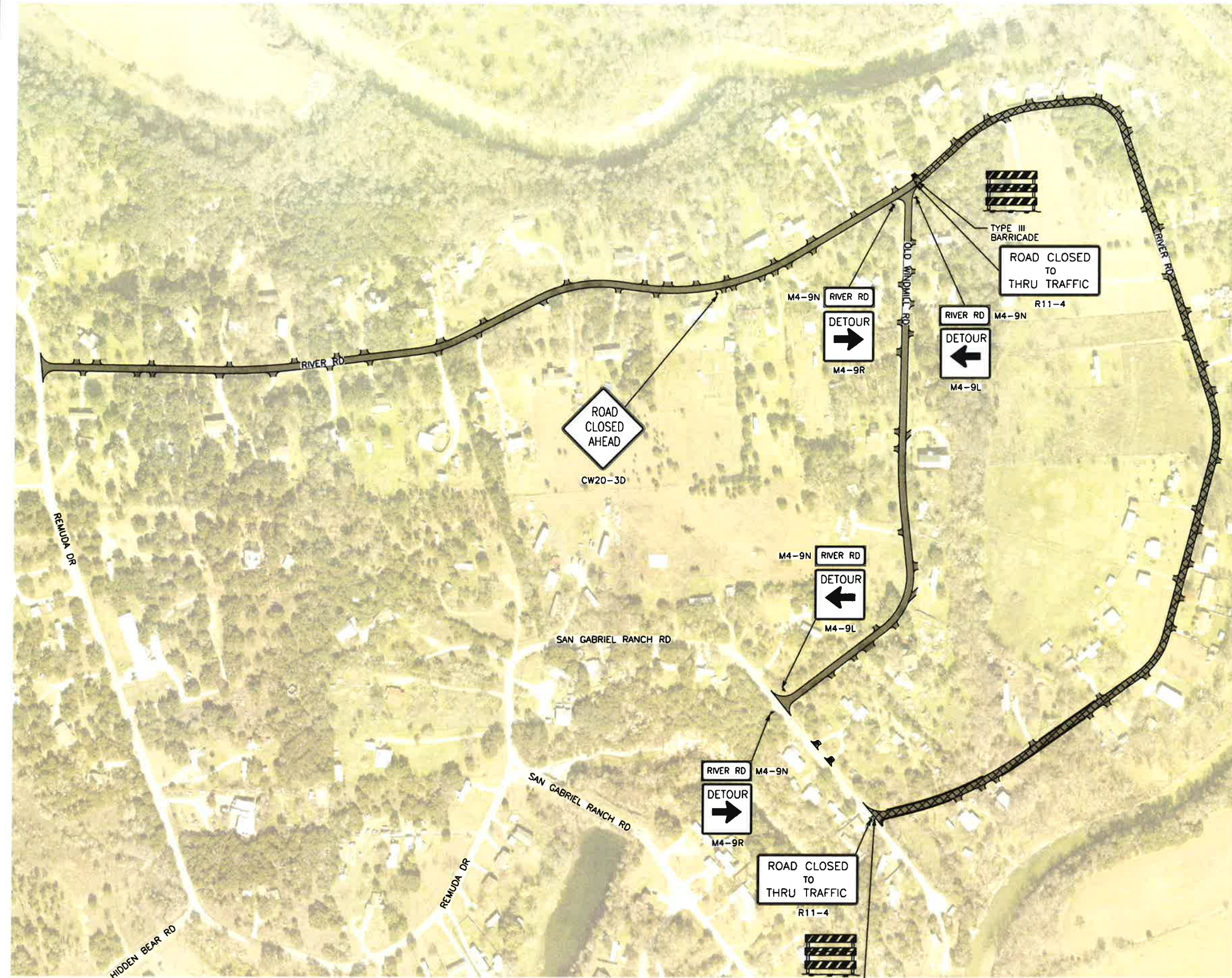
WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

**SAN GABRIEL RANCH RD
EROSION CONTROL PLAN**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 22
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

GRR_EROSION_CONTROL01.dgn
8/14/2017 9:43:58 AM



- NOTES:
1. ADDITIONAL GUIDE SIGNS MAY BE REQUIRED AT INTERSECTING PUBLIC ROADWAYS OR AS DIRECTED.
 2. ACCESS TO ADJACENT PROPERTIES SHALL REMAIN OPEN AT ALL TIMES. IF ANY TEMPORARY CLOSURE OF DRIVEWAYS SHOULD BE NEEDED, CONTRACTOR SHALL COORDINATE WITH COUNTY AND PROPERTY OWNER A MINIMUM OF 24 HRS PRIOR TO TEMPORARY CLOSURE. CONTRACTOR SHALL REPAIR ANY DAMAGES TO ADJACENT PROPERTIES TO EQUAL OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
 3. WORK WITHIN "WORK AREA" SHALL ONLY BE PERFORMED IN 1500 FT SECTIONS AT A TIME.



Kelly G. Morrelli
8/7/17

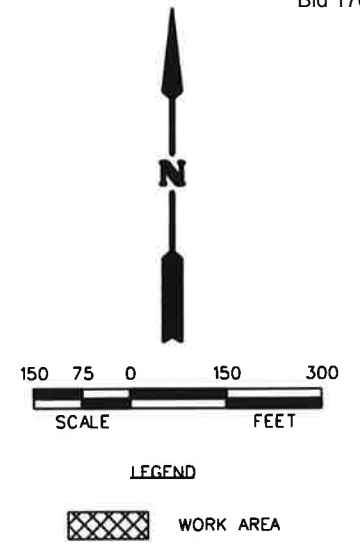
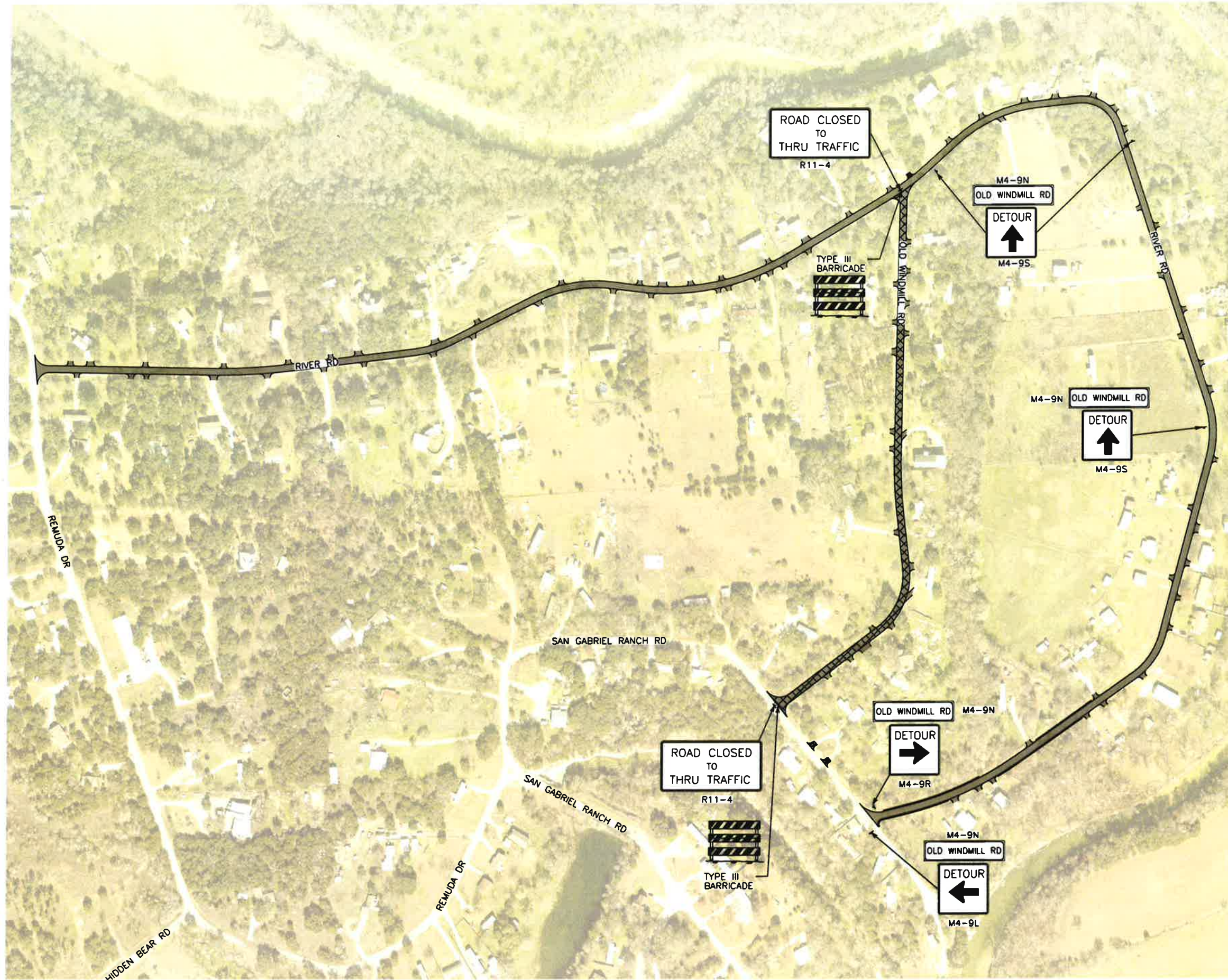
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1848

**RIVER RD & OLD WINDMILL RD
TRAFFIC CONTROL PLAN**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 23
Checked: KOK		
Drawn: KGM		
Checked: KOK		

RIVER OLD WINDMILL TCP01.dgn
8/7/2017 2:21:40 PM



- NOTES:
1. ADDITIONAL GUIDE SIGNS MAY BE REQUIRED AT INTERSECTING PUBLIC ROADWAYS OR AS DIRECTED.
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NO.	REVISION	BY	DATE

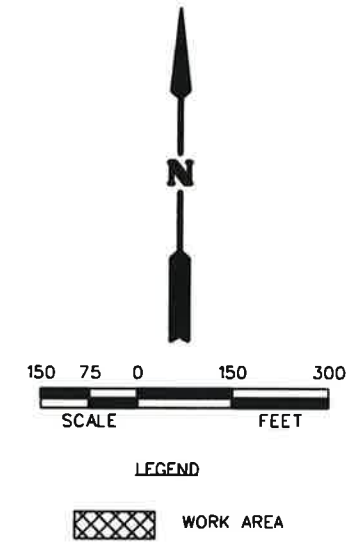
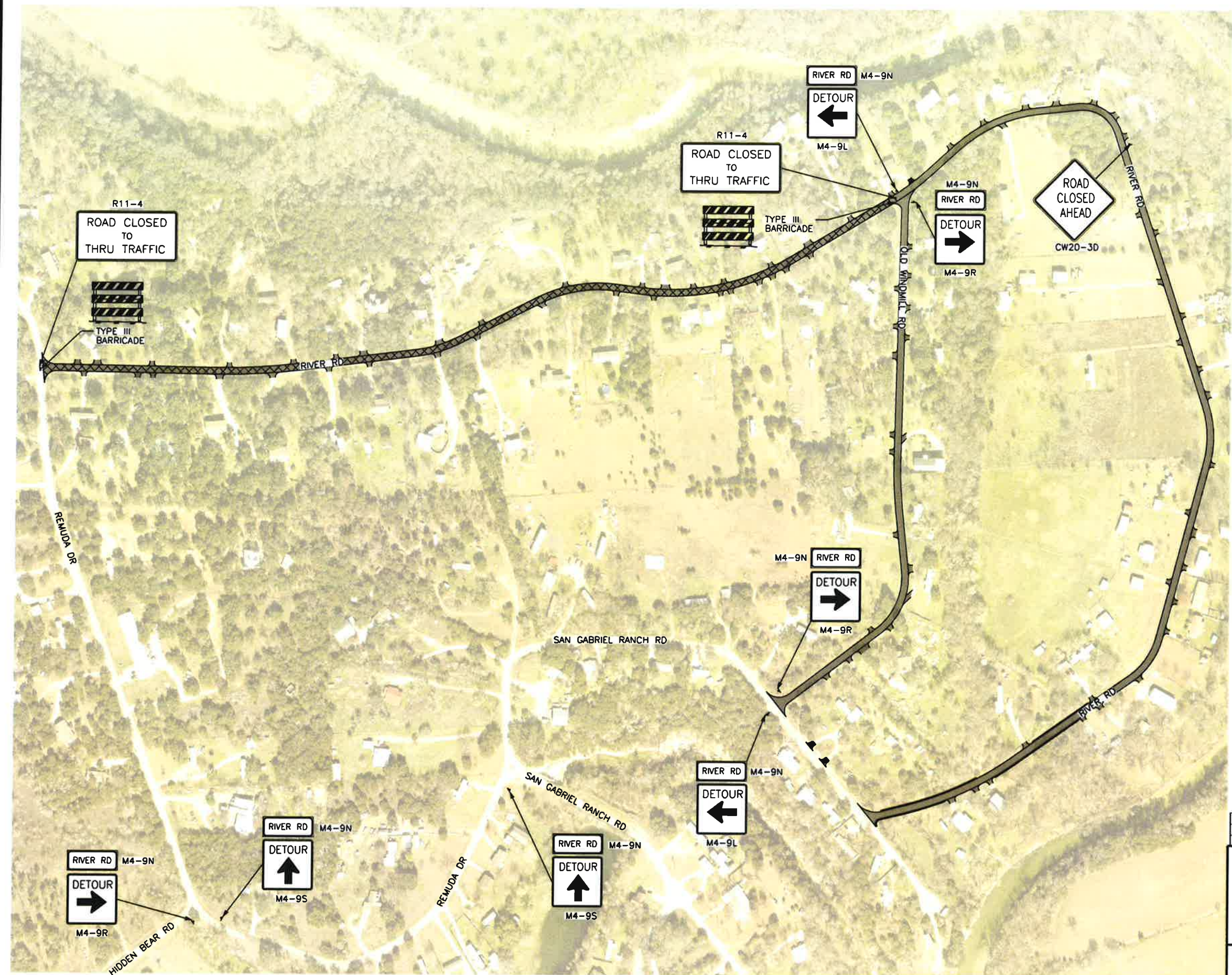
WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

**RIVER RD & OLD WINDMILL RD
TRAFFIC CONTROL PLAN**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 24
Checked: KOK		
Drawn: KGM		
Checked: KOK		

RIVER OLD WINDMILL TCP02.dgn
8/7/2017 2:22:35 PM



- NOTES:
1. ADDITIONAL GUIDE SIGNS MAY BE REQUIRED AT INTERSECTING PUBLIC ROADWAYS OR AS DIRECTED.
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Kelly G. Morrelli
8/7/17

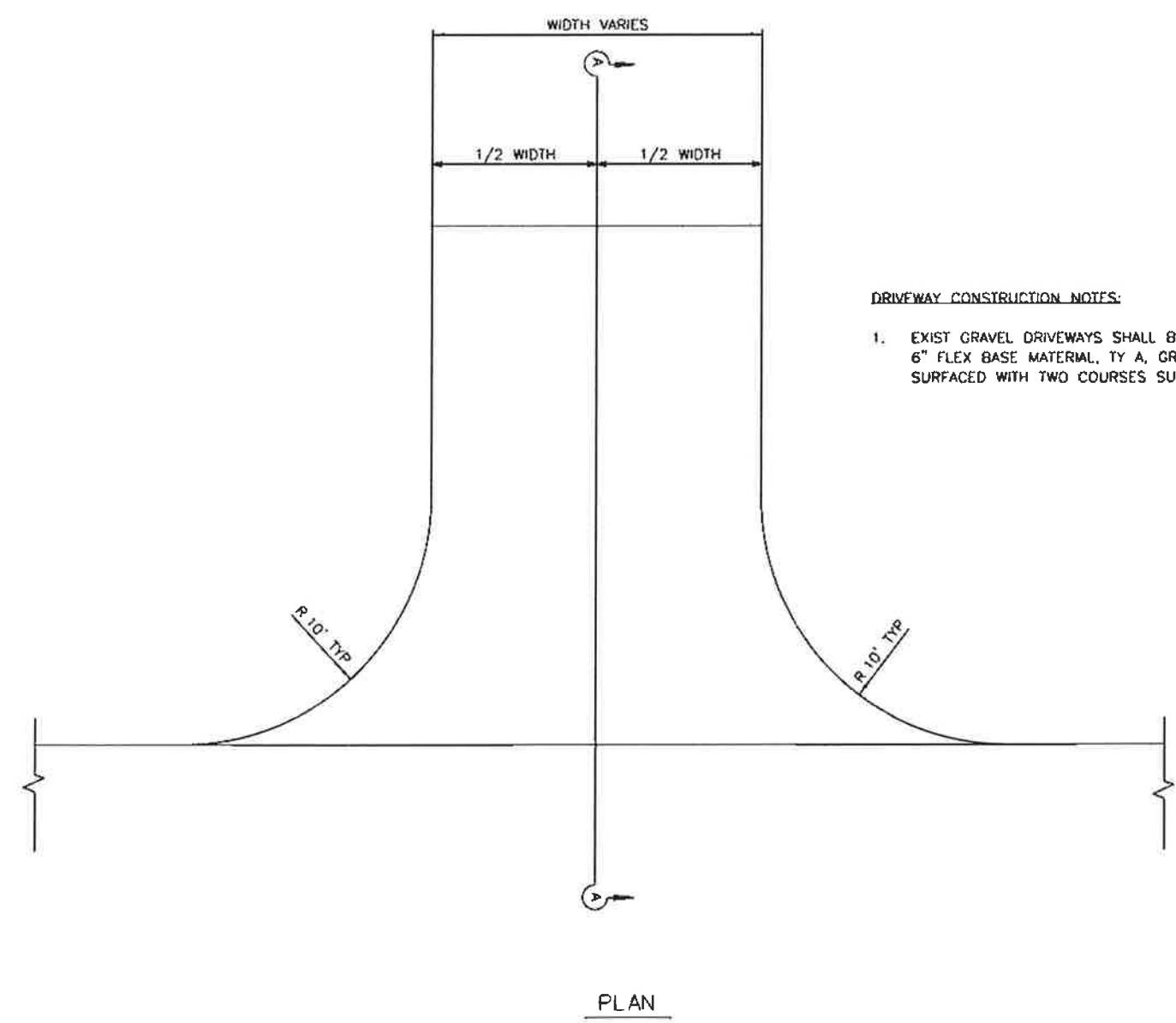
NO.	REVISION	BY	DATE

W WILLIAMSON COUNTY
DEPT. OF
WILLIAMSON COUNTY INFRASTRUCTURE
1848

RIVER RD & OLD WINDMILL RD
TRAFFIC CONTROL PLAN

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 25 125
Checked: KOK		
Drawn: KGM		
Checked: KOK		

RIVER OLD WINDMILL TCPO3.dgn
8/7/2017 2:23:19 PM

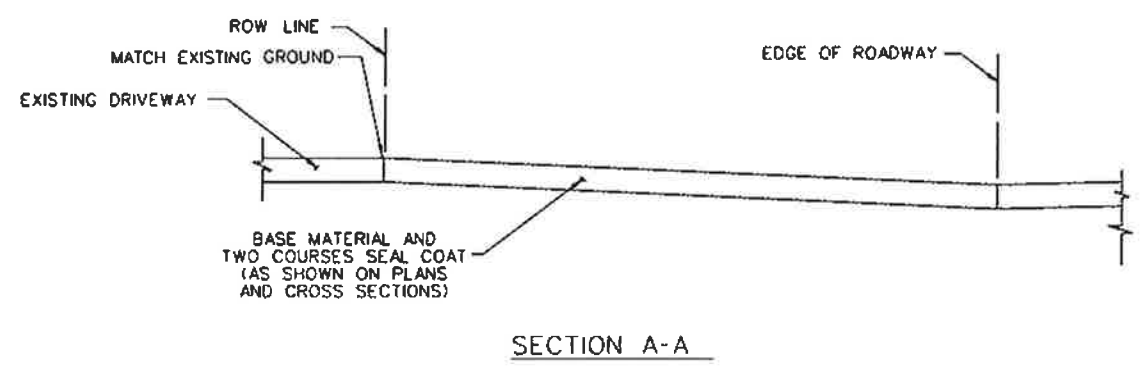


DRIVEWAY CONSTRUCTION NOTES:


- EXIST GRAVEL DRIVEWAYS SHALL BE RE-CONSTRUCTED WITH 6" FLEX BASE MATERIAL, TY A, GRADE 2, PRIME COATED, AND SURFACED WITH TWO COURSES SURFACE TREATMENT.

NOTE:

- SEE DRIVEWAY DETAILS SUMMARY SHEET AND CROSS SECTIONS FOR MORE DETAIL.



NO.	REVISION	BY	DATE



WILLIAMSON COUNTY
1878

WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

RIVER RD, OLD WINDMILL RD & SGRR
DRIVEWAY DETAILS

Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
Checked:	XQK		26
Drawn:	KGM		
Checked:	XQK		

RIVER OLD WINDMILL DRIVEWAY DETAILS.dgn
 8/10/2017 9:17 AM
 12/12/2017 10:02:56 AM


ALIGN	DRIVEWAY NO	STATION	SIDE	WIDTH (FT)	AREA (SY)	RADIUS		NOTES	PROPOSED DRIVEWAY CULVERT
						L	R		
RIVER	1	14+07.08	LT	14	28	10'	10'		N/A
RIVER	2	14+26.77	RT	12	25	10'	10'		N/A
RIVER	3	14+65.70	LT	20	38	10'	10'		N/A
RIVER	4	15+87.10	RT	14	29	10'	10'	11.2324 SKEW	N/A
RIVER	5	16+28.53	LT	12	25	10'	10'		N/A
RIVER	6	16+32.40	RT	12	25	10'	10'		N/A
RIVER	7	18+30.32	RT	20	38	10'	10'		N/A
RIVER	8	18+59.63	LT	12	25	10'	10'		N/A
RIVER	9	19+87.10	RT	15	35	15'	15'		N/A
RIVER	10	20+53.09	LT	14	28	10'	10'		N/A
RIVER	11	21+54.48	RT	14	28	10'	10'		N/A
RIVER	12	21+79.43	LT	12	25	10'	10'		N/A
RIVER	13	22+61.60	LT	20	38	10'	10'		N/A
RIVER	14	22+74.57	RT	12	25	10'	10'		N/A
RIVER	15	24+77.40	RT	16	31	10'	10'		N/A
RIVER	16	24+93.00	LT	20	42	10'	10'	17.3433 SKEW	N/A
RIVER	17	26+03.52	RT	12	28	10'	10'	22.975 SKEW	N/A
RIVER	18	26+33.97	LT	14	28	10'	10'		N/A
RIVER	19	28+17.85	RT	14	32	10'	10'	35.5015 SKEW	N/A
RIVER	20	29+02.28	LT	12	27	15'	10'		N/A
RIVER	21	30+55.40	RT	14	28	10'	10'		N/A
RIVER	22	31+29.06	LT	12	25	10'	10'		N/A
RIVER	23	31+66.28	RT	12	25	10'	10'	14.6106 SKEW	N/A
RIVER	24	31+99.76	LT	24	45	10'	10'		N/A
RIVER	25	32+85.67	LT	12	28	10'	10'	19.1947 SKEW	DCULV 1
RIVER	26	33+62.38	RT	12	25	10'	10'		N/A
RIVER	27	33+79.62	LT	12	25	10'	10'		DCULV 2
RIVER	28	33+91.86	RT	12	26	10'	10'	16.7056 SKEW	N/A
RIVER	29	34+79.60	RT	12	30	10'	10'	29.4143 SKEW	N/A
RIVER	30	35+20.44	RT	14	31	10'	10'	19.9707 SKEW	N/A
RIVER	31	35+30.53	LT	12	25	10'	10'		DCULV 3
RIVER	32	35+66.67	RT	14	31	10'	15'		N/A
RIVER	33	36+50.18	RT	12	29	10'	15'	21.8565 SKEW	N/A
RIVER	34	36+59.65	LT	24	45	10'	10'		DCULV 4
RIVER	35	38+06.52	LT	12	25	10'	10'		DCULV 5
RIVER	36	39+48.93	LT	12	26	10'	10'	12.2239 SKEW	DCULV 6
RIVER	37	40+21.06	LT	12	25	10'	10'		DCULV 7
RIVER	38	41+76.79	LT	14	28	10'	10'		DCULV 8
RIVER	39	42+93.99	LT	12	27	10'	10'	20.9734 SKEW	N/A
RIVER	40	43+40.86	RT	14	29	10'	10'	26.0299 SKEW	N/A
RIVER	41	44+24.39	LT	18	34	10'	10'		N/A
RIVER	42	45+14.07	LT	16	35	10'	10'	20.3841 SKEW	N/A

ALIGN	DRIVEWAY NO	STATION	SIDE	WIDTH (FT)	AREA (SY)	RADIUS		NOTES	PROPOSED DRIVEWAY CULVERT
						L	R		
RIVER	43	46+22.61	LT	16	30	10'	10'		N/A
RIVER	44	46+86.16	LT	18	37	15'	10'	23.7522 SKEW	N/A
RIVER	45	47+50.91	LT	14	30	10'	10'	15.8343 SKEW	N/A
RIVER	46	49+84.32	RT	12	24	10'	10'		N/A
RIVER	47	50+50.39	LT	12	25	10'	10'		N/A
RIVER	48	51+98.75	RT	14	29	10'	10'	23.1943 SKEW	N/A
RIVER	49	53+10.56	LT	12	25	10'	10'		N/A
RIVER	50	53+83.74	RT	12	27	10'	10'	19.0167 SKEW	N/A
RIVER	51	54+77.49	LT	12	25	10'	10'		N/A
RIVER	52	55+59.25	LT	18	36	10'	10'	9.6826 SKEW	N/A
RIVER	53	57+61.21	LT	12	25	10'	10'		N/A
RIVER	54	59+15.23	RT	12	25	10'	10'		N/A
RIVER	55	59+69.88	LT	24	45	10'	10'		N/A
RIVER	56	60+76.70	LT	14	28	10'	10'		N/A
RIVER	57	61+29.26	RT	12	25	10'	10'	6.4976 SKEW	DCULV 9
RIVER	58	61+81.79	LT	12	25	10'	10'		N/A
RIVER	59	62+73.02	LT	12	25	10'	10'		N/A
RIVER	60	64+28.24	LT	16	31	10'	10'	8.6718 SKEW	N/A
RIVER	61	65+68.46	LT	12	28	10'	10'	21.9893 SKEW	N/A
RIVER	62	65+75.57	RT	12	25	10'	10'		DCULV 10
RIVER	63	66+30.04	LT	12	25	10'	10'		N/A
RIVER	64	68+15.70	RT	14	29	10'	10'	11.3142 SKEW	DCULV 11
RIVER	65	69+62.83	LT	12	25	10'	10'	6.2164 SKEW	N/A
RIVER	66	70+09.58	LT	14	29	10'	10'	13.6893 SKEW	N/A
RIVER	67	70+86.47	LT	18	35	10'	10'	5.0222 SKEW	N/A
OLD WINDMILL	1	13+34.34	LT	12	25	10'	10'		N/A
OLD WINDMILL	2	14+20.11	LT	12	25	10'	10'		N/A
OLD WINDMILL	3	14+59.63	RT	12	25	10'	10'		DCULV 1
OLD WINDMILL	4	15+15.96	LT	12	28	10'	10'	20.8879 SKEW	N/A
OLD WINDMILL	5	15+71.54	RT	12	25	10'	10'		N/A
OLD WINDMILL	6	16+04.23	LT	12	25	10'	10'		N/A
OLD WINDMILL	7	16+58.93	RT	18	35	10'	10'		DCULV 2
OLD WINDMILL	8	18+94.08	RT	12	26	10'	10'	15.0706 SKEW	DCULV 3
OLD WINDMILL	9	19+09.36	LT	12	32	10'	10'	47.9375 SKEW	N/A
OLD WINDMILL	10	19+45.38	RT	12	26	10'	10'	13.8405 SKEW	DCULV 4
OLD WINDMILL	11	21+90.35	RT	12	28	10'	10'	20.7323 SKEW	N/A
OLD WINDMILL	12	22+93.98	LT	20	38	10'	10'		N/A
OLD WINDMILL	13	23+82.31	LT	12	40	10'	10'	68.1255 SKEW	N/A
OLD WINDMILL	14	24+70.04	LT	12	27	10'	10'	23.6743 SKEW	N/A
OLD WINDMILL	15	25+18.98	RT	12	25	10'	10'		N/A
OLD WINDMILL	16	25+68.57	LT	32	58	10'	10'		DCULV 5
OLD WINDMILL	17	26+22.62	LT	12	25	10'	10'		DCULV 6
OLD WINDMILL	18	27+06.55	LT	12	27	10'	10'	20.0806 SKEW	DCULV 7
ALIGN	DRIVEWAY NO	STATION	SIDE	WIDTH (FT)	AREA (SY)	RADIUS		NOTES	PROPOSED DRIVEWAY CULVERT
SGRR	1	1+23.32	LT	14	35	10'	10'	12.9472 SKEW	DCULV1
SGRR	2	1+87.23	LT	14	34	10'	10'		DCULV2

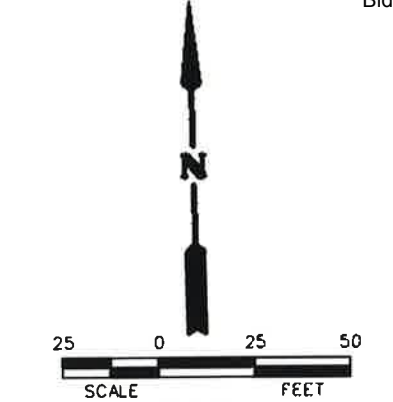
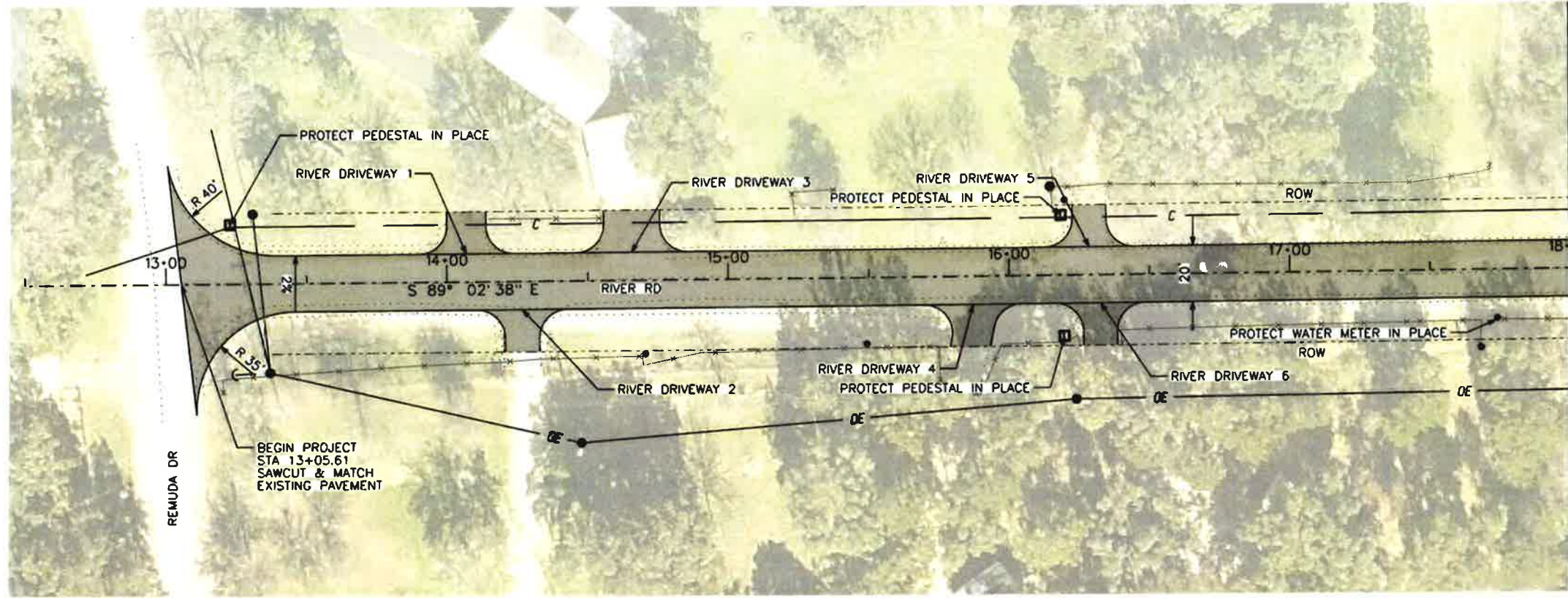
NOTE:

- SEE DRIVEWAY DETAILS SHEET AND CROSS SECTIONS FOR MORE DETAIL.



NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 181X			
RIVER RD, OLD WINDMILL RD & SGRR DRIVEWAY DETAIL SUMMARY			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
Drawn:	KGM	www.wilco.org	
Checked:	KOK		
			SHEET NO. 27

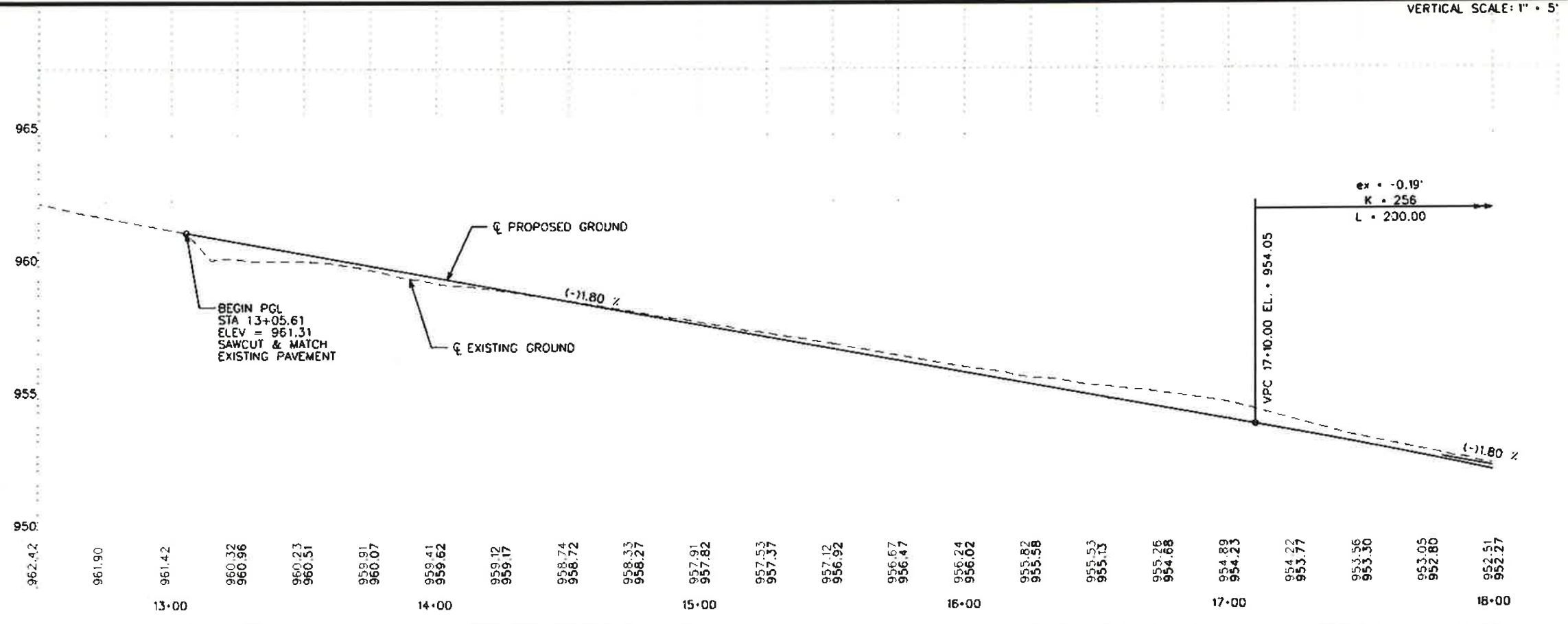
RIVER, OLD WINDMILL DRIVEWAY DETAIL SUMMARY.dgn 10:03:10 AM 7/12/2017



- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - x EXIST FENCE
 - oe EXIST OVERHEAD ELECTRIC
 - c EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

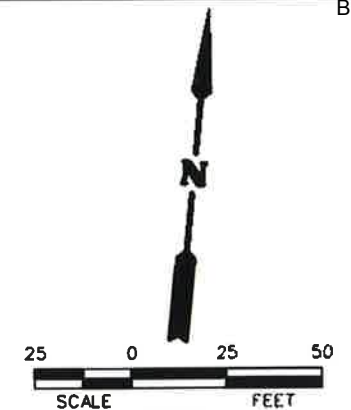
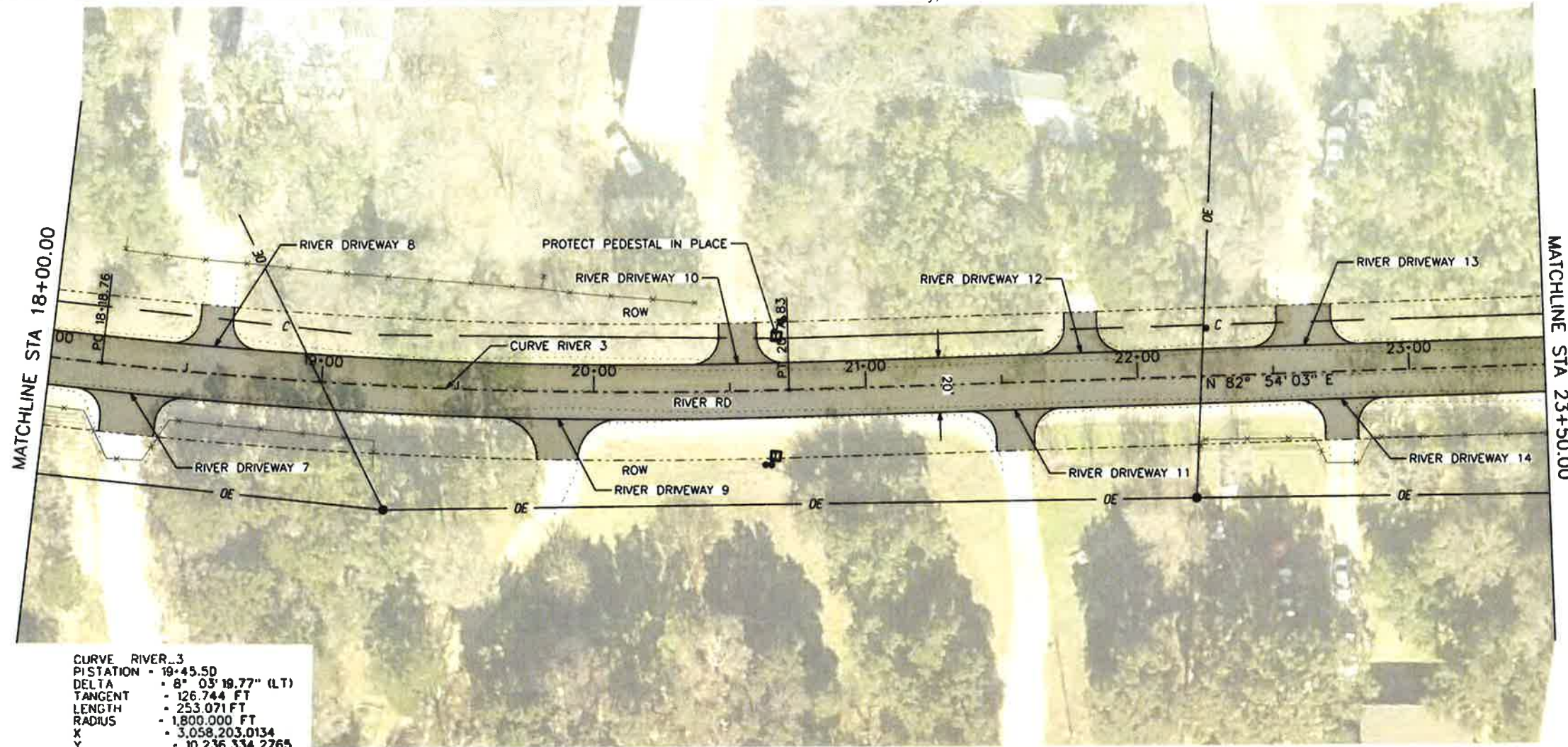
- NOTES:**
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 2. CONTRACTOR SHALL REPAIR / RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
 3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
 4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 5. EXIST MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.

VERTICAL SCALE: 1" = 5'



WILLIAMSON COUNTY		WILLIAMSON COUNTY	
DEPT. OF INFRASTRUCTURE		DEPT. OF INFRASTRUCTURE	
RIVER RD PLAN AND PROFILE			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B	SHEET NO.
Checked:	KOK	GEORGETOWN, TEXAS 78626	28
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

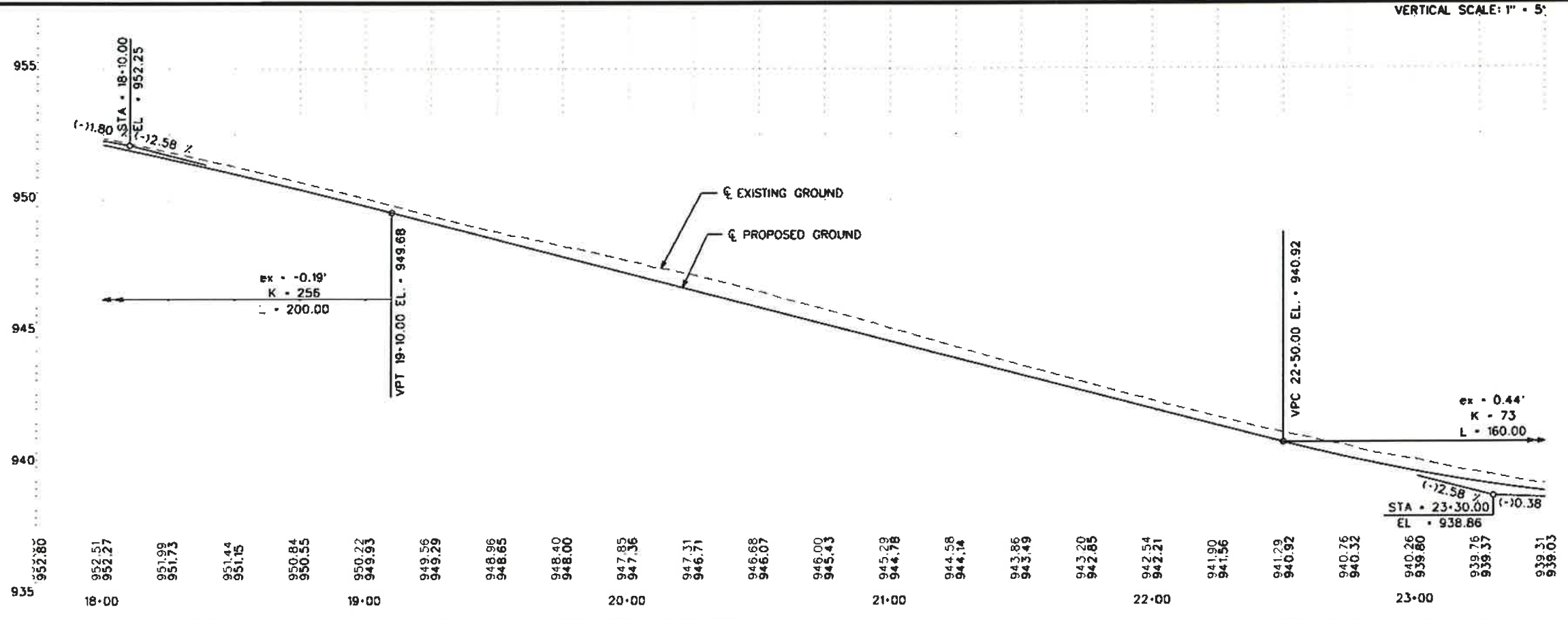
RIVER_PPO1.dgn 10/03/23 AM
 8/10/2017 9:17 AM



- LEGEND**
- TWO COURSE SEAL COAT
 - EXIST WATER LINE
 - EXIST FENCE
 - EXIST OVERHEAD ELECTRIC
 - EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

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 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.

VERTICAL SCALE: 1" = 5'



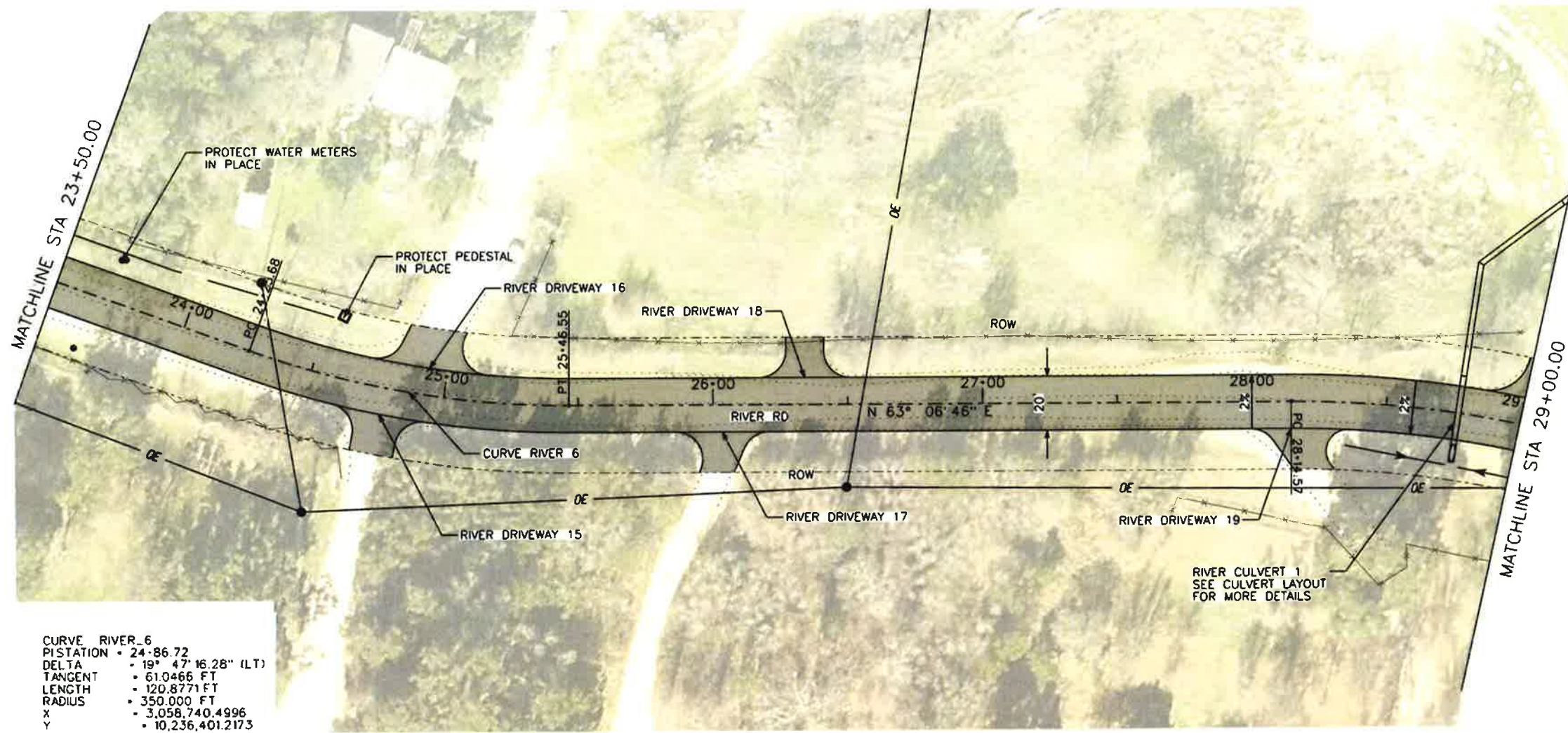
Kelly G. Morrelli
 8/17/17

NO.	REVISION	BY	DATE



**RIVER RD
 PLAN AND PROFILE**

Designed: KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 29
Checked: KQK		
Drawn: KGM		
Checked: KQK		



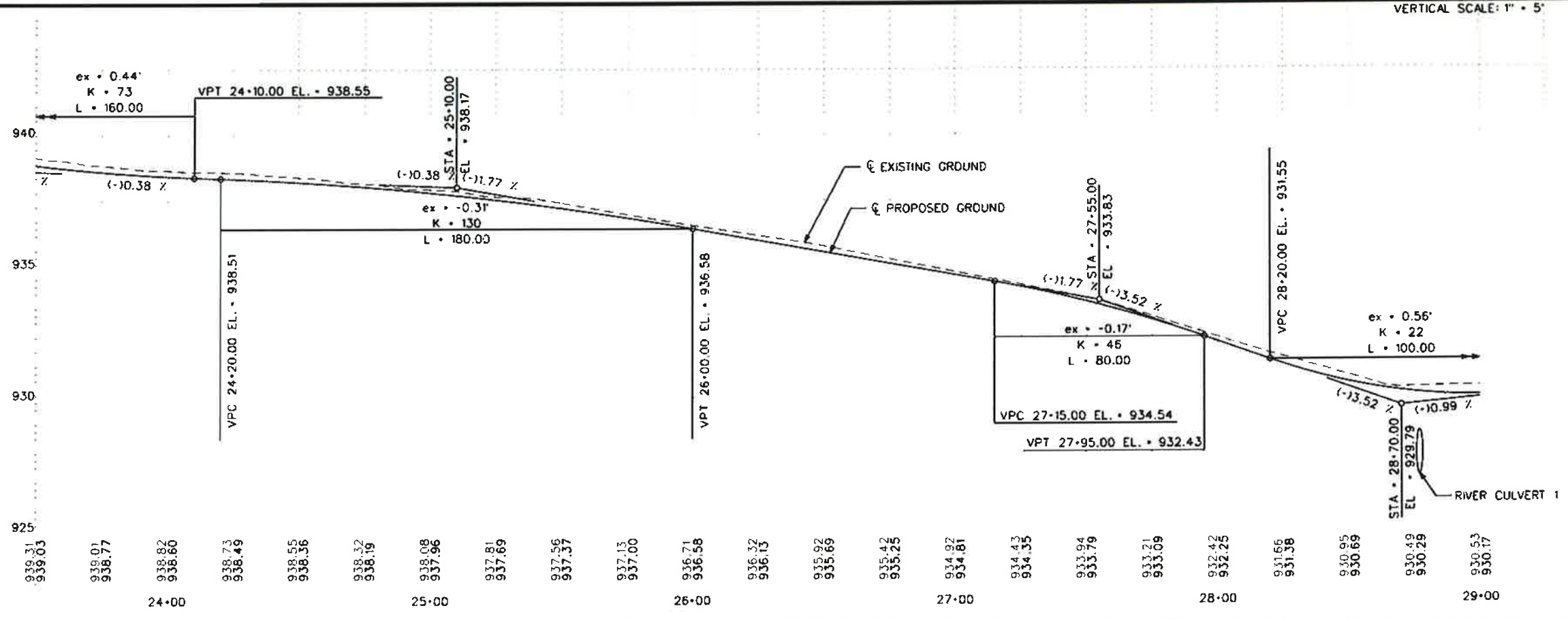
LEGEND

- TWO COURSE SEAL COAT
- W EXIST WATER LINE
- EXIST FENCE
- OE EXIST OVERHEAD ELECTRIC
- C EXIST UNDERGROUND CABLE
- D DITCH FLOW LINE
- WATER METER
- TELEPHONE PEDESTAL

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 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.

CURVE RIVER_6
 PISTATION • 24+86.72
 DELTA • 19° 47' 16.28" (LT)
 TANGENT • 61.0466 FT
 LENGTH • 120.8771 FT
 RADIUS • 350.000 FT
 X • 3,058,740.4996
 Y • 10,236,401.2173

VERTICAL SCALE: 1" = 5'



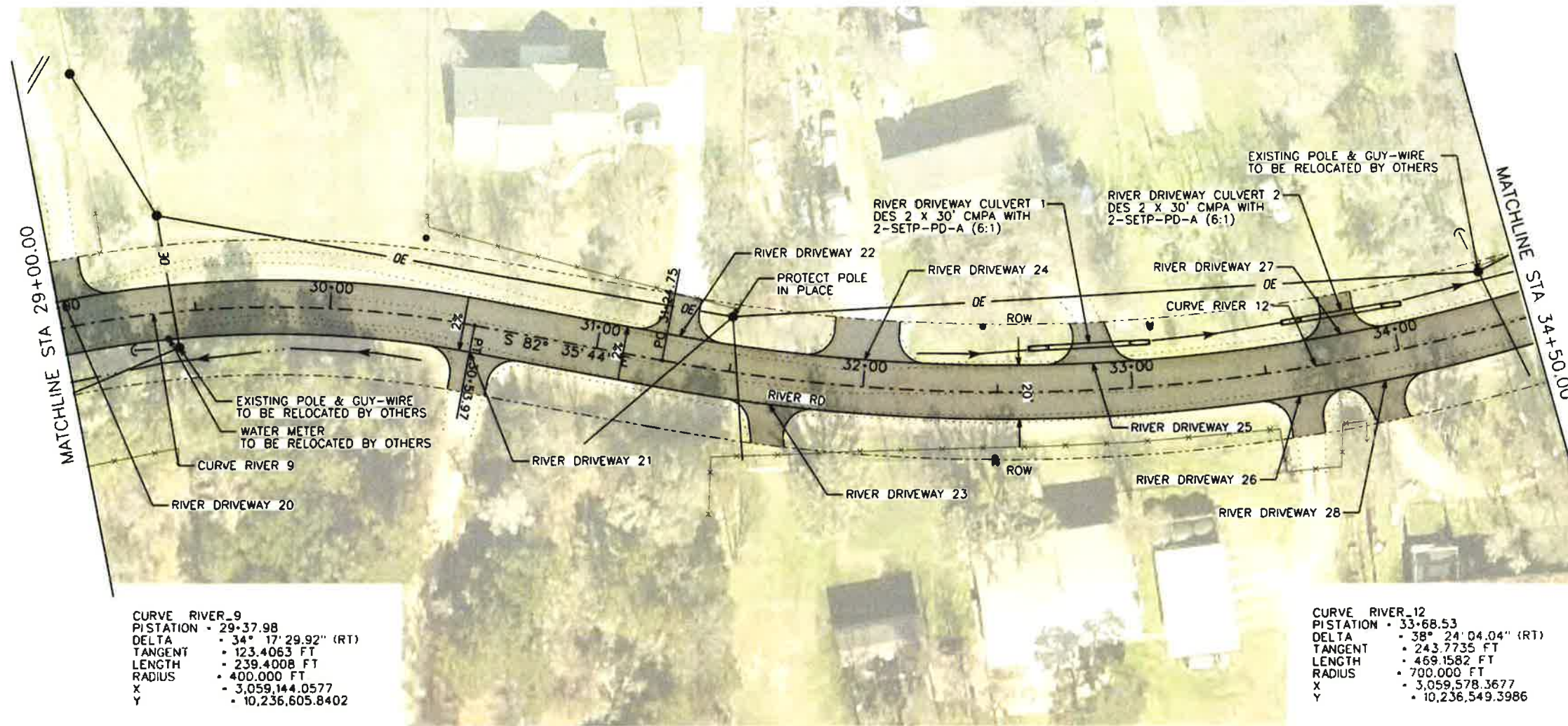
Kelly G. Morrelli
 8/7/17

NO.	REVISION	BY	DATE



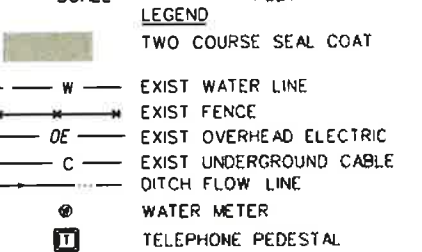
**RIVER RD
 PLAN AND PROFILE**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 30
Checked: KOK		
Drawn: KGM		
Checked: KOK		



CURVE RIVER_9
 PISTATION - 29+37.98
 DELTA - 34° 17' 29.92" (RT)
 TANGENT - 123.4063 FT
 LENGTH - 239.4008 FT
 RADIUS - 400.000 FT
 X - 3,059,144.0577
 Y - 10,236,605.8402

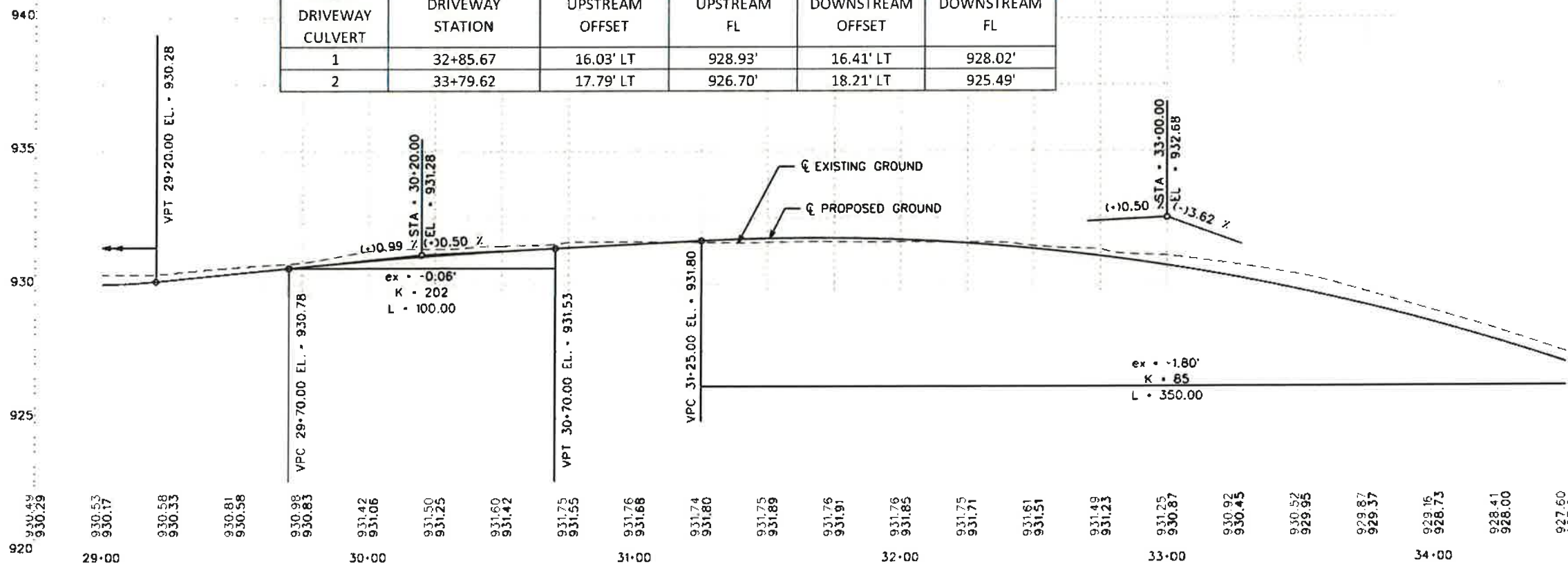
CURVE RIVER_12
 PISTATION - 33+68.53
 DELTA - 38° 24' 04.04" (RT)
 TANGENT - 243.7735 FT
 LENGTH - 469.1582 FT
 RADIUS - 700.000 FT
 X - 3,059,578.3677
 Y - 10,236,549.3986



- NOTES:**
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 5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.

VERTICAL SCALE: 1" = 5'

RIVER DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
1	32+85.67	16.03' LT	928.93'	16.41' LT	928.02'
2	33+79.62	17.79' LT	926.70'	18.21' LT	925.49'



Kelly G. Morrelli
 8/7/17

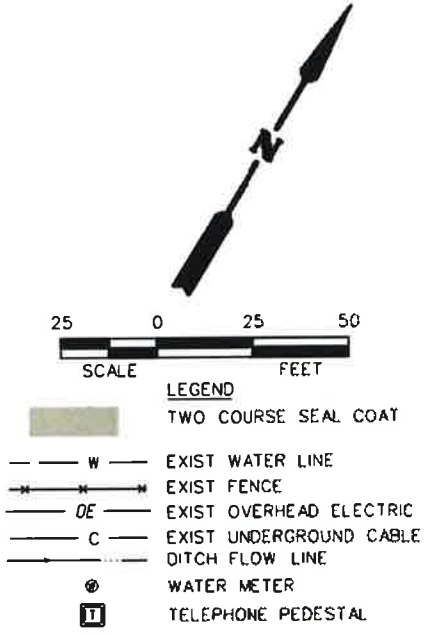
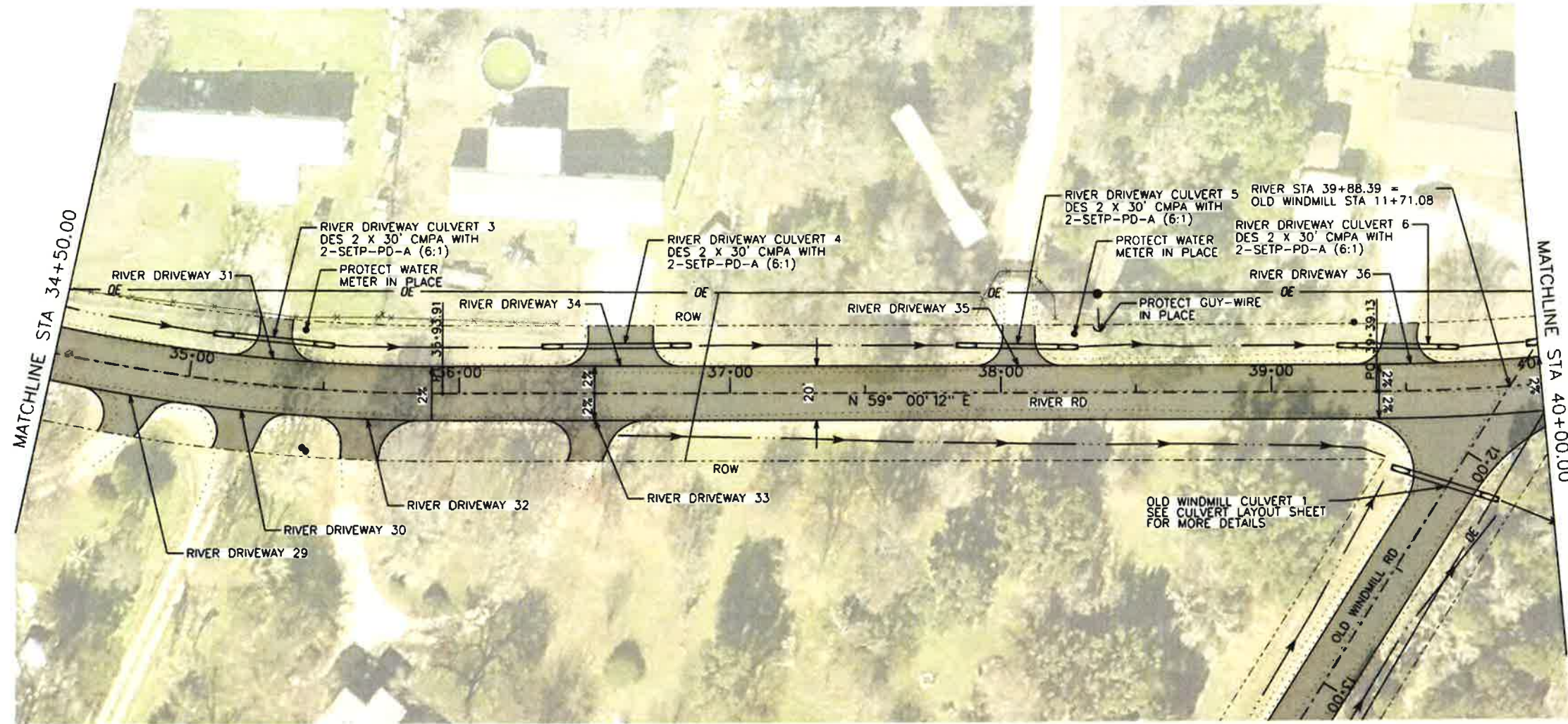
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
 1818

WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE

RIVER RD
 PLAN AND PROFILE

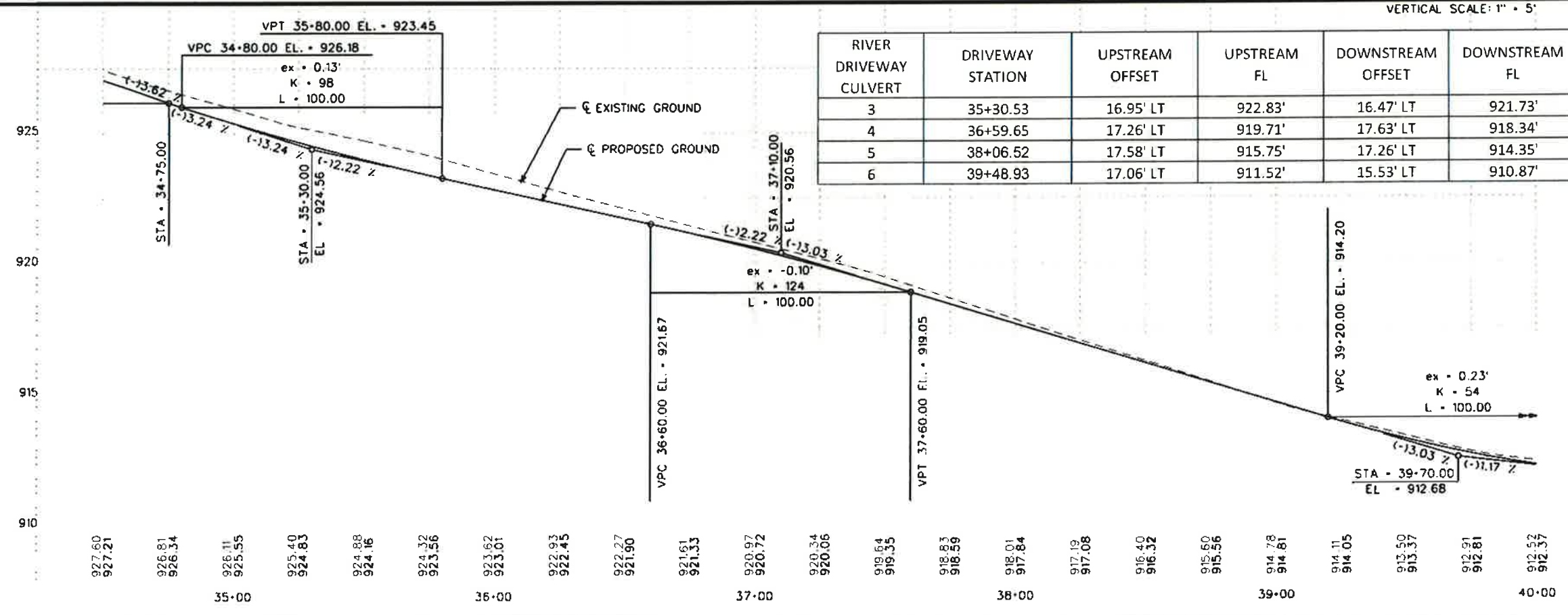
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Checked: KQK		31
Drawn: KGM		
Checked: KQK		



- NOTES:**
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
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 5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.



RIVER DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
3	35+30.53	16.95' LT	922.83'	16.47' LT	921.73'
4	36+59.65	17.26' LT	919.71'	17.63' LT	918.34'
5	38+06.52	17.58' LT	915.75'	17.26' LT	914.35'
6	39+48.93	17.06' LT	911.52'	15.53' LT	910.87'

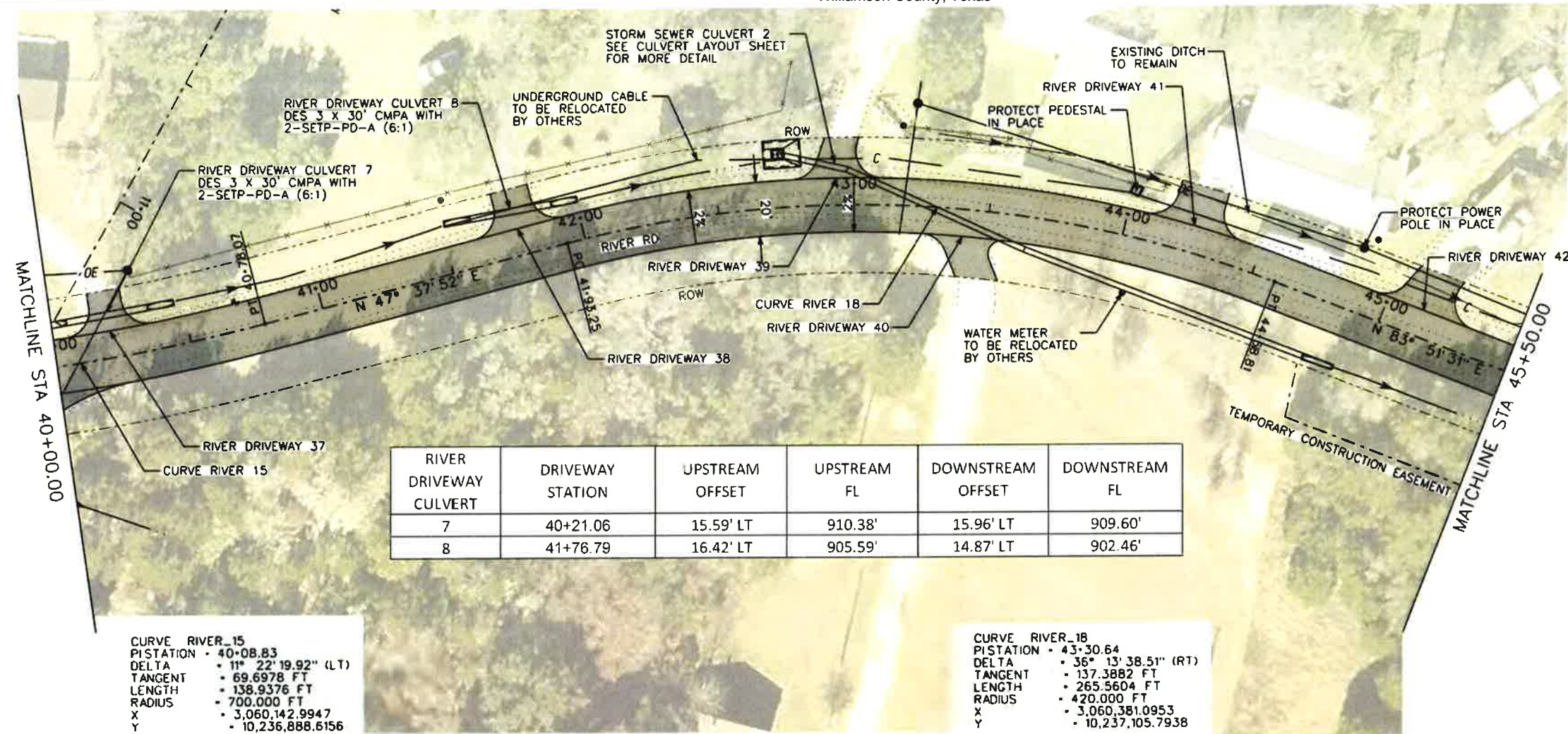


NO.	REVISION	BY	DATE

WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

RIVER RD PLAN AND PROFILE

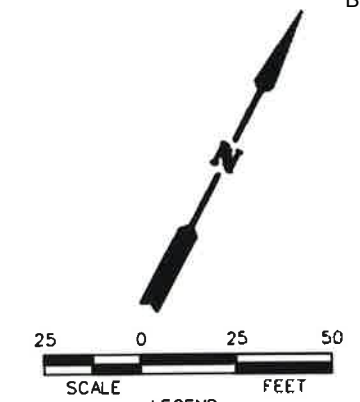
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Checked: KQK		
Drawn: KGM		
Checked: KQK		



RIVER DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
7	40+21.06	15.59' LT	910.38'	15.96' LT	909.60'
8	41+76.79	16.42' LT	905.59'	14.87' LT	902.46'

CURVE RIVER_15
 PISTATION - 40+08.83
 DELTA - 11° 22' 19.92" (LT)
 TANGENT - 69.6978 FT
 LENGTH - 138.9376 FT
 RADIUS - 700.000 FT
 X - 3,060,142.9947
 Y - 10,236,888.6156

CURVE RIVER_18
 PISTATION - 43+30.64
 DELTA - 36° 13' 38.51" (RT)
 TANGENT - 137.3882 FT
 LENGTH - 265.5604 FT
 RADIUS - 420.000 FT
 X - 3,060,381.0953
 Y - 10,237,105.7938



- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - x EXIST FENCE
 - oe EXIST OVERHEAD ELECTRIC
 - c EXIST UNDERGROUND CABLE
 - d DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

- NOTES:**
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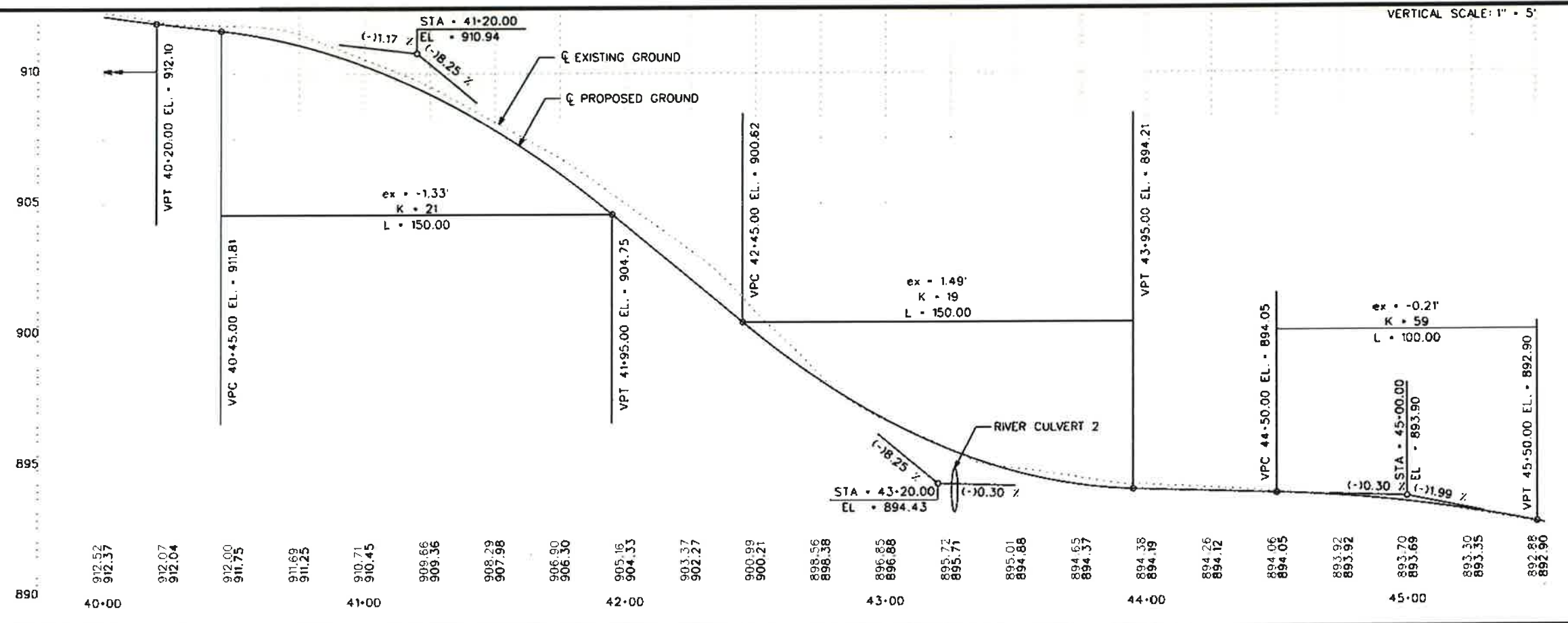
Kelly G. Morrelli
 8/7/17

NO.	REVISION	BY	DATE

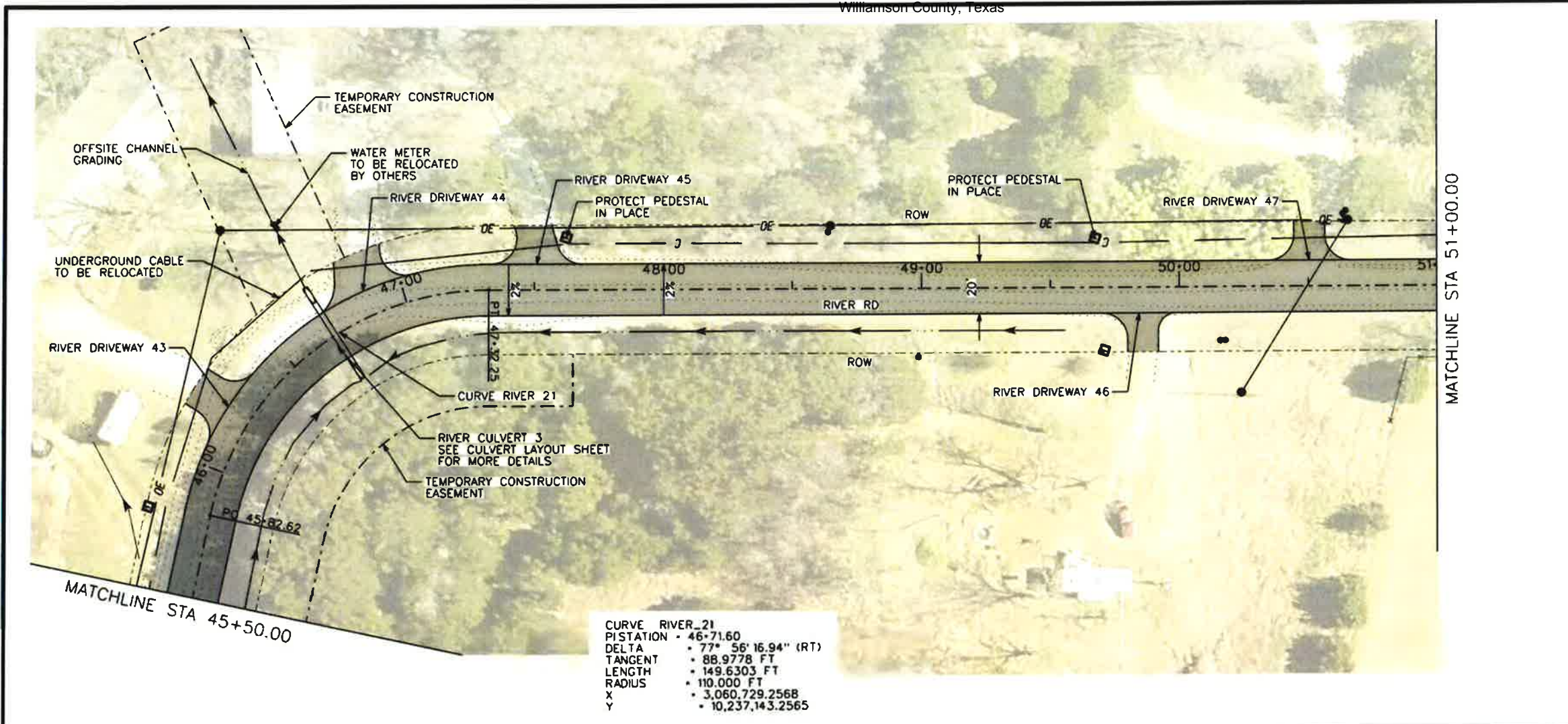


**RIVER RD
 PLAN AND PROFILE**

Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 33
Checked:	KOK		
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Checked:	KOK		



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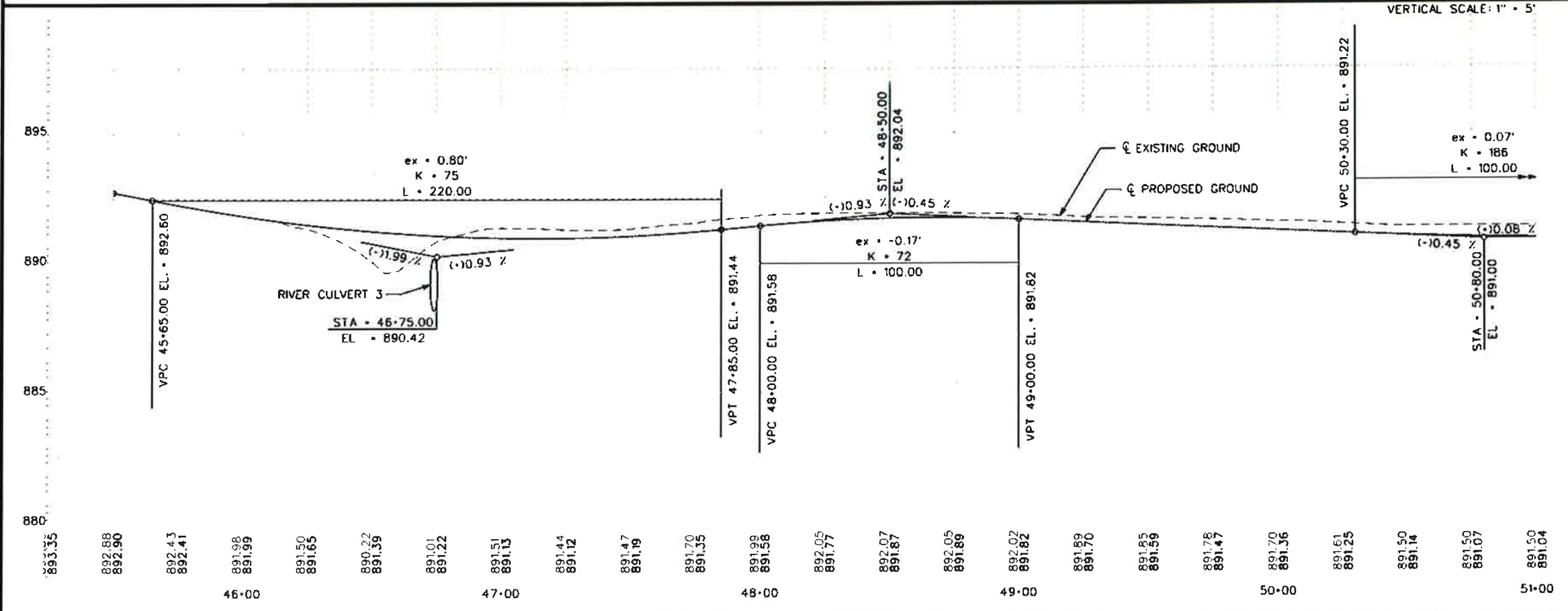


CURVE RIVER_21
PISTATION - 46+71.60
DELTA - 77° 56' 16.94" (RT)
TANGENT - 88.9778 FT
LENGTH - 149.6303 FT
RADIUS - 110.000 FT
X - 3,060.729.2568
Y - 10,237,143.2565



- LEGEND
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - EXIST FENCE
 - DE EXIST OVERHEAD ELECTRIC
 - C EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

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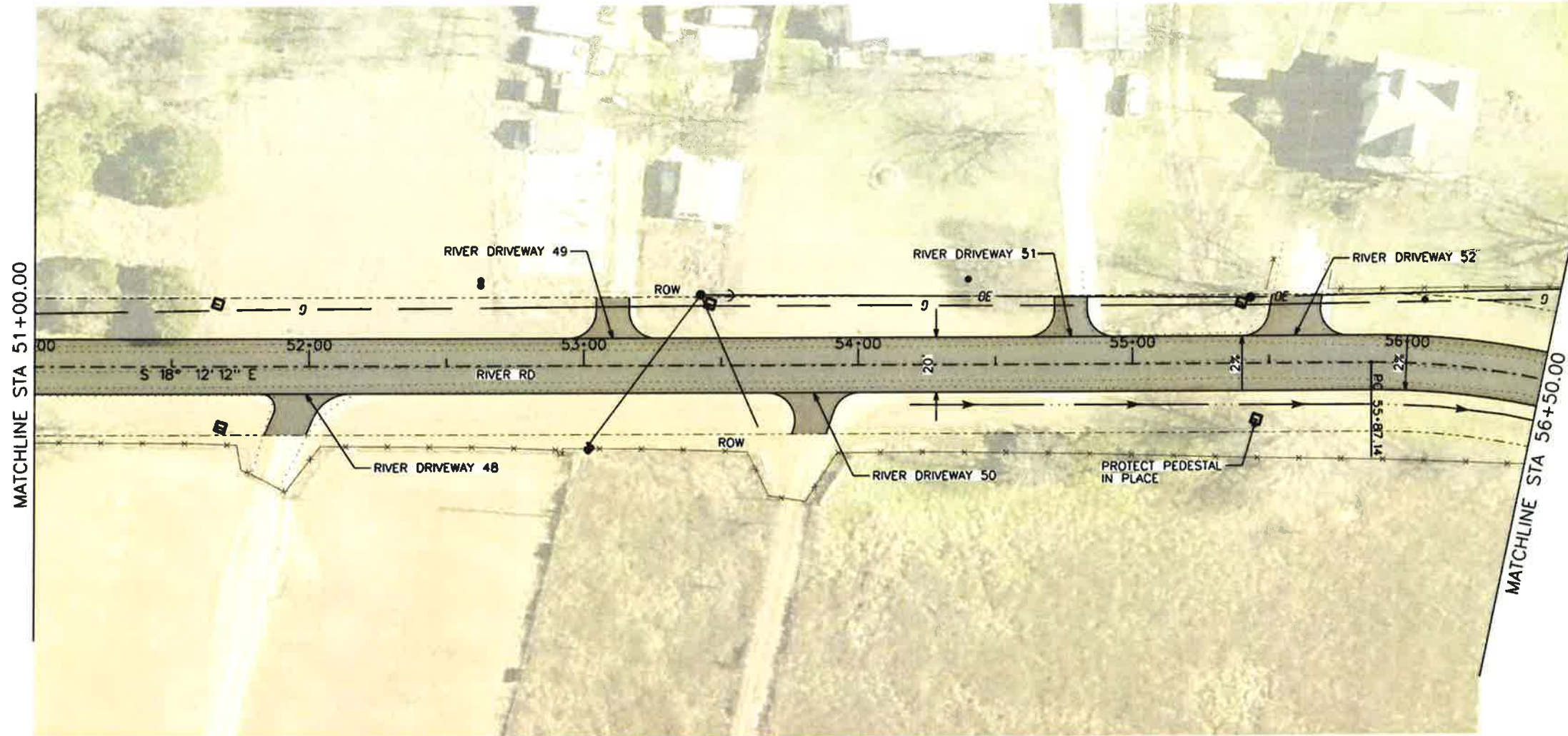
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

RIVER RD
PLAN AND PROFILE

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 34
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Drawn:	KGM		
Checked:	KOK		

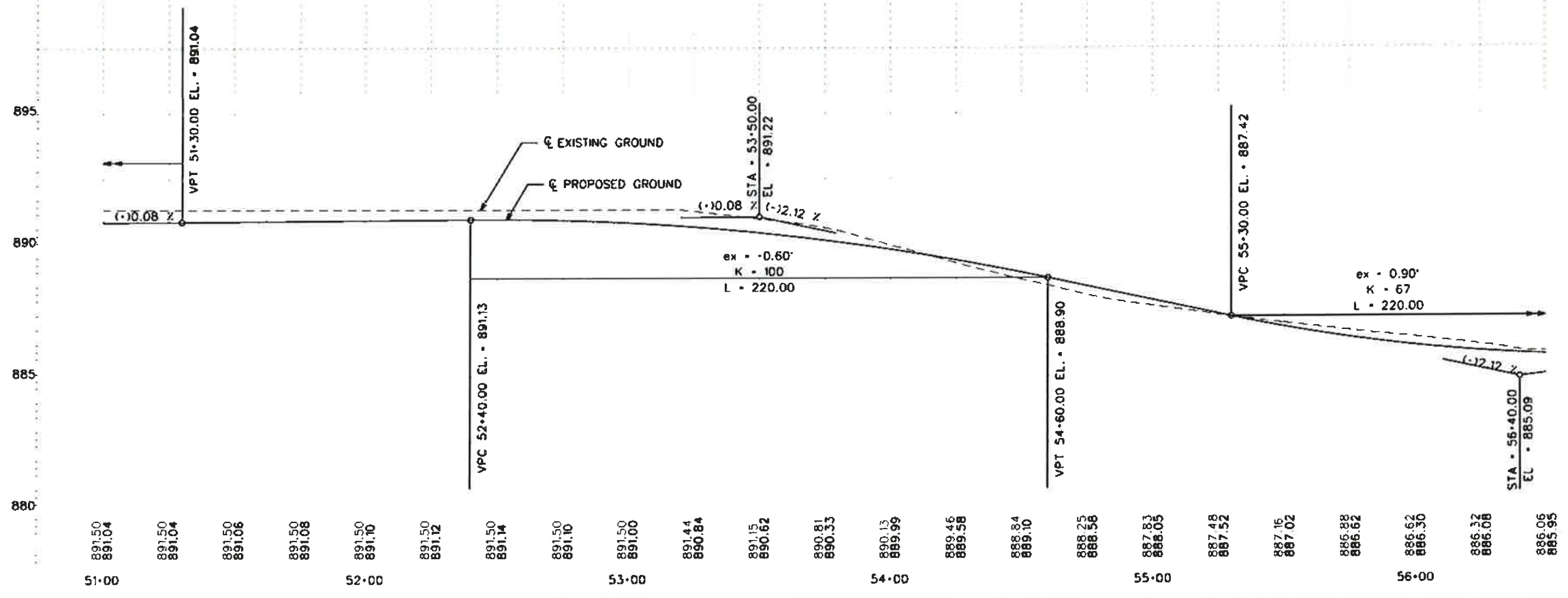
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- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - EXIST FENCE
 - OE EXIST OVERHEAD ELECTRIC
 - C EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

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VERTICAL SCALE: 1" = 5'



NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
 1818
WILLIAMSON COUNTY
 DEPT. OF
 INFRASTRUCTURE

**RIVER RD
PLAN AND PROFILE**

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
Checked: KQM		35
Drawn: KGM		
Checked: KQM		

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- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - EXIST FENCE
 - OE EXIST OVERHEAD ELECTRIC
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 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

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Kelly G. Morrelli
8/7/17

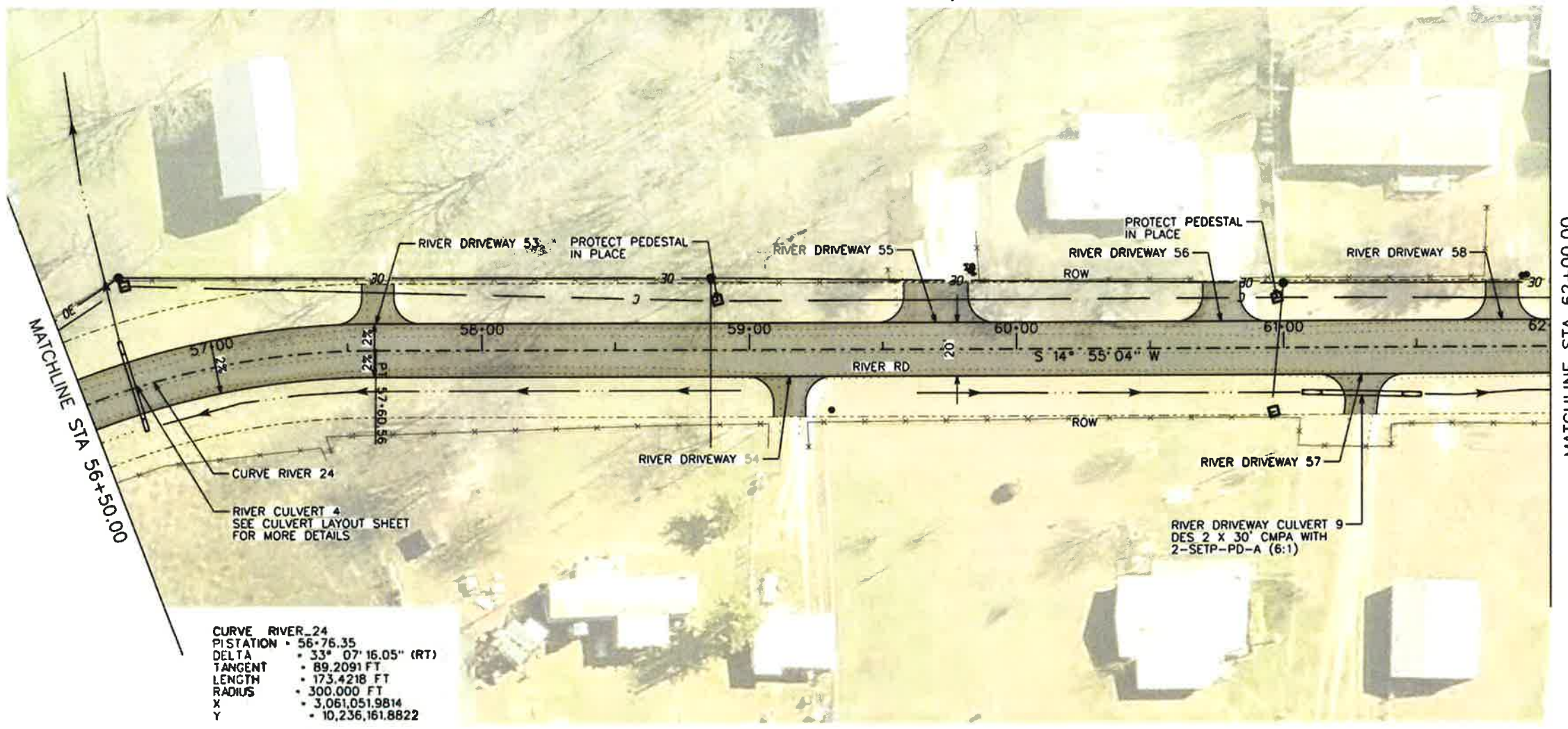
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
1818

WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

**RIVER RD
PLAN AND PROFILE**

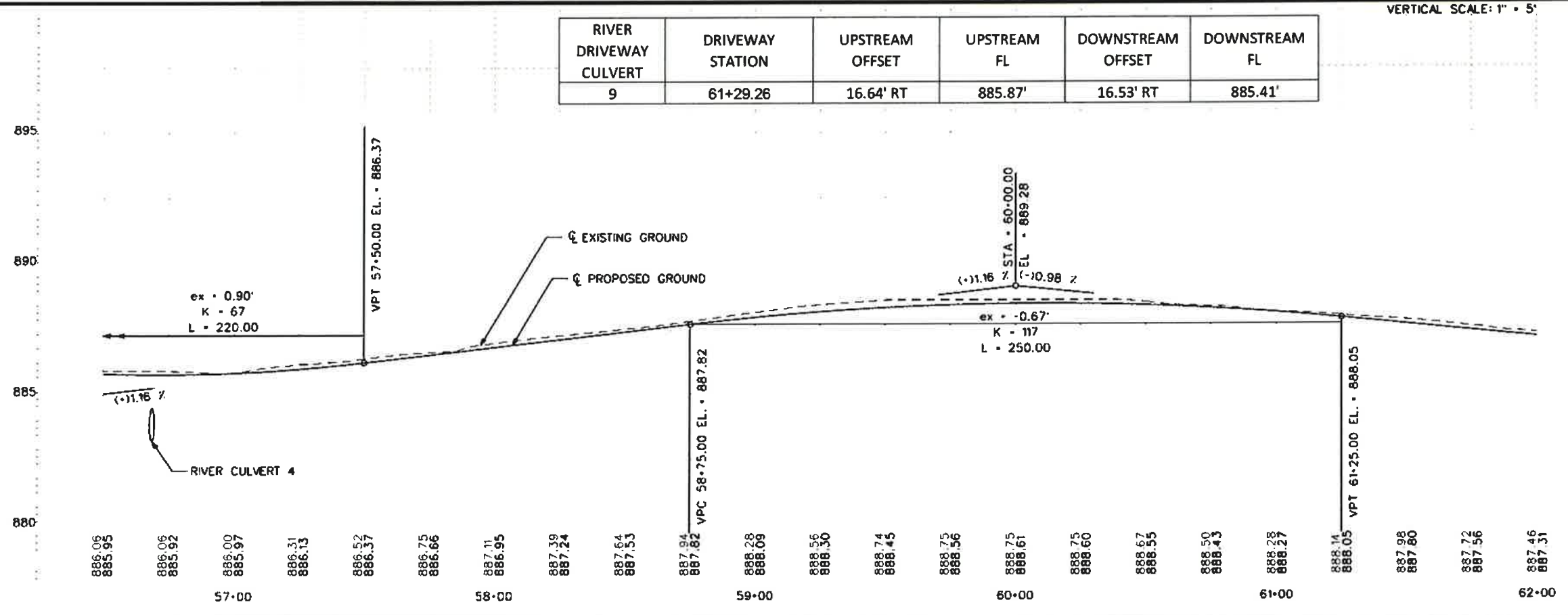
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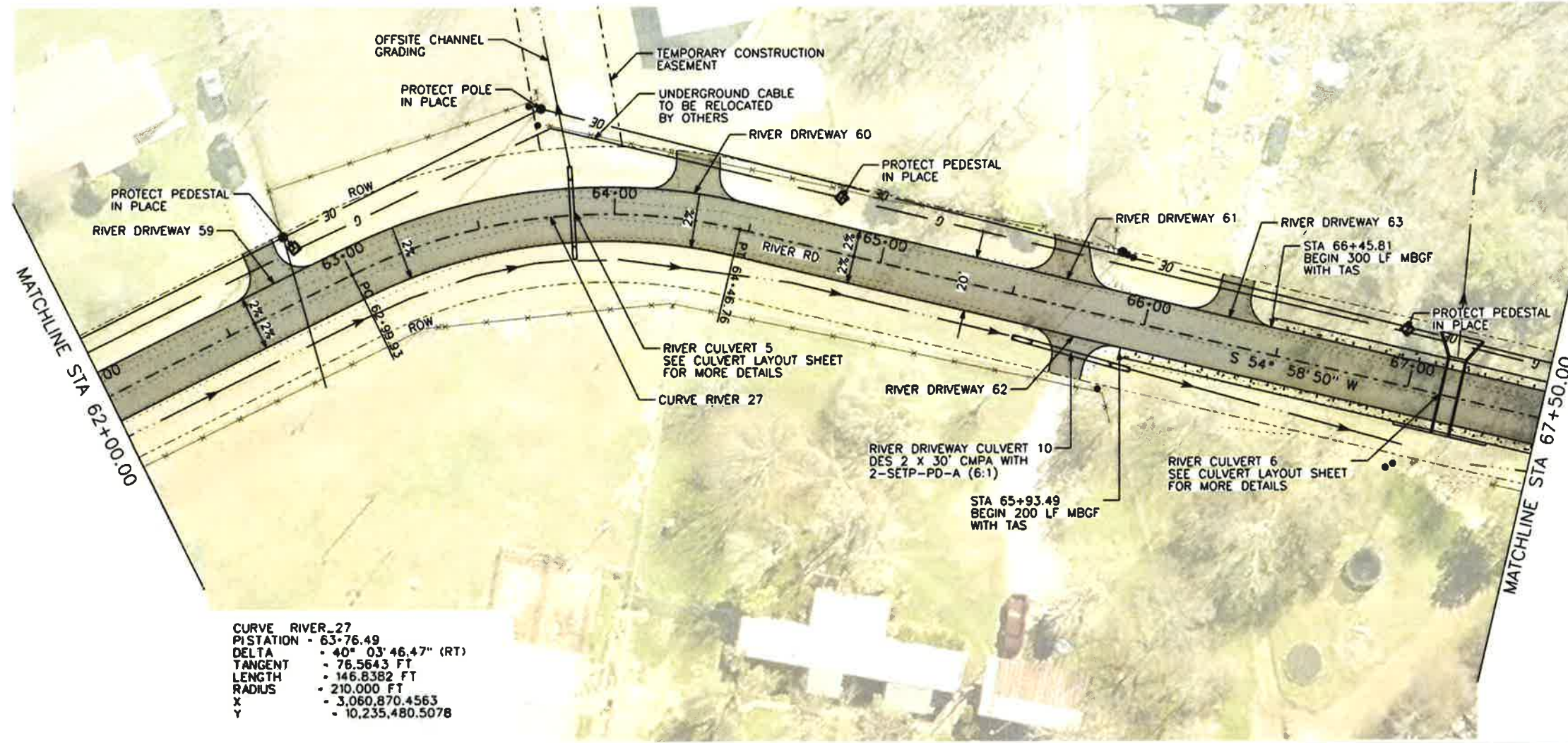
CURVE RIVER_24
 PISTATION • 56+76.35
 DELTA • 33° 07' 16.05" (RT)
 TANGENT • 89.2091 FT
 LENGTH • 173.4218 FT
 RADIUS • 300.000 FT
 X • 3,061,051.9814
 Y • 10,236,161.8822

RIVER DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
9	61+29.26	16.64' RT	885.87'	16.53' RT	885.41'

VERTICAL SCALE: 1" = 5'



RIVER_PFD09.dgn
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 8/10/2017 9:17 AM



CURVE RIVER_27
 PISTATION - 63+76.49
 DELTA - 40° 03' 46.47" (RT)
 TANGENT - 76.5643 FT
 LENGTH - 146.8382 FT
 RADIUS - 210.000 FT
 X - 3,060,870.4563
 Y - 10,235,480.5078

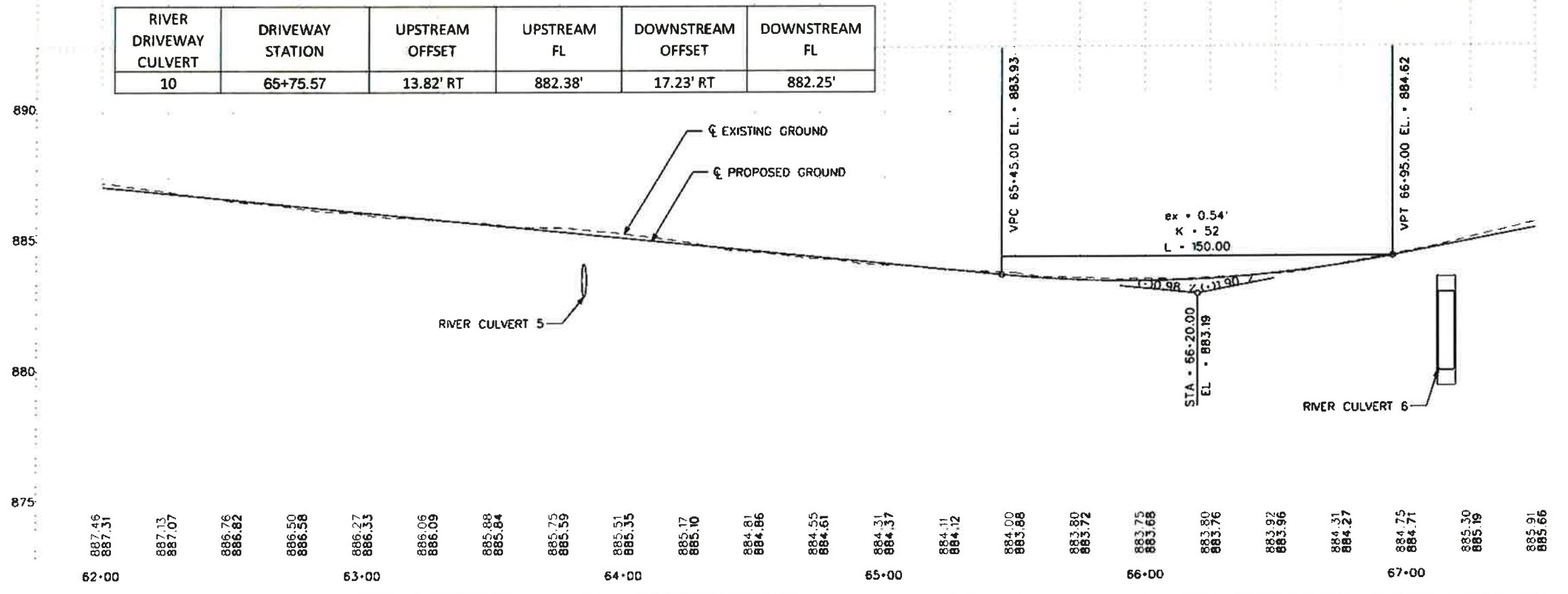


- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - X EXIST FENCE
 - OE EXIST OVERHEAD ELECTRIC
 - C EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
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RIVER DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
10	65+75.57	13.82' RT	882.38'	17.23' RT	882.25'

VERTICAL SCALE: 1" = 5'



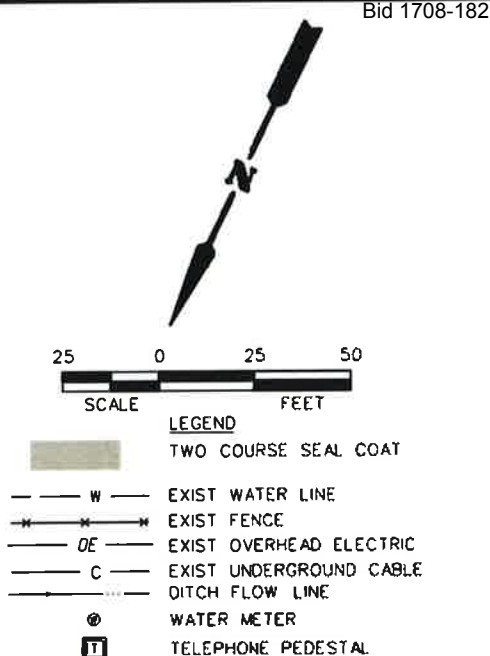
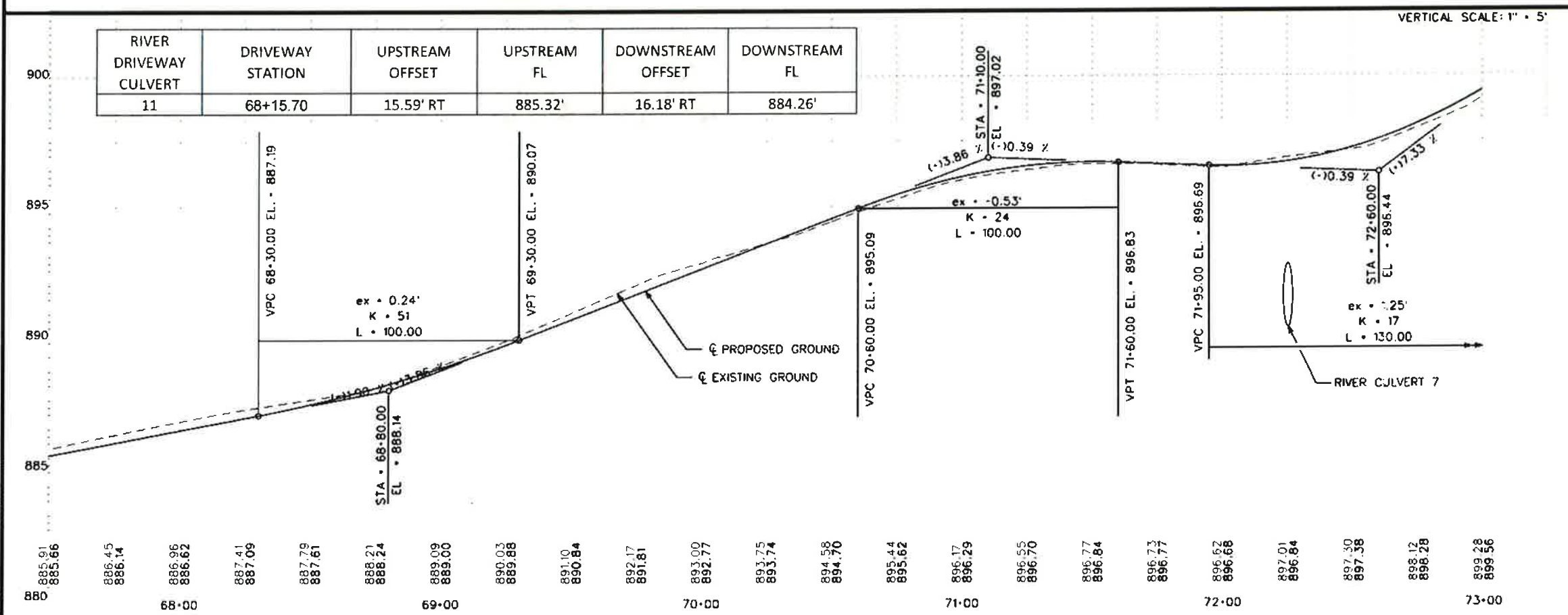
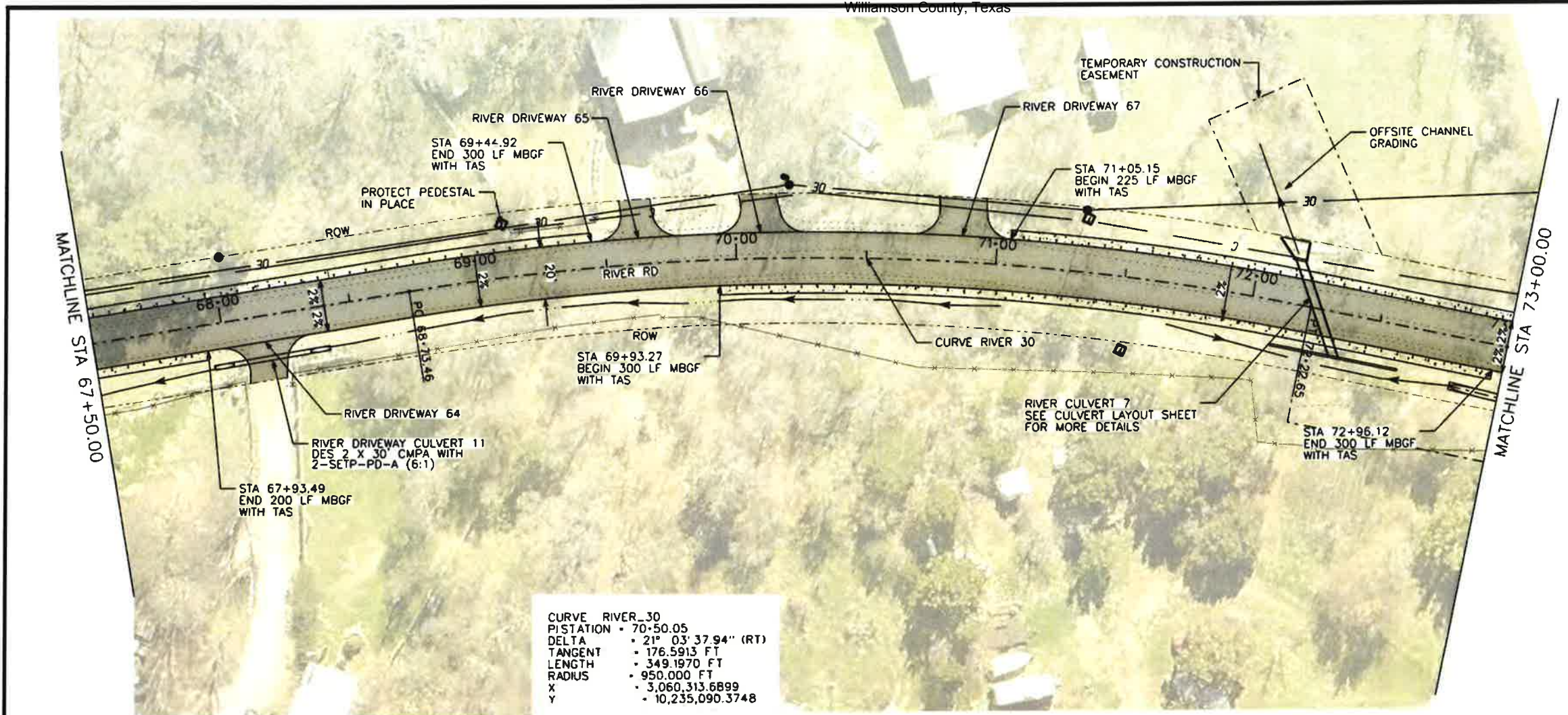
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE



RIVER RD PLAN AND PROFILE		SHEET NO.
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Checked: KOK	943-3330	
Drawn: KGM	www.wilco.org	
Checked: KOK		

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 - EXIST MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
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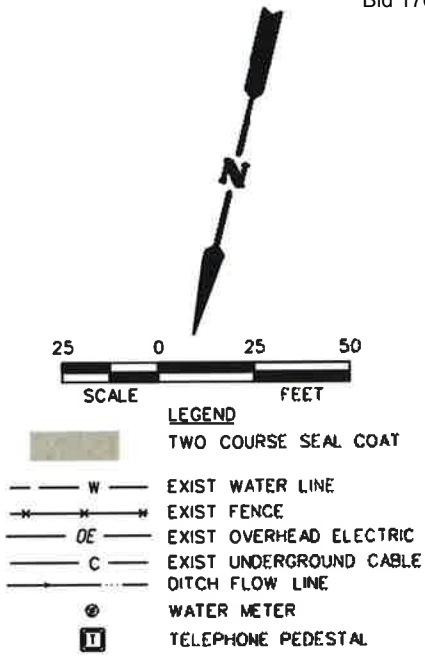


Kelly G. Morrelli
8/7/17

WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

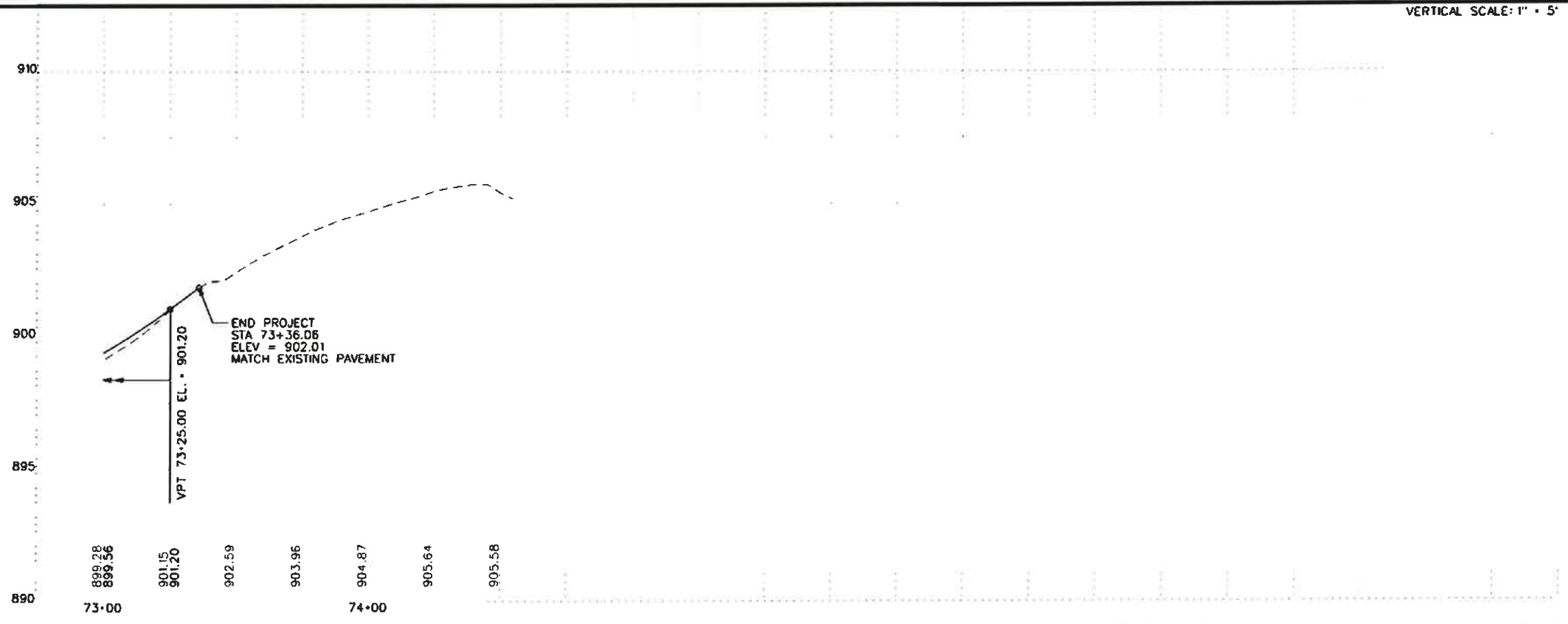
RIVER RD PLAN AND PROFILE

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 38
Checked:	KOK		
Drawn:	KGM		
Checked:	KOK		



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VERTICAL SCALE: 1" = 5'



Kelly G. Morrelli
8/7/17

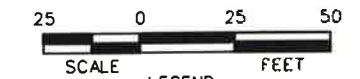
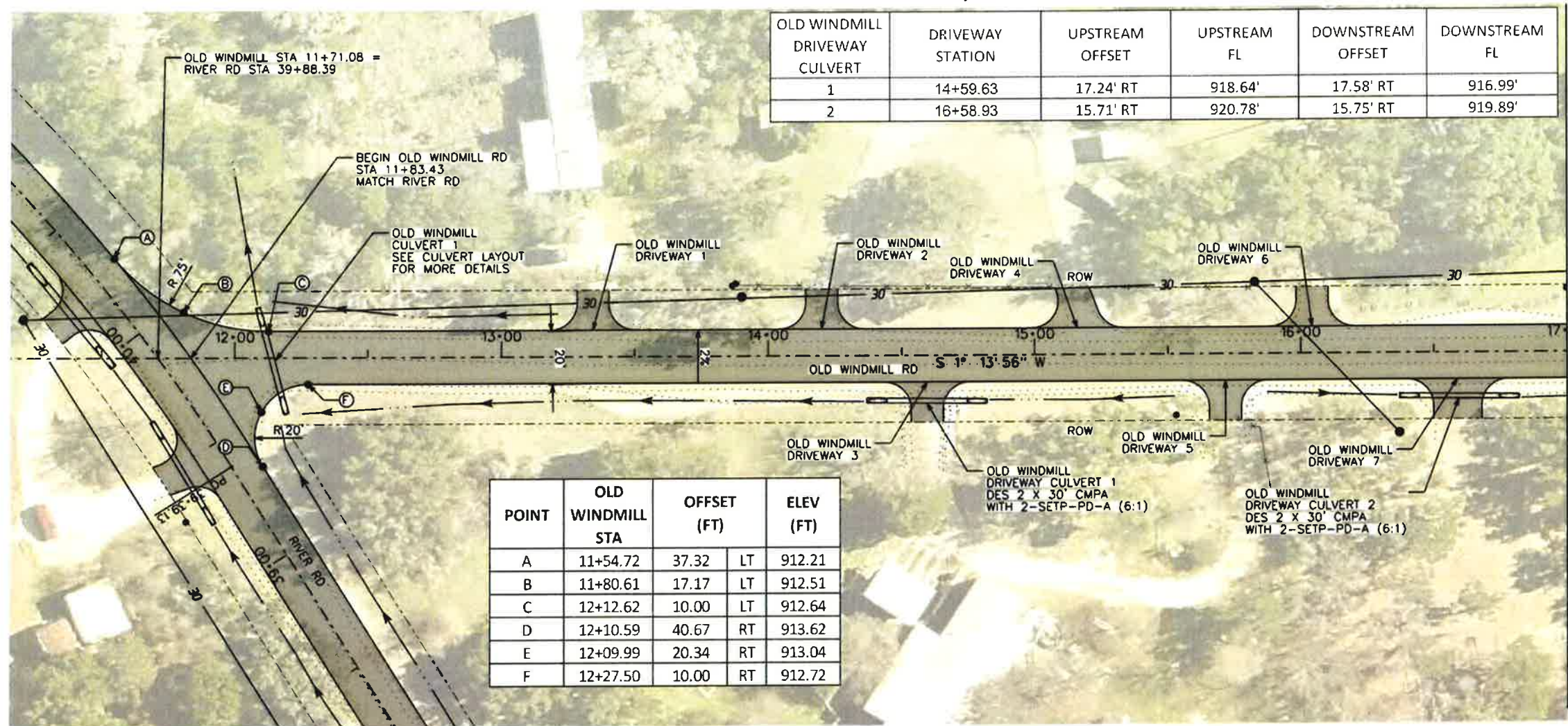
NO.	REVISION	BY	DATE



**RIVER RD
PLAN AND PROFILE**

Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 39
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

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- LEGEND**
- TWO COURSE SEAL COAT
 - EXIST WATER LINE
 - EXIST FENCE
 - EXIST OVERHEAD ELECTRIC
 - EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

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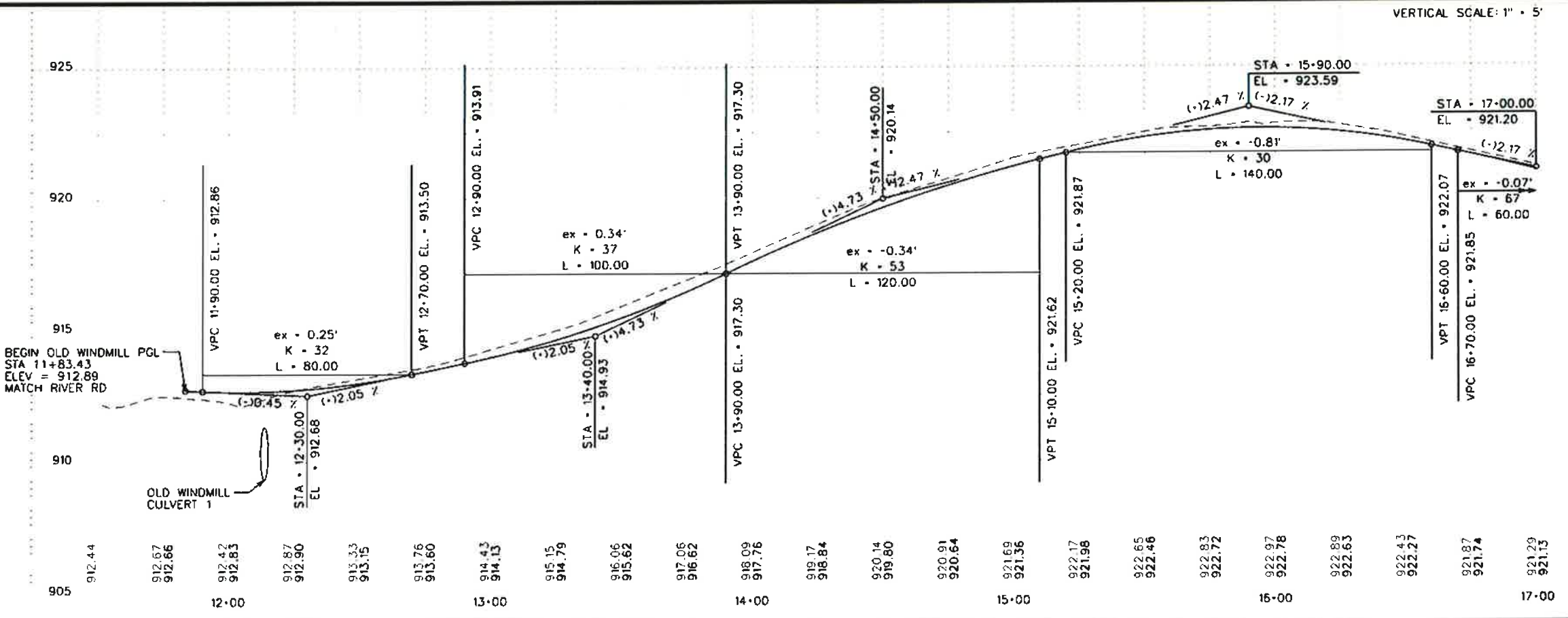
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

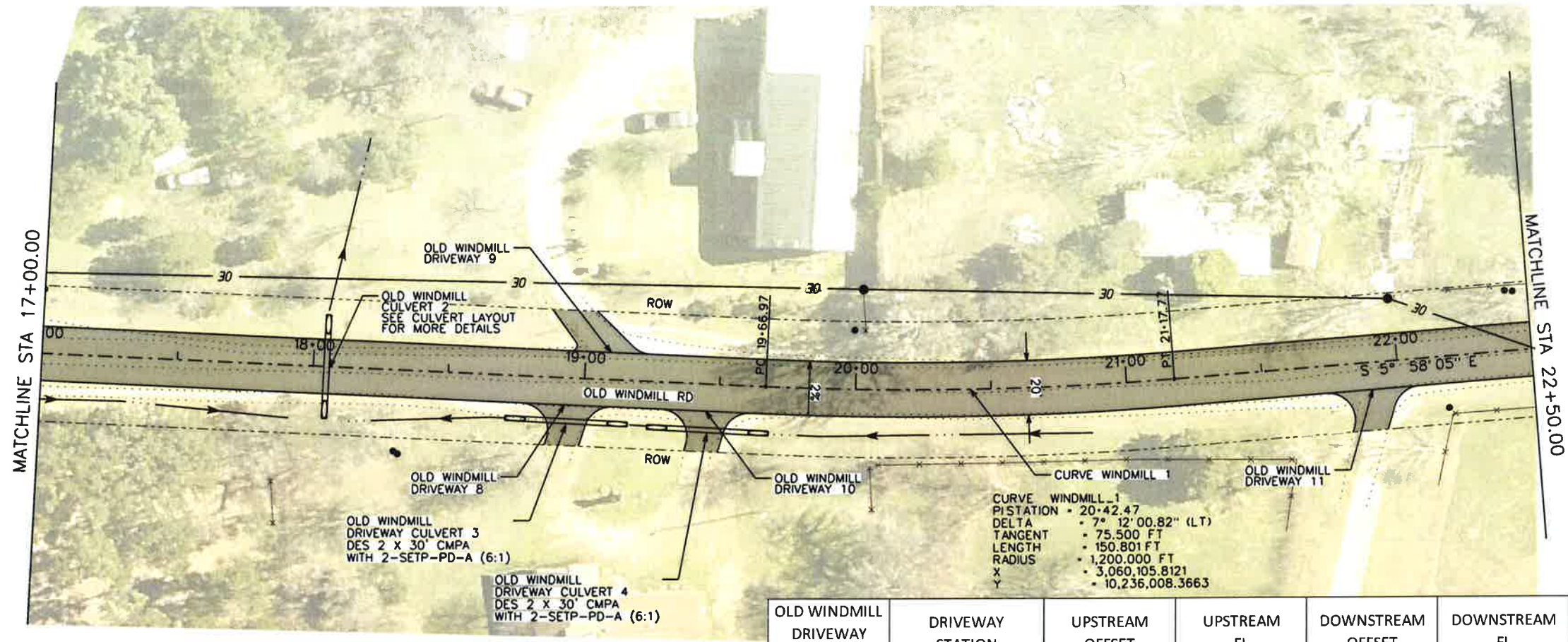


**OLD WINDMILL RD
PLAN AND PROFILE**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 40
Checked:	KOK		
Drawn:	KGM		
Checked:	KOK		



8/10/2017 9:17 AM
OLD WINDMILL_PP01.dwg
10:05:37 AM



CURVE WINDMILL 1
 PISTATION - 20+42.47
 DELTA - 7° 12' 00.82" (LT)
 TANGENT - 75.500 FT
 LENGTH - 150.801 FT
 RADIUS - 1,200.000 FT
 X - 3,060.105.8121
 Y - 10,236.008.3663

OLD WINDMILL DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
3	18+94.08	16.19' RT	919.09'	15.77' RT	917.95'
4	19+45.38	16.41' RT	920.67'	16.32' RT	919.26'



- LEGEND**
- TWO COURSE SEAL COAT
 - W EXIST WATER LINE
 - F EXIST FENCE
 - OE EXIST OVERHEAD ELECTRIC
 - C EXIST UNDERGROUND CABLE
 - D DITCH FLOW LINE
 - WM WATER METER
 - TP TELEPHONE PEDESTAL

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Kelly G. Morrelli
 8/7/17

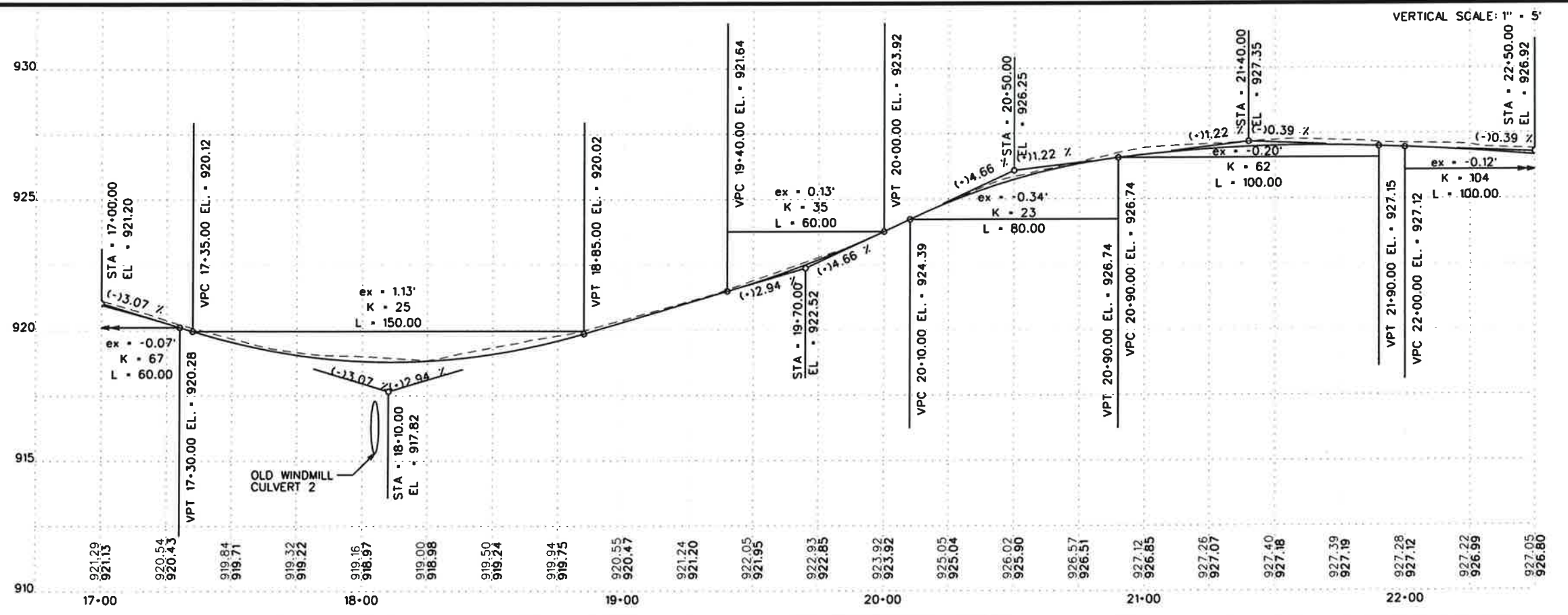
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
 1848

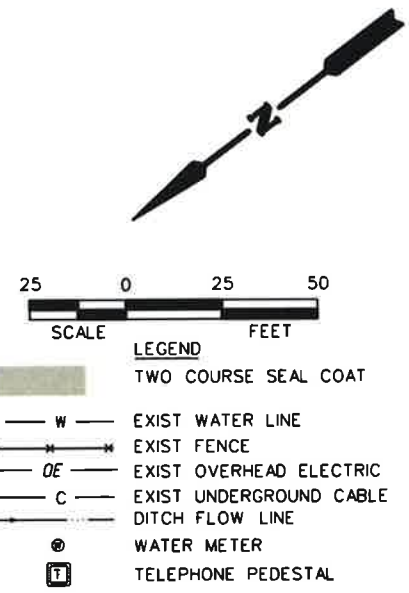
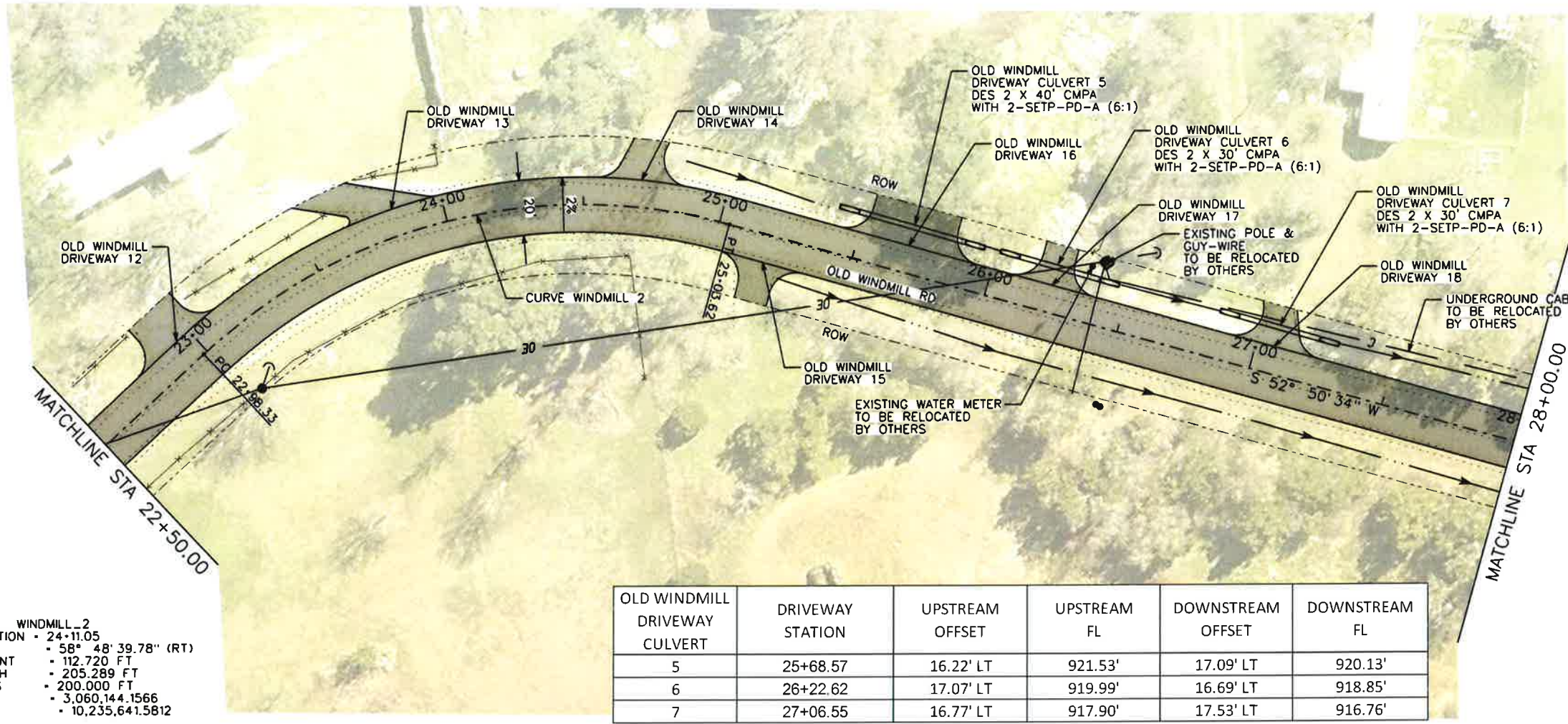
WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE

**OLD WINDMILL RD
 PLAN AND PROFILE**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 41
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		



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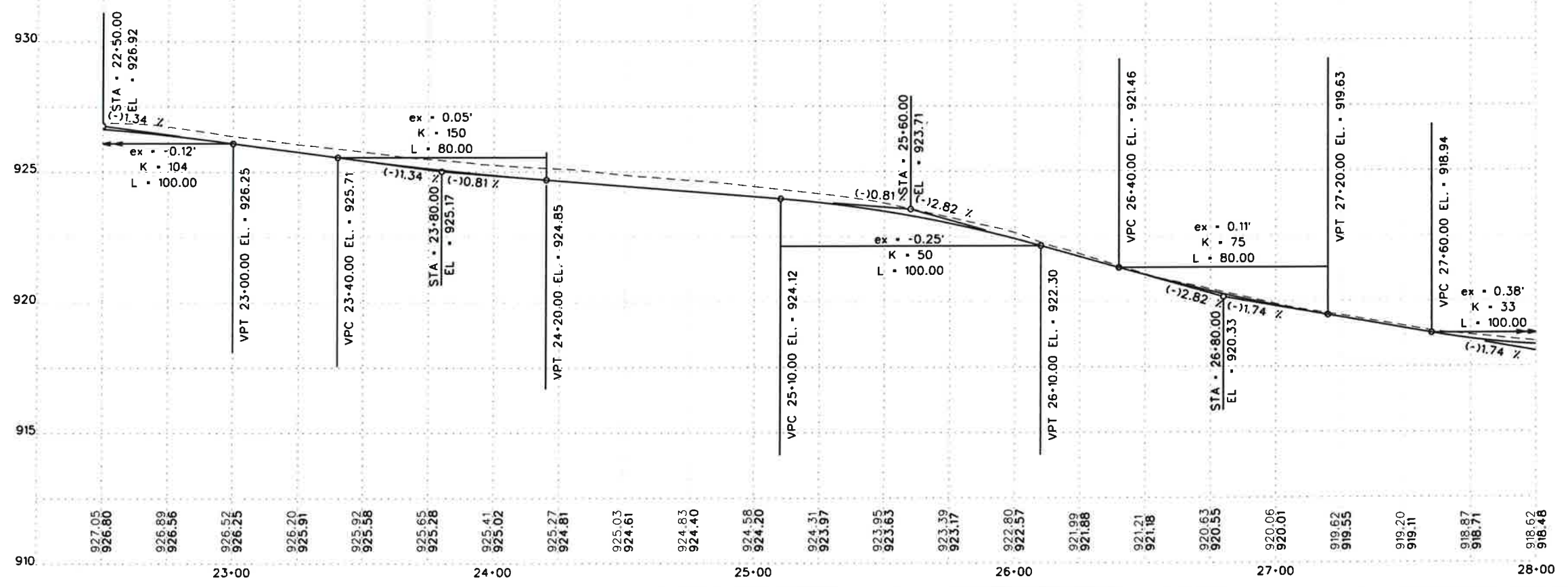


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CURVE WINDMILL_2
 PISTATION • 24+11.05
 DELTA • 58° 48' 39.78" (RT)
 TANGENT • 112.720 FT
 LENGTH • 205.289 FT
 RADIUS • 200.000 FT
 X • 3,060.144.1566
 Y • 10,235.641.5812

OLD WINDMILL DRIVEWAY CULVERT	DRIVEWAY STATION	UPSTREAM OFFSET	UPSTREAM FL	DOWNSTREAM OFFSET	DOWNSTREAM FL
5	25+68.57	16.22' LT	921.53'	17.09' LT	920.13'
6	26+22.62	17.07' LT	919.99'	16.69' LT	918.85'
7	27+06.55	16.77' LT	917.90'	17.53' LT	916.76'

VERTICAL SCALE: 1" = 5'



Kelly G. Morrelli
 8/7/17

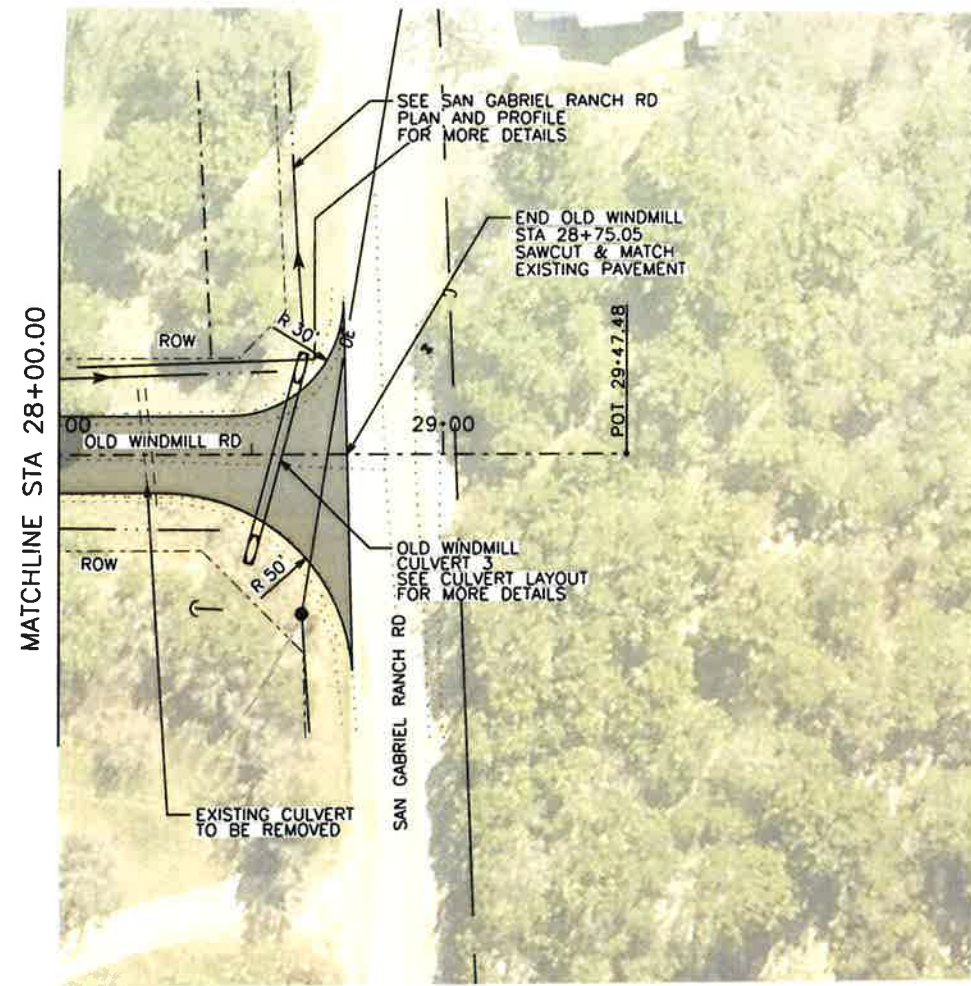
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE
 1848

**OLD WINDMILL RD
 PLAN AND PROFILE**

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Drawn: KGM		
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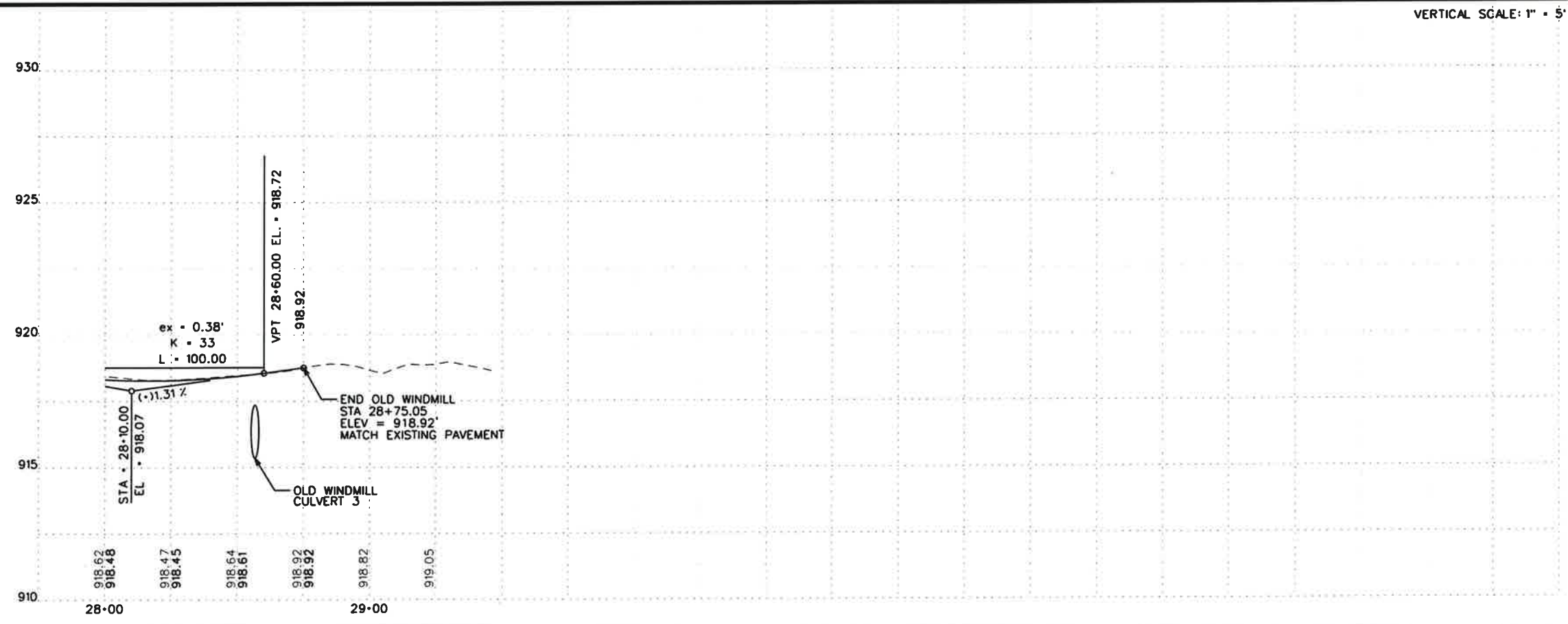
LEGEND

- TWO COURSE SEAL COAT
- EXIST WATER LINE
- EXIST FENCE
- EXIST OVERHEAD ELECTRIC
- EXIST UNDERGROUND CABLE
- DITCH FLOW LINE
- WATER METER
- TELEPHONE PEDESTAL

- NOTES:
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 2. CONTRACTOR SHALL REPAIR / RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
 3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
 4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.



VERTICAL SCALE: 1" = 5'



NO.	REVISION	BY	DATE

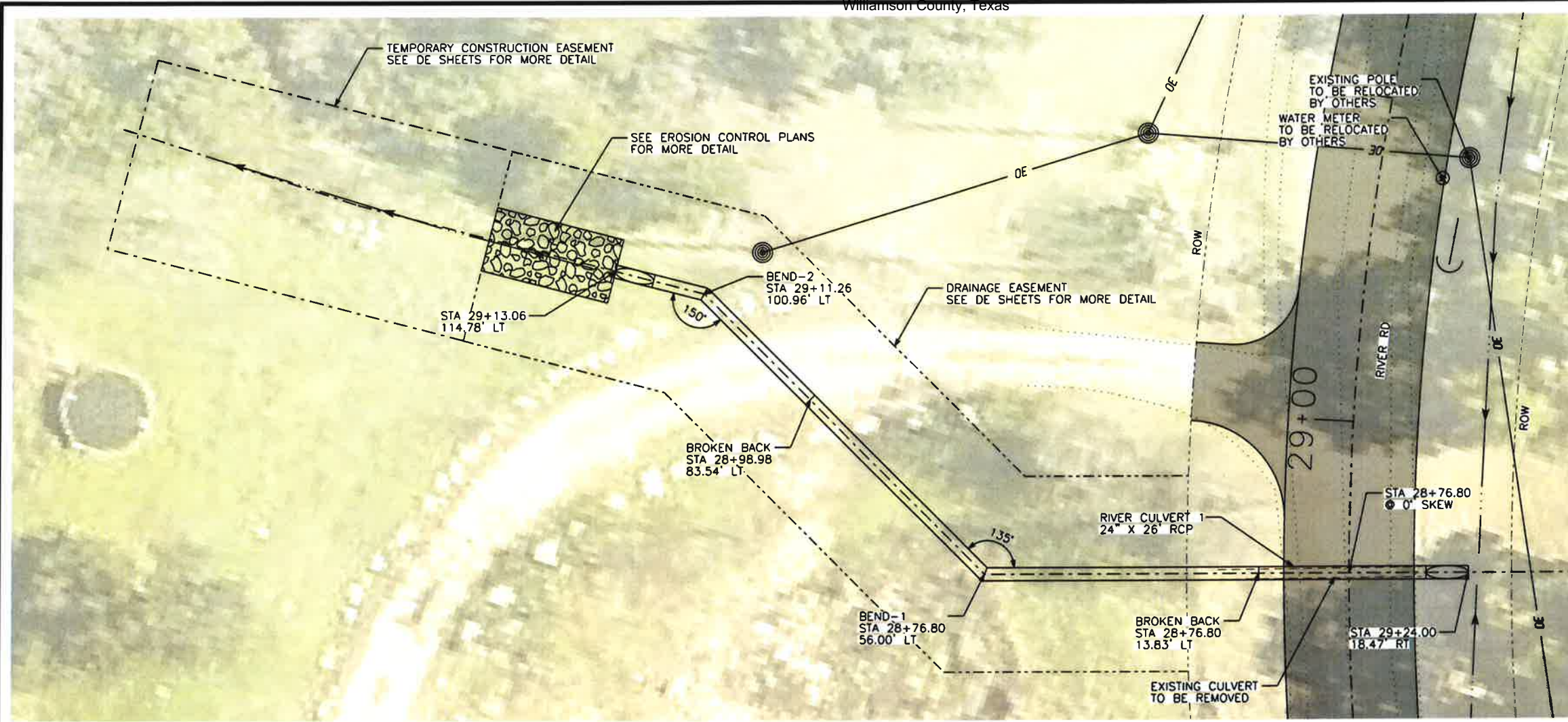
WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

**OLD WINDMILL RD
PLAN AND PROFILE**

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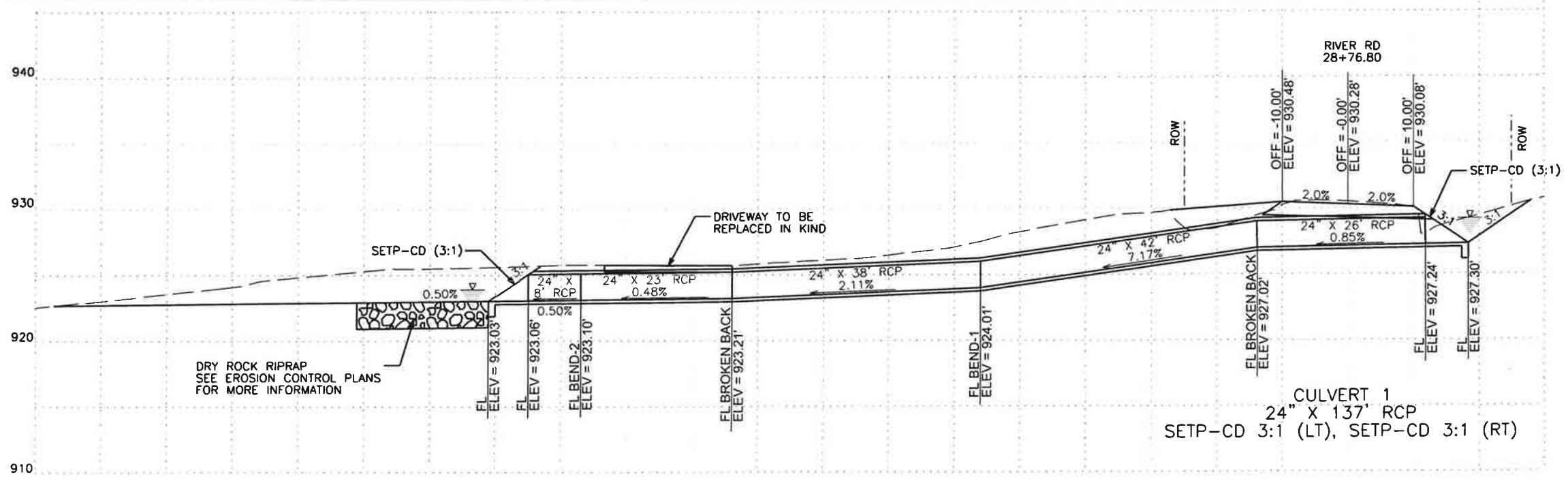
- LEGEND**
- ONE COURSE SEAL COAT
 - EXIST WATER LINE
 - EXIST FENCE
 - EXIST OVERHEAD ELECTRIC
 - EXIST UNDERGROUND CABLE
 - DITCH FLOW LINE
 - WATER METER
 - TELEPHONE PEDESTAL

- NOTES:**
- CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 - SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT			PROP CULVERT			REMARKS	
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV	TW DEPTH		V-OUT ft/s
1	28+76.80	25	12	0.7	18" CMP	930.57	2.24	24" RCP	929.19	0.88	9.87	PROPOSED DESIGN FREQUENCY
		100	15			930.64	2.31		929.53	0.96	10.63	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

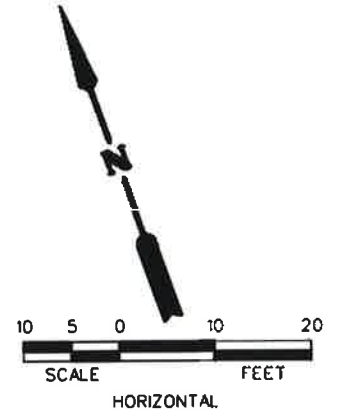
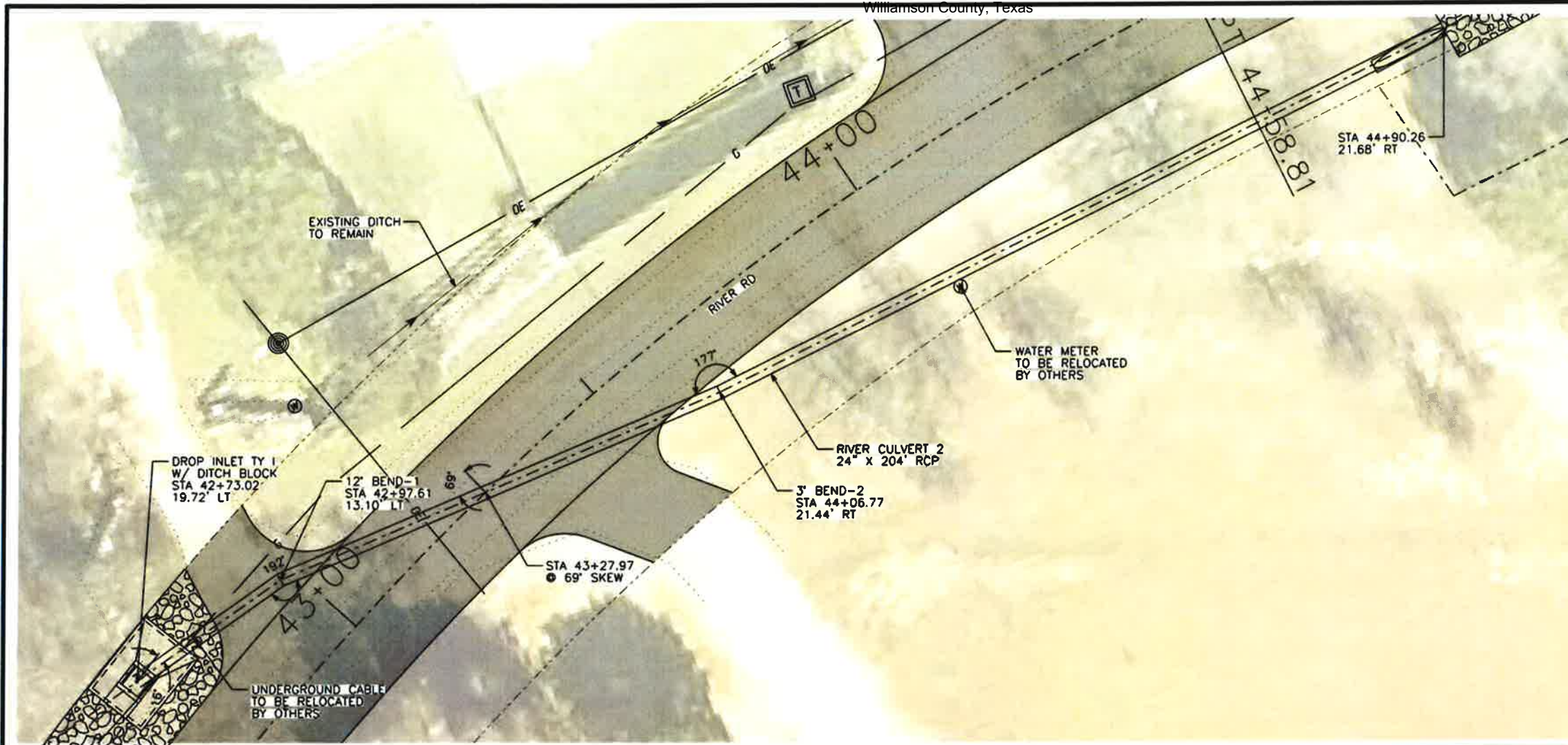
NO.	REVISION	BY	DATE



RIVER RD CULVERT 1 LAYOUT

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO.
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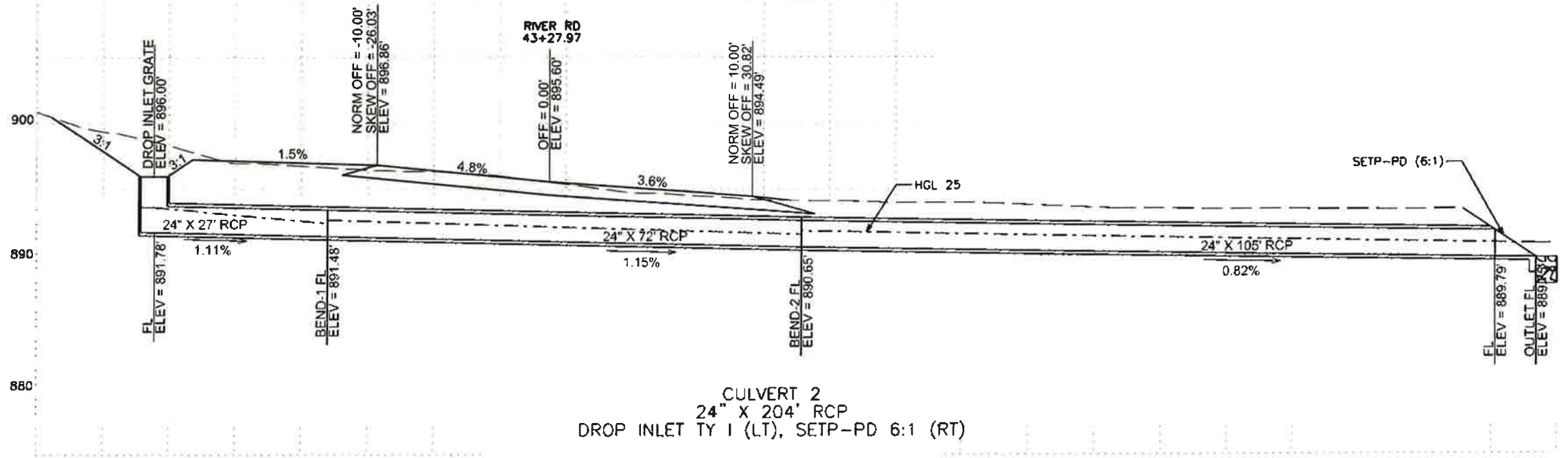
- LEGEND**
- ONE COURSE SEAL COAT
 - W — EXIST WATER LINE
 - X — EXIST FENCE
 - OE — EXIST OVERHEAD ELECTRIC
 - C — EXIST UNDERGROUND CABLE
 - D — DITCH FLOW LINE
 - WATER METER
 - Ⓜ TELEPHONE PEDESTAL

- NOTES:**
- CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 - SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	ID	ID	HGL	HGL	Q 25 (CFS)	VELOCITY (FT/S)	DEPTH (FT)
2	43+27.97	DROP INLET	TO BEND 1	893.68	892.50	12	7.36	1.02
		BEND 1	TO BEND 2	892.71	891.61	12	7.78	0.97
		BEND 2	TO OUTLET	891.88	890.82	12	6.66	1.10

NOTE: ANALYSIS BASED ON BENTLEY GEOPAK DRAINAGE (08.11.09.878)
 DROP INLET PONDED DEPTH = 0.51'

VERTICAL SCALE: 1" = 10'



CULVERT 2
 24" X 204' RCP
 DROP INLET TY I (LT), SETP-PD 6:1 (RT)



Kelly G. Morrelli
 8/7/17

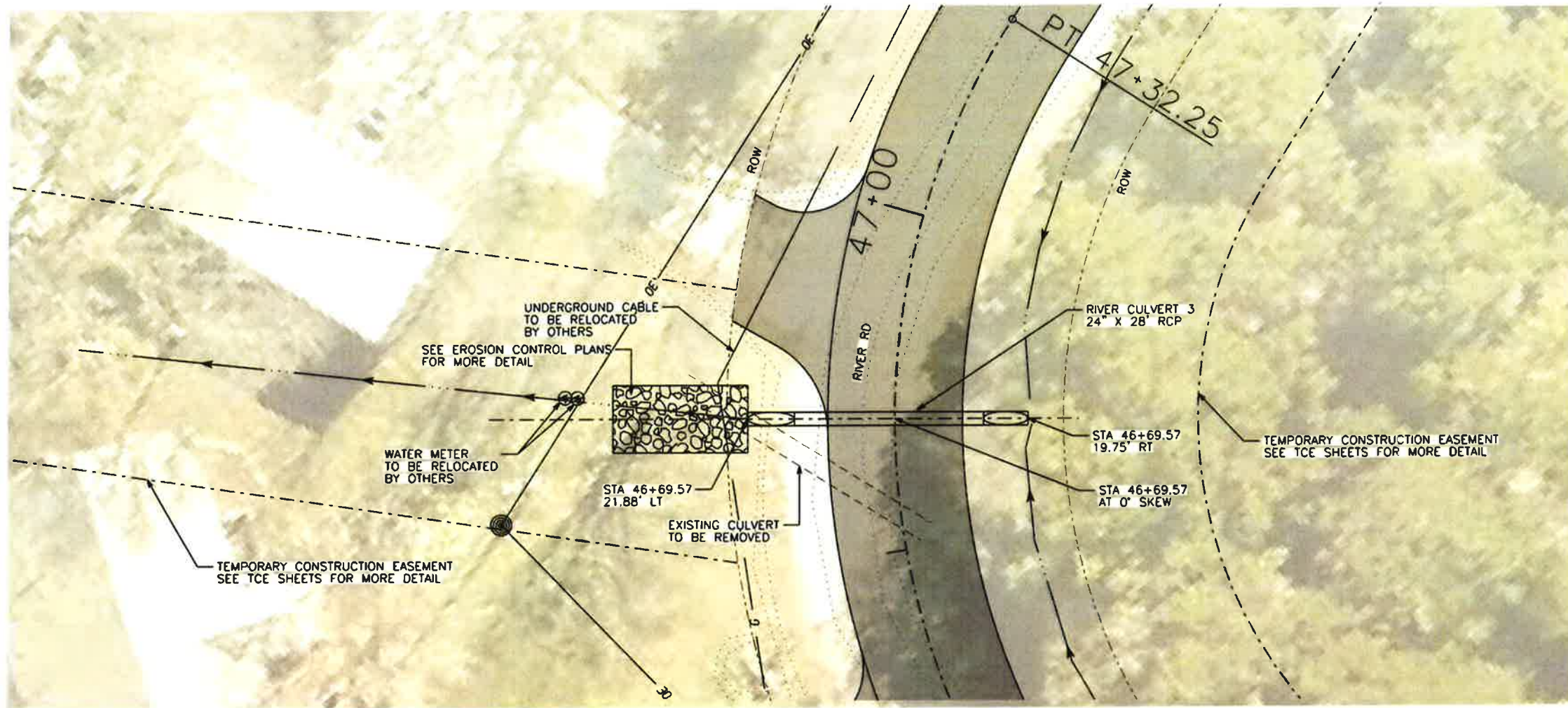
NO.	REVISION	BY	DATE



**RIVER RD
 CULVERT 2 LAYOUT**

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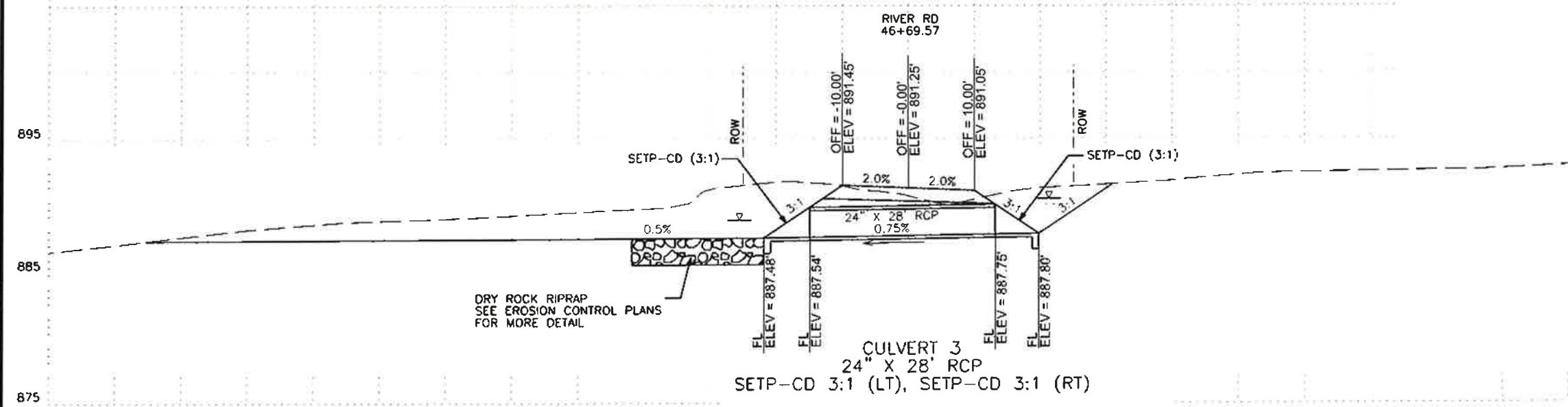
- LEGEND**
- ONE COURSE SEAL COAT
 - W — EXIST WATER LINE
 - X — EXIST FENCE
 - OE — EXIST OVERHEAD ELECTRIC
 - C — EXIST UNDERGROUND CABLE
 - D — DITCH FLOW LINE
 - ⊙ WATER METER
 - ⊞ TELEPHONE PEDESTAL

- NOTES:**
- CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 - SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	K _e	EXIST CULVERT			PROP CULVERT			REMARKS	
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV	TW DEPTH		V-OUT ft/s
3	46+69.57	25	18	0.7	36" CMP	891.38	0.83	24" RCP	890.44	1.36	7.57	PROPOSED DESIGN FREQUENCY
		100	23			891.38	0.89		891.17	1.50	7.96	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

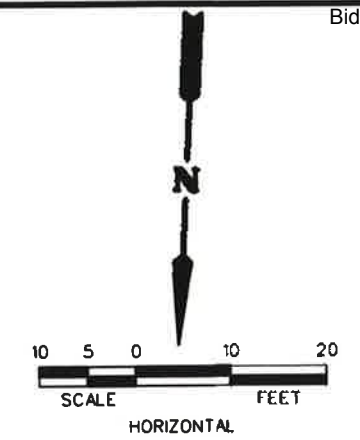
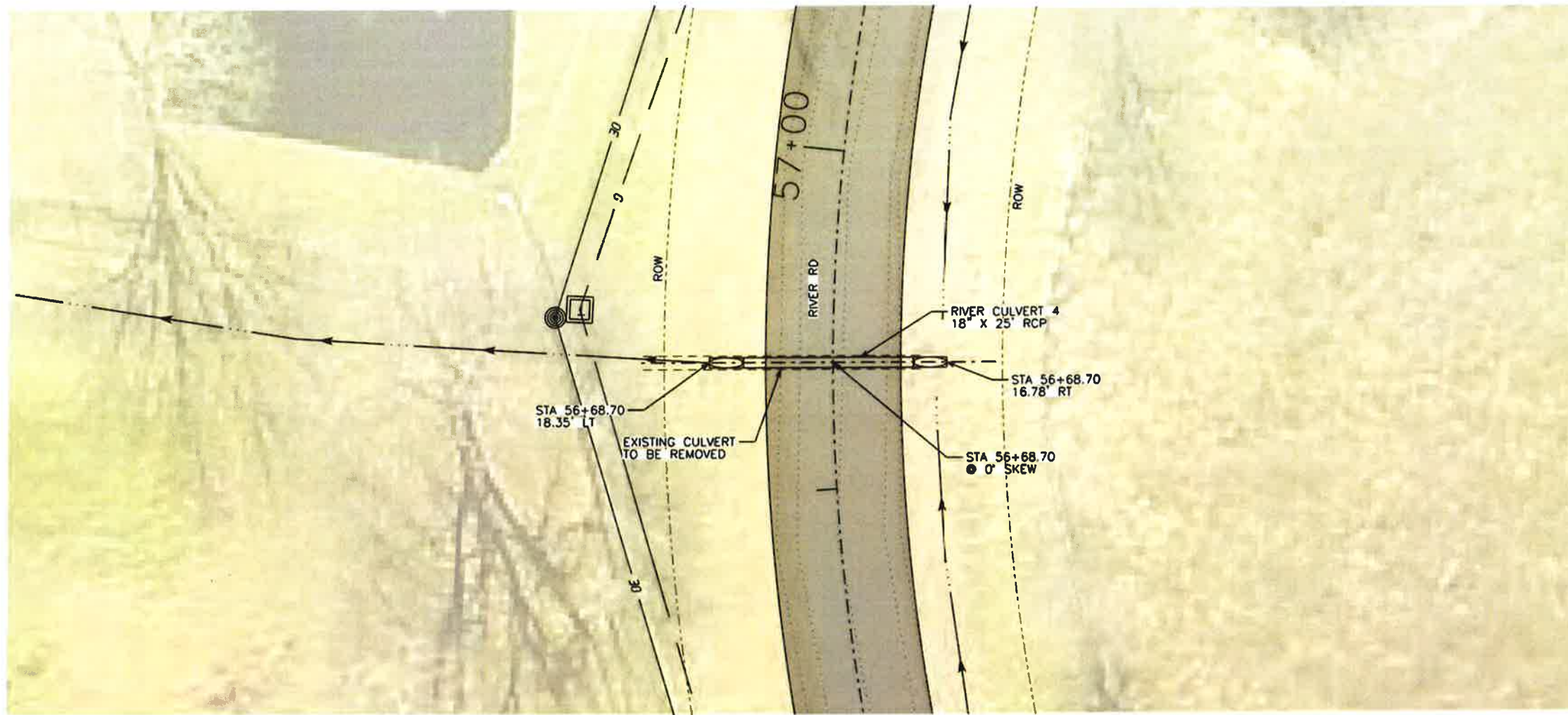
NO.	REVISION	BY	DATE



RIVER RD CULVERT 3 LAYOUT

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Checked:	KQK		

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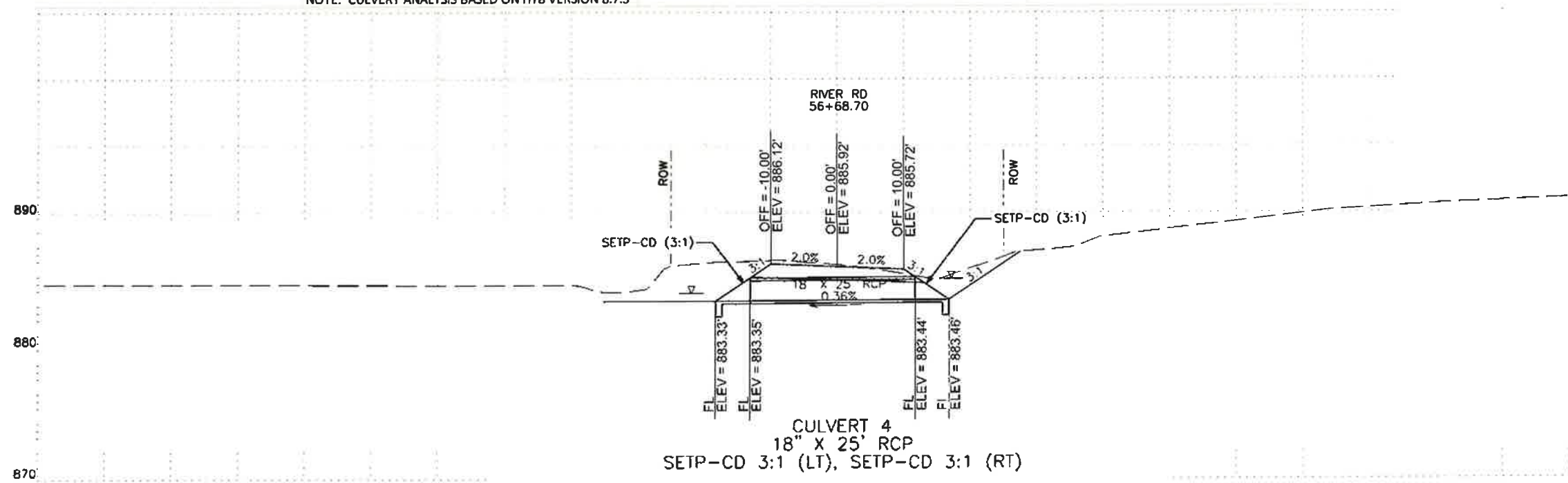
- LEGEND**
- ONE COURSE SEAL COAT
 - W — EXIST WATER LINE
 - X — EXIST FENCE
 - OE — EXIST OVERHEAD ELECTRIC
 - C — EXIST UNDERGROUND CABLE
 - D — DITCH FLOW LINE
 - WATER METER
 - ⊞ TELEPHONE PEDESTAL

- NOTES:**
- CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 - SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT		PROP CULVERT			REMARKS		
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV		TW DEPTH	V-OUT ft/s
4	56+68.70	25	6	0.7	24" CMP	886.07	0.62	18" RCP	885.04	0.62	3.70	PROPOSED DESIGN FREQUENCY
		100	7			886.07	0.73		885.20	0.66	4.22	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

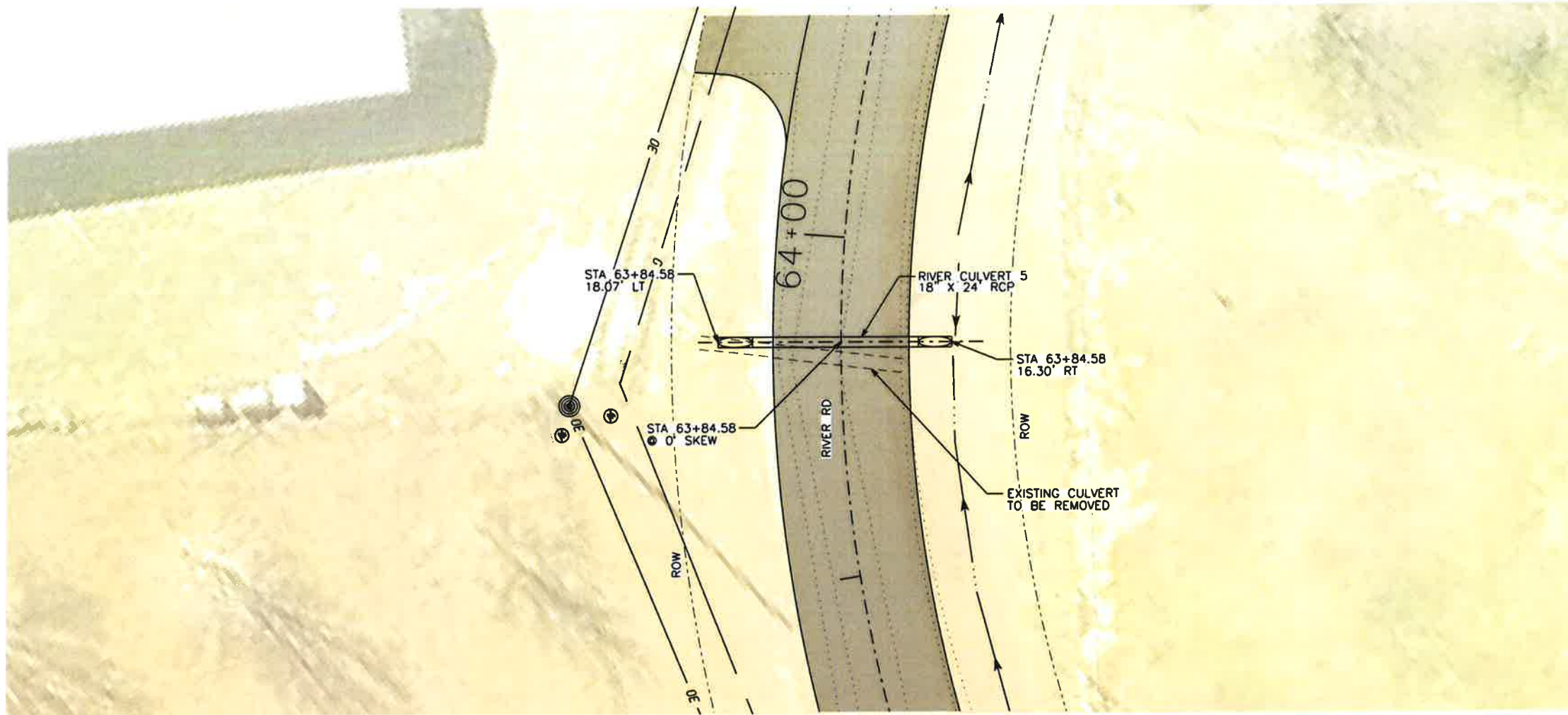
NO.	REVISION	BY	DATE



RIVER RD CULVERT 4 LAYOUT

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 47
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Drawn:	KGM		
Checked:	KOK		

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LEGEND

- ONE COURSE SEAL COAT
- EXIST WATER LINE
- EXIST FENCE
- EXIST OVERHEAD ELECTRIC
- EXIST UNDERGROUND CABLE
- DITCH FLOW LINE
- WATER METER
- TELEPHONE PEDESTAL

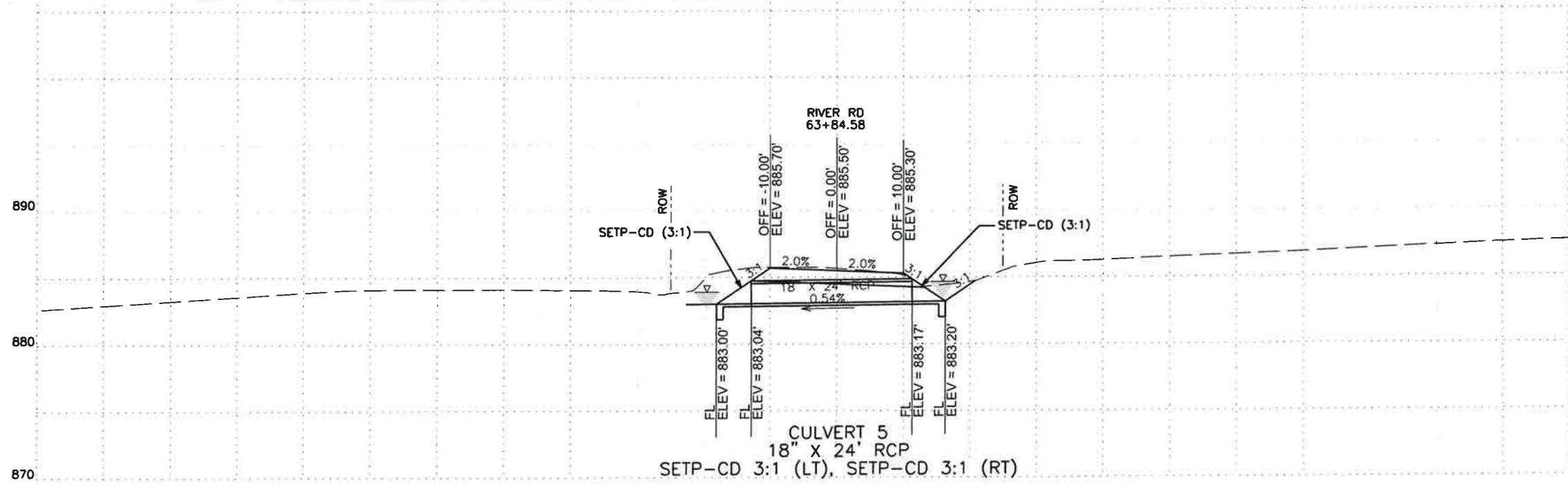
NOTES:

1. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
2. SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT			PROP CULVERT			REMARKS	
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV	TW DEPTH		V-OUT ft/s
5	63+84.58	25	6	0.7	24" CMP	884.65	0.47	18" RCP	884.66	0.47	5.23	PROPOSED DESIGN FREQUENCY
		100	7			884.79	0.50		884.91	0.50	5.46	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

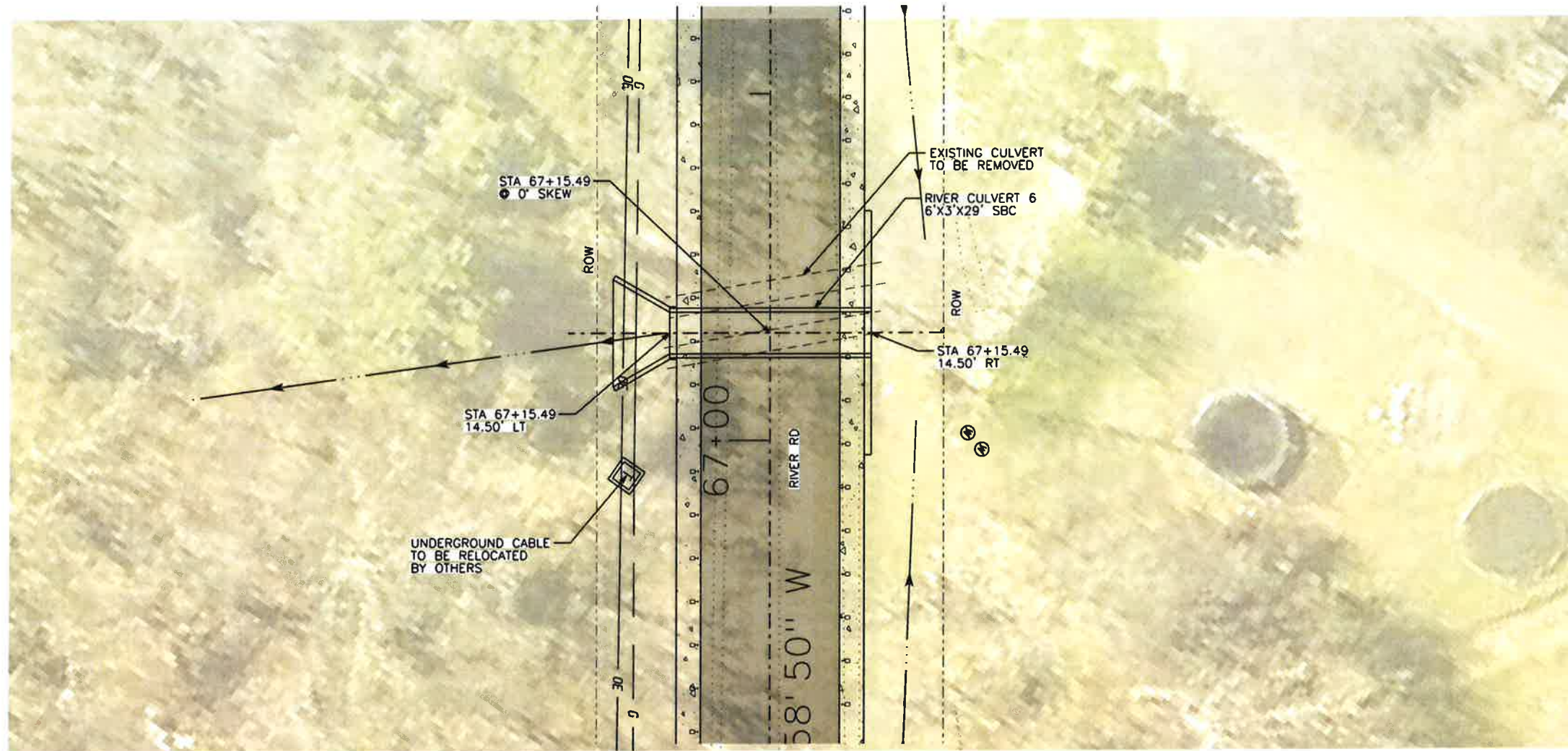
WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

RIVER RD CULVERT 5 LAYOUT

Designed: KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 48
Checked: KQK		
Drawn: KGM		
Checked: KQK		

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LEGEND

- ONE COURSE SEAL COAT
- W — EXIST WATER LINE
- X — EXIST FENCE
- OE — EXIST OVERHEAD ELECTRIC
- C — EXIST UNDERGROUND CABLE
- D — DITCH FLOW LINE
- ⊙ WATER METER
- ⊠ TELEPHONE PEDESTAL

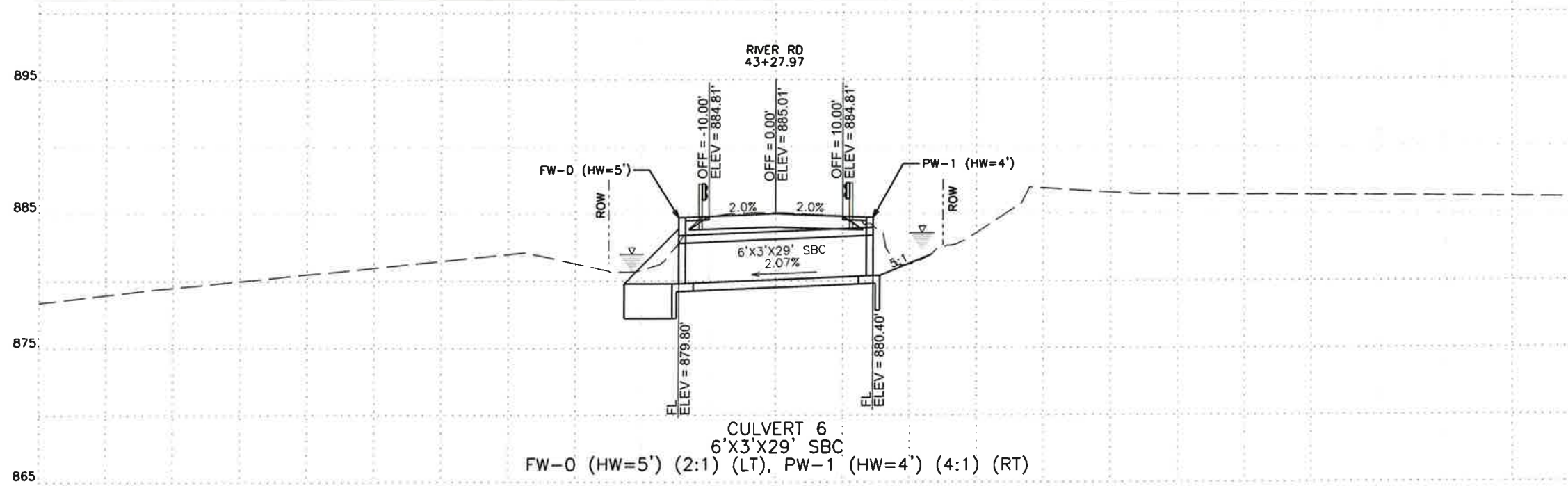
NOTES:

1. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
2. SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT		PROP CULVERT			REMARKS		
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV		TW DEPTH	V-OUT ft/s
6	67+15.49	25	88	0.7	2-36" CMP	883.94	2.20	6X3 SBC	883.58	2.20	5.01	PROPOSED DESIGN FREQUENCY
		100	112			884.05	2.33		883.91	2.33	5.55	PROPOSED CHECK FREQUENCY

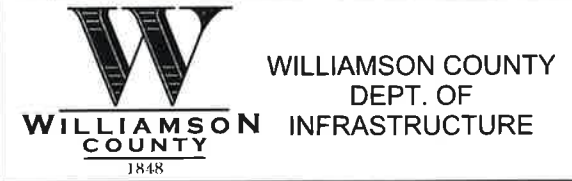
VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

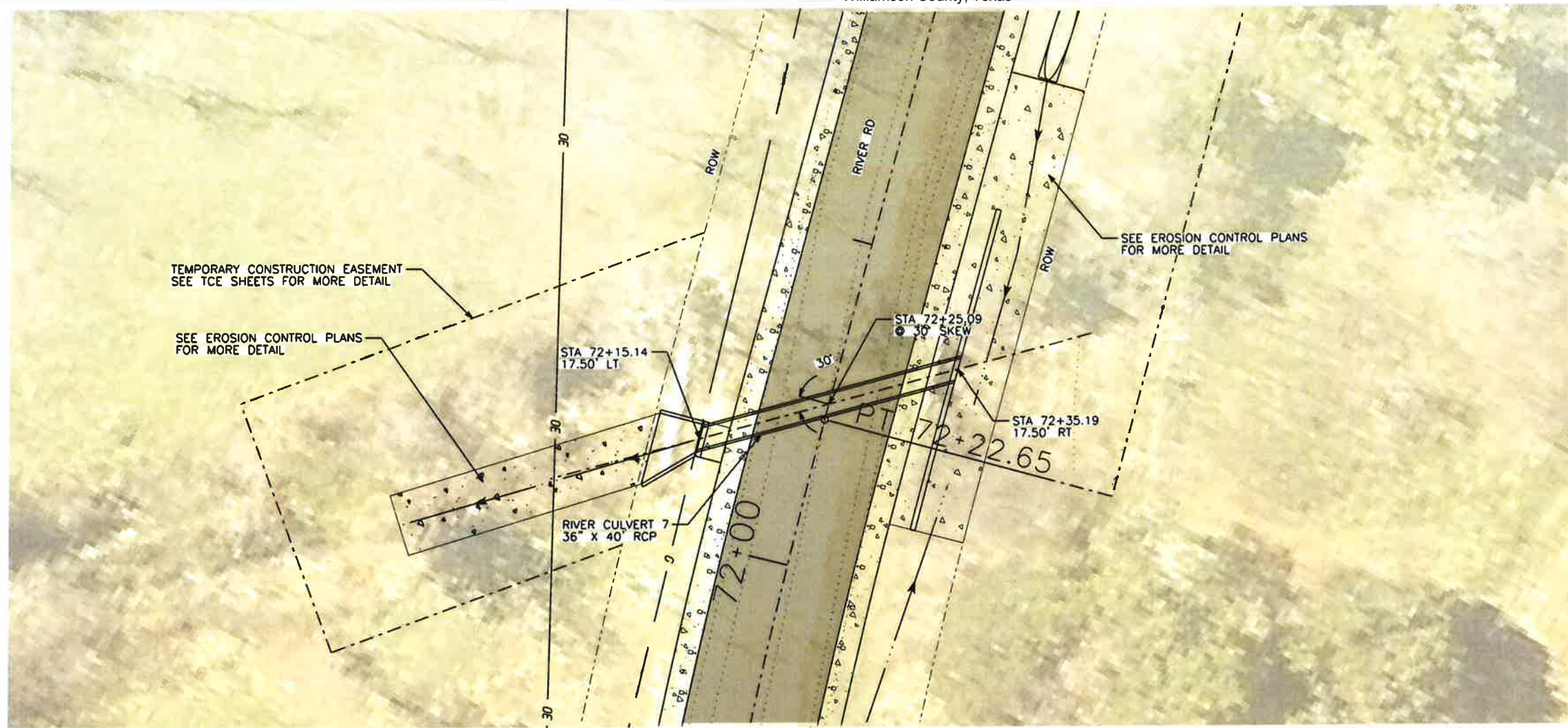
NO.	REVISION	BY	DATE



RIVER RD CULVERT 6 LAYOUT

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LEGEND

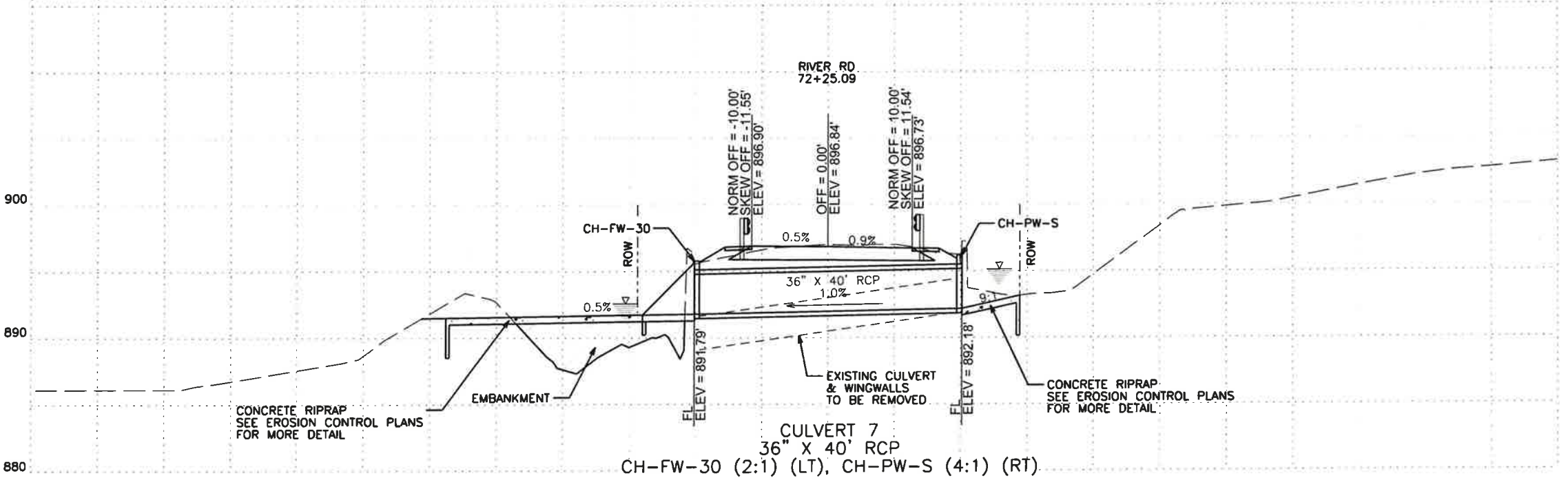
- ONE COURSE SEAL COAT
- W — EXIST WATER LINE
- X — EXIST FENCE
- OE — EXIST OVERHEAD ELECTRIC
- C — EXIST UNDERGROUND CABLE
- D — DITCH FLOW LINE
- ⊙ WATER METER
- ⊠ TELEPHONE PEDESTAL

- NOTES:**
- CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 - SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

RIVER CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT		PROP CULVERT			REMARKS		
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV		TW DEPTH	V-OUT ft/s
7	72+25.09	25	35	0.7	30" CMP	896.02	5.02	36" RCP	895.16	0.76	9.07	PROPOSED DESIGN FREQUENCY
		100	44			896.65	5.47		895.73	0.85	9.66	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

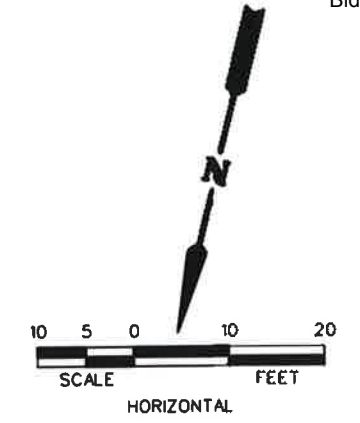
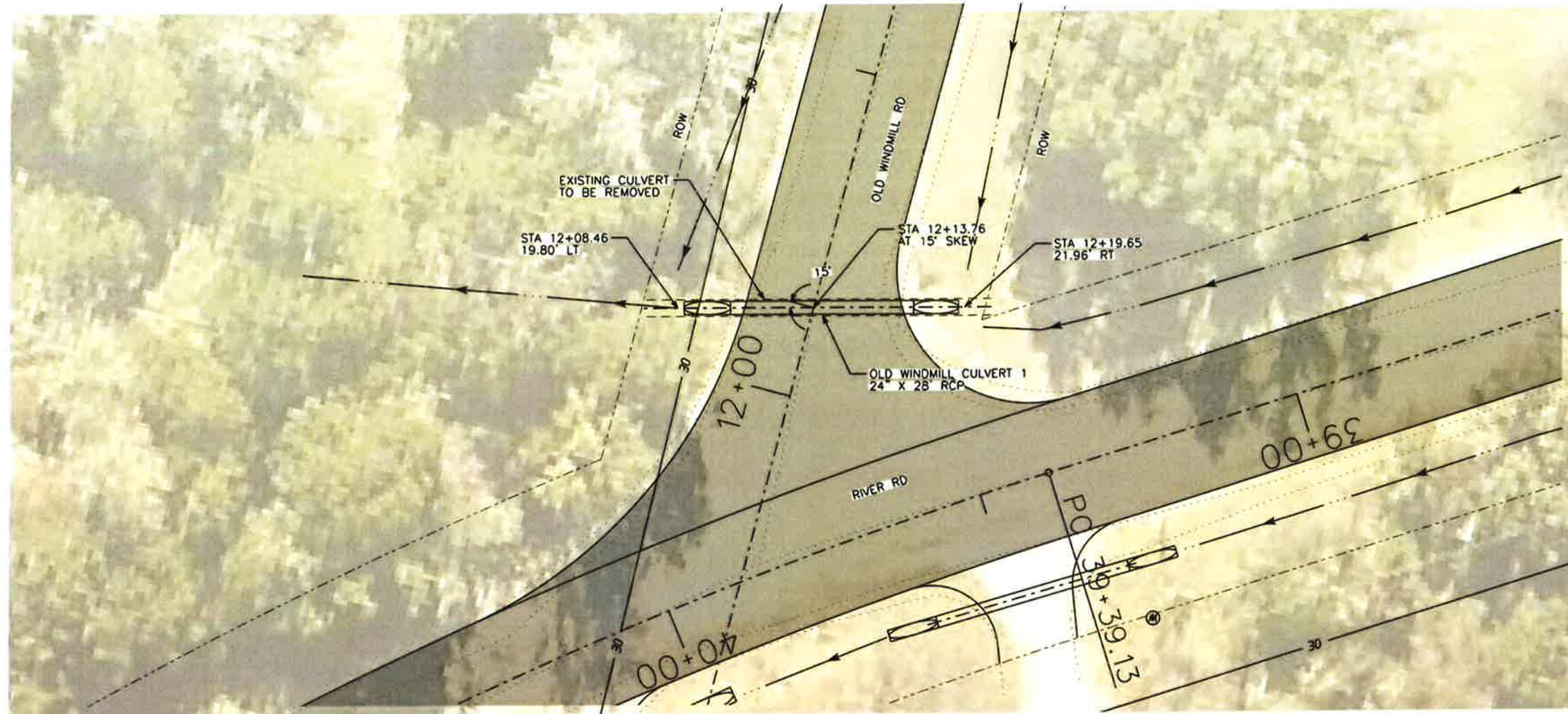
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1848

RIVER RD CULVERT 7 LAYOUT

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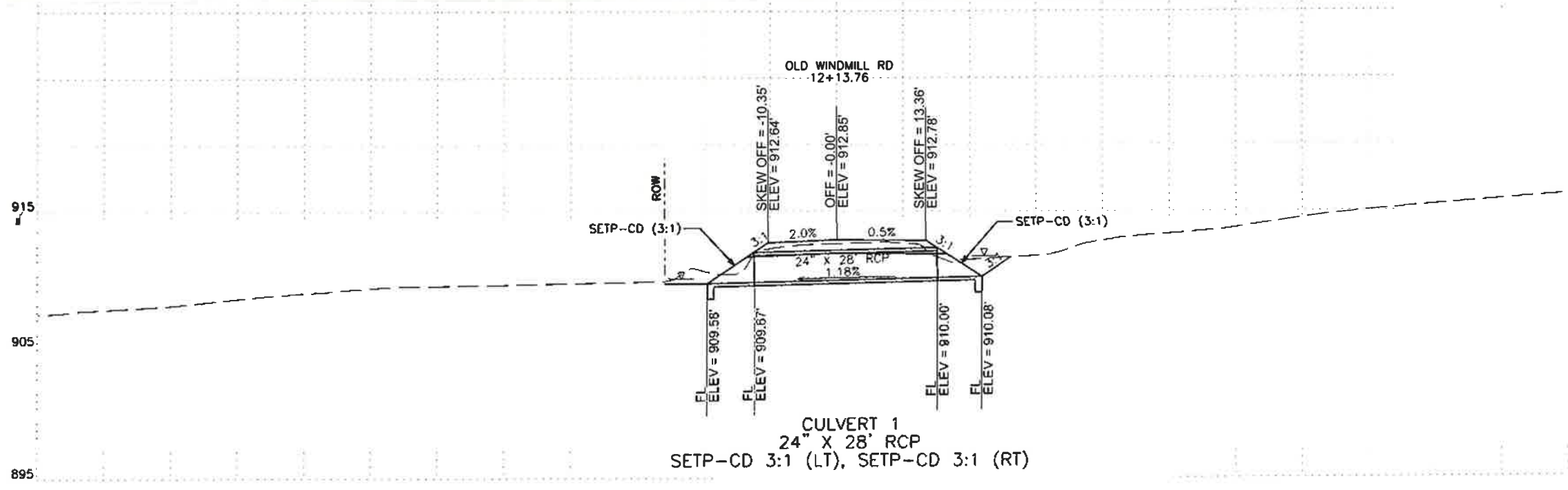
- LEGEND**
- ONE COURSE SEAL COAT
 - W — EXIST WATER LINE
 - X — EXIST FENCE
 - OE — EXIST OVERHEAD ELECTRIC
 - C — EXIST UNDERGROUND CABLE
 - D — DITCH FLOW LINE
 - ⊙ WATER METER
 - ⊞ TELEPHONE PEDESTAL

- NOTES:**
1. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 2. SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

OLD WINDMILL CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT			PROP CULVERT			REMARKS	
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV	TW DEPTH		V-OUT ft/s
1	12+13.76	25	13	0.7	30" CMP	911.65	0.68	24" RCP	912.12	0.68	8.00	PROPOSED DESIGN FREQUENCY
		100	16			911.92	0.74		912.47	0.74	8.13	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G. Morrelli
8/7/17

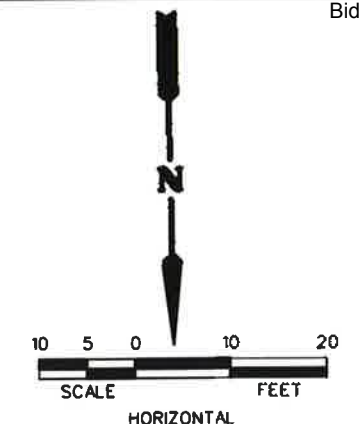
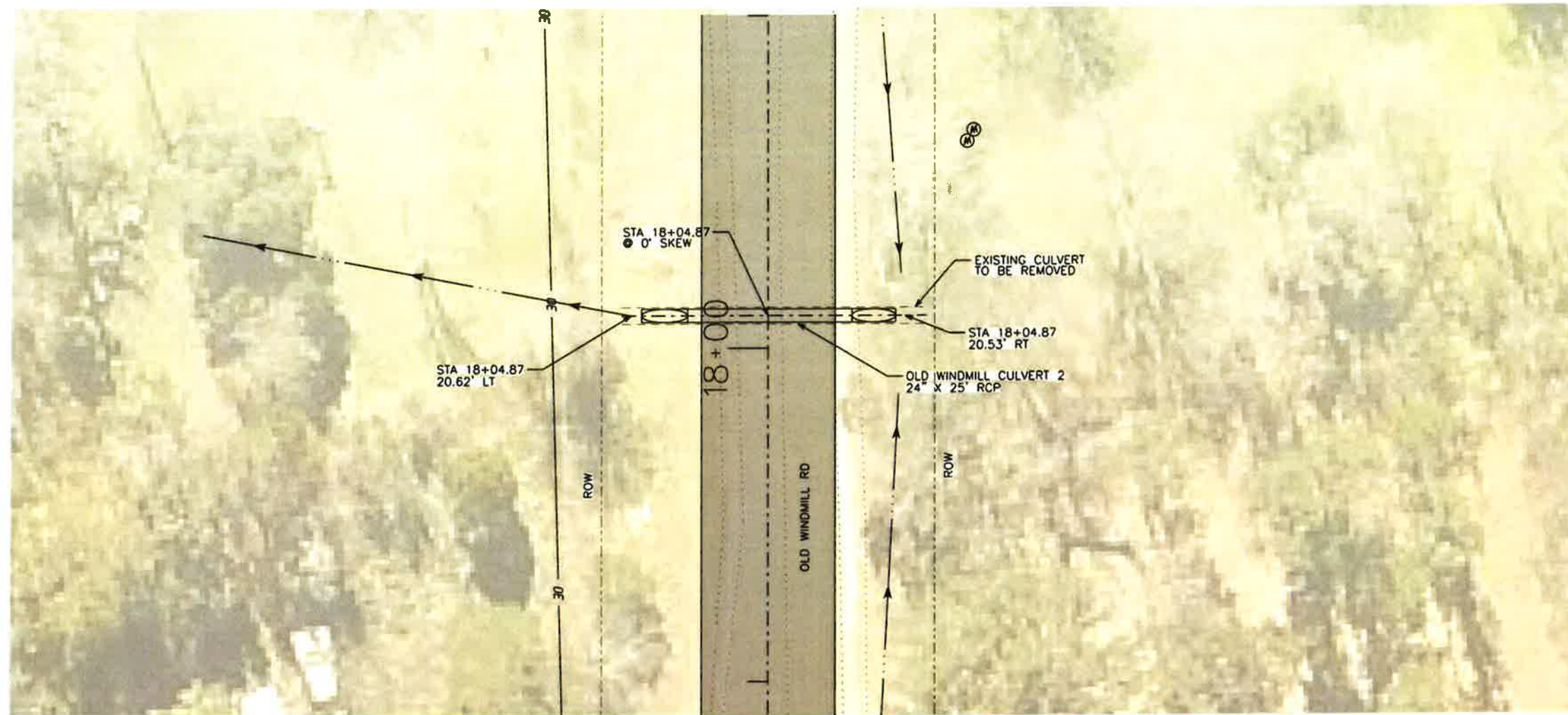
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**OLD WINDMILL RD
CULVERT 1 LAYOUT**

Designed: KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 51
Checked: KOK		
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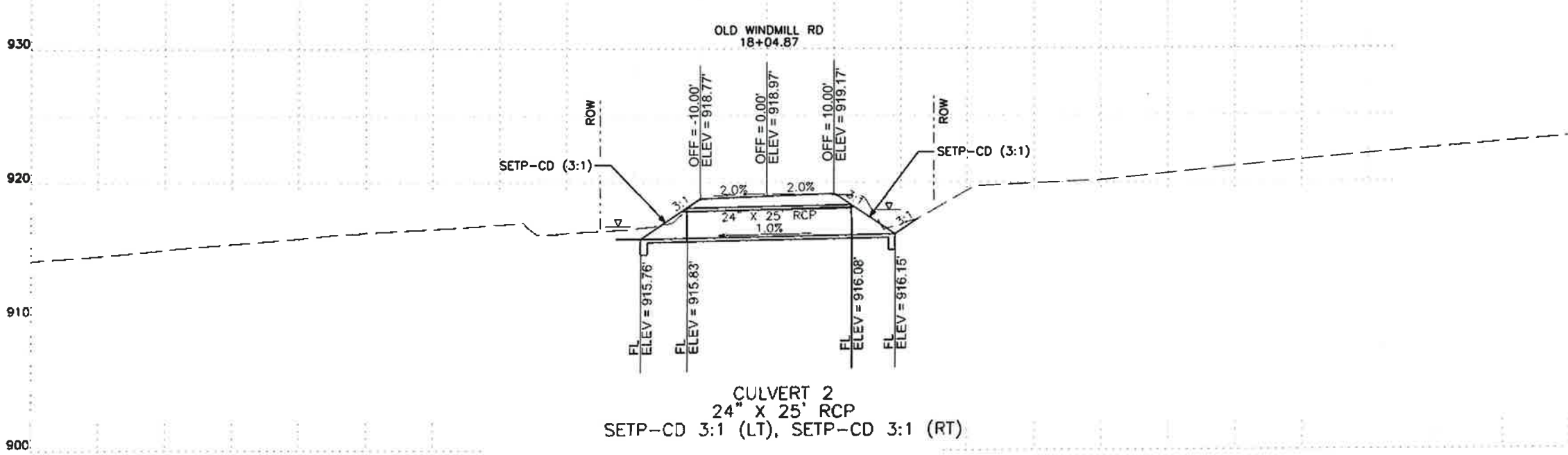
- LEGEND**
- ONE COURSE SEAL COAT
 - W — EXIST WATER LINE
 - X — EXIST FENCE
 - OE — EXIST OVERHEAD ELECTRIC
 - C — EXIST UNDERGROUND CABLE
 - D — DITCH FLOW LINE
 - ⊙ WATER METER
 - ⊞ TELEPHONE PEDESTAL

- NOTES:**
1. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 2. SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

OLD WINDMILL CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT			PROP CULVERT			REMARKS	
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV	TW DEPTH		V-OUT ft/s
2	18+04.87	25	17	0.7	30" CMP	918.12	1.52	24" RCP	918.65	1.52	8.09	PROPOSED DESIGN FREQUENCY
		100	21			918.47	1.65		919.09	1.65	4.48	PROPOSED CHECK FREQUENCY

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3

VERTICAL SCALE: 1" = 10'



Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
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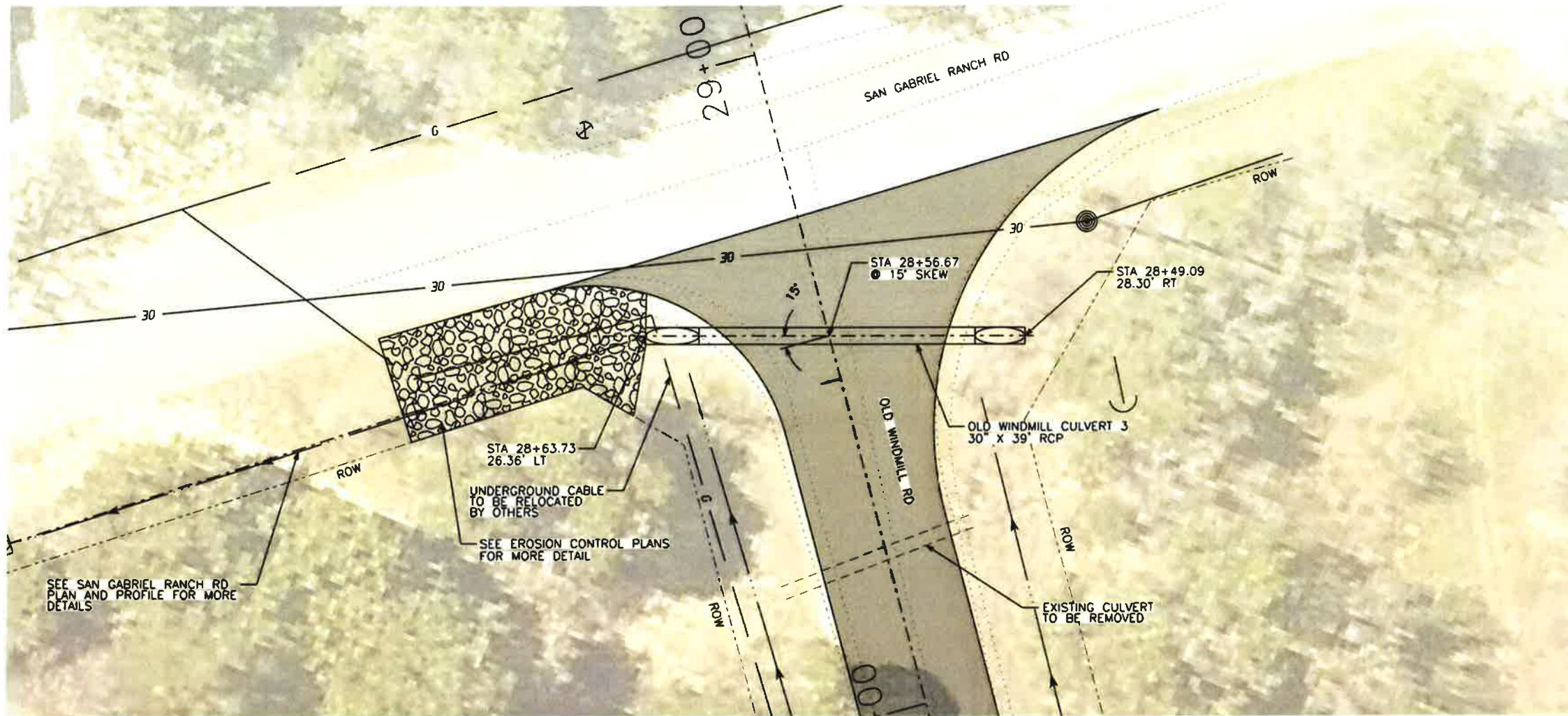
WILLIAMSON COUNTY
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WILLIAMSON COUNTY
DEPT. OF
INFRASTRUCTURE

**OLD WINDMILL RD
CULVERT 2 LAYOUT**

Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 52
Checked:	KQK		
Drawn:	KGM		
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HORIZONTAL

LEGEND

- ONE COURSE SEAL COAT
- EXIST WATER LINE
- EXIST FENCE
- EXIST OVERHEAD ELECTRIC
- EXIST UNDERGROUND CABLE
- DITCH FLOW LINE
- WATER METER
- TELEPHONE PEDESTAL

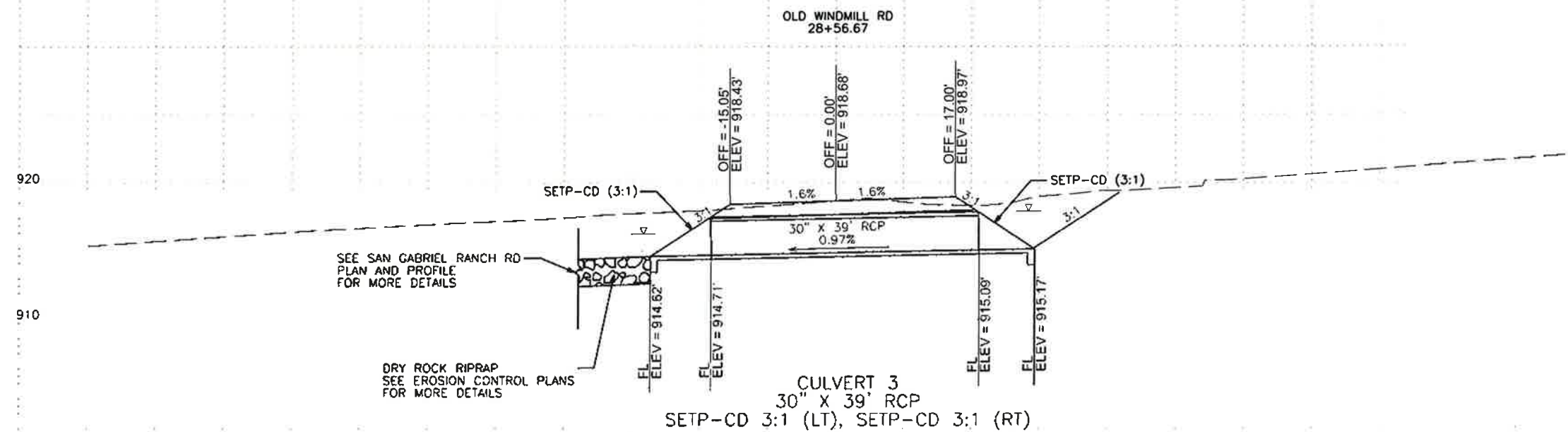
NOTES:

1. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
2. SEE EROSION CONTROL PLANS FOR MORE INFORMATION ON RIPRAP LIMITS.

OLD WINDMILL CULVERT	RIVER STATION	FREQ YEAR	Q cfs	Ke	EXIST CULVERT		PROP CULVERT			REMARKS		
					DESCRIPTION	HW ELEV	TW DEPTH	DESCRIPTION	HW ELEV		TW DEPTH	V-OUT ft/s
3	28+56.67	25	24	0.7	24" CMP	918.63	1.85	30" RCP	917.80	1.06	8.64	PROPOSED DESIGN FREQUENCY
		100	30			918.68	1.99		918.33	1.15	9.15	PROPOSED CHECK FREQUENCY

VERTICAL SCALE: 1" = 10'

NOTE: CULVERT ANALYSIS BASED ON HY8 VERSION 8.7.3



Kelly G Morrelli
8/7/17

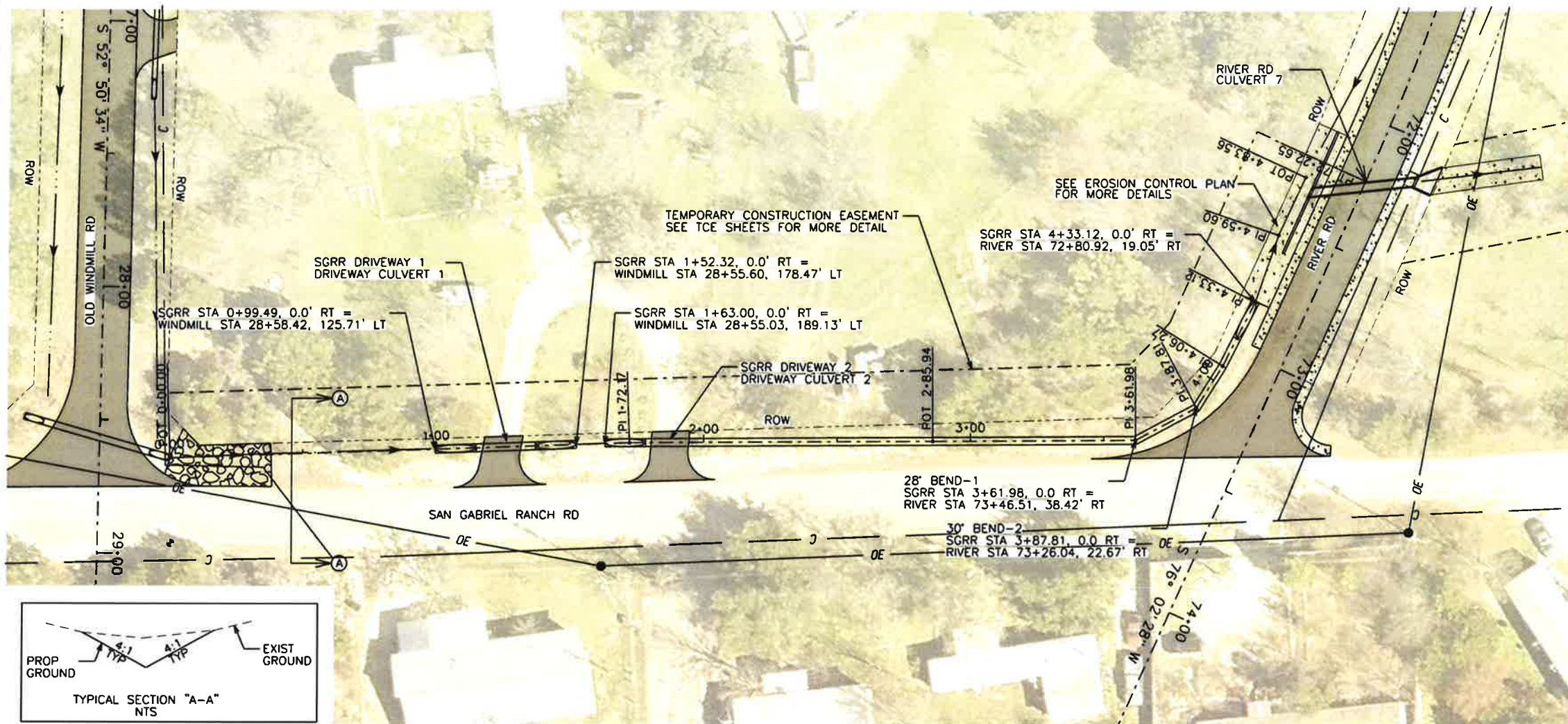
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

OLD WINDMILL RD
CULVERT 3 LAYOUT

Designed:	KGM	3151 S.E. INNER LOOP, SUITE 8 GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 53
Checked:	KQK		
Drawn:	KGM		
Checked:	KQK		

OLD WINDMILL - CULV_03.dgn
 7/12/2017 10:08:13 AM
 8/10/2017 9:17 AM



LEGEND

(Symbol)	TWO COURSE SEAL COAT
(Symbol)	EXIST WATER LINE
(Symbol)	EXIST FENCE
(Symbol)	EXIST OVERHEAD ELECTRIC
(Symbol)	EXIST UNDERGROUND CABLE
(Symbol)	DITCH FLOW LINE
(Symbol)	WATER METER
(Symbol)	TELEPHONE PEDESTAL

- NOTES:**
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 2. CONTRACTOR SHALL REPAIR / RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
 3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
 4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS NOT TO CHANGE THE ROUTE OF STORM WATER FLOW.
 5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
 6. SEE DRIVEWAY DETAILS FOR MORE INFORMATION.



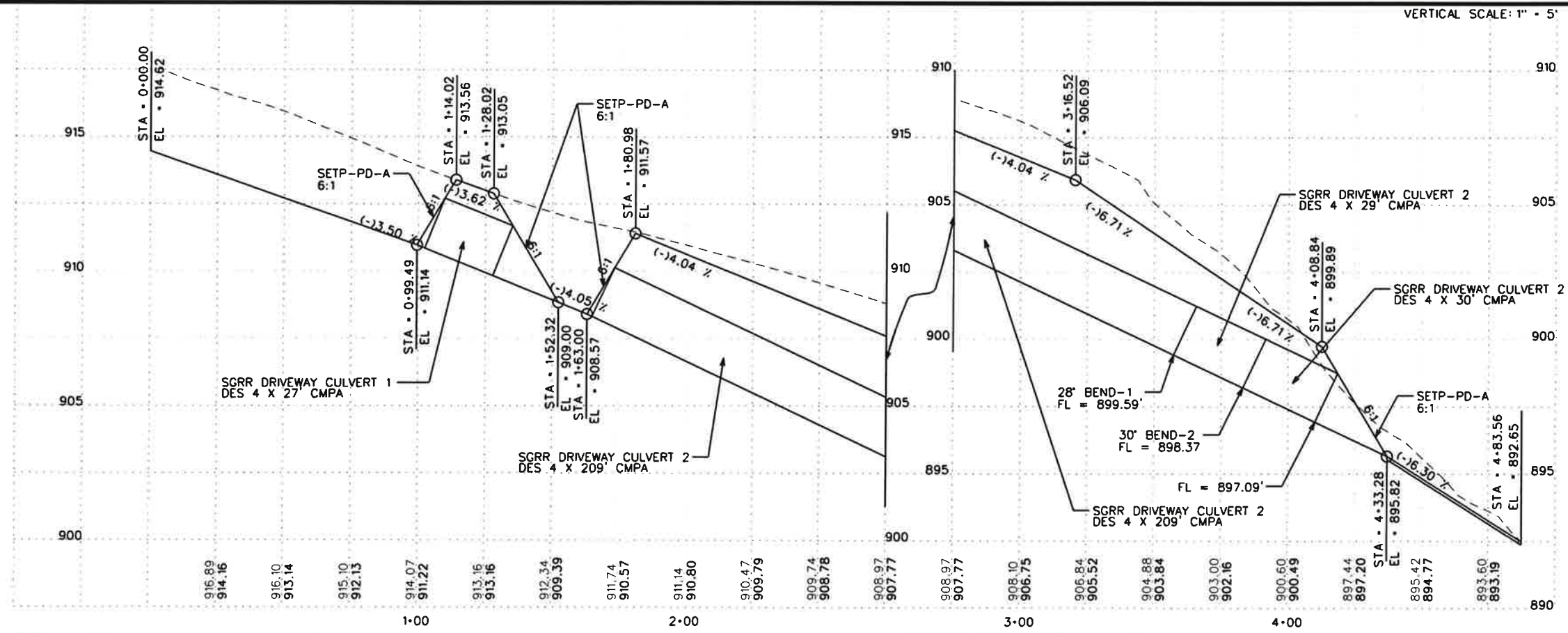
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1848

**SAN GABRIEL RANCH RD
DRIVEWAY CULVERT PLAN AND PROFILE**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 54
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Drawn:	KGM		
Checked:	KOK		



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7/14/2017 10:05:54 AM

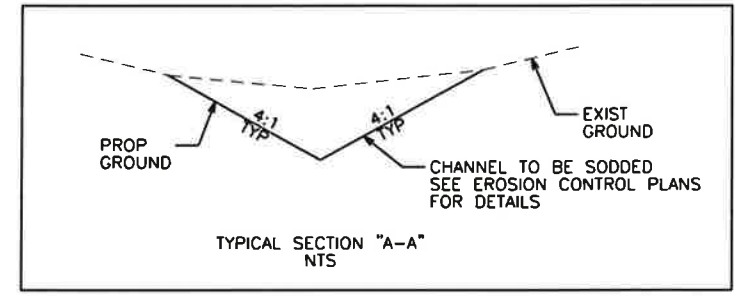
BOBBY MATHEW & MELISSA D TIPSWORD
233 RIVER RD
LIBERTY HILL, TX 78642
512-284-0691



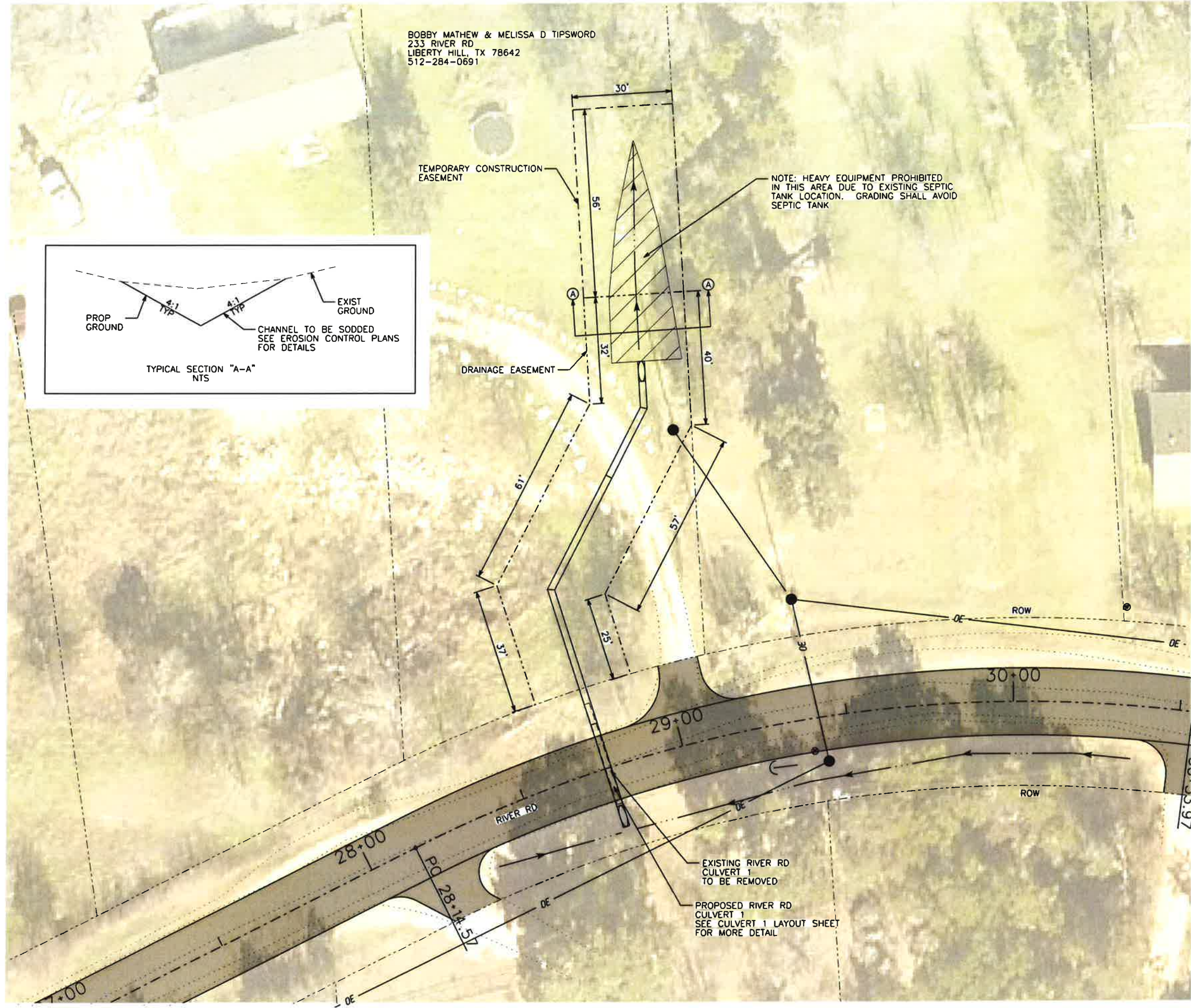
LEGEND

- ROW
- DRAINAGE EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- CHANNEL GRADING

NOTES:
SEE EROSION CONTROL PLANS
FOR GRADING DETAILS



NOTE: HEAVY EQUIPMENT PROHIBITED
IN THIS AREA DUE TO EXISTING SEPTIC
TANK LOCATION. GRADING SHALL AVOID
SEPTIC TANK



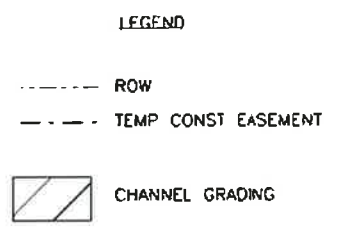
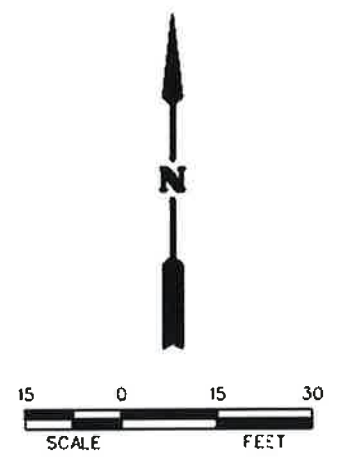
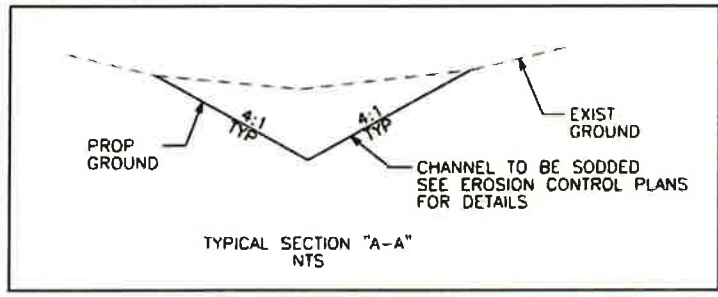
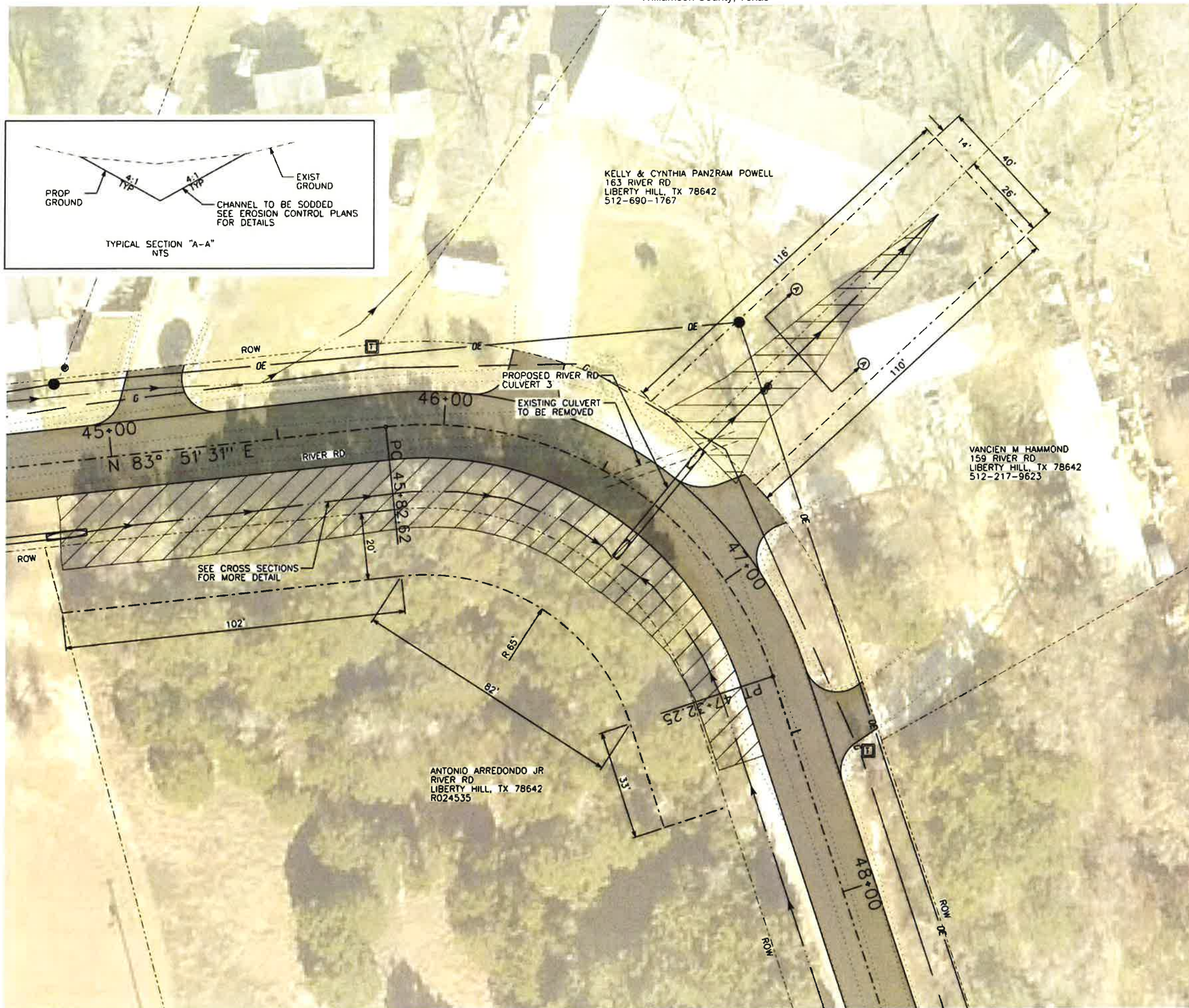
NO.	REVISION	BY	DATE

W WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE
1848

RIVER RD
CULVERT 1 CHANNEL DE / TCE

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 55
Checked:	KOK		
Drawn:	KGM		
Checked:	KOK		

RIVER CULV 1 CHANNEL TCE.dgn
8/7/2017 1:56:22 PM



NOTES:
SEE EROSION CONTROL PLANS
FOR GRADING DETAILS



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8/7/17

NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
INFRASTRUCTURE

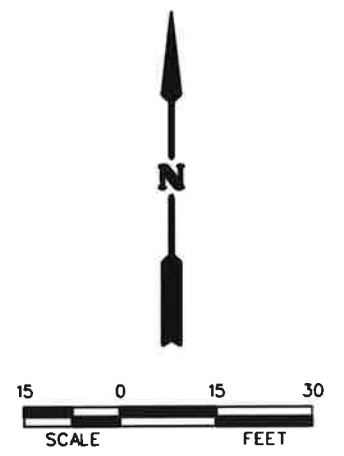
**RIVER RD
CULVERT 3 CHANNEL TCE**

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Checked: KQK		

RIVER_CULV_2-3_CHANNEL_TCE.dgn
7/12/2017 10:09:00 AM



ROBIE LYNN REHSE
 101 RIVER RD
 LIBERTY HILL, TX 78642
 512-415-6398



- LEGEND**
- ROW
 - - - TEMP CONST EASEMENT
 - CHANNEL GRADING

NOTE:
 SEE EROSION CONTROL PLANS
 FOR GRADING DETAILS



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 8/7/17

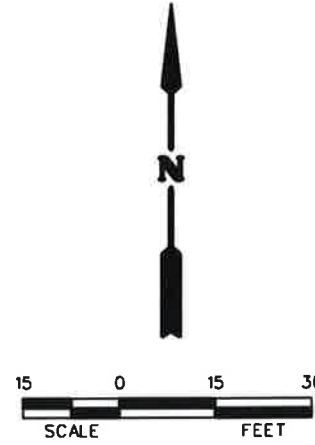
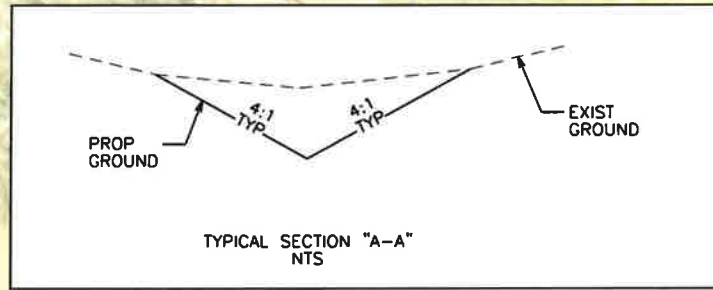
NO.	REVISION	BY	DATE

W WILLIAMSON COUNTY
 DEPT. OF INFRASTRUCTURE
 1848

**RIVER RD
 CULVERT 7 CHANNEL TCE**

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Checked: <u>KQK</u>		

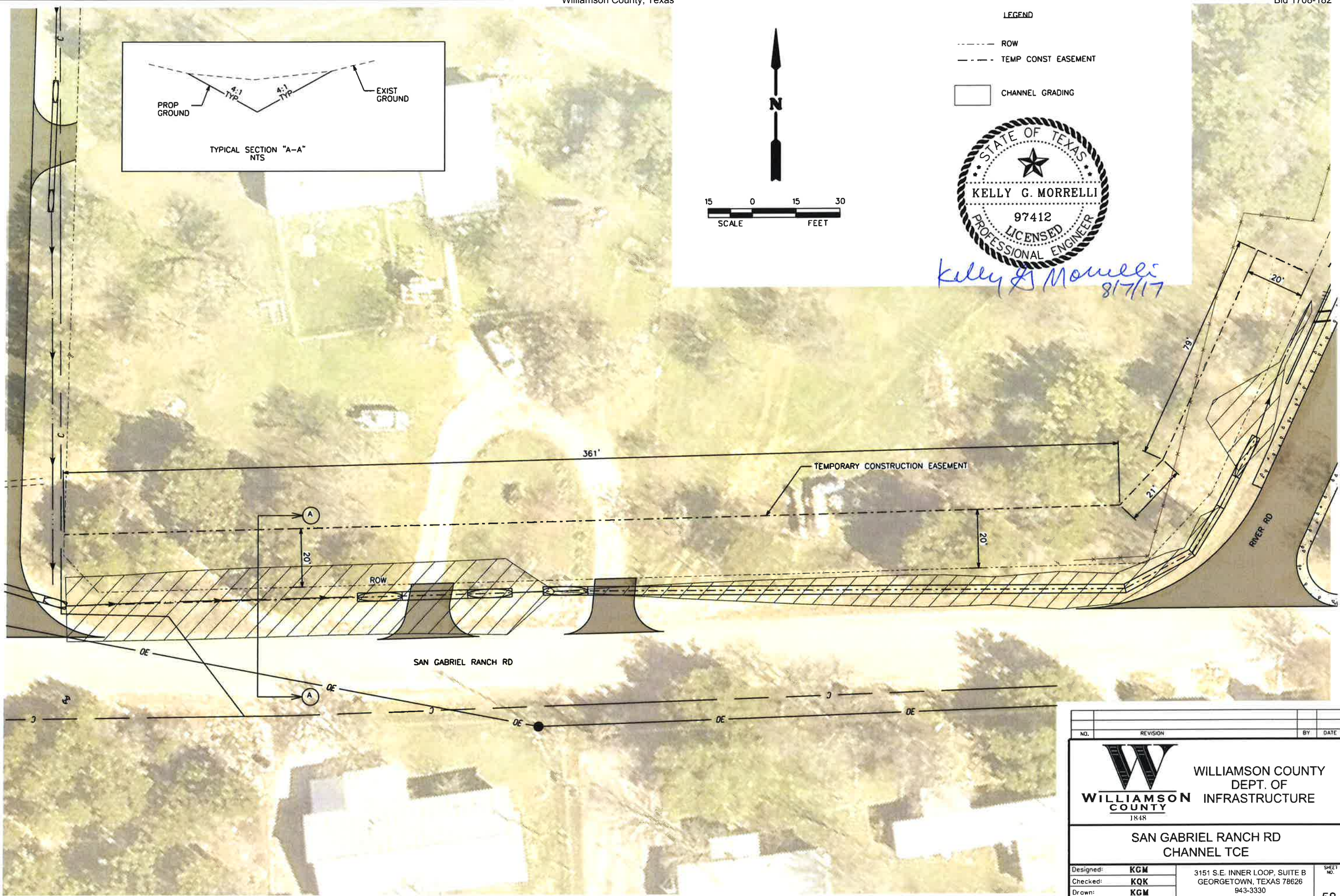
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- LEGEND
- ROW
 - - - TEMP CONST EASEMENT
 - CHANNEL GRADING




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8/7/17



GRR_CULV_CHANNEL_TCE.dgn
7/14/2017 10:11:15 AM

NO.	REVISION	BY	DATE

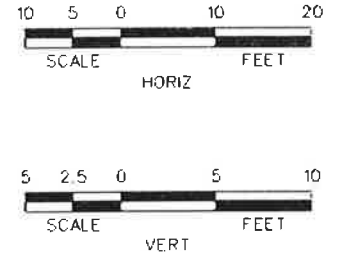
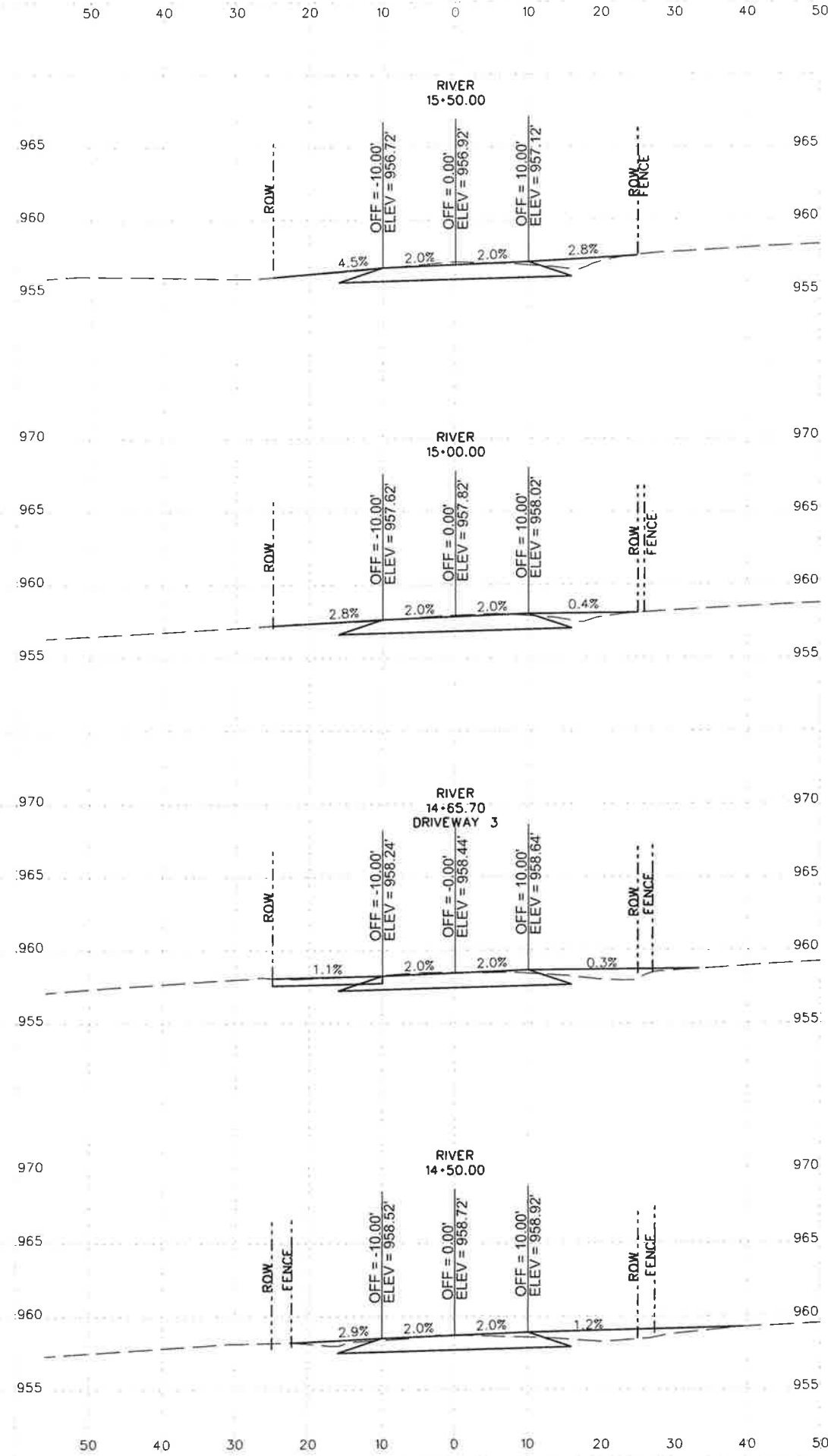
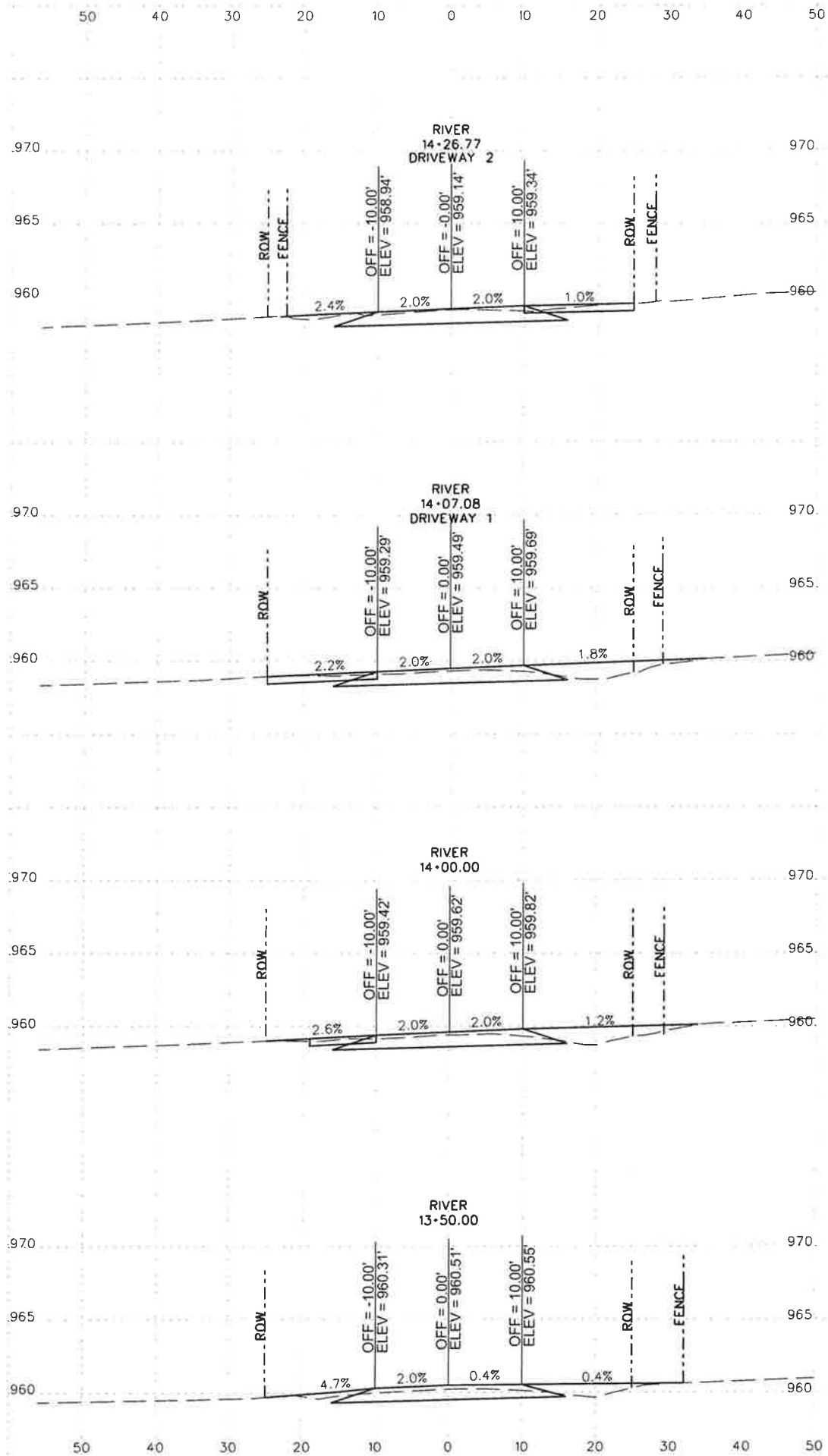


WILLIAMSON COUNTY
1848


WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

**SAN GABRIEL RANCH RD
CHANNEL TCE**

Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org	SHEET NO. 58
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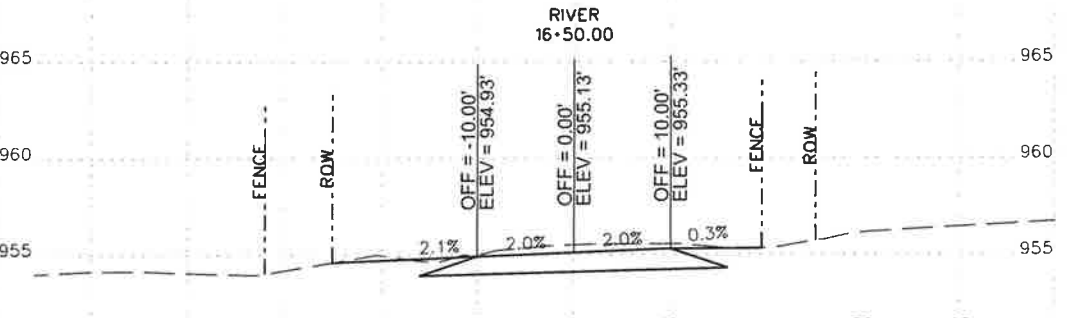
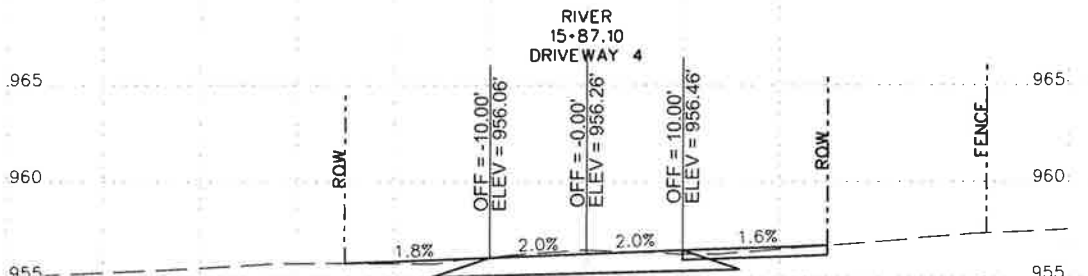
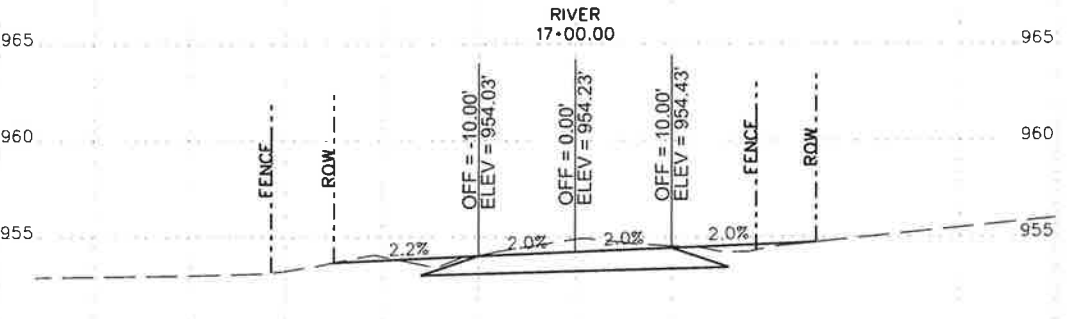
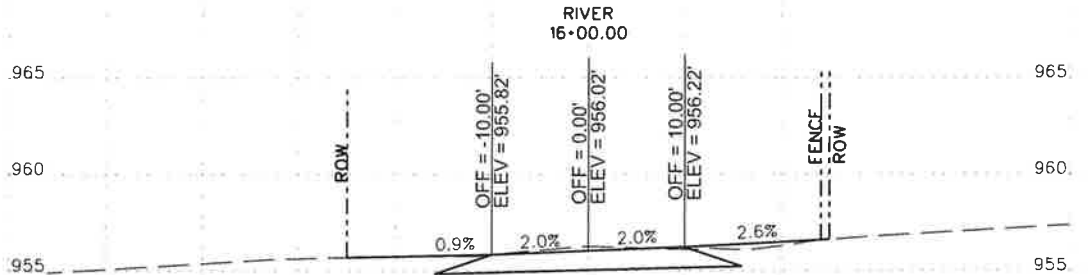
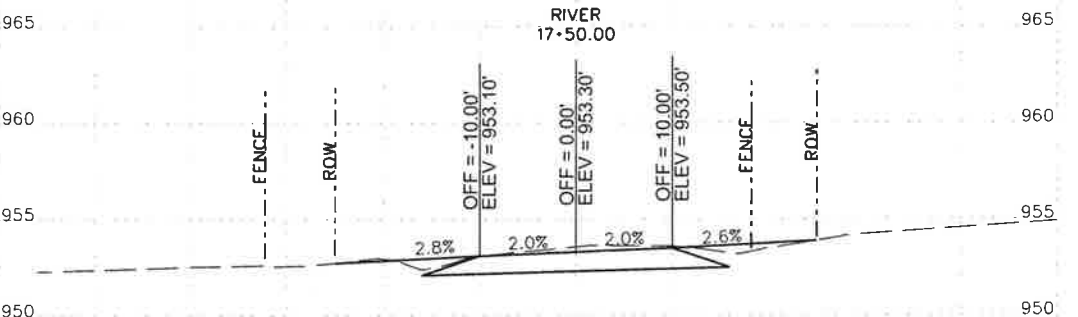
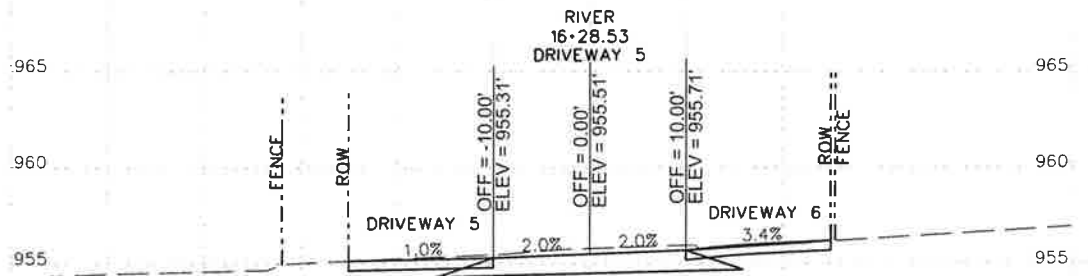
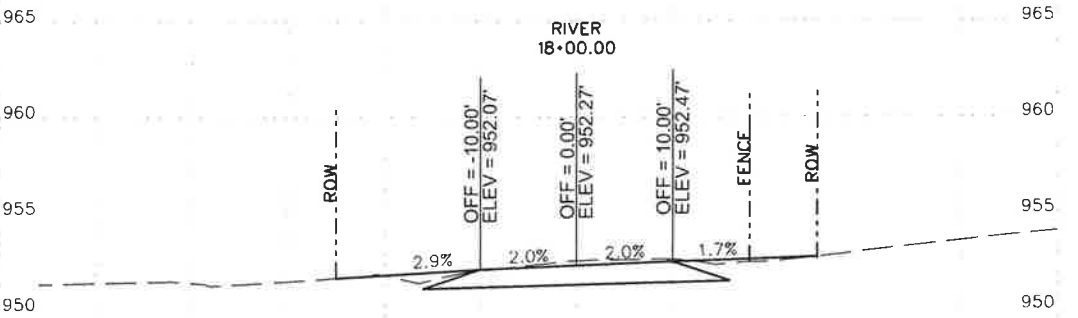
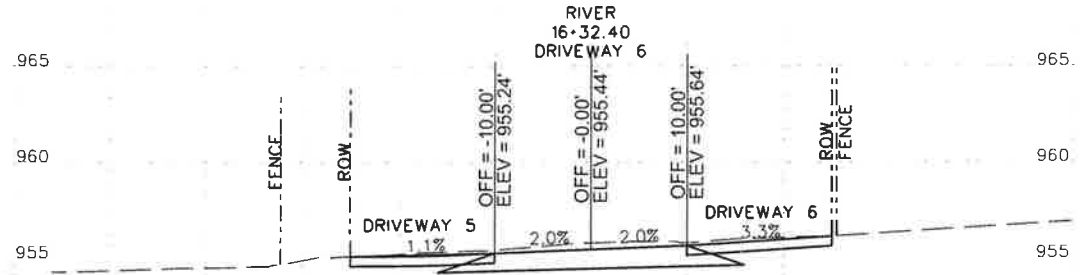


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8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE RIVER RD CROSS SECTIONS STA 13-50.00 TO STA 15-50.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
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Checked:	KOK	www.wilco.org	

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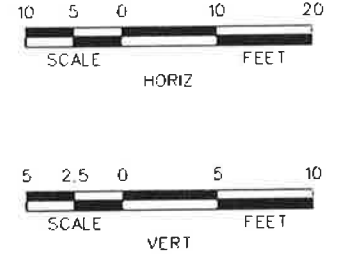
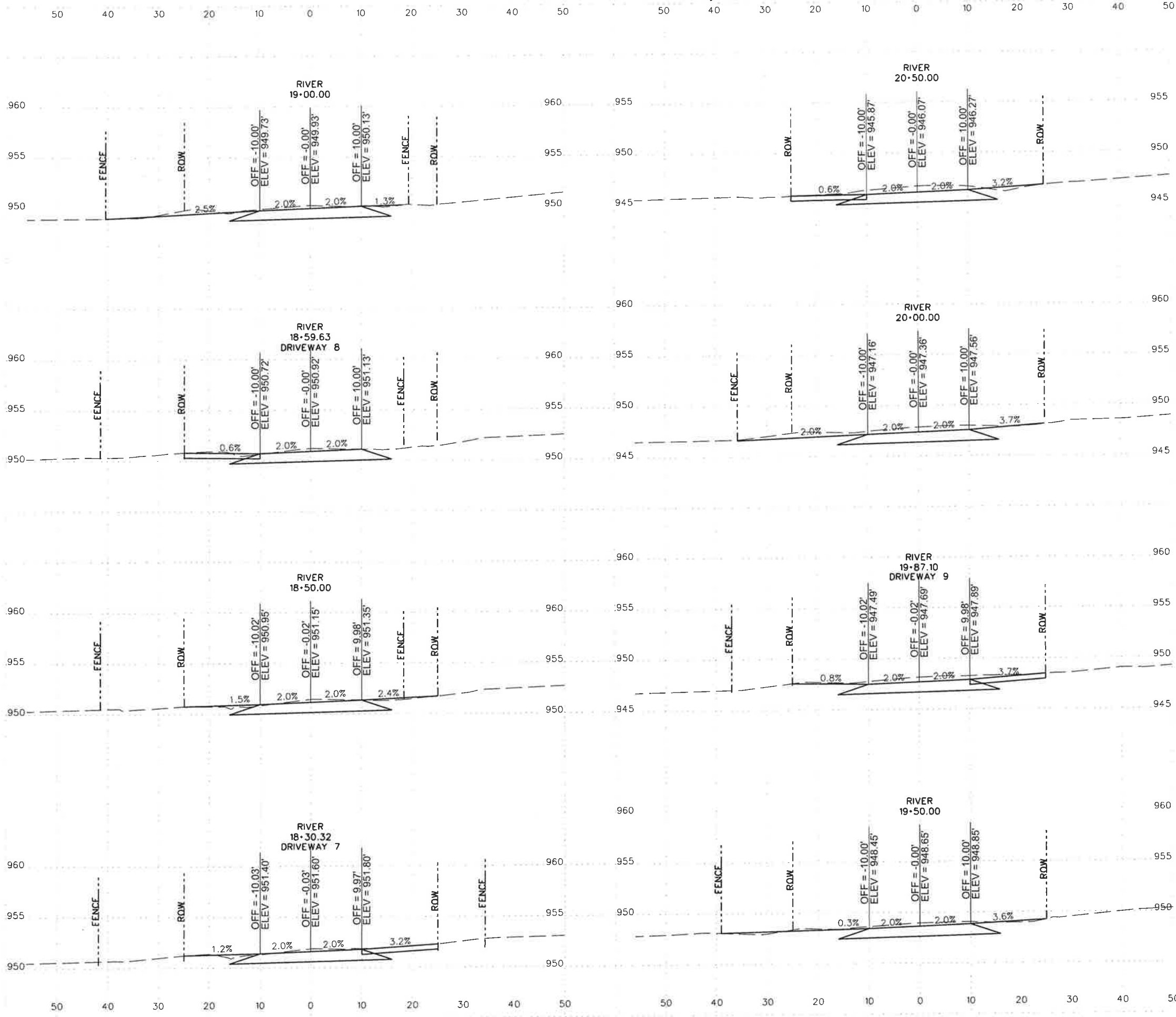
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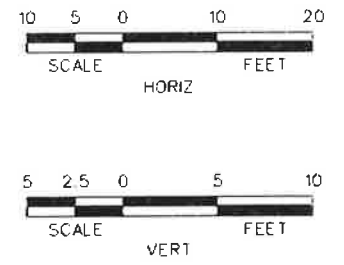
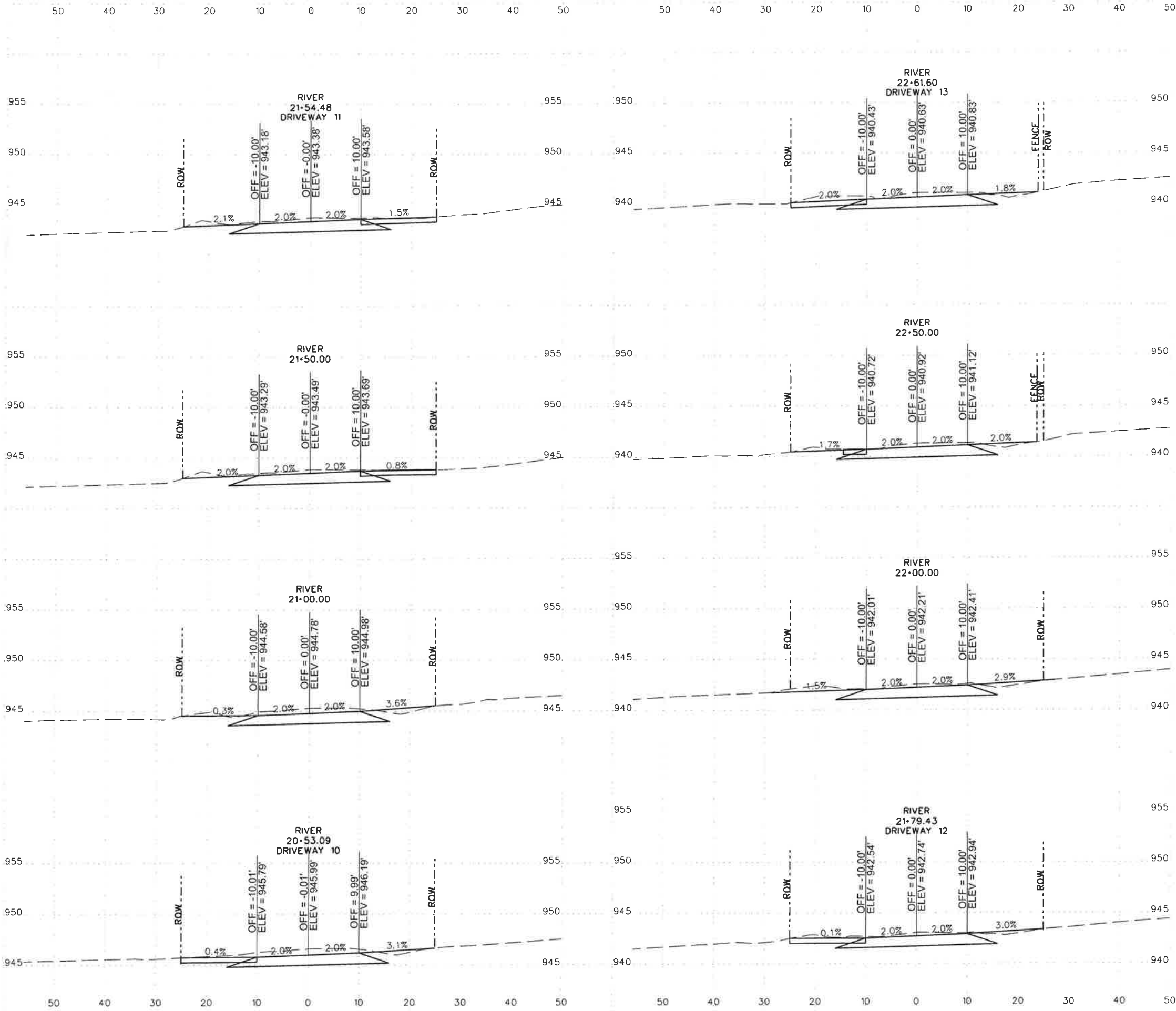
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE RIVER RD CROSS SECTIONS STA 15+87.10 TO STA 18+00.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
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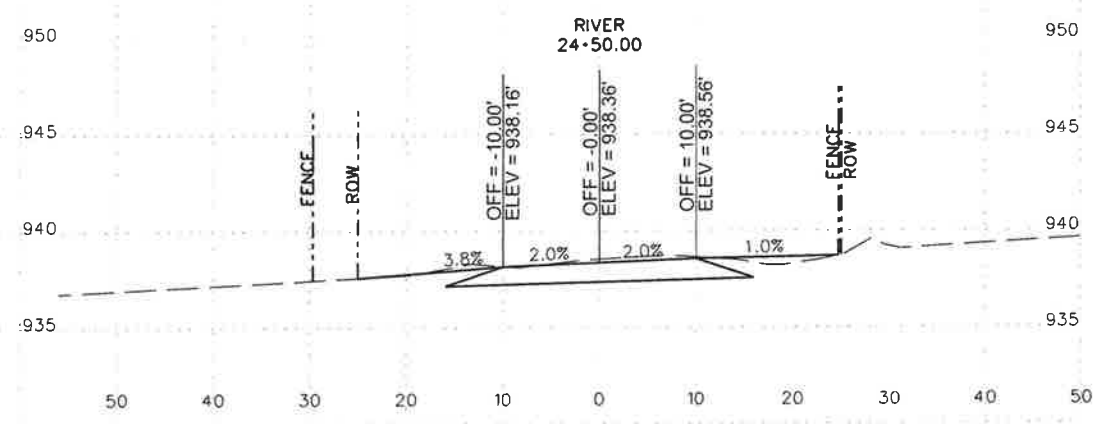
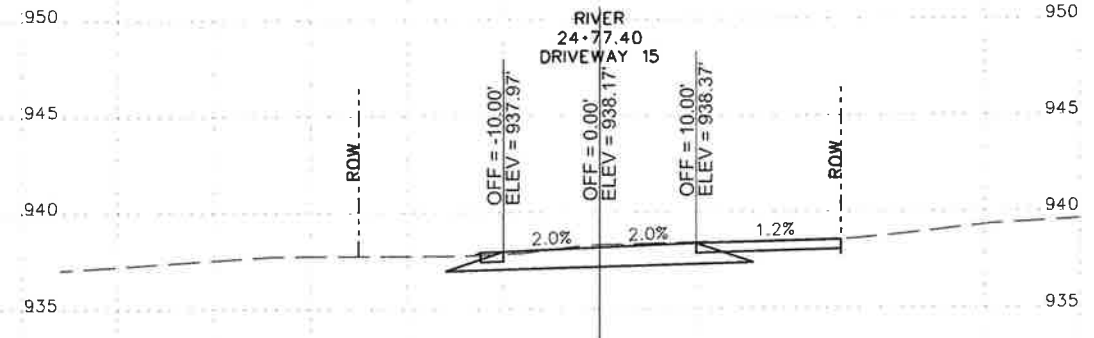
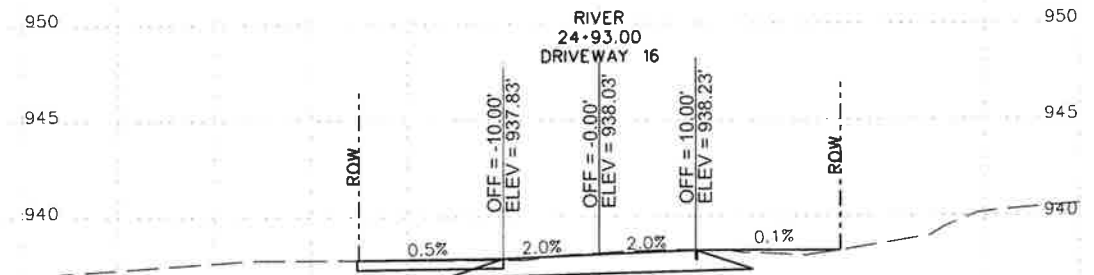
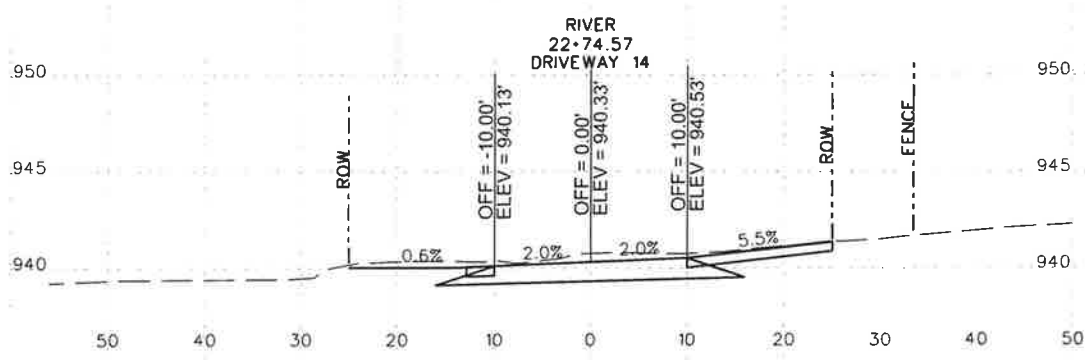
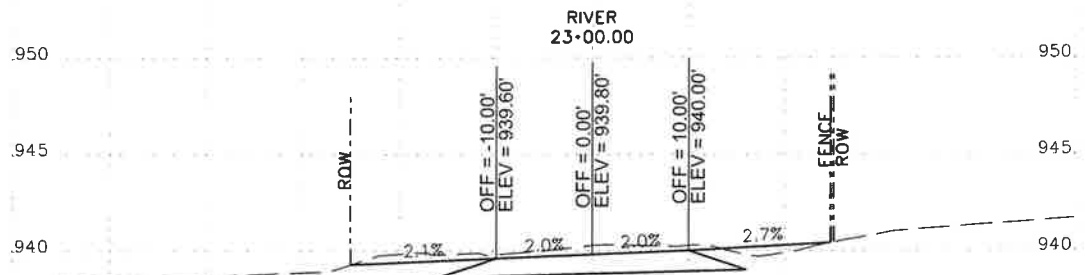
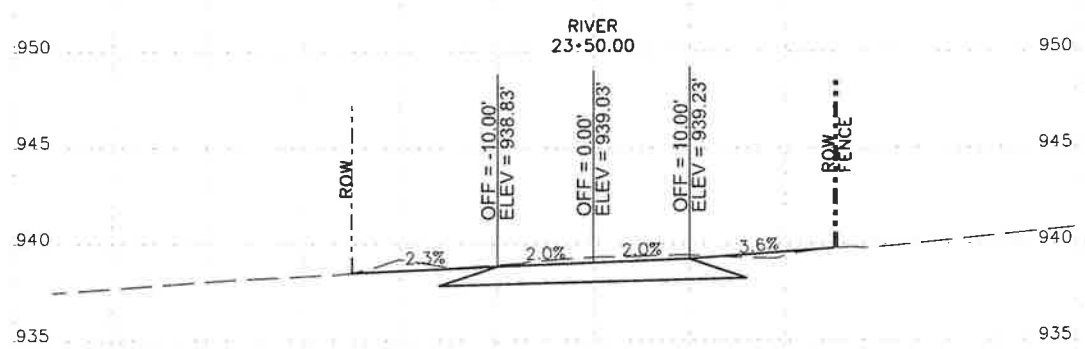
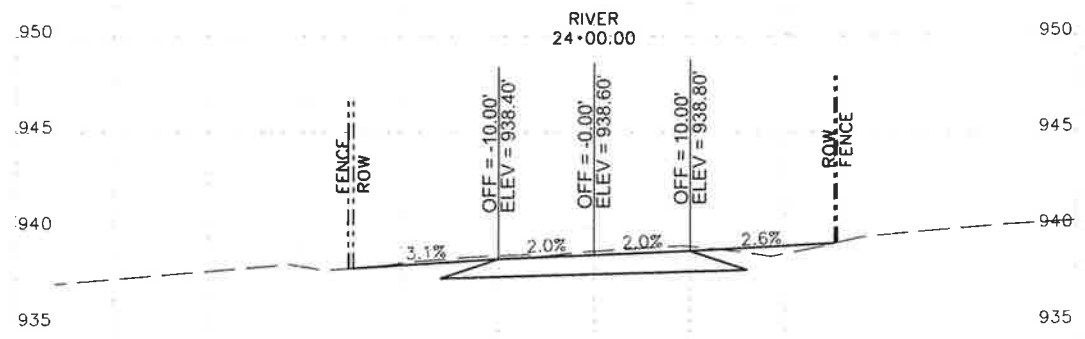
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 18-30.32 TO STA 20-50.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
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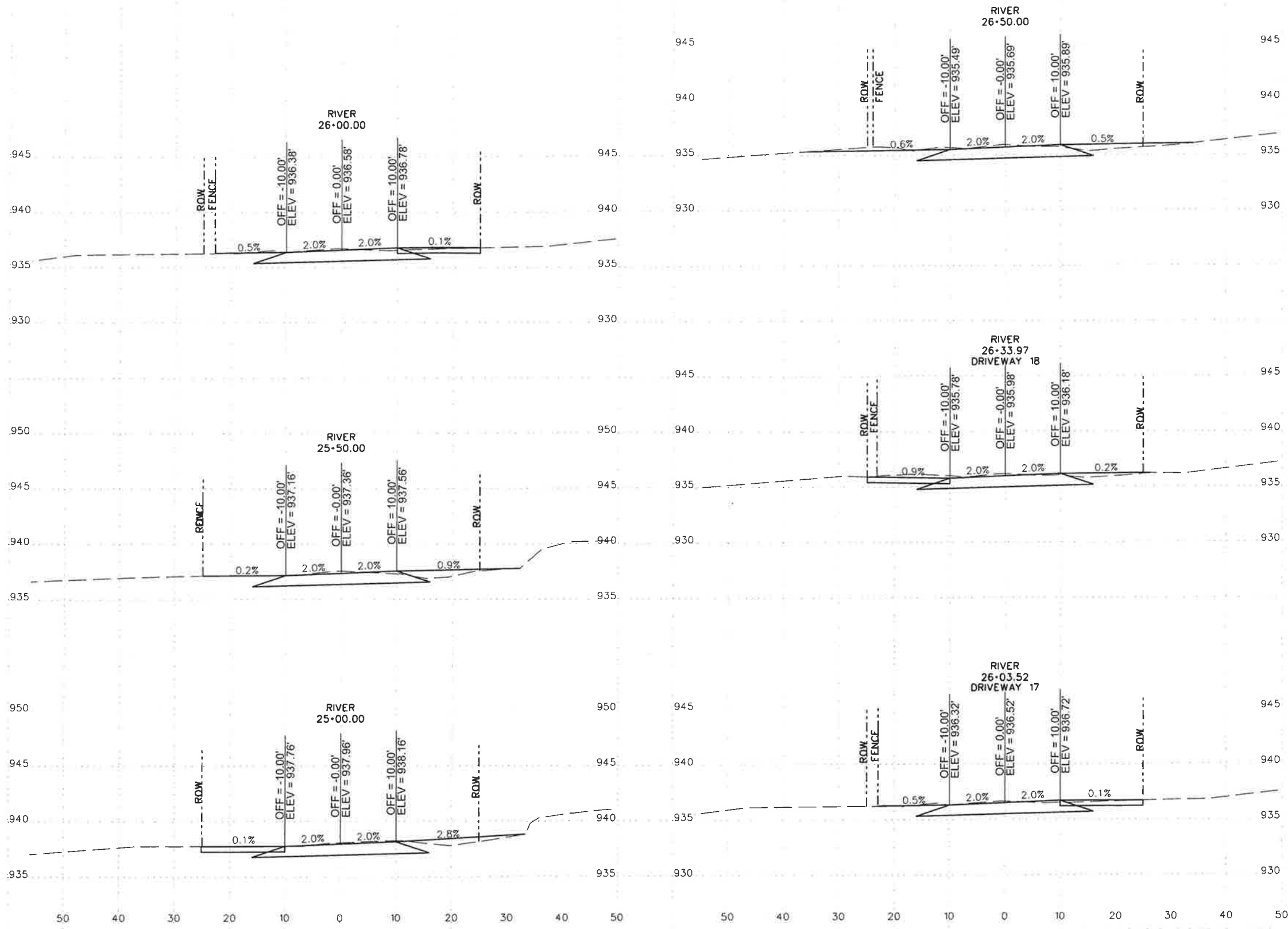
NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
RIVER RD CROSS SECTIONS STA 20+53.09 TO STA 22+61.60			
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Checked:	KOK	943-3330	
Drawn:	KGM	www.wilco.org	
Checked:	KOK		




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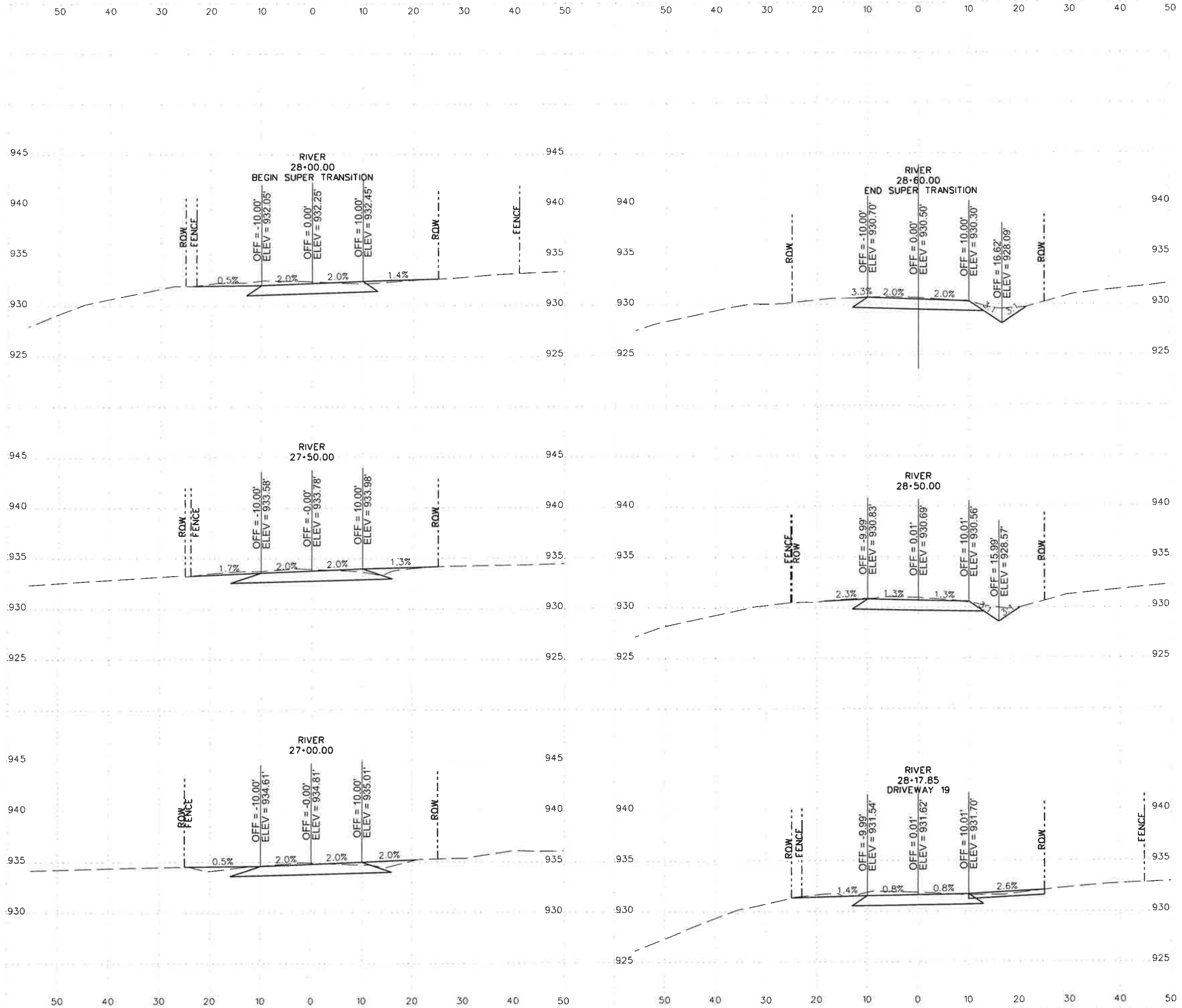
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 WILLIAMSON COUNTY IRIN			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 22-74.57 TO STA 24-93.00			
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8/7/17

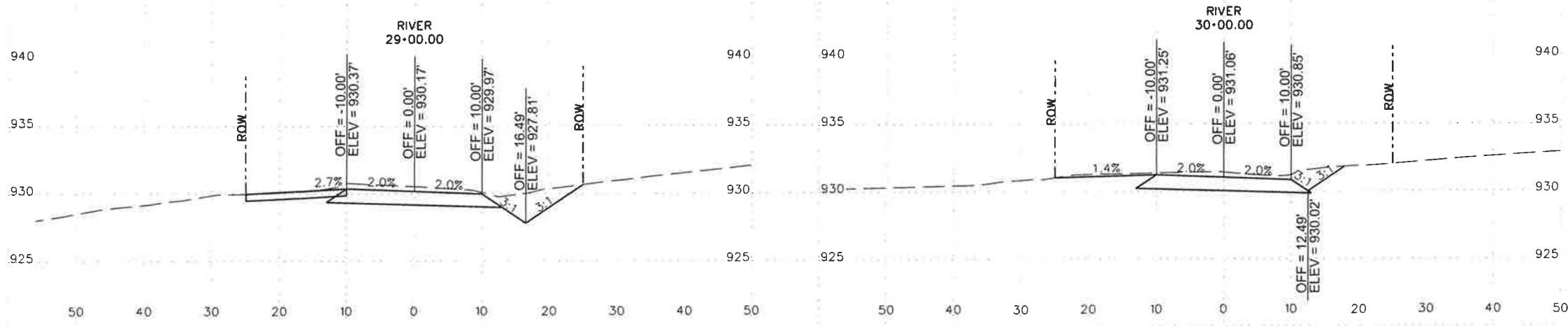
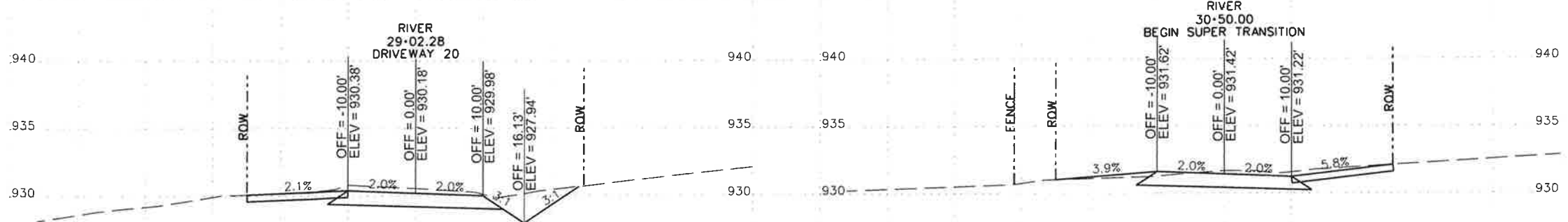
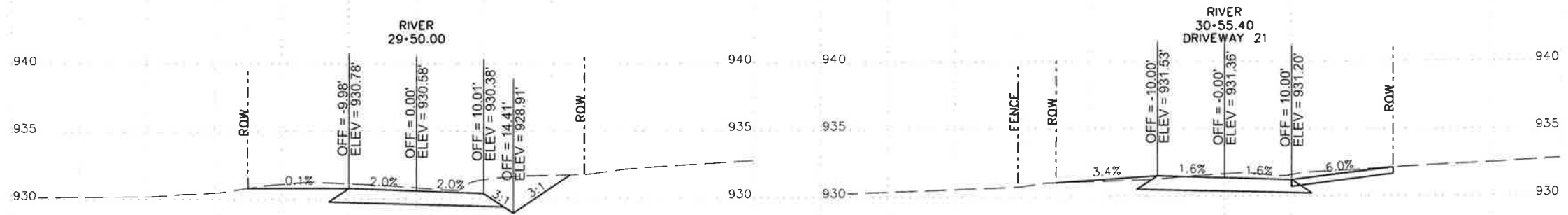
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 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 25-00.00 TO STA 26-50.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KQK	943-3330	
Drawn:	KCM	www.wilco.org	
Checked:	KQK		




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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE RIVER RD CROSS SECTIONS STA 27+00.00 TO STA 28+60.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KQK	943-3330	
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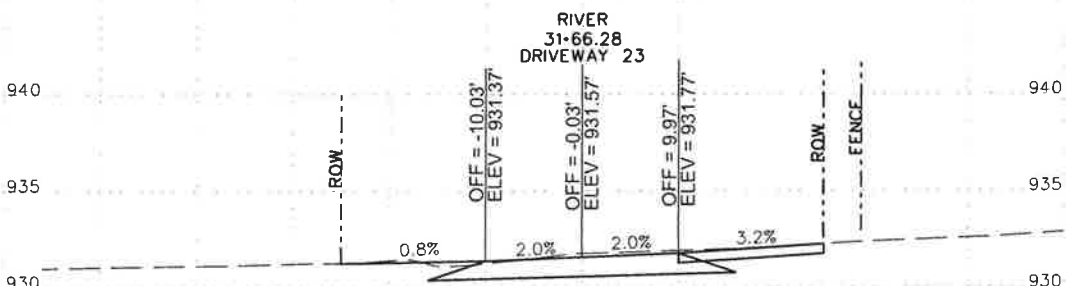
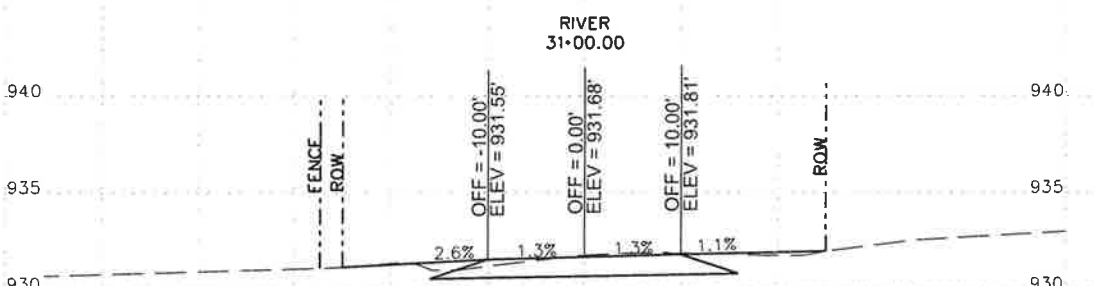
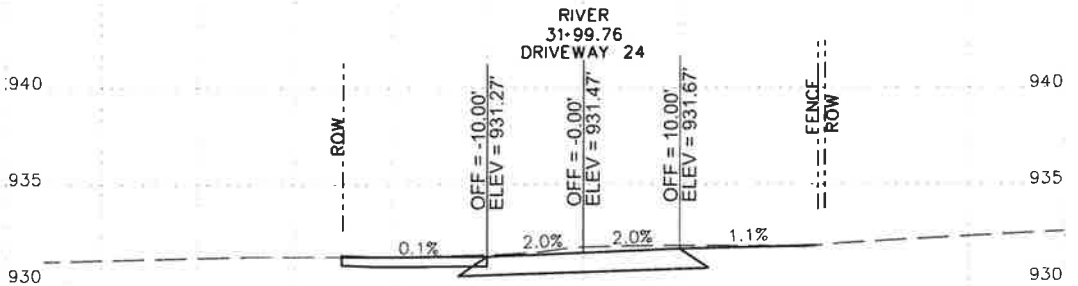
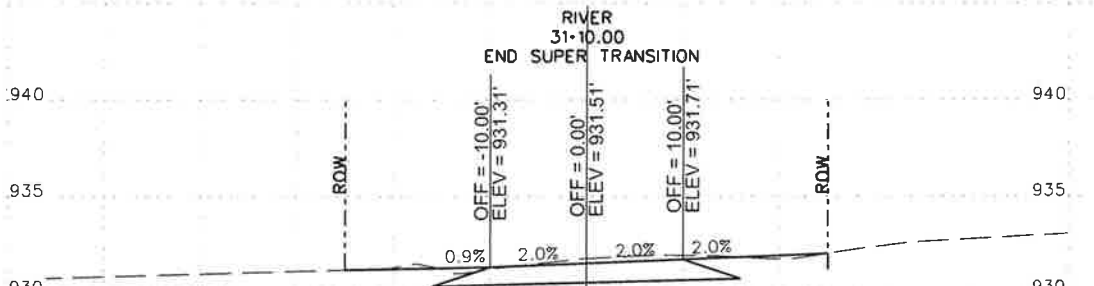
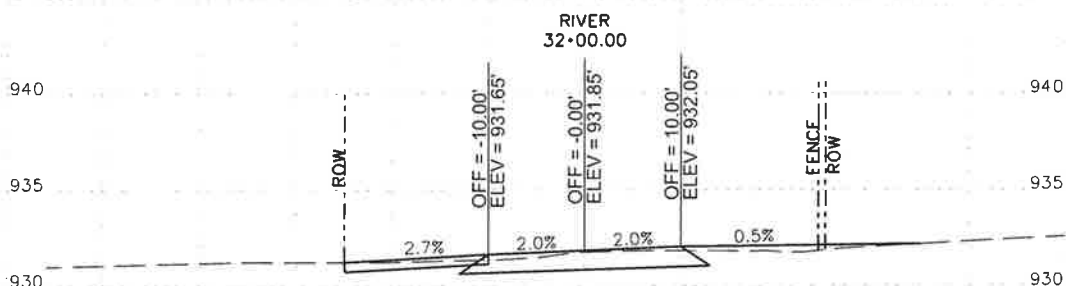
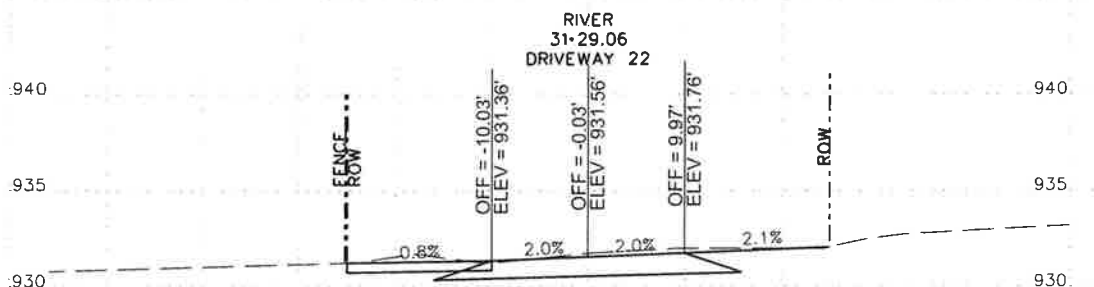
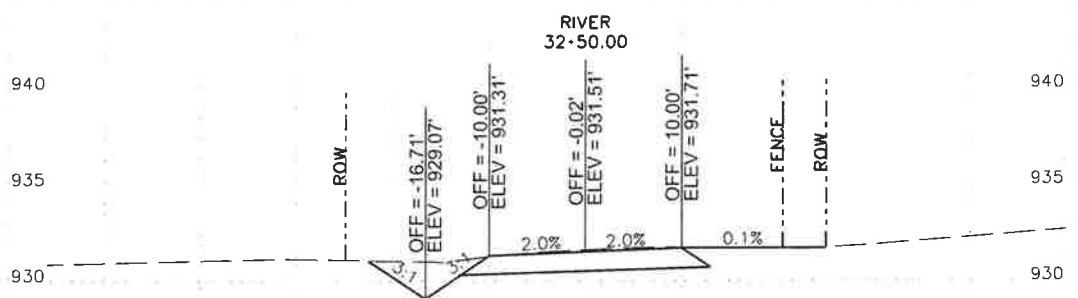
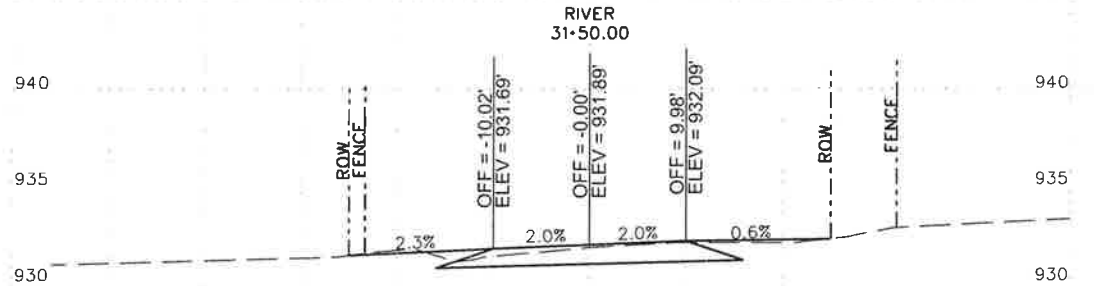


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8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 29+00.00 TO STA 30+55.40			
Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
Drawn:	KGM	www.wilco.org	
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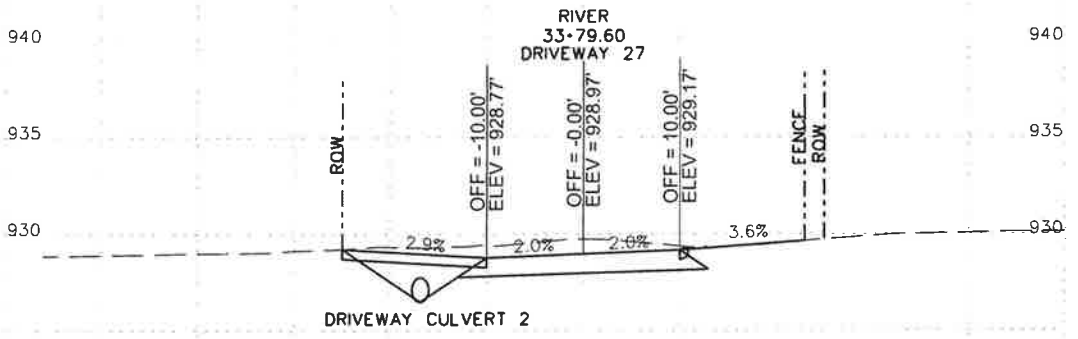
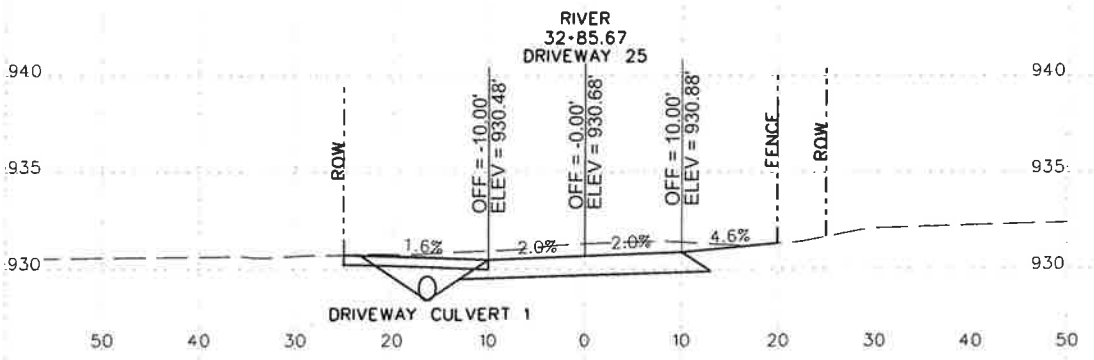
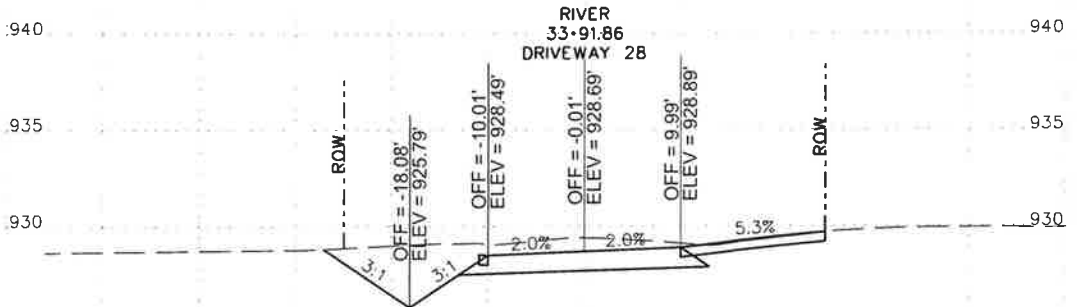
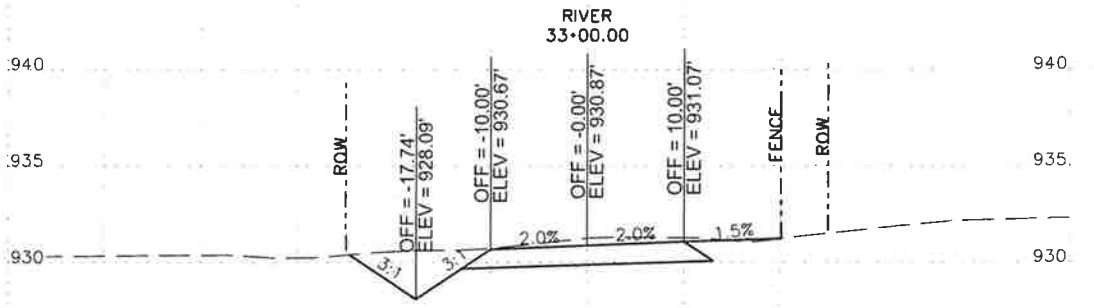
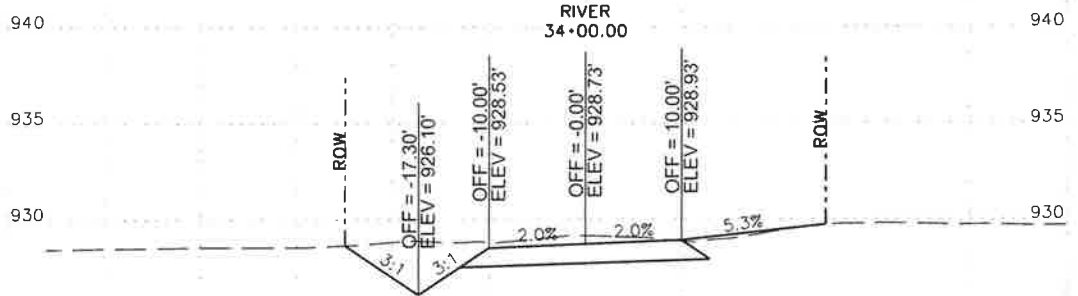
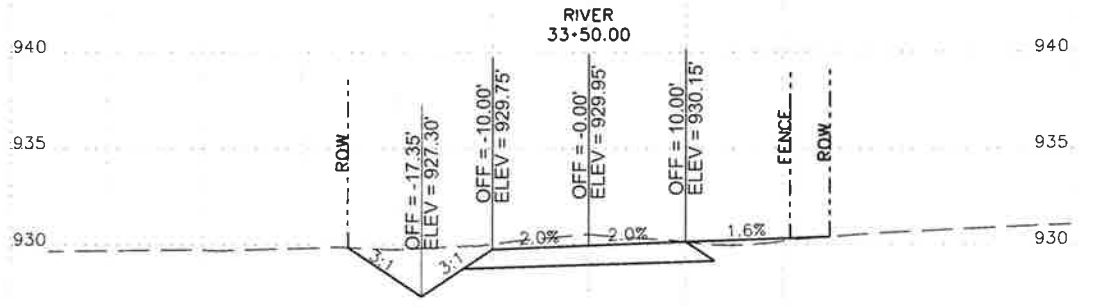
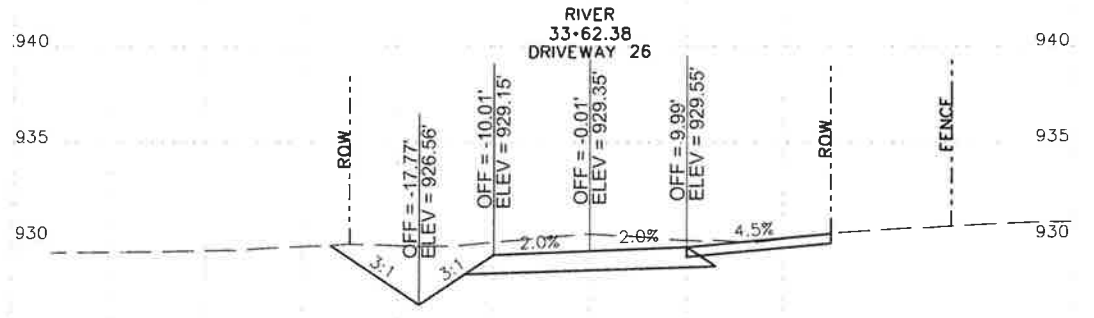
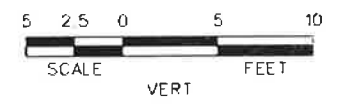


Kelly G. Morrelli
8/7/17


NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 31-00.00 TO STA 32+50.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
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Checked:	KOK		

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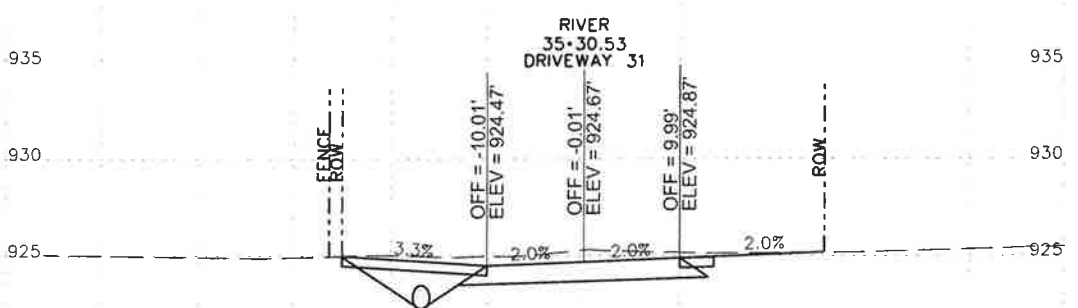
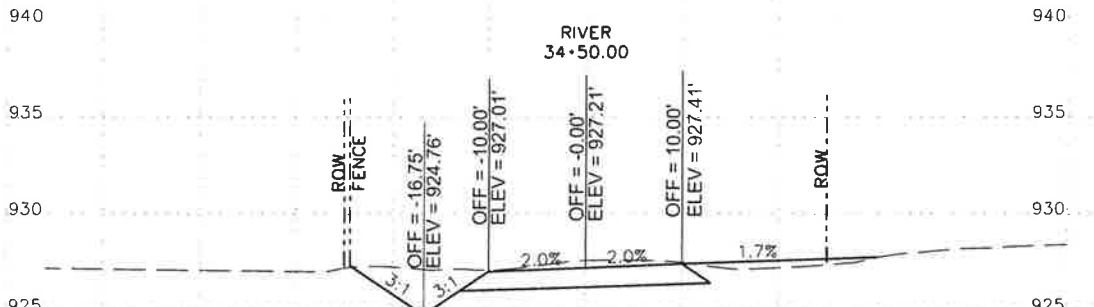
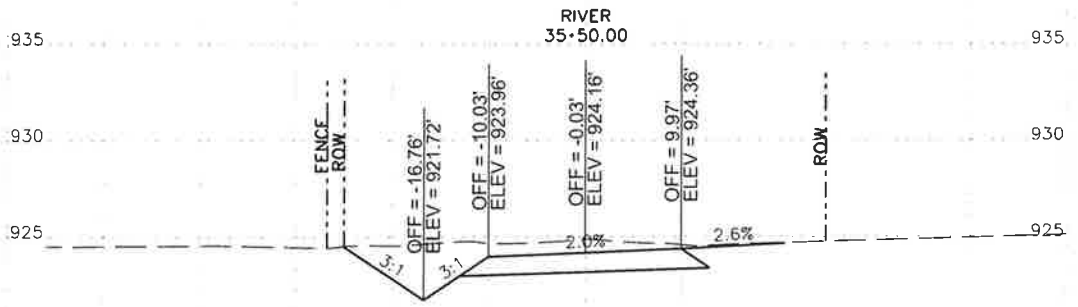
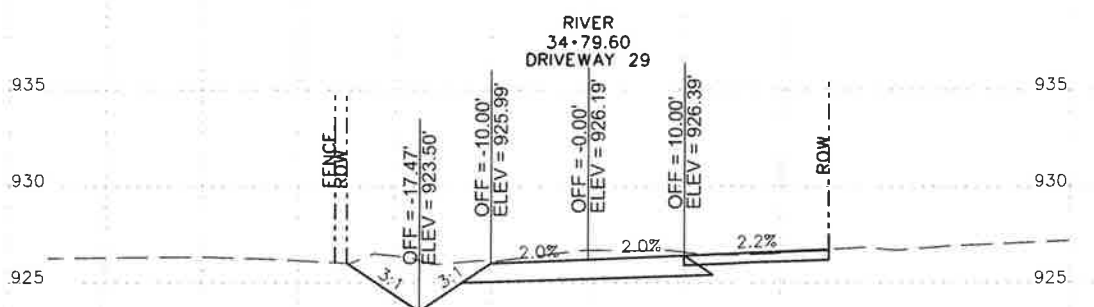
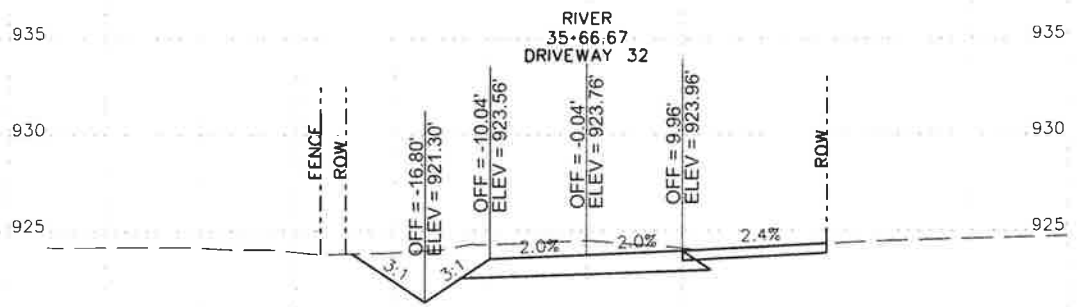
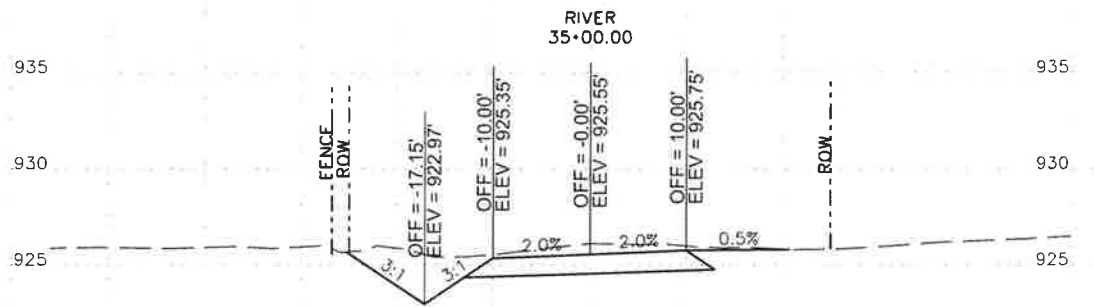
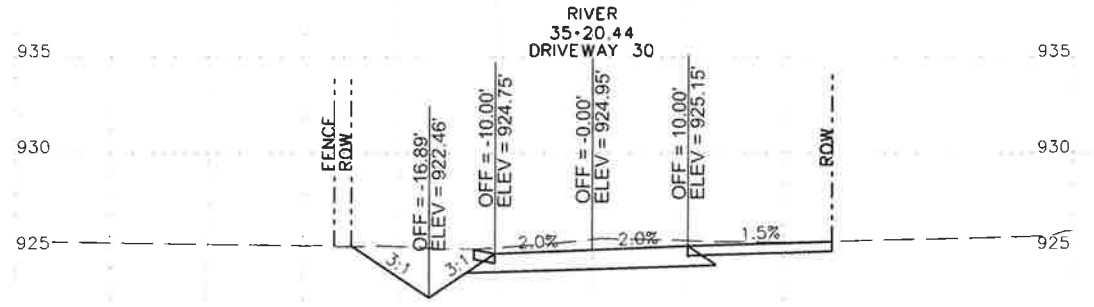


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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 32+85.67 TO STA 34+00.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

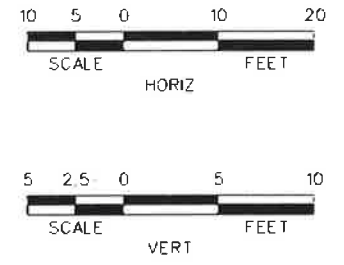
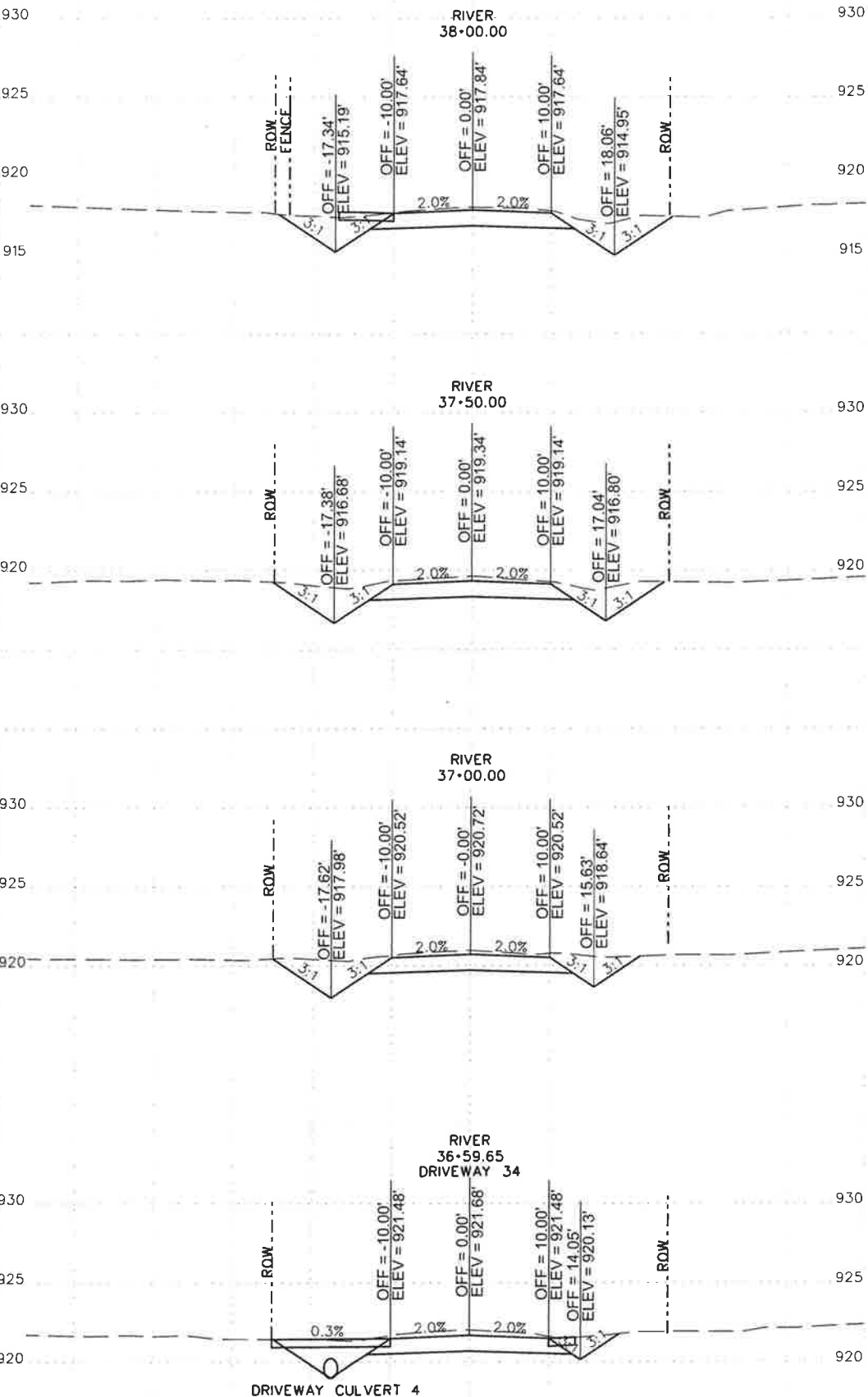
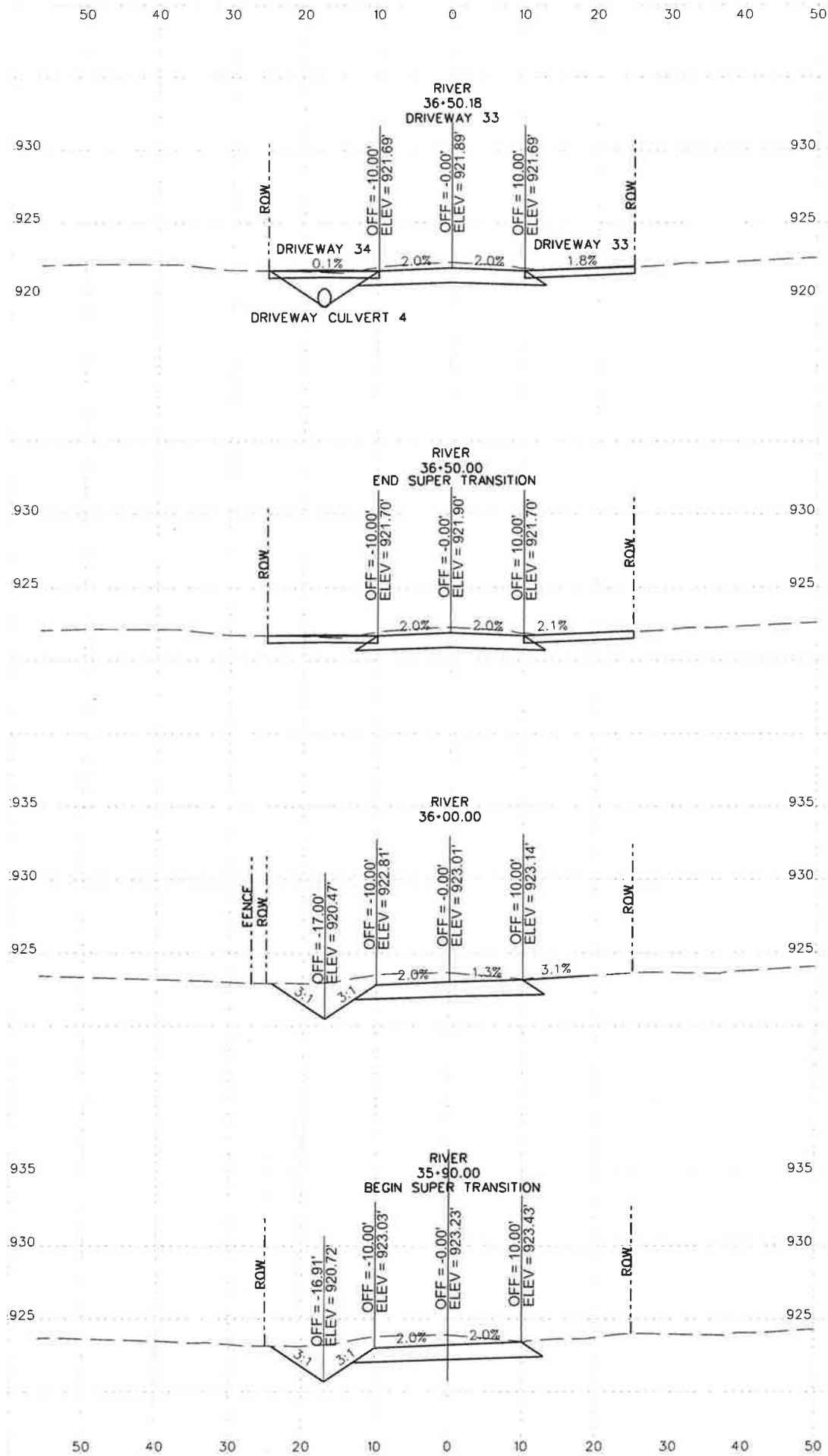
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
RIVER RD CROSS SECTIONS STA 34+50.00 TO STA 35+66.67			
Designed:	KGM	3151 S E INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
Drawn:	KCM	www.wilco.org	
Checked:	KOK		

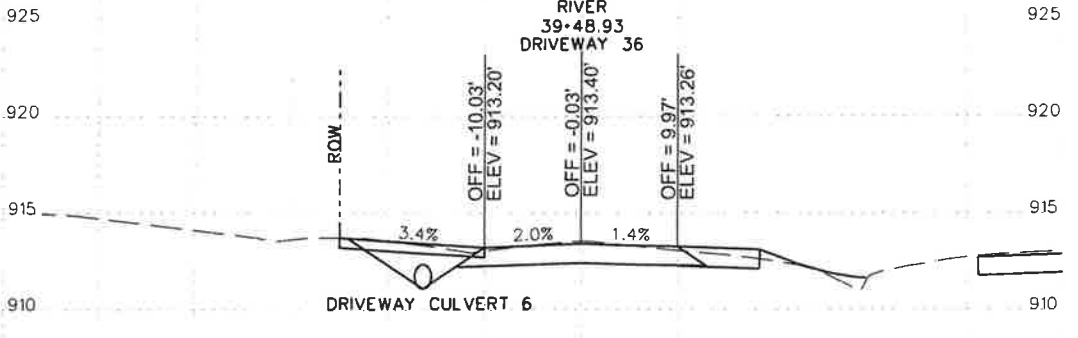
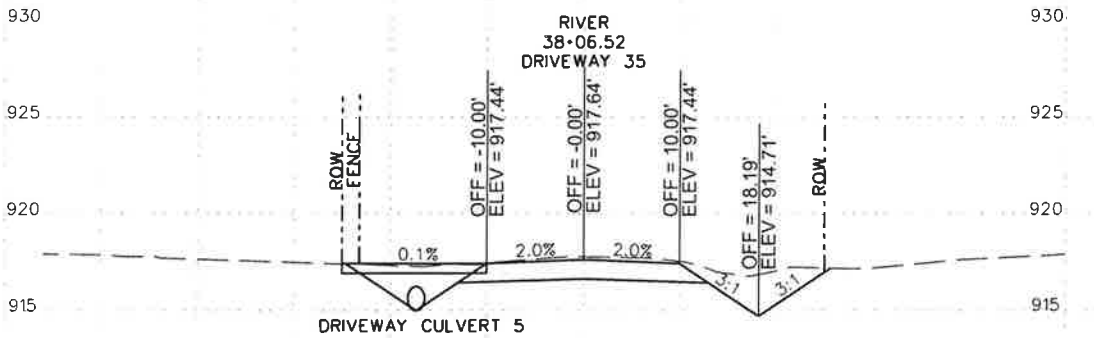
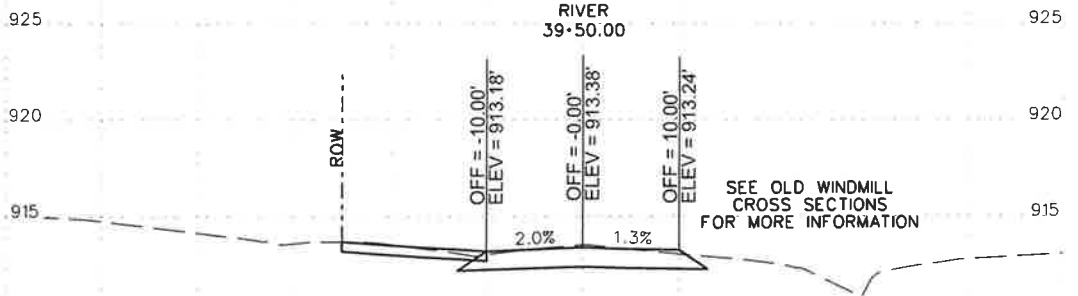
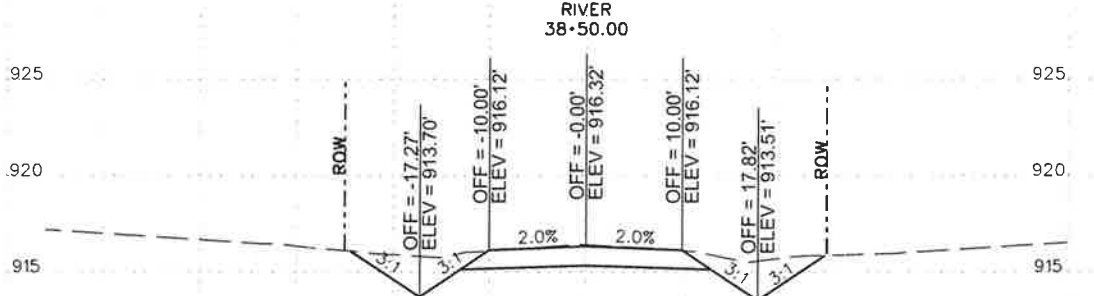
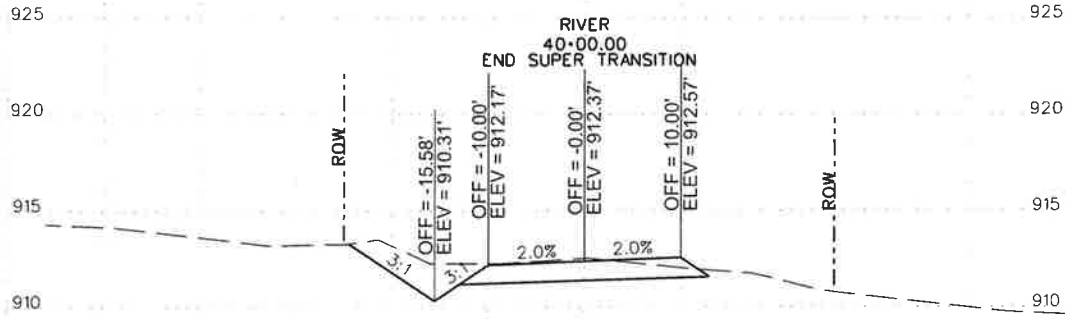
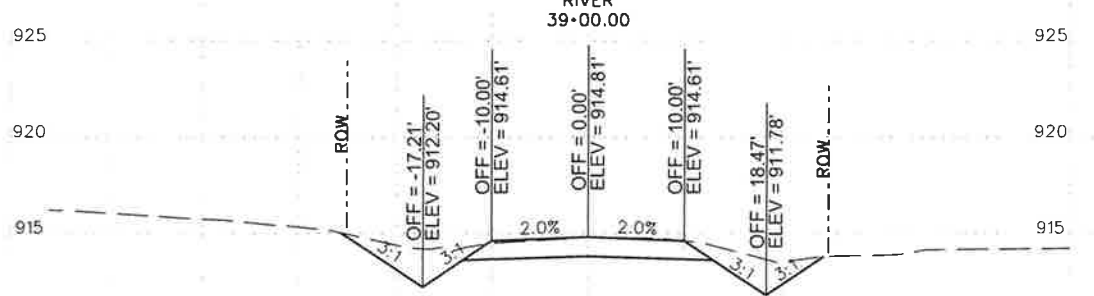
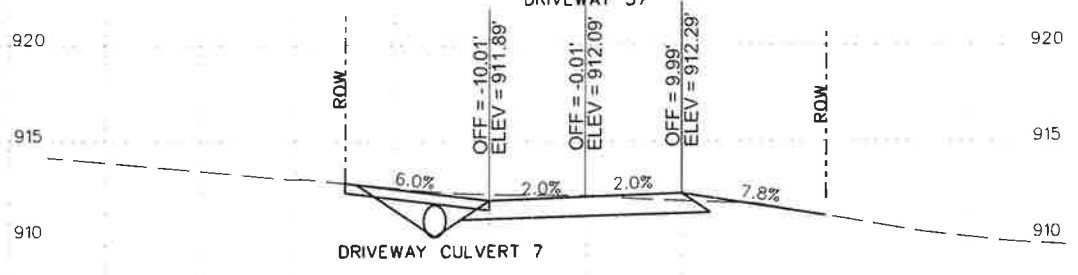
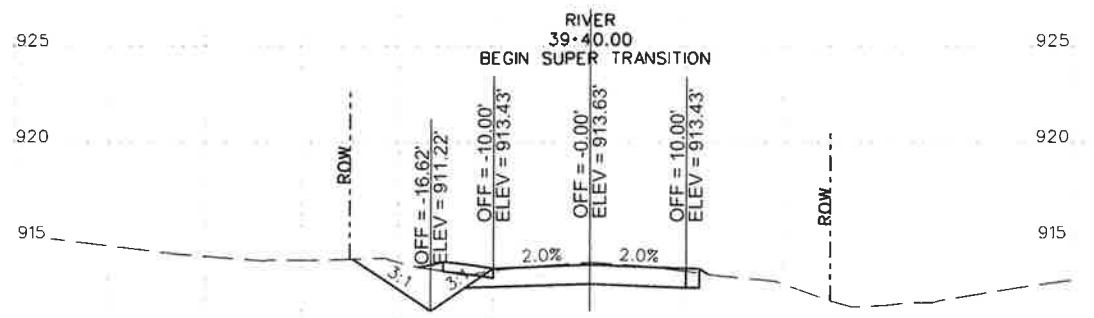


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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
RIVER RD CROSS SECTIONS STA 35+90.00 TO STA 38+00.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
Drawn:	KGM	www.wilco.org	
Check ec:	KOK		

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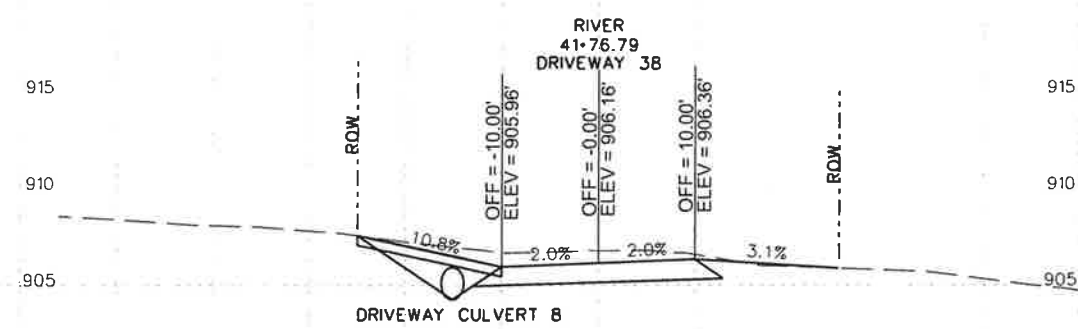
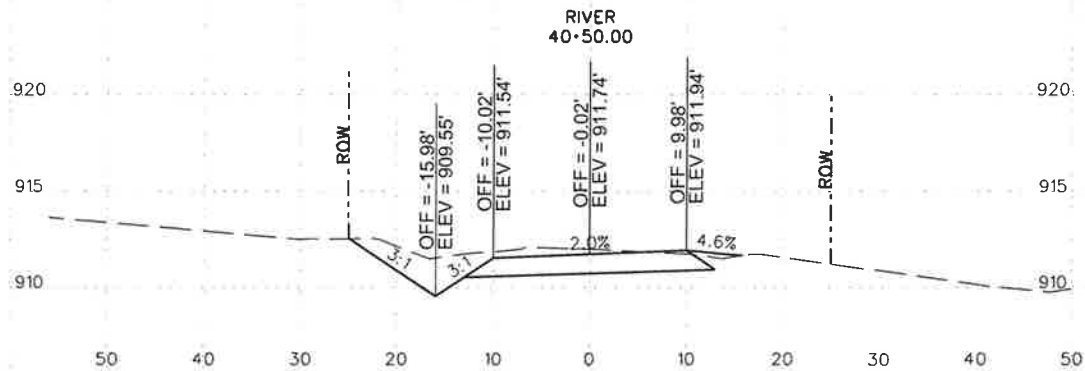
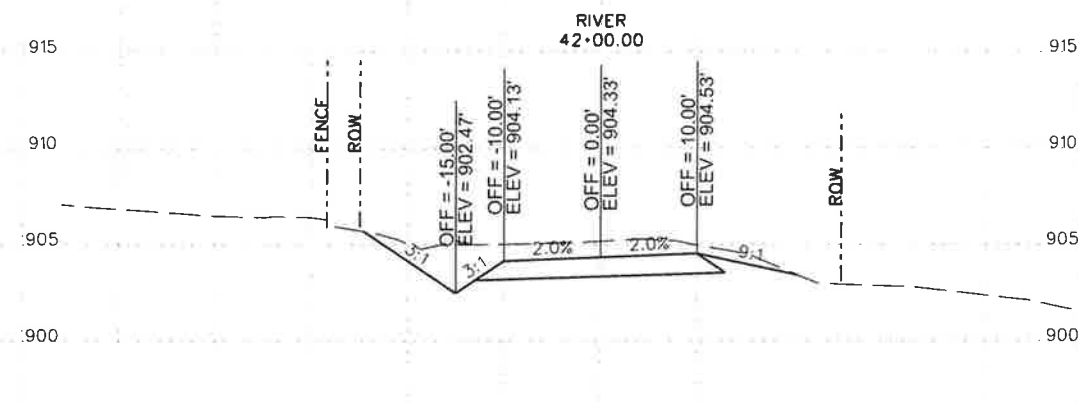
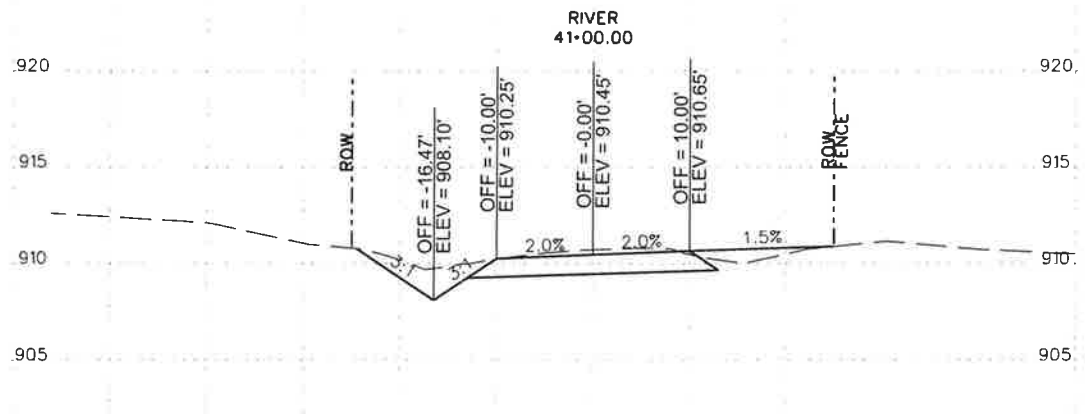
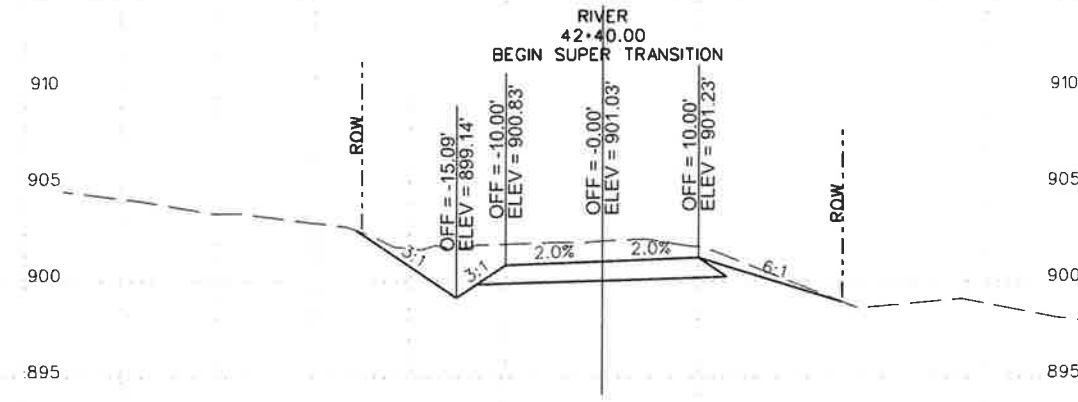
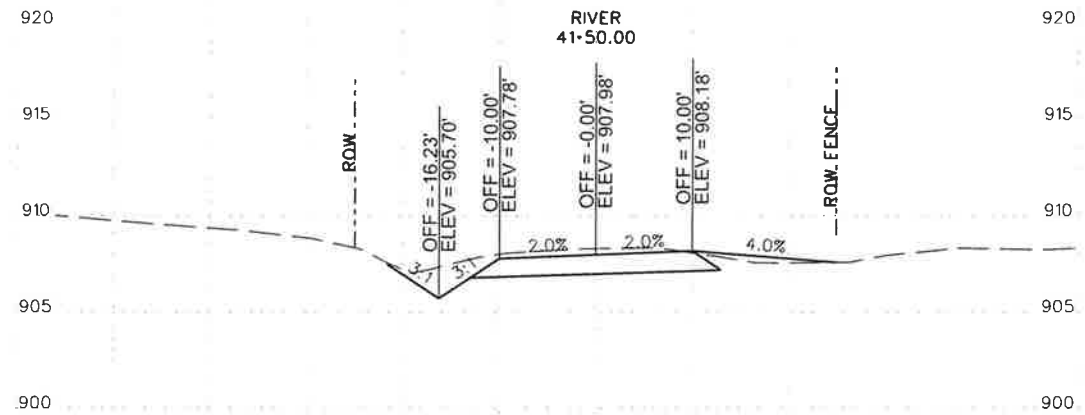
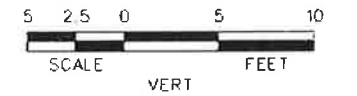
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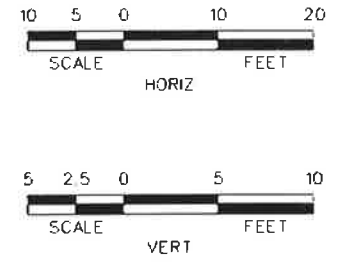
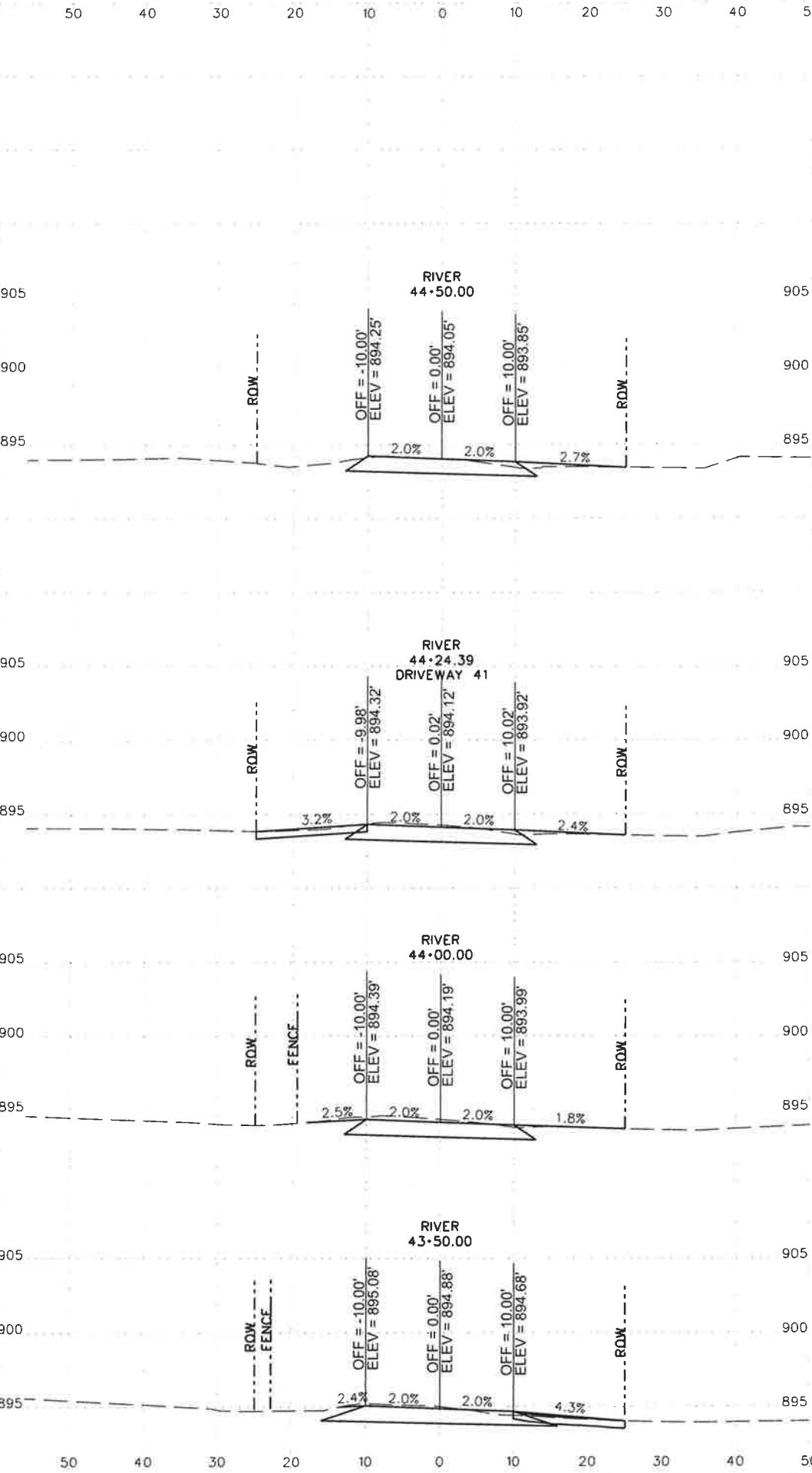
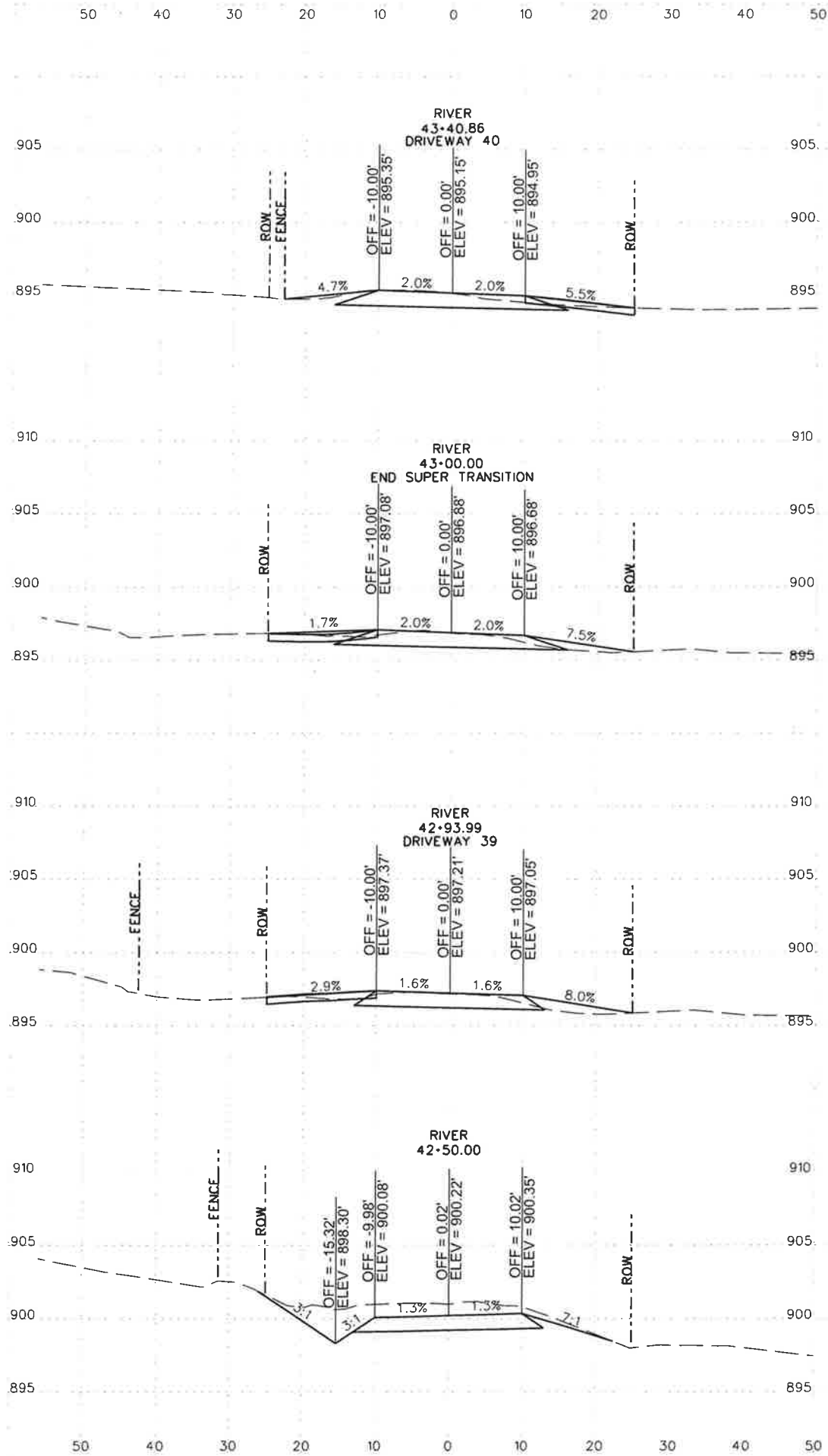
NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 38+06.52 TO STA 40+21.06			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KQK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KQK	www.wilco.org	

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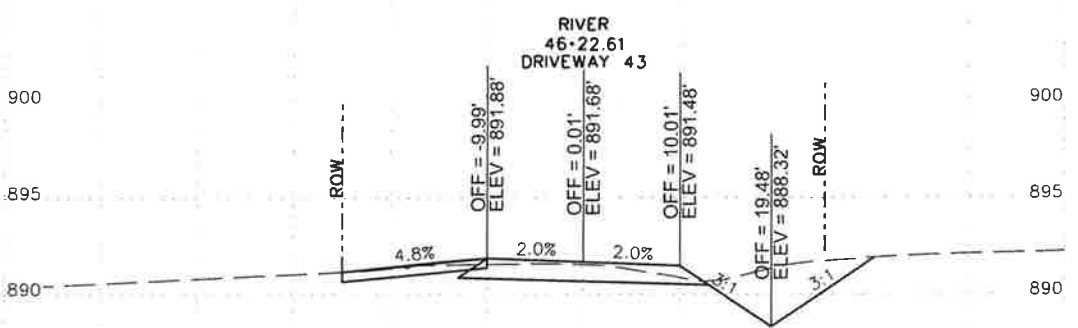
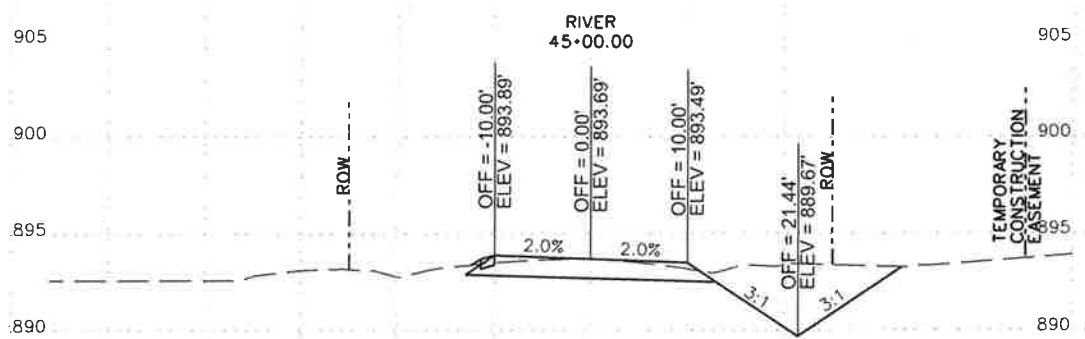
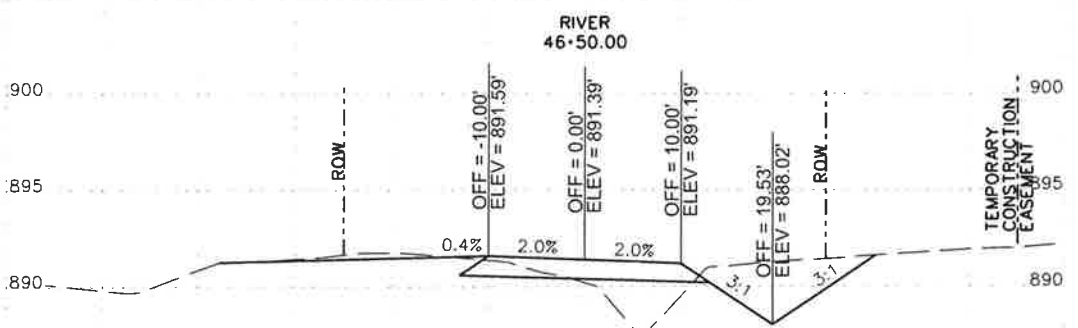
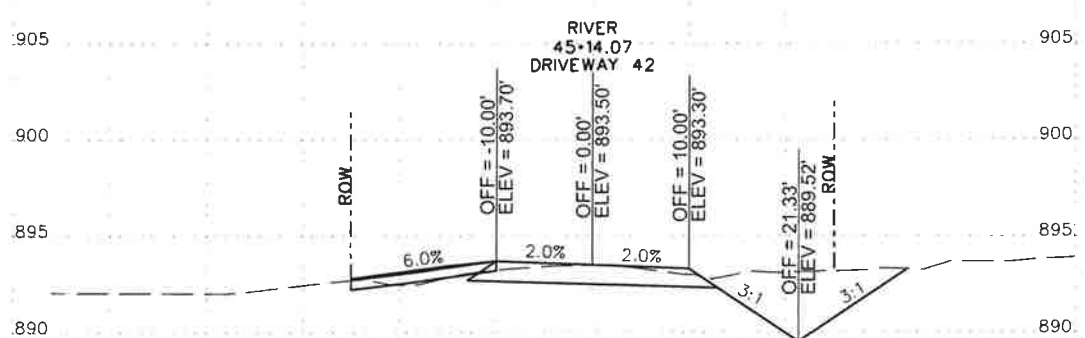
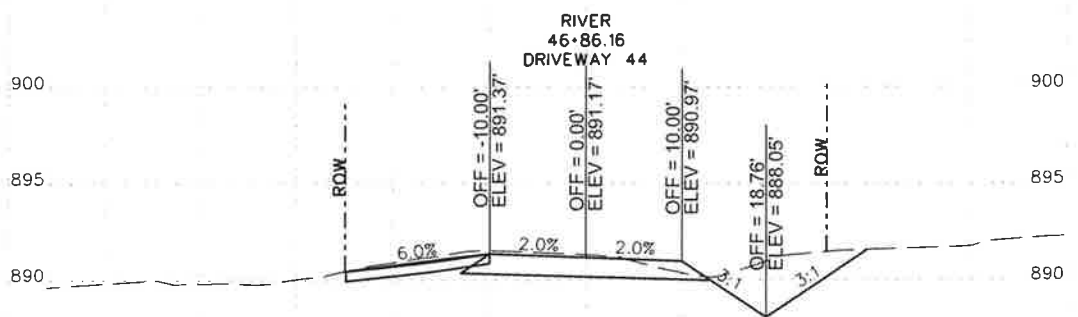
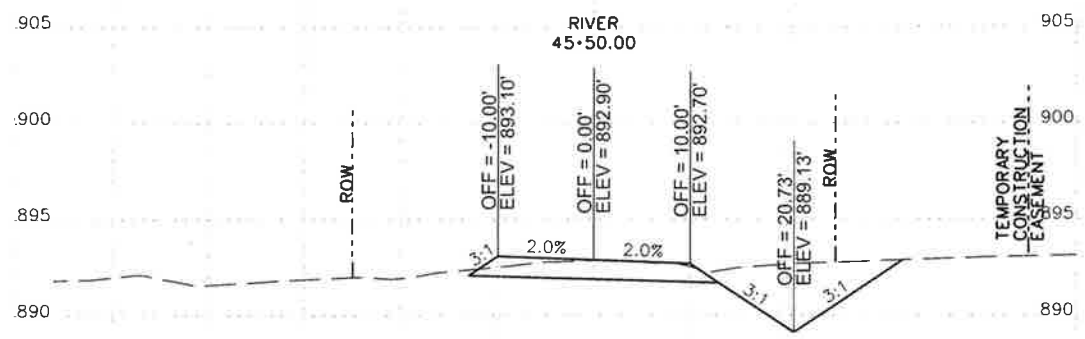
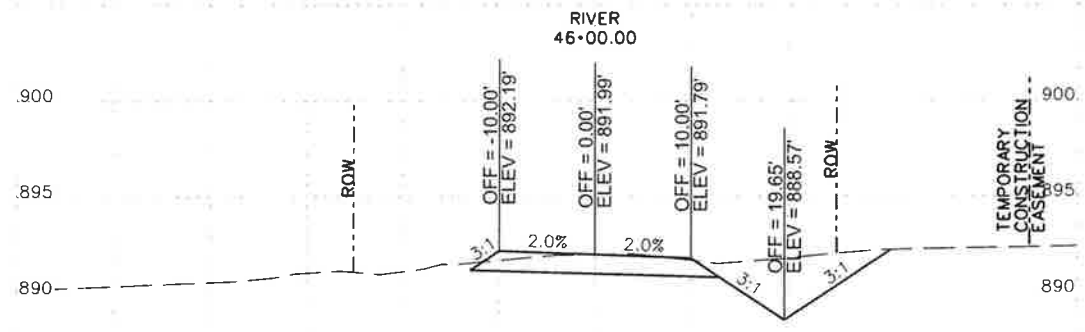
NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 40-50.00 TO STA 42-40.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78628	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	




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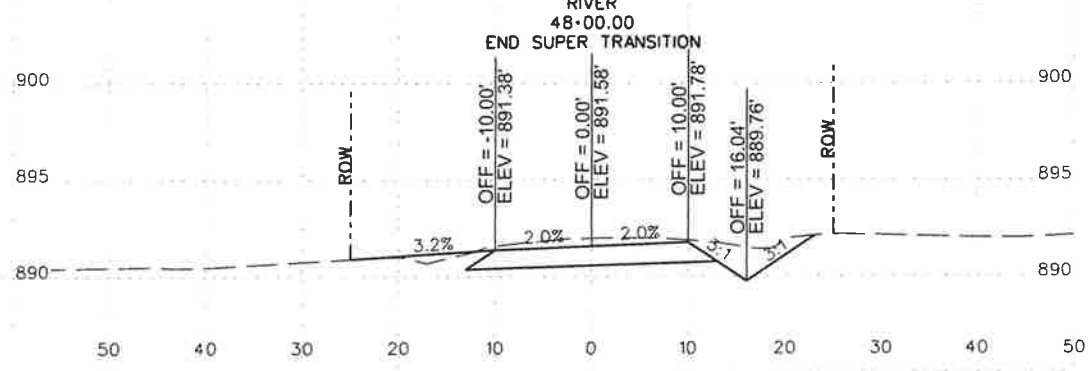
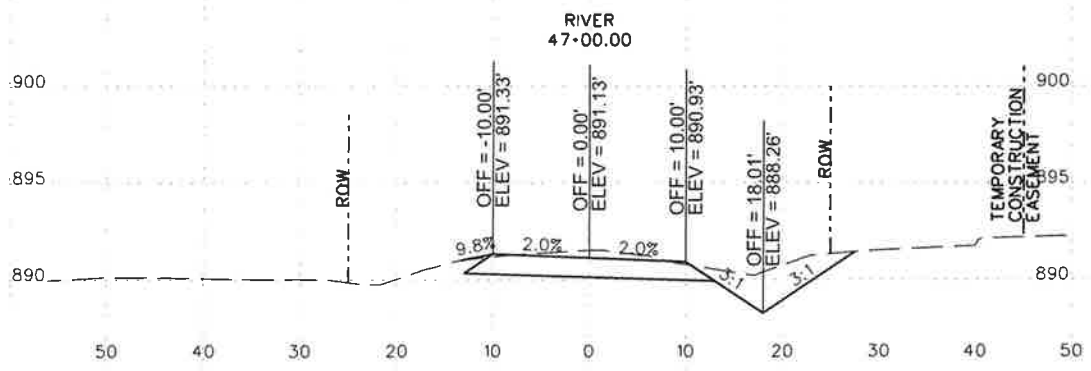
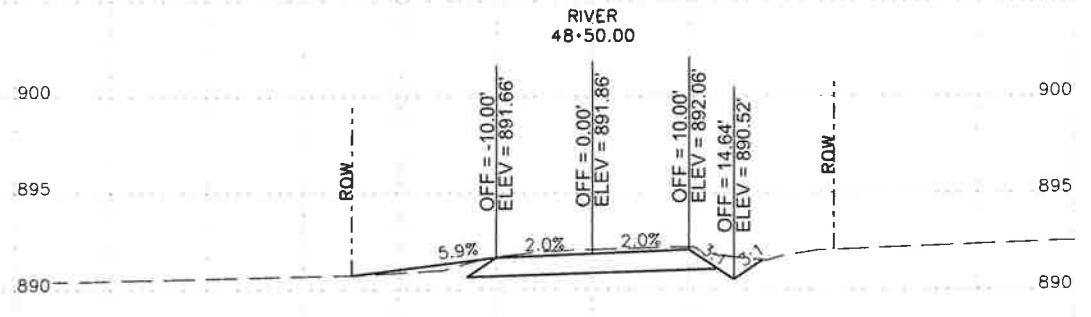
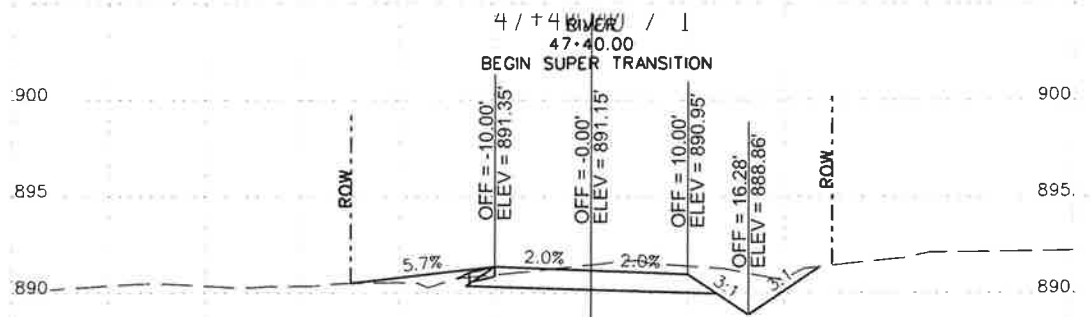
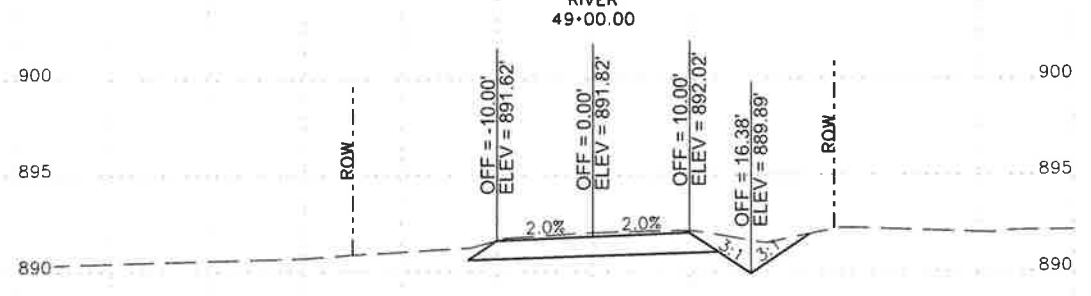
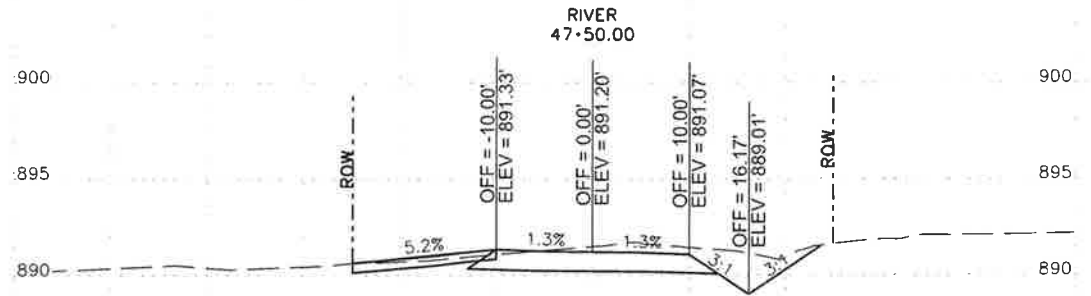
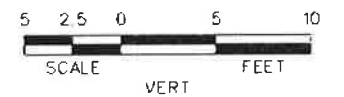
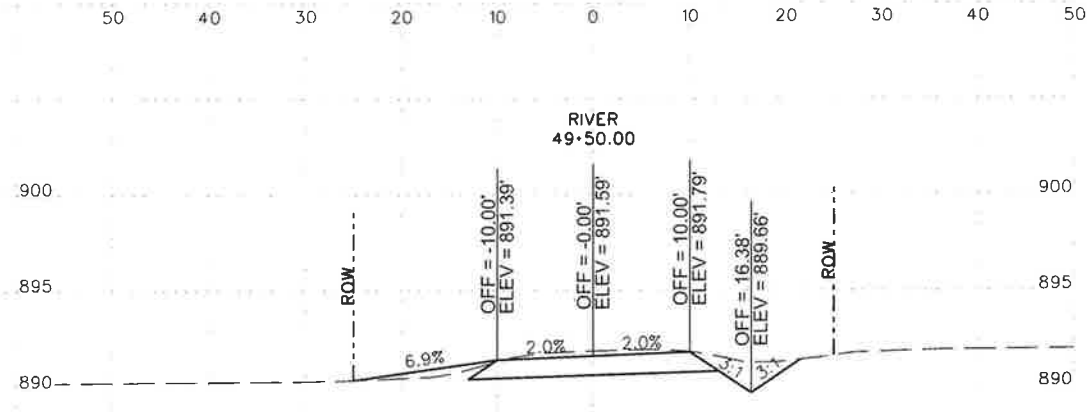
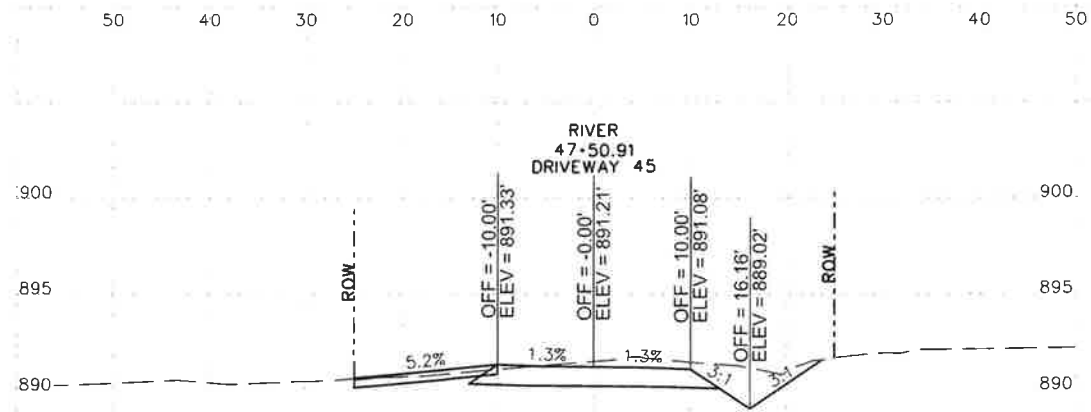
NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
RIVER RD CROSS SECTIONS STA 42+50.00 TO STA 44+50.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE RIVER RD CROSS SECTIONS STA 45+00.00 TO STA 46+86.16			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

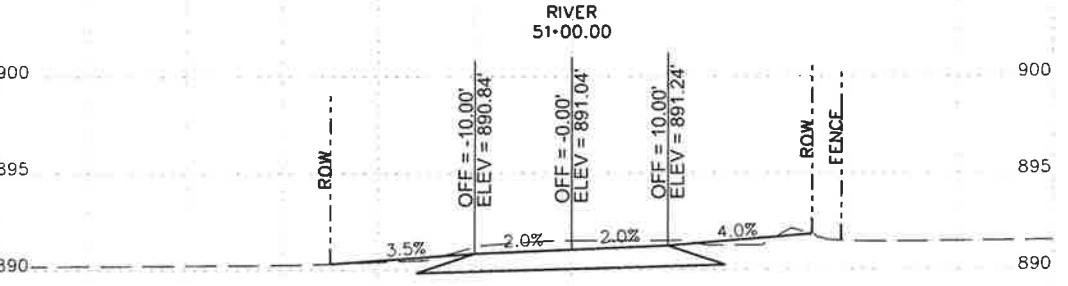
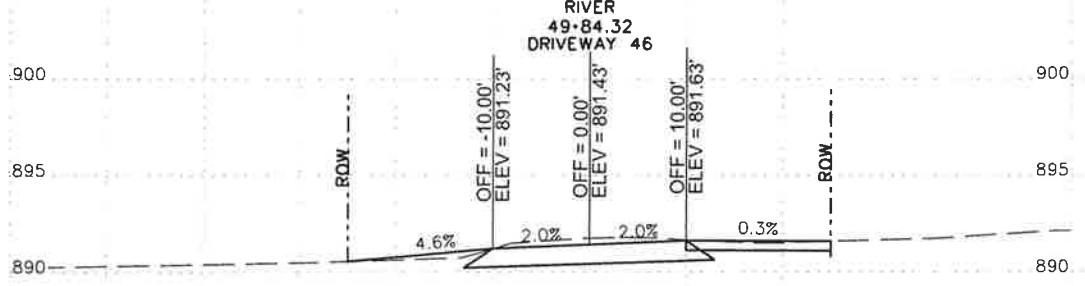
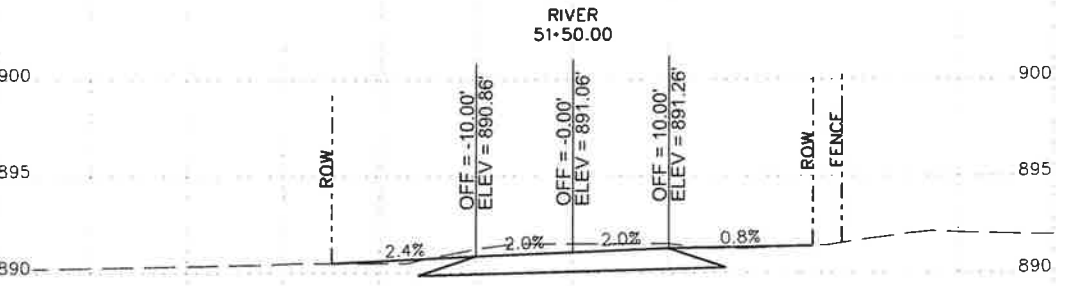
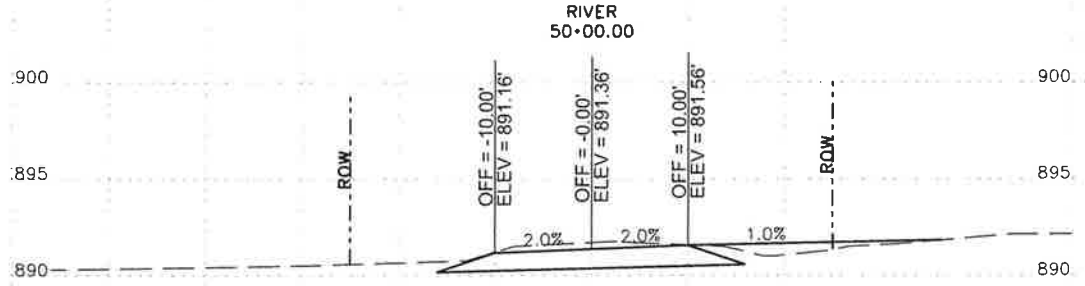
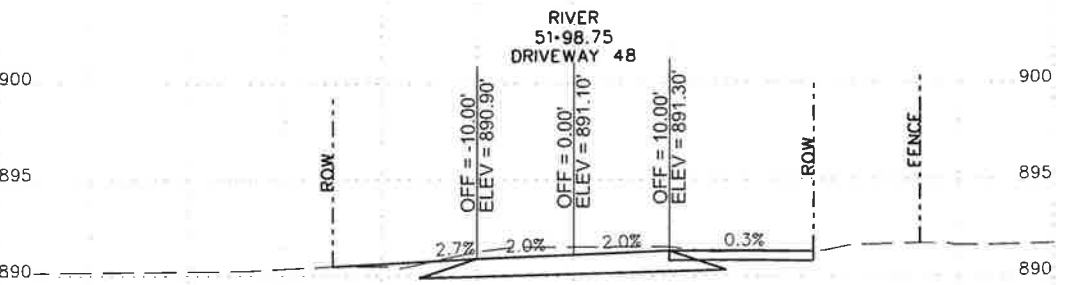
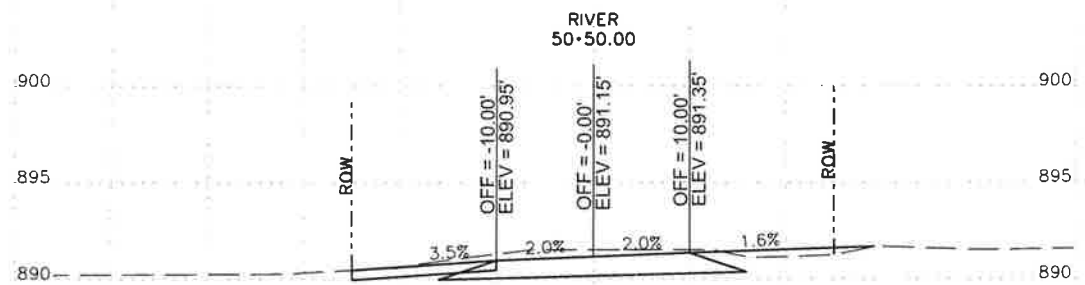
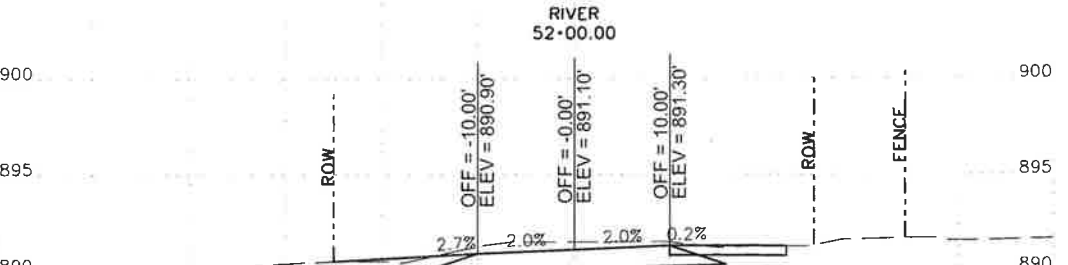
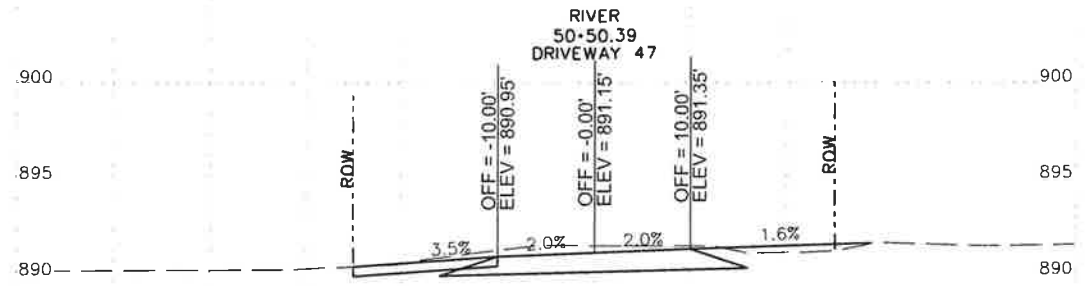


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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 47+00.00 TO STA 49+50.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KQK	943-3330	
Drawn:	KGM	www.wilco.org	
Checked:	KQK		

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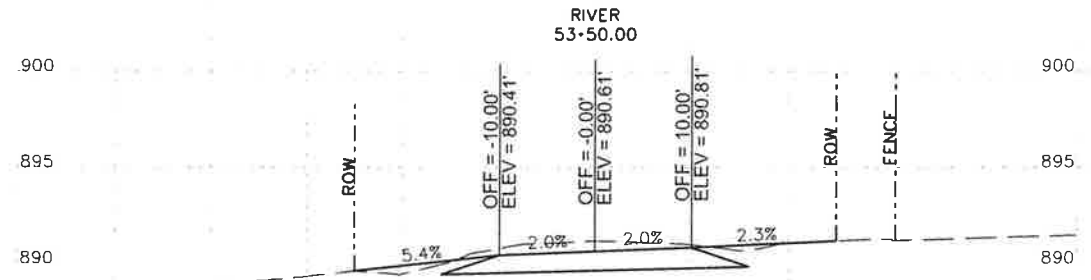
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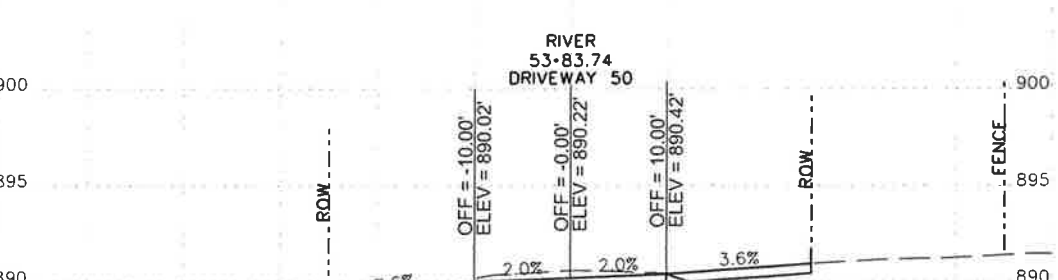
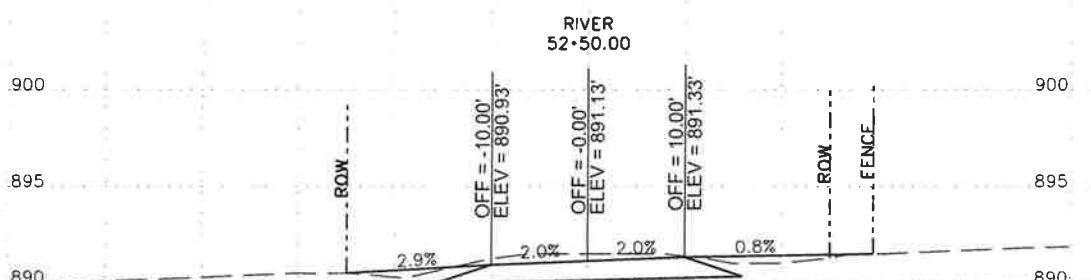
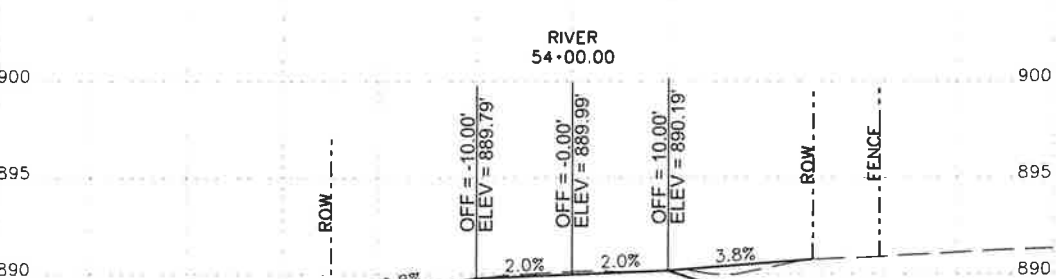
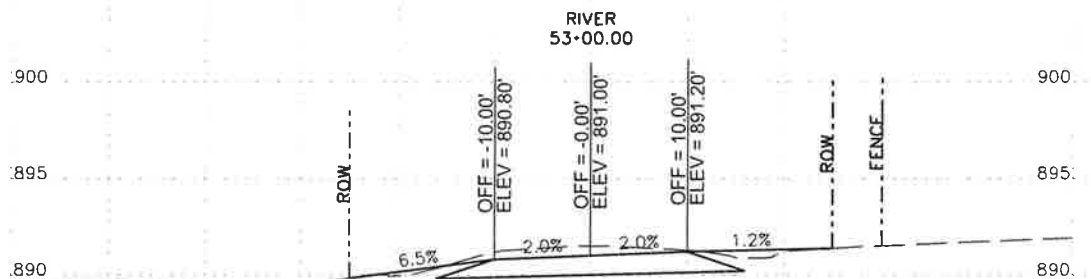
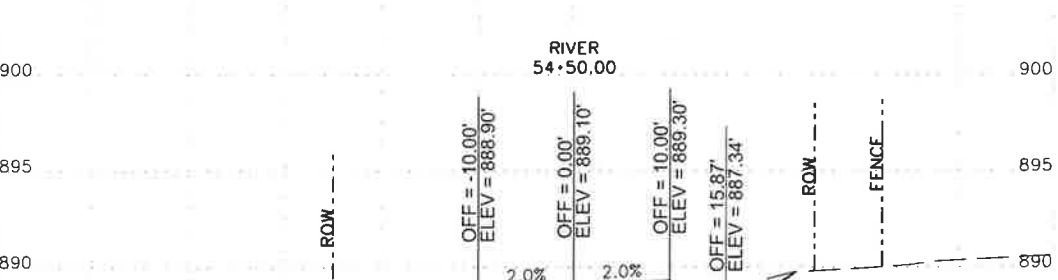
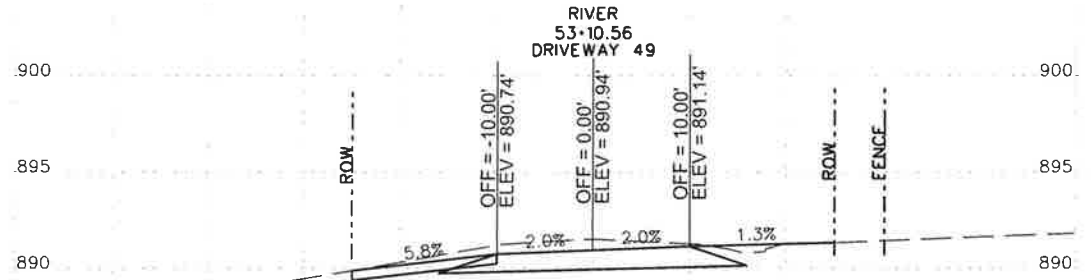
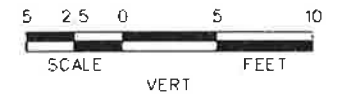
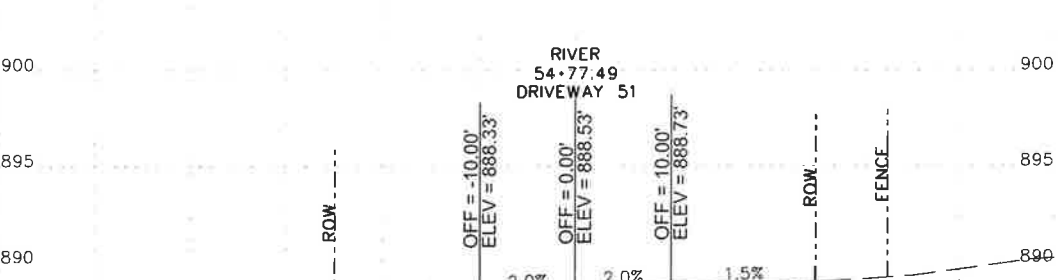
Kelly G. Morrelli
8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 49+84.32 TO STA 52+00.00			
Designed:	KGM	3151 S.E. INNER LOOP, SUITE B	
Checked:	KQK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KQK	www.wilco.org	


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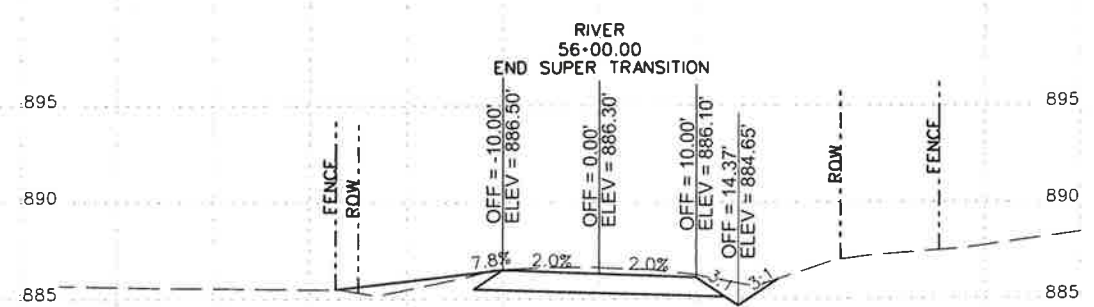
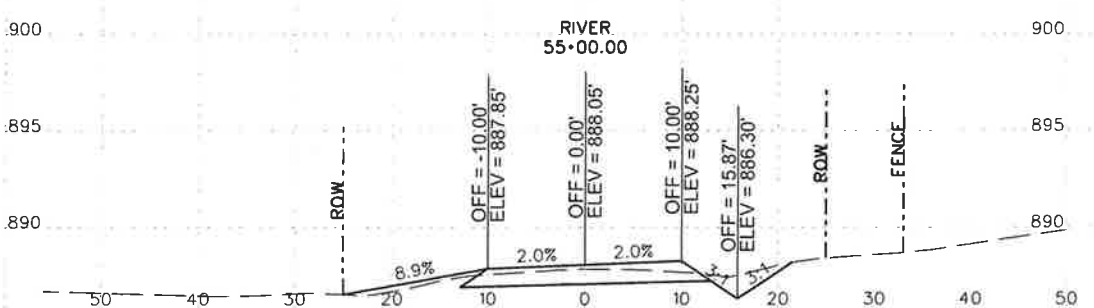
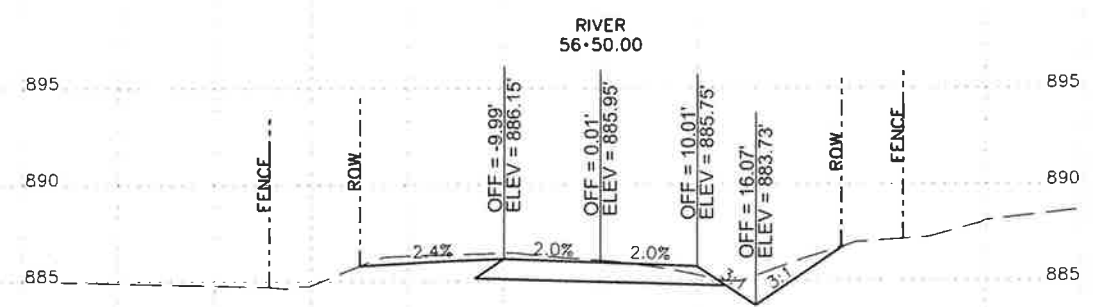
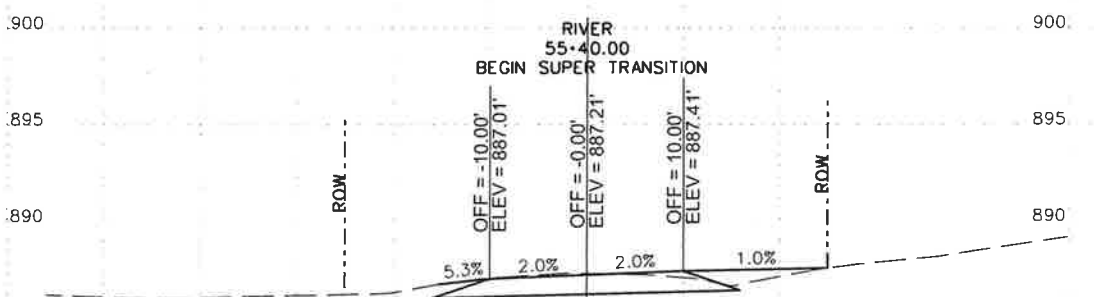
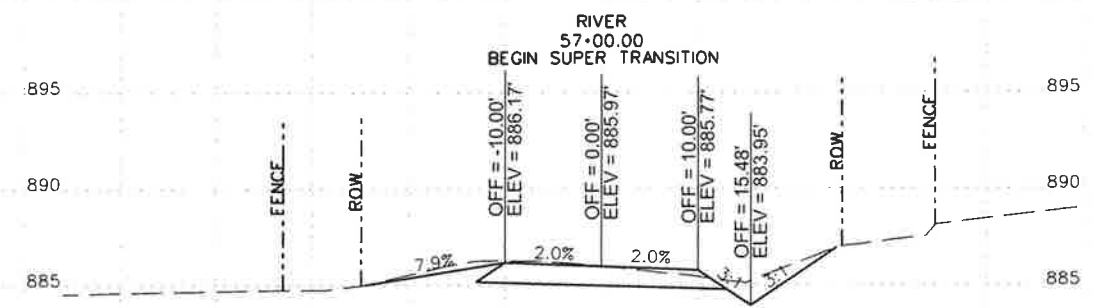
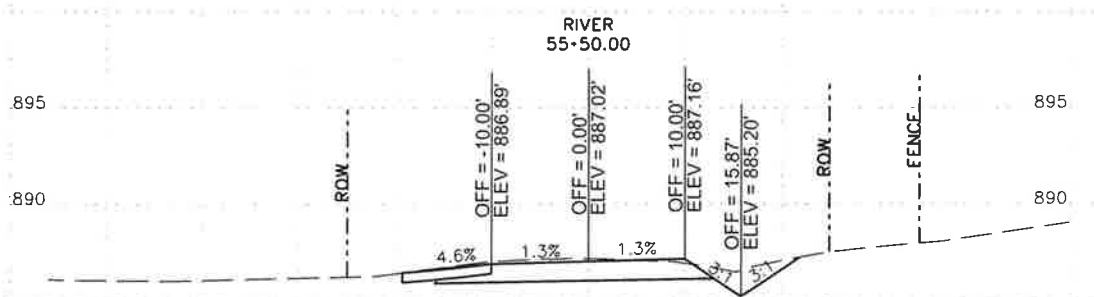
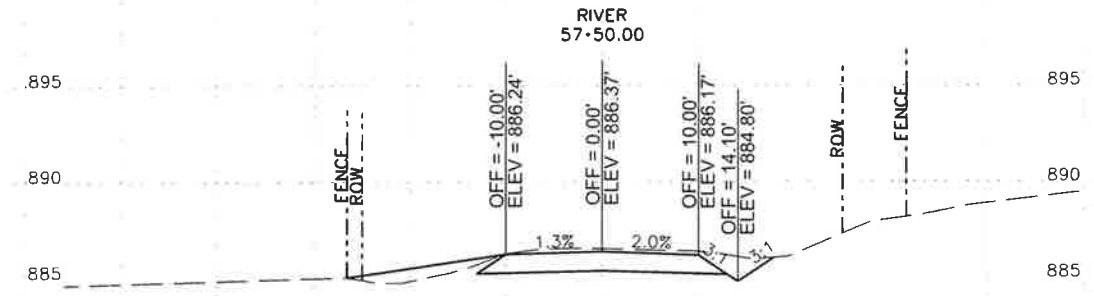
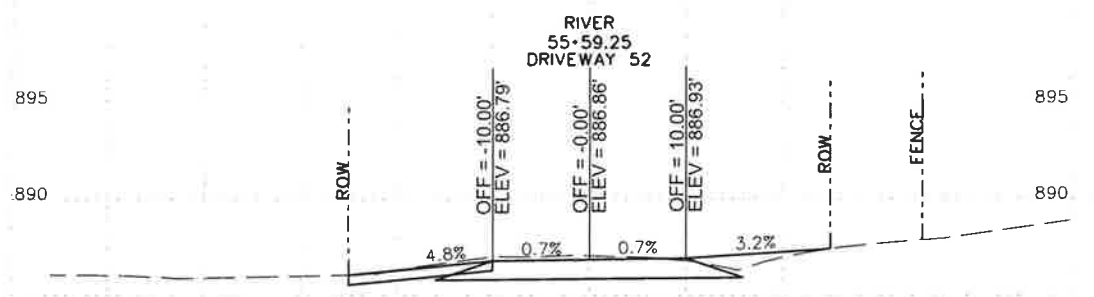
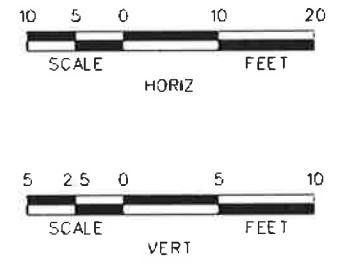
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
RIVER RD CROSS SECTIONS STA 52+50.00 TO STA 54+77.49			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

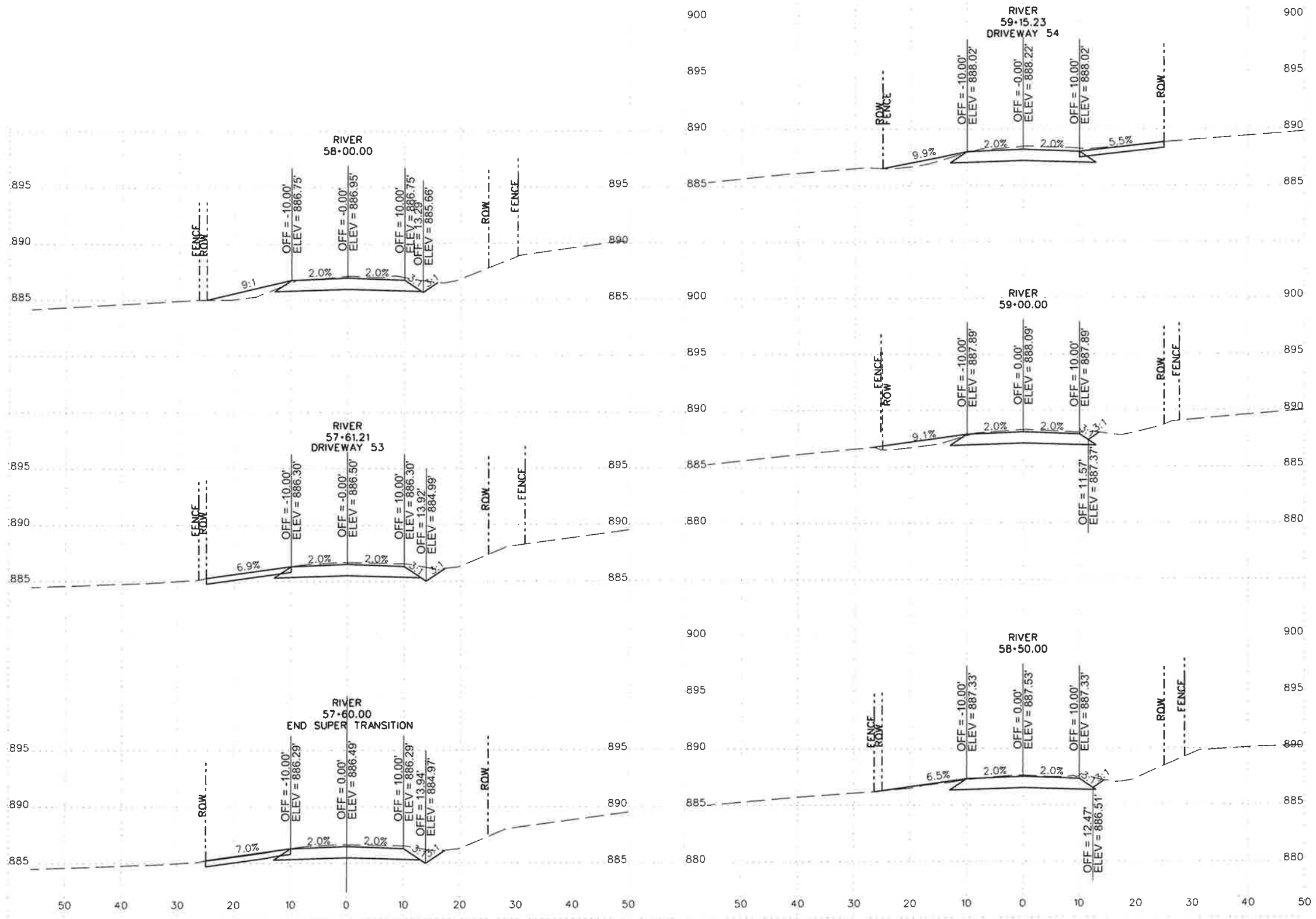
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 55+00.00 TO STA 57+50.00			
Designed:	KGM	3151 S E INNER LOOP, SUITE B	
Checked:	KOK	GEORGETOWN, TEXAS 78626	
Drawn:	KGM	943-3330	
Checked:	KOK	www.wilco.org	

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 WILLIAMSON COUNTY 1818		WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE	
RIVER RD CROSS SECTIONS STA 57+60.00 TO STA 59+15.23			
Designed: KGM Checked: KOK Drawn: KGM Checked: KOK	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626 943-3330 www.wilco.org		
			79

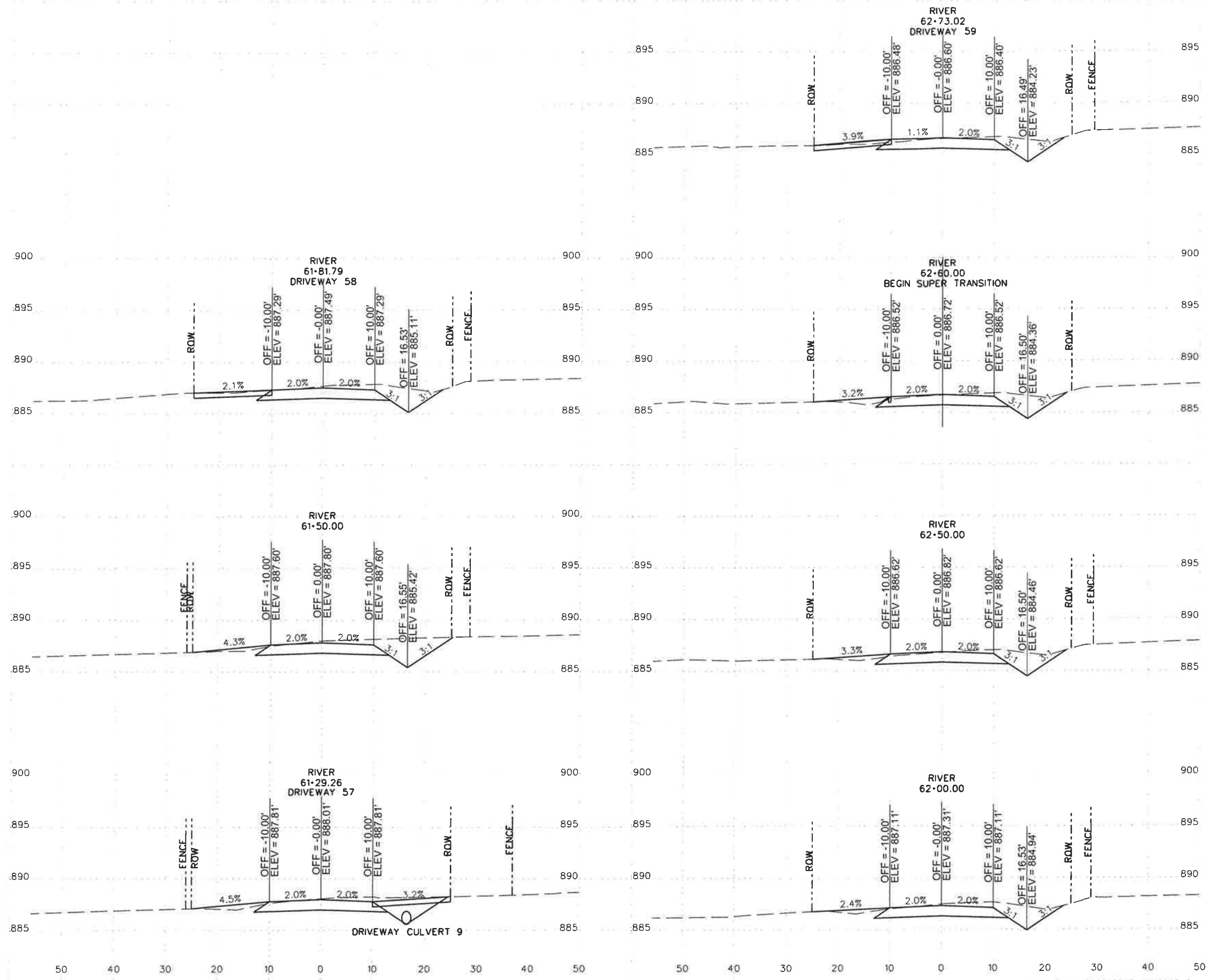
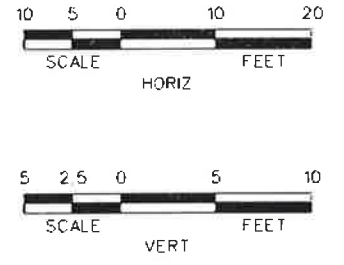
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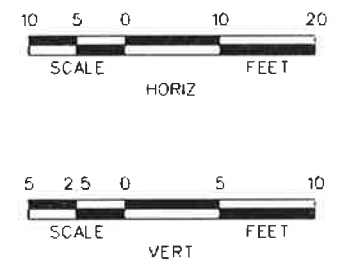
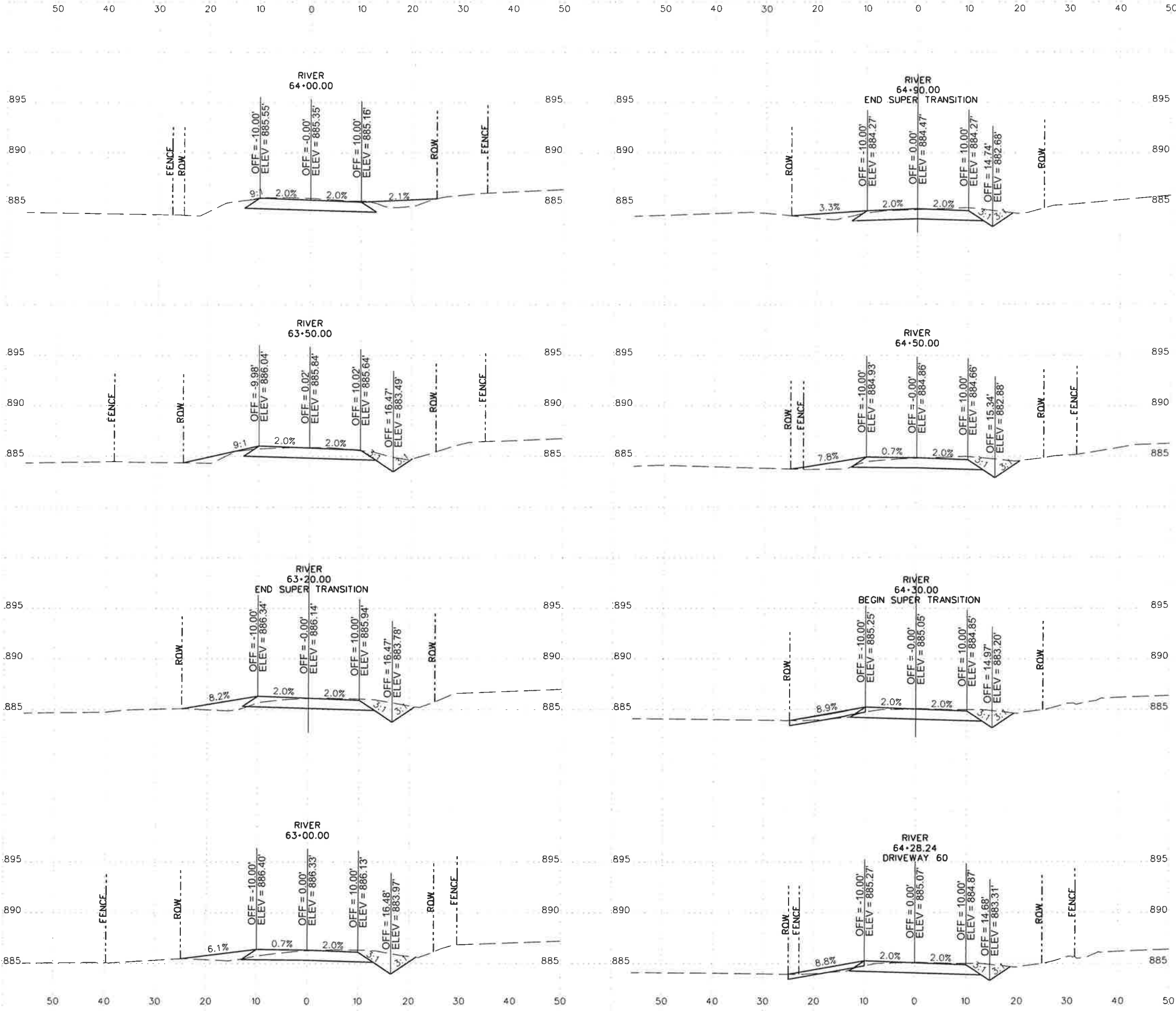
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 WILLIAMSON COUNTY 1818			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
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Designed:	KGM	3151 S.E. INNER LOOP, SUITE B GEORGETOWN, TEXAS 78626	
Checked:	KOK	943-3330	
Drawn:	KCM	www.wilco.org	
Checked:	KOK		

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NO.	REVISION	BY	DATE
WILLIAMSON COUNTY 1818 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
RIVER RD CROSS SECTIONS STA 61+29.26 TO STA 62+73.02			
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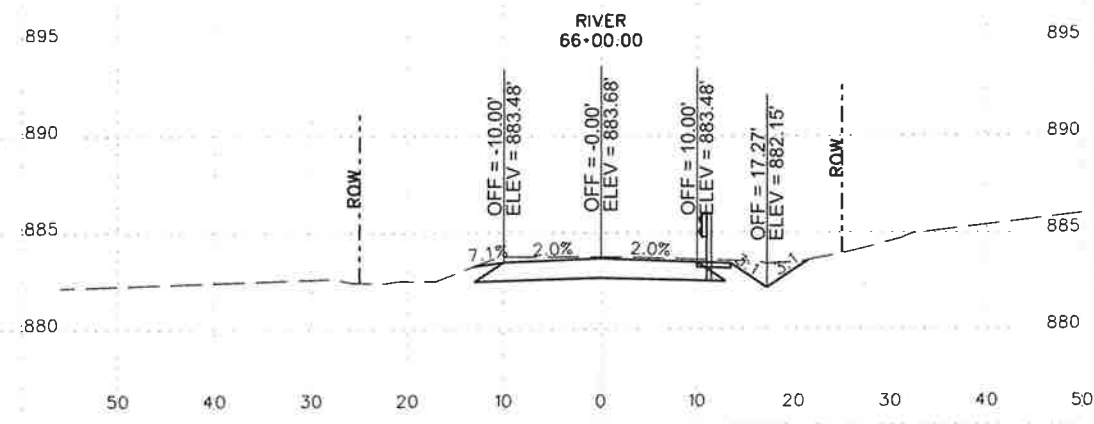
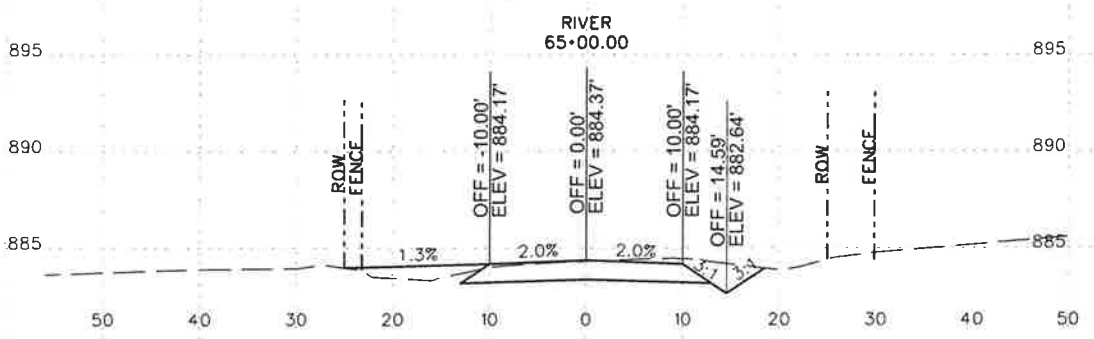
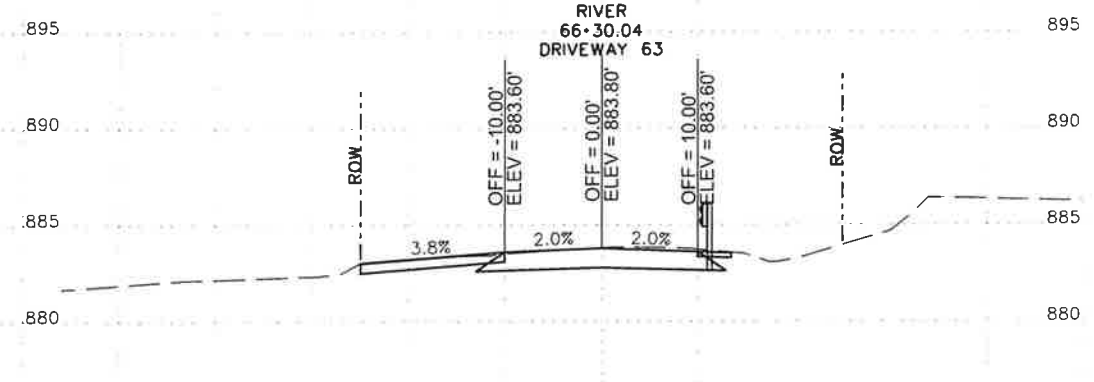
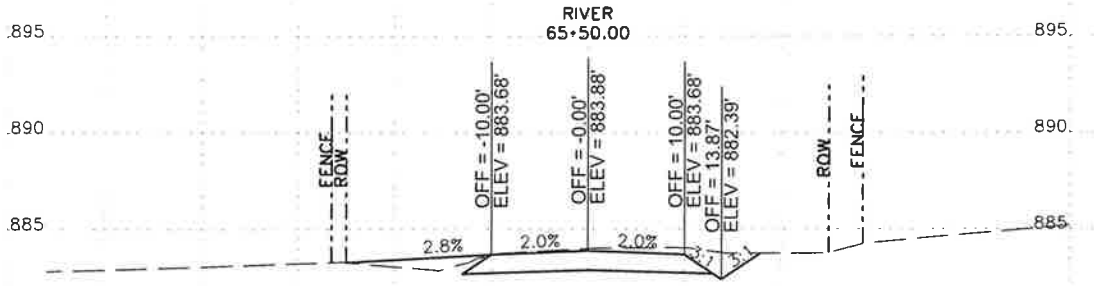
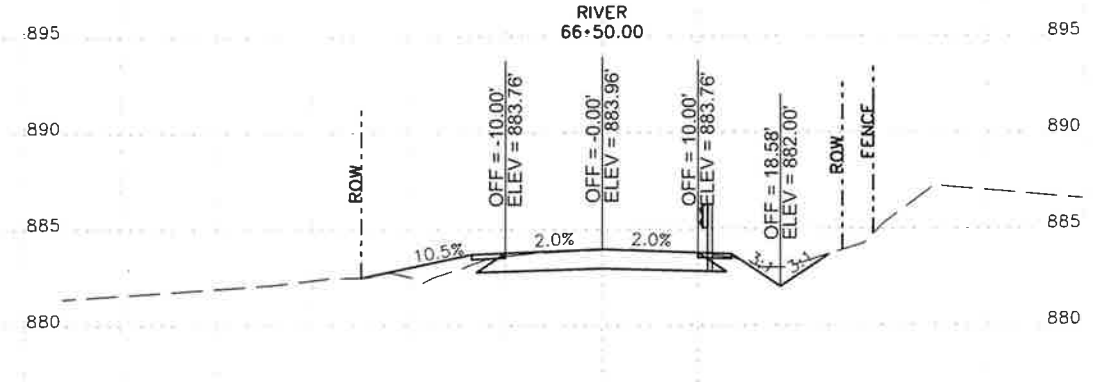
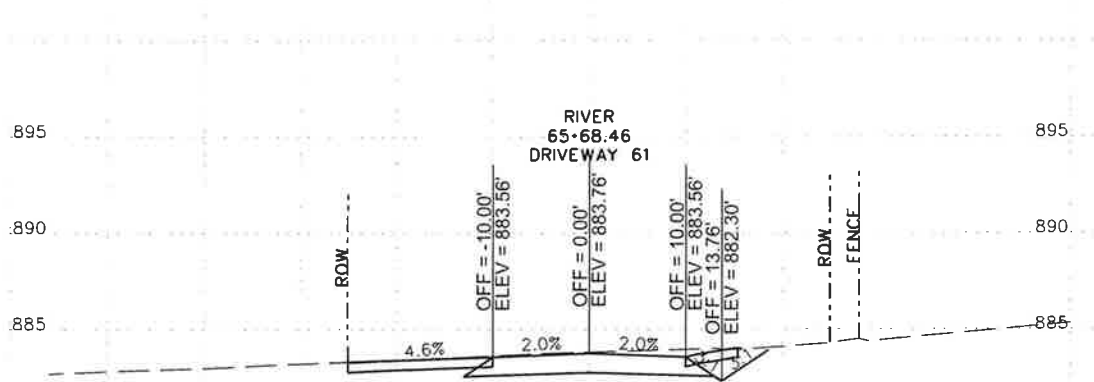
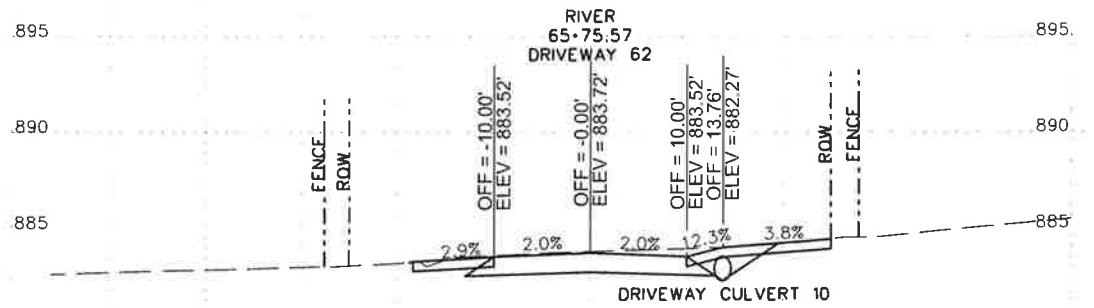


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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
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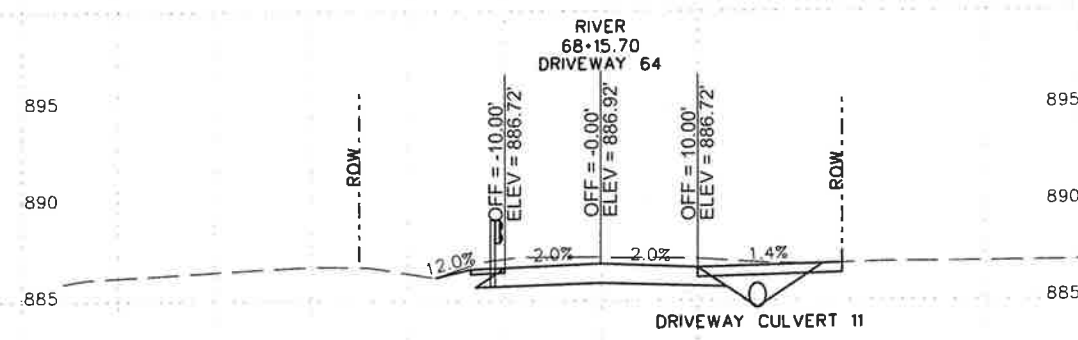
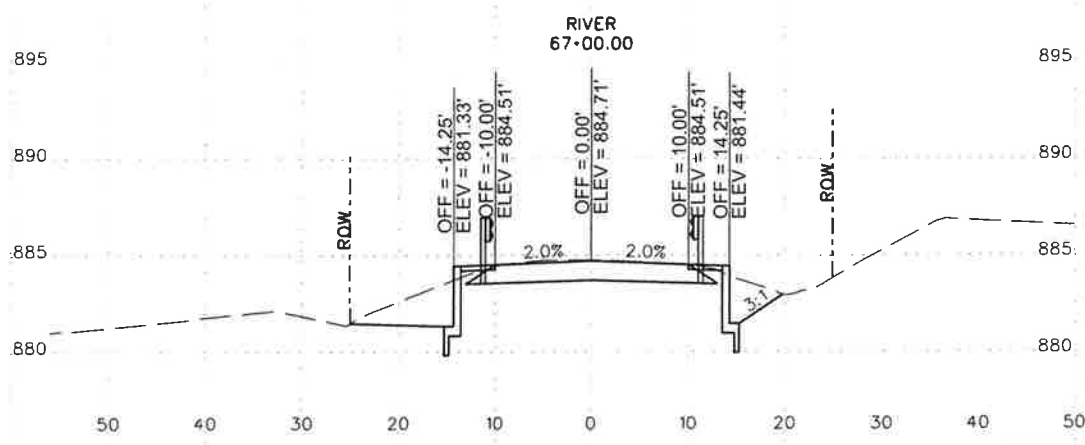
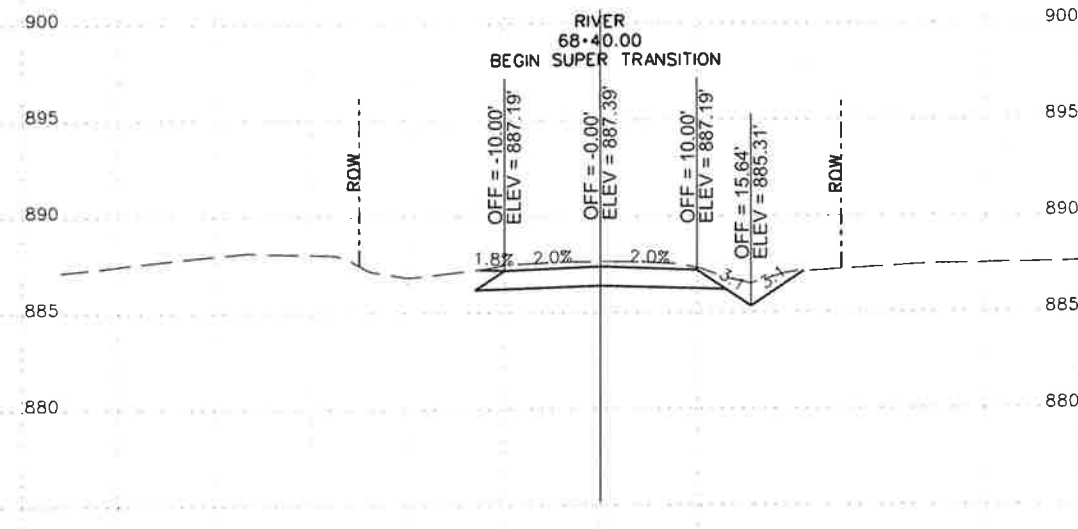
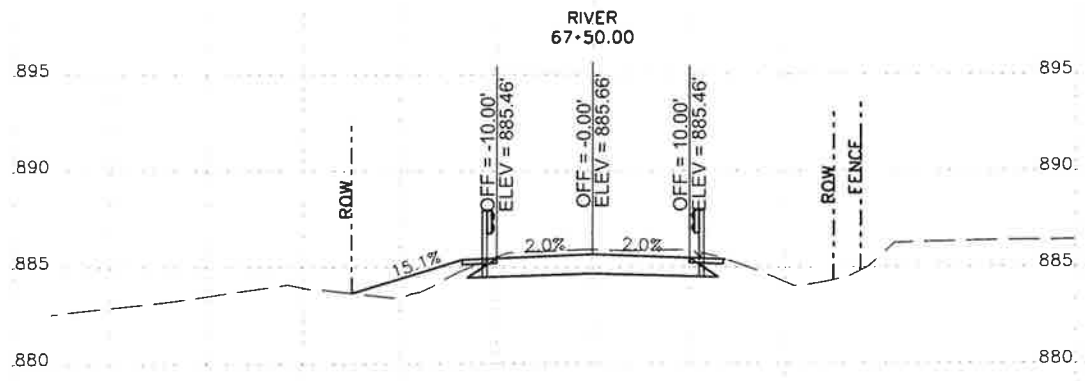
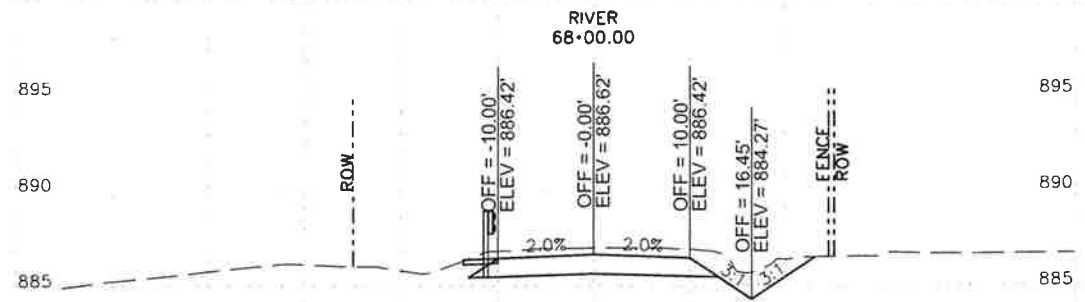
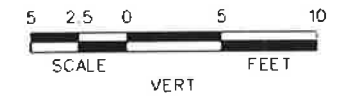
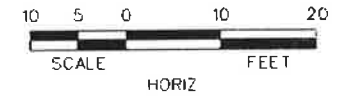
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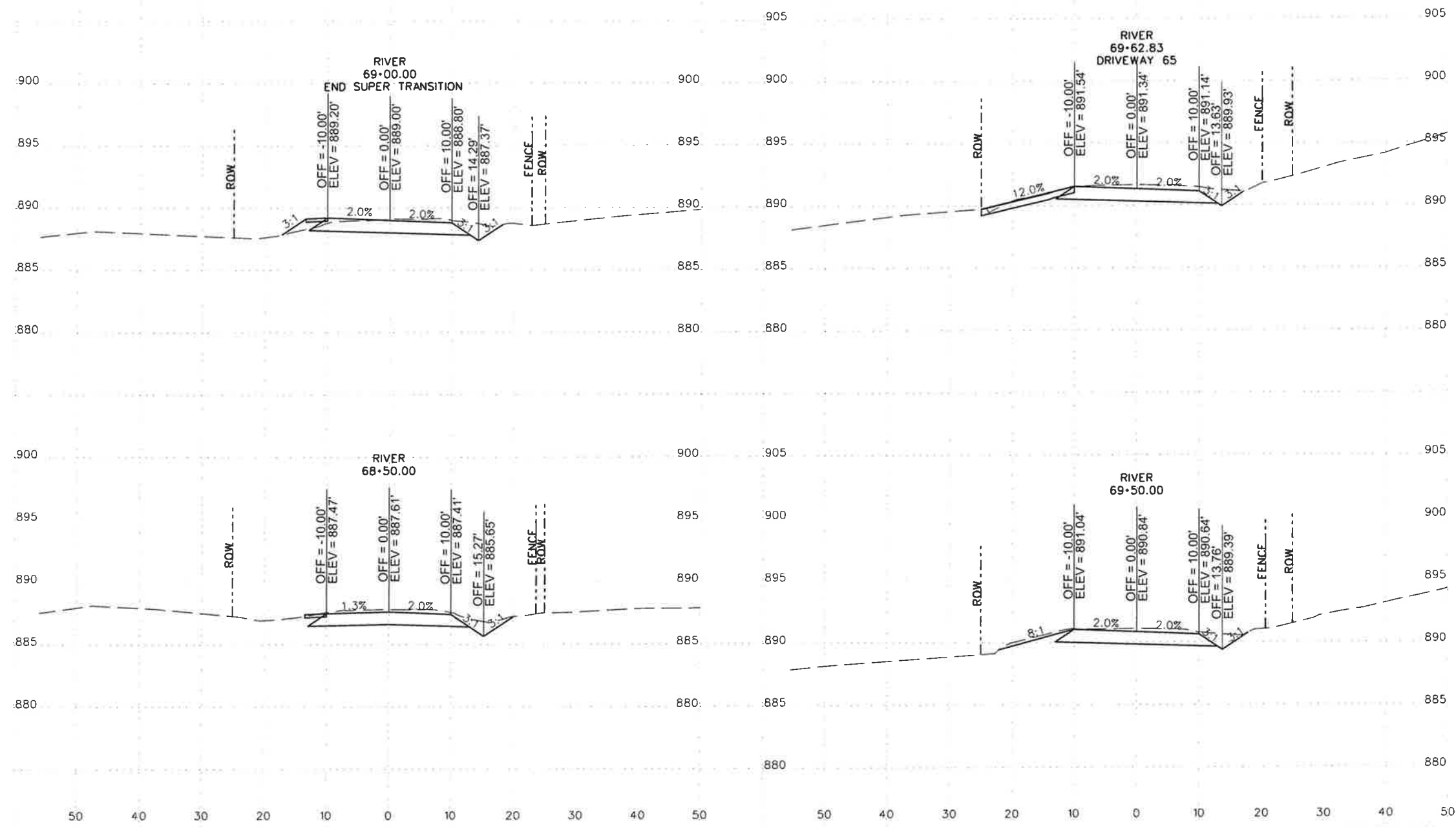
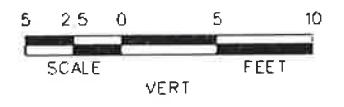
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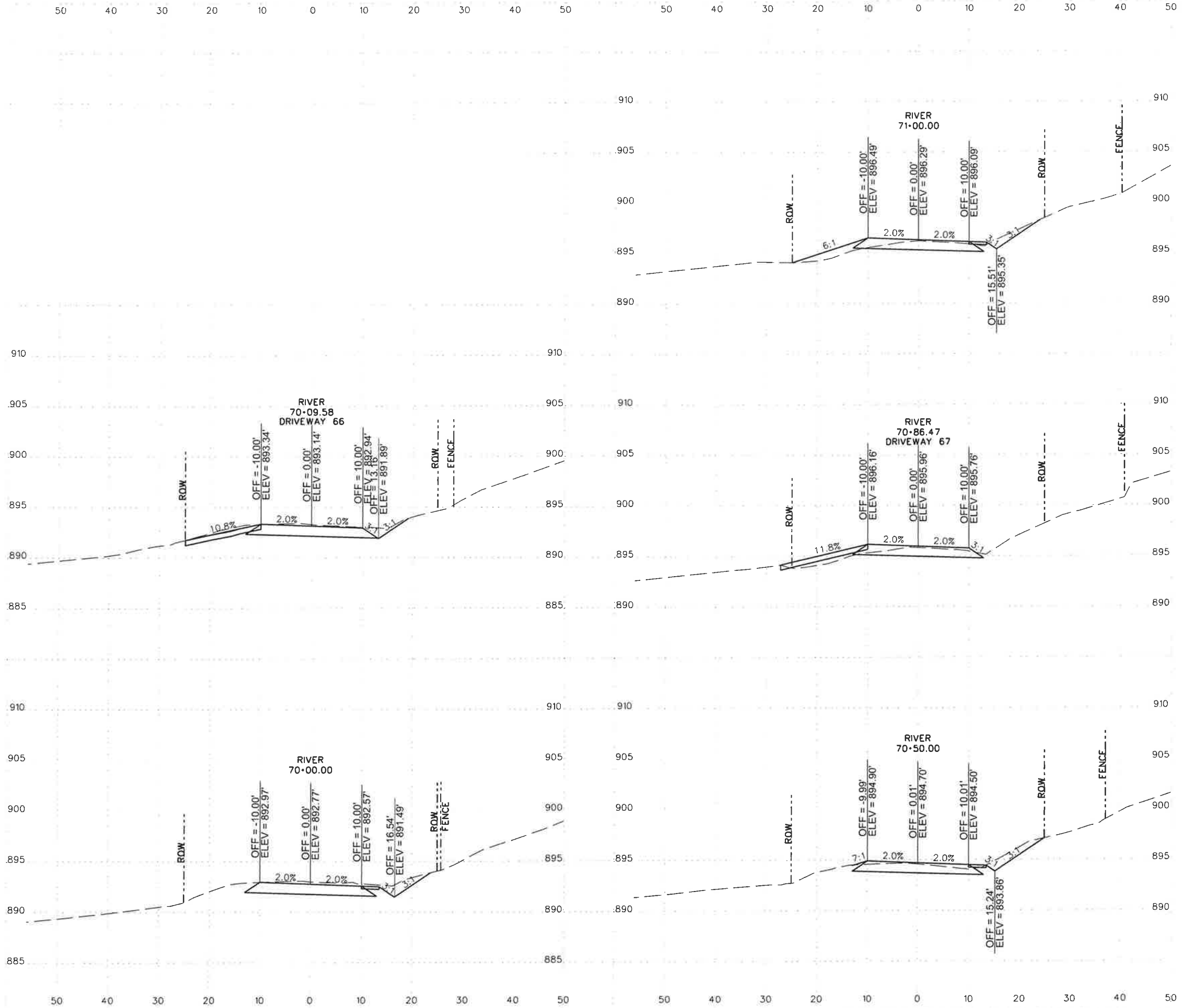
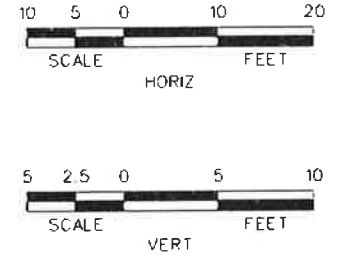
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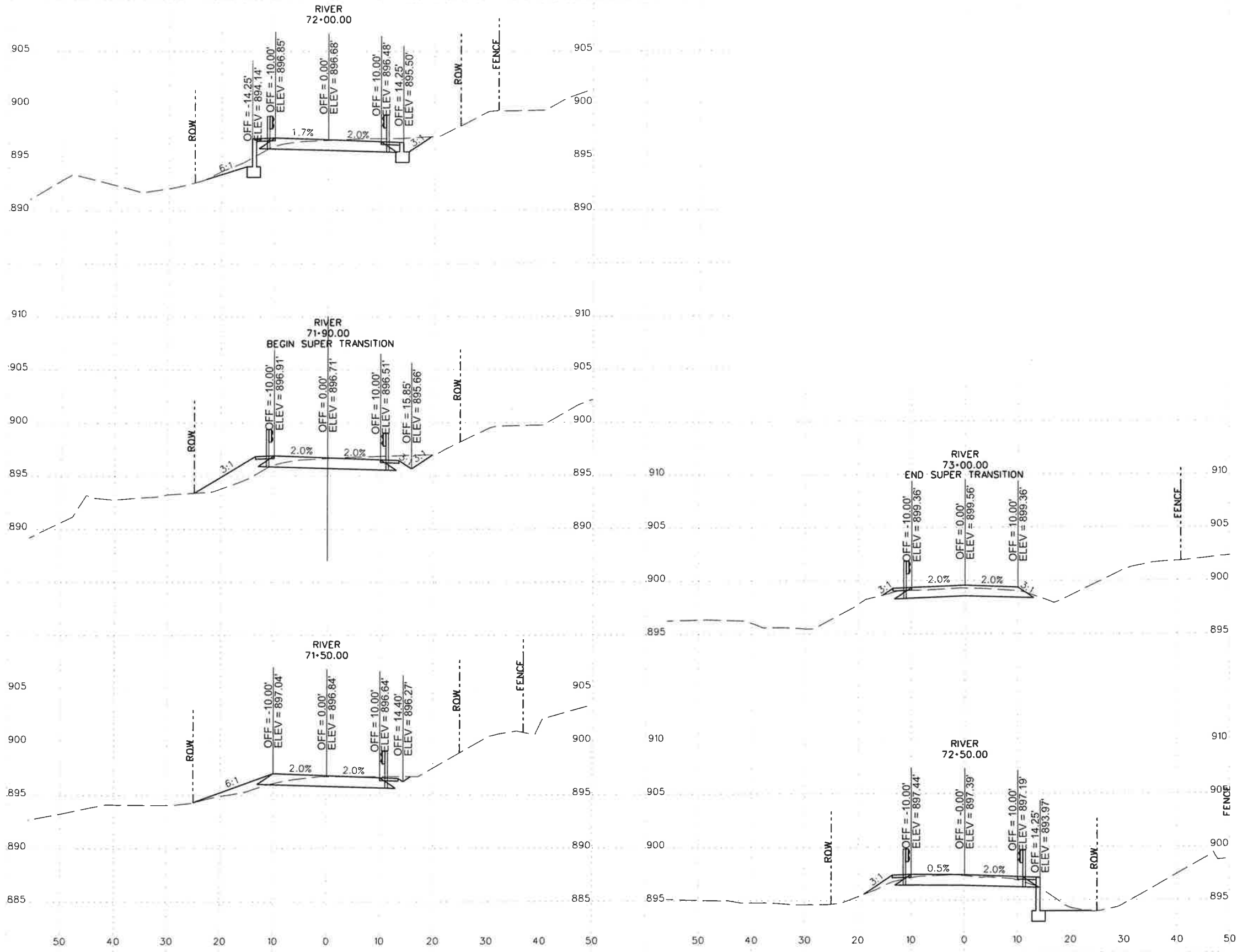
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8/7/17

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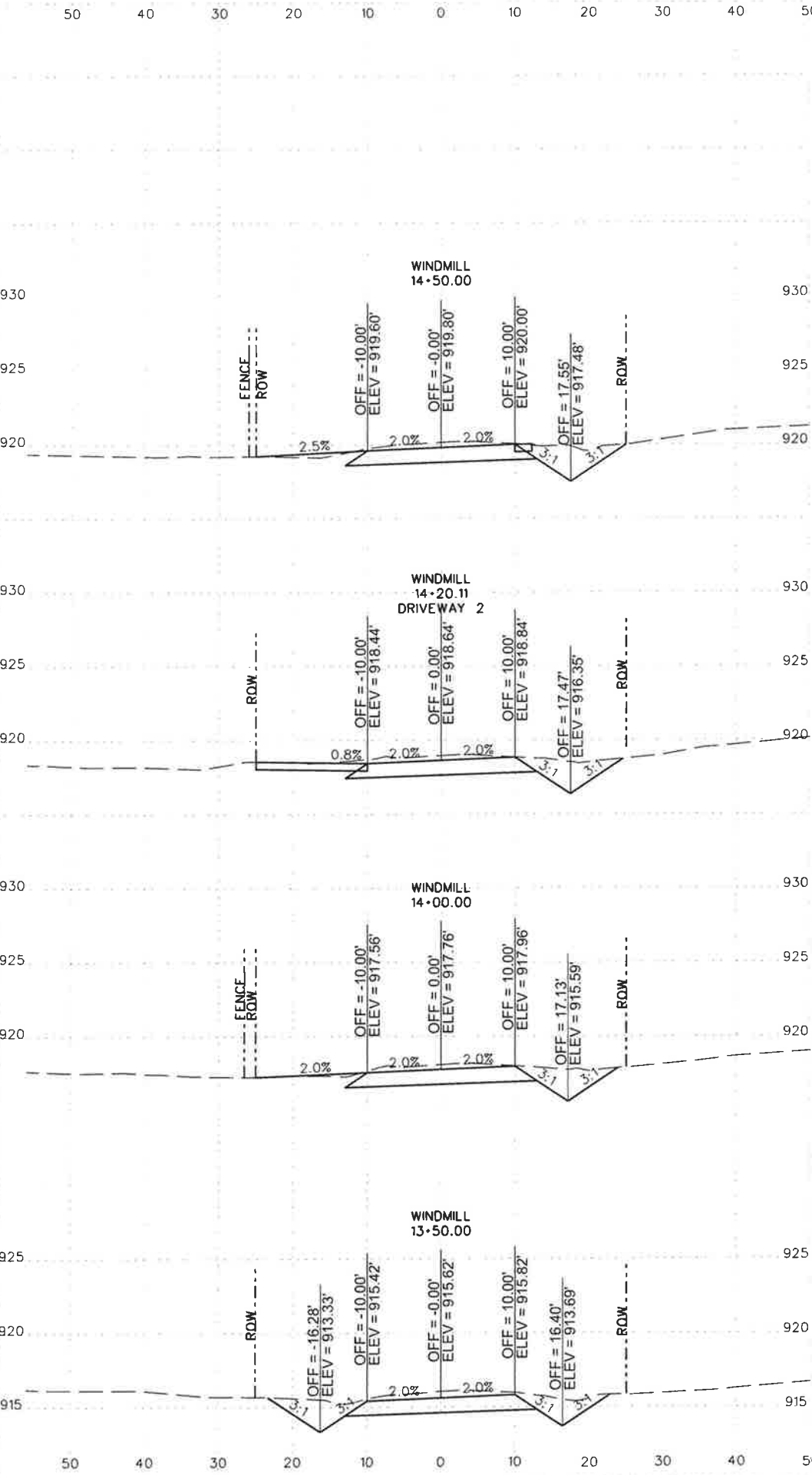
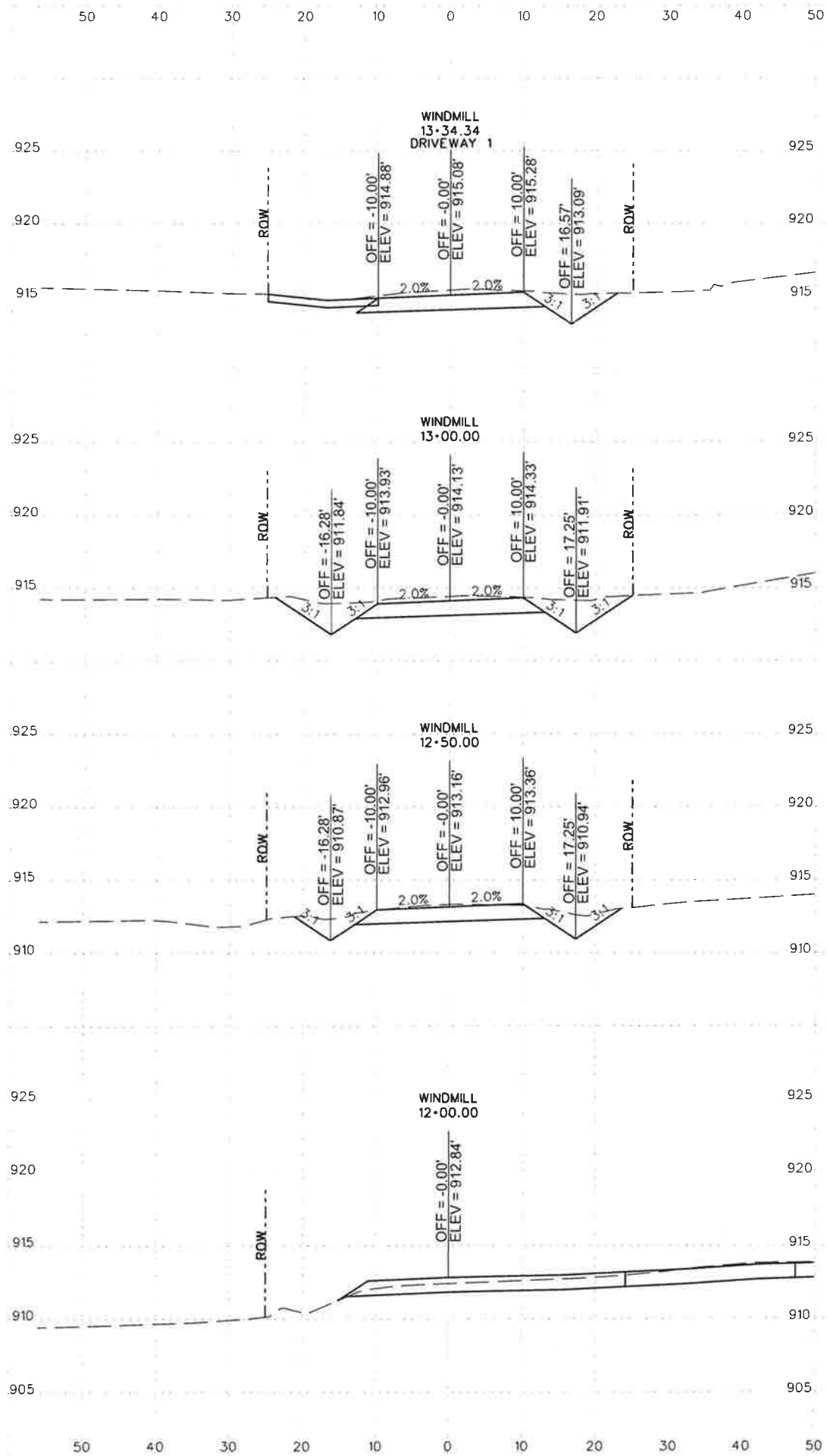
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 181X WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE			
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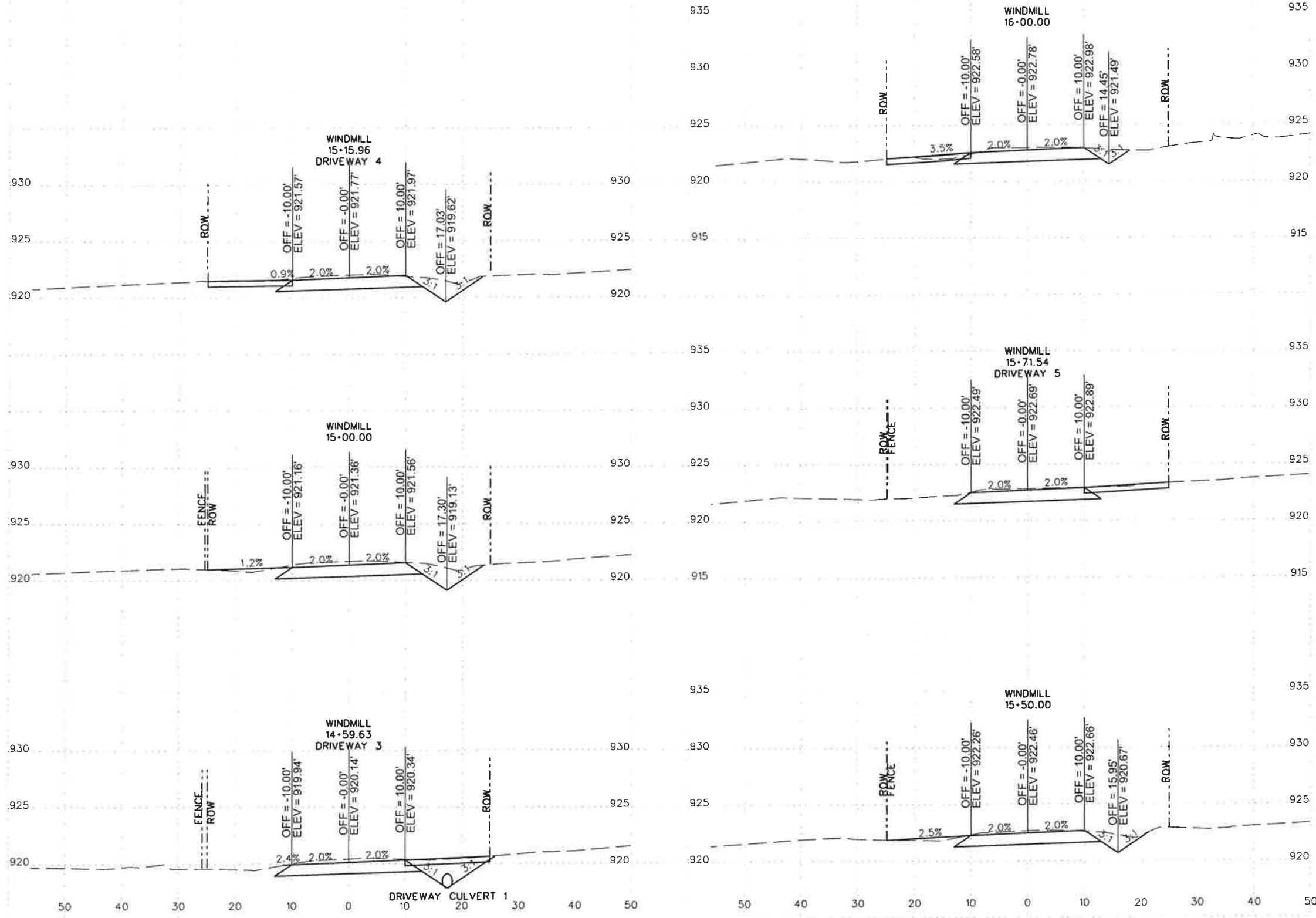
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1848 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE OLD WINDMILL RD CROSS SECTIONS STA 12+00.00 TO STA 14+50.00			
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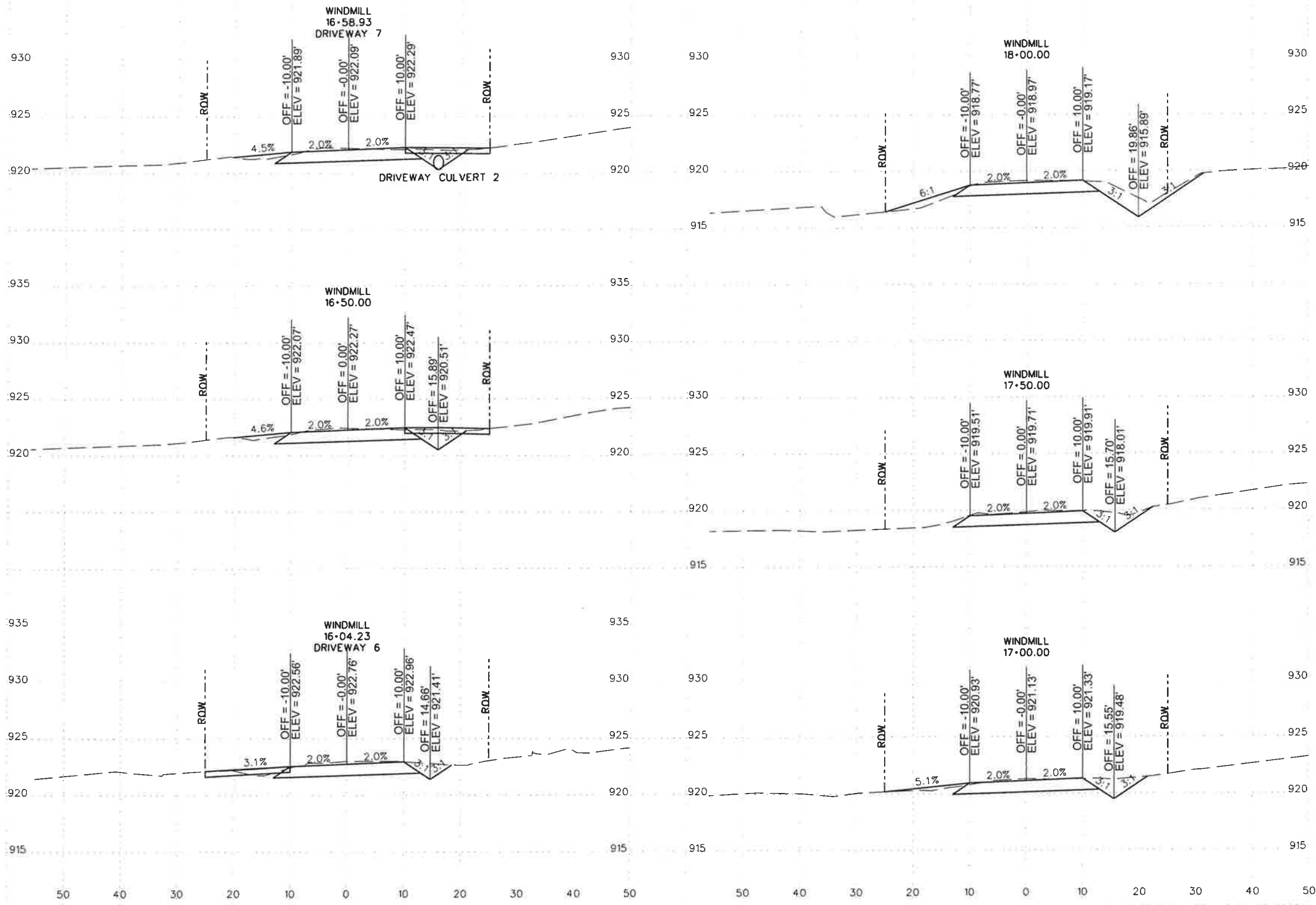
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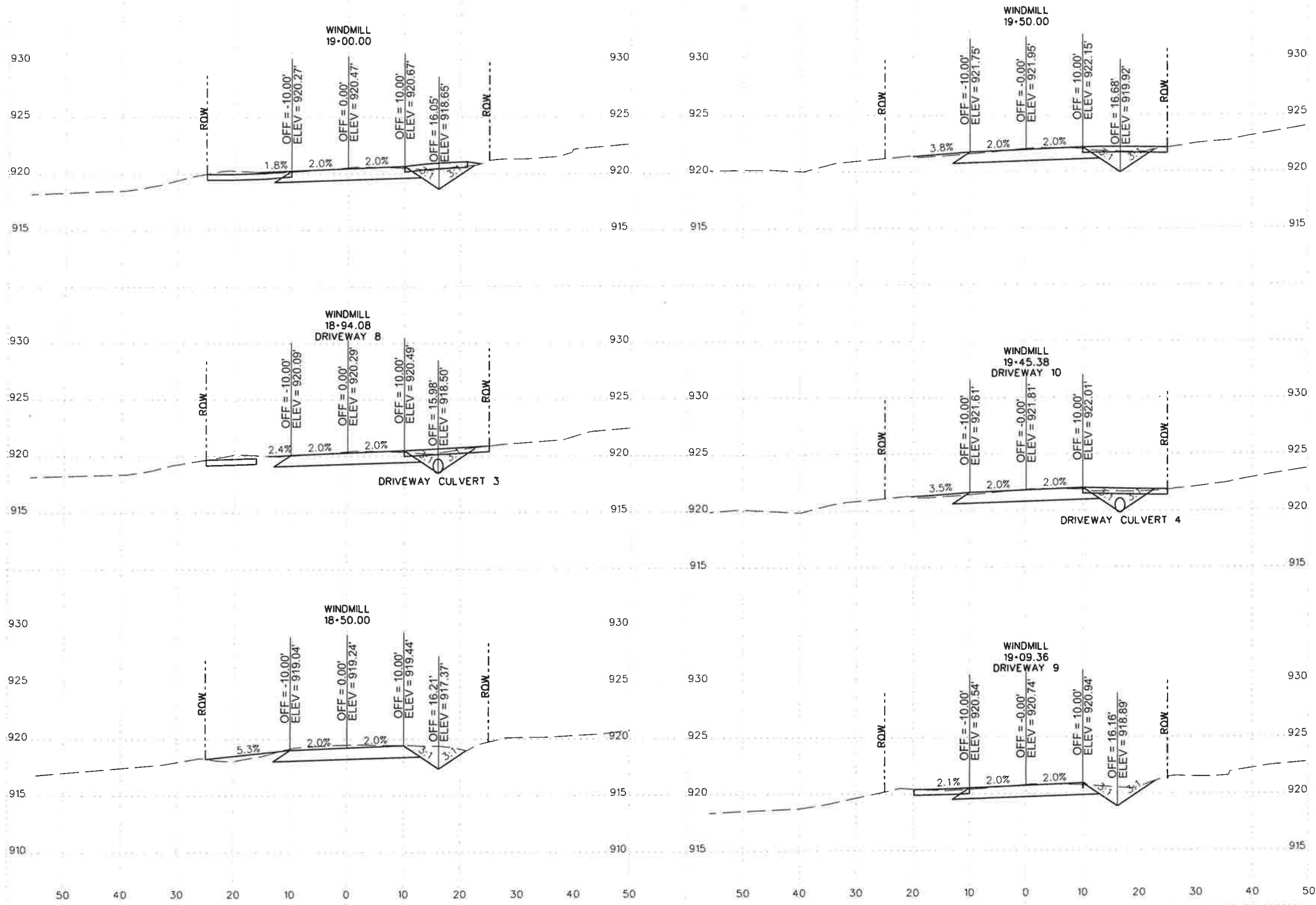
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8/7/17

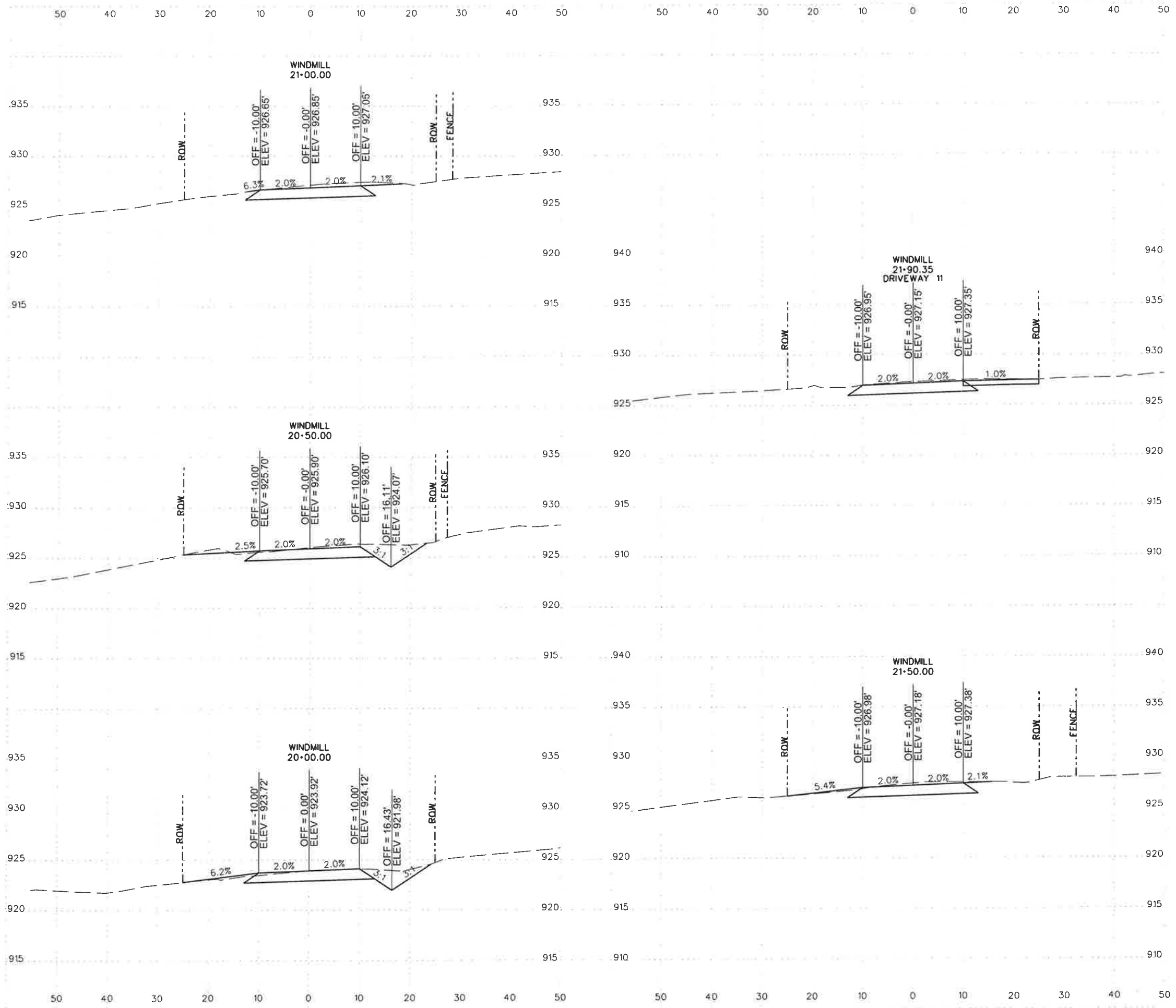
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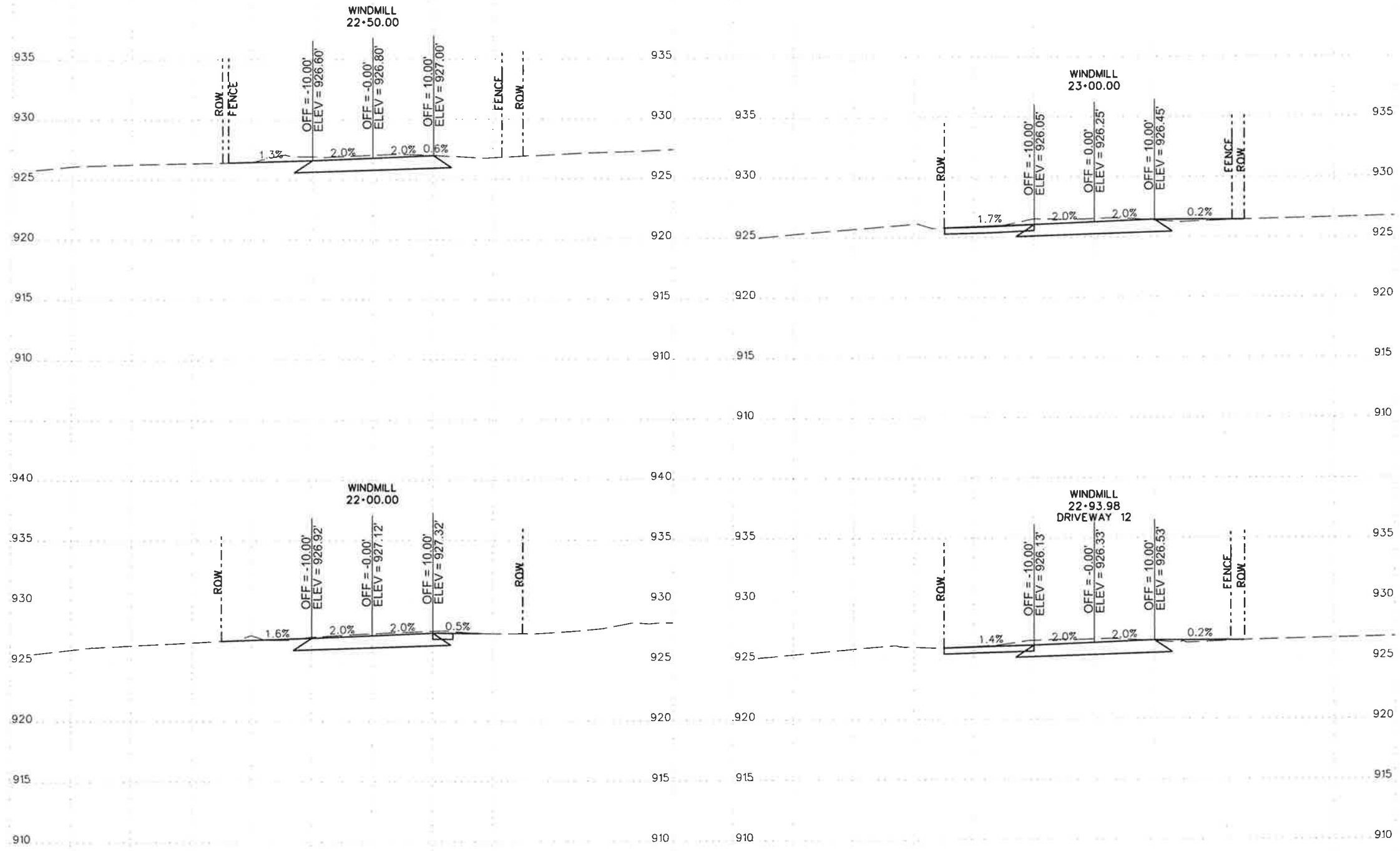
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NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY 1848			
WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE OLD WINDMILL RD CROSS SECTIONS STA 20-00.00 TO STA 21-90.35			
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8/7/17

NO.	REVISION	BY	DATE

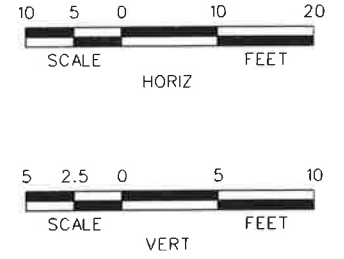
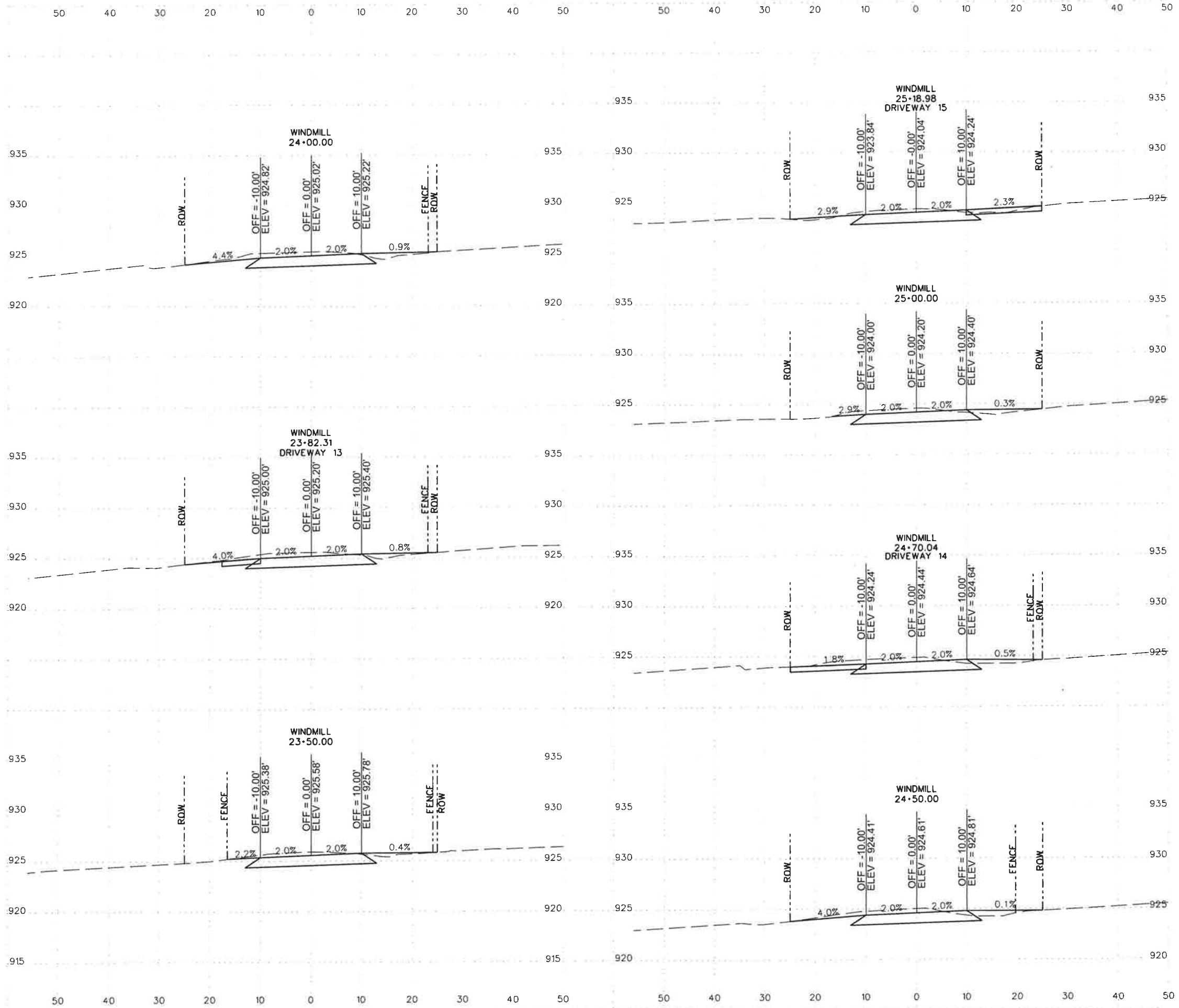


WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY
DEPT. OF INFRASTRUCTURE

**OLD WINDMILL RD
CROSS SECTIONS
STA 22+00.00 TO STA 23+00.00**

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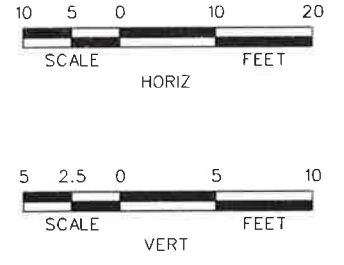
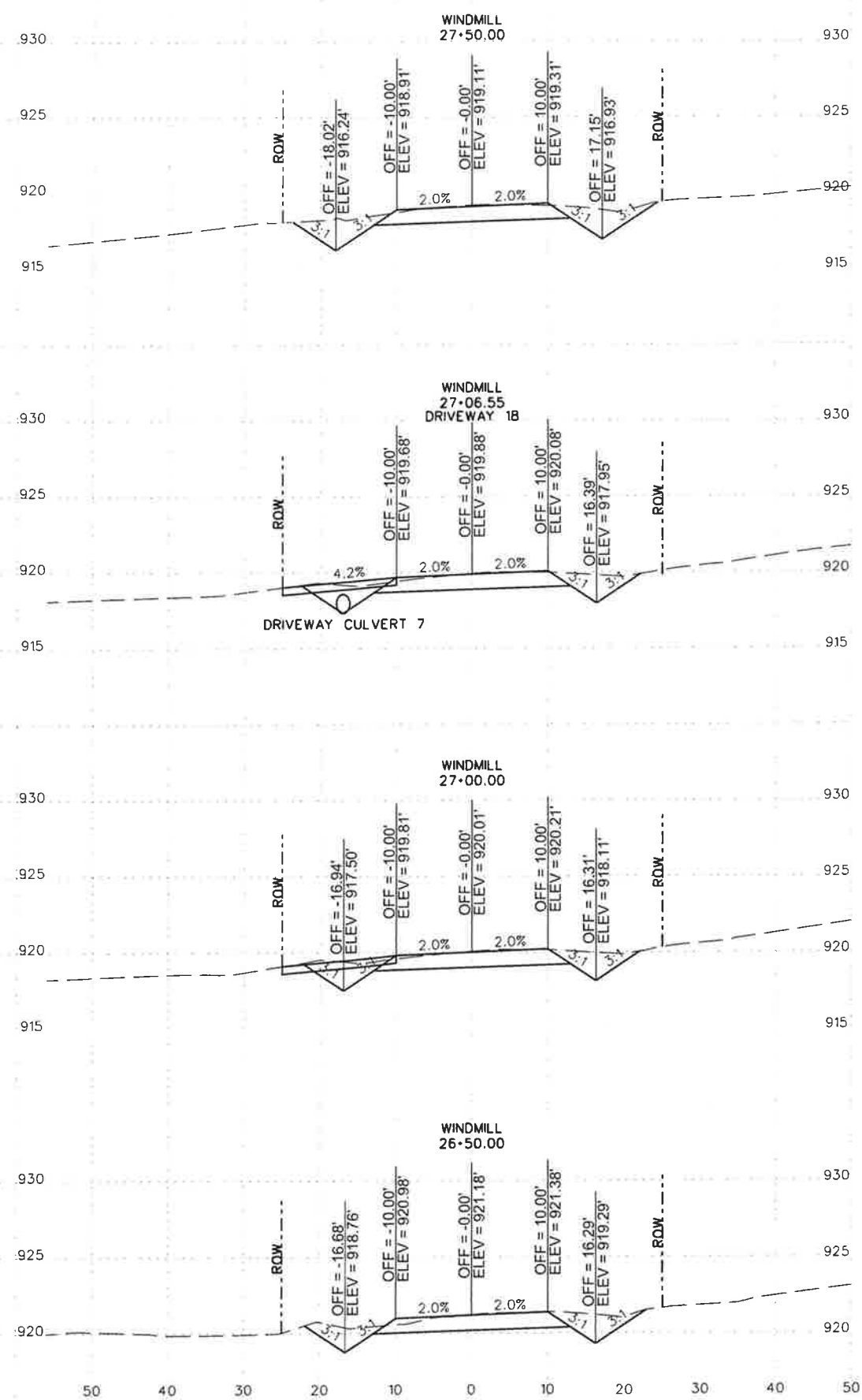
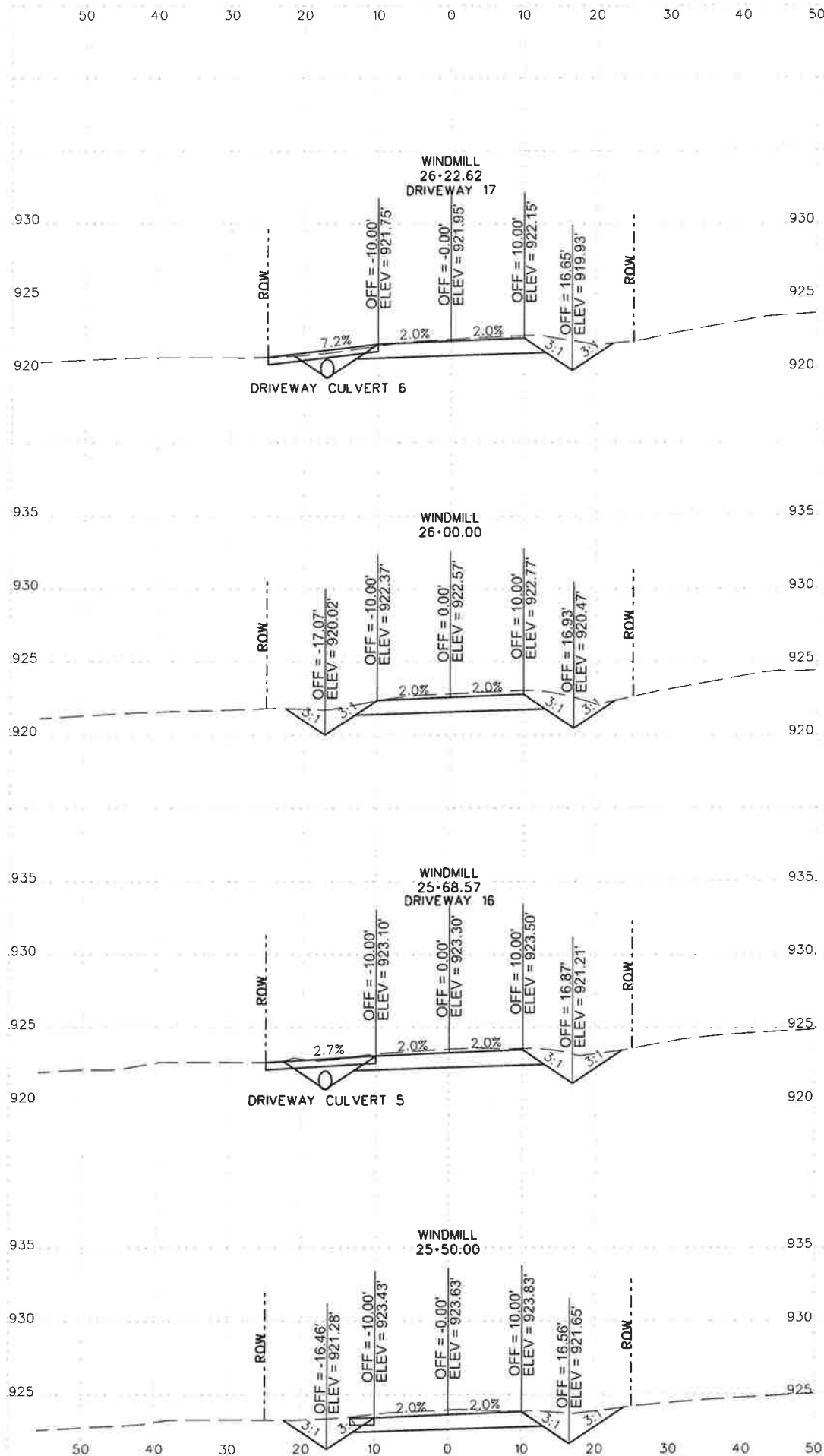
NO.	REVISION	BY	DATE

WILLIAMSON COUNTY
1848


WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE

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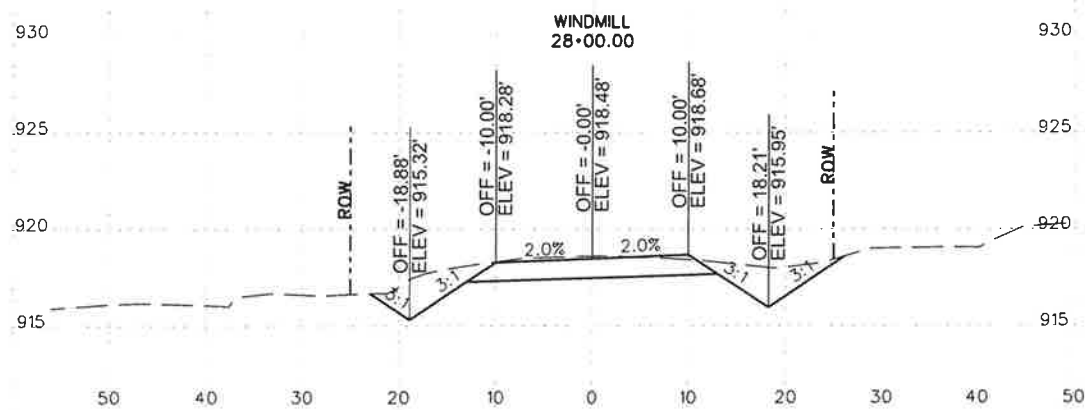
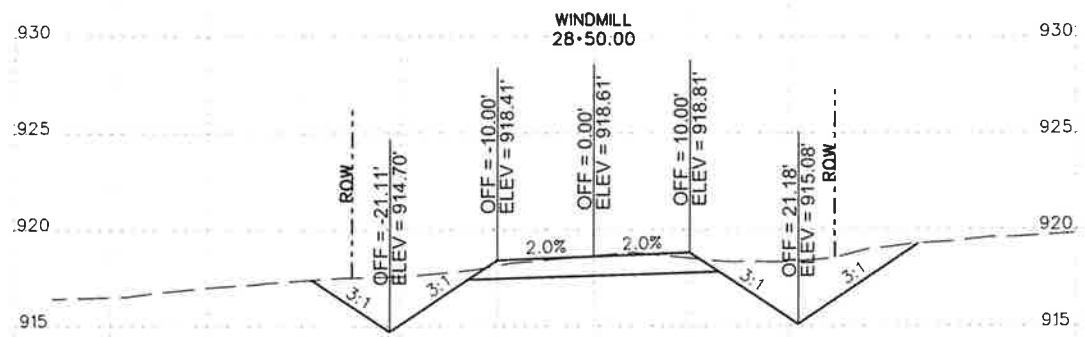
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 8/7/17

NO.	REVISION	BY	DATE
 WILLIAMSON COUNTY DEPT. OF INFRASTRUCTURE 1818			
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8/7/17

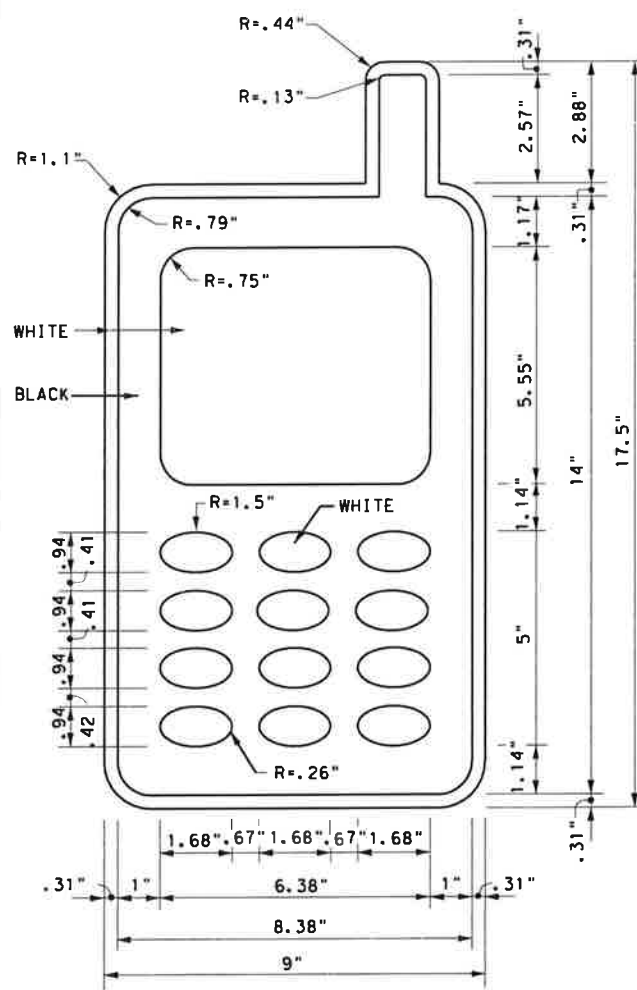
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Checked:	KOK		
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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

- The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
- The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
- The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
- Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
- When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
- The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
- The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
- As shown on BC(2), the OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER (see Sign Detail G20-10T) and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. However, the TRAFFIC FINES DOUBLE sign will not be required on projects consisting solely of mobile operation work, such as striping or milling edgeline rumble strips. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits.
- Except for devices required by Note 10, traffic control devices should be in place only while work is actually in progress or a definite need exists.
- The Engineer has the final decision on the location of all traffic control devices.
- Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY APPAREL NOTES:

- Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.



COLORS:
FLUORESCENT
YELLOW
BACKGROUND
BLACK
BORDER AND
LEGEND

ORANGE
FLUORESCENT
BACKGROUND
BLACK
LEGEND,
BORDER
AND SYMBOL



3.0" Radius, 1.25" Border, 0.75" Indent, Black on Yellow;
[STAY ALERT] Font: D

3.0" Radius, 1.25" Border, 0.75" Indent, Black on Orange;
[TALK OR TEXT LATER] Font: C specified length;

SIGN DETAIL (G20-10T)

Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found on-line at the web address given below or by contacting:

Texas Department of Transportation
Traffic Operations Division - TE
Phone (512) 416-3118

<p>THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov</p>
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS



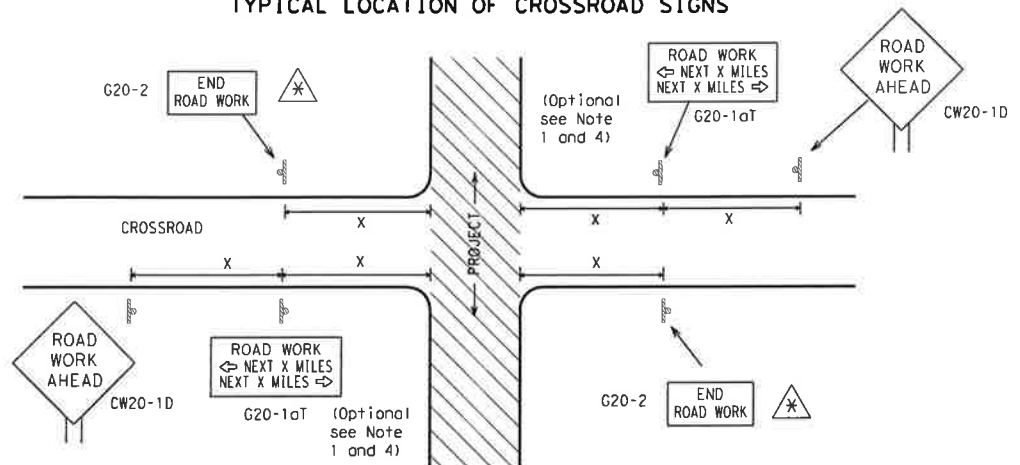
**BARRICADE AND CONSTRUCTION
GENERAL NOTES
AND REQUIREMENTS**

BC(1)-14

FILE: bc-14.dgn	DW: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
4-03 5-10 8-14				
9-07 7-13	DIST	COUNTY	SHEET NO.	
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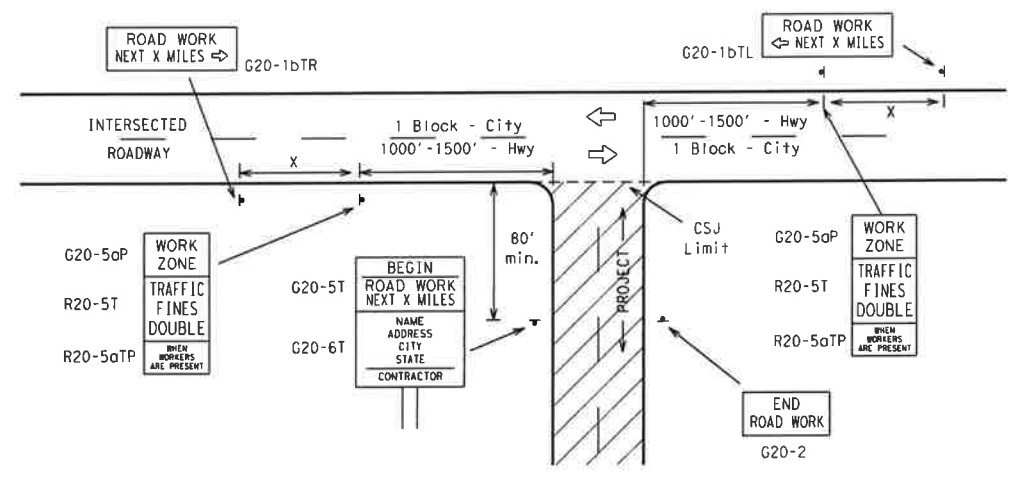
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TYPICAL LOCATION OF CROSSROAD SIGNS



- △ May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)
- The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
 - The Engineer may use the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume. This information shall be shown in the plans.
 - Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
 - The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
 - Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
 - When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

Williamson County, Texas T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- If construction closes the road at a T-intersection the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed	Sign Spacing "X" Feet (Apprx.)
CW20 ⁴ CW21 CW22 CW23 CW25	48" x 48"	48" x 48"	30 35 40 45	120 160 240 320
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"	50 55 60 65	400 500 ² 600 ² 700 ²
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	70 75 80	800 ² 900 ² 1000 ²
			*	* ³

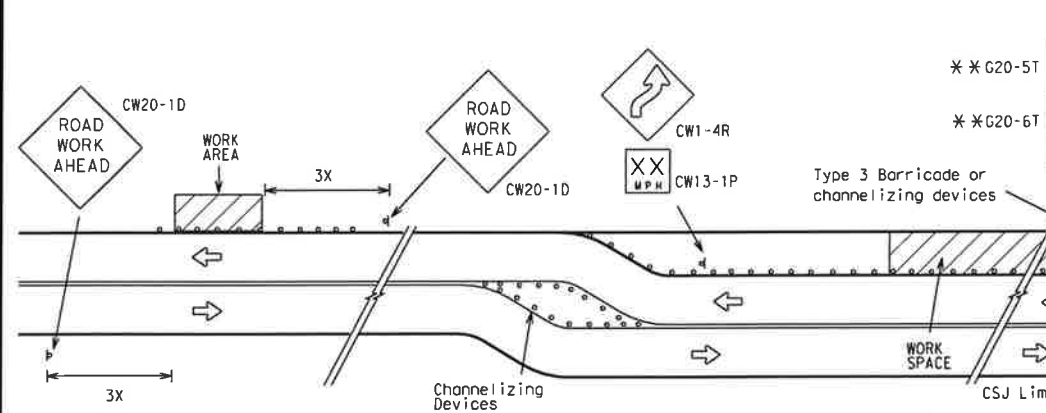
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

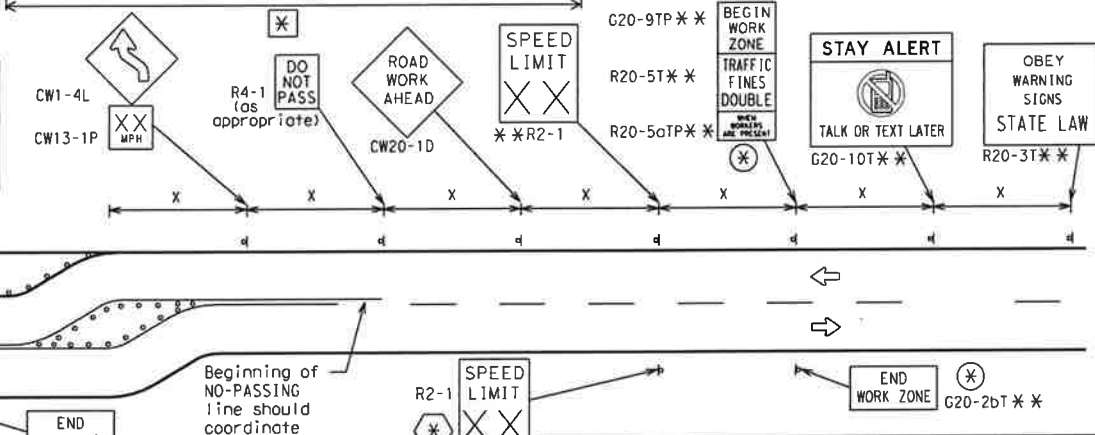
- Special or larger size signs may be used as necessary.
- Distance between signs should be increased as required to have 1500 feet advance warning.
- Distance between signs should be increased as required to have 1/2 mile or more advance warning.
- 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer. See Note 2 under "Typical Location of Crossroad Signs".
- Only diamond shaped warning sign sizes are indicated.
- See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

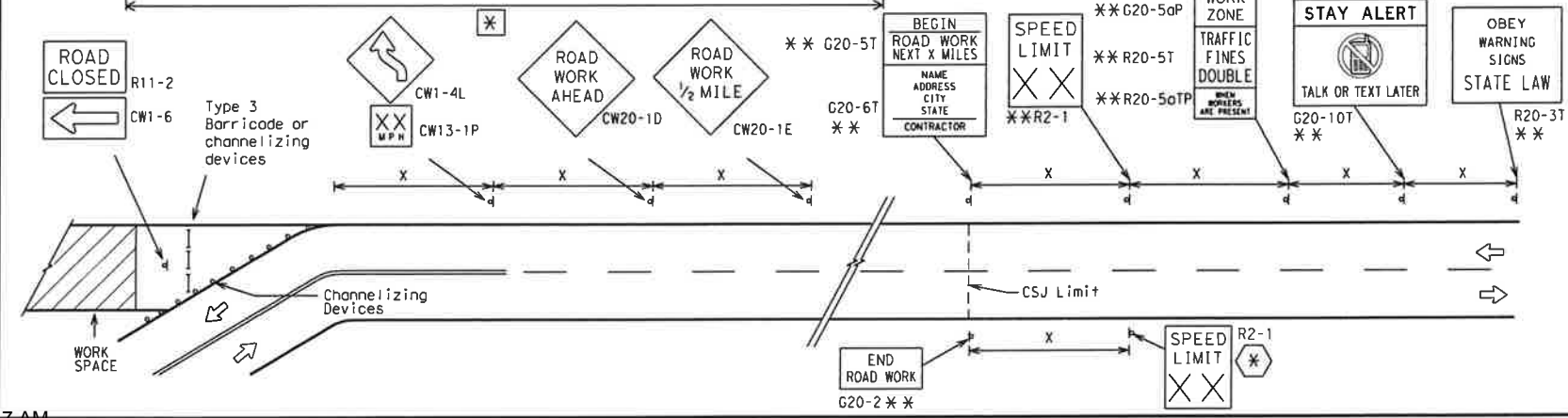
SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS



NOTES

- The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.
- ⊗ The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
 - ** Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.
 - ⊗ Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.
 - ⊗ Contractor will install a regulatory speed limit sign at the end of the work zone.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



LEGEND

—	Type 3 Barricade
○ ○ ○	Channelizing Devices
⊗	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12



BARRICADE AND CONSTRUCTION PROJECT LIMIT

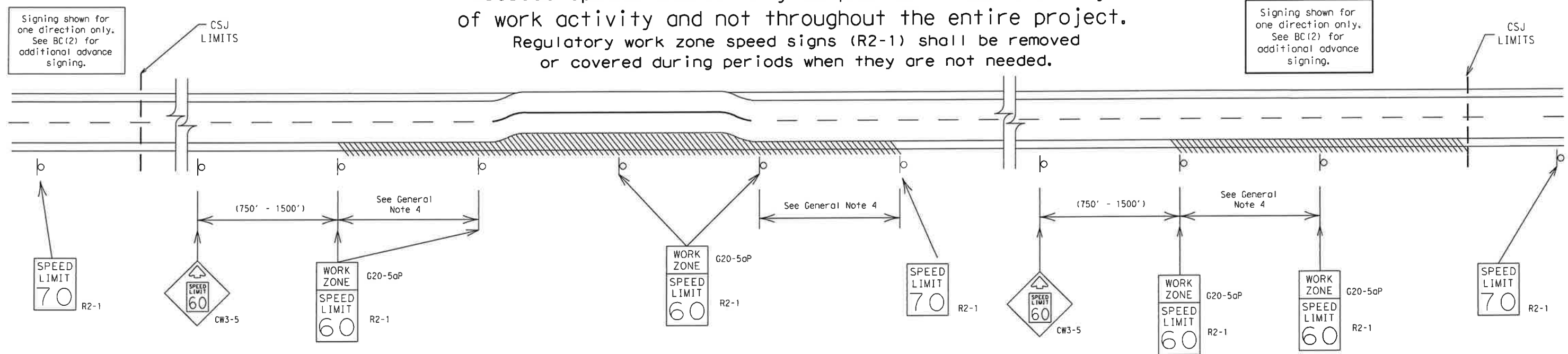
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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- a) rough road or damaged pavement surface
- b) substantial alteration of roadway geometrics (diversions)
- c) construction detours
- d) grade
- e) width
- f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the travelled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

GENERAL NOTES

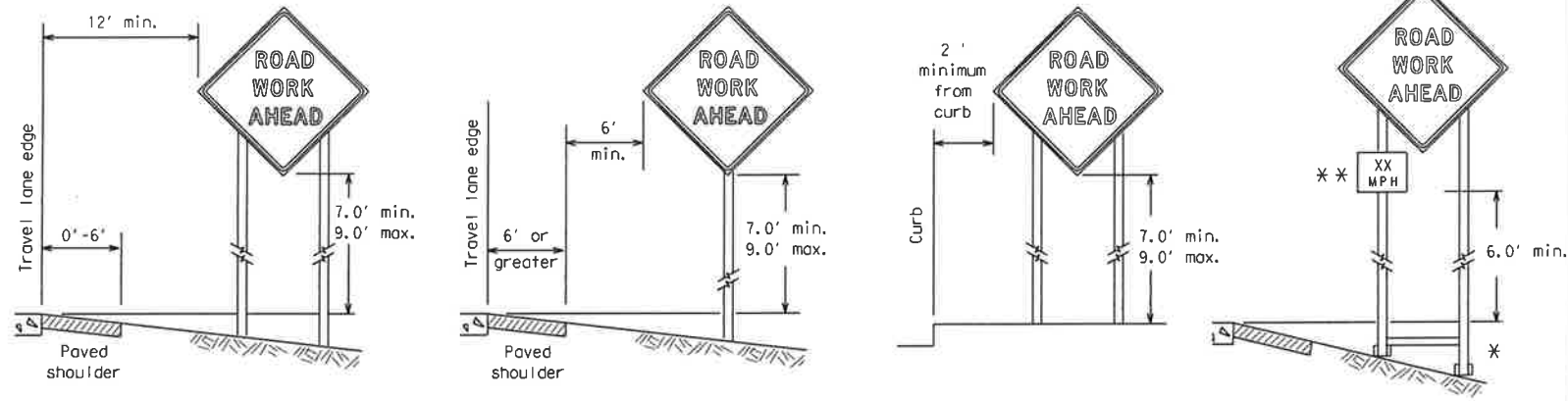
1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
 - 40 mph and greater 0.2 to 2 miles
 - 35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
 - A. Law enforcement.
 - B. Flagger stationed next to sign.
 - C. Portable changeable message sign (PCMS).
 - D. Low-power (drone) radar transmitter.
 - E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

SHEET 3 OF 12

		Traffic Operations Division Standard	
<h2>BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT</h2>			
<h3>BC (3) - 14</h3>			
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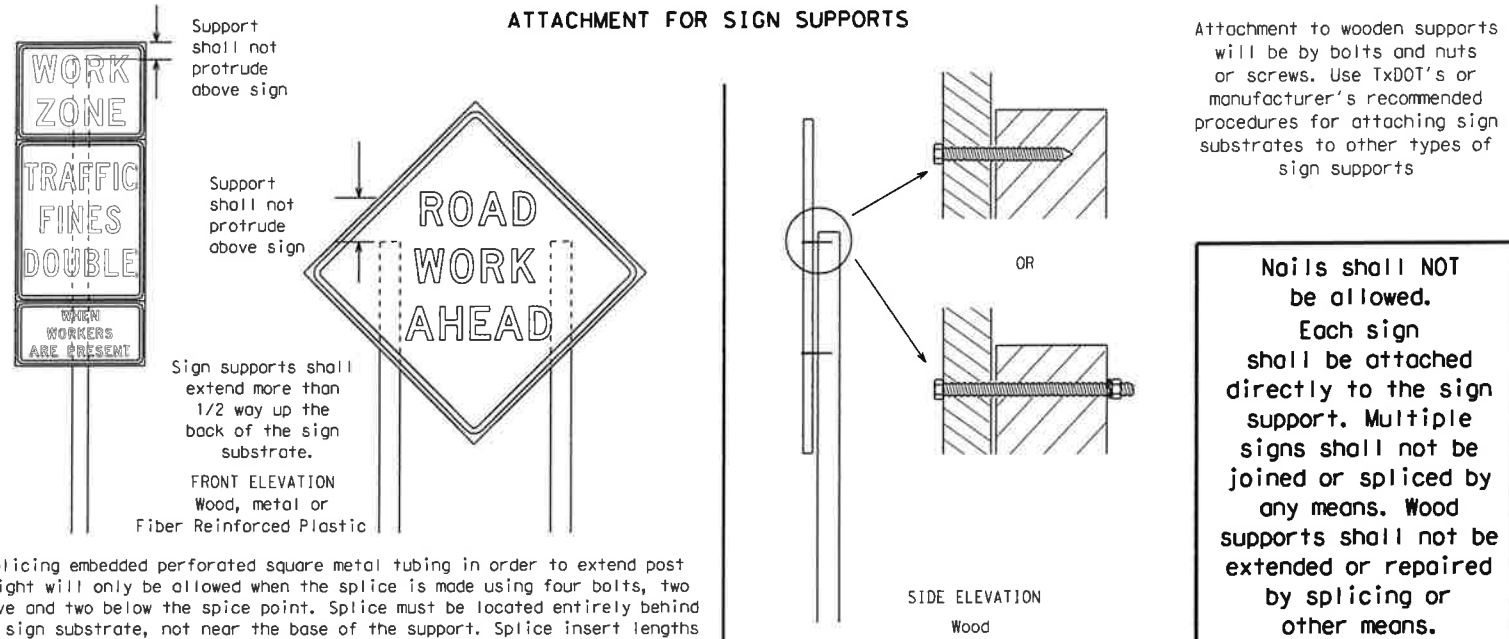
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

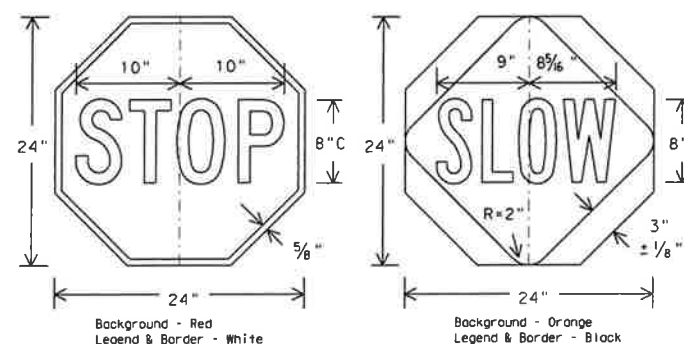
ATTACHMENT FOR SIGN SUPPORTS



Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
2. When used at night, the STOP/SLOW paddle shall be retroreflectORIZED.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



Background - Red Legend & Border - White
Background - Orange Legend & Border - Black

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
5. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
9. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
 - a. Long-term stationary - work that occupies a location more than 3 days.
 - b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
 - c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
 - d. Short, duration - work that occupies a location up to 1 hour.
 - e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate-term sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. Flags may be used to draw attention to warning signs. When used the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

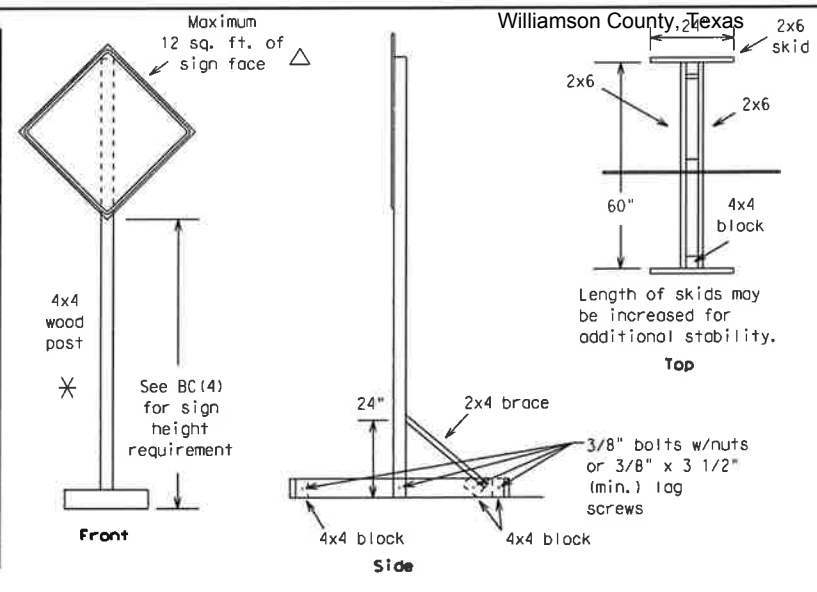
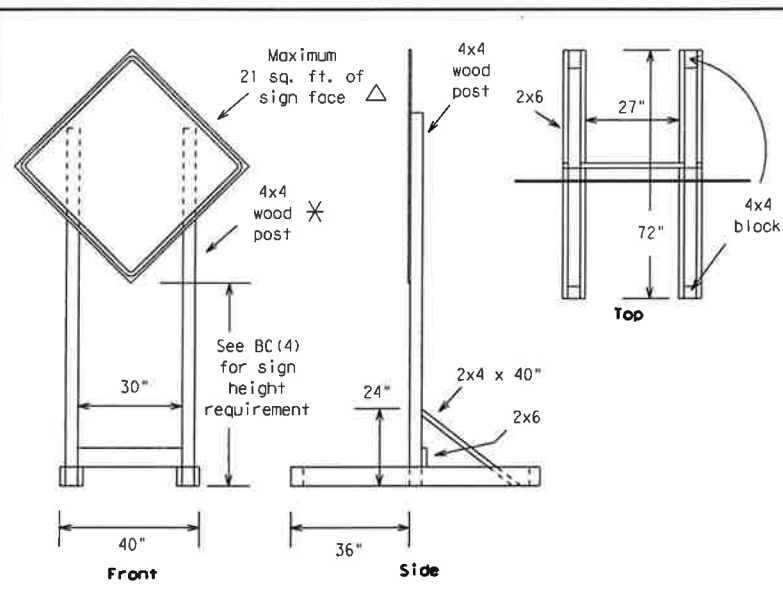


BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

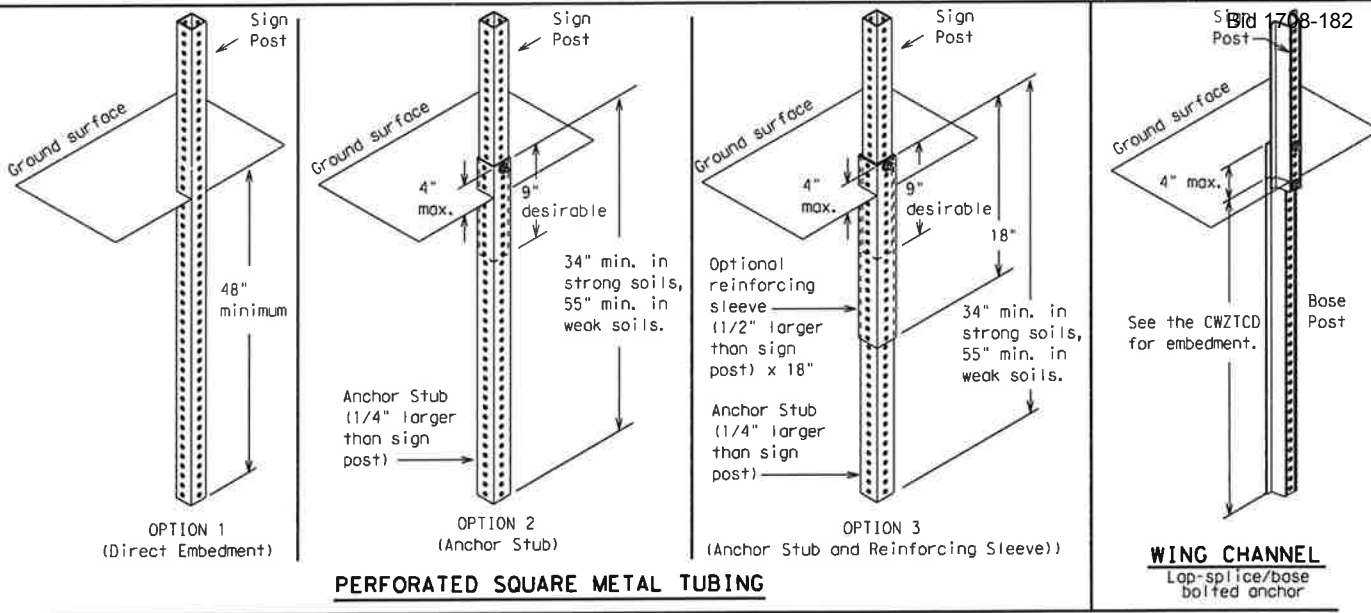
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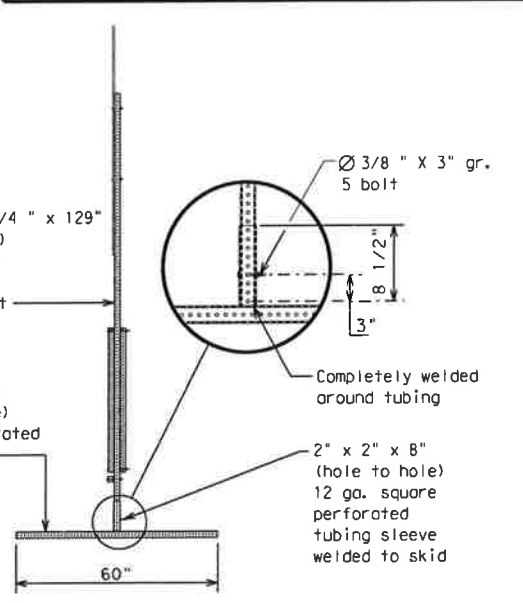
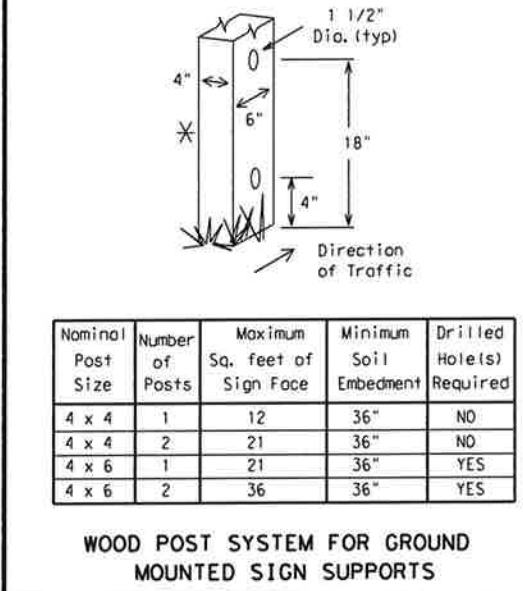
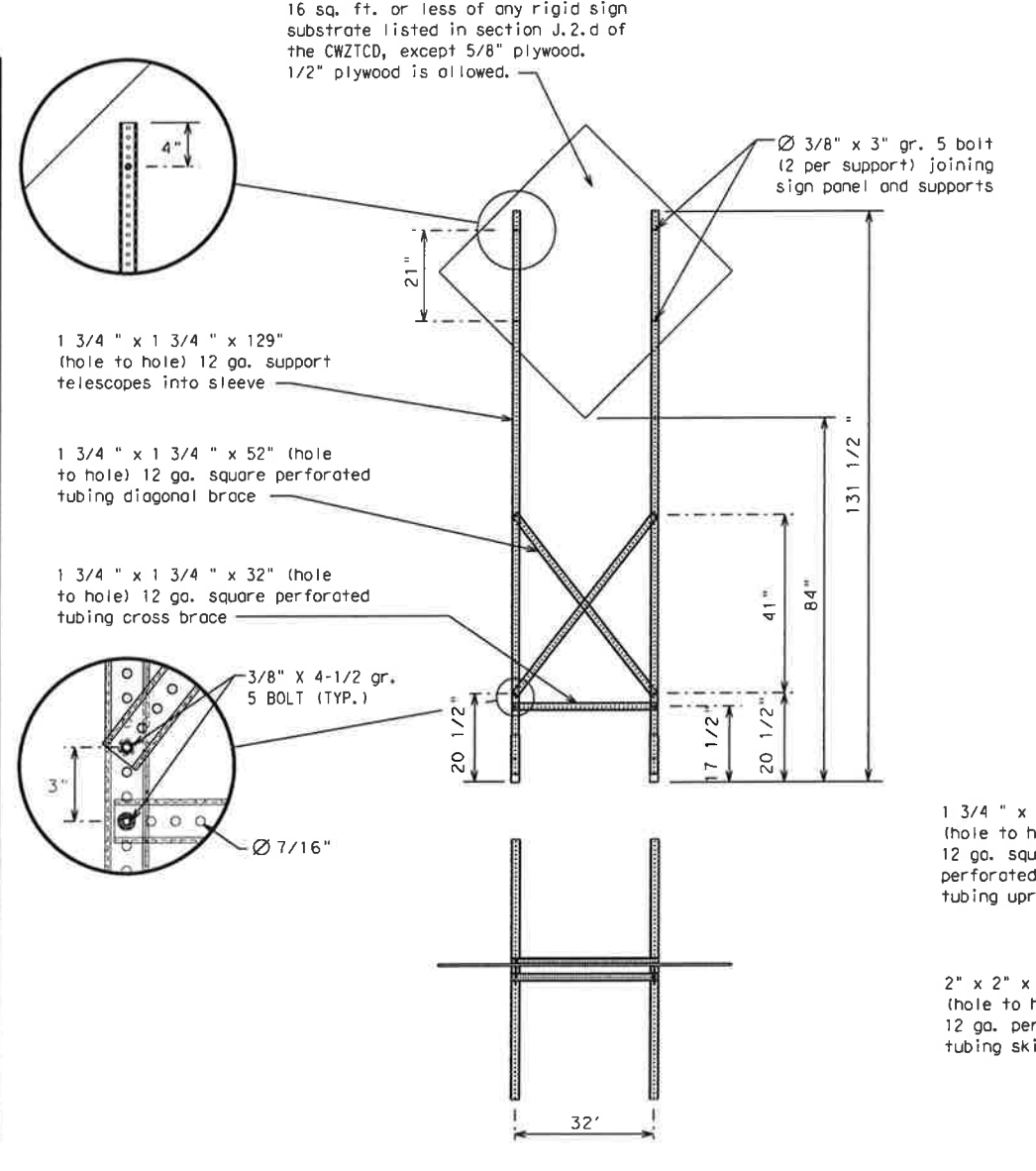
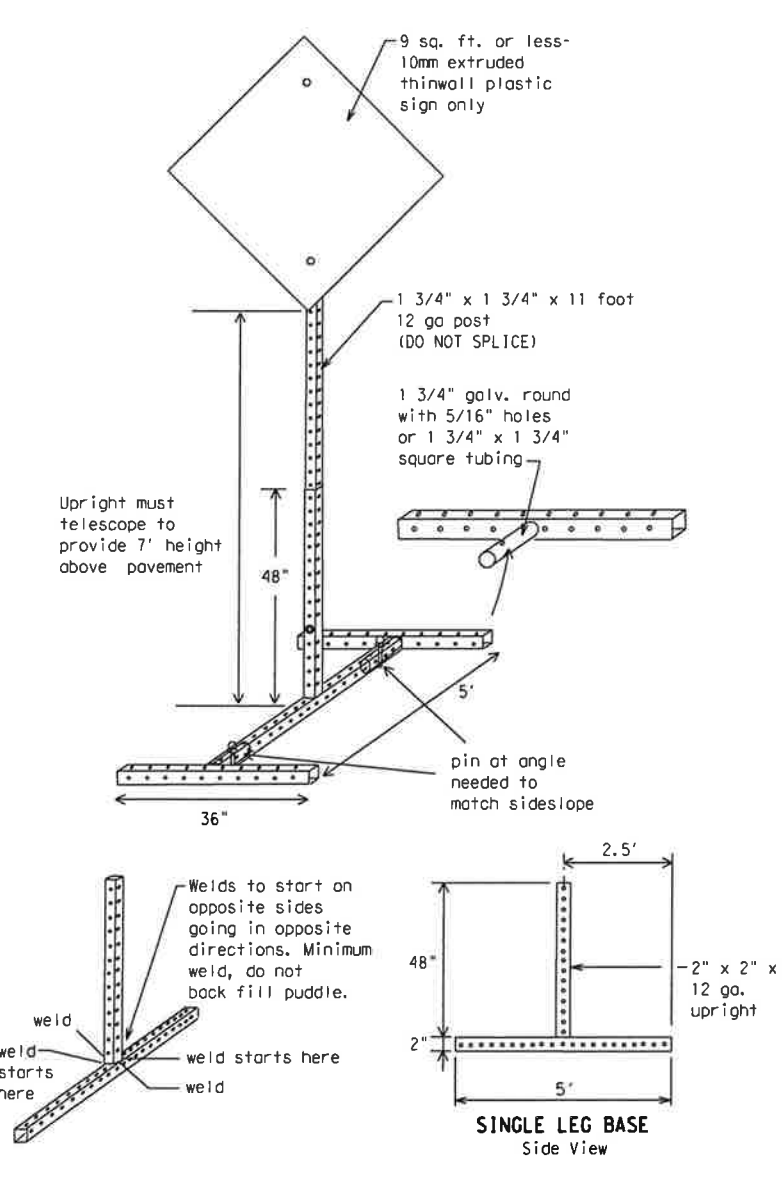
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SKID MOUNTED WOOD SIGN SUPPORTS
LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □



Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

- Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
- No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
- When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

- See BC(4) for definition of "Work Duration."
- ✱ Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
- △ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

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BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5) - 14

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

Phase 1: Condition Lists

Road/Lane/Ramp Closure List	Other Condition List
FREEWAY CLOSED X MILE	ROADWORK XXX FT
ROAD CLOSED AT SH XXX	ROAD REPAIRS XXXX FT
ROAD CLSD AT FM XXXX	FLAGGER XXXX FT
RIGHT X LANES CLOSED	LANE NARROWS XXXX FT
CENTER LANE CLOSED	RIGHT LN NARROWS XXXX FT
NIGHT LANE CLOSURES	TWO-WAY TRAFFIC XX MILE
VARIOUS LANES CLOSED	MERGING TRAFFIC XXXX FT
EXIT CLOSED	CONST TRAFFIC XXX FT
MALL DRIVEWAY CLOSED	LOOSE GRAVEL XXXX FT
XXXXXXX BLVD CLOSED	UNEVEN LANES XXXX FT
	ROADWORK PAST SH XXXX
	ROADWORK NEXT FRI-SUN
	BUMP XXXX FT
	US XXX EXIT X MILES
	TRAFFIC SIGNAL XXXX FT
	LANES SHIFT * *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List	Location List	Warning List	** Advance Notice List
MERGE RIGHT	AT FM XXXX	SPEED LIMIT XX MPH	TUE-FRI XX AM-X PM
DETOUR NEXT X EXITS	BEFORE RAILROAD CROSSING	MAXIMUM SPEED XX MPH	APR XX-XX X PM-X AM
USE EXIT XXX	NEXT X MILES	MINIMUM SPEED XX MPH	BEGINS MONDAY
STAY ON US XXX SOUTH	PAST US XXX EXIT	ADVISORY SPEED XX MPH	BEGINS MAY XX
TRUCKS USE US XXX N	XXXXXXX TO XXXXXXX	RIGHT LANE EXIT	MAY X-X XX PM - XX AM
WATCH FOR TRUCKS	US XXX TO FM XXXX	USE CAUTION	NEXT FRI-SUN
EXPECT DELAYS		DRIVE SAFELY	XX AM TO XX PM
REDUCE SPEED XXX FT		DRIVE WITH CARE	NEXT TUE AUG XX
USE OTHER ROUTES			TONIGHT XX PM-XX AM
STAY IN LANE *			

** See Application Guidelines Note 6.

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WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD	Major	MAJ
Alternate	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MNR
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Canot	CANT	North	N
Center	CTR	Northbound	(route) N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Road	RD
Detour Route	DETOUR RTE	Right Lane	RT LN
Do Not	DONT	Saturday	SAT
East	E	Service Road	SERV RD
Eastbound	(route) E	Shoulder	SHLDR
Emergency	EMER	Slippery	SLIP
Emergency Vehicle	EMER VEH	South	S
Entrance, Enter	ENT	Southbound	(route) S
Express Lane	EXP LN	Speed	SPD
Expressway	EXPWY	Street	ST
XXXX Feet	XXXX FT	Sunday	SUN
Fog Ahead	FOG AHD	Telephone	PHONE
Freeway	FRWY, FWY	Temporary	TEMP
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWNTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Hazardous Material	HAZMAT	Travelers	TRVLRs
High-Occupancy Vehicle	HOV	Tuesday	TUES
Highway	Hwy	Time Minutes	TIME MIN
Hour(s)	HR, HRS	Upper Level	UPR LEVEL
Information	INFO	Vehicles (s)	VEH, VEHS
It Is	ITS	Warning	WARN
Junction	JCT	Wednesday	WED
Left	LFT	Weight Limit	WT LIMIT
Left Lane	LFT LN	West	W
Lane Closed	LN CLOSED	Westbound	(route) W
Lower Level	LWR LEVEL	Wet Pavement	WET PVMT
Maintenance	MAINT	Will Not	WONT

Roadway designation # IH-number, US-number, SH-number, FM-number

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

SHEET 6 OF 12



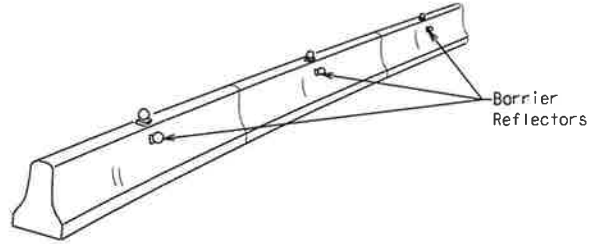
BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC (6) - 14

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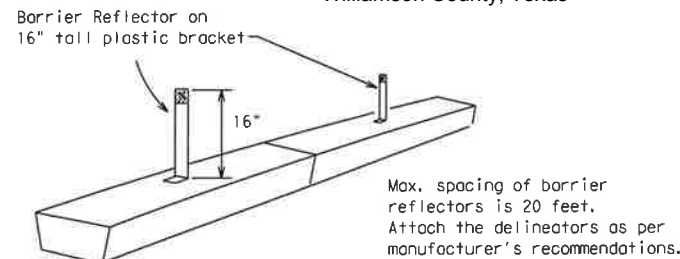
- Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
- Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



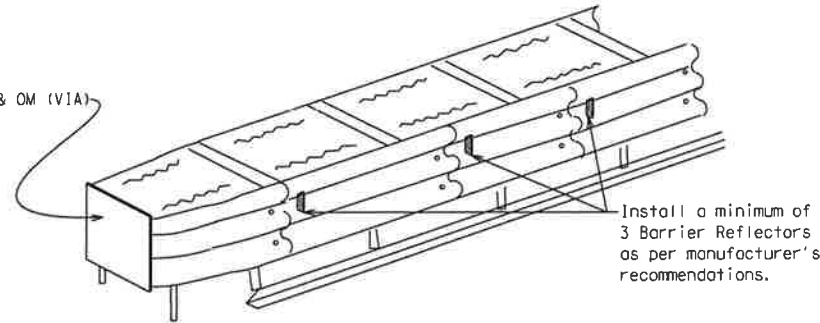
CONCRETE TRAFFIC BARRIER (CTB)

- Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
- Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
- When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
- Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
- Maximum spacing of Barrier Reflectors is forty (40) feet.
- Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
- Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
- Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
- Single slope barriers shall be delineated as shown on the above detail.

Williamson County, Texas



LOW PROFILE CONCRETE BARRIER (LPCB)



DELINEATION OF END TREATMENTS

END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCO List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS

WARNING LIGHTS

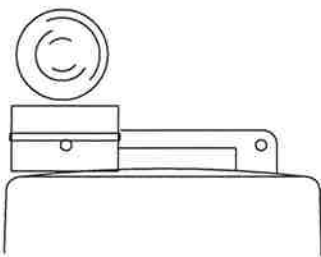
- Warning lights shall meet the requirements of the TMUTCD.
- Warning lights shall NOT be installed on barricades.
- Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B_{FL} or C_{FL} Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
- Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
- The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
- When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
- When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
- The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

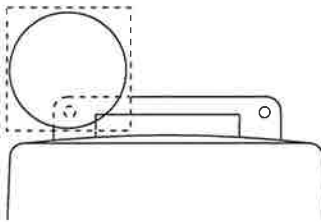
- Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
- Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
- A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
- Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
- Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
- Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
- The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

- A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
- The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCO.
- The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
- Round reflectors shall be fully reflectorized, including the area where attached to the drum.
- Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
- The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
- When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
- The warning reflector should be mounted on the side of the handle nearest approaching traffic.
- The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.



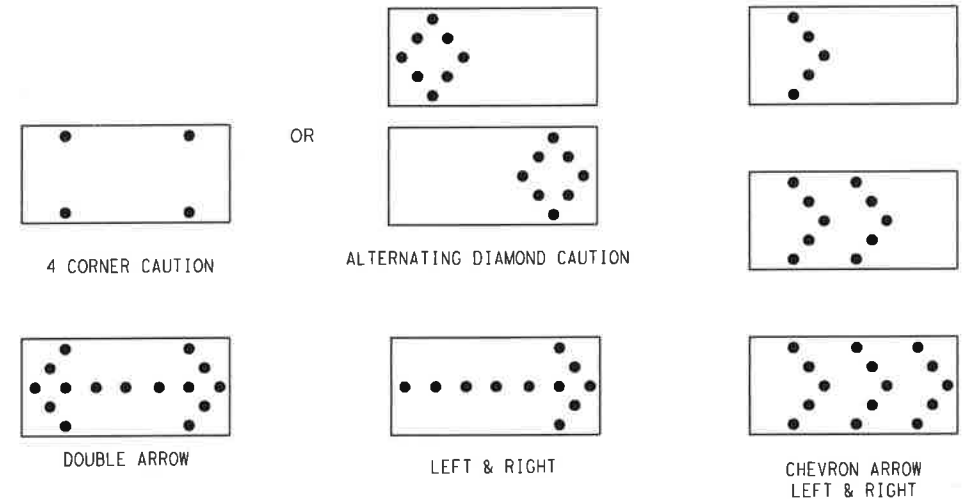
Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

- The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
- Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
- The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
- The Flashing Arrow Board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
- The straight line caution display is NOT ALLOWED.
- The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage.
- The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
- The sequential arrow display is NOT ALLOWED.
- The flashing arrow display is the TxDOT standard; however, the sequential Chevron display may be used during daylight operations.
- The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
- A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
- A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
- Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

TRUCK-MOUNTED ATTENUATORS

- Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350) or the Manual for Assessing Safety Hardware (MASH).
- Refer to the CWZTCO for the requirements of Level 2 or Level 3 TMAs.
- Refer to the CWZTCO for a list of approved TMAs.
- TMAs are required on freeways unless otherwise noted in the plans.
- A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
- The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

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BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC (7) - 14

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GENERAL NOTES

- For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
- For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
- For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
- Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
- The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

- Pre-qualified plastic drums shall meet the following requirements:
- Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
 - The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
 - Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
 - Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
 - The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
 - The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectORIZED space between any two adjacent stripes shall not exceed 2 inches in width.
 - Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
 - Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
 - Drum body shall have a maximum unballasted weight of 11 lbs.
 - Drum and base shall be marked with manufacturer's name and model number.

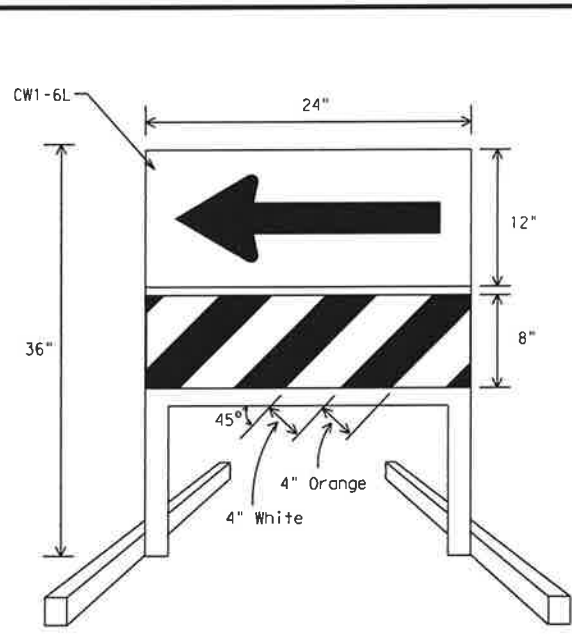
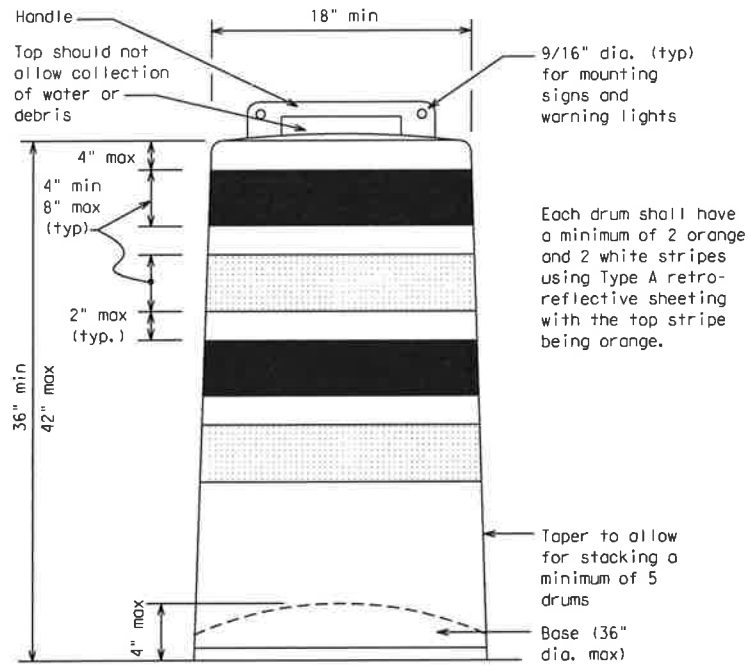
RETROREFLECTIVE SHEETING

- The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
- The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

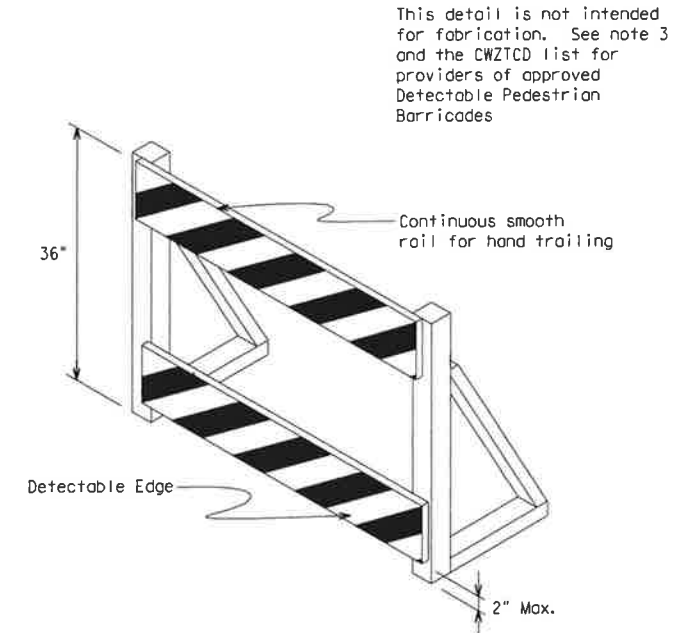
- Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
- Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
- Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
- The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
- When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
- Ballast shall not be placed on top of drums.
- Adhesives may be used to secure base of drums to pavement.

Williamson County, Texas



DIRECTION INDICATOR BARRICADE

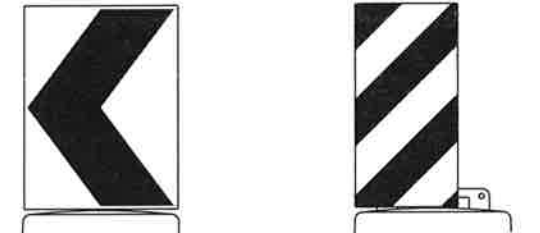
- The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
- If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
- The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B_{FL} or Type C_{FL} Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheet types shall be as per DMS 8300.
- Double arrows on the Direction Indicator Barricade will not be allowed.
- Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.



DETECTABLE PEDESTRIAN BARRICADES

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
- Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
- Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
- Warning lights shall not be attached to detectable pedestrian barricades.
- Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.

Bid 1708-182



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer

12" x 24" Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

- Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
- Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
- Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
- Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
- Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
- Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
- Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
- R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

SHEET 8 OF 12

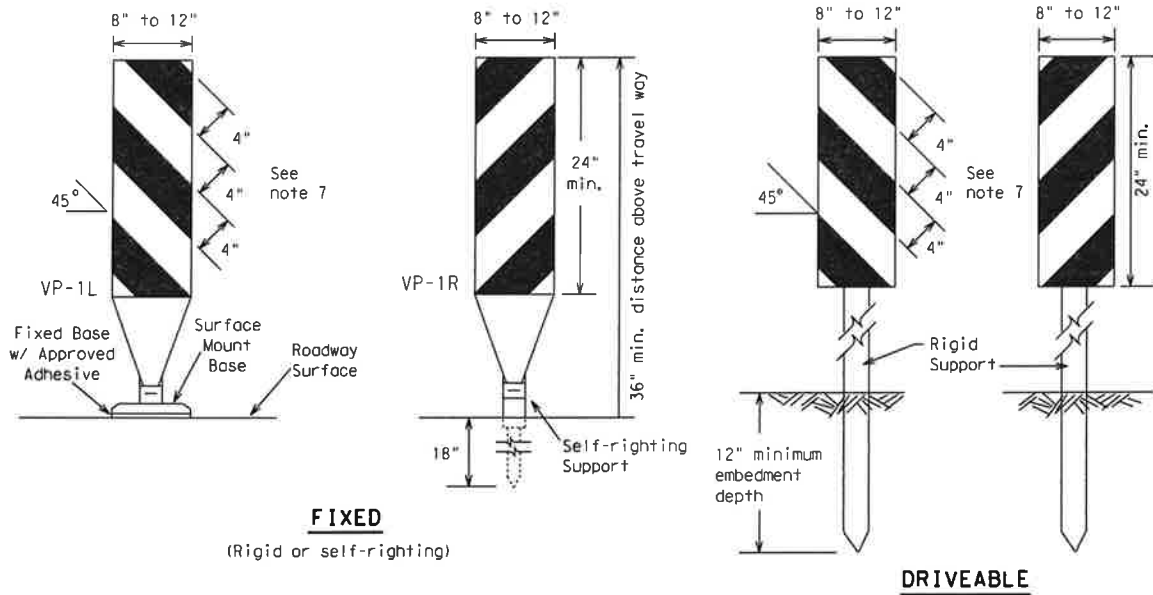


BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (8) - 14

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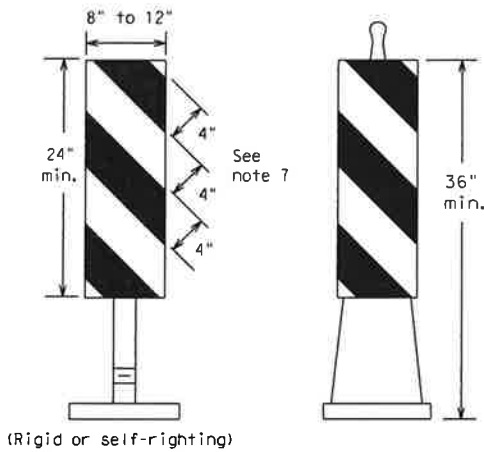
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FIXED
(Rigid or self-righting)

DRIVEABLE

1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual Appendix B "Treatment of Pavement Drop-offs in Work Zones" for additional guidelines on the use of VP's for drop-offs.
3. VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

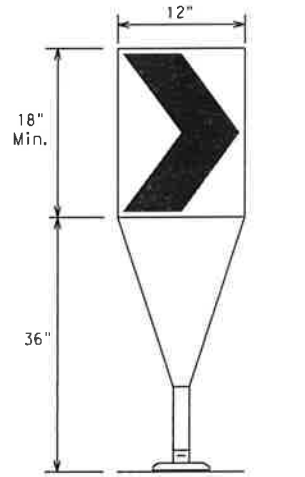


(Rigid or self-righting)

PORTABLE

VERTICAL PANELS (VPs)

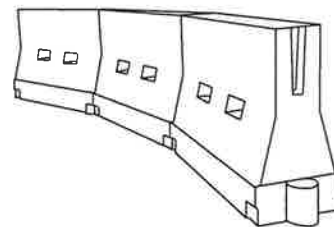
Williamson County, Texas



Fixed Base w/ Approved Adhesive
(Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
3. Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. For Long Term Stationary use on tapers or transitions on freeways and divided highways self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
6. LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10) placed near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate NCHRP 350 crashworthiness requirements based on roadway speed and barrier application.
2. Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
3. Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
5. When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long cones and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

1. Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
3. Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
4. The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
7. The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS ² / 60	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

**Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

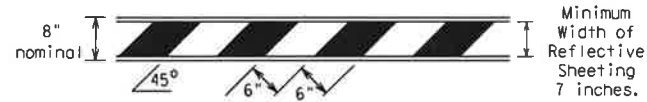
BC (9) - 14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CR: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
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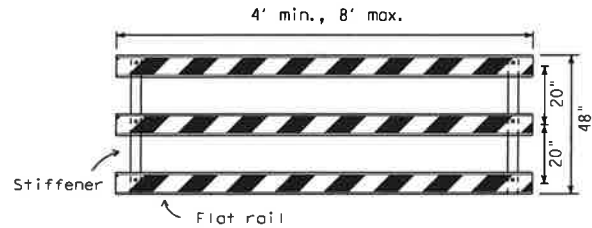
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCL) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.

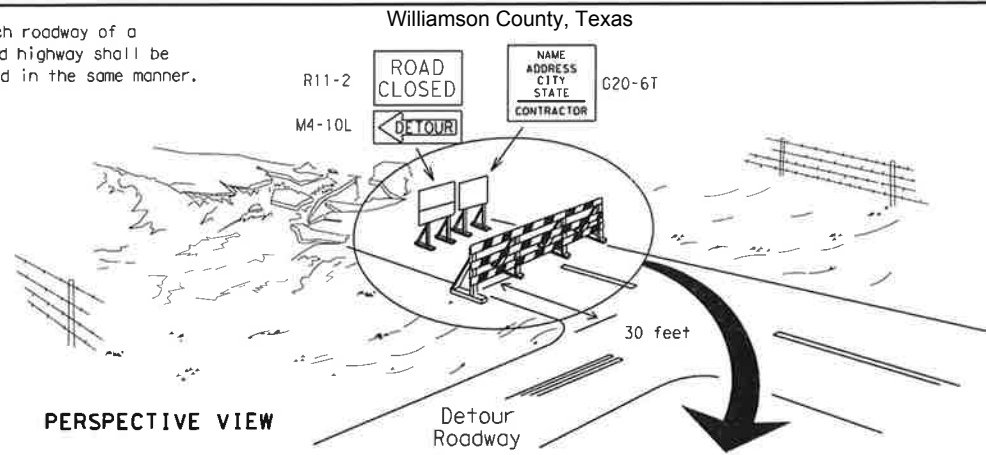


TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



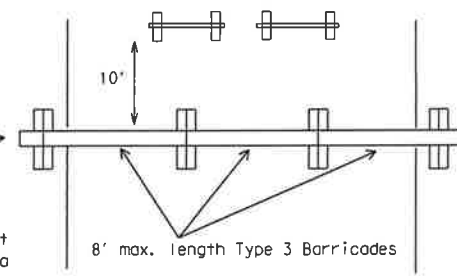
TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

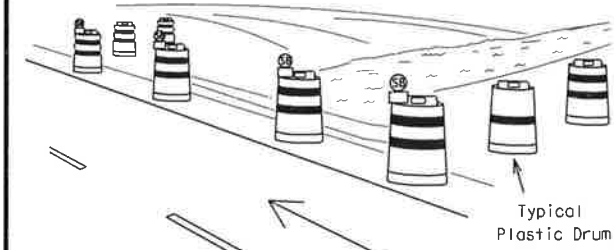
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



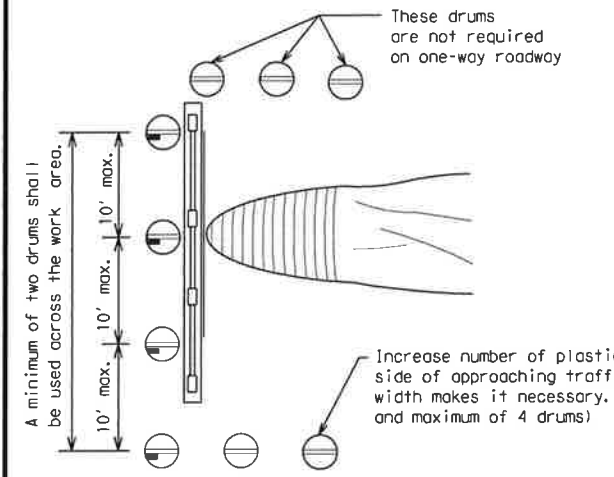
PLAN VIEW

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

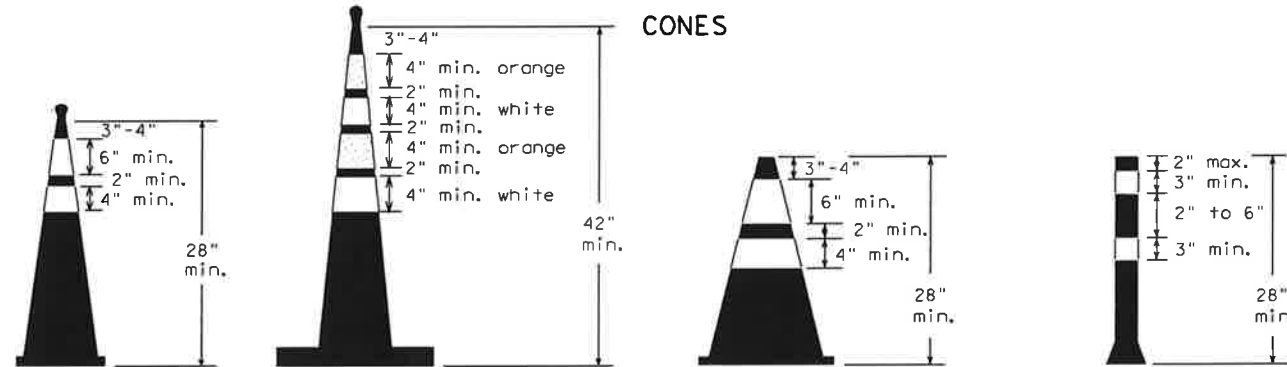


PLAN VIEW

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



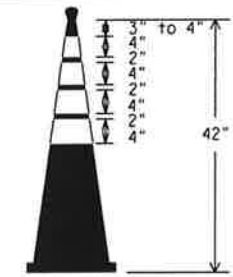
Two-Piece cones

One-Piece cones

Tubular Marker

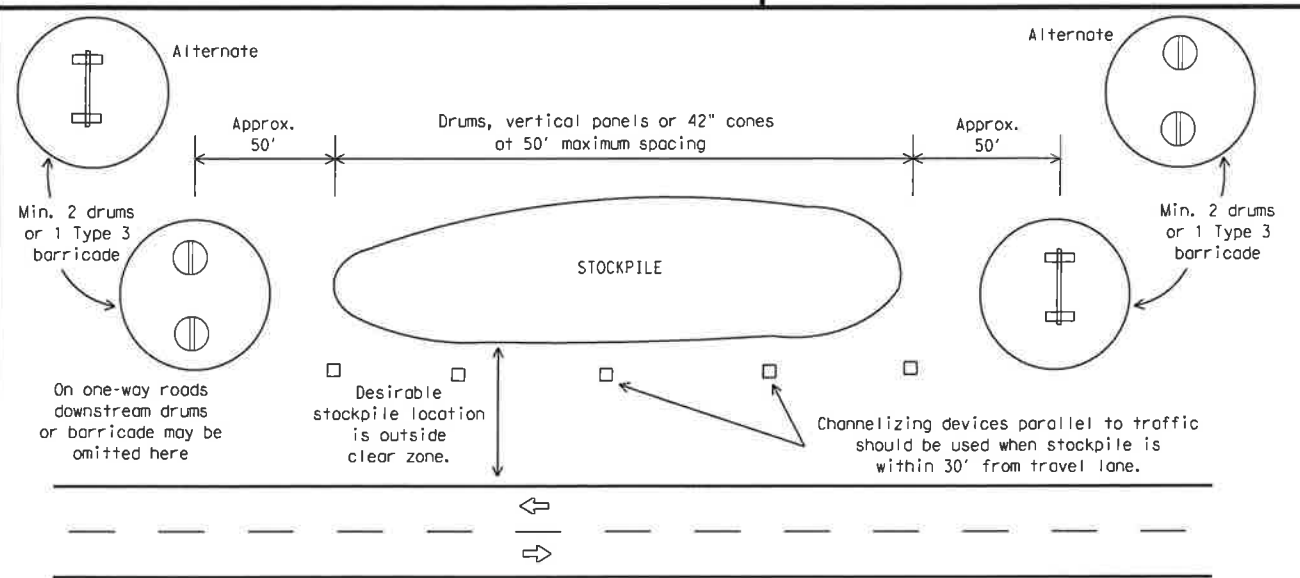
28" Cones shall have a minimum weight of 9 1/2 lbs.
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



EDGE LINE CHANNELIZER

1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or topers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers used at night shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

SHEET 10 OF 12

Texas Department of Transportation
Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (10) - 14

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

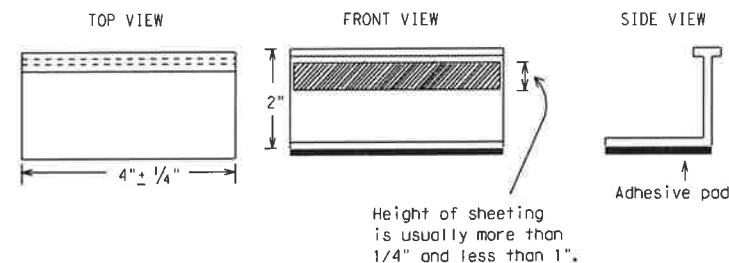
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-pointing of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
 - A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
 2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
 3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.
- Guidemarks shall be designated as:
 YELLOW - (two amber reflective surfaces with yellow body).
 WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

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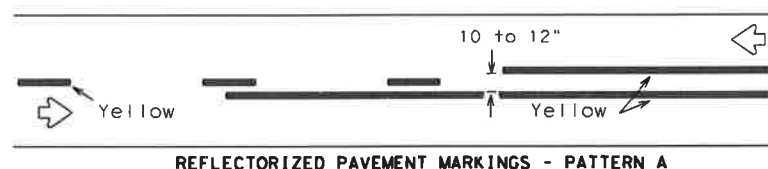
BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-14

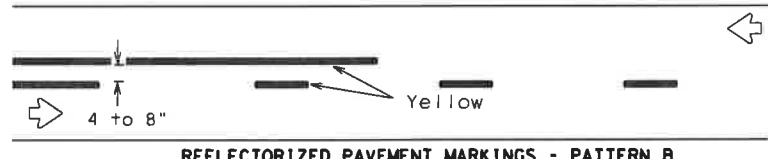
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PAVEMENT MARKING PATTERNS

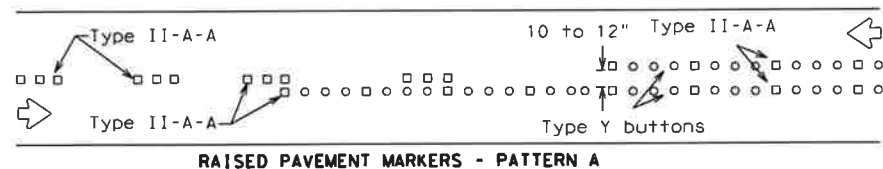


REFLECTORIZED PAVEMENT MARKINGS - PATTERN A

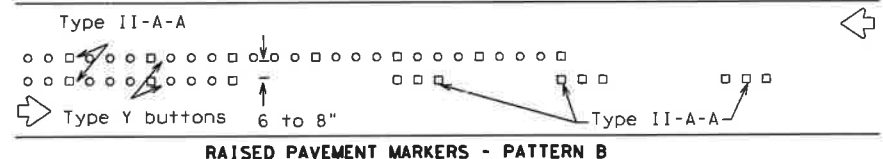


REFLECTORIZED PAVEMENT MARKINGS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectorized pavement markings.

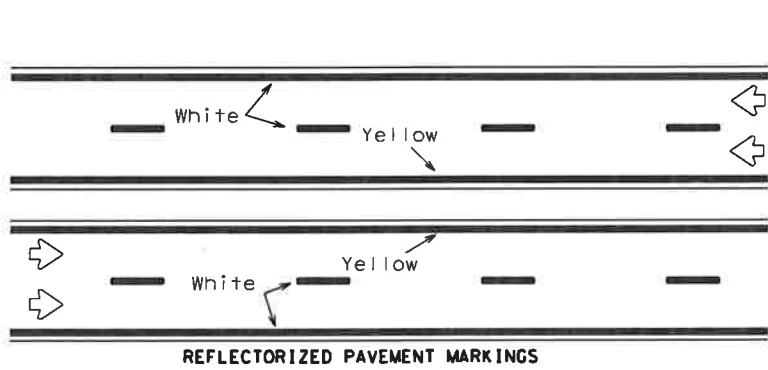


RAISED PAVEMENT MARKERS - PATTERN A



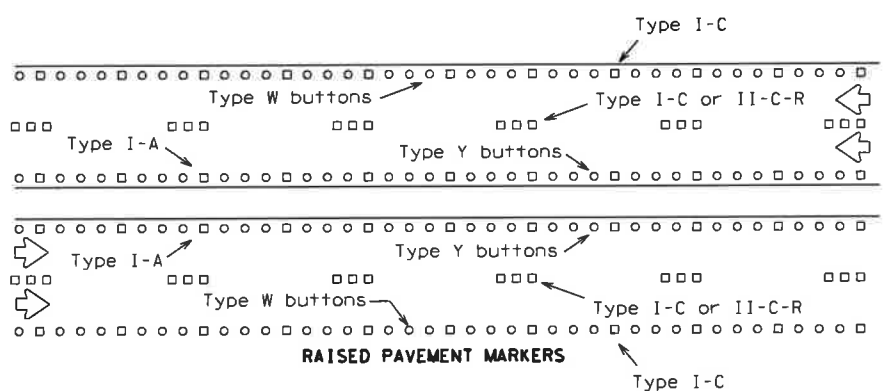
RAISED PAVEMENT MARKERS - PATTERN B

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



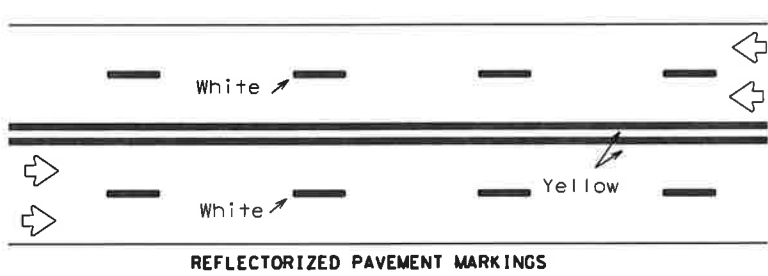
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectorized pavement markings.



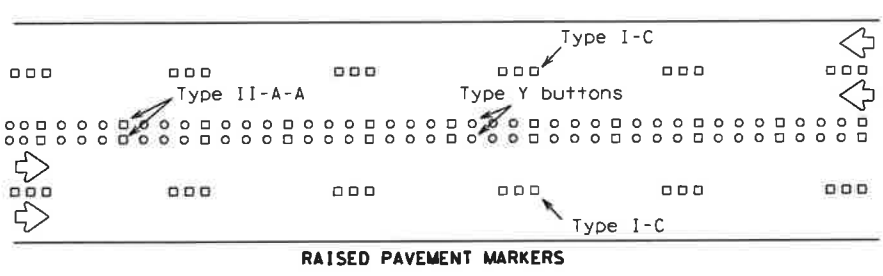
RAISED PAVEMENT MARKERS

EDGE & LANE LINES FOR DIVIDED HIGHWAY



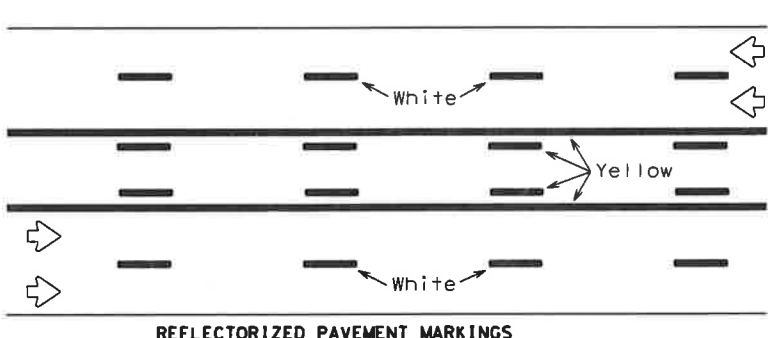
REFLECTORIZED PAVEMENT MARKINGS

Prefabricated markings may be substituted for reflectorized pavement markings.



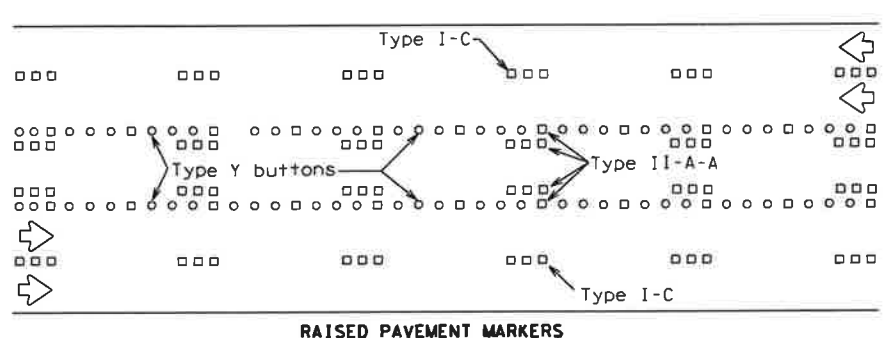
RAISED PAVEMENT MARKERS

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS

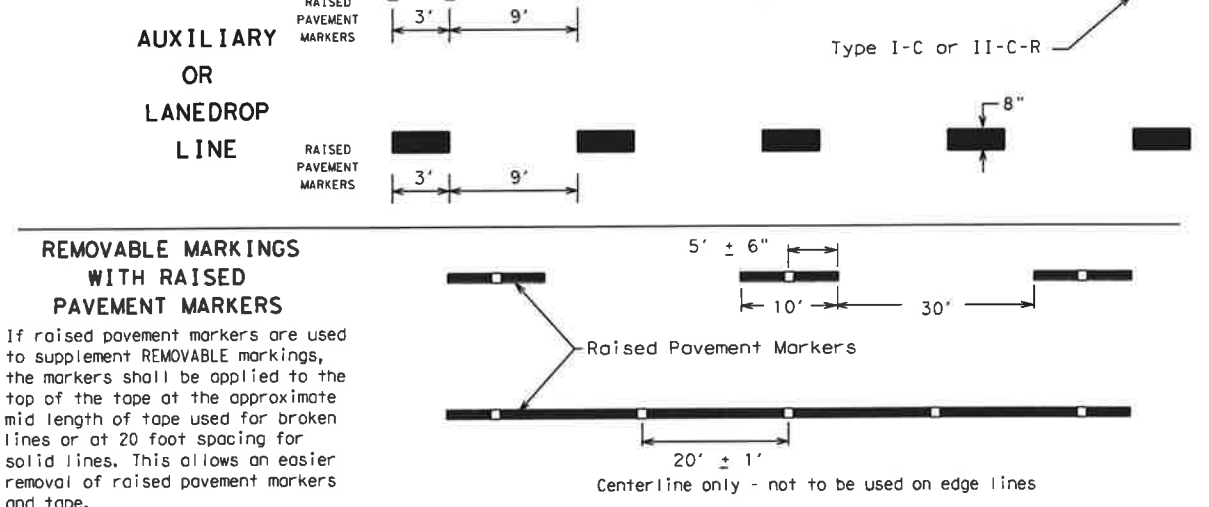
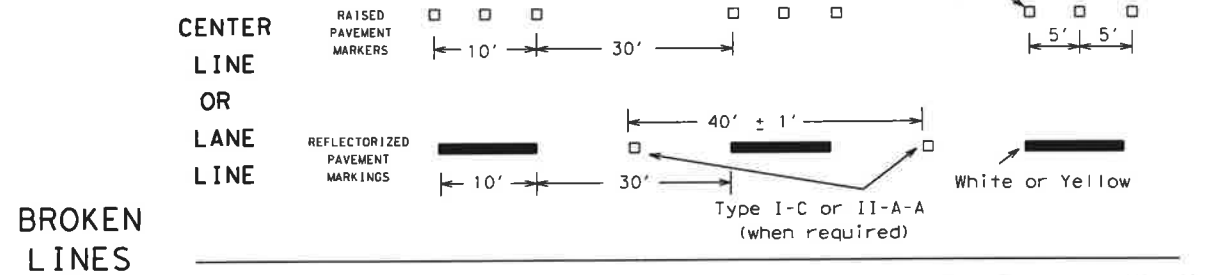
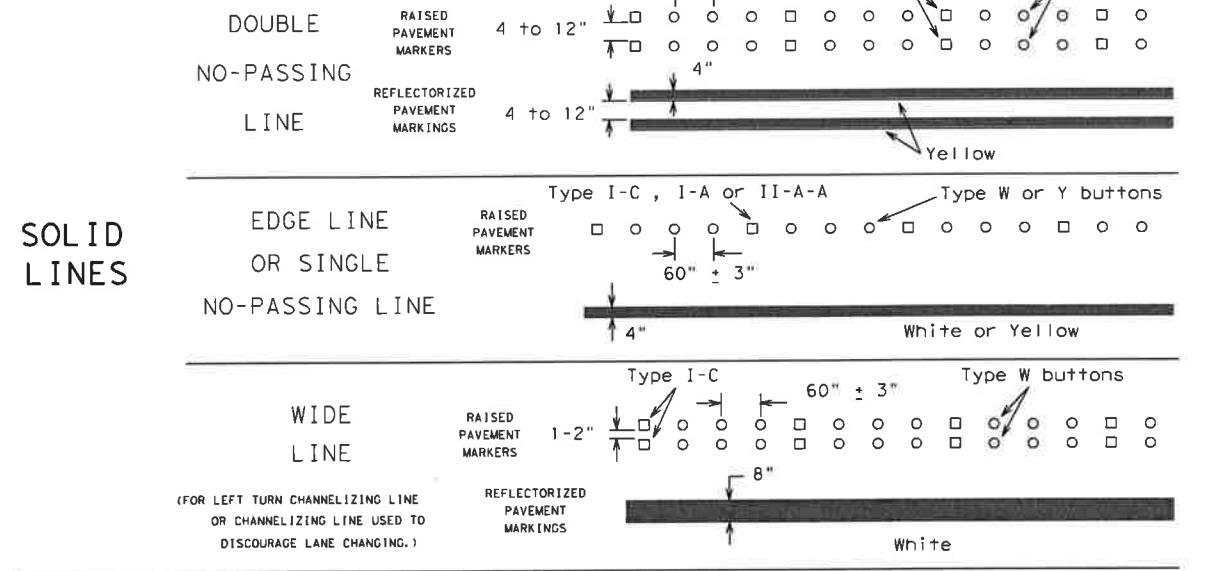
Prefabricated markings may be substituted for reflectorized pavement markings.



RAISED PAVEMENT MARKERS

TWO-WAY LEFT TURN LANE

STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



SHEET 12 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

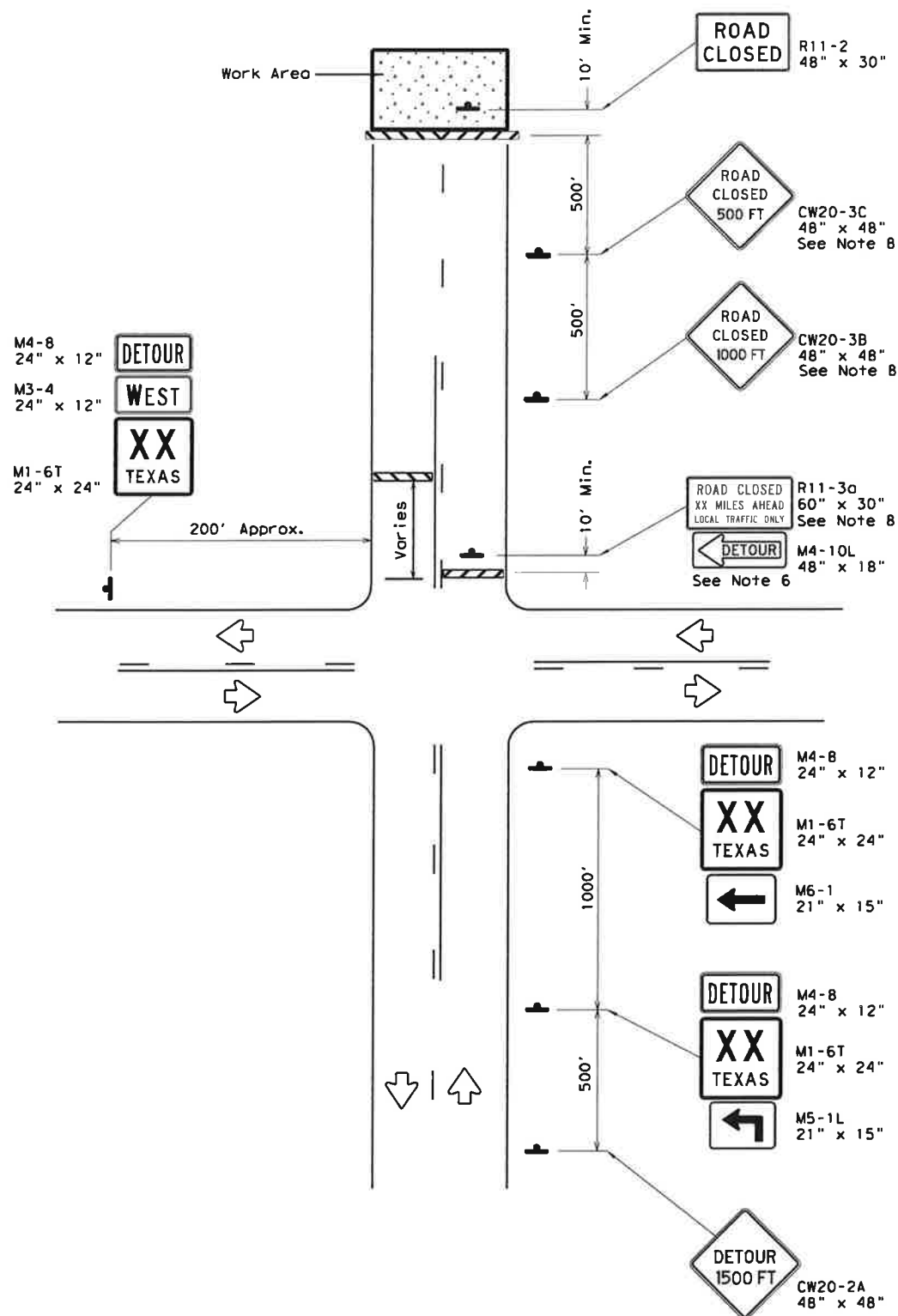
BC (12) - 14

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

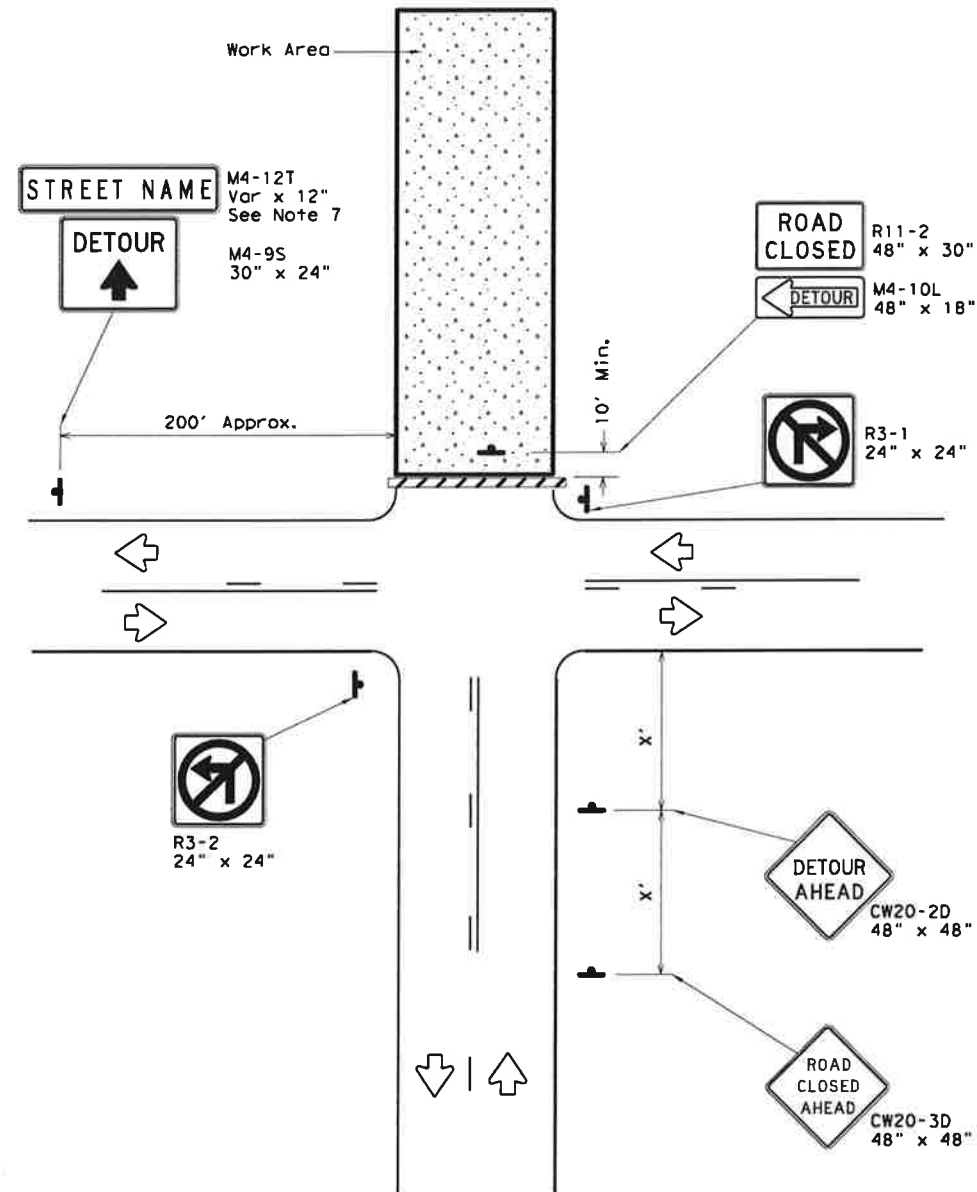
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ROAD CLOSURE BEYOND THE INTERSECTION
Signing for a Numbered Route with an Off-Site Detour



ROAD CLOSURE AT THE INTERSECTION
Signing for an Un-numbered Route with an Off-Site Detour

LEGEND

	Type 3 Barricade
	Sign

Posted Speed *	Minimum Sign Spacing "X" Distance
30	120'
35	160'
40	240'
45	320'
50	400'
55	500'
60	600'
65	700'
70	800'
75	900'

* Conventional Roads Only

GENERAL NOTES

1. This sheet is intended to provide details for temporary work zone road closures. For permanent road closure details see the D&OM standards.
2. Barricades used shall meet the requirements shown on Barricade and Construction Standard BC(10) and listed on the Compliant Work Zone Traffic Control Devices List (CWZTCD).
3. Stockpiled materials shall not be placed on the traffic side of barricades.
4. Barricades at the road closure should extend from pavement edge to pavement edge.
5. Detour signing shown is intended to illustrate the type of signing that is appropriate for numbered routes or un-numbered routes as labeled. It does not indicate the full extent of detour signing required. Detour routes should be signed as shown elsewhere in the plans.
6. If the road is open for a significant distance beyond the intersection or there are significant origin/destination points beyond the intersection, the signs and barricades at this location should be located at the edge of the traveled way.
7. The Street Name (M4-12T) sign is to be placed above the DETOUR (M4-9S) sign.
8. For urban areas where there is a shorter distance between the intersection and the actual closure location, the ROAD CLOSED XX MILES AHEAD (R11-3a) sign may be replaced with a ROAD CLOSED TO THRU TRAFFIC (R11-4) sign. If adequate space does not exist between the intersection and the closure a single ROAD CLOSED AHEAD (CW20-3D) sign spaced as per the table above may replace the ROAD CLOSED 1000 FT (CW20-3B) and ROAD CLOSED 500 FT (CW20-3C) signs.
9. Signs and barricades shown shall be subsidiary to Item 502. Locations where these details will be required shall be as shown elsewhere in the plans.

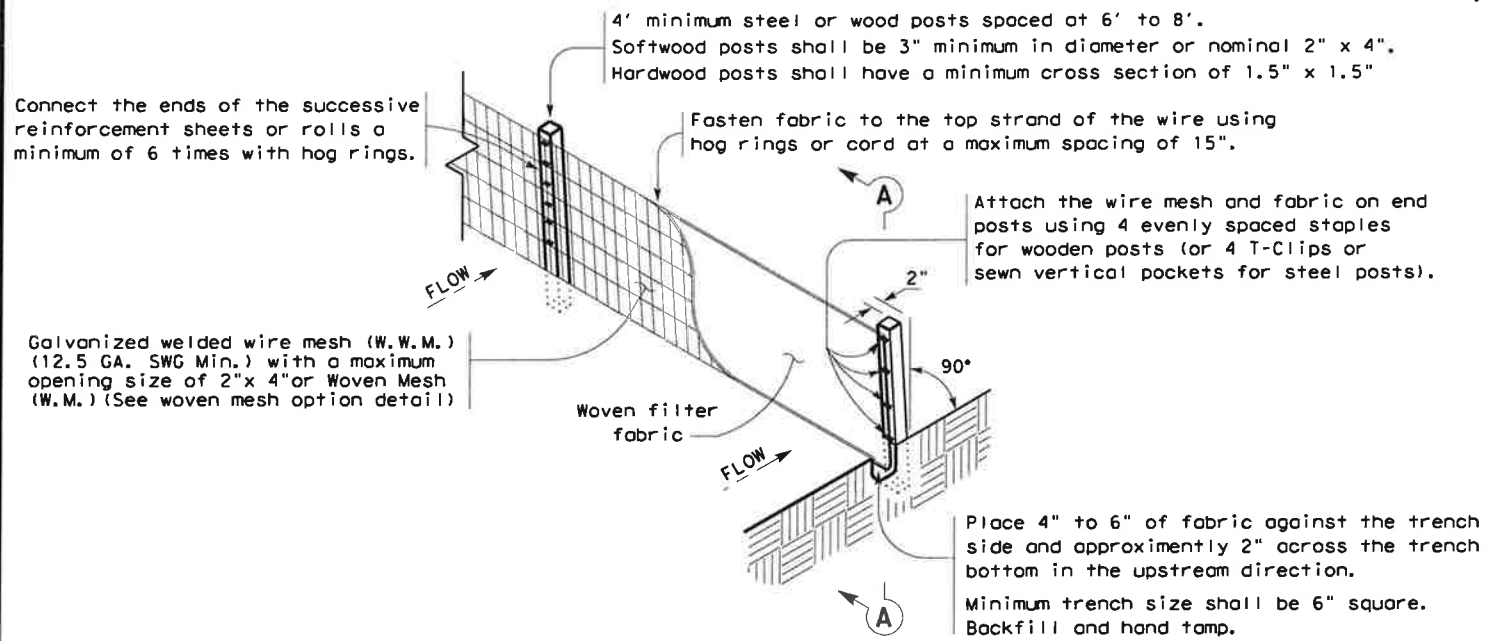
Texas Department of Transportation
Traffic Operations Division Standard

WORK ZONE ROAD CLOSURE DETAILS

WZ (RCD) - 13

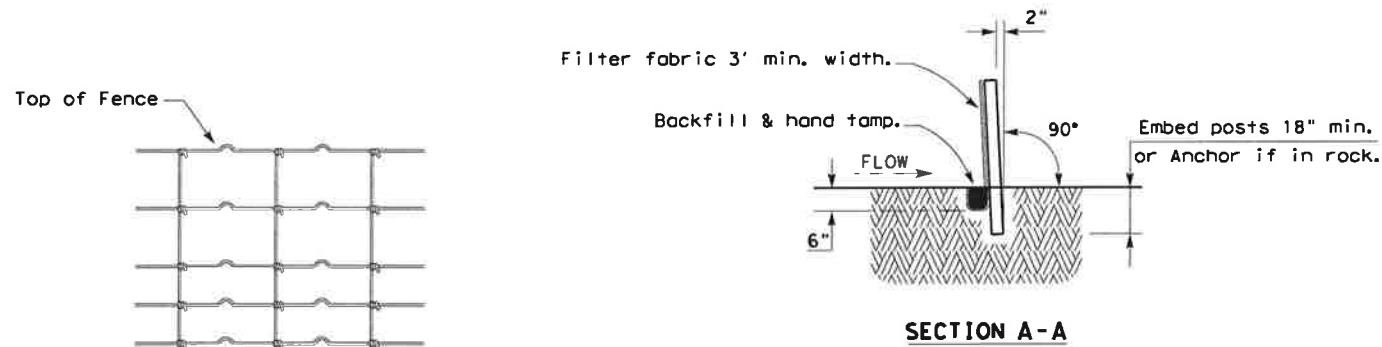
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REVISIONS				
1-97 4-98 7-13	DIST		COUNTY	SHEET NO.
2-98 3-03				109

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TEMPORARY SEDIMENT CONTROL FENCE

SCF



HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT². Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

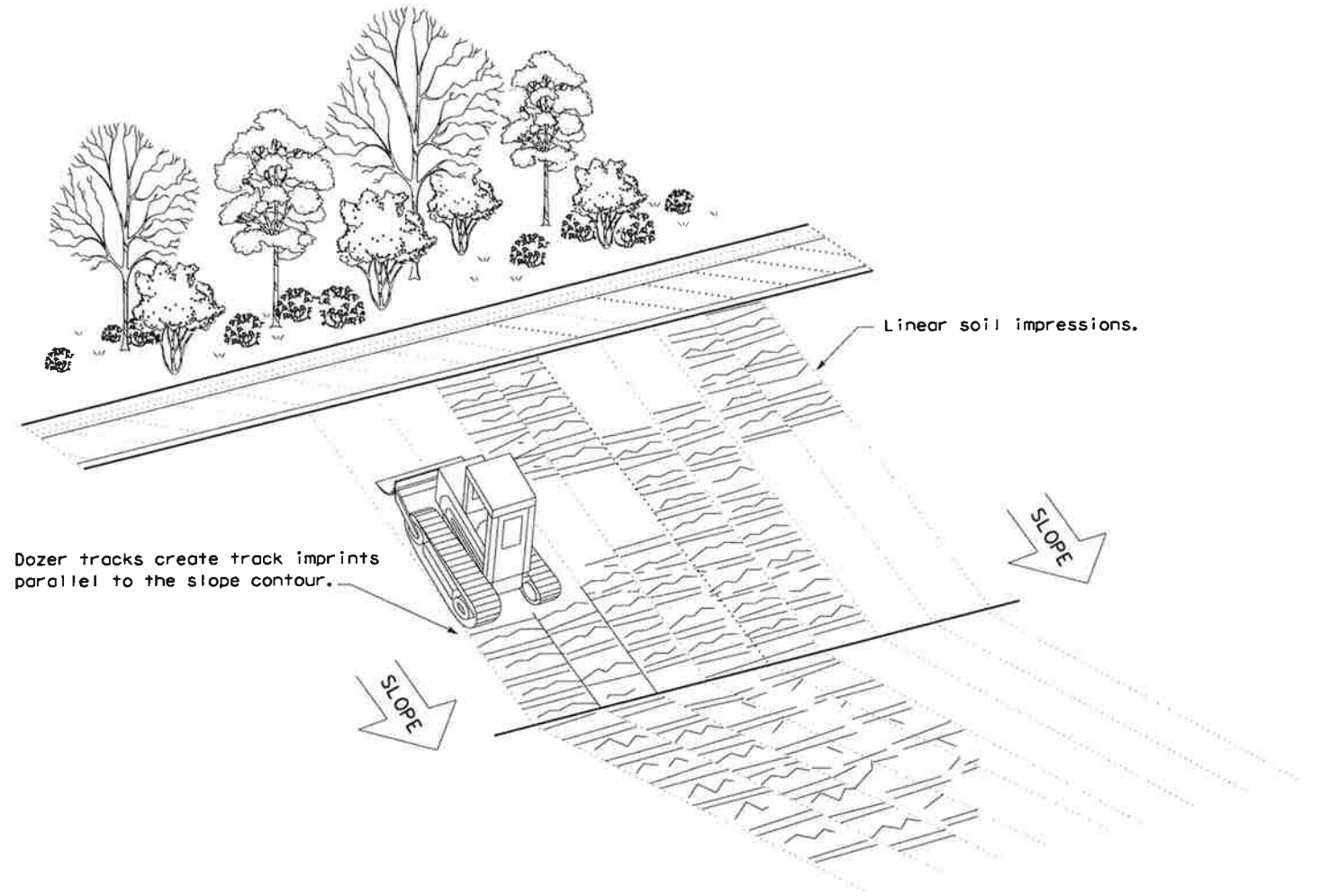
LEGEND

Sediment Control Fence

SCF

GENERAL NOTES

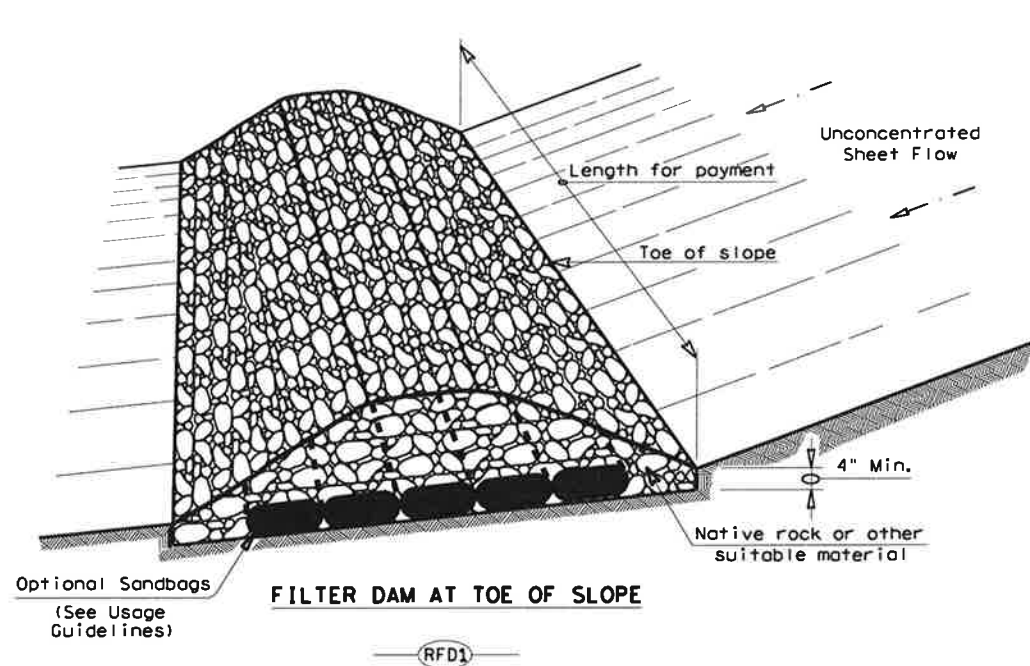
1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.



VERTICAL TRACKING

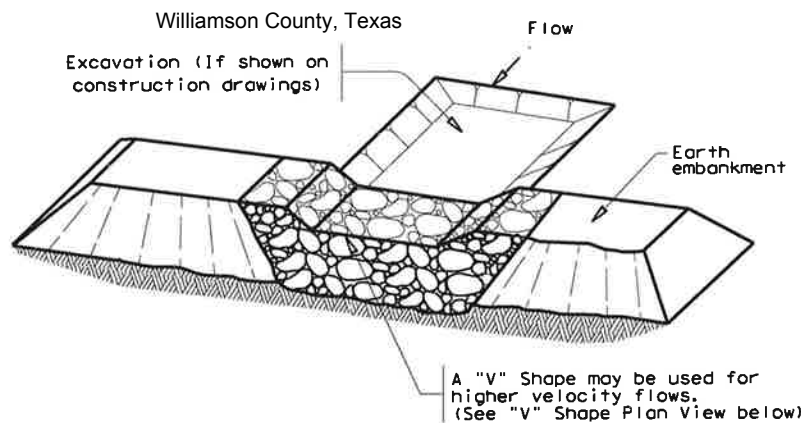
		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCE & VERTICAL TRACKING			
EC(1)-16			
FILE: ec116	DN: TxDOT	CK: KM	DW: VP
© TxDOT: JULY 2016	CONT	SECT	JOB
REVISIONS		HIGHWAY	
DIST		COUNTY	
		SHEET NO.	
		110	

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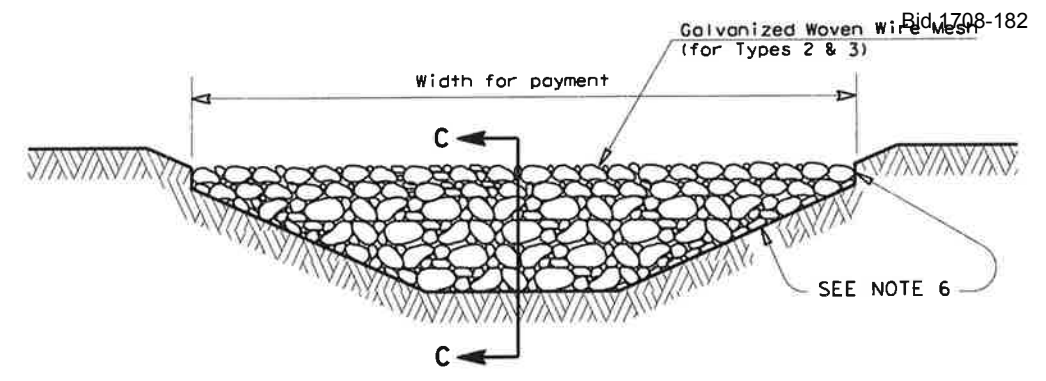
FILTER DAM AT TOE OF SLOPE

(RFD1) OR (RFD2)



FILTER DAM AT SEDIMENT TRAP

(RFD1) OR (RFD2)

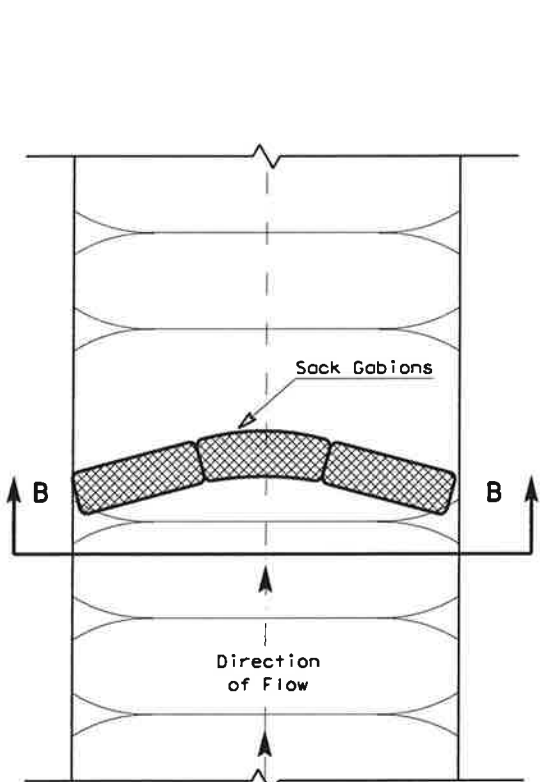


FILTER DAM AT CHANNEL SECTIONS

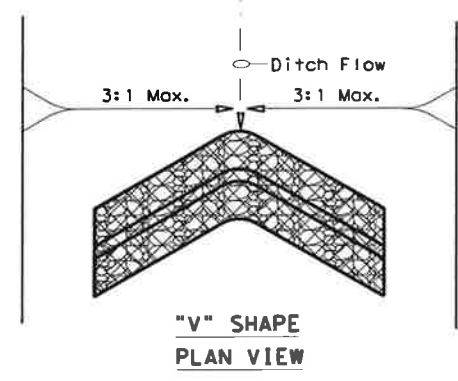
(RFD1) OR (RFD2) OR (RFD3)

GENERAL NOTES

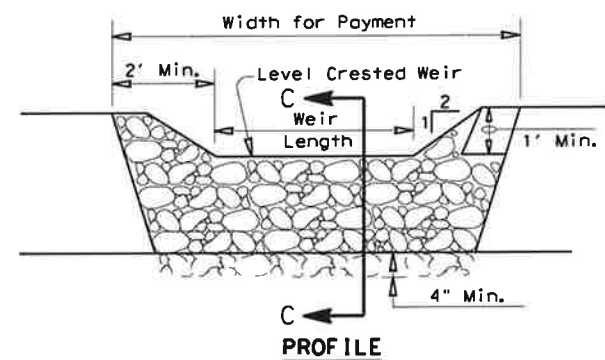
1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream of drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with 3/4" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 1/2" x 3 1/4".
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



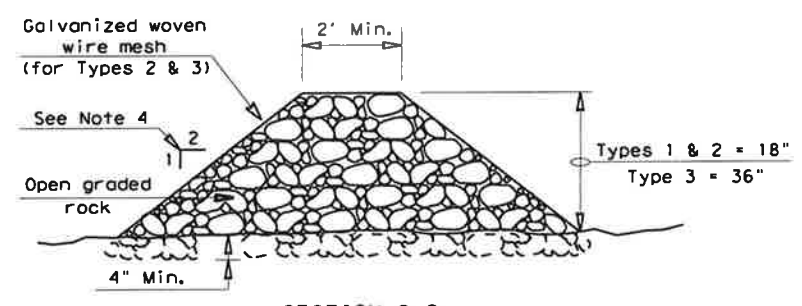
PLAN VIEW



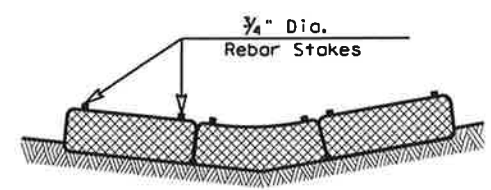
"V" SHAPE PLAN VIEW



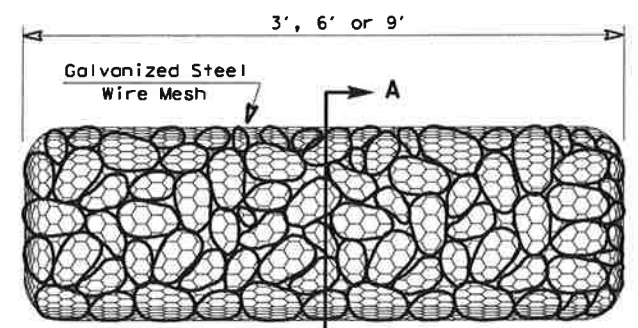
PROFILE



SECTION C-C

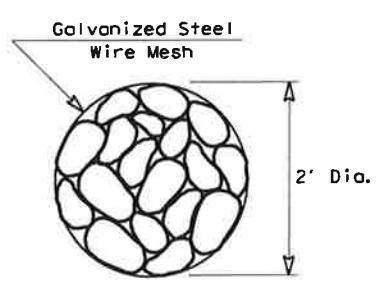


SECTION B-B



TYPE 4 (SACK GABIONS)

(RFD4)



SECTION A-A

ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT² of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximately 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

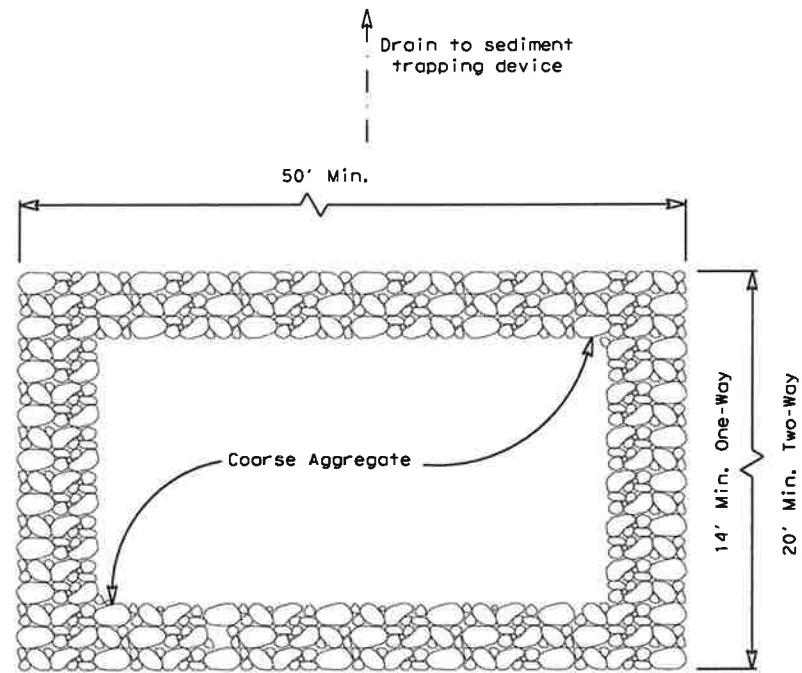
Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.

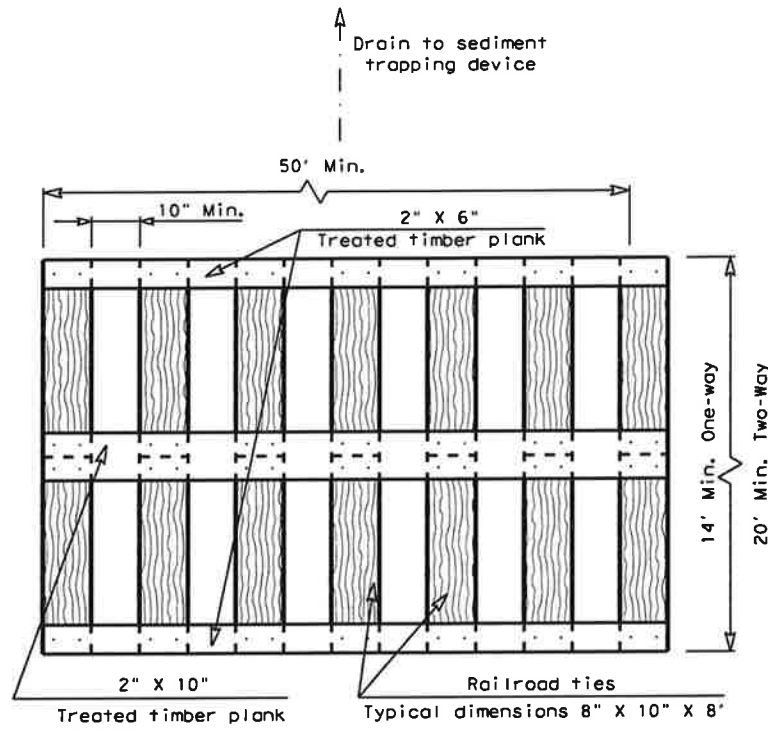
PLAN SHEET LEGEND

- Type 1 Rock Filter Dam (RFD1)
- Type 2 Rock Filter Dam (RFD2)
- Type 3 Rock Filter Dam (RFD3)
- Type 4 Rock Filter Dam (RFD4)

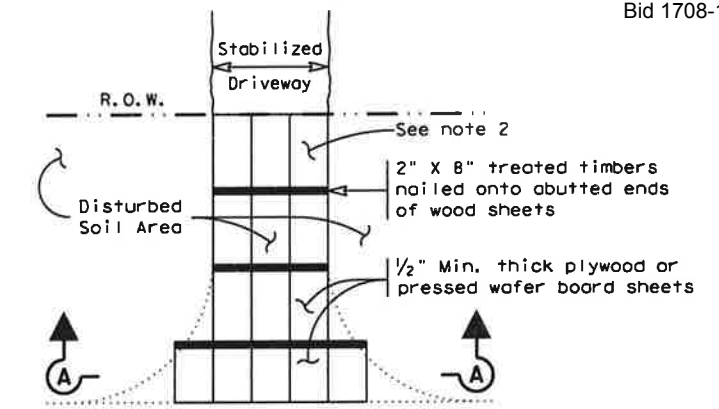
		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES ROCK FILTER DAMS EC(2)-16			
FILE: ec216	DW: TxDOT	CK: KM	DW: VP
CONT: JULY 2016	SECT:	JOB:	HIGHWAY:
REVISIONS			
DIST:	COUNTY:	SHEET NO. 111	



PLAN VIEW

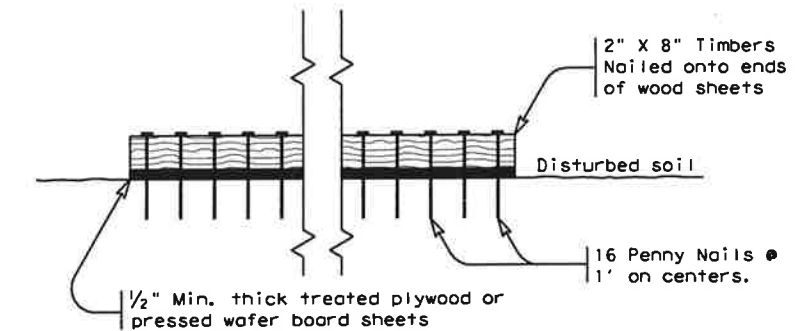


PLAN VIEW



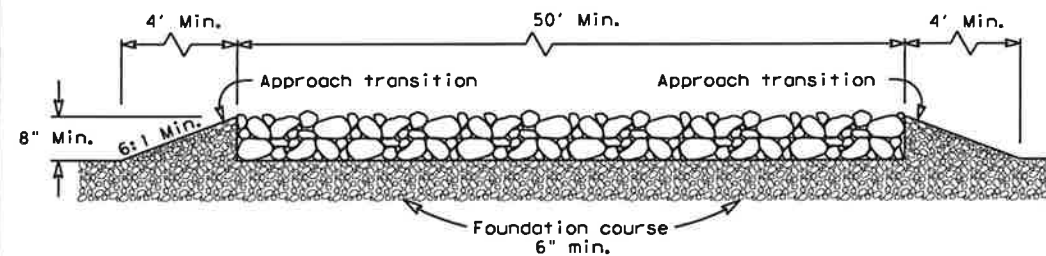
Paved Roadway

PLAN VIEW



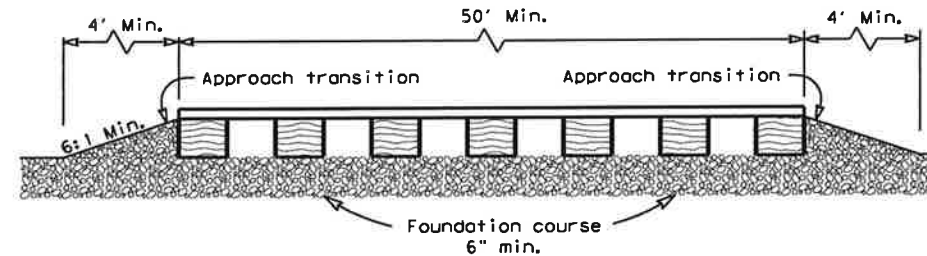
SECTION A-A

CONSTRUCTION EXIT (TYPE 3)
SHORT TERM



ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 1)
ROCK CONSTRUCTION (LONG TERM)



ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 2)
TIMBER CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 3)

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

GENERAL NOTES (TYPE 2)

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2"x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
8. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.

GENERAL NOTES (TYPE 1)

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.

		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES CONSTRUCTION EXITS EC(3)-16			
FILE: ec316	DN: TxDOT	CK: KM	DW: VP
© TxDOT: JULY 2016	CONT: SCS	SECT: SSS	JOB: SHWYS
REVISIONS	SDST	COUNTY: SCTYS	SHEET NO.: SEC 3A216

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I. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1. WILLIAMSON COUNTY

2. No Action Required Required Action

Action No.

- 1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

- No Permit Required
 Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
 Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
 Individual 404 Permit Required
 Other Nationwide Permit Required: NWP*

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

- 1.
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The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices:

Table with 3 columns: Erosion, Sedimentation, Post-Construction TSS. Lists various practices like Temporary Vegetation, Silt Fence, Vegetative Filter Strips, etc.

III. CULTURAL RESOURCES Williamson County, Texas

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

No Action Required Required Action

Action No.

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2.
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4.

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical. Contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

No Action Required Required Action

Action No.

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2.
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4.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

No Action Required Required Action

Action No.

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4.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the Engineer immediately.

LIST OF ABBREVIATIONS

Table listing abbreviations: BMP: Best Management Practice, CGP: Construction General Permit, DSHS: Texas Department of State Health Services, FHWA: Federal Highway Administration, MOA: Memorandum of Agreement, MOU: Memorandum of Understanding, MS4: Municipal Separate Stormwater Sewer System, MBTA: Migratory Bird Treaty Act, NOI: Notice of Intent, SPCC: Spill Prevention Control and Countermeasure, SW3P: Stormwater Pollution Prevention Plan, PCN: Pre-Construction Notification, PSL: Project Specific Location, TCEQ: Texas Commission on Environmental Quality, TPDES: Texas Pollutant Discharge Elimination System, TPWD: Texas Parks and Wildlife Department, TxDOT: Texas Department of Transportation, T&E: Threatened and Endangered Species, USACE: U.S. Army Corps of Engineers, USFWS: U.S. Fish and Wildlife Service

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used. Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labeling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

- Dead or distressed vegetation (not identified as normal)
Trash piles, drums, canister, barrels, etc.
Undesirable smells or odors
Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

Yes No

If "No", then no further action is required.

If "Yes", then TxDOT is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

Yes No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the details for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

No Action Required Required Action

Action No.

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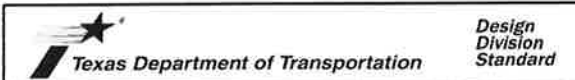
VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)

No Action Required Required Action

Action No.

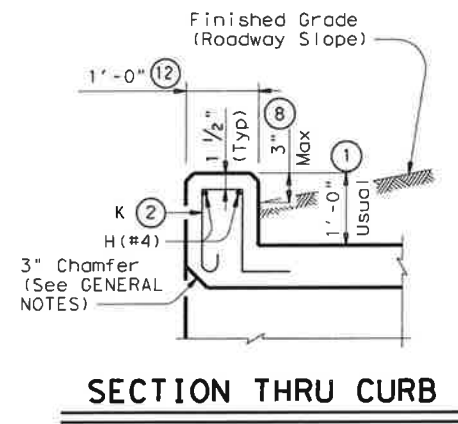
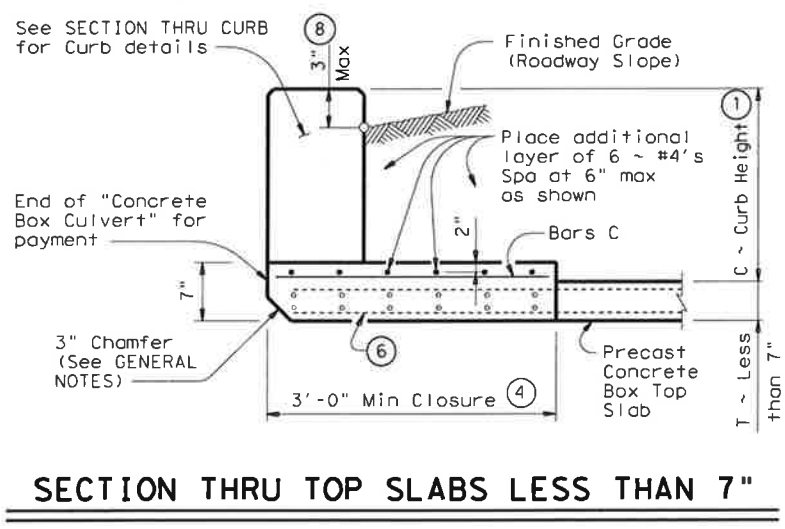
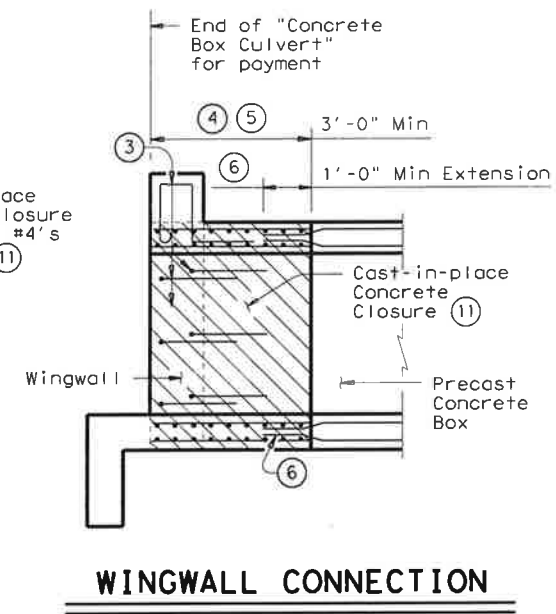
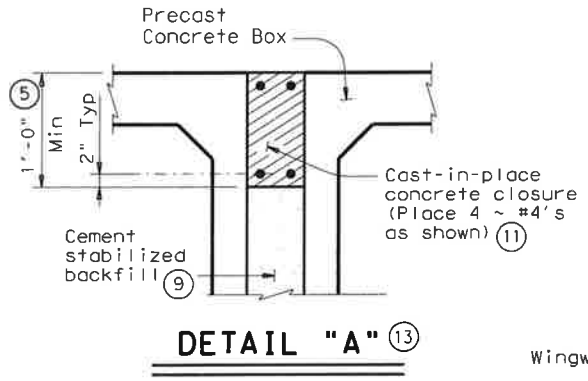
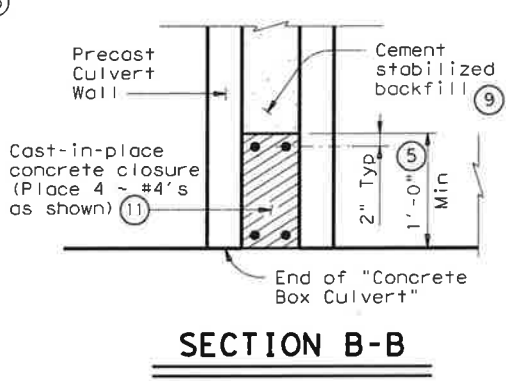
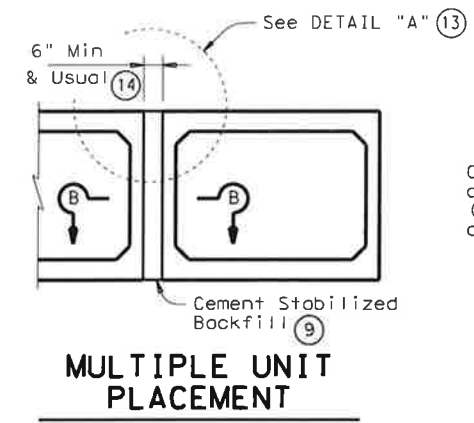
- 1.
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3.



ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

EPIC

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QUANTITIES PER FOOT OF CURB

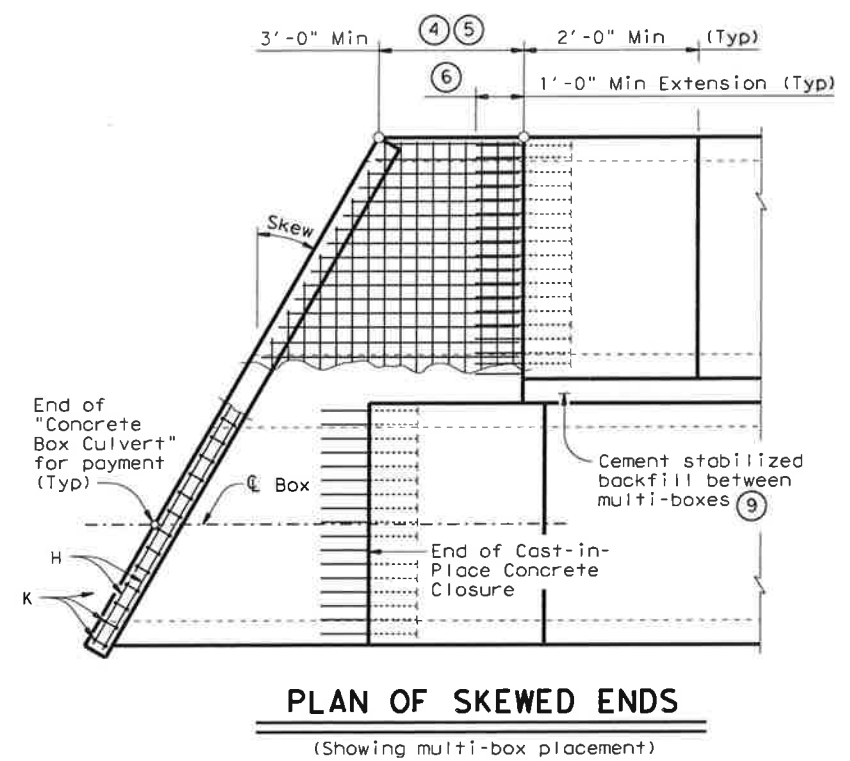
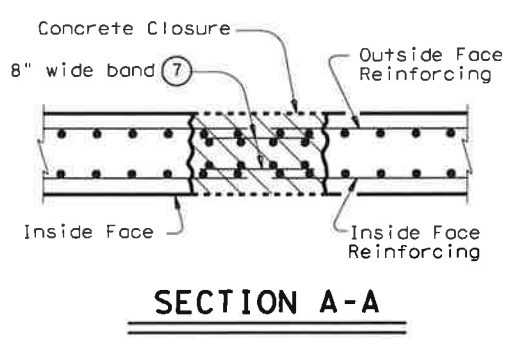
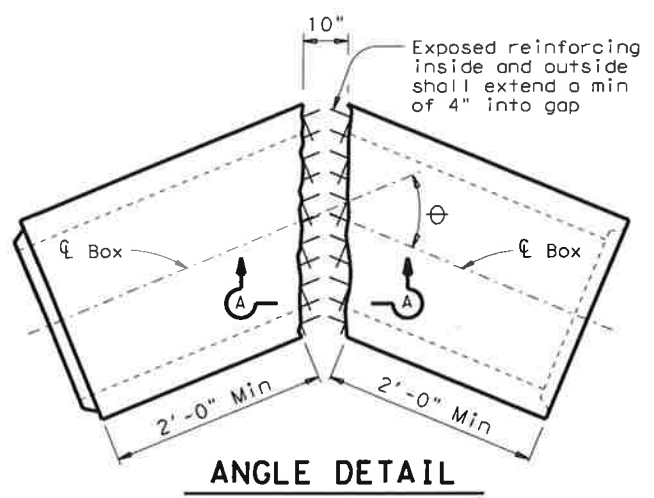
Reinforcing Steel	4.18 Lb
Concrete	0.037 CY

BARS C ~ #4
(Spa = 1'-0" Max)

BARS K ~ #4
(Spa = 1'-0" Max)
(Length = 4'-3")

- ① 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 traffic rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- ② For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.
- ③ Curb, Wingwall or Safety End Treatment reinforcing shall extend into concrete closure. Any reinforcing that does not fit into the closure shall be bent or trimmed as necessary.
- ④ Cast-in-place concrete closure shall be 3'-0" min. Boxes shall be cast short or broken back in the field. All reinforcing in the closure shall be the same size and spacing as in the precast box section. Except where shown otherwise, the cast-in-place closure shall be flush with the inside and outside faces of the precast box section.
- ⑤ For multiple unit placements the length of the closure for the interior walls may be adjusted as necessary. The length of the top slab, bottom slab, and exterior wall closure shall not be less than 3'-0". See Section B-B detail when interior walls are cast full length.
- ⑥ Precast box reinforcing shall extend a minimum of 1'-0" into concrete closure (Typ).
- ⑦ Bands of reinforcing matching the inside and outside face reinforcing shall be placed in the gaps of the top and bottom slabs. A band matching the outside face reinforcing of the wall shall be placed in the gaps of the walls (placed in the outside face only). The bands shall be tack welded to the exposed reinforcing at each point of contact.
- ⑧ For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, curbs shall project no more than 3" above finished grade.
 - For structures with bridge rail, curbs shall be flush with finished grade.
 Curb heights shall be reduced, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- ⑨ Cement Stabilized Backfill between boxes is considered part of the Box Culvert for payment.
- ⑩ All curb concrete and reinforcing is considered part of the Box Culvert for payment.
- ⑪ Any additional concrete and reinforcing required for the closures shall be considered as subsidiary to the Concrete Box Culvert.
- ⑫ 1'-0" typical. 2'-0" when RAC standard is referred to elsewhere in the plans.
- ⑬ For multiple unit placement with overlay, with 1 to 2 course surface treatment, or with the top slab as the final riding surface, provide wall closure as shown in DETAIL "A".
- ⑭ This dimension may be increased with approval of the Engineer to allow the precast boxes to be tunneled or jacked in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box". No payment will be made for any additional material in the gap between adjacent boxes.

GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 All closure concrete shall be Class "C" with a minimum compressive strength of 3600 psi and shall be placed according to the Item, "Concrete Substructures".
 Any additional concrete required for the closures shall be considered as subsidiary to the Concrete Box Culvert.
 Refer to the Single Box Culverts Precast standard for details not shown.
 The bottom edge of the top slab closure shall be chamfered 3 inches at the entrance.



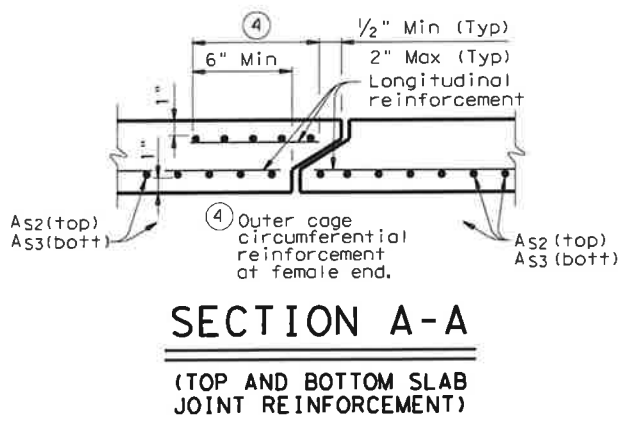
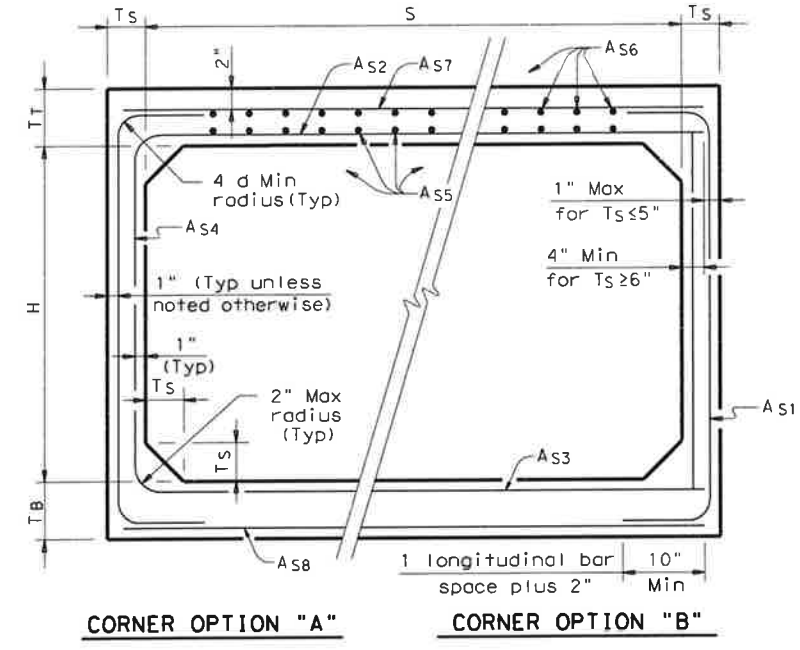
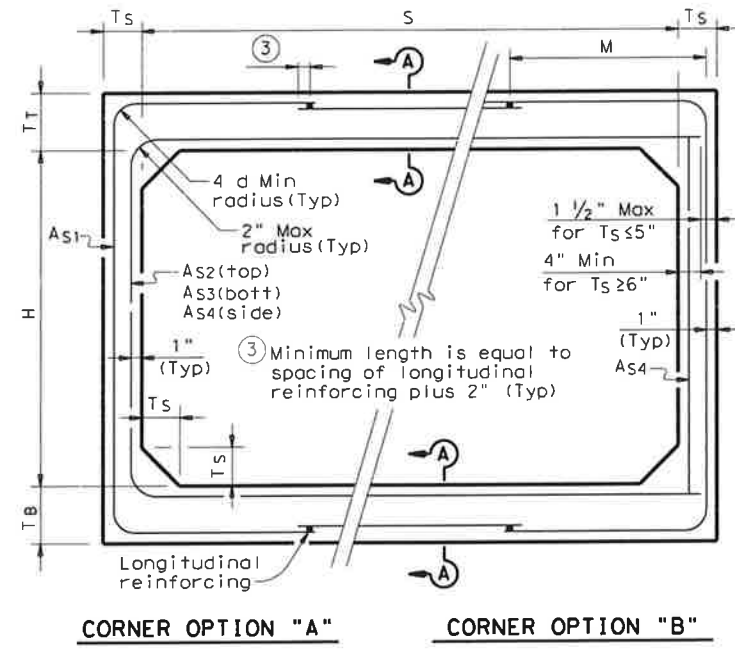
HL93 LOADING

		Bridge Division Standard	
BOX CULVERTS PRECAST MISCELLANEOUS DETAILS			
SCP-MD			
FILE	scpmst15.dgn	BY GAF	CK LMW
DATE	February 2010	CONT	SPEC
REV		JOB	HIGHWAY
DIST		COUNTY	SHEET NO.
			114

BOX DATA

SECTION DIMENSIONS					Fill Height (ft)	M (Min) (in)	REINFORCING (in ² /ft) ⁽²⁾								Lift Weight (Tons) ⁽¹⁾
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
6	3	8	7	7	<2	-	0.20	0.31	0.22	0.17	0.19	0.19	0.19	0.17	7.9
6	3	7	7	7	2<3	43	0.21	0.24	0.19	0.17	-	-	-	-	7.5
6	3	7	7	7	3-5	39	0.17	0.18	0.17	0.17	-	-	-	-	7.5
6	3	7	7	7	10	39	0.17	0.18	0.19	0.17	-	-	-	-	7.5
6	3	7	7	7	15	38	0.22	0.24	0.24	0.17	-	-	-	-	7.5
6	3	7	7	7	20	38	0.28	0.31	0.31	0.17	-	-	-	-	7.5
6	3	7	7	7	25	38	0.35	0.38	0.39	0.17	-	-	-	-	7.5
6	3	7	7	7	30	38	0.42	0.46	0.46	0.17	-	-	-	-	7.5
6	4	8	7	7	<2	-	0.19	0.34	0.25	0.17	0.19	0.19	0.19	0.17	8.6
6	4	7	7	7	2<3	43	0.19	0.27	0.21	0.17	-	-	-	-	8.2
6	4	7	7	7	3-5	39	0.17	0.21	0.19	0.17	-	-	-	-	8.2
6	4	7	7	7	10	39	0.17	0.20	0.21	0.17	-	-	-	-	8.2
6	4	7	7	7	15	38	0.18	0.27	0.27	0.17	-	-	-	-	8.2
6	4	7	7	7	20	38	0.24	0.34	0.35	0.17	-	-	-	-	8.2
6	4	7	7	7	25	38	0.29	0.43	0.42	0.17	-	-	-	-	8.2
6	4	7	7	7	30	38	0.35	0.51	0.52	0.17	-	-	-	-	8.2
6	5	8	7	7	<2	-	0.19	0.37	0.28	0.17	0.19	0.19	0.19	0.17	9.3
6	5	7	7	7	2<3	43	0.17	0.30	0.24	0.17	-	-	-	-	8.9
6	5	7	7	7	3-5	43	0.17	0.23	0.21	0.17	-	-	-	-	8.9
6	5	7	7	7	10	39	0.17	0.22	0.23	0.17	-	-	-	-	8.9
6	5	7	7	7	15	38	0.17	0.28	0.29	0.17	-	-	-	-	8.9
6	5	7	7	7	20	38	0.20	0.37	0.38	0.17	-	-	-	-	8.9
6	5	7	7	7	25	38	0.25	0.45	0.46	0.17	-	-	-	-	8.9
6	5	7	7	7	30	38	0.30	0.54	0.55	0.17	-	-	-	-	8.9
6	6	8	7	7	<2	-	0.19	0.38	0.30	0.17	0.19	0.19	0.19	0.17	10.0
6	6	7	7	7	2<3	52	0.17	0.32	0.26	0.17	-	-	-	-	9.6
6	6	7	7	7	3-5	52	0.17	0.24	0.22	0.17	-	-	-	-	9.6
6	6	7	7	7	10	43	0.17	0.23	0.24	0.17	-	-	-	-	9.6
6	6	7	7	7	15	39	0.17	0.29	0.31	0.17	-	-	-	-	9.6
6	6	7	7	7	20	39	0.18	0.38	0.39	0.17	-	-	-	-	9.6
6	6	7	7	7	25	38	0.23	0.46	0.48	0.17	-	-	-	-	9.6
6	6	7	7	7	30	38	0.27	0.55	0.57	0.17	-	-	-	-	9.6

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



GENERAL NOTES:

Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.

All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.

See SCP-MD standard sheet for miscellaneous details and notes not shown.

In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

⁽¹⁾ For Box Length = 8'-0"

⁽²⁾ As₁ thru As₄, As₇ and As₈ are minimum required areas of reinforcement per linear foot of box length. As₆ and As₅ are minimum required areas of reinforcement per linear foot of box width.

HL93 LOADING

Texas Department of Transportation

Bridge Division Standard

SINGLE BOX CULVERTS
PRECAST
6'-0" SPAN

SCP-6

FILE	scp06sts.dwg	DRW	GAF	CR	LMW	DR	BWH/TJ/DDT	CK	GAF
REVISED	February 2010	CONF	SCFT	JDB	HIGHER				
DIST		COUNTY		SHEET NO.					

115

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Culvert Station and/or Creek name followed by applicable end (Lt, Rt or Both)	Description of Box Culvert No. Spans ~ Span X Height	Max Fill Height (Ft)	Applicable Box Culvert Standard ④	Applicable Wingwall or End Treatment Standard	Skew Angle (0°, 15°, 30° or 45°)	Side Slope or Channel Slope Ratio (SL:1)	Culvert Top Slab Thickness (In)	Culvert Wall Thickness (In)	Estimated Curb Height (Ft)	Hw Height of Wingwall ① (Ft)	A Curb to End of Wingwall (Ft)	B Offset of End of Wingwall (Ft)	Lw Length of Longest Wingwall (Ft)	Ltw Culvert Toewall Length (Ft)	Atw Anchor Toewall Length (Ft)	Riprap Apron (C.Y.)	Class "C" Conc (Curb) ② (C.Y.)	Class "C" Conc (Wingwall) ③ (C.Y.)	Total Wingwall Area (S.F.)		
RIVER CULVERT 6, LT	1 ~ 6' X 3'	1	SCP-6	FW-0	0°	2:1	8	7	1	4.417	8.167	4.715	9.430	N/A	N/A	1.3	0.3	3.1	45		
RIVER CULVERT 6, RT	1 ~ 6' X 3'	1	SCP-6	PW-1	0°	4:1	8	7	1	4.667	N/A	N/A	18.667	7.167	N/A	0.0	0.3	12.3	174		

NOTES:
 Skew Angle = 0° for SW-0, FW-0, SETB-CD, SETB-SW-0, and SETB-FW-0 standards.
 30° Maximum for Safety End Treatment

SL:1 = Horizontal:1 Vertical
 Side Slope at culvert for Flared or Straight Wingwalls. Channel Slope for Parallel Wingwalls.
 Slope shall be 3:1 or flatter for Safety End Treatments.

T = Box Culvert Top Slab Thickness. Dimension can be found on the applicable Box Culvert Standard.
 U = Box Culvert Wall Thickness. Dimension can be found on the applicable Box Culvert Standard.
 C = Curb Height.

See applicable wing or end treatment standards for calculations of Hw, A, B, Lw, Ltw, Atw, and Total Wingwall Area.
 Hw = Height of Wingwall.
 A = Distance from Face of Curb to End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
 B = Offset of End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
 Lw = Length of Longest Wingwall.
 Ltw = Length of Culvert Toewall (Not applicable when using Riprap Apron).
 Atw = Length of Anchor Toewall (Applicable to Safety End Treatment only).
 Total Wingwall Area = Wingwall area in S.F. for two wingwalls (one structure end) if Lt or Rt.
 Area for four wingwalls (two structure ends) if Both.

- ① The wall heights shown will be rounded to the nearest Foot for bidding purposes.
- ② Concrete volume shown is for box culvert curb only. For curbs using the RAC standard, quantities shown must be increased by a factor of 2. If Class "S" concrete is required for the top slab of the culvert, the curb concrete shall also be Class "S". Curb concrete is considered part of the Box Culvert for payment.
- ③ Concrete volume shown is total of wing, footing, culvert toewall (if any), anchor toewall (if any) and wingwall toewall. Riprap apron, culvert and curb quantities are not included.
- ④ Regardless of the type of culvert shown on this sheet, the Contractor shall have the option of furnishing cast-in-place or precast culverts unless otherwise shown elsewhere on the plans. If the Contractor elects to provide culverts of a different type than those shown on this sheet, it shall be the Contractor's responsibility to make the necessary adjustments to the dimensions and quantities shown.

SPECIAL NOTE:

This sheet is a supplement to the Box Culvert standards. It is to be filled out by the culvert specifier and provides dimensions for the construction of the Box Culvert Wingwalls and Safety End Treatments.

An Excel 97 spreadsheet to assist in completing this table can be downloaded from the Bridge Standards (English) web page on the TxDOT web site. The completed sheet shall be signed, sealed, and dated by a licensed Professional Engineer.



Kelly G. Morrell
 8/7/17

Texas Department of Transportation
 Bridge Division Standard

**BOX CULVERT SUPPLEMENT
 WINGS AND END TREATMENTS**

BCS

FILE: bcsstd1.dgn DN: TxDOT CK: TxDOT DW: TxDOT CK: GAF
 C:\TxDOT February 2010 CONF: SEC1 JON HIGHWAY
 REVISIONS
 DIST: COUNTY SHEET NO: 116

TABLE OF DIMENSIONS & REINFORCING STEEL
(Wings for One Structure End)

Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing				Estimated Quantities per ft of wing (2-Wings)		Estimated Quantities per ft of Toewall (1-Toewall)	
	W	X	Y	Z	Bars J1		Bars J2		Reinf (Lb/Ft)	Conc (CY/Ft)	Reinf (Lb/Ft)	Conc (CY/Ft)
					Size	Spa	Size	Spa				
2'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	48.64	0.406	6.85	0.071
2'-9"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.31	0.424	6.85	0.071
3'-0"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.98	0.444	6.85	0.071
3'-3"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.32	0.462	6.85	0.071
3'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.98	0.480	6.85	0.071
4'-0"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	55.77	0.532	6.85	0.071
4'-6"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	59.77	0.568	6.85	0.071
5'-0"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	63.45	0.632	6.96	0.075
5'-6"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	67.46	0.668	6.96	0.075
6'-0"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	80.67	0.730	7.07	0.078
6'-6"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	85.05	0.768	7.07	0.078
7'-0"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	92.15	0.864	8.07	0.093
7'-6"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	96.54	0.902	8.07	0.093
8'-0"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	139.04	0.962	8.13	0.095
8'-6"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	144.47	1.000	8.13	0.095
9'-6"	6'-0"	2'-10"	2'-2"	9"	#5	6"	#5	6"	156.93	1.136	8.41	0.110
10'-6"	6'-5"	3'-0"	2'-5"	9"	#6	6"	#5	6"	196.27	1.234	8.57	0.117
11'-6"	7'-2"	3'-6"	2'-8"	11"	#6	6"	#6	6"	230.13	1.438	9.52	0.140
12'-6"	7'-8"	3'-9"	2'-11"	1'-0"	#7	6"	#6	6"	283.41	1.592	9.74	0.157
13'-6"	8'-2"	4'-0"	3'-2"	1'-2"	#8	6"	#6	6"	348.72	1.804	10.02	0.186
14'-6"	8'-10"	4'-5"	3'-5"	1'-4"	#9	6"	#6	6"	432.94	2.046	10.30	0.218
15'-6"	9'-6"	4'-10"	3'-8"	1'-6"	#9	6"	#7	6"	489.52	2.302	11.24	0.253
16'-0"	9'-11"	5'-0"	3'-11"	1'-7"	#9	6"	#7	6"	505.72	2.448	11.47	0.279

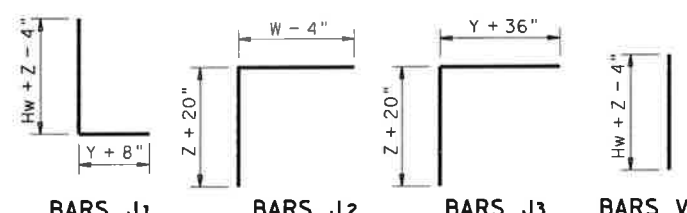
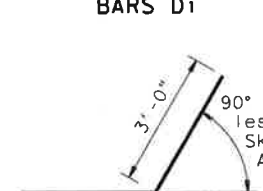
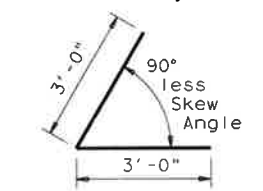
TABLE OF WINGWALL REINFORCING (2-Wings)

Bar	Size	No.	Spa
D1	#6	~	1'-0"
D2	#6	~	1'-0"
E1	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	~	8"
M1	#4	4	~
P	#4	~	1'-0"
V	#4	~	1'-0"

TABLE OF TOEWALL REINFORCING

Bar	Size	No	Spa
J3	#4	~	1'-0"
M2	#4	2	~
E2	#4	~	1'-0"

Williamson County, Texas



WING DIMENSION CALCULATIONS:

Formulas: (All values are in Feet)

$$H_w = H + T + C$$

$$L_w = (H_w) (SL) \div \text{Cosine } \theta \text{ for Ty PW-1}$$

$$= (H_w - 1') (SL) \div \text{Cosine } \theta \text{ for Ty PW-2 and } H_w \ge 4'$$

$$= (H_w - 0.5') (SL) \div \text{Cosine } \theta \text{ for Ty PW-2 and } H_w < 4'$$

For Cast-in-place culverts:
 $L_{tw} = [(N) (S) + (N + 1) (U)] \div \text{Cosine } \theta$

For Precast culverts:
 $L_{tw} = [(N) (2 U + S) + (N - 1) (0.5')] \div \text{Cosine } \theta$
 Total Wingwall Area (Two Wings ~ SF)
 $= (2) (H_w) (L_w) \text{ for Ty PW-1}$
 $= (2) (H_w) (L_w) - 6 \text{ SF for Ty PW-2 and } H_w \ge 4'$
 $= (2) (H_w) (L_w) - 1.5 \text{ SF for Ty PW-2 and } H_w < 4'$

H_w = Height of Wingwall
 L_w = Length of Wingwall
 L_{tw} = Culvert Toewall Length
 N = Number of Culvert Spans
 SL:1 = Channel Slope ratio. (Horizontal: 1 Vertical, Usual value is 2:1)
 θ = Culvert Skew

See applicable box culvert standard for S, H, T and U values.

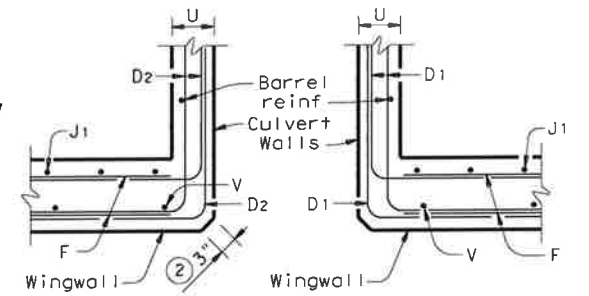
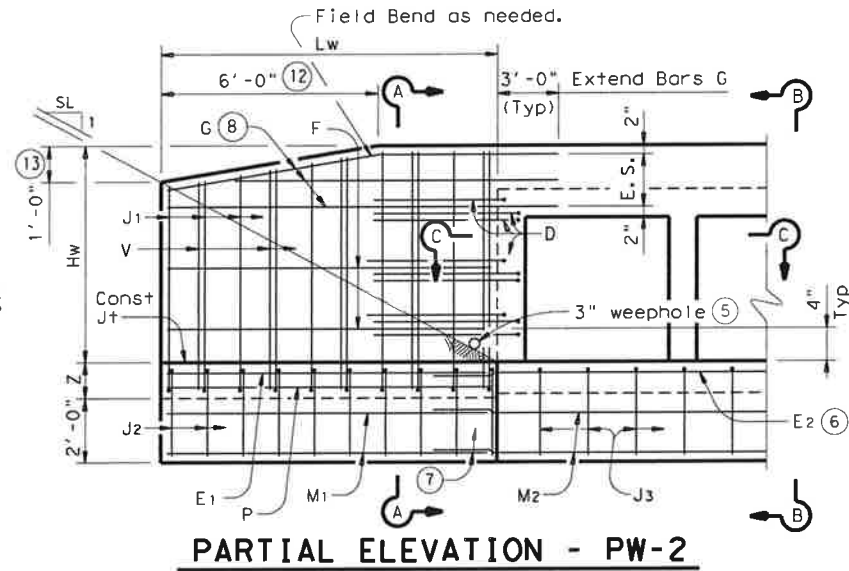
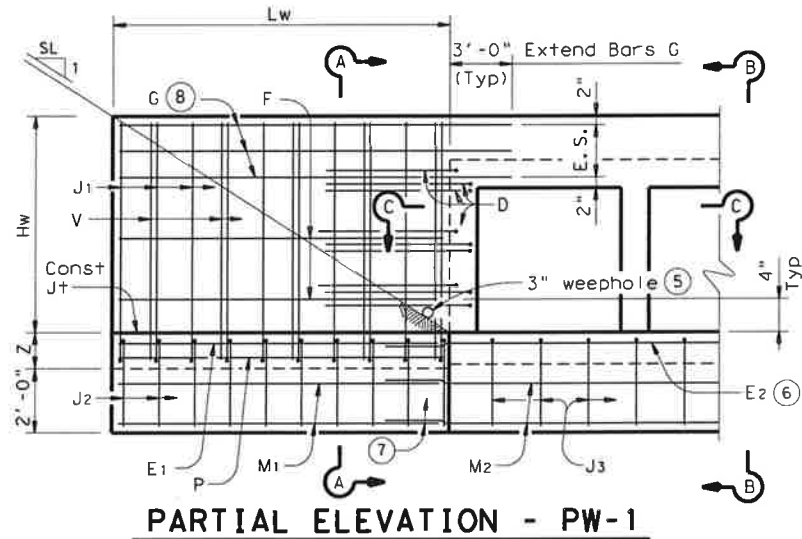
- Skew Angle = 0°
- At discharge end, chamfer may be 3/4".
- For 15° Skew ~ 1"
For 30° Skew ~ 2"
For 45° Skew ~ 3"
- Quantities shown are for two Type PW-1 wings. Adjust concrete volume for Type PW-2 wings. To determine estimated quantities for two wings, multiply the tabulated values by L_w. Quantities shown do not include weight of Bars D.
- Provide weepholes for H_w = 5'-0" and greater. Fill around weepholes with coarse gravel.
- Extend Bars E2 1'-6" minimum into the wingwall footing.
- Lap Bars M1 1'-6" minimum with Bars M2.
- Bars G equally spaced at 8" maximum, place as shown. Provide at least two pair Bars G per wing.
- 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, curbs cannot project more than 3" above finished grade.
 - For structures with bridge rail, build curbs flush with finished grade. Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- 1'-0" typical. 2'-0" typical when RAC standard is referenced elsewhere in the plans.
- 3'-0" for H_w < 4'.
- 6" for H_w < 4'.

GENERAL NOTES:

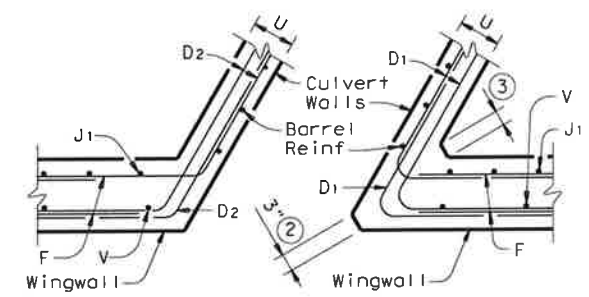
Designed in accordance with AASHTO LRFD Bridge Design Specifications.
 Provide Class "C" Concrete (f'c = 3,600 psi Min) and Grade 60 reinforcing steel.
 Provide 1 1/4" Min clear cover to reinforcing steel.
 Depth of toewalls for wingwalls and culverts may be reduced or eliminated when founded on solid rock, when directed by the Engineer.
 See BCS sheet for wingwall type and additional dimensions and information.
 The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for the Contractor's information only.

DESIGNER NOTES:

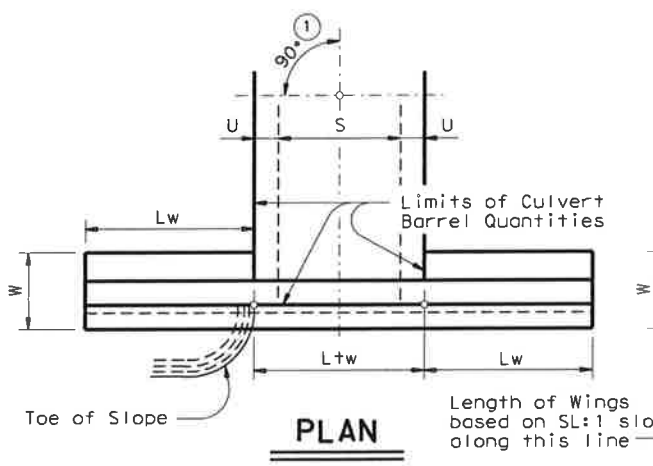
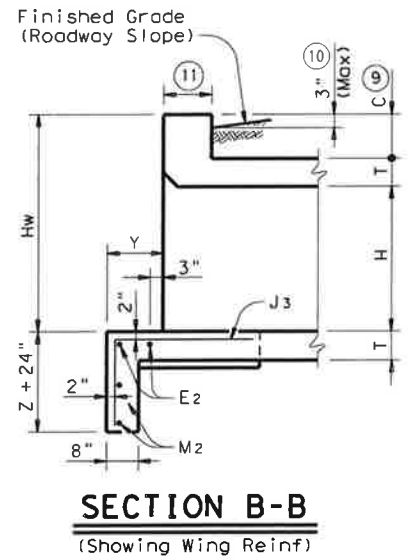
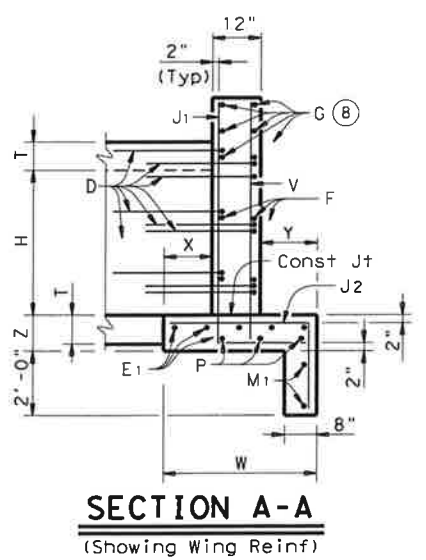
Type PW-1 can be used for all applications and must be used if railing is to be mounted to the wingwall.
 Type PW-2 can only be used for applications without a railing mounted to the wingwall.



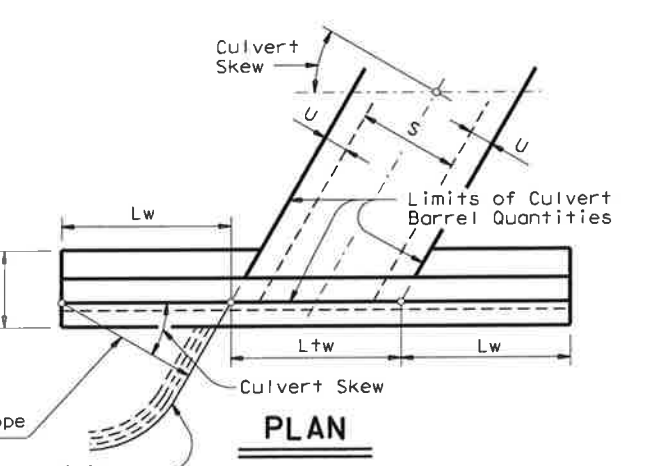
SECTION C-C



SECTION C-C



DETAILS FOR NON-SKEWED BOX CULVERTS



DETAILS FOR SKEWED BOX CULVERTS (Showing 30° Skew)

					Bridge Division Standard				
<p>CONCRETE WINGWALLS WITH PARALLEL WINGS FOR BOX CULVERTS TYPES PW-1 AND PW-2</p>									
<p>PW</p>									
#WF	pasrde01.dgn	DN:	GAF	CA:	CAT	NO:	TxDOT	CK:	GAF
C:	TxDOT	REVISED:	February 2010	CON:	SFCT	JCB	HIGHWAY		
11 10 Reinforcing quantities							DIST		COUNTY
01-12 PW-1 & PW-2									SHEET NO.
									117

TABLE OF DIMENSIONS & REINFORCING STEEL (Wings for One Structure End)

Table with columns: Dimensions (W, X, Y, Z), Variable Reinforcing (Bars J1, Bars J2), and Estimated Quantities per ft of wing length (Reinf (Lb/Ft), Conc (CY/Ft)). Rows show dimensions from 2'-6" to 16'-0" and corresponding reinforcement and quantity values.

TABLE OF WINGWALL REINFORCING (2-Wings)

Table with columns: Bar, Size, No., Spa. Lists reinforcement bars D, E, F, G, M, P, R, V with sizes #5, #4, #6, #4, #5 and spacings of 1'-0" and 6".

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

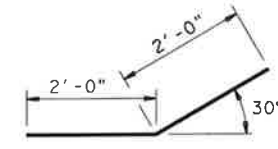
Table with columns: Bar, Size, No., Spa. Lists reinforcement bars L, Q and concrete quantities for Reinf (Lb/Ft) and Conc (CY/Ft).

WING DIMENSION CALCULATIONS:

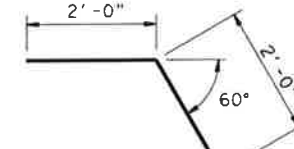
Formulas: (All values are in Feet)
Hw = H + T + C - 0.250'
A = (Hw - 0.333') (SL)
B = (A) Tangent (30°)
Lw = (A) ÷ Cosine (30°)
For Cast-in-place culverts:
Ltw = (N) (S) + (N+1) (U)
For Precast culverts:
Ltw = (N) (2U+S) + (N-1) (0.500')
Total Wingwall Area (Two Wings ~ S.F.) = (Hw + 0.333') (Lw)

Hw = Height of Wingwall
SL:1 = Side Slope Ratio (Horizontal:1 Vertical)
Lw = Length of Wingwall
Ltw = Culvert Toewall Length
N = Number of Culvert Spans

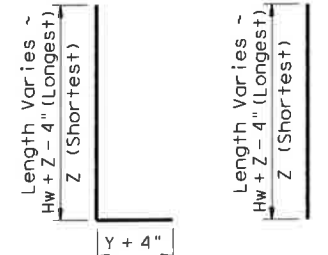
See applicable box culvert standard for H, S, T, and U values.



BARS D

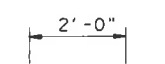


BARS R

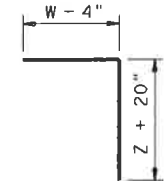


BARS J1

BARS V

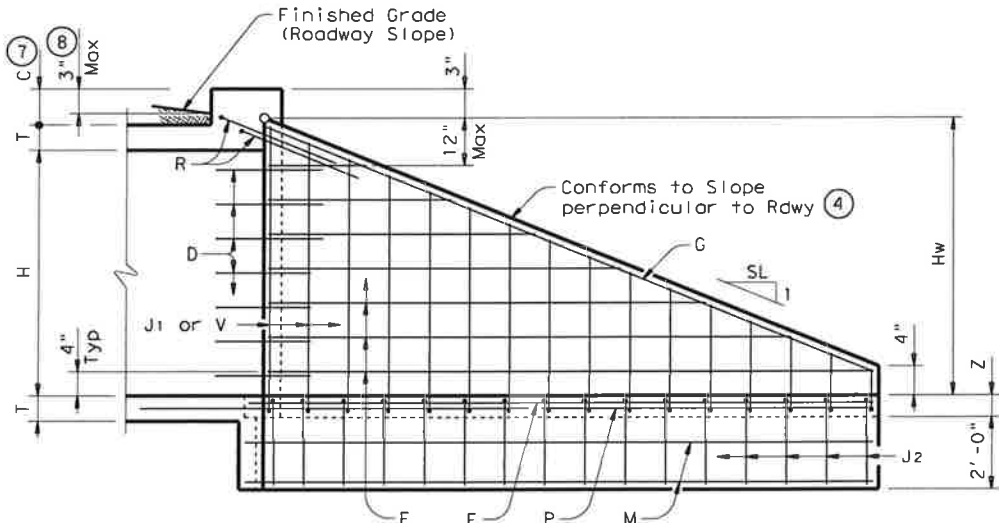


BARS L



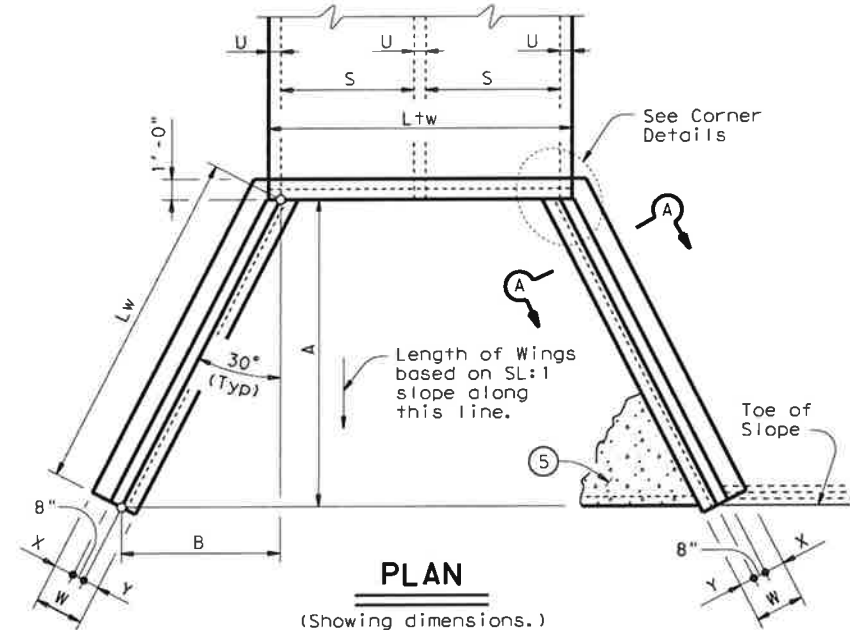
BARS J2

- 1 Extend Bars P 3'-0" minimum into bottom slab of Box Culvert.
2 Adjust to fit as necessary to maintain 1 1/4" clear cover and 4" minimum between bars.
3 Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings multiply the tabulated values by Lw.
4 Recommended values of Slope are: 2:1, 3:1, 4:1, & 6:1.
5 When shown elsewhere on the plans, a 5" deep concrete riprap shall be constructed. Payment for riprap shall be as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, the riprap shall have a 6" wide by 1'-6" deep reinforced concrete toewall along all edges adjacent to natural ground; the toewall shall be reinforced by extending typical riprap reinforcing into the toewall; construction joints or grooved joints, oriented in the direction of flow, shall extend across the full distance of the riprap, at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
6 At Contractor's option, Culvert Toewall may be ended flush with Wingwall Toewall. Adjust reinforcing from that shown as necessary.
7 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
8 For vehicle safety, curb heights and wall heights shall be reduced, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.



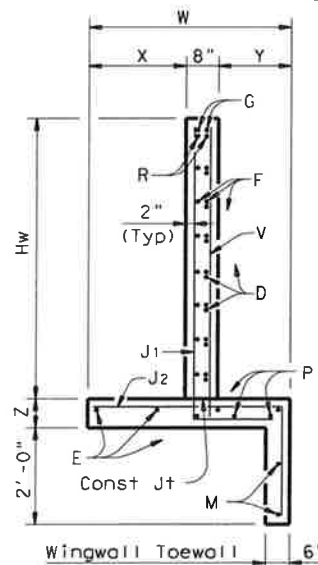
INSIDE ELEVATION

(Showing reinforcing. Culvert and Culvert Toewall reinforcing not shown for clarity.)

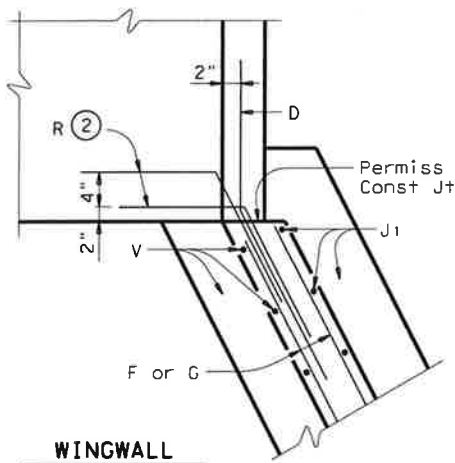


PLAN

(Showing dimensions.)

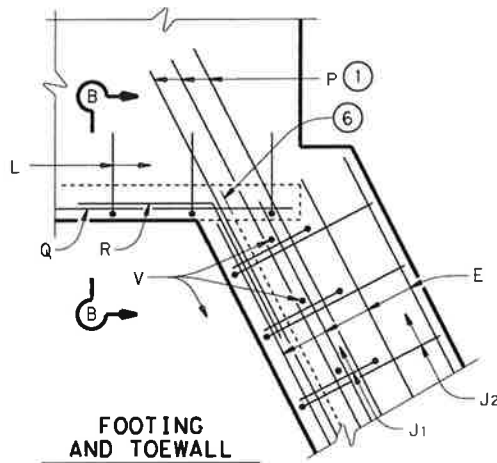


SECTION A-A

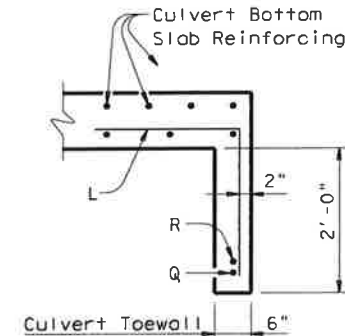


CORNER DETAILS

(Culvert and Culvert Toewall reinforcing not shown for clarity.)



FOOTING AND TOEWALL



SECTION B-B

GENERAL NOTES:

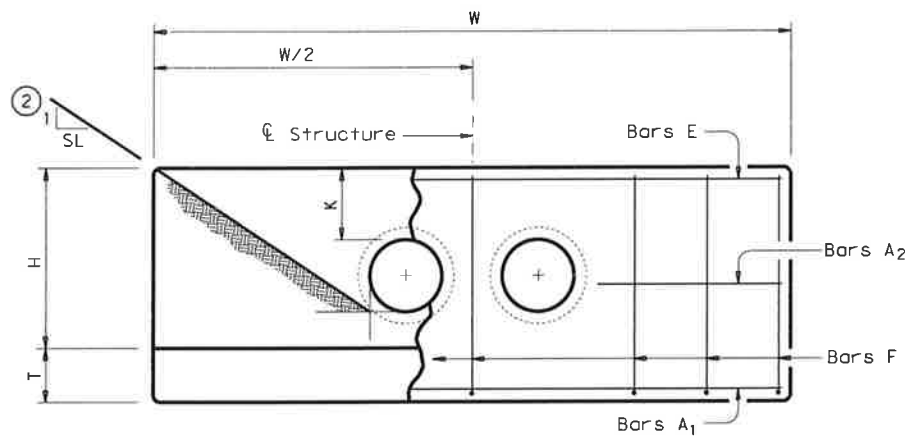
Designed according to AASHTO LRFD Specifications. All reinforcing steel shall be Grade 60. Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise. All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi. All reinforcing bars shall be adjusted to provide a minimum of 1 1/4" clear cover. When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer. See BCS sheet for additional dimensions and information. The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

Texas Department of Transportation logo and title: CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS. Includes revision table and project details.

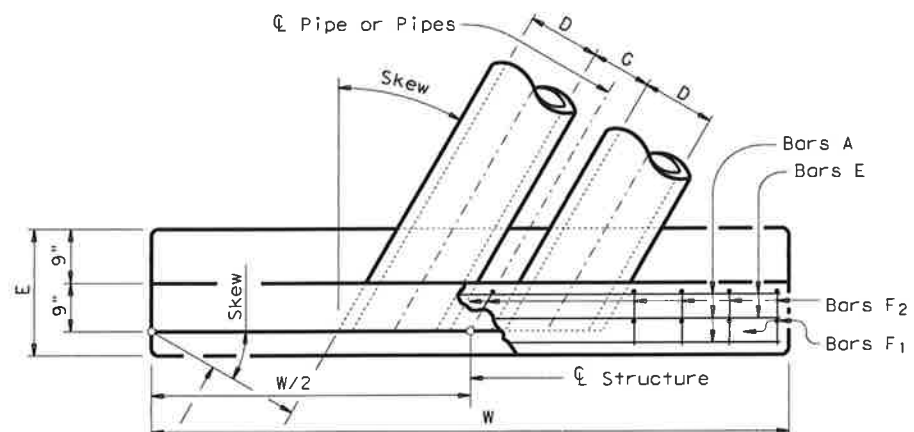
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TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL ④

Table with columns for SLOPE, DIA OF PIPE, D, and rows for 15, 30, and 45 degrees. Sub-columns include Values for one Pipe and Values to be added for each add'l Pipe, with further sub-columns for W, Reinf (Lbs), and Conc (CY).

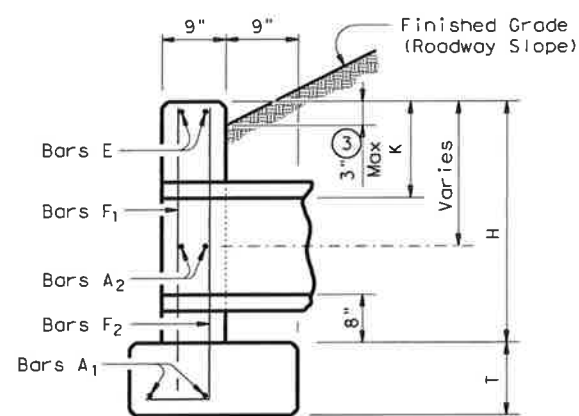


ELEVATION



PLAN OF SKEWED PIPES

Showing 30° Skew



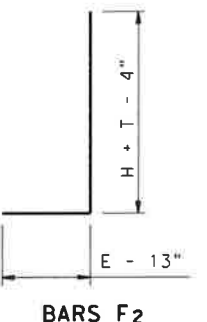
CL SECTION

TABLE OF Bid 1708-182 CONSTANT DIMENSIONS

Table with columns: DIA OF PIPE, D; and rows: 12, 15, 18, 21, 24, 27, 30, 33, 36, 42, 48, 54, 60, 66, 72. Columns G, K, H, T, E.

TABLE OF REINFORCING STEEL ④

Table with columns: Bar, Size, Spo, No. Rows: A1 (#5, ~, 2), A2 (#5, 1'-6\", ~), E (#5, ~, 2), F (#5, 1'-0\", ~).



GENERAL NOTES: Designed according to AASHTO LRFD Specifications. Reinforcing steel shall be placed with the center of the outside layer of bars 2\"/>

Project title block for CONCRETE HEADWALLS WITH PARALLEL WINGS FOR SKEWED PIPE CULVERTS, CH-PW-S. Includes Texas Department of Transportation logo and project details.

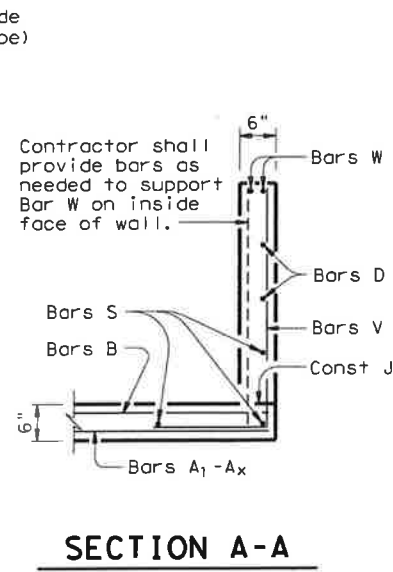
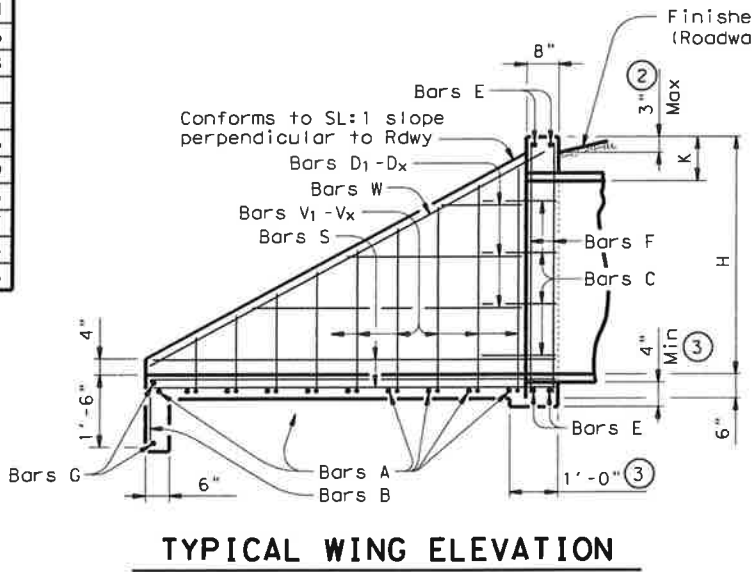
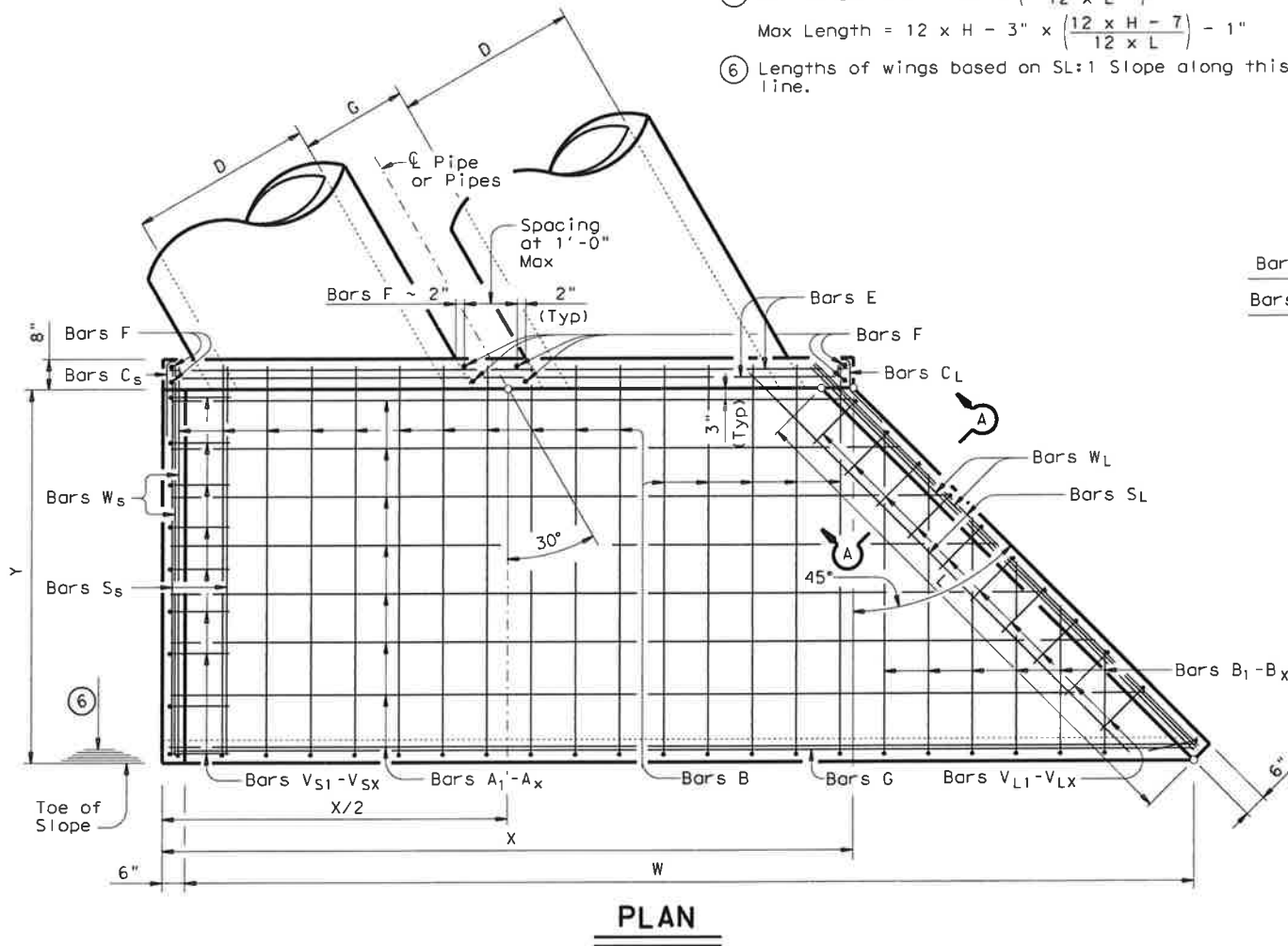
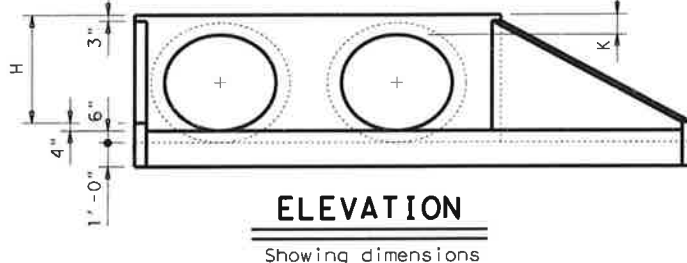
- ① Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.
② Indicated slope is perpendicular to centerline Pipe or Pipes.
③ For vehicle safety, curbs shall project no more than 3\"/>

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TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (4)

SLOPE DIA OF PIPE, D	Values for one Pipe						Values to be added for each add'l Pipe			
	W	X	Y	L	Reinf (Lbs)	Conc (CY)	X and W	Reinf (Lbs)	Conc (CY)	
	(1)		(1)		(1)		(1)		(1)	
2:1 12"	4' - 9"	3' - 1 1/2"	2' - 10"	4' - 0"	90	0.6	2' - 0 1/4"	22	0.2	
15"	5' - 6 3/4"	3' - 5 1/4"	3' - 4"	4' - 8 1/2"	102	0.8	2' - 6"	28	0.3	
18"	6' - 4 3/4"	3' - 9 1/4"	3' - 10"	5' - 5"	129	0.9	3' - 1"	41	0.4	
21"	7' - 2 3/4"	4' - 1 1/4"	4' - 4"	6' - 1 1/2"	144	1.1	3' - 6 3/4"	47	0.5	
24"	8' - 2 1/2"	4' - 7"	4' - 10"	6' - 10"	164	1.4	4' - 1 3/4"	57	0.6	
27"	9' - 0 1/2"	4' - 11"	5' - 4"	7' - 6 1/2"	178	1.6	4' - 6 1/4"	62	0.7	
30"	9' - 10 1/2"	5' - 3"	5' - 10"	8' - 3"	212	1.8	5' - 0"	72	0.9	
33"	10' - 8 3/4"	5' - 7"	6' - 4"	8' - 11 1/2"	225	2.1	5' - 4 3/4"	79	1.0	
36"	11' - 6 3/4"	5' - 11 1/4"	6' - 10"	9' - 8"	250	2.4	5' - 10 1/2"	90	1.2	
42"	13' - 2 3/4"	6' - 7 1/4"	7' - 10"	11' - 1"	304	3.0	6' - 8 3/4"	109	1.5	
48"	15' - 4 3/4"	7' - 3 1/4"	9' - 4"	13' - 2 1/2"	369	4.0	7' - 7 1/4"	142	2.0	
54"	17' - 1"	7' - 11 1/2"	10' - 4"	14' - 7 1/4"	429	4.7	8' - 8"	170	2.5	
60"	18' - 9"	8' - 7 1/2"	11' - 4"	16' - 0 1/4"	484	5.6	9' - 6 1/4"	194	2.9	
66"	20' - 5"	9' - 3 1/2"	12' - 4"	17' - 5 1/4"	550	6.5	10' - 1 1/4"	217	3.3	
72"	22' - 1 1/4"	9' - 11 3/4"	13' - 4"	18' - 10 1/4"	614	7.5	10' - 9 1/4"	239	3.7	
2:1 12"	6' - 2"	3' - 1 1/2"	4' - 3"	6' - 0"	118	0.9	2' - 0 1/4"	24	0.3	
15"	7' - 2 3/4"	3' - 5 1/4"	5' - 0"	7' - 0 3/4"	142	1.1	2' - 6"	31	0.4	
18"	8' - 3 3/4"	3' - 9 1/4"	5' - 9"	8' - 1 1/2"	179	1.4	3' - 1"	46	0.5	
21"	9' - 4 3/4"	4' - 1 1/4"	6' - 6"	9' - 2 1/4"	197	1.7	3' - 6 3/4"	53	0.7	
24"	10' - 7 1/2"	4' - 7"	7' - 3"	10' - 3"	227	2.1	4' - 1 3/4"	65	0.8	
27"	11' - 8 1/2"	4' - 11"	8' - 0"	11' - 3 3/4"	255	2.4	4' - 6 1/4"	75	1.0	
30"	12' - 9 1/2"	5' - 3"	8' - 9"	12' - 4 1/2"	298	2.8	5' - 0"	86	1.2	
33"	13' - 10 3/4"	5' - 7"	9' - 6"	13' - 5 1/4"	322	3.2	5' - 4 3/4"	94	1.3	
36"	14' - 11 3/4"	5' - 11 1/4"	10' - 3"	14' - 6"	355	3.7	5' - 10 1/2"	108	1.5	
42"	17' - 1 3/4"	6' - 7 1/4"	11' - 9"	16' - 7 1/2"	441	4.6	6' - 8 3/4"	133	2.0	
48"	20' - 0 3/4"	7' - 3 1/4"	14' - 0"	19' - 9 1/2"	542	6.2	7' - 7 1/4"	176	2.7	
54"	22' - 3"	7' - 11 1/2"	15' - 6"	21' - 11"	626	7.5	8' - 8"	211	3.3	
60"	24' - 5"	8' - 7 1/2"	17' - 0"	24' - 0 1/2"	725	8.9	9' - 6 1/4"	246	3.9	
66"	26' - 7"	9' - 3 1/2"	18' - 6"	26' - 2"	821	10.4	10' - 1 1/4"	274	4.5	
72"	28' - 9 1/4"	9' - 11 3/4"	20' - 0"	28' - 3 1/2"	930	12.0	10' - 9 1/4"	309	5.1	
2:1 12"	7' - 7"	3' - 1 1/2"	5' - 8"	8' - 0 1/4"	156	1.2	2' - 0 1/4"	28	0.3	
15"	8' - 10 3/4"	3' - 5 1/4"	6' - 8"	9' - 5 1/4"	183	1.5	2' - 6"	36	0.5	
18"	10' - 2 3/4"	3' - 9 1/4"	7' - 8"	10' - 10"	228	1.9	3' - 1"	52	0.6	
21"	11' - 6 3/4"	4' - 1 1/4"	8' - 8"	12' - 3"	264	2.3	3' - 6 3/4"	63	0.8	
24"	13' - 0 1/2"	4' - 7"	9' - 8"	13' - 8"	301	2.8	4' - 1 3/4"	75	1.0	
27"	14' - 4 1/2"	4' - 11"	10' - 8"	15' - 1"	339	3.4	4' - 6 1/4"	87	1.2	
30"	15' - 8 1/2"	5' - 3"	11' - 8"	16' - 6"	394	3.9	5' - 0"	99	1.4	
33"	17' - 0 3/4"	5' - 7"	12' - 8"	17' - 11"	432	4.5	5' - 4 3/4"	112	1.7	
36"	18' - 4 3/4"	5' - 11 1/4"	13' - 8"	19' - 4"	479	5.2	5' - 10 1/2"	128	1.9	
42"	21' - 0 3/4"	6' - 7 1/4"	15' - 8"	22' - 1 3/4"	587	6.6	6' - 8 3/4"	158	2.5	
48"	24' - 8 3/4"	7' - 3 1/4"	18' - 8"	26' - 4 3/4"	738	8.9	7' - 7 1/4"	211	3.3	
54"	27' - 5"	7' - 11 1/2"	20' - 8"	29' - 2 3/4"	871	10.8	8' - 8"	257	4.1	
60"	30' - 1"	8' - 7 1/2"	22' - 8"	32' - 0 3/4"	999	12.8	9' - 6 1/4"	297	4.9	
66"	32' - 9"	9' - 3 1/2"	24' - 8"	34' - 10 1/2"	1139	14.9	10' - 1 1/4"	340	5.6	
72"	35' - 5 1/4"	9' - 11 3/4"	26' - 8"	37' - 8 1/2"	1290	17.3	10' - 9 1/4"	378	6.4	
4:1 12"	10' - 5"	3' - 1 1/2"	8' - 6"	12' - 0 1/4"	223	1.9	2' - 0 1/4"	32	0.4	
15"	12' - 2 3/4"	3' - 5 1/4"	10' - 0"	14' - 1 3/4"	273	2.5	2' - 6"	43	0.6	
18"	14' - 0 3/4"	3' - 9 1/4"	11' - 6"	16' - 3 1/4"	336	3.2	3' - 1"	61	0.8	
21"	15' - 10 3/4"	4' - 1 1/4"	13' - 0"	18' - 4 1/2"	396	3.9	3' - 6 3/4"	76	1.1	
24"	17' - 10 1/2"	4' - 7"	14' - 6"	20' - 6"	450	4.8	4' - 1 3/4"	91	1.4	
27"	19' - 8 1/2"	4' - 11"	16' - 0"	22' - 7 1/2"	519	5.7	4' - 6 1/4"	108	1.6	
30"	21' - 6 1/2"	5' - 3"	17' - 6"	24' - 9"	595	6.6	5' - 0"	124	2.0	
33"	23' - 4 3/4"	5' - 7"	19' - 0"	26' - 10 1/2"	674	7.7	5' - 4 3/4"	143	2.3	
36"	25' - 2 3/4"	5' - 11 1/4"	20' - 6"	29' - 0"	737	8.8	5' - 10 1/2"	162	2.7	
42"	28' - 10 3/4"	6' - 7 1/4"	23' - 6"	33' - 2 3/4"	920	11.3	6' - 8 3/4"	202	3.5	
48"	34' - 0 3/4"	7' - 3 1/4"	28' - 0"	39' - 7 1/4"	1189	15.5	7' - 7 1/4"	274	4.6	

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 DATE: FILE: 8/10/2017 9:17 AM



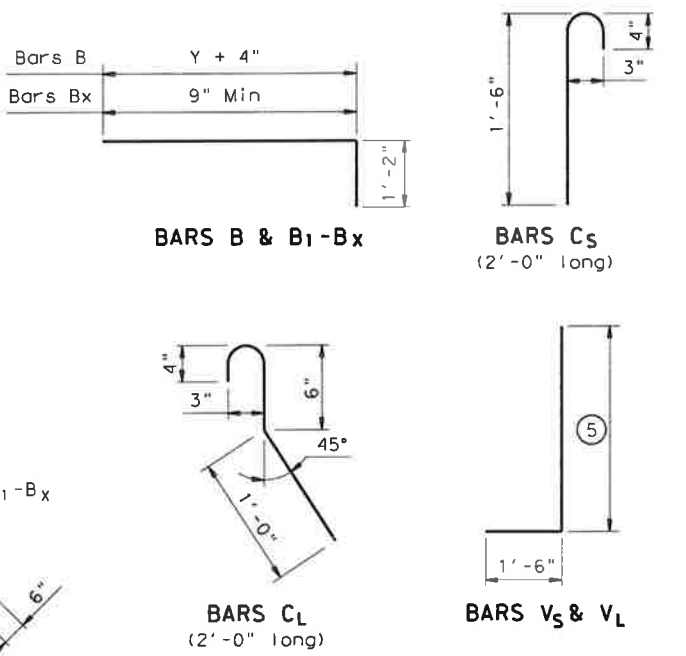
- Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.
- For vehicle safety, curbs shall project no more than 3" above finished grade. Curb heights shall be reduced, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- Provide a 1'-0" footing as shown where required to maintain 4" Min cover for pipes.
- Quantities shown are for one structure end only (one headwall).
- Min Length = $6'' + 3'' \times \left(\frac{12 \times H - 7}{12 \times L} \right)$
Max Length = $12 \times H - 3'' \times \left(\frac{12 \times H - 7}{12 \times L} \right) - 1''$
- Lengths of wings based on SL:1 Slope along this line.

TABLE OF REINFORCING STEEL (4)

Bar	Size	Spa	No.
A	# 4	1'-0"	~
B	# 3	1'-6"	~
CL	# 4	1'-0"	~
CS	# 4	1'-0"	~
D	# 3	1'-0"	~
E	# 5	~	4
F	# 5	~	~
G	# 3	~	2
SL	# 4	~	3
SS	# 4	~	3
V	# 4	1'-0"	~
WL	# 5	~	2
WS	# 5	~	2

TABLE OF CONSTANT DIMENSIONS

DIA OF PIPE, D	G	K	H
12"	9"	1' - 0"	2' - 0"
15"	11"	1' - 0"	2' - 3"
18"	1' - 2"	1' - 0"	2' - 6"
21"	1' - 4"	1' - 0"	2' - 9"
24"	1' - 7"	1' - 0"	3' - 0"
27"	1' - 8"	1' - 0"	3' - 3"
30"	1' - 10"	1' - 0"	3' - 6"
33"	1' - 11"	1' - 0"	3' - 9"
36"	2' - 1"	1' - 0"	4' - 0"
42"	2' - 4"	1' - 0"	4' - 6"
48"	2' - 7"	1' - 3"	5' - 3"
54"	3' - 0"	1' - 3"	5' - 9"
60"	3' - 3"	1' - 3"	6' - 3"
66"	3' - 3"	1' - 3"	6' - 9"
72"	3' - 4"	1' - 3"	7' - 3"



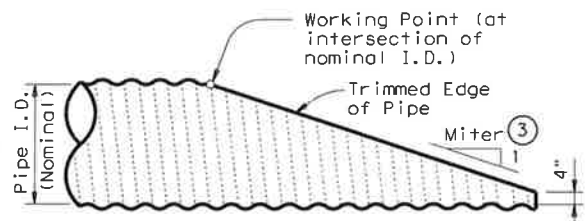
GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 Reinforcing steel shall be placed with the center of the outside layer of bars 2" from the surface of the concrete.
 All reinforcing steel shall be Grade 60.
 All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.
 No bridge rails of any type may be mounted directly to these culvert headwalls.

Texas Department of Transportation
 Bridge Division Standard

CONCRETE HEADWALLS WITH FLARED WINGS FOR 30° SKEW PIPE CULVERTS

CH-FW-30

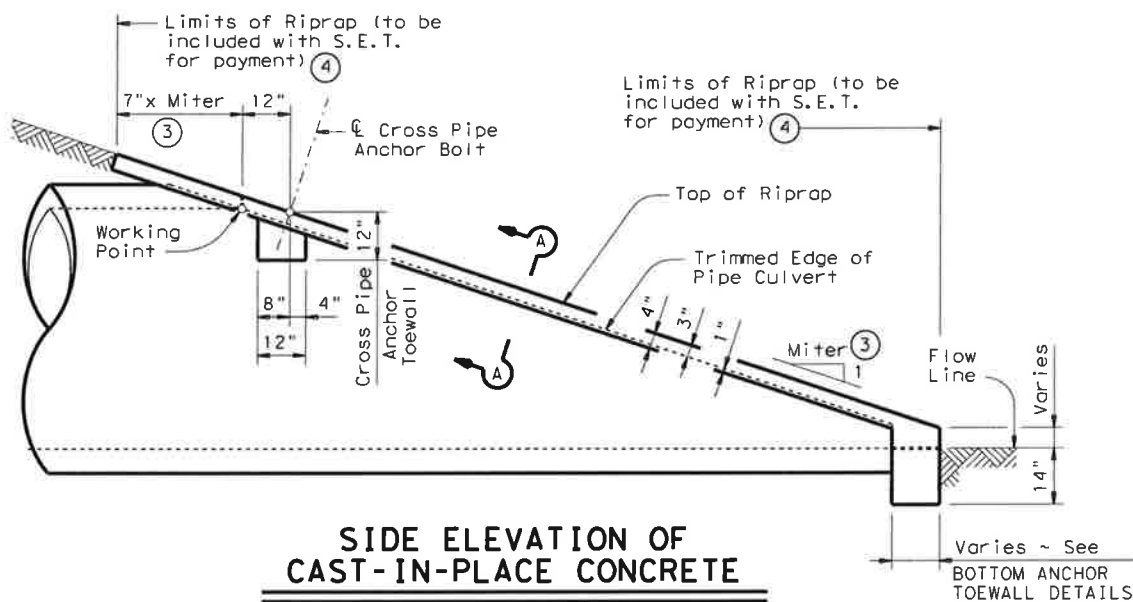
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C: TxDOT	FEBRUARY 2010	REV: SFCT	JOB: HIGHWAY	
REV: 1	DIST: COUNTY:	SHEET NO. 120		



NOTE: All Pipe Runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

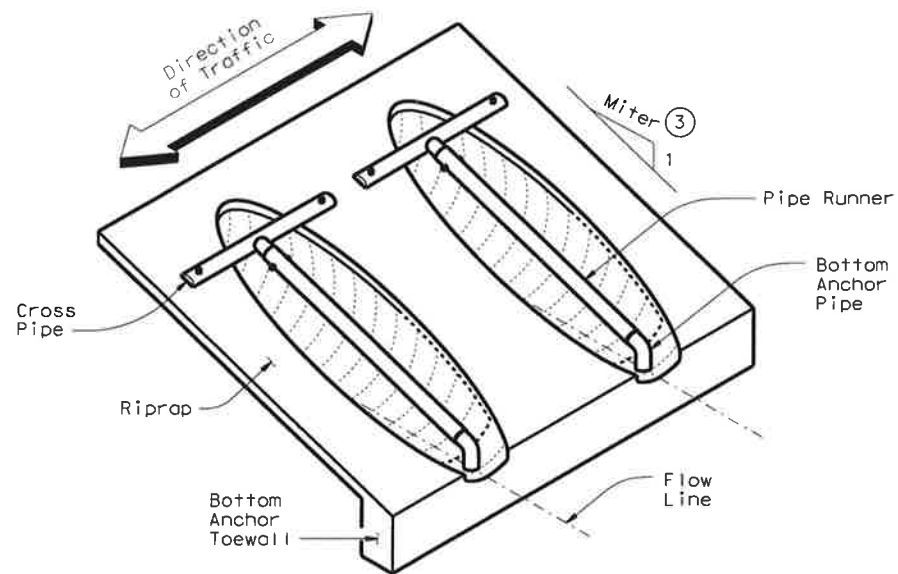
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing Corrugated Metal Pipe Culvert. Details of Concrete Pipe Culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing Concrete Pipe Culvert. Details of Corrugated Metal Pipe Culvert are similar. Pipe Runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1'- 7"	3'- 5"	N/A	N/A	N/A	5'-10"	N/A	N/A	N/A	8'- 1"	N/A	N/A	N/A	12'- 9"
27"	1'- 8"	3'- 8"	N/A	N/A	5'- 5"	6'-11"	N/A	N/A	7'- 7"	9'- 7"	N/A	N/A	11'-11"	14'-11"
30"	1'-10"	3'-11"	N/A	N/A	6'- 4"	8'- 0"	N/A	N/A	8'- 9"	11'- 0"	N/A	N/A	13'- 8"	17'- 0"
33"	1'-11"	4'- 2"	6'- 2"	6'- 5"	7'- 3"	9'- 1"	8'- 6"	8'-10"	10'- 0"	12'- 5"	13'- 3"	13'- 9"	15'- 5"	19'- 2"
36"	2'- 1"	4'- 5"	6'-11"	7'- 3"	8'- 2"	10'- 2"	9'- 6"	9'-11"	11'- 2"	13'-10"	14'- 9"	15'- 3"	17'- 2"	21'- 3"
42"	2'- 4"	4'-11"	8'- 6"	8'-10"	9'-11"	12'- 4"	11'- 7"	12'- 0"	13'- 6"	16'- 8"	17'- 9"	18'- 5"	20'- 8"	25'- 7"
48"	2'- 7"	5'- 5"	10'- 1"	10'- 5"	11'- 9"	N/A	13'- 7"	14'- 2"	15'-10"	N/A	20'- 9"	21'- 6"	24'- 2"	N/A
54"	3'- 0"	5'-11"	11'- 8"	12'- 1"	N/A	N/A	15'- 8"	16'- 3"	N/A	N/A	23'-10"	24'- 8"	N/A	N/A
60"	3'- 3"	6'- 5"	13'- 3"	N/A	N/A	N/A	17'- 9"	N/A	N/A	N/A	26'-10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS ③

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED ②

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (No Skew)	Always required
42" to 60"	Always required	Always required

STANDARD PIPE SIZES & MAX PIPE RUNNER LENGTHS ①

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10'- 0"
4" STD	4.500"	4.026"	19'- 8"
5" STD	5.563"	5.047"	34'- 2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) ⑤

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

① Size of Pipe Runner shall be as shown in the tables. Cross Pipe shall be the same size as the Pipe Runner. Cross Pipe Stub Out and Bottom Anchor Pipe shall be the next smaller size pipe as shown in the STANDARD PIPE SIZES table.

② This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

- For 60" culvert pipes, the skew must not exceed 0°.
- For 54" culvert pipes, the skew must not exceed 15°.
- For 48" culvert pipes, the skew must not exceed 30°.
- For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT "Roadway Design Manual".

③ Miter = Slope of Mitered Pipe Culvert End

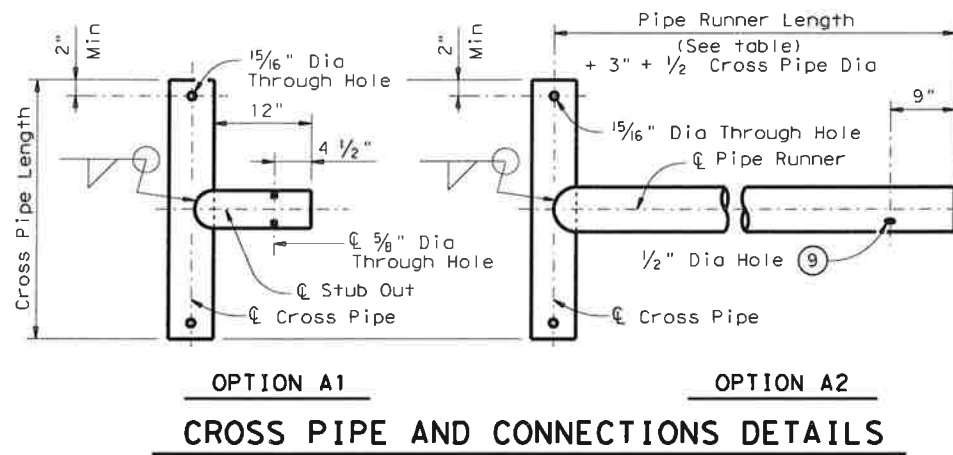
④ Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".

⑤ Quantities shown are for one end of one reinforced Concrete Pipe Culvert. For multiple Pipe Culverts or for Corrugated Metal Pipe Culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

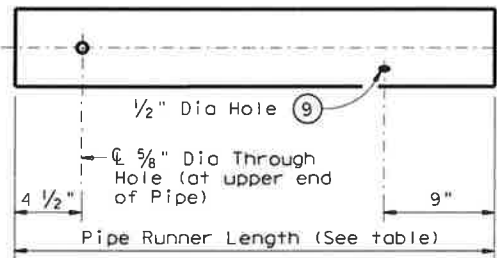
SHEET 1 OF 2

Texas Department of Transportation
 Bridge Division Standard
SAFETY END TREATMENT FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II ~ CROSS DRAINAGE
 SETP-CD

FILED	SETP.CD.DWG	DR: GAF	CK: CAT	DR: JRP	CK: GAF
©TxDOT	February 2010	CON: SEET	JOB	HIGHWAY	
REVISIONS					
1"=10'	See note for synthetic fibers	DIST	COUNTY	SHEET NO.	121

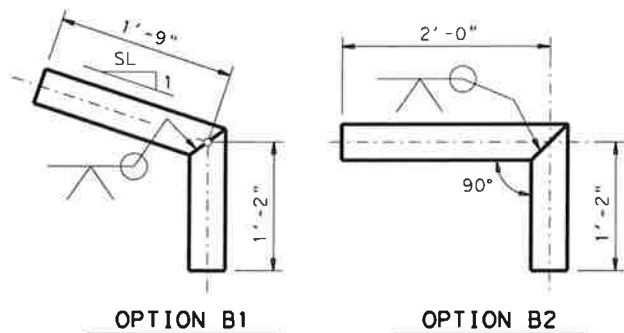


CROSS PIPE AND CONNECTIONS DETAILS

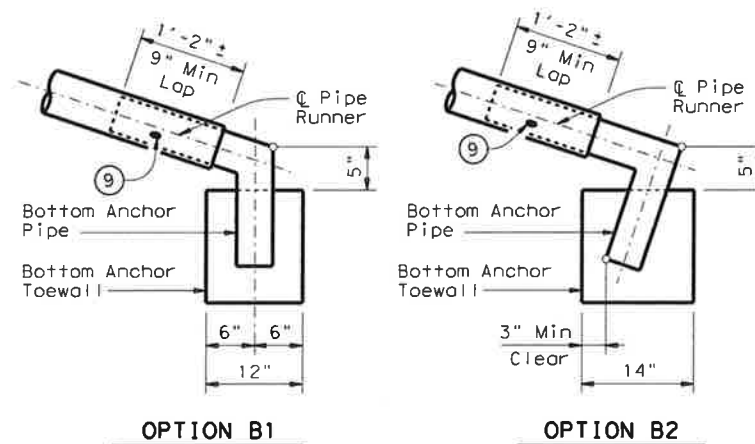


NOTE: The separate Pipe Runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS

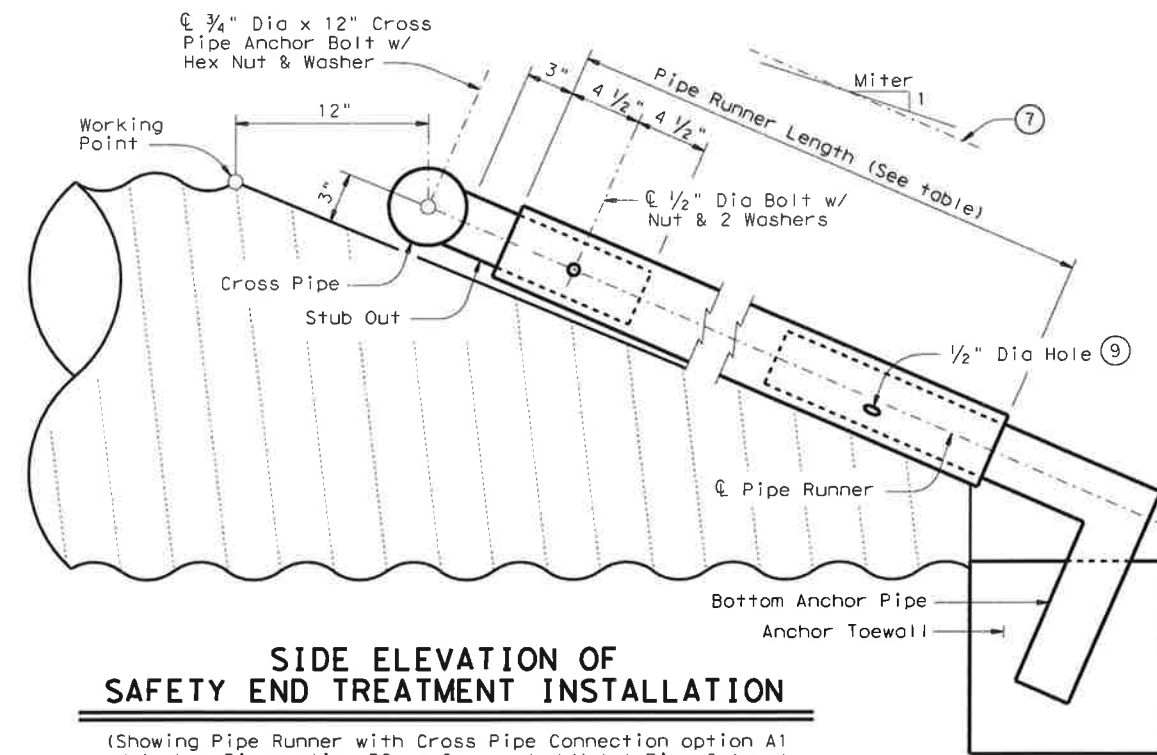


BOTTOM ANCHOR PIPE DETAILS



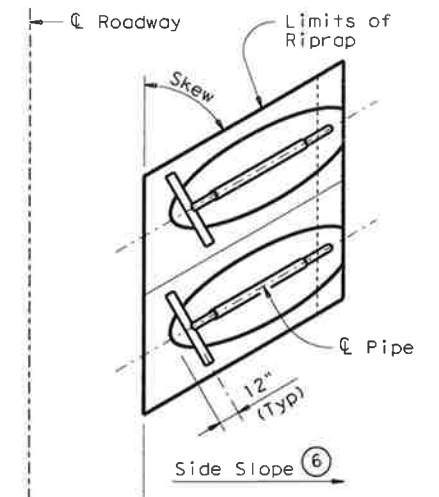
BOTTOM ANCHOR TOEWALL DETAILS

(Culvert & Riprap not shown for clarity)

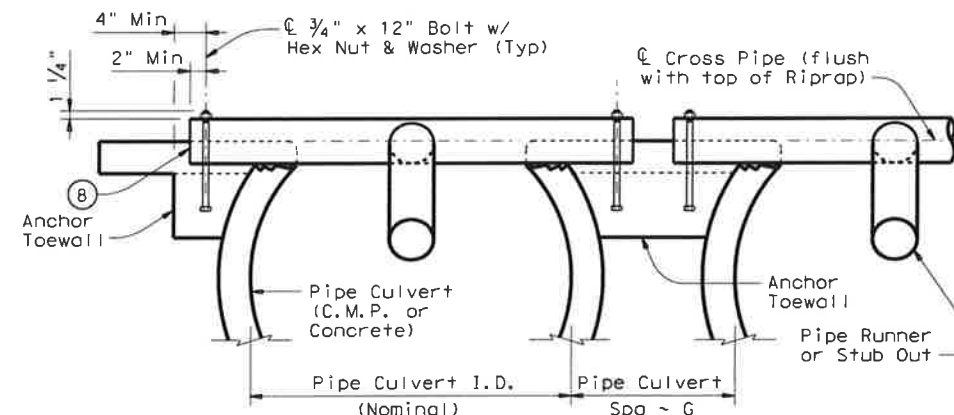


SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

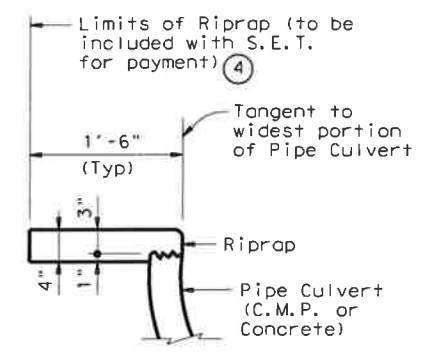
(Showing Pipe Runner with Cross Pipe Connection option A1 and Anchor Pipe option B2 on Corrugated Metal Pipe Culvert. Concrete Pipe Culvert details are similar. Riprap not shown for clarity)



PLAN OF SKEWED INSTALLATION



SECTION A-A



SHOWING TYPICAL PIPE CULVERT & RIPRAP

- ④ Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".
- ⑥ Recommended values of side slope are 3:1, 4:1, & 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.
- ⑦ Note that actual slope of Pipe Runner may vary slightly from Side Slope of Riprap and trimmed Culvert Pipe edge.
- ⑧ Care shall be taken to ensure that Riprap concrete does not flow into the Cross Pipe so as to permit disassembly of the bolted connection to allow cleanout access.
- ⑨ After installation, the 1/2 inch hole shall be inspected to ensure that the lap of the Pipe Runner with the Bottom Anchor Pipe is adequate.
- ⑩ At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the Runner) may be substituted for the mitered and welded joint in the Bottom Anchor Pipe.

GENERAL NOTES:

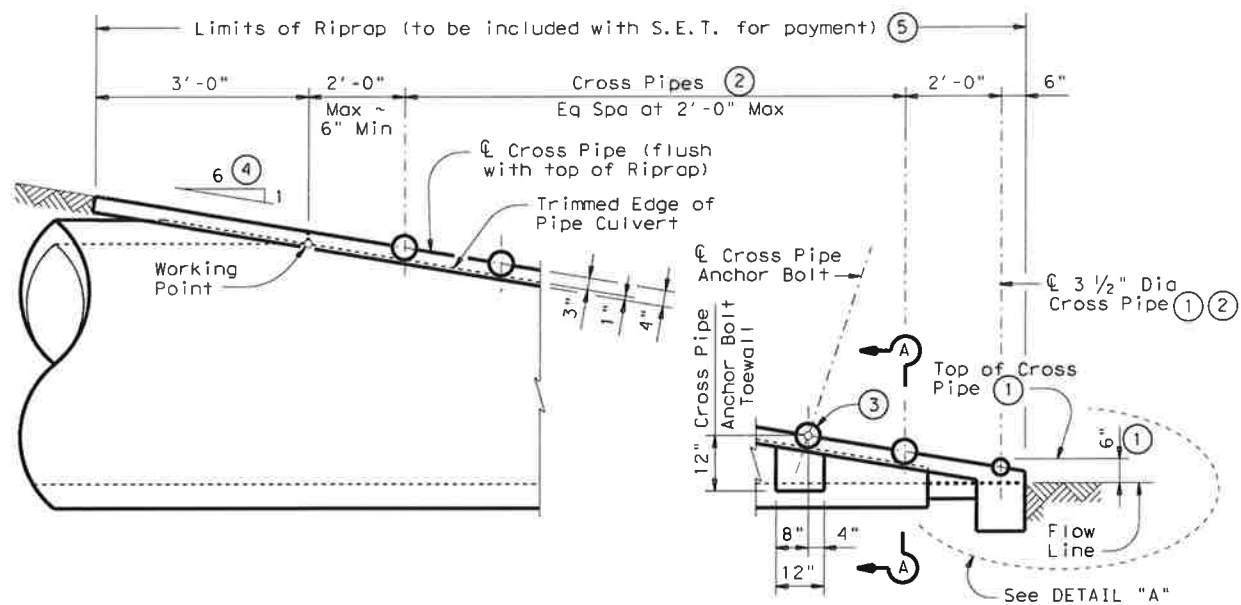
Pipe Runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981. The Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Pipe Runners. Riprap and all necessary inverts shall be Concrete Riprap conforming to the requirements of Item 432, "Riprap". Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise. Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment. Pipe Runners, Cross Pipes, and Anchor Pipes shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52. Bolts and nuts shall conform to ASTM A307. All steel components, except concrete reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.

SHEET 2 OF 2

SAFETY END TREATMENT FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II ~ CROSS DRAINAGE			
SETP-CD			
FILE: setp-cd-01 DATE: February 2010 REVISIONS:	DES: GAF ECK: CAT JOB:	JOB:	SHEET NO: 122 p. 222

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DATE: 8/10/2017 9:17 AM



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing Concrete Pipe Culvert.)
(Details at Corrugated Metal Pipe Culvert are similar.)

CORRUGATED METAL PIPE CULVERTS									
Design	Conc Riprap (CY) ⑥	Pipe Culvert Span	Pipe Culvert Rise	Pipe Culvert Spo ~ G	Single Barrel ~ Q1	Multi-Barrel ~ Q1	Q2	Conditions for use of Cross Pipes	Cross Pipe Size
1	0.6	17"	13"	1'- 0"	N/A	2'- 8"	2'- 5"	3 or more Pipe Culverts	3" Std (3.500" O.D.)
2	0.7	21"	15"	1'- 2"	N/A	3'- 1"	2'-11"		3 1/2" Std (4.000" O.D.)
3	0.9	28"	20"	1'- 5"	N/A	3'- 9"	3'- 9"		All Pipe Culverts
4	1.0	35"	24"	1'- 8"	4'- 4"	4'- 6"	4'- 7"	All Pipe Culverts	5" Std (5.563" O.D.)
5	1.2	42"	29"	1'-11"	4'-11"	5'- 2"	5'- 5"		
6	1.4	49"	33"	2'- 2"	5'- 6"	5'-11"	6'- 3"		
7	1.6	57"	38"	2'- 5"	6'- 2"	6'- 8"	7'- 2"	All Pipe Culverts	5" Std (5.563" O.D.)
8	1.8	64"	43"	2'-10"	6'- 9"	7'- 6"	8'- 2"		
9	1.9	71"	47"	3'- 2"	7'- 4"	8'- 3"	9'- 1"		

CONCRETE PIPE CULVERTS									
Design	Conc Riprap (CY) ⑥	Pipe Culvert Span	Pipe Culvert Rise	Pipe Culvert Spo ~ G	Single Barrel ~ Q1	Multi-Barrel ~ Q1	Q2	Conditions for use of Cross Pipes	Cross Pipe Size
1	0.6	22"	13 1/2"	1'- 0"	N/A	3'- 1"	2'-10"	3 or more Pipe Culverts	3" Std (3.500" O.D.)
2	0.7	26"	15 1/2"	1'- 2"	N/A	3'- 6"	3'- 4"		3 1/2" Std (4.000" O.D.)
3	0.9	28 1/2"	18"	1'- 5"	N/A	3'-10"	3'-9 1/2"		All Pipe Culverts
4	1.0	36 1/4"	22 1/2"	1'- 8"	4'- 5"	4'- 7"	4'-8 1/4"	All Pipe Culverts	5" Std (5.563" O.D.)
5	1.2	43 3/4"	26 5/8"	1'-11"	5'- 1"	5'- 4"	5'-6 3/4"		
6	1.4	51 1/8"	31 5/16"	2'- 2"	5'- 8"	6'- 1"	6'-5 1/4"		
7	1.6	58 1/2"	36"	2'- 5"	6'- 4"	6'-10"	7'-3 1/2"	All Pipe Culverts	5" Std (5.563" O.D.)
8	1.8	65"	40"	2'-10"	6'-10"	7'- 7"	8'- 3"		
9	1.9	73"	45"	3'- 2"	7'- 6"	8'- 5"	9'- 3"		

- ① The proper installation of the first Cross Pipe is critical for vehicle safety. The top of the first Cross Pipe must be placed at no more than 6" above the flow line.
- ② Size of Cross Pipes, except the first bottom pipe, shall be as shown in the PIPE SIZE table. The first bottom pipe shall be 3 1/2" Standard Pipe (4" O.D.).
- ③ The third Cross Pipe from the bottom of the Culvert shall always be installed using a bolted connection. Care shall be taken to ensure that Riprap concrete does not flow into the Cross Pipe so as to permit disassembly of the bolted connection to allow cleanout access. At the Contractor's option, all other Cross Pipes may also be installed using the bolted connection details.
- ④ Match Cross Slope as shown elsewhere in the plans. Cross Slope of 6:1 or flatter is required for vehicle safety.
- ⑤ Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".
- ⑥ Quantities shown are for one end of one Pipe Culvert. For multiple Pipe Culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

GENERAL NOTES:

Cross Pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.

Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Cross Pipes.

Riprap and all necessary inverts shall be Concrete Riprap conforming to the requirements of Item 432, "Riprap".

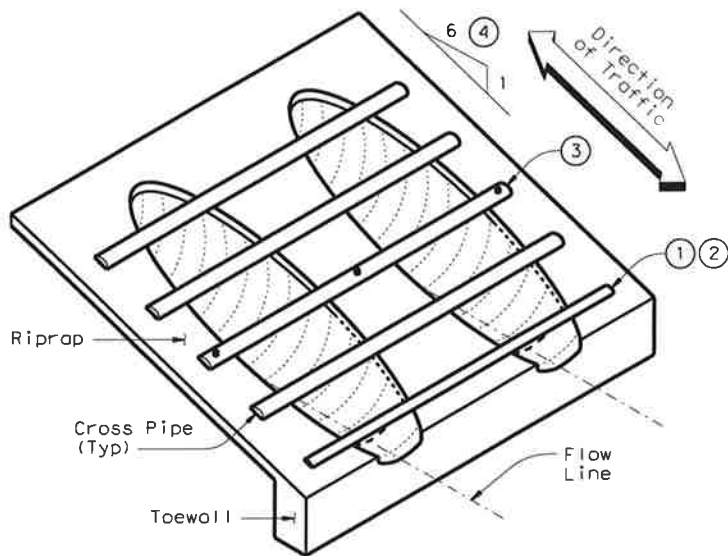
Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment.

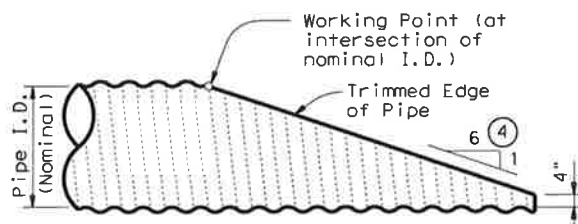
Cross Pipes shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.

Bolts and nuts shall conform to ASTM A307.

All steel components, except concrete reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.



ISOMETRIC VIEW OF TYPICAL INSTALLATION



NOTE: All Cross Pipes, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

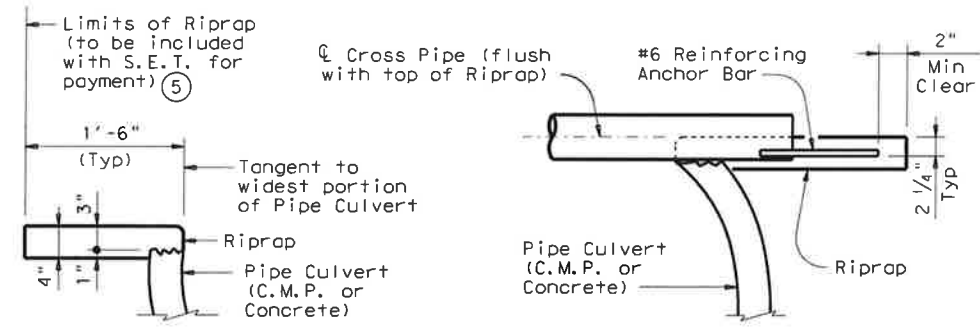
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing Corrugated Metal Pipe Culvert.)
(Details at Concrete Pipe Culvert are similar.)

				Bridge Division Standard	
SAFETY END TREATMENT FOR DESIGN 1 TO 9 ARCH PIPE CULVERTS TYPE II ~ PARALLEL DRAINAGE SETP-PD-A					
#/P: setpase.dgn DATE: February 2010 REVISIONS:	BY: GAF CHK: SECT DIST:	CD: TxDOT JOB:	DR: JRP COUNTY:	CR: GAF HIGHWAY:	SHEET NO. 123

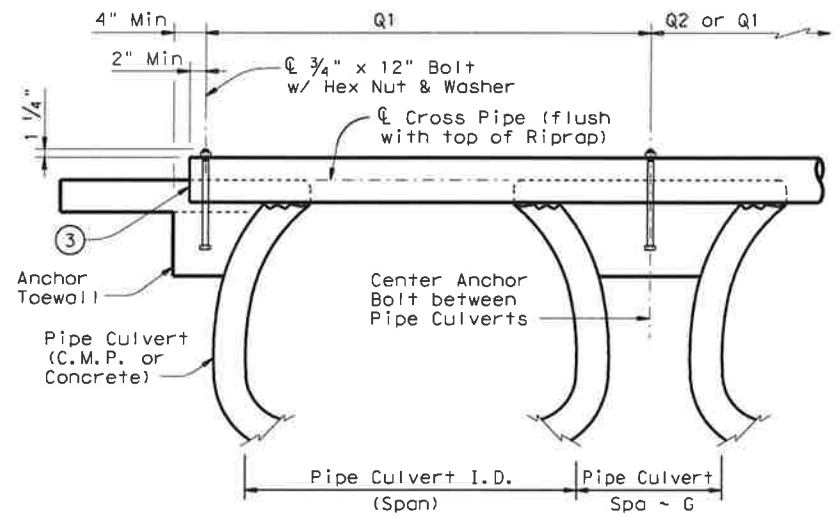
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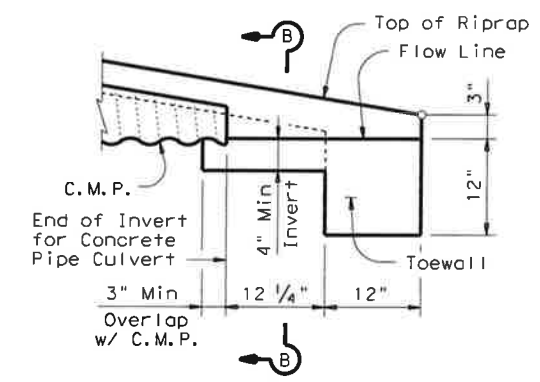
SHOWING TYPICAL PIPE CULVERT & RIPRAP

SHOWING CROSS PIPE WITH ANCHOR BAR

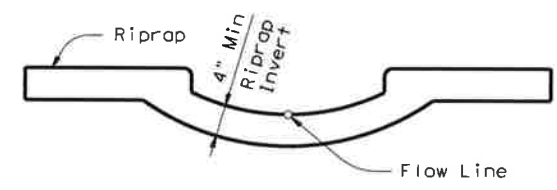


SHOWING CROSS PIPE WITH BOLTED ANCHOR

SECTION A-A

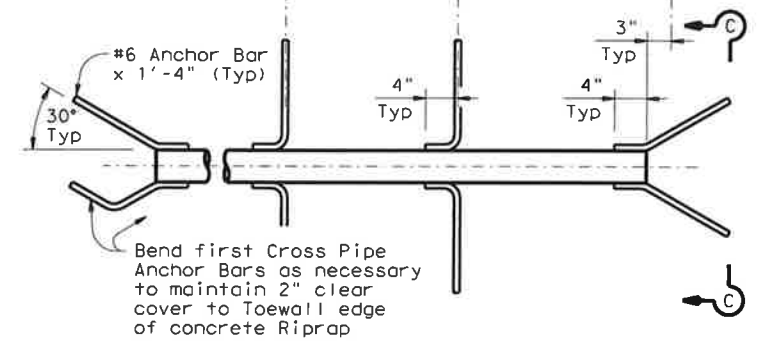
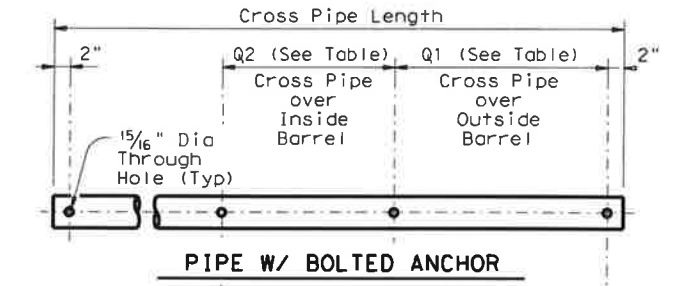


DETAIL "A"

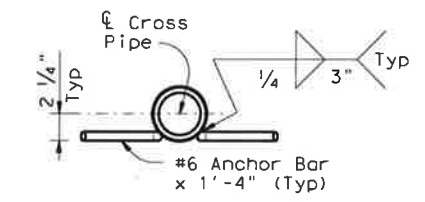


SECTION B-B

(Cross Pipes not shown for clarity.)



PIPE W/ ANCHOR BARS



SECTION C-C

CROSS PIPE DETAILS

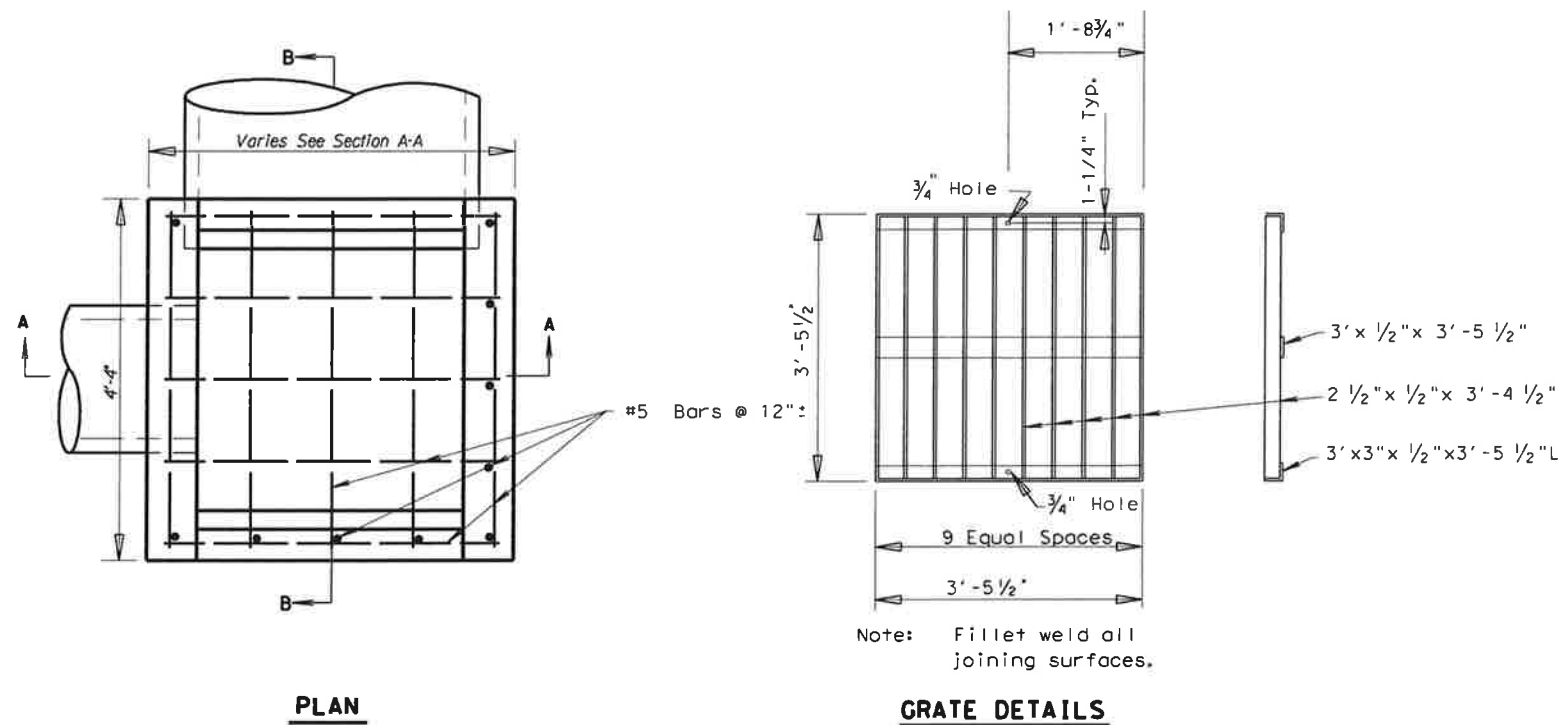
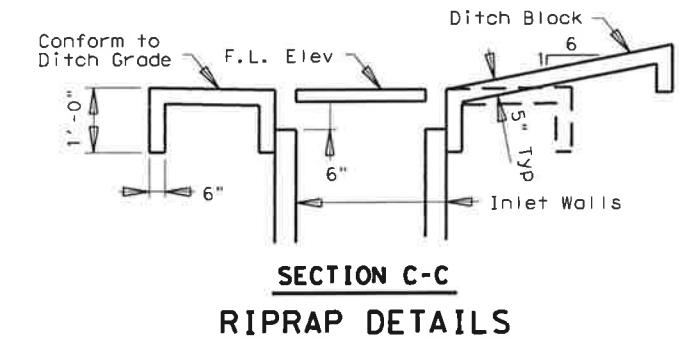
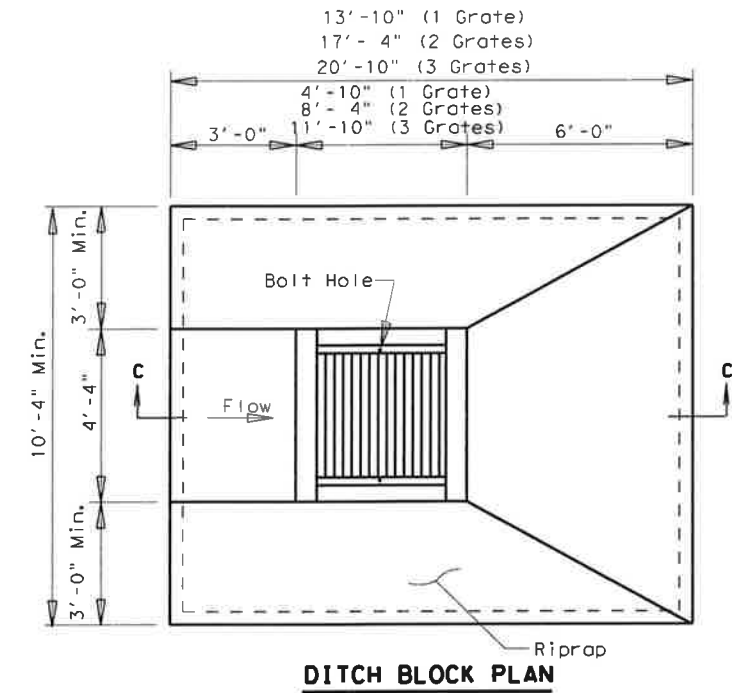
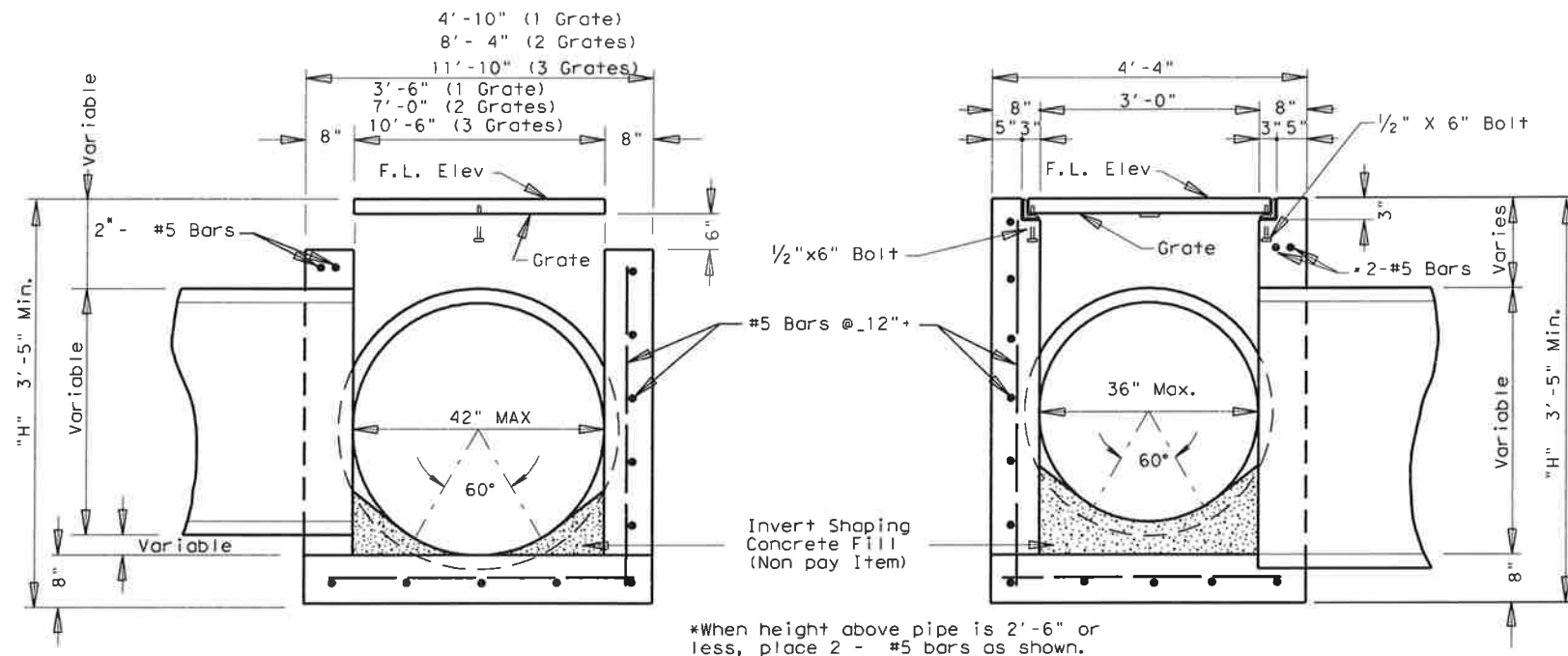
SHEET 2 OF 2



SAFETY END TREATMENT
 FOR DESIGN 1 TO 9
 ARCH PIPE CULVERTS
 TYPE II ~ PARALLEL DRAINAGE

SETP-PD-A

FILE: setppase.dgn	DR: GAF	CA: TxDOT	DC: JRP	CK: GAF
TxDOT February 2010	CON?	SFCT	JRB	HIGHWAY
REVISIONS				
11-10 Add note for synthetic fibers	DIST	COUNTY	SHEET NO	



GENERAL NOTES:

Use Class "A" Concrete for Drop Inlets.
Install Mounting Bolts as directed.
Use galvanized Bolts, Nuts and Washers.

Place Riprap Concrete Class "B" and Grates in accordance with Item 432, "Riprap" and Item 471, "Frames, Grates, Rings and Covers." Consider these items subsidiary to pertinent items.

For installation on Box Culverts, adjustments may be made by the Engineer to fit unusual conditions.

Place Riprap Concrete Class "B" as soon as practical to minimize erosion.

Use WWF 6X6-W2.9X2.9 Reinforcement for Riprap.

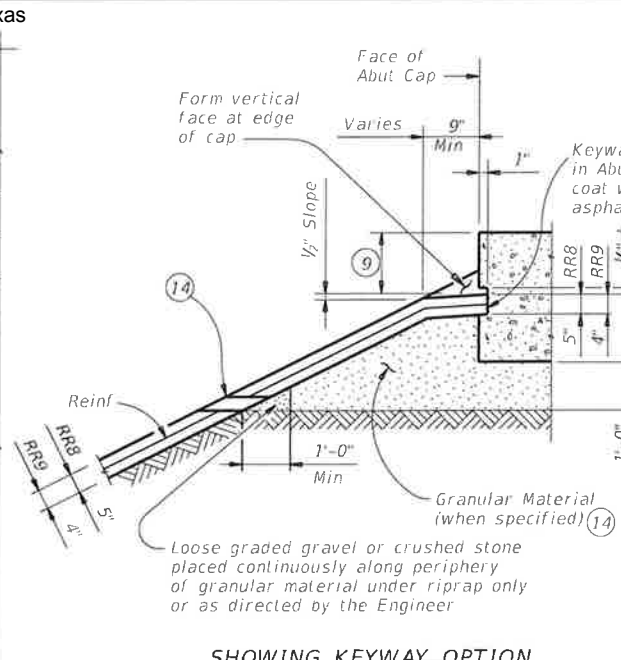
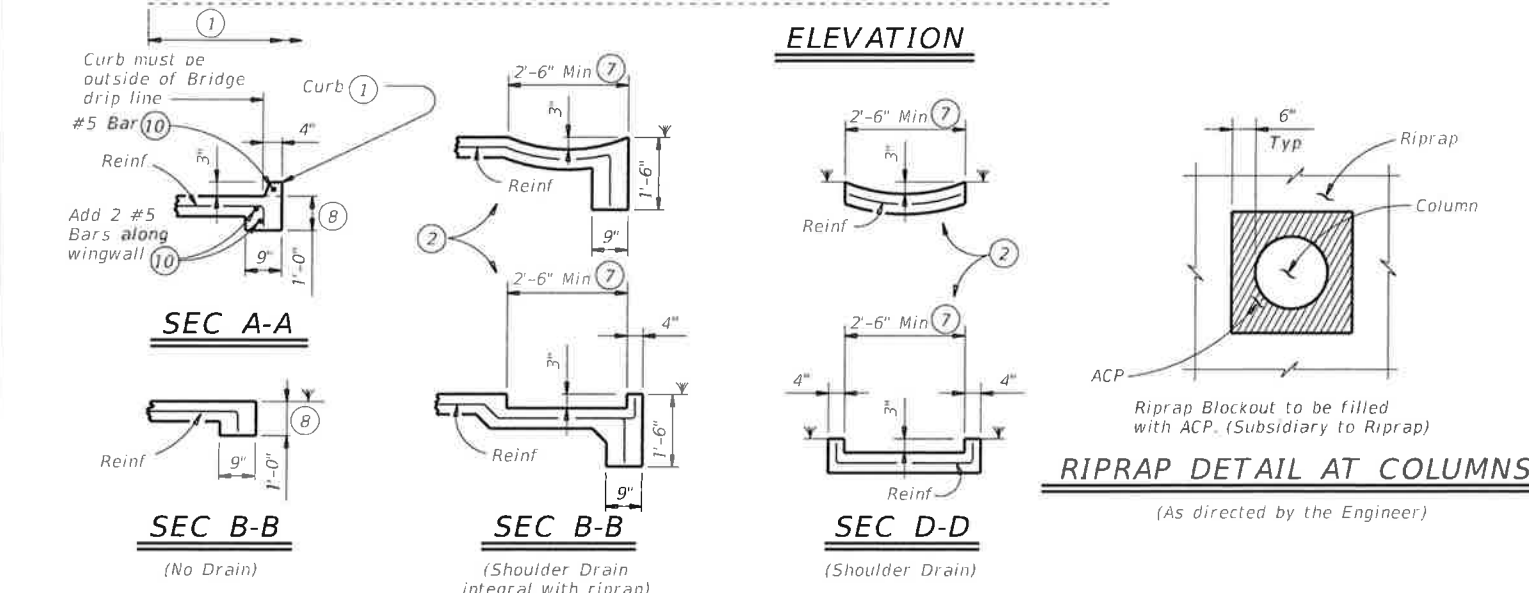
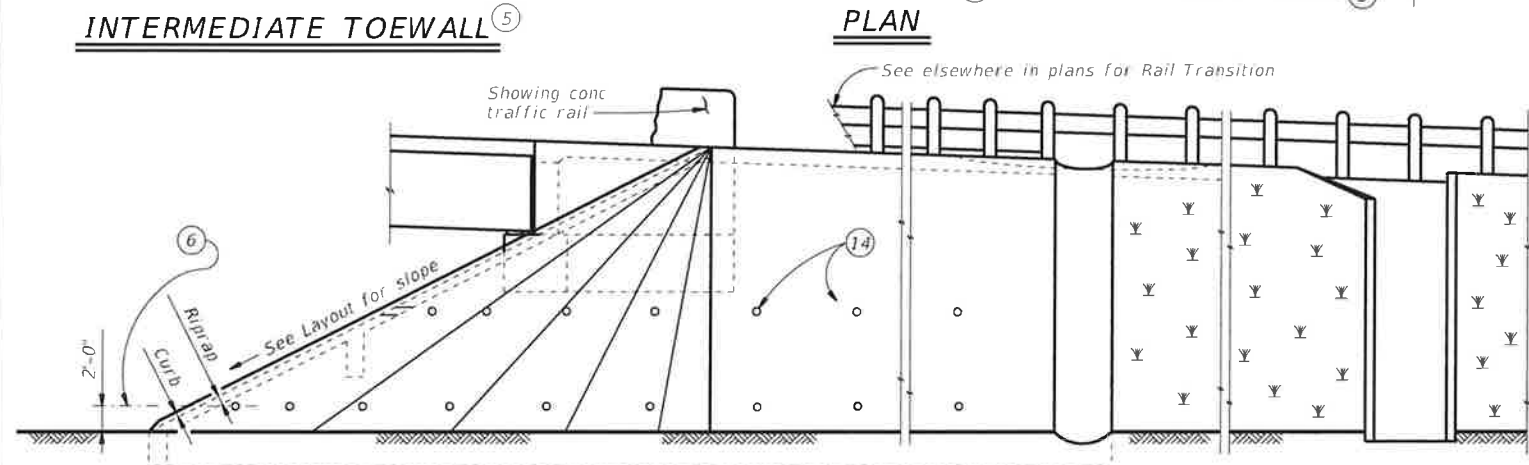
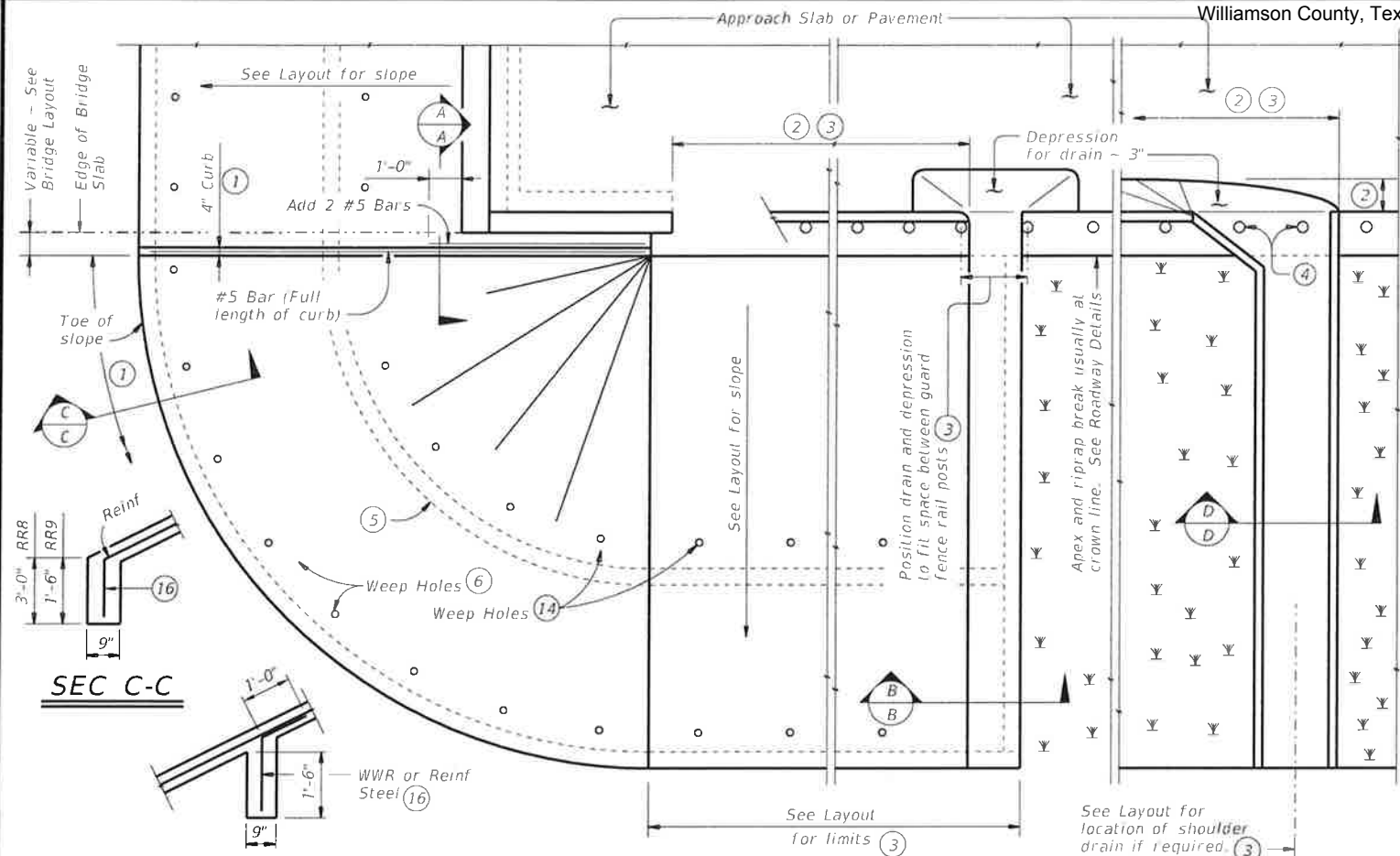
Ensure connecting pipes enters within 10 degrees of normal to inlet wall. Use pipe elbow or curved approach alignment as necessary to meet this requirement.

Consider Excavation and Backfill subsidiary to pertinent item.

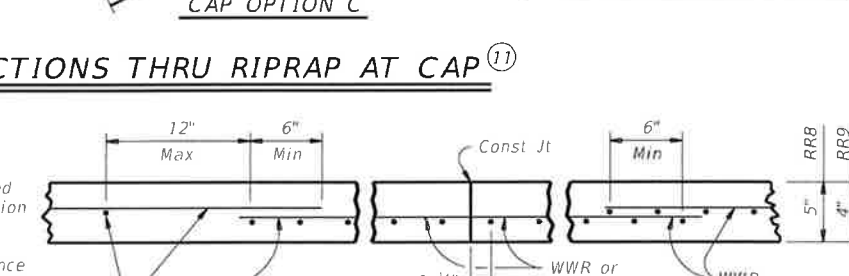
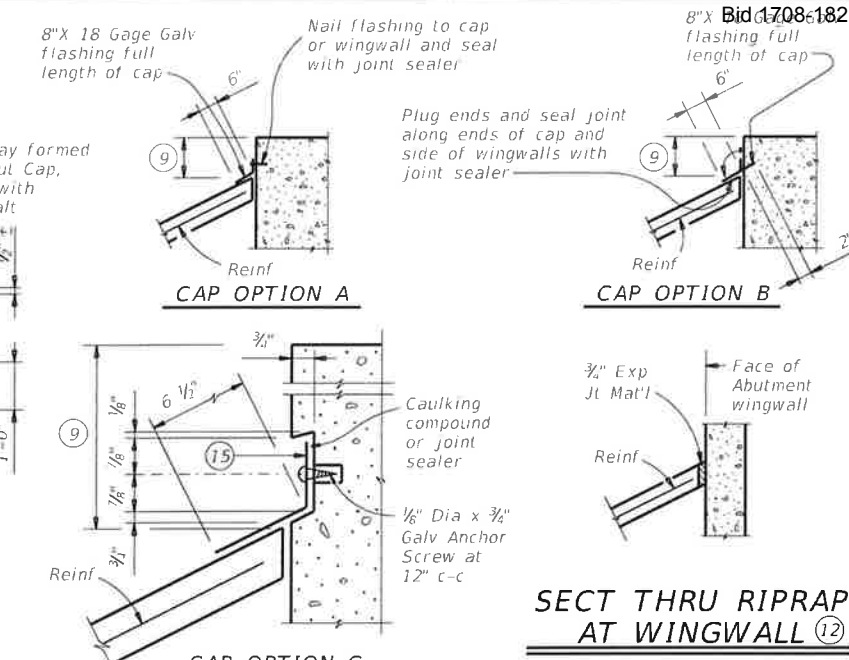


**DROP INLET DETAILS
TYPE I
Austin District Standard**

© TxDOT 2003	DIST	FED REG	FEDERAL AID PROJECT	SHEET
REVISIONS	AUS	6		
3/03 District Update	COUNTY	CONTROL	SECT	JOB HIGHWAY
9/04 2004 Update				125



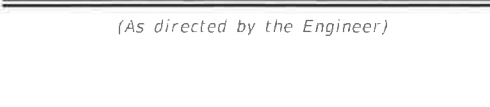
- 1 When riprap is shown extended around header on layout, extend slab and toewall as shown and eliminate 4" curb.
- 2 Limits and configuration of drains and depressions are as shown elsewhere in plans or as directed by the Engineer.
- 3 Location of shoulder drain must consider limitations imposed by rail transition. Do not locate shoulder drains at expansion joints between approach slab and concrete pavement.
- 4 See details elsewhere in plans for installation of guard fence posts through concrete riprap.
- 5 Provide intermediate toewall only when designated elsewhere in the plans or included in the specifications.
- 6 Provide lower level of 2" Dia weep holes at 10' c-c backed by 1 CF packet of gravel and galvanized hardware cloth at all locations unless directed by the Engineer to eliminate.
- 7 Use wider or other drain configurations if shown elsewhere in plans or if directed by the Engineer.
- 8 Wall extension may be reduced or modified if approved by the Engineer. Increase wall extension to 1'-6" whenever the optional intermediate toewall is called for in the plans.
- 9 Top of cap to top of riprap dimension varies as directed by the Engineer. Should be 9" Min for beam/slab type bridges and 1'-6" for slab span, box beam, or slab beam bridges.
- 10 #5 bars shown are required even when synthetic fiber reinforcing option is selected.
- 11 Provide sealing option for joint between the face of cap and riprap as designated by the Engineer or as shown elsewhere on plans.
- 12 Flashing (shown in Cap Option A) may be used at wingwall in addition to Exp Jt Mat'l if shown on plans or directed by the Engineer.
- 13 Provide #3 reinforcing bars at 18" Spa c-c. Provide Welded Wire Reinforcement (WWR) as 6x6-D3xD3. Combinations of WWR and reinforcing bars may be used if both are permitted. Use lap splices of a minimum 6 inches, measured from the transverse wire of WWR, and the ends of reinforcing bars.
- 14 If granular material is specified, provide upper level of 2" Dia weep holes at 10' c-c backed by galvanized hardware cloth.
- 15 8" x 18 Gage Galv Sheet Metal
- 16 Provide WWR or #3 bars, with 1'-0" extension into slope.



REINFORCEMENT DETAILS (13)
See General Notes for optional synthetic fiber reinforcement.

GENERAL NOTES:
Provide Class "B" concrete with a minimum compressive strength of 2,000 psi unless noted elsewhere in plans.
Provide Grade 60 reinforcing steel.
Provide synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) in lieu of steel reinforcing in riprap concrete unless noted otherwise.
Install construction joints or grooved joints extending the full slant slope height at intervals of approximately 20 feet unless otherwise directed by the Engineer.
Hardware cloth, loose grade stone behind weep holes, flashing, or other sealing material are subsidiary to the bid item "Riprap".
Use reinforcing bars, deformed Welded Wire Reinforcement (WWR), or any suitable combination of both types for riprap reinforcing, unless specified elsewhere in the plans.
See Layout for limits of riprap.
RR8 is to be used on stream crossings.
RR9 is to be used on other embankments.

RIPRAP DETAIL AT COLUMNS



FOR CONTRACTOR'S INFORMATION ONLY:

5' of RR8	= 0.015 CY/SF
4' of RR9	= 0.012 CY/SF
#3 Reinf at 18" c-c	= 0.501 Lbs/SF
6x6-D3xD3	= 0.408 Lbs/SF

Texas Department of Transportation Bridge Division Standard

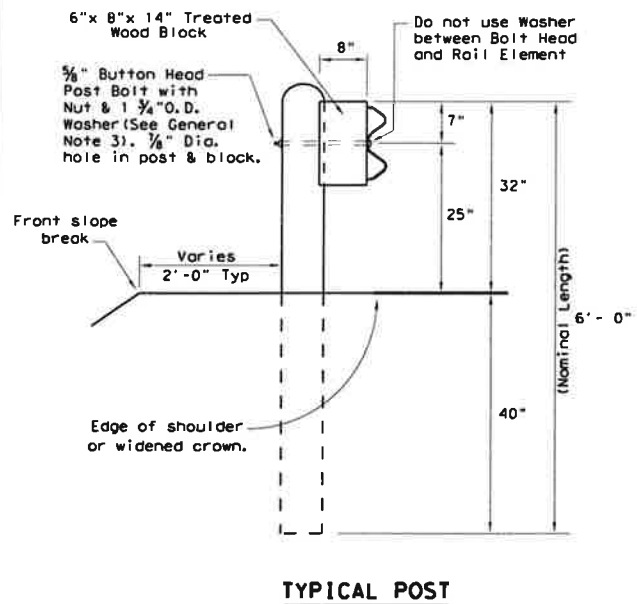
CONCRETE RIPRAP AND SHOULDER DRAINS EMBANKMENTS AT BRIDGE ENDS (TYPES RR8 & RR9)

CRR

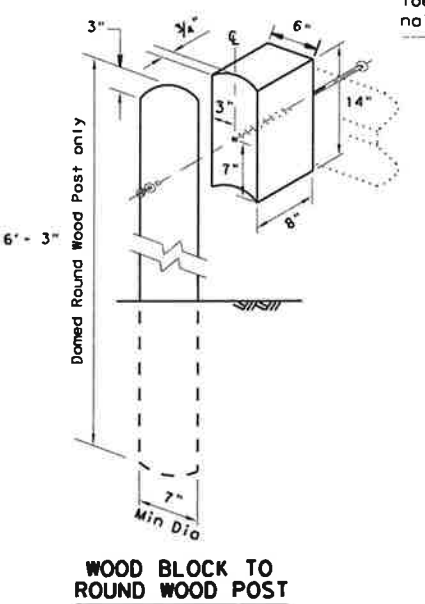
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REVISED		DATE	BY	CHK	BY	CHK	DATE

126
p. 226

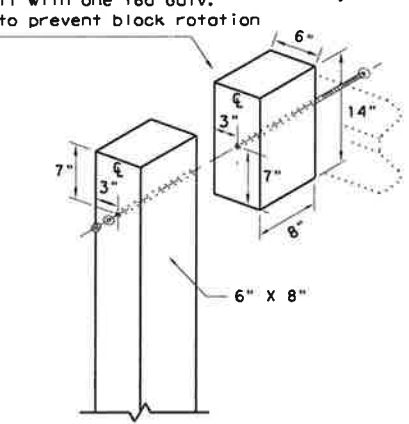
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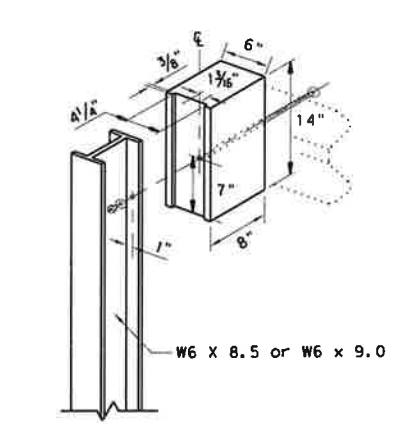
TYPICAL POST



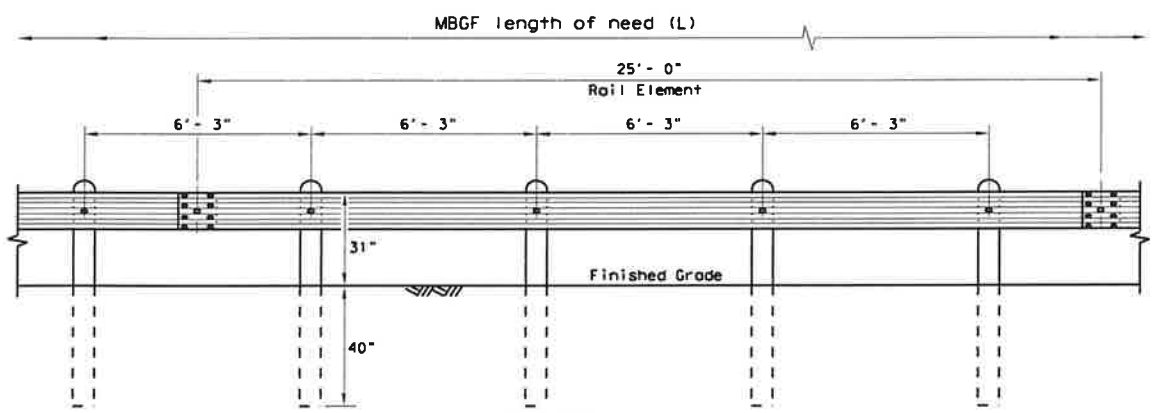
WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST

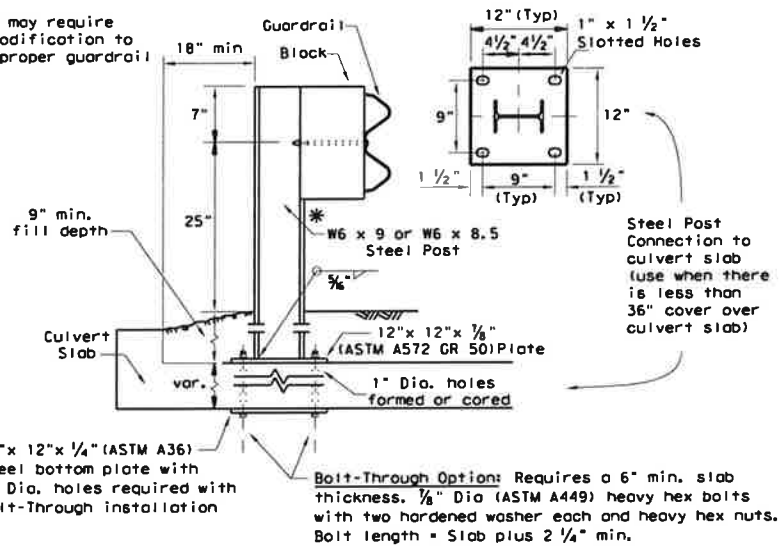


WOOD BLOCK TO STEEL POST



ELEVATION MID-SPAN RAIL SPLICE

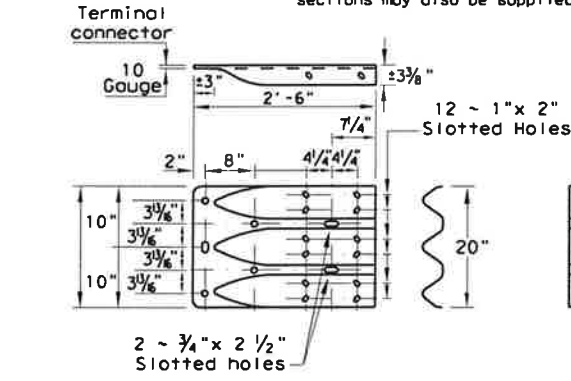
Showing a 25'-0" section of W-Beam rail, 12'-6" rail sections may also be supplied (See General Note 2)



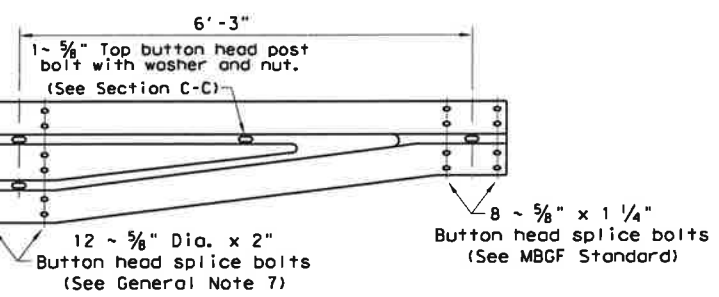
LOW FILL CULVERT POST

Culverts of 25 ft. or less, see GF(31)LS standard for "Long Span" option.

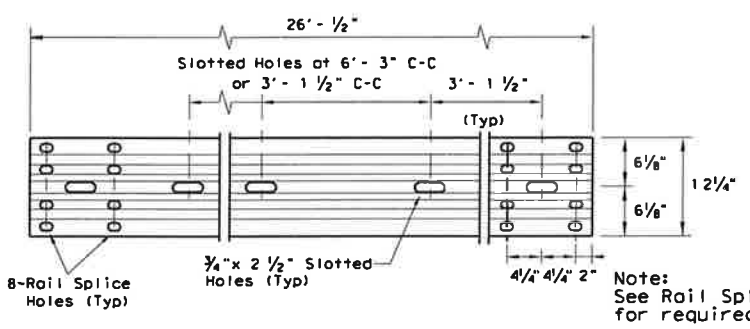
Epoxy Note:
Epoxy Anchor Option: This option may only be used if the culvert slab is 8" min. thick. Threaded anchor rods must be 1/2" Dia. ASTM A449 or A193 Grade B7 with heavy hex nut, and one hardened washer each. Embed anchor rods 6" with Hilti HIT RE 500 epoxy adhesive. Other Type III Class C epoxy adhesives meeting the requirements of DMS-6100, "Epoxyes and Adhesives", may be used if it can be demonstrated that they meet or exceed the strength of Hilti HIT RE 500 with the same embedment depth and threaded rod dia. Follow the manufacturer's requirements for installing epoxied threaded rods. Extend rods 1/4" min. beyond nut.



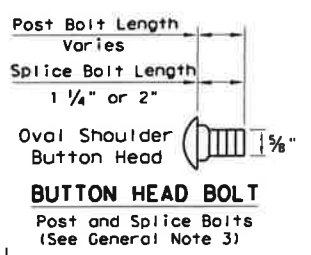
THREE-BEAM TERMINAL CONNECTION
(SEE GENERAL NOTES 6 & 7 FOR REQUIRED HARDWARE)



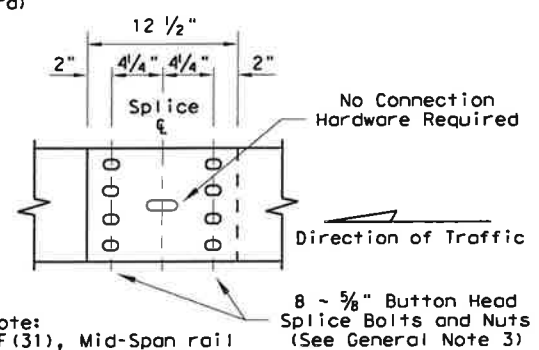
NON-SYMMETRICAL TRANSITION TO W-BEAM (10 GAUGE)



ELEVATION 25'-0" (NOM.) W-BEAM SECTION
12'-6" RAIL SECTIONS MAY ALSO BE SUPPLIED (SEE GENERAL NOTE 2)

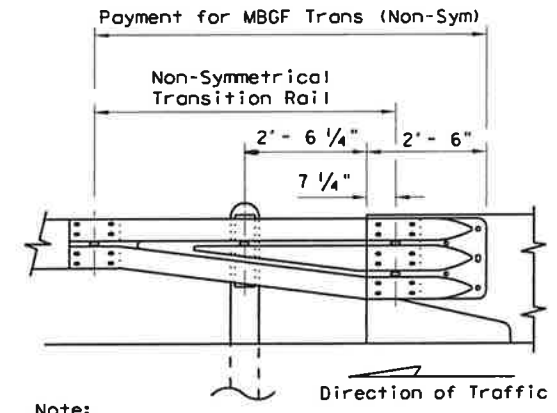


BUTTON HEAD BOLT
Post and Splice Bolts (See General Note 3)



MID-SPAN RAIL SPLICE DETAIL

Note: GF(31), Mid-Span rail splices are required with 6'-3" post spacings.



DOWNSTREAM RAIL ATTACHMENT

Note: All rail elements shall be lapped in the direction of adjacent traffic.

- The type of post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of MBGF shall be shown in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
- Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified in the plans. The Contractor may furnish rail elements of 25'-0", or 12'-6" (nom.) lengths. Rail elements may have slotted holes at 3'-1/2" C-C or 6'-3" C-C. A special length of rail may be manufactured to accommodate the downstream anchor terminal (DAT) and the transition sections of guardrail.
- Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 3/4" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" (or 2" long at triple rail splices) with a 5/8" double recessed nut (ASTM A563). Triple beam "connection" 7/8" dia. (ASTM A325) hex bolts shall be of sufficient length to extend through the full thickness of the rail, washers, and nuts.
- Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
- Crown shall be widened to accommodate the Metal Beam Guard Fence.
- The lateral approach to the guard fence, shall have a maximum slope of 1V:10H.
- If shown elsewhere in the plans or as directed by the Engineer, the guard fence may be flared at a rate of 25:1 or flatter.
- Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the rail. Rail placed over curbs shall be installed so that the post bolt is located approximately 25 inches above the gutter pan or edge of shoulder.
- If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever maybe less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
- Posts shall not be set in concrete, of any depth.
- Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
- Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL may furnish composite material posts and/or blocks.
- For posts located partially or wholly between precast box culvert units, the use of a cast-in-place concrete closure between boxes is required. See Detail "A" on Bridge Standard SCP-MD.

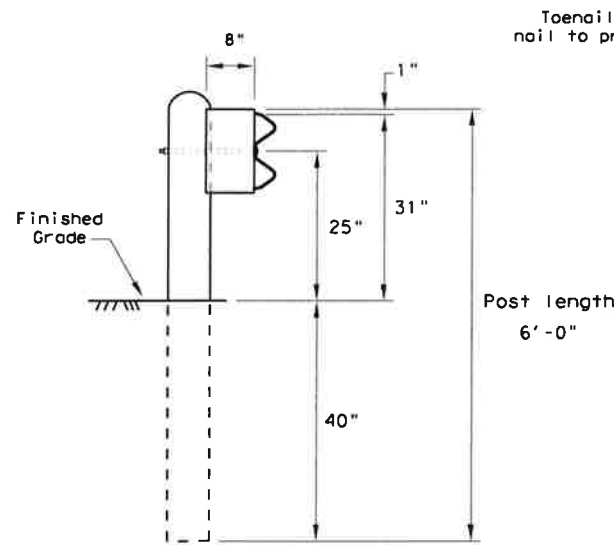
		Design Division Standard	
<h1>METAL BEAM GUARD FENCE</h1> <h2>GF (31) - 14</h2>			
FILE: gf3114.dgn	DWG: TxDOT	CHK: AM	DWG: VP
© TxDOT: December 2011	CONT: SECT	JOB:	HIGHWAY:
REVISIONS:	DIST:	COUNTY:	SHEET NO. 127

GENERAL NOTES

1. The type of line post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of the transitions shall be as shown in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet all requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 1/2 or 25 foot nominal lengths.
3. Rail post holes are offset 3'- 1 1/2" from standard guardrail to accommodate the midspan splicing.
4. Button head post bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and no more than 3/4" beyond it. Button head splice bolts (ASTM A307) are 5/8" x 1 1/4" with a 5/8" double recessed nut (ASTM A563). Galvanized fittings (bolts, nuts, and washers) shall be in accordance with Item, "Metal For Structures". Fittings shall be subsidiary to the bid item requiring construction of transition.
5. Where solid rock is encountered or where shown on the plans, the diameter of the holes shall be approximately 12 inches, the backfilling shall be with a cohesionless material, and embedment depth shall be 1' - 6" or more as directed by the Engineer.
6. Posts shall not be set in concrete, of any depth.
7. Refer to GF(31) Standard Sheet for additional details.

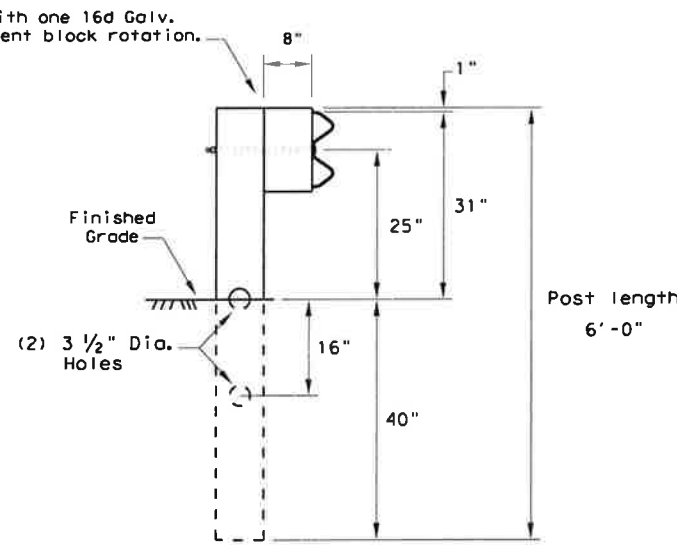
NOTE: Field drilled holes shall be repaired in accordance with Item 445, "Galvanizing". Flame cutting of holes in guardrail shall not be permitted.

Standard Line Post Installation

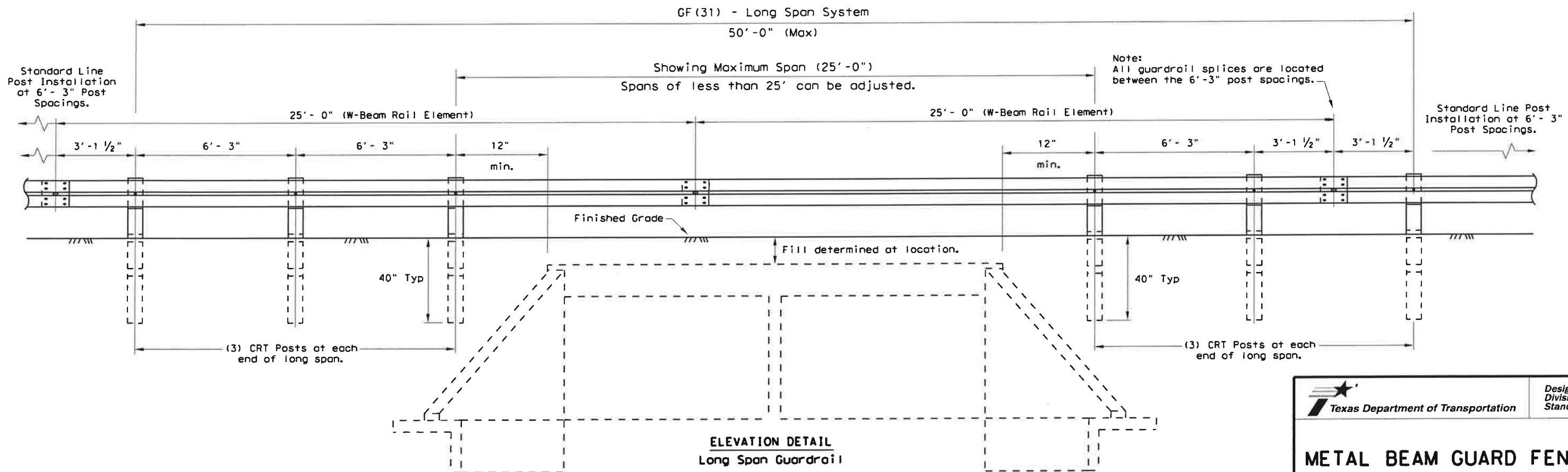
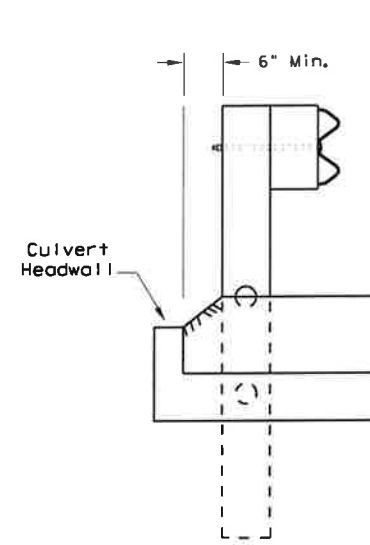


Rectangular CRT Post (6"x 8" x 6' Long)

(6) CRT required.
See Elevation Detail for locations.



Lateral Offset Between the Guardrail and the Culvert Headwall

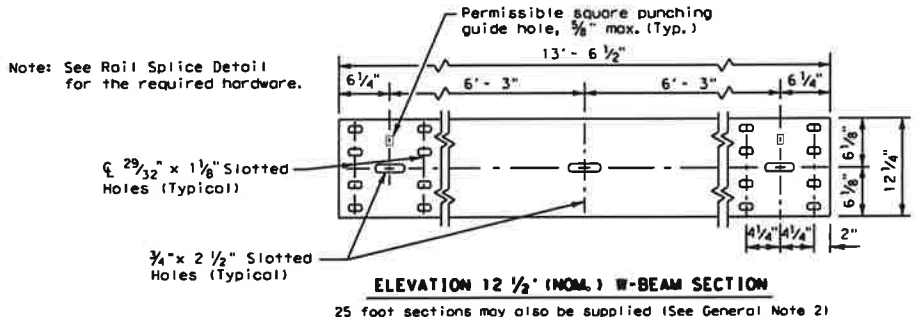
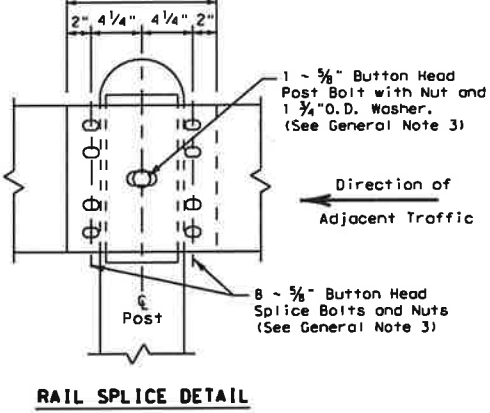
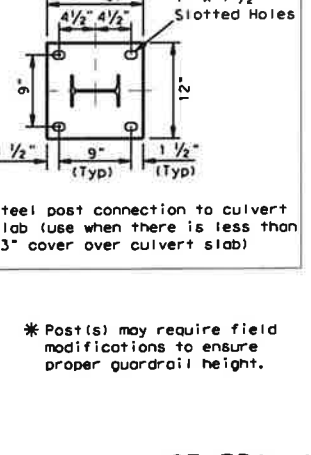
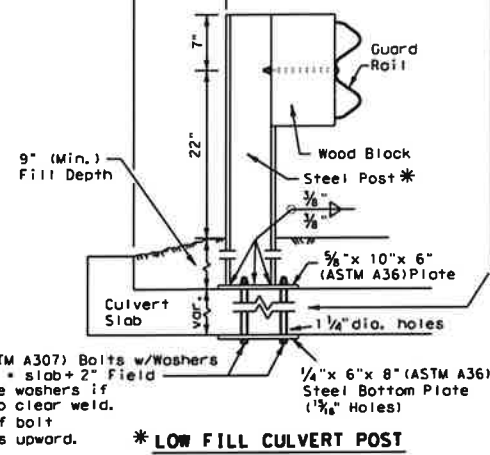
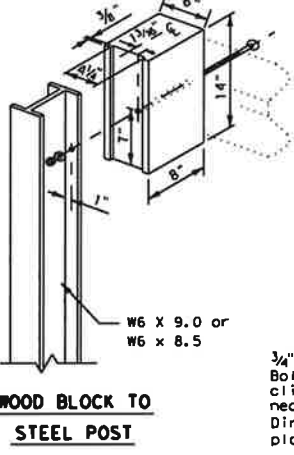
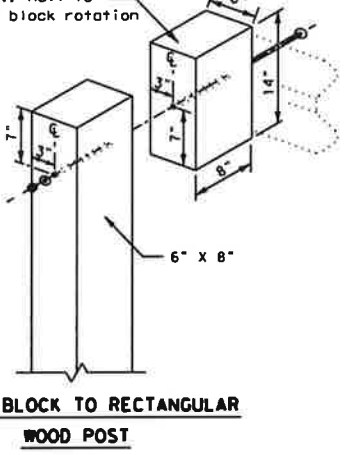
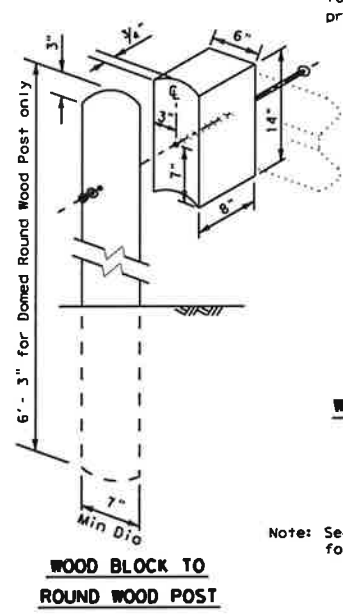
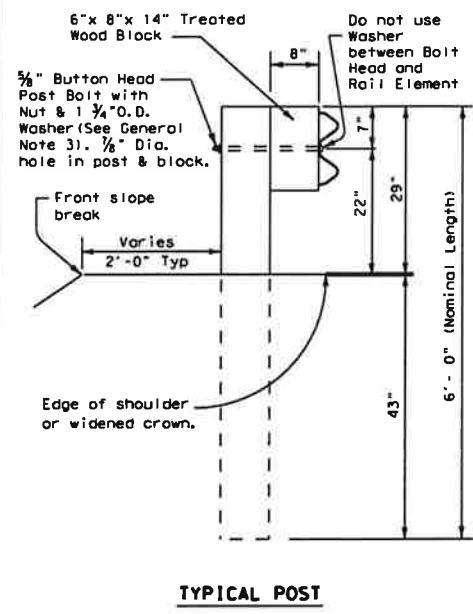


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DATE: 8/10/2017 9:17 AM
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		Design Division Standard	
METAL BEAM GUARD FENCE (LONG SPAN)			
GF(31)LS-14			
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© TxDOT: December 2011	CONT	SECT	JOB
REVISIONS		HIGHWAY	
DIST	COUNTY	SHEET NO.	
		128	

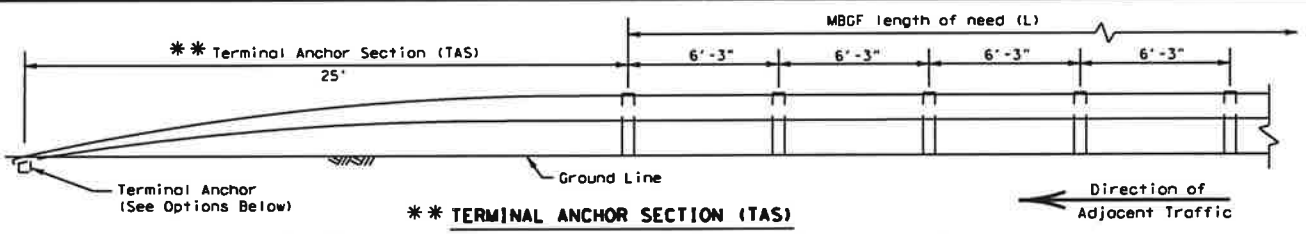
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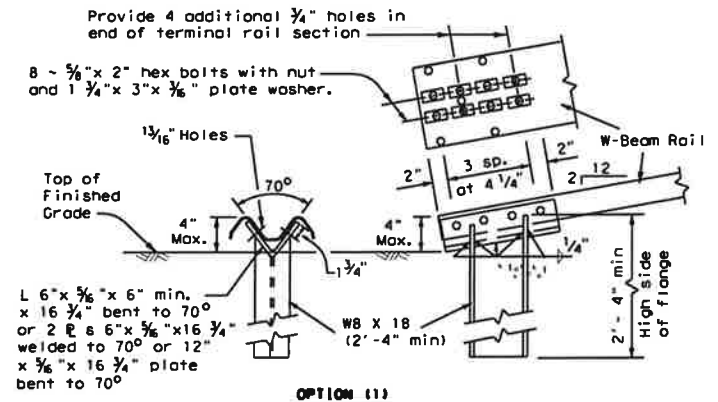
FOR USE ON NON-BRIDGE CLASS CULVERTS ONLY

GENERAL NOTES

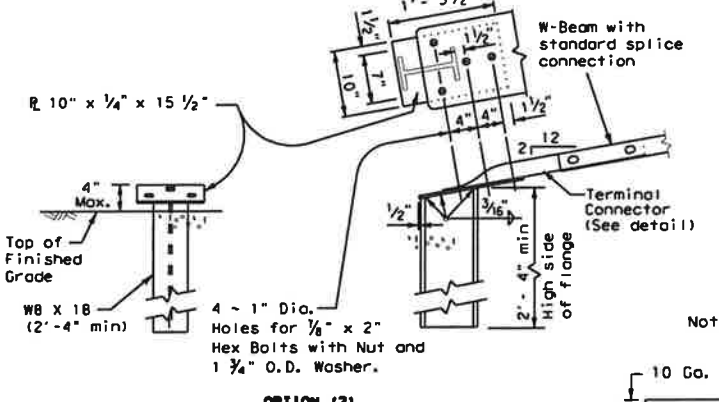
- The type of post (round wood post, rectangular wood post, or steel post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
- Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 1/2 or 25 foot nominal lengths.
- Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 3/4" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" (or 2" long at triple rail splices) with a 5/8" double recessed nut (ASTM A563).
- Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
- Crown shall be widened to accommodate the Metal Beam Guard Fence.
- The lateral approach to the guard fence, shall have a slope rate of not more than 1V:10H.
- Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the block. Rail placed over curbs shall be installed so that the post bolt is located approximately 21 inches above the gutter pan or roadway surface.
- If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, 24" into the rock, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever is less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
- Posts shall not be set in concrete, of any depth.
- Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
- The terminal anchor section (TAS) post shall be set in Class A concrete (unless otherwise shown in the plans) in accordance with Item 421, "Hydraulic Cement Concrete." Concrete shall be subsidiary to the bid item requiring construction of the terminal anchor section (TAS). Terminal anchor post to be galvanized in accordance with Item 445, "Galvanizing."
- Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.



Terminal anchor sections are only for downstream use, when located outside the horizontal clearance area of opposing traffic.



Note: This anchor post requires four additional 3/4 inch holes (shop or field) in the rail member with eight 5/8 inch hex bolts with nut and plate washer.

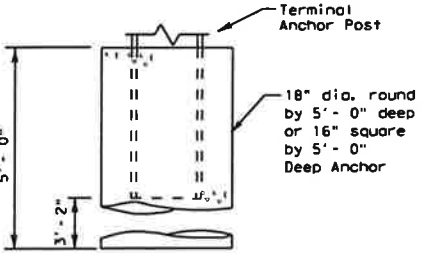


Note: This anchor post requires the use of the 10 ga. terminal connector with four 5/8 inch hex bolts with nut and washer.

TERMINAL ANCHOR POST OPTIONS

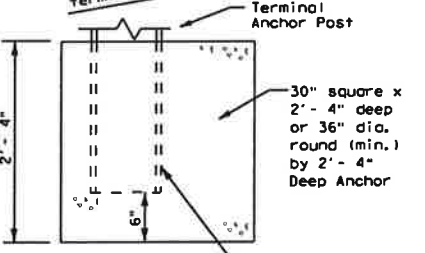
Notes:

- Either concrete anchor may be used with either post option above.
- No construction joint is allowed in the concrete anchor.
- Terminal rail may be bolted to post and in twist position prior to placing concrete anchor.
- If concrete anchor is precast, the area should be compacted as directed by the Engineer, when placed in the field.

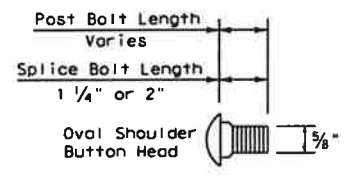


TERMINAL CONCRETE ANCHOR OPTIONS

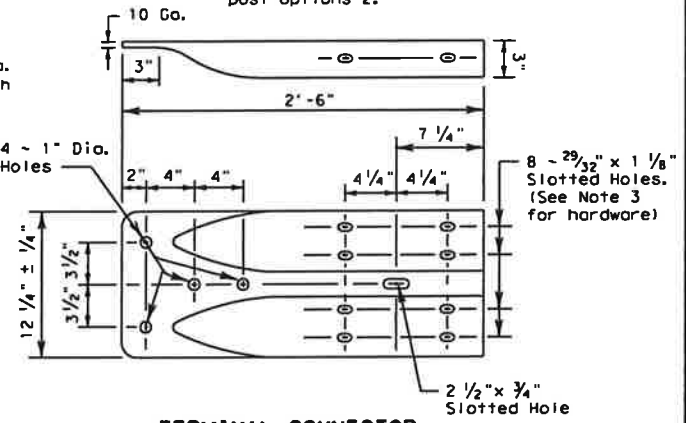
(See General Note 11)



Place face of post approx. on center of anchor



Post and Splice Bolts (See General Note 3)



For connection hardware to concrete rails, see the MBGF transition standards.

METAL BEAM GUARD FENCE

MBGF - 11

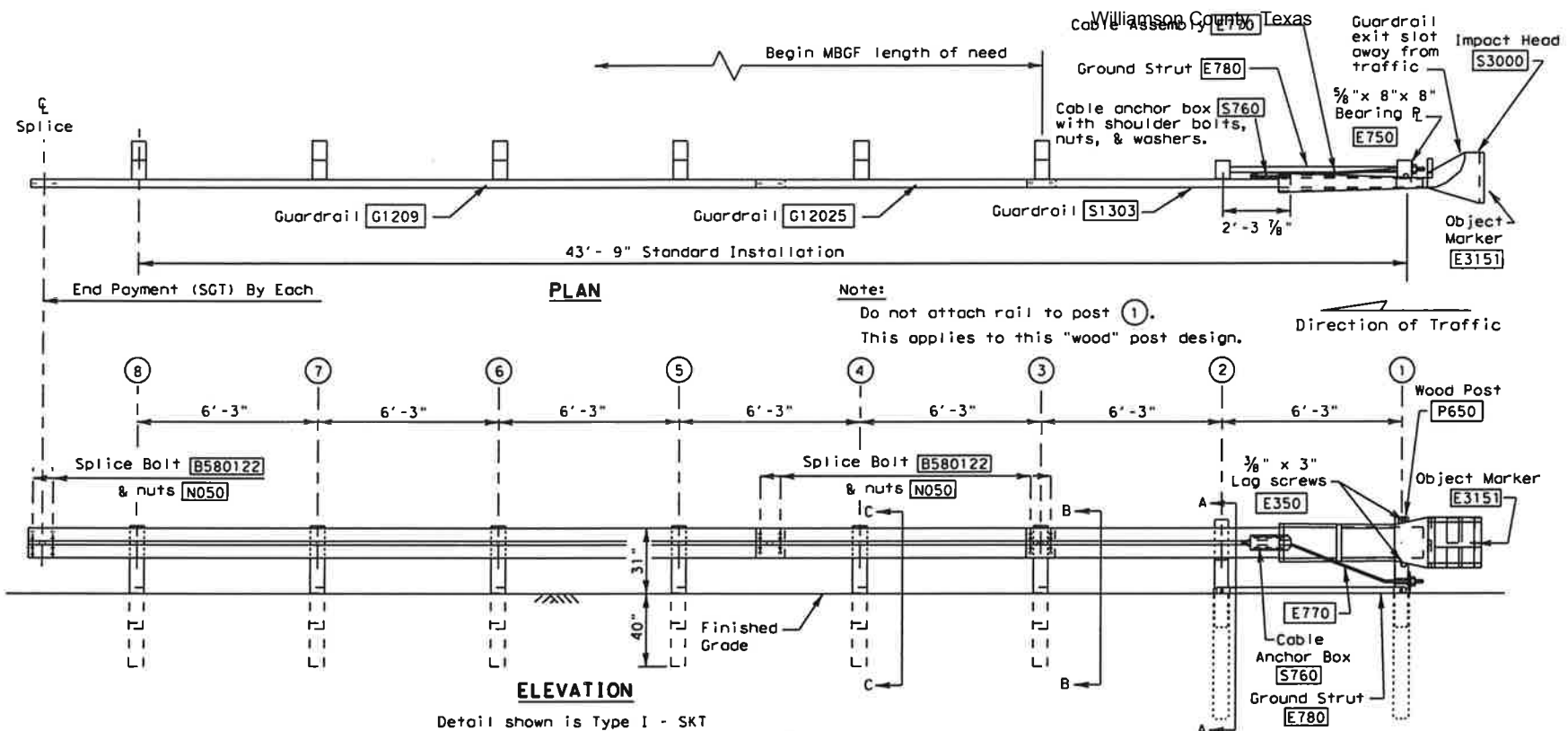
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© TxDOT July 1994	CONT SECT	JOB	HIGHWAY	
12-2013	REVISIONS			
	DIST	COUNTY	SHEET NO.	129

GENERAL NOTES

- For additional information contact: Interstate Steel Inc. (432) 263-3725
- The Type of SGT unit will be specified elsewhere in the plans. The numbers in the circles indicate post position. The Type of SGT unit chosen is a maintenance consideration and does not affect the systems performance.

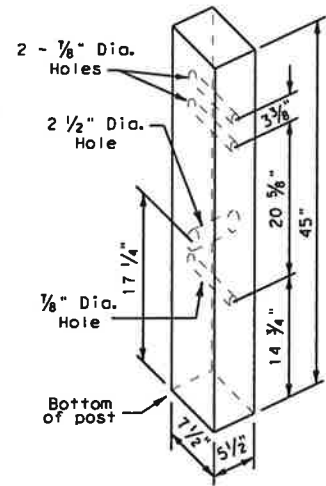
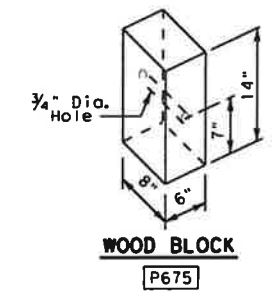
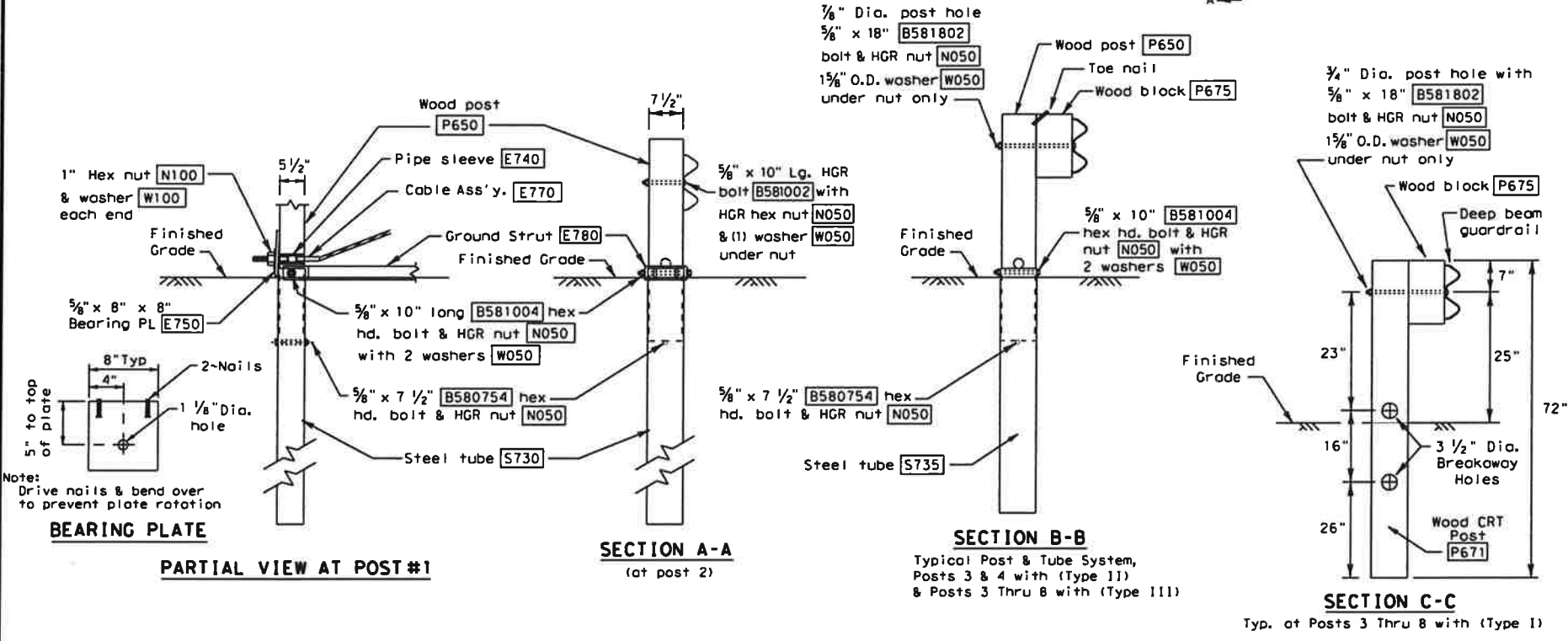
Post & Tube Options		Post Only	
Type I Posts	① thru ②	Posts ③ thru ⑧	
Type II Posts	① thru ④	Posts ⑤ thru ⑧	
Type III Posts	① thru ⑧	None	
- SGT's placed within the "minimum" 150 ft. radius, shall be installed straight. Standard rail elements may be installed within the radius, without special fabrication.
- All bolts, nuts cable assemblies, cable anchors, steel tubes & bearing plates shall be galvanized.
- A flare rate of 25:1 may be used over the first 50 ft. of the system to prevent the terminal head from encroaching the shoulder. The flare may be decreased or eliminated for specific installations, if directed by the Engineer.
- The steel tubes shall not protrude more than 4 inches above ground. Site grading may be necessary to meet this requirement.
- The steel tubes may be driven with an approved driving head. They shall not be driven with the wood post in the tube. If the steel tubes are placed in drilled holes, the backfill material must be satisfactorily compacted to prevent tube settlement.
- If solid rock is encountered. See the Manufacturer's installation manual for the proper installation guidance.
- The breakaway cable assembly must be taut. A locking device, (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening the nuts.
- The wood blocks shall be "toe nailed" to the rectangular wood posts to prevent them from turning when the wood shrinks. The bearing plate on the front post shall also be "toe nailed" to prevent rotation.
- For curb installations, the soil tubes and posts shall be installed at the proper ground elevation behind the curb. The posts will then require field drilling new holes to accommodate the rail to post connection bolt to maintain the proper height of the rail above the gutter pan. The excess post length above the rail will be removed if directed by the Engineer.
- An object marker shall be installed on the front of the impact head as detailed on D&M(VIA).

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Note:
Do not attach rail to post ①.
This applies to this "wood" post design.

Detail shown is Type I - SKT

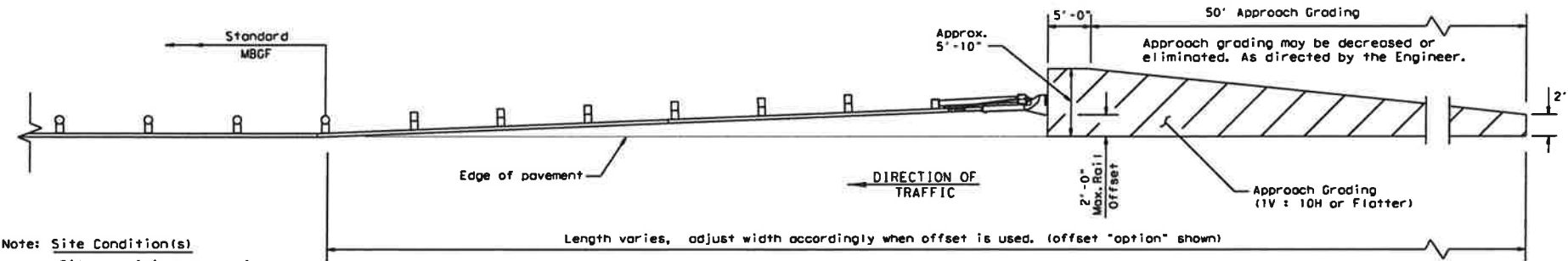


All measurements should be taken from bottom of posts. UNIVERSAL WOOD POST P650

POST & TUBE OPTIONS

Type I post	① thru ②
Type II post	① thru ④
Type III post	① thru ⑧

Item #	POST & TUBE OPTIONS			BILL OF MATERIAL DESCRIPTION
	Type I	Type II	Type III	
S1303	1	1	1	Guardrail (12 Ga.) 12' - 6" SKT
G12025	1	1	1	Guardrail (12 Ga.) 9' - 4 1/2"
G1209	1	1	1	Guardrail (12 Ga.) 25' - 0"
S730	2	2	2	Steel Tube - 6" x 8" x 72" x 1/8" min. or 3/16"
S735	0	2	6	Steel Tube - 6" x 8" x 54" x 1/8" min. or 3/16"
P650	2	4	8	Wood Posts - 5 1/2" x 7 1/2" x 45"
P671	6	4	0	Wood CRT Posts - 6" x 8" x 72"
P675	6	6	6	Wood Block - 6" x 8" x 14"
E740	1	1	1	Pipe Sleeve - 2" Std. Pipe x 5 1/2"
E750	1	1	1	Bearing Plate - 3/8" x 8" x 8"
S760	1	1	1	Cable Anchor Box
E770	1	1	1	Cable Assembly
E780	1	1	1	Ground Strut
S3000	1	1	1	Impact Head
HARDWARE				
B580754	2	4	8	5/8" x 7 1/2" Hex Hd. Bolt
B581004	2	4	8	5/8" x 10" Hex Hd. Bolt (Top of Tubes)
W050	11	15	23	3/8" Washers
B581002	1	1	1	5/8" x 10" HGR Post Bolt (Post 2)
B580122	16	16	16	5/8" x 1 1/4" HGR Splice Bolt
B581802	6	6	6	5/8" x 18" HGR Post Bolt (Posts ③ thru ⑧)
N050	35	39	47	5/8" HGR Nut (24-Spl, Varies-Posts, 2-Strut)
E350	2	2	2	3/8" x 3" Lag Screw
N100	2	2	2	1" Hex Nut (Anchor Cable)
W100	2	2	2	1" Washer (Anchor Cable)
SB12A	8	8	8	Cable Anchor Box Shoulder Bolts
N012A	8	8	8	1/2" Structural Nut
W012A	8	8	8	1/2" Structural Washer
E3151	1	1	1	Object Marker - (18" x 18")



Note: Site Conditions)
Site conditions may exist where grading is required for the proper installation of metal guard fence and end treatments.

APPROACH GRADING AT GUARDRAIL END TREATMENTS

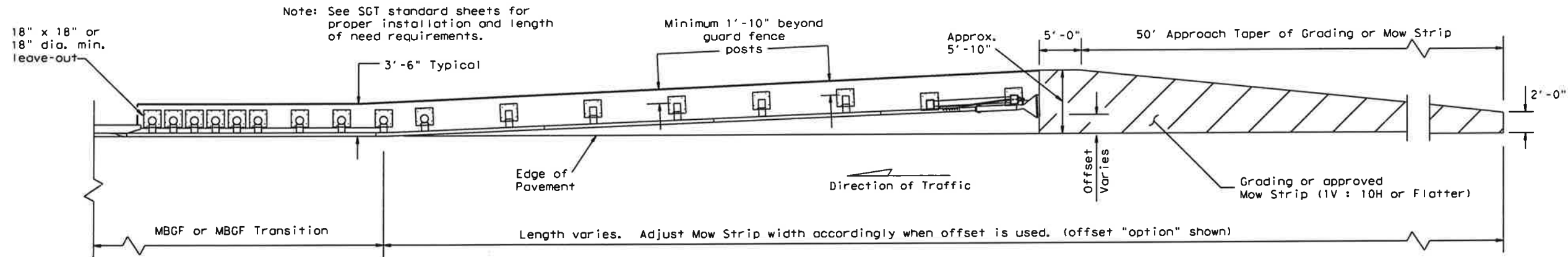
Texas Department of Transportation
Design Division Standard

SINGLE GUARDRAIL TERMINAL (SKT-31) (WOOD POST)

SGT (8) 31-14

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© TxDOT December 2011	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DIST	COUNTY	SHEET NO.		

130
p. 230

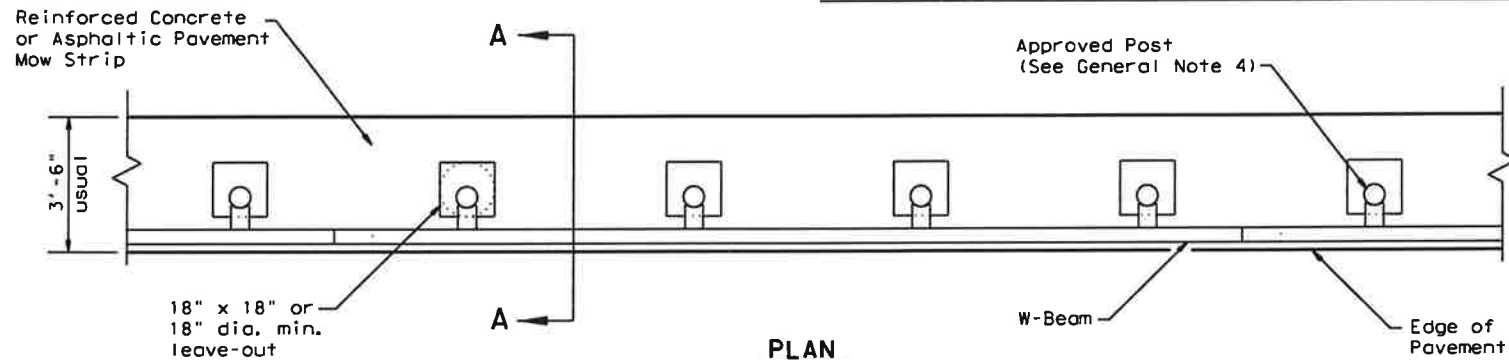


GRADING AND MOW STRIP AT GUARDRAIL END TREATMENTS

Note: Site Condition(s)
 Site conditions may exist where grading is required for the proper installation of metal guard fence and end treatments.
 Approach grading or mow strip may be decreased or eliminated, as directed by the Engineer.

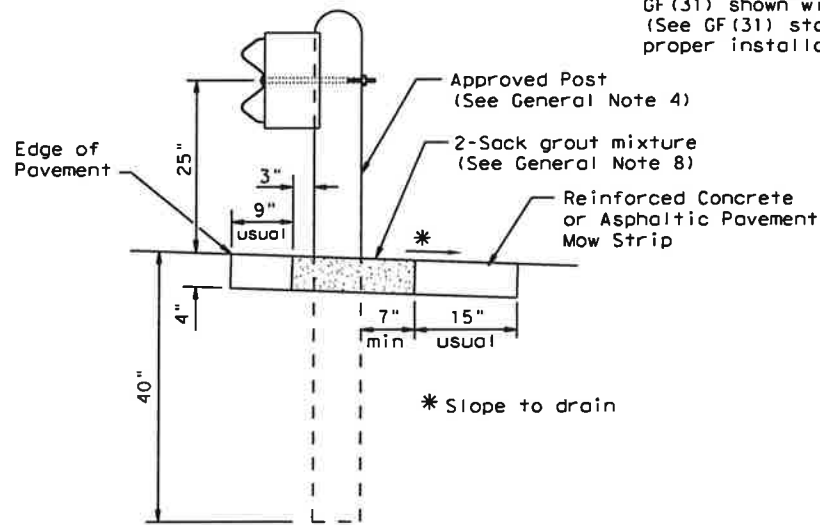
GENERAL NOTES

1. This mow strip design is for use with metal beam guard fence, guard fence transitions, and guard fence end treatments (See SGT standards for proper SGT installation).
2. Mow strips shall be asphaltic pavement or reinforced concrete (wire mesh or synthetic fiber), as shown on the plans and will be paid for under the pertinent bid item. Asphaltic pavement shall meet the requirements of the item, and be placed in accordance with the pertinent bid item as shown in the plans. Reinforced concrete shall be placed in accordance with Item 432, "Riprap." The use of the synthetic fiber in lieu of steel reinforcing is acceptable, provided the fiber producer is on the Department Material Producer List (MPL), maintained by TxDOT, Construction Division.
3. The leave-out behind the post shall be a minimum of 7".
4. The type of approved post will be as shown in the plans. See the applicable standard sheets for additional details and information.
5. Other curb placement options may be used. Curbs are not considered part of the mow strip and will be paid for under other pertinent bid item.
6. Thickness of the mow strip will be 4".
7. The limits of payment for asphaltic pavement or reinforced concrete will include leave-outs for the posts.
8. The leave-outs shall be filled with no more than a 2-sack grout mixture and placed in accordance with Section 421.2.F, "Mortar and Grout." Payment for furnishing and placing the grout mixture will be subsidiary to the pay item of asphaltic pavement or reinforced concrete.

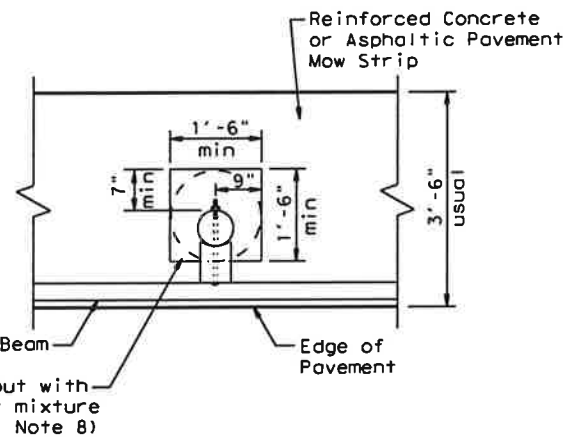


PLAN

GF (31) shown with Mow Strip (See GF (31) standard sheet for proper installation)

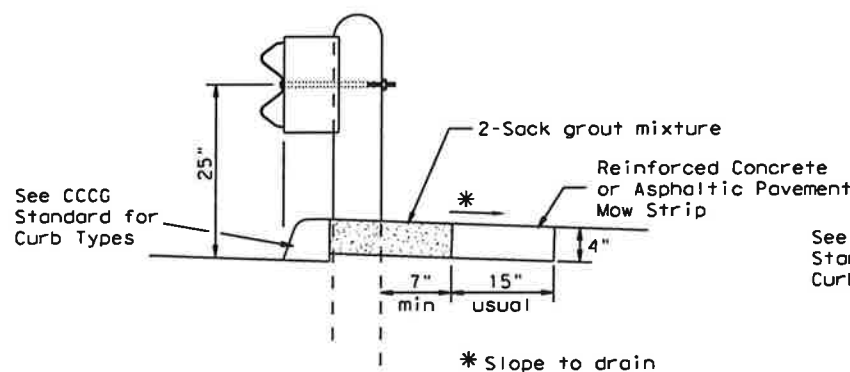


SECTION A-A
Typical



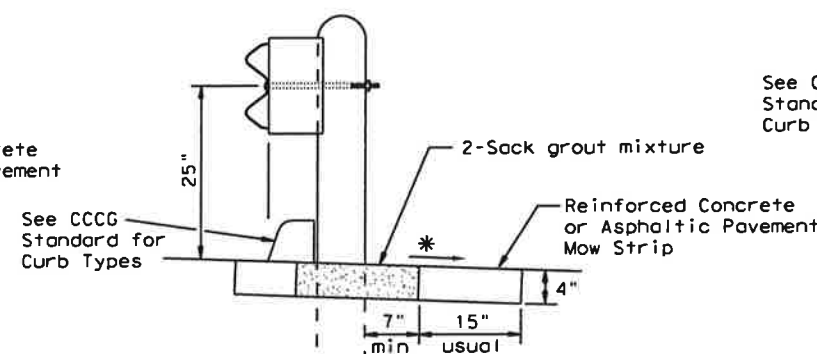
MOW STRIP DETAIL

Reinforced Concrete or Asphaltic Pavement Mow Strip with 18" x 18" or 18" dia. minimum leave-out.



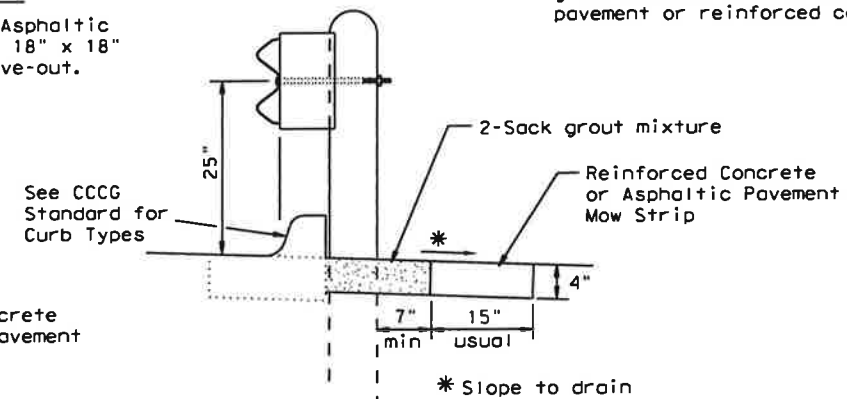
CURB OPTION (1)

This option will increase the post embedment through out the system.



CURB OPTION (2)

Curb shown on top of mow strip



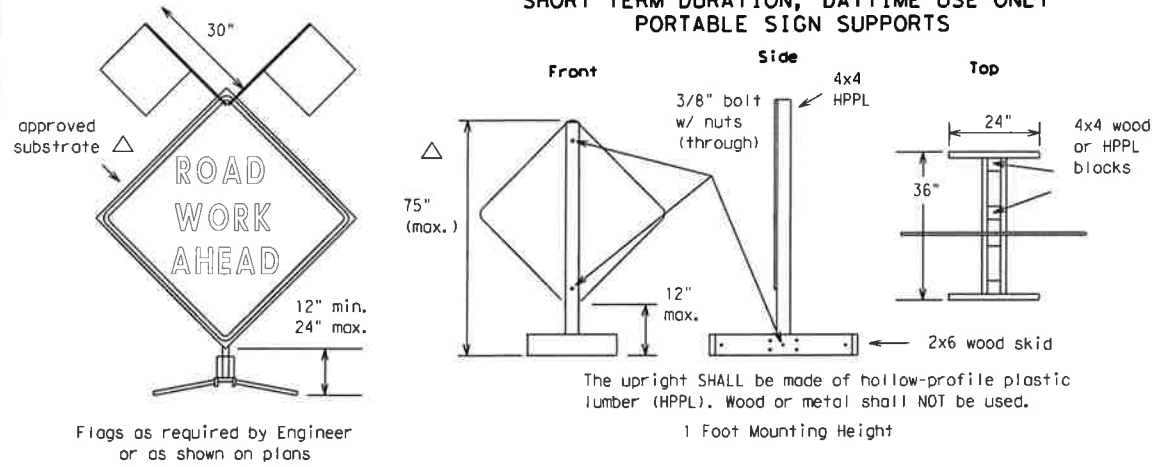
CURB OPTION (3)

		Design Division Standard	
METAL BEAM GUARD FENCE (MOW STRIP)			
GF (31)MS-11			
FILE: gf31ms11.dgn	DN: TxDOT	CK: AM	DW: BD
© TxDOT December 2011	CONT	SECT	JOB
REVISIONS		DIST	COUNTY
		SHEET NO. 131	

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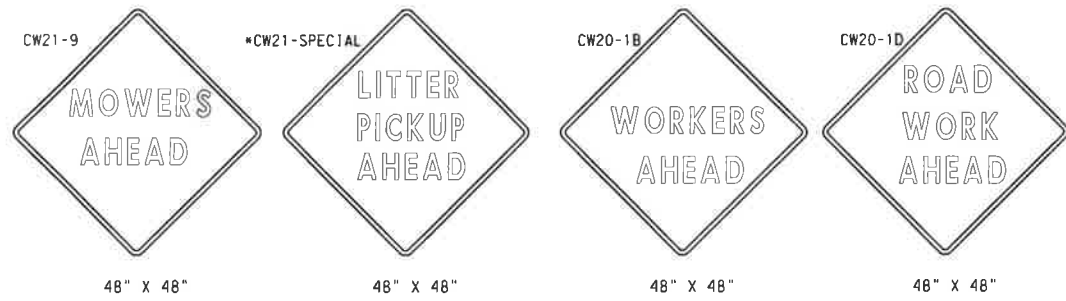
EXAMPLES OF SIGN SUPPORTS

See the CWZTCD for the type of sign substrate that can be used for each approved sign support.



Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports.

Nails will NOT be allowed.



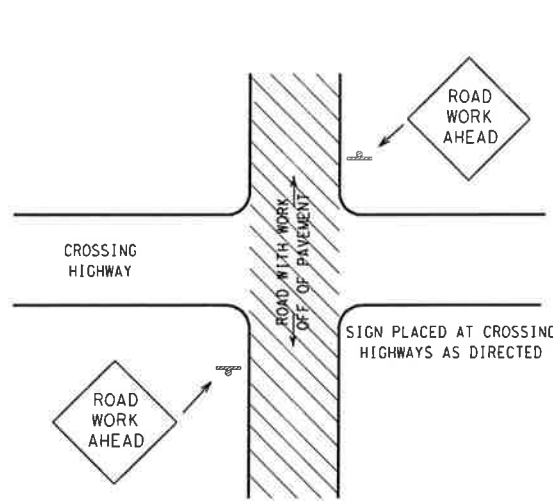
SIGN IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS

MOWERS AHEAD SIGNS ARE USED FOR MOWING OPERATIONS.

LITTER PICKUP AHEAD, ROAD WORK AHEAD AND WORKER AHEAD SIGNS ARE USED AS DIRECTED FOR OTHER MAINTENANCE OPERATIONS WHEN ALL WORK OCCURS OFF OF THE PAVED HIGHWAY SURFACE.

ROLL-UP SIGNS CONFORMING TO DMS-8310 AND THE CWZTCD ALLOWED

*Letter dimensions and spacing for "CW21-SPECIAL" is the same as C20-1D

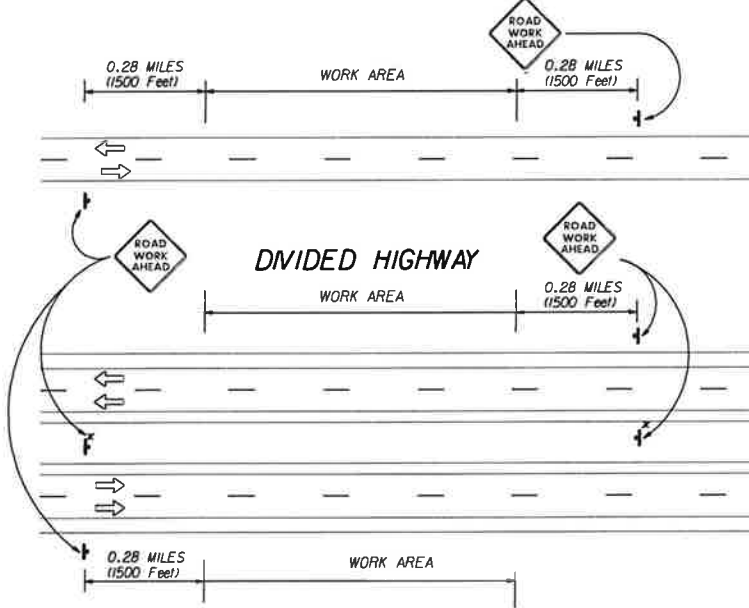


TYPICAL LOCATION OF SIGNS AT HIGHWAY CROSSING

WORK AREA IS A MAXIMUM OF 2.0 MILES UNLESS OTHERWISE DIRECTED. SIGNS MAY REMAIN IN PLACE ONLY DURING DAYLIGHT HOURS. SIGNS ARE TO BE PLACED 6' TO 12' OFF OF THE PAVED SURFACE UNLESS OTHERWISE DIRECTED. ROAD WORK AHEAD SIGNS SHOWN AS EXAMPLES, ONE OF THE FOUR TYPE SIGNS WILL BE USED AS DIRECTED.

* SIGNS IN THE MEDIAN ARE REQUIRED WHEN WORK OCCURS IN MEDIAN

UNDIVIDED HIGHWAY OR FRONTAGE ROAD



TRAFFIC CONTROL PLAN FOR WORK OFF OF THE PAVED SURFACE.

GENERAL NOTES FOR WORK ZONE SIGNS

- 1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. Nails shall NOT be used to attach signs to any support.
5. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
6. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD)...

Duration of Work (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part VII)

- 1. The Contractor is responsible for ensuring the sign support and substrate meets crashworthiness. For mowing operation all signs and supports are Short-term Duration for daytime work.
2. The Contractor shall furnish the sign sizes shown on this sheet or as directed by the Engineer.

SIGN SUBSTRATES

- 1. The Contractor shall ensure that the sign substrate is allowed for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign...

REFLECTIVE SHEETING

- 1. ReflectORIZED signs shall be constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 or DMS-8310. The DMS specifications can be accessed from the following web address:
http://manuals.dot.state.tx.us/80/dynaweb/colmatex/@GenericCollectionView;cs=Default;ts=Default
2. White sheeting, meeting the requirements of DMS-8300 Type C (High Specific Intensity), shall be used for signs with white background and channelizing devices.
3. Orange sheeting, meeting the requirements of DMS-8300 Type E (Fluorescent Prismatic), shall be used for signs with orange backgrounds.

SIGN LETTERS

- 1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- 1. Signs should be removed or completely covered when not mowing.
2. Duct tape or other adhesive material shall NOT be affixed to a sign face.
3. Signs and supports shall be removed by the end of the day.

SIGN SUPPORT WEIGHTS

- 1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry cohesionless sand is recommended.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact.
6. Rubber (such as tire inner tubes) shall NOT be used for sandbags.
7. Rubber ballasts (such as those used with cones or edgeline channelizers) shall NOT be used as sign support weights.
8. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign supports.
9. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

Any sign, sign support or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced or repaired as soon as possible by the Contractor at the Contractor's expense.

Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be obtained by contacting:

Standards Engineer
Traffic Operations Division - TE
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701-2483
Phone (512) 416-3120
Fax (512) 416-3299

Instructions to locate the "CWZTCD" on TxDOT website are:

Start at website - www.dot.state.tx.us
Click on "About TxDOT",
Click on "Organizational Chart",
Click on Traffic Operations Box,
Click on "Compliant Work Zone Traffic Control Devices",
Click on "View PDF".
This site is printable.



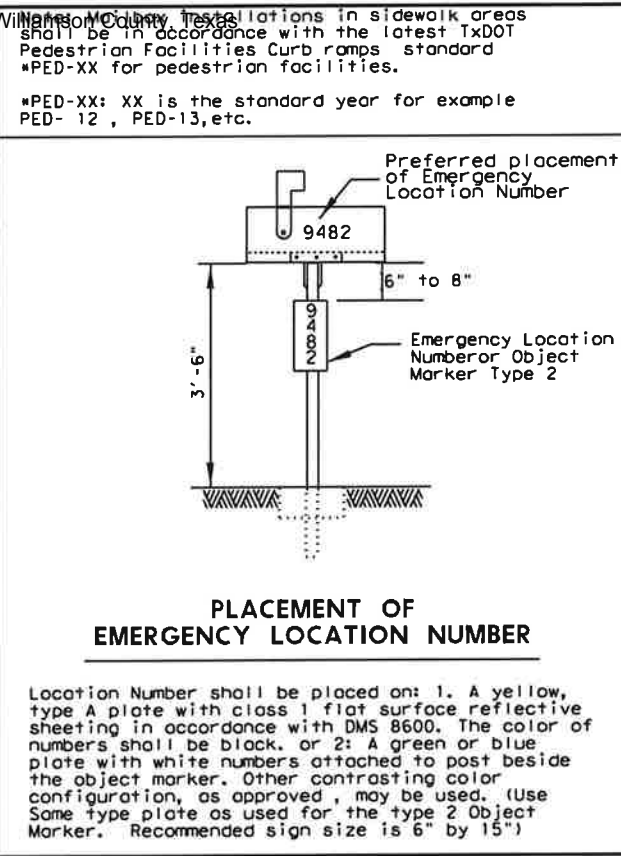
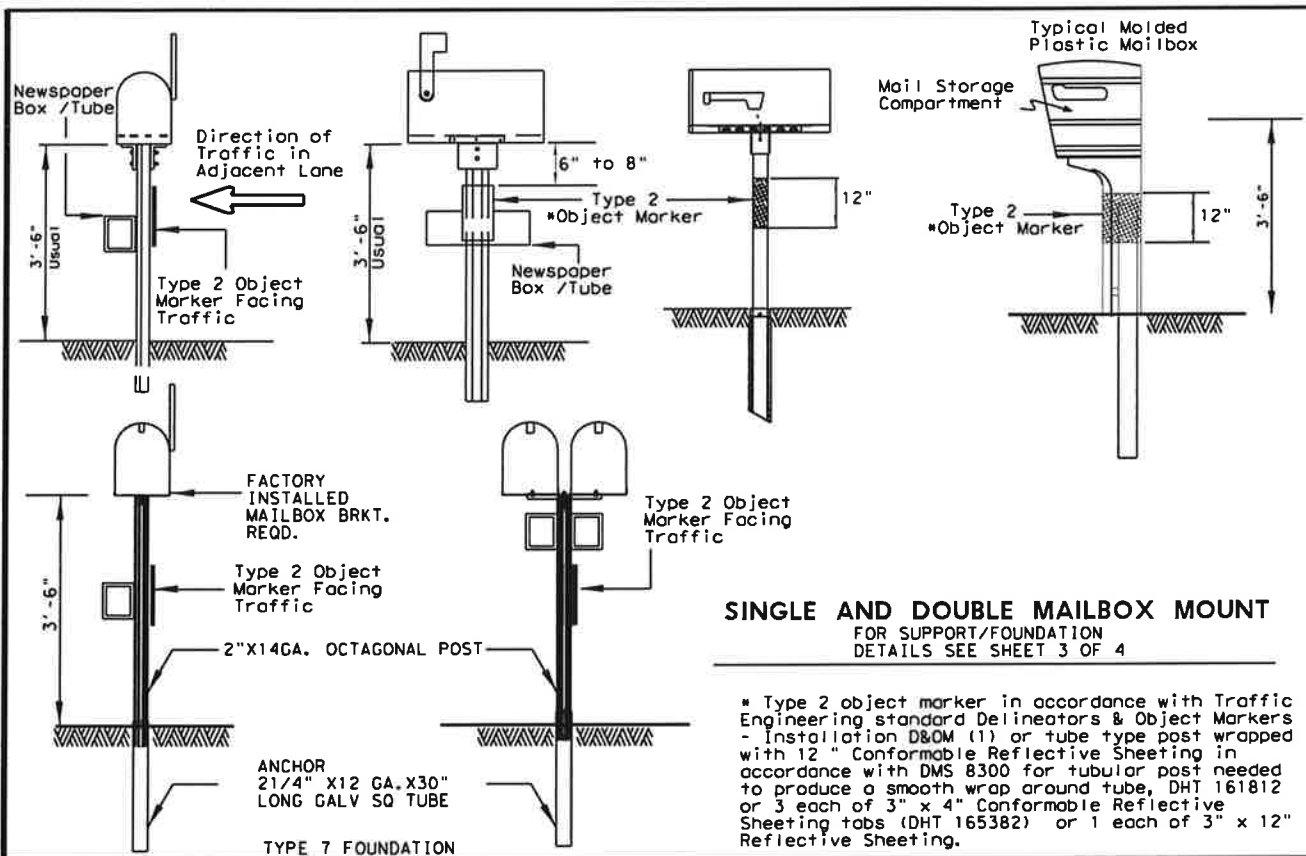
ROADSIDE TRAFFIC CONTROL PLAN

Table with project details: SHEET 1 OF 1, RS-TCP-05, NOT TO SCALE, FILE: RSTCP05.DGN, DATE: FEBRUARY 2, 2005, COUNTY: N/A, CONTROL SECTION: N/A, JOB: N/A, HIGHWAY: N/A

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Table with 2 columns: LEVELS DISPLAYED, values: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

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TYPICAL MAILBOX SIZE

SIZE	LENGTH	WIDTH	HEIGHT	LIGHT WEIGHT MATERIAL	
				SHEET METAL	PLASTIC
SMALL	19 1/2	6	7	5	5
MEDIUM	22 1/2	8	11 1/2	7	7
LARGE	23 1/2*	11 1/2*	13 1/2*	10	10

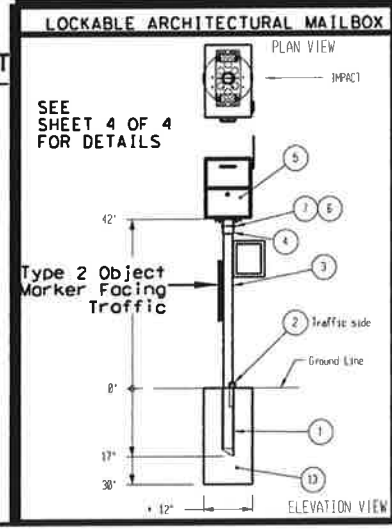
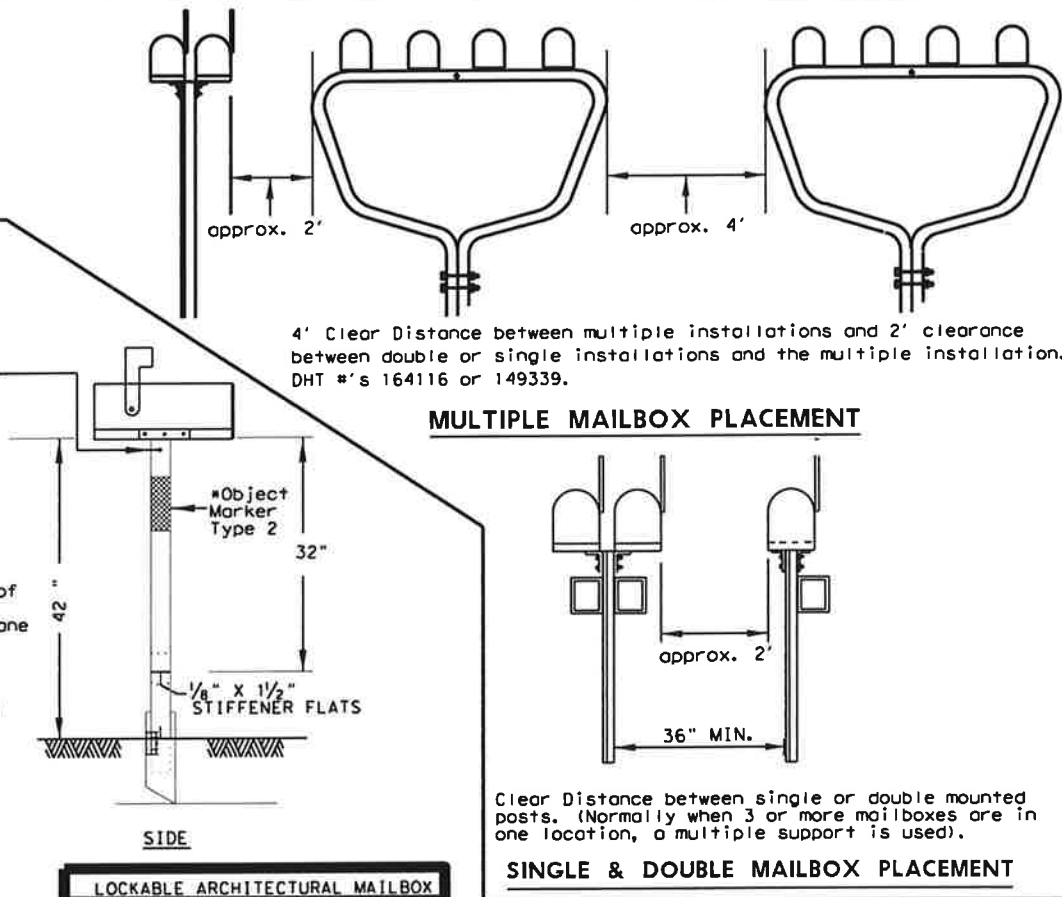
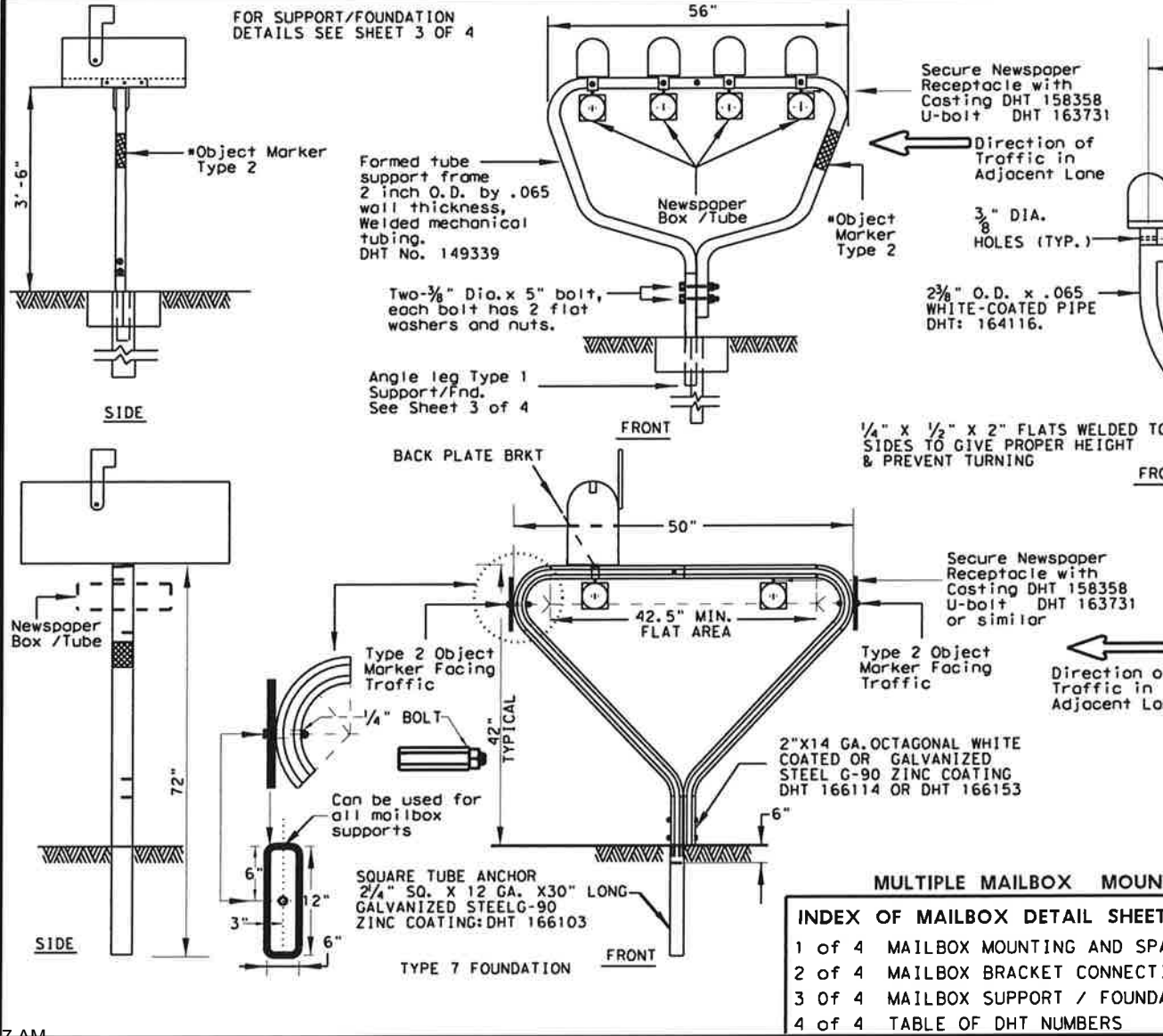
* Maximum allowed dimensions for mailbox
** Excluding Molded Plastic on 4 X 4 Post

LOCKABLE ARCHITECTURAL MAILBOX SIZE (INCHES)

VIEW	TOP	BOTTOM	FRONT SIDE	BACK SIDE	WEIGHT (POUNDS)
SIDE	18	15	18.3	15	22.4
BACK	11 1/2	11 1/2		15	

Mailboxes shall be made of light weight sheet metal or light weight plastic. Lockable architectural mailboxes shall meet the requirements of the above table.

Heavy steel, cast iron or decorative mailboxes shall not be used on the state highway system.



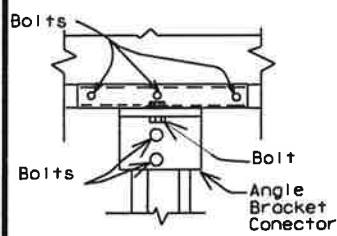
SHEET 1 OF 4

Maintenance Division Standard

MAILBOX MOUNTING AND SPACING
MB-15(1)

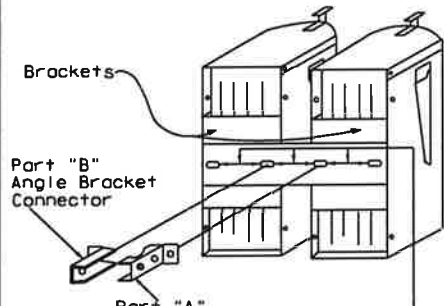
FILE: MB14111.DGN
DHT: JED
EKT: JED
DW: CJK
© TxDOT APRIL 2015
CONT SECT JOB HIGHWAY
REVISIONS:
Added additional newspaper receptacle for double mailbox support.
DIST COUNTY SHEET NO.
133

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For bolt sizes see details below for "SMALL MAILBOX" and "MEDIUM AND LARGE MAILBOXES"

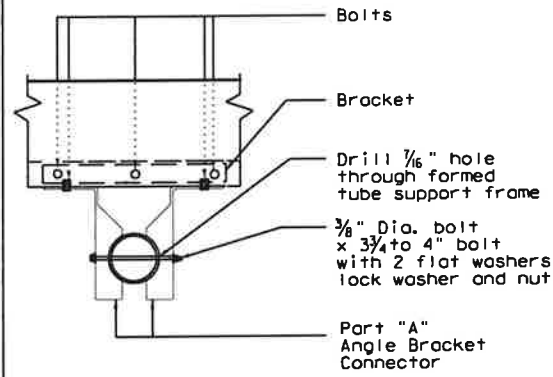
SINGLE MAILBOX



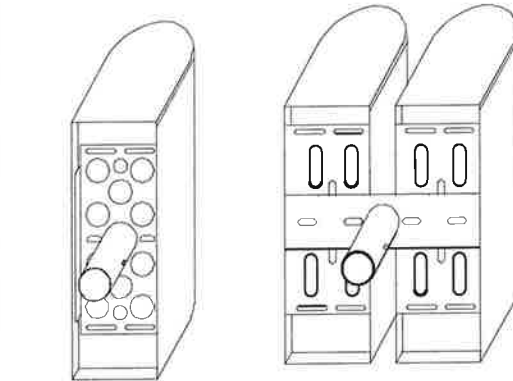
Adapter Plate to Bracket Attachment, 4 - 3/8" Dia. x 3/4" bolt; each bolt has 2 flat washers, lock washer and nut per each bolt

(Not permitted for Large Mailboxes)

DOUBLE MAILBOX



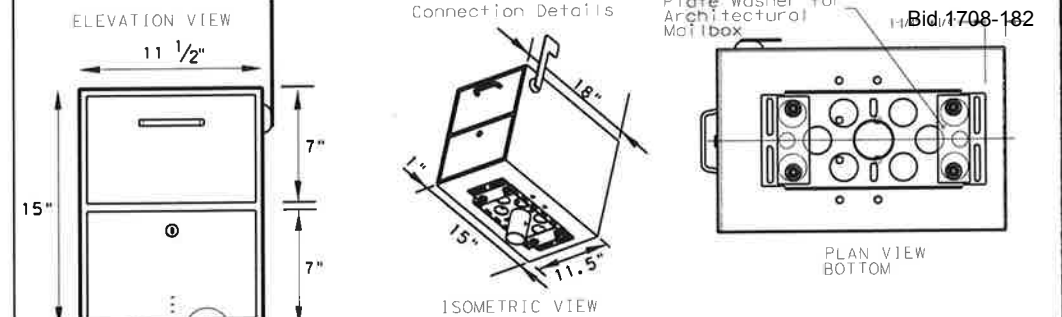
MULTIPLE MAILBOX



To be used with 2 3/8" OD RR or thinwall Steel posts.

To be used with thinwall Steel posts. Not to be used with RR posts.

WELDED SINGLE MAILBOX BRACKET
WELDED DOUBLE MAILBOX BRACKET WITH ADAPTER PLATE



Preferred placement of Emergency Location Number
X-5.25" min; Y-5.75" min

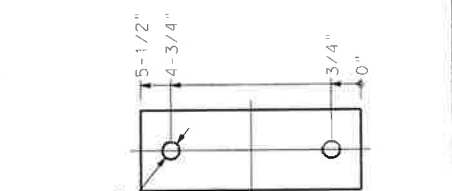
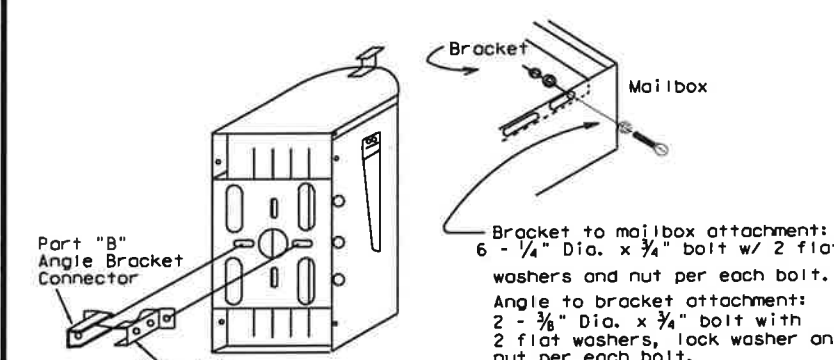
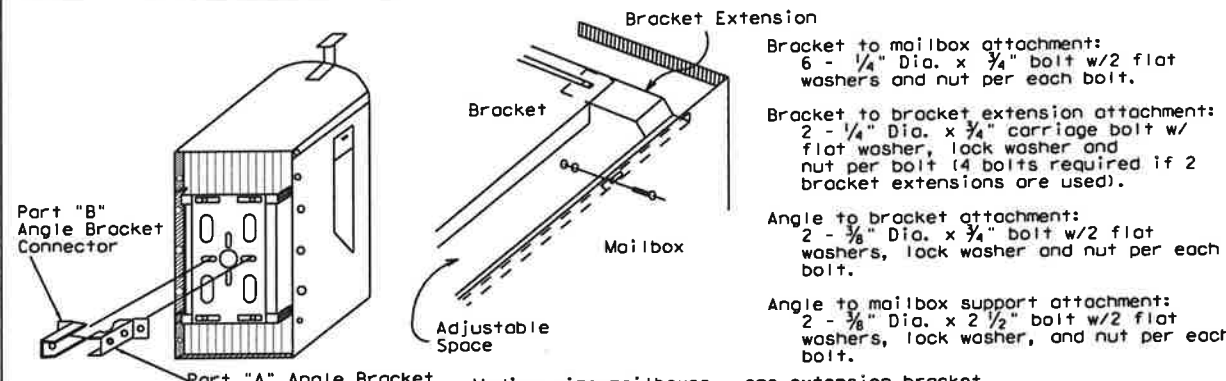


Plate Washer for Architectural Mailbox Plate, 2" x 1/8" ASTM A36 Steel



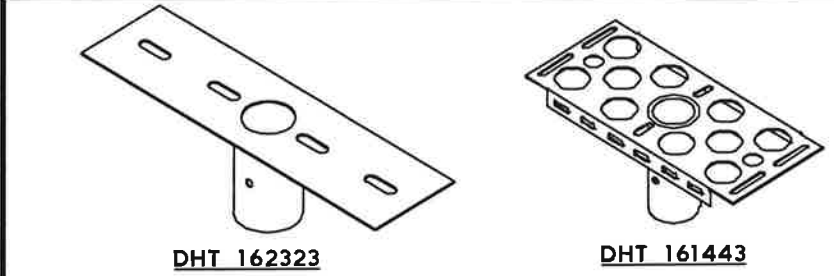
Bracket to mailbox attachment: 6 - 1/4" Dia. x 3/4" bolt w/ 2 flat washers and nut per each bolt.
Angle to bracket attachment: 2 - 3/8" Dia. x 3/4" bolt with 2 flat washers, lock washer and nut per each bolt.
Angle to 2 - 3/8" Dia. x 2 1/2" bolt with 2 flat washers, lock washer and nut per each bolt.

SMALL MAILBOX



Bracket to mailbox attachment: 6 - 1/4" Dia. x 3/4" bolt w/ 2 flat washers and nut per each bolt.
Bracket to bracket extension attachment: 2 - 1/4" Dia. x 3/4" carriage bolt w/ flat washer, lock washer and nut per bolt (4 bolts required if 2 bracket extensions are used).
Angle to bracket attachment: 2 - 3/8" Dia. x 3/4" bolt w/ 2 flat washers, lock washer and nut per each bolt.
Angle to mailbox support attachment: 2 - 3/8" Dia. x 2 1/2" bolt w/ 2 flat washers, lock washer, and nut per each bolt.

MEDIUM AND LARGE MAILBOXES

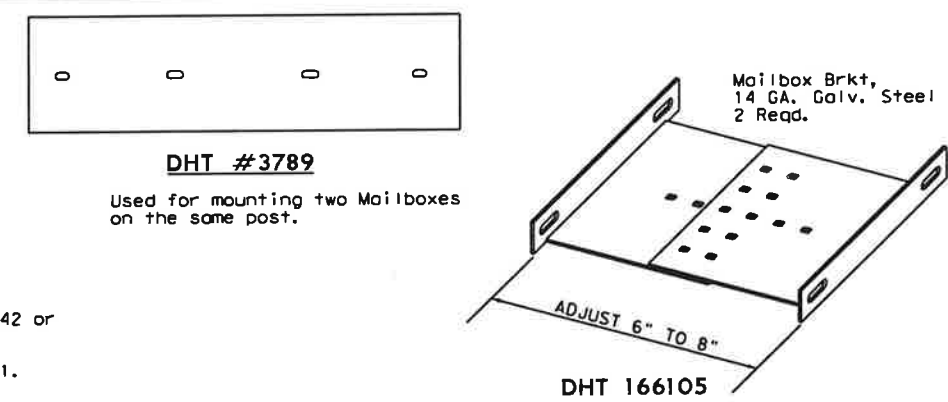


DHT 162323

DHT 161443

For use with galvanized thinwall steel posts DHT # 143426 or powder-coated thinwall steel post DHT # 162911.

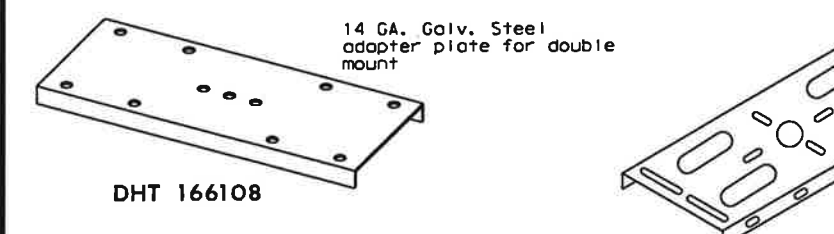
For use with RCR post DHT # 161442 or galvanized thinwall steel post DHT # 143426 or powder-coated thinwall steel post. DHT # 162911.



DHT #3789

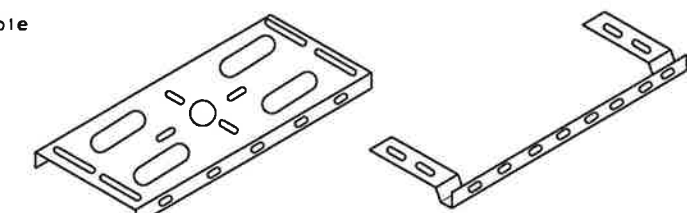
Used for mounting two Mailboxes on the same post.

DHT 166105



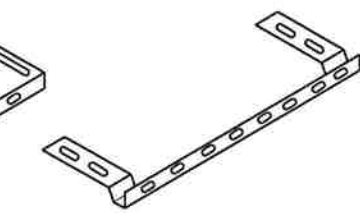
DHT 166108

14 GA. Galv. Steel adapter plate for double mount



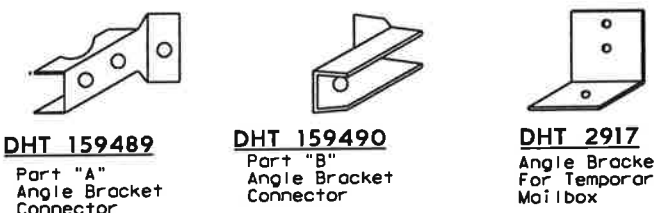
DHT 148939

Mailbox Bracket



DHT 148938

Used for extending 6" wide bracket to attach larger mailboxes.
Bracket Extension



DHT 159489

Part "A" Angle Bracket Connector

DHT 159490

Part "B" Angle Bracket Connector

DHT 2917

Angle Bracket For Temporary Mailbox

HARDWARE AT TXDOT REGIONAL WAREHOUSES

Brackets and adapter plate shown in this section should be available to the Contractor when stated elsewhere in plans or specifications.

See Table of Applicable DHT Numbers on sheet 4 of 4 for DHT description and unit of measure.

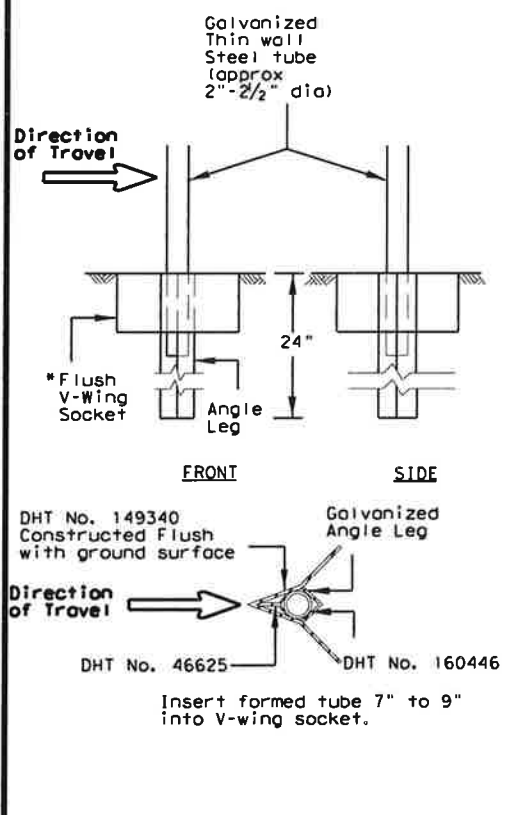
LOCKABLE ARCHITECTURAL MAILBOX CONNECTION DETAILS

GENERAL NOTES

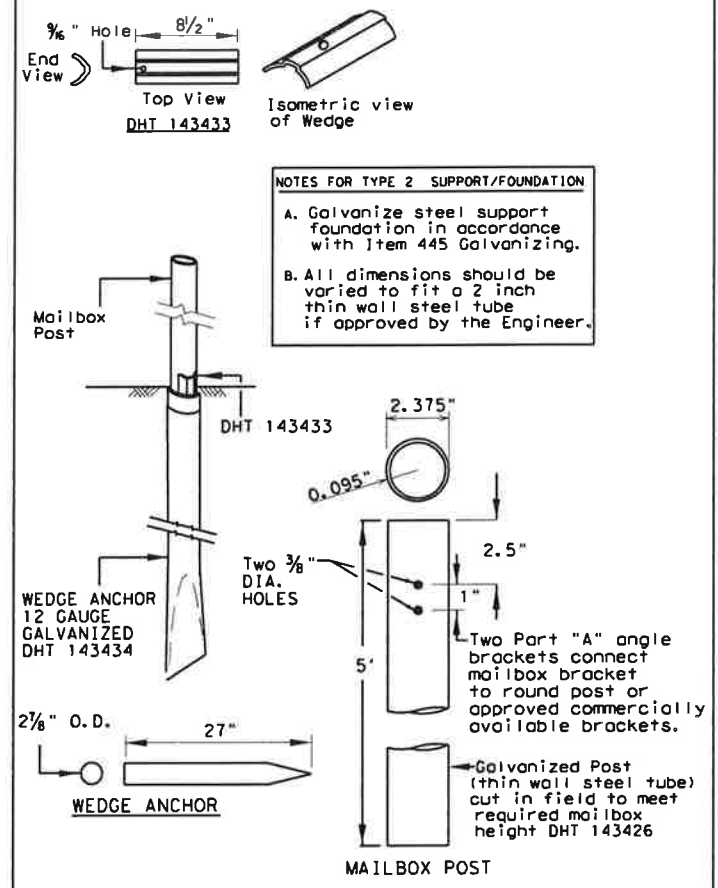
1. Connecting hardware detailed on this sheet is for the hardware that the Department stocks at the Regional Warehouses. This hardware is available to the contractor only when so stated elsewhere in the plans or specification.
2. Hardware for mounting mailboxes to the support/foundation furnished by industry should be used when shown on the Maintenance Divisions "Approved Products List." Only mailbox hardware that have been crash tested in accordance with NCHRP Report 350, will be on the approved list.
3. Hardware furnished by industry shall be erected in accordance with the manufacturer's recommendation.
4. Bracket and bracket extension shall be constructed of 14 gauge galvanized steel sheet metal.
5. The angles, brackets and adapter plates shall be constructed of 12 gauge galvanized steel sheet metal.
6. Items with evidence of damage to the galvanized coating or wet storage stains (white rust) will not be accepted.

		Maintenance Division Standard	
MAILBOX BRACKET CONNECTING DETAILS MB-15(1)			
FILE: MB14111.DGN © TxDOT APRIL 2015 ADDED DHT 163730	DWT: JEO CONT: SECT DIST:	DR: JEO DW: JEO JOB: HIGHWAY COUNTY:	EKT SHEET NO. 134

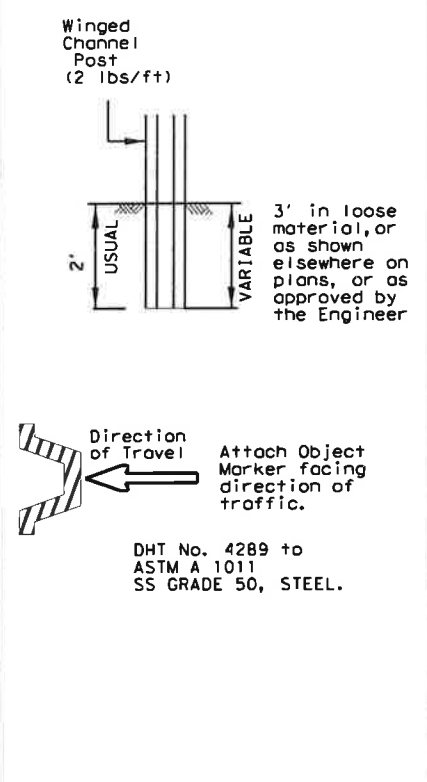
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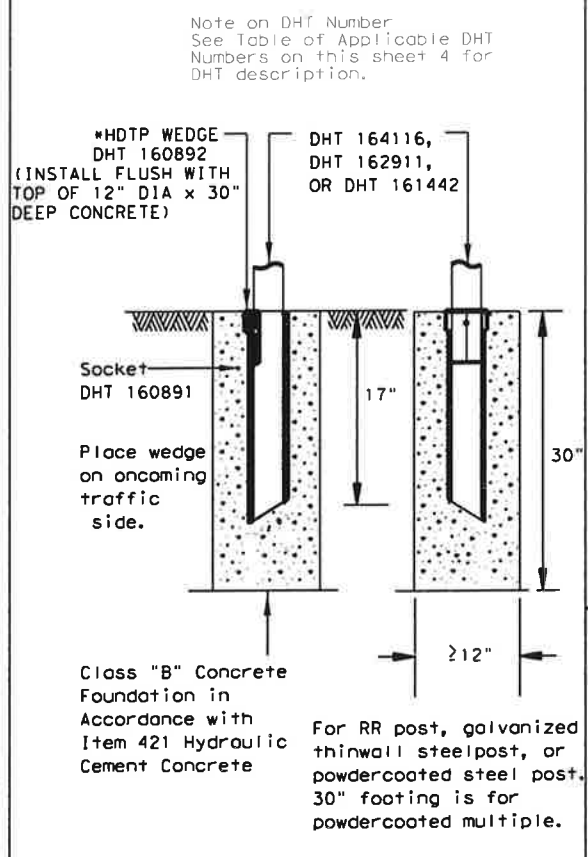
TYPE 1 SUPPORT/FOUNDATION
THIN WALL STEEL TUBE w/ V-LOC ANCHORAGE



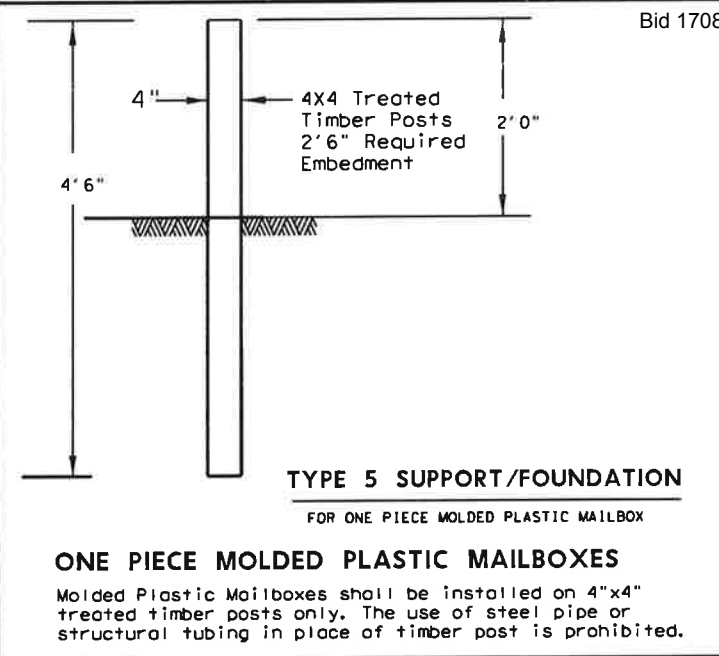
TYPE 2 SUPPORT/FOUNDATION
THIN WALL STEEL TUBE w/ WEDGE ANCHOR SYSTEM



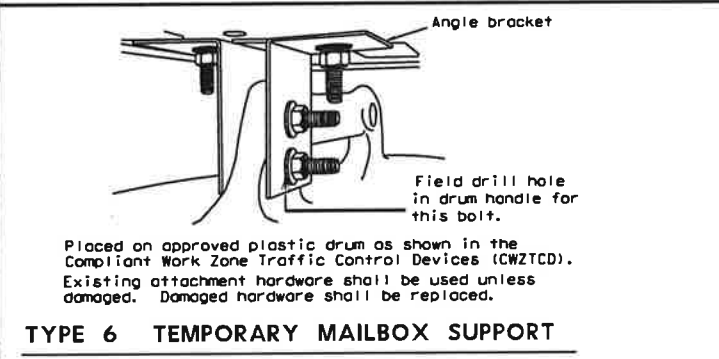
TYPE 3 SUPPORT/FOUNDATION
WINGED CHANNEL POST



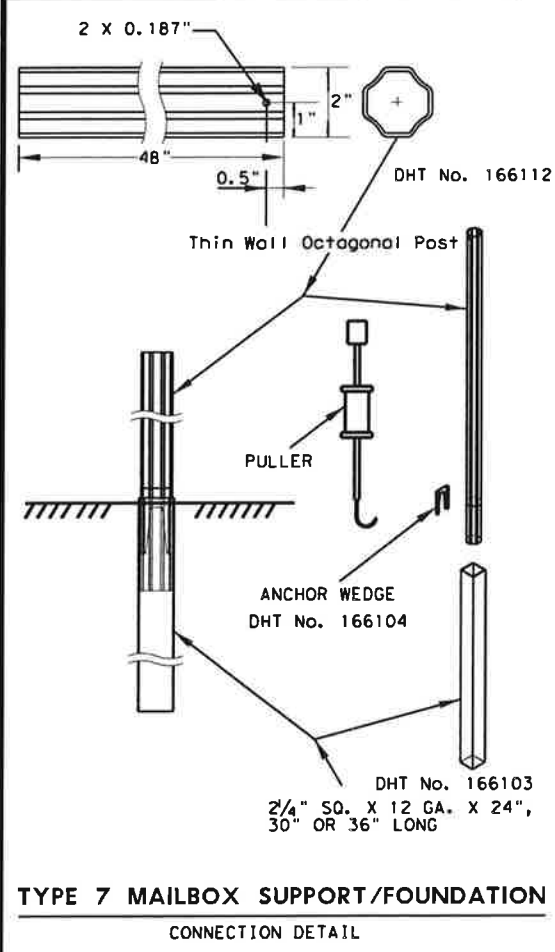
TYPE 4 SUPPORT/FOUNDATION
FOR WHITECOATED STEEL POST, MULTIPLE POST, AND RECYCLED RUBBER.



TYPE 5 SUPPORT/FOUNDATION
FOR ONE PIECE MOLDED PLASTIC MAILBOX
ONE PIECE MOLDED PLASTIC MAILBOXES
Molded Plastic Mailboxes shall be installed on 4"x4" treated timber posts only. The use of steel pipe or structural tubing in place of timber post is prohibited.



TYPE 6 TEMPORARY MAILBOX SUPPORT
CONNECTION DETAIL



TYPE 7 MAILBOX SUPPORT/FOUNDATION
CONNECTION DETAIL

GENERAL NOTES

- Erect post plumb or vertical.
- When galvanized part is required galvanize in accordance with Item 445.
- Type 1, 2, 3, 4 or 7 supports or foundation can be used for single or double mailbox installations. The RCR post should be used only for a single installation with a small mailbox. The Type 5 support/foundation is used for the single molded plastic mailbox. The Type 4 support/foundation is used for the 2.375" O.D. RR post, thin wall steel post, and white multiple mailbox post.
- The Type 1 or type 7 support/foundation can be used for a multiple mailbox mount.
- The Type 4 support should be used with thin wall steel pipe for the medium, large and double mailbox installations.
- Use a concrete footing as shown or when directed. Concrete footing will be required when soils do not hold the support/foundations in a stable condition.

MB-(X) ASSM TY (XXX) (X) (XX) (OPTIONAL)

Type of Mailbox
S = Single
D = Double
M = Multiple
SP = Single Plastic

Type of Post
WC = Winged Channel Post
RR = Recycled Rubber
TWW = Thin Walled White Tubing
TWC = Thin Walled Galvanized Tubing
TIM = Timber

Type of Foundation
Ty 1 = V-Loc
Ty 2 = Wedge Anchor Steel System
Ty 3 = Winged Channel post
Ty 4 = Wedge Anchor Plastic System
Ty 5 = 4 X 4 Post
Ty 7 = Wedge Anchor

Type of Bracket
AB = Angle Bracket.
TB = 2.375" Tube Bracket

DOUBLE AND LARGE MAILBOXES MUST BE ON STEEL POST.

*HOTP: High density thermoplastic polyesters

- GENERAL NOTES**
- Erect post plumb or vertical.
 - When galvanized part is required galvanize in accordance with Item 445.
 - Type 1, 2, 3, 4 or 7 supports or foundation can be used for single or double mailbox installations. The RCR post should be used only for a single installation with a small mailbox. The Type 5 support/foundation is used for the single molded plastic mailbox. The Type 4 support/foundation is used for the 2.375" O.D. RR post, thin wall steel post, and white multiple mailbox post.
 - The Type 1 or type 7 support/foundation can be used for a multiple mailbox mount.
 - The Type 4 support should be used with thin wall steel pipe for the medium, large and double mailbox installations.
 - Use a concrete footing as shown or when directed. Concrete footing will be required when soils do not hold the support/foundations in a stable condition.

SHEET 3 OF 4

Maintenance Division Standard

MAILBOX SUPPORT AND FOUNDATION
MB-15(1)

FILE: MB1411.DGN	DN: JED	CK: JED	DW: JED	CK: JED
© TxDOT APRIL 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS:				
	DIST	COUNTY		SHEET NO.
				135

LOCKABLE ARCHITECTURAL MAILBOX

SINGLE-MOUNT INSTALLATION PARTS			
#	PART NAME	PART/DHT #	QTY
1	SOCKET, TYPE 4 FOUNDATION	160891	1
2	WEDGE FOR TYPE 4 FOUNDATION	160892	1
3	THIN-WALL WHITE STEEL TUBE 2.375 OD	162911	1
4	BRACKET FOR ATTACHING MAILBOX	161443	1
5	ARCHITECTURAL MAILBOX	SEE NOTE	1
6	NUT, 5/16" HEX	NUT, 5/16" HEX	1
7	BOLT, 5/16 X 3 HEX	GRADE 5	1
8	PLATE WASHER FOR ARCHITECTURAL MAILBOX	SEE SEE SHEET 2	2
9	WASHER, 3/8 FLAT		8
10	WASHER, 3/8 LOCK		4
11	NUT, 3/8 HEX		4
12	BOLT, 3/8 X 1-1/4 HEX	GRADE 5	4
13	CONCRETE, CLASS B (2000 PSI)		1

LOCKABLE ARCHITECTURAL MAILBOX DETAILS

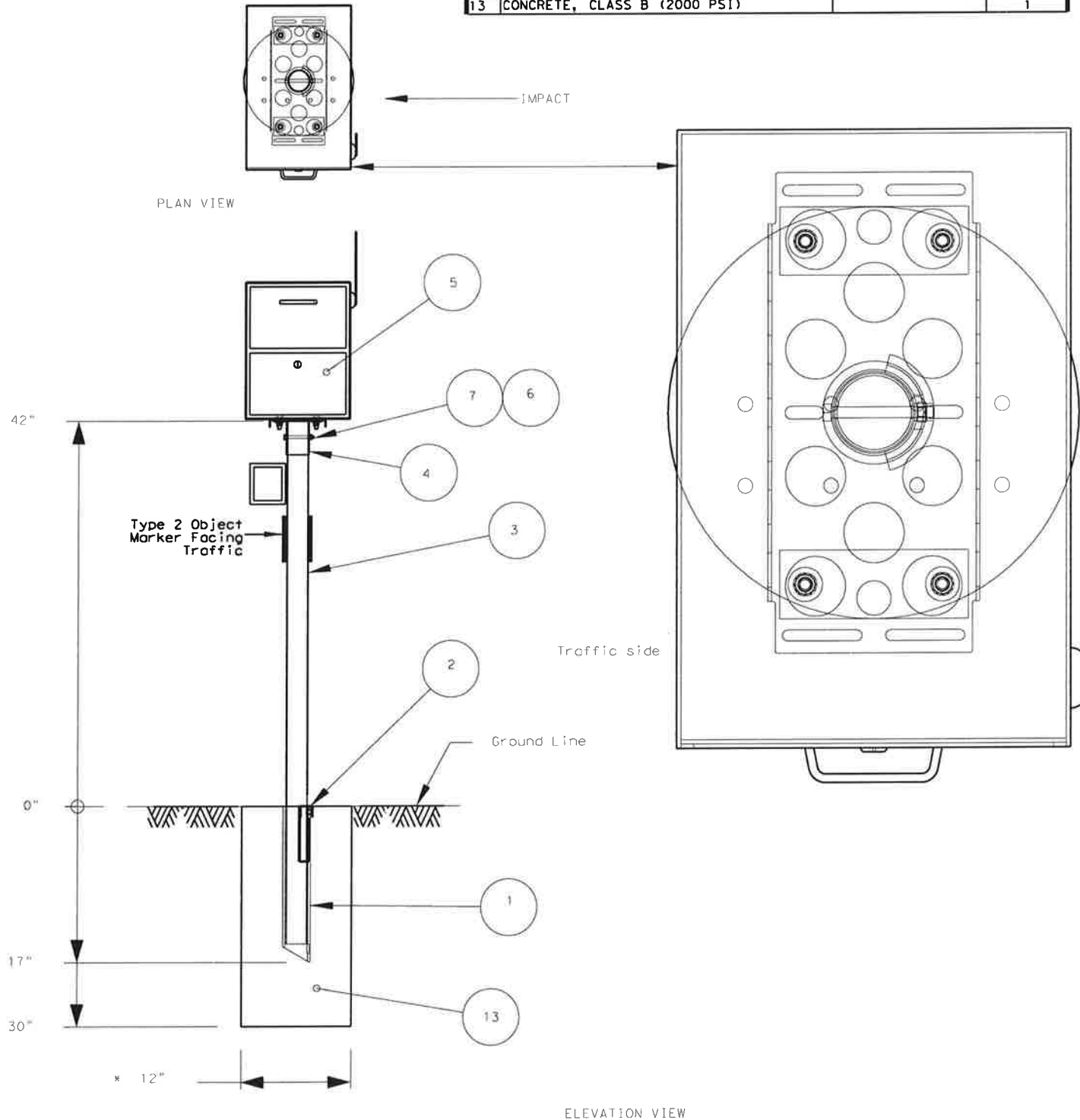
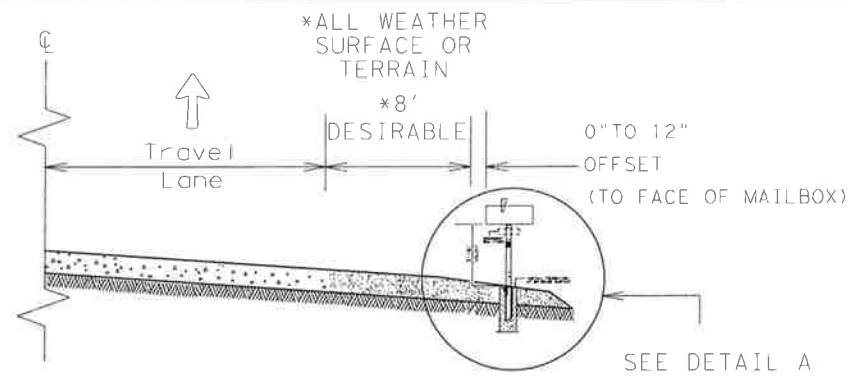


TABLE OF APPLICABLE DHT NUMBERS	
DHT NUMBER	DESCRIPTION
FOUNDATIONS	
46625	WEDGE FOR V-WING SOCKET FOR TYPE 1 FOUNDATION
149340	V-WING SOCKET FOR TYPE 1 FOUNDATION
143433	WEDGE FOR TYPE 2 FOUNDATION
143434	ANCHOR FOR TYPE 2 FOUNDATION
166103	ANCHOR FOR TYPE 7 FOUNDATION
160891	SOCKET FOR TYPE 4 FOUNDATION
160892	WEDGE FOR TYPE 4 FOUNDATION
166104	WEDGE FOR TYPE 7 FOUNDATION
POSTS	
4289	WINGED CHANNEL MAILBOX POST
149339	MULTIPLE MAILBOX POST (GALVANIZED TUBING)
164116	MULTIPLE MAILBOX POST (WHITE COATED)
166114	MULTIPLE MAILBOX POST (WHITE COATED OCTAGONAL)
166153	MULTIPLE MAILBOX POST (GALVANIZED OCTAGONAL)
161442	RECYCLED RUBBER POST, FOR SMALL MAILBOX ONLY
143426	THIN-WALL GALVANIZED STEEL TUBE 2.375" OUTER DIAMETER
162911	THINWALL WHITE STEEL TUBE 2.375" OUTER DIAMETER
	SINGLE OR DOUBLE THIN-WALL MAILBOX POST GALVANIZED
166152	2" OCTAGONAL
	SINGLE OR DOUBLE THIN-WALL MAILBOX POST WHITECOATED
166112	2" OCTAGONAL
REFLECTIVE SHEETING	
161812	REFLECTIVE SHEETING FOR EMERGENCY LOCATION NUMBER PANEL
CONNECTING HARDWARE	
2917	ANGLE BRACKET USED FOR TEMPORARY MAILBOX SUPPORT
166105	BRACKET FOR SINGLE MOUNTING OF MAILBOXES (MOUNTING KIT)
3789	PLATE FOR DOUBLE MOUNTING OF MAILBOXES
166108	BRACKET FOR DOUBLE MOUNTING OF MAILBOXES (MOUNTING KIT)
166111	BRACKET FOR MULTIPLE MOUNTING OF MAILBOXES (MOUNTING KIT)
148939	BRACKET FOR ATTACHING SMALL OR MEDIUM SIZE MAIL BOX
148938	EXTENDER TO BRACKET FOR ATTACHING LARGE MAILBOX
159489	ANGLE BRACKET PART A
159490	ANGLE BRACKET PART B
	BRACKET FOR DOUBLE MOUNTING OF MAILBOXES ON THINWALL
162323	STEEL POST, GALVANIZED OR POWDERCOATED.
	BRACKET FOR ATTACHING MAILBOX TO RECYCLED RUBBER POST
161443	AND TO MULTIPLE WHITE MAILBOX POST
158358	CASTING (NEWSPAPER RECEPTACLE BRACKET)
163731	U-BOLT (NEWSPAPER RECEPTACLE BRACKET)
160698	BOLT;HEX HEAD, GALV;3/8"DIA X 3/4"L HD, W/2-FLAT WASHERS
163750	BOLT;HEX HEAD, GALV;3/8" X 1-1/2, 16 NC, W/WASHERS
160701	BOLT;HEX HEAD, GALV;3/8"DIA X 2-1/2"L, HD, W/2-FLAT WASHERS
163730	BOLT;HEX HEAD, GALV;3/8" X 3-1/2", NC, W/NUT, 2 FLAT WASHERS
160699	BOLT;HEX HEAD, GALV;3/8"DIA X 3-3/4"L HD, W/2-FLAT WASHERS
160700	BOLT;HEX HEAD, GALV;3/8"DIA X 4"L HD, W/2-FLAT WASHERS

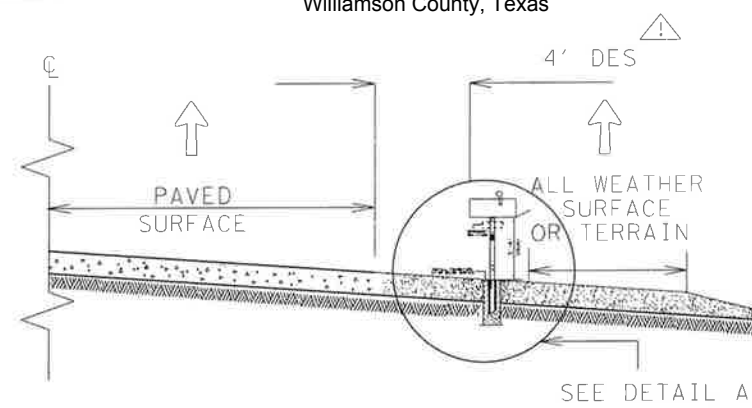
SHEET 4 OF 4

		Maintenance Division Standard	
DHT NUMBERS TABLE MB-15(1)			
FILE: MB14(1).DGN	DN:	CK:	DW:
© TxDOT APRIL 2015	CONT	SECT	JOB
REVISIONS	DIST	COUNTY	SHEET NO.
			136

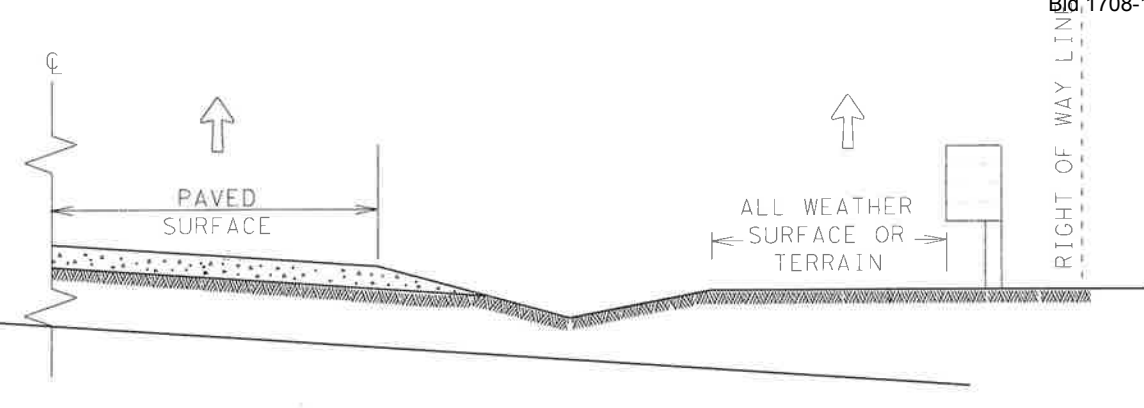
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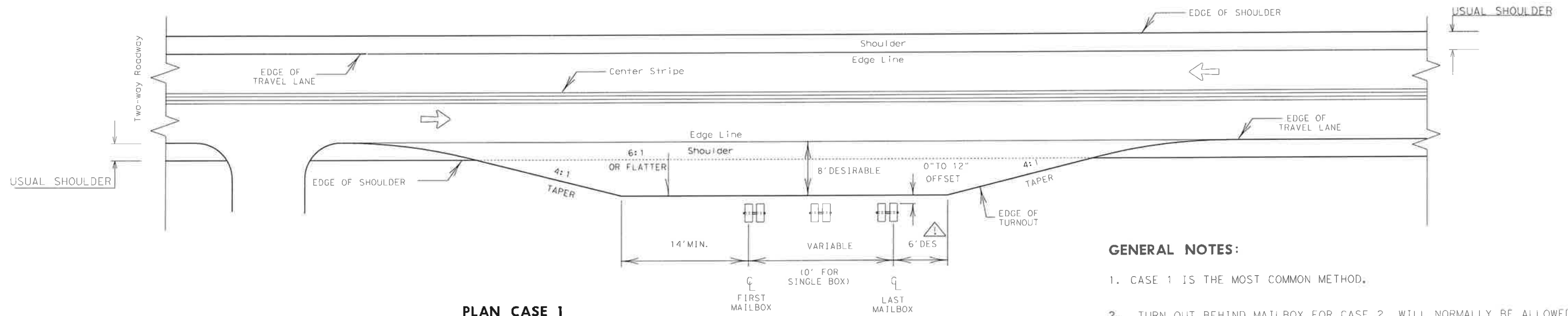
CASE 1. OFF TRAVEL WAY DELIVERY



CASE 2. BACK SIDE DELIVERY



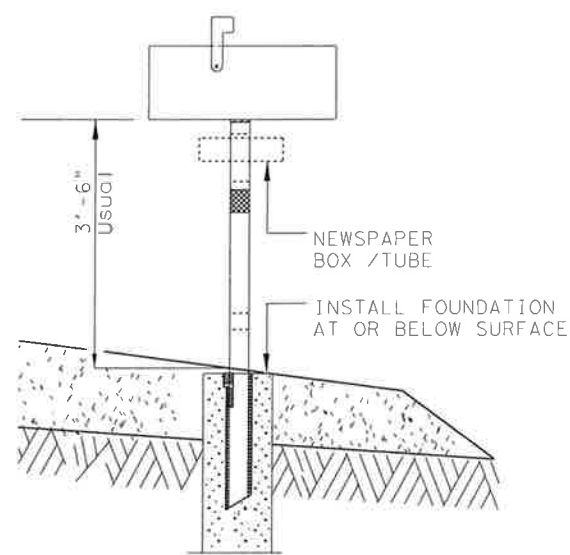
CASE 3. DELIVERY NEAR RIGHT OF WAY LINE



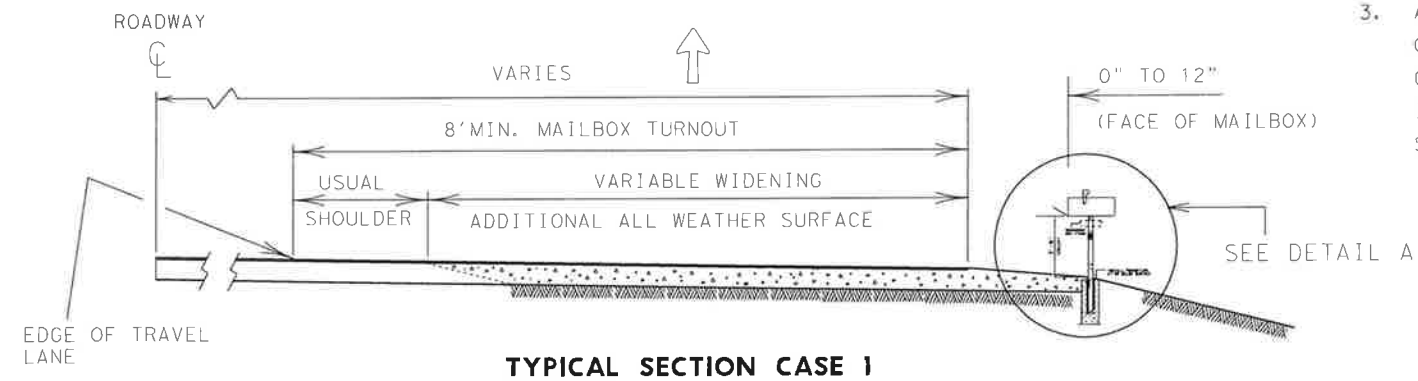
PLAN CASE 1

GENERAL NOTES:

1. CASE 1 IS THE MOST COMMON METHOD.
2. TURN OUT BEHIND MAILBOX FOR CASE 2 WILL NORMALLY BE ALLOWED FOR NATURAL TERRAIN THAT WILL SERVE AS AN ALL WEATHER SURFACE.
3. ALL WEATHER DRIVEWAYS FOR CASE 3 MAILBOXES LOCATED AT THE RIGHT OF WAY LINE SHOULD NORMALLY BE PLACED IN CONJUNCTION WITH COUNTY ROADS OR OTHER CONNECTING COMMUNITY ROADS OR STREETS. IF THE NUMBER OF MAILBOXES EXCEEDS FOUR, A COMMUNITY MAIL BOX SHOULD BE ENCOURAGED AT THESE LOCATIONS.



DETAIL A



TYPICAL SECTION CASE 1

↑
MAIL DELIVERY VEHICLE TRAVEL DIRECTION

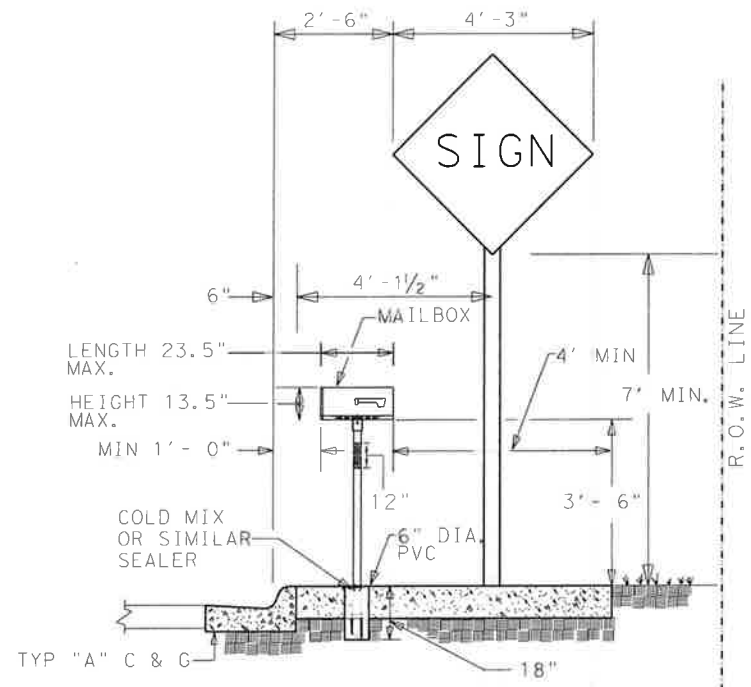
SHEET 1 OF 3



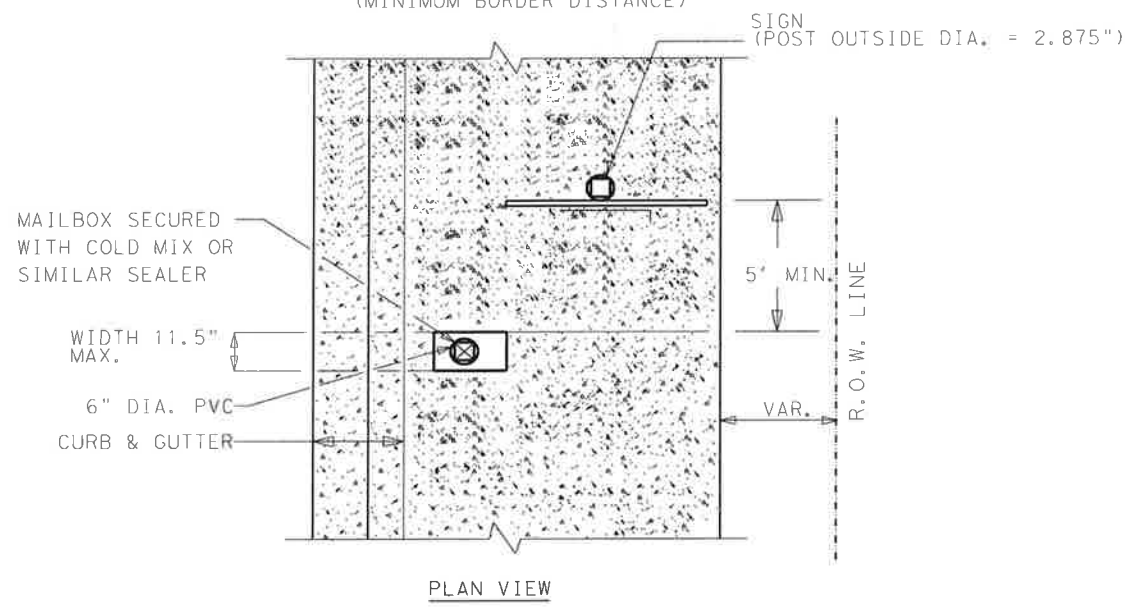
Guideline
**MAILBOX SIDE ROAD PLACEMENT AND TURNOUTS
MB-14(2)**

FILE: MB14(2).DCN	DN: JEO	CK: []	DN: JEO	CK: []
© TxDOT MAY 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DECEMBER 2012-NEW TxDOT TITLE BLOCK	DIST	COUNTY		SHEET NO.
				137

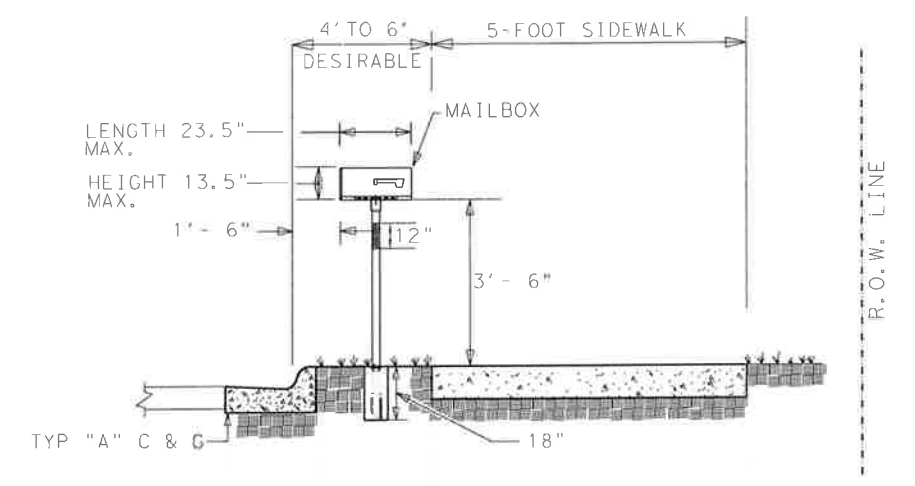
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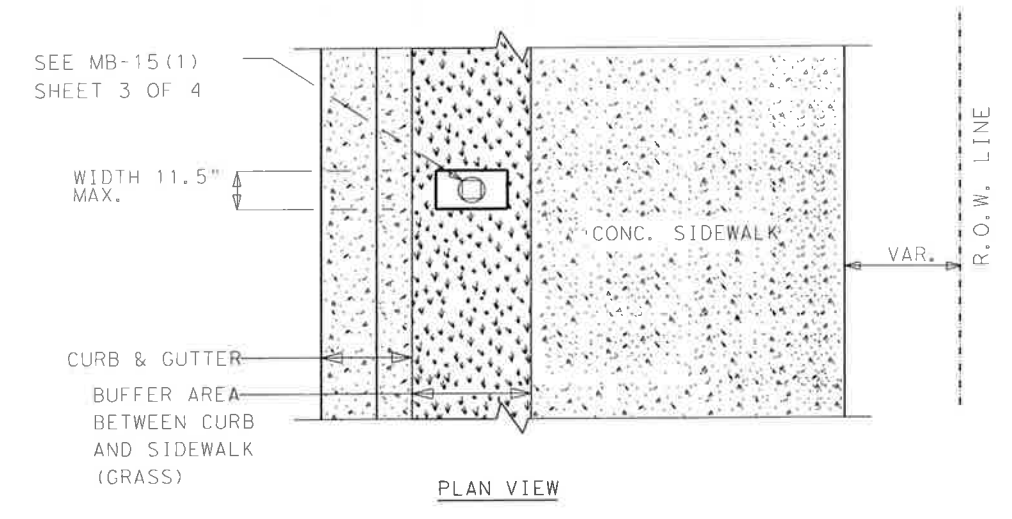
MAILBOX SIDEWALK INSTALLATION RELATIVE TO ANY OTHER OBSTRUCTION SUCH AS A SIGN (MINIMUM BORDER DISTANCE)



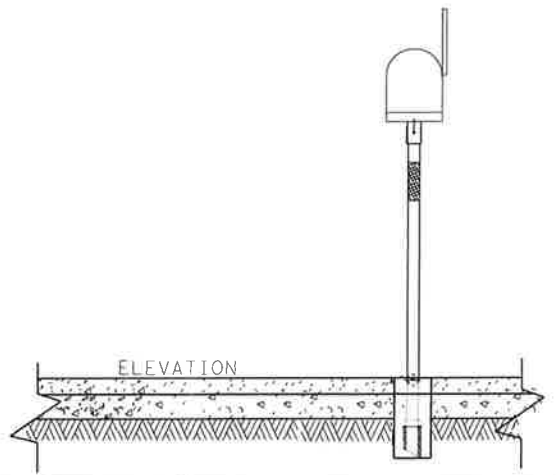
PLAN VIEW



MAILBOX SIDEWALK INSTALLATION (DESIRABLE BORDER DISTANCE)



PLAN VIEW

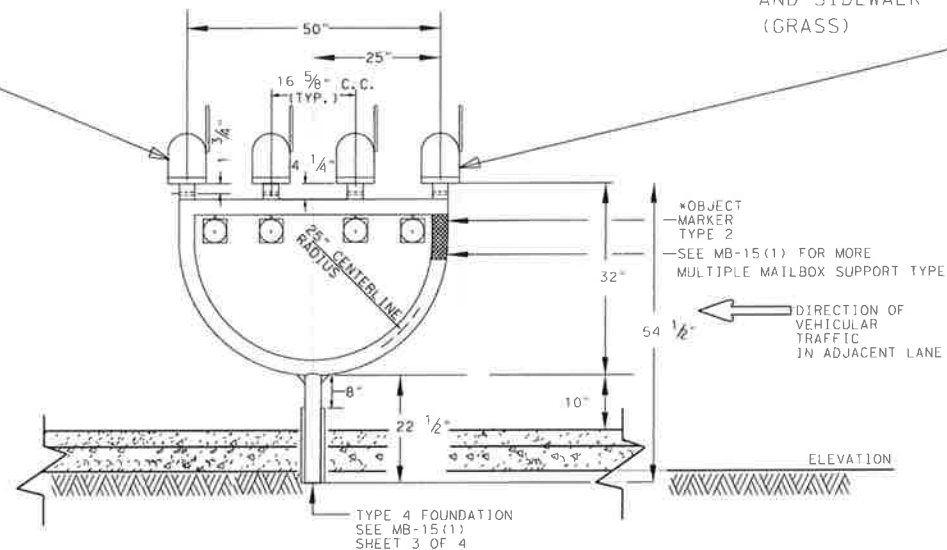
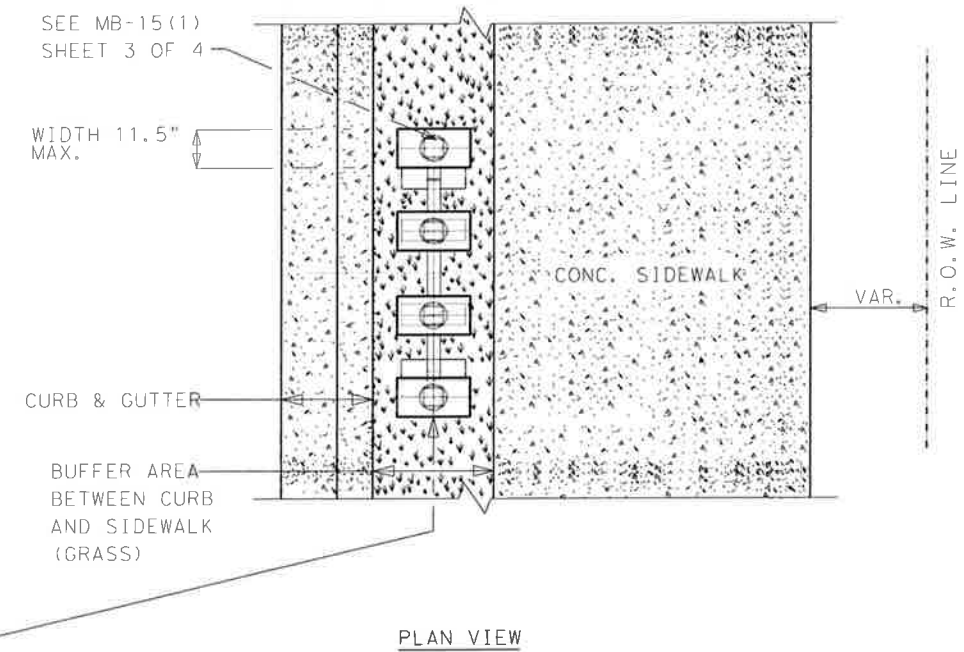
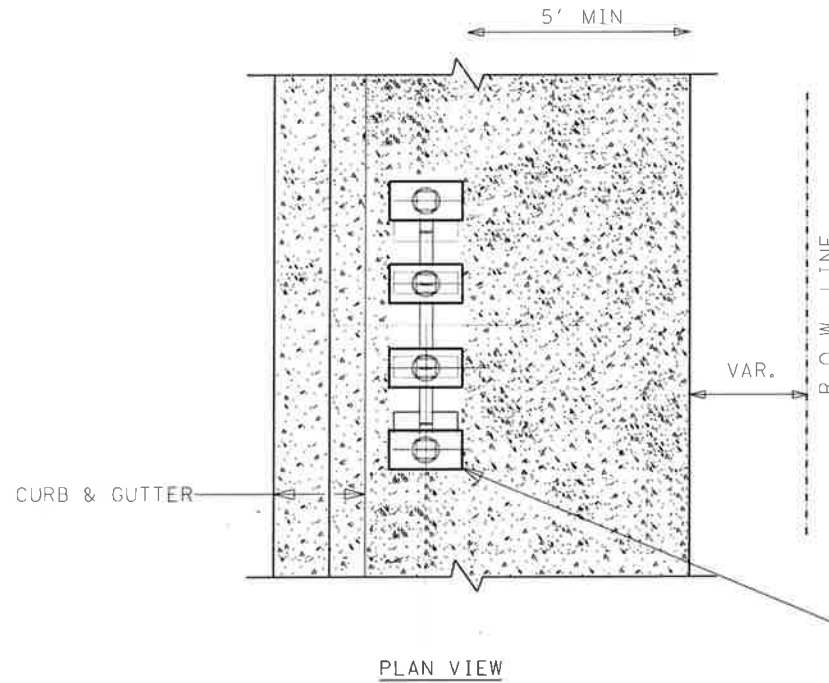
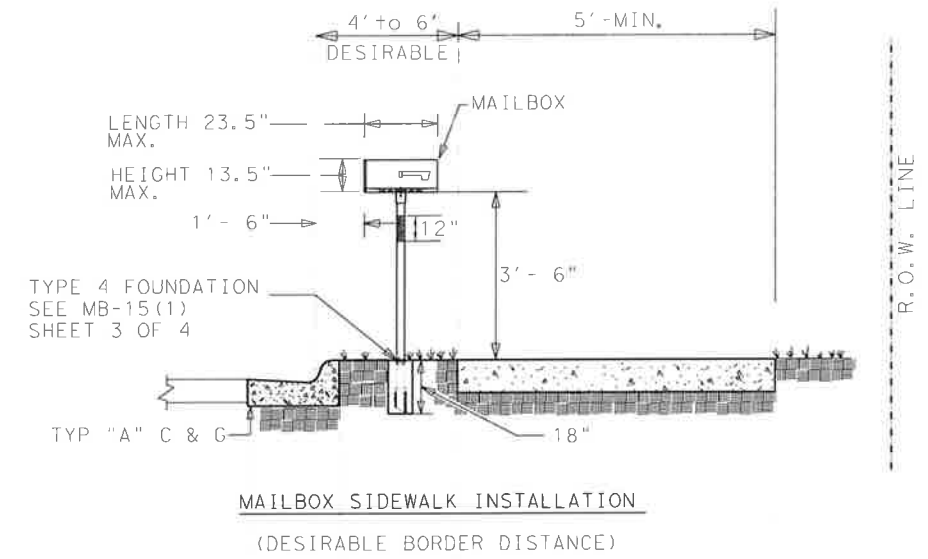
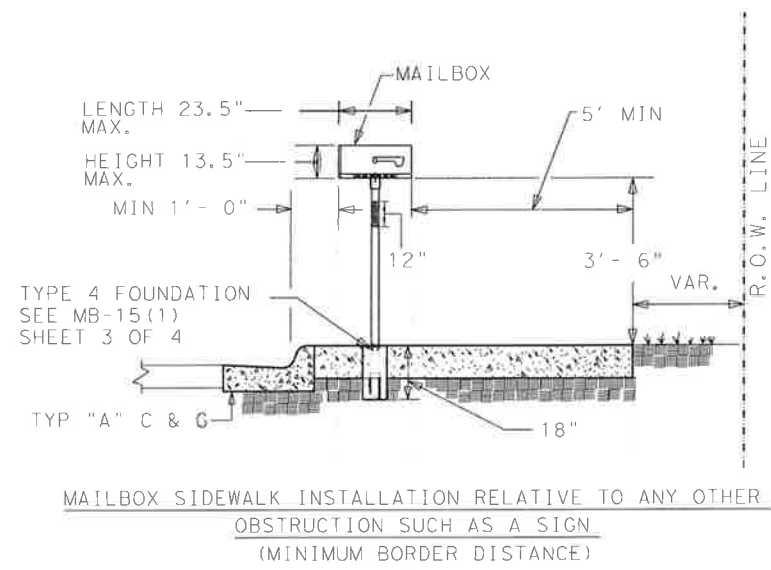


DATE: 8/10/2017 9:17 AM

SHEET 2 OF 3

		Maintenance Division Standard	
SINGLE MAILBOX PLACEMENT BEHIND CURBS WITH OR WITHOUT SIDEWALKS			
MB-14(2A)			
FILE: MB-14(2A)	DN:	CK:	DW:
© TxDOT MAY 2014	CONT	SECT	JOB
REVISIONS	DIST	COUNTY	SHEET NO.
			138

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SHEET 3 OF 3

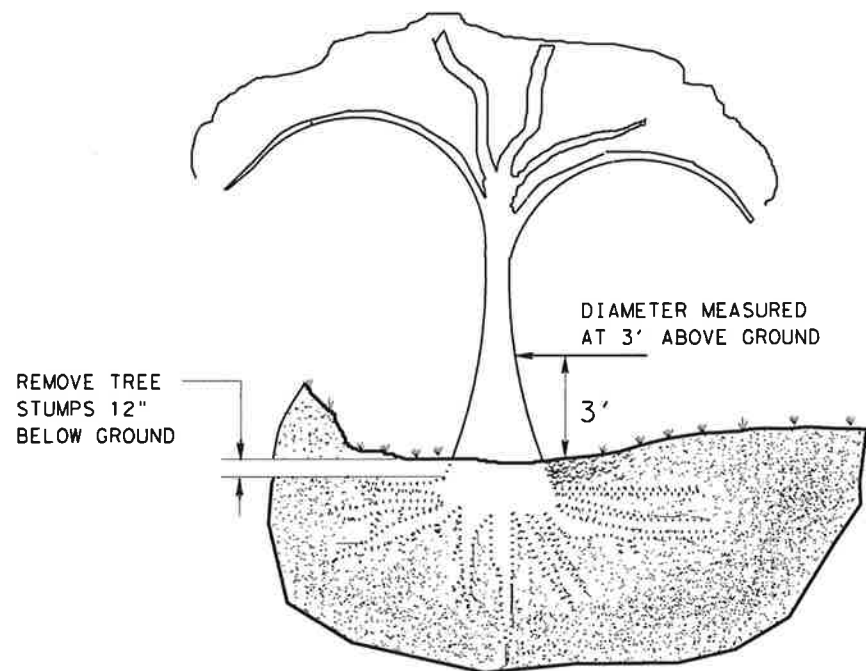


MULTIPLE MAILBOX PLACEMENT BEHIND CURBS WITH OR WITHOUT SIDEWALKS

MB-14(2B)

FILE: MB-14(2A)	DN:	CK:	DW:	CK:
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REVISIONS				
	DIST	COUNTY	SHEET NO.	

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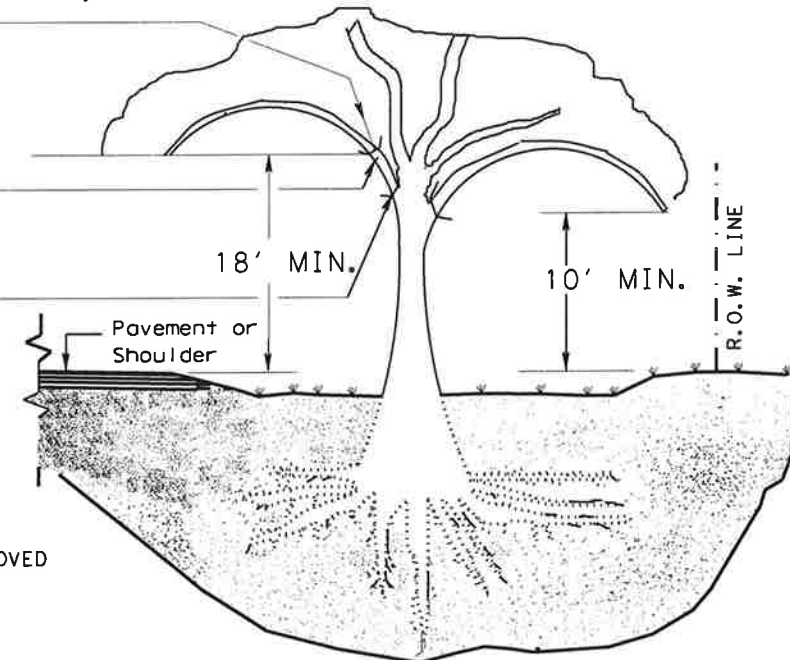
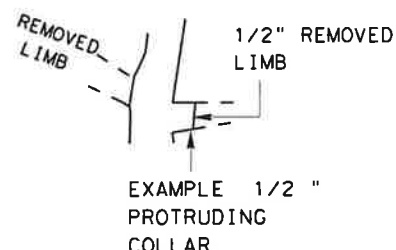


TREE REMOVAL

STEP 1:
CUT 1/3 WAY THROUGH BOTTOM OF LIMB 8" TO 12" ABOVE MAIN STEM (OR TRUNK).

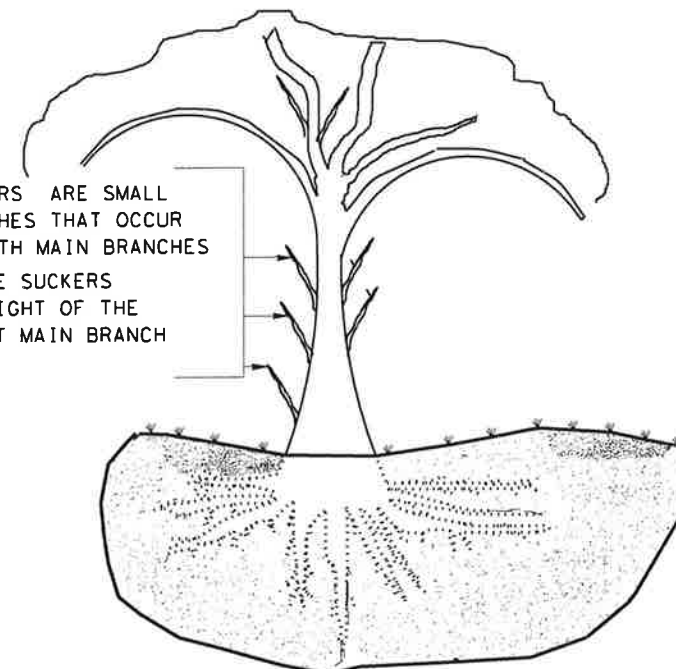
STEP 2:
REMOVE LIMB 4" TO 6" BEYOND THE FIRST CUT

STEP 3:
REMOVE STUB WITH A SMOOTH CUT SO THAT TRACE COLLAR OF THE REMOVED LIMB PROTRUDES APPROXIMATELY 1/2" FROM THE MAIN STEM

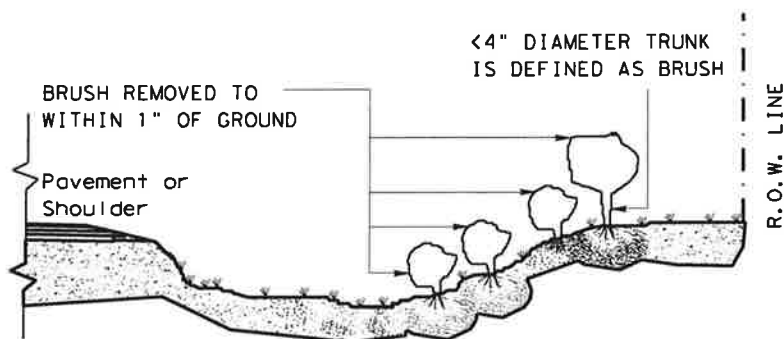


TREE TRIMMING

SUCKERS ARE SMALL BRANCHES THAT OCCUR BENEATH MAIN BRANCHES. REMOVE SUCKERS TO HEIGHT OF THE LOWEST MAIN BRANCH



STEPS 1, 2 AND 3 APPLY WHEN REMOVING LIMBS 2" IN DIAMETER OR LARGER.



BRUSH REMOVAL

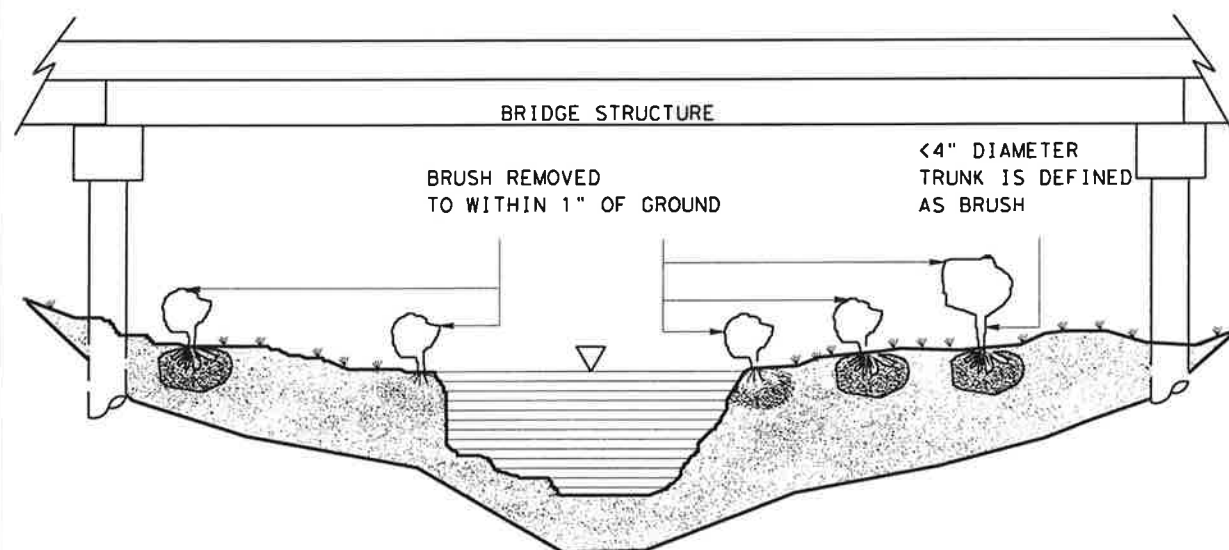
GENERAL NOTES:

TREE TRIMMING

1. TRIM AND REMOVE ALL TREE LIMBS ON THE PAVEMENT SIDE OF THE TRUNK 18' ABOVE THE PAVEMENT OR BRIDGE DECK ELEVATION, UNLESS OTHERWISE SHOWN ON THE PLANS.
2. TRIM AND REMOVE ALL TREE LIMBS BETWEEN THE TRUNK AND R.O.W. LINE 10' ABOVE NATURAL GROUND, TERRAIN OR OTHER STRUCTURE ELEVATION, UNLESS OTHERWISE SHOWN ON THE PLANS.

TREE REMOVAL

3. FOR TREES MARKED FOR REMOVAL, THE DIAMETER OF TREES ARE DETERMINED BY MEASUREMENT OF THE TRUNK CIRCUMFERENCE 3' ABOVE THE GROUND. TREES WITH TRUNKS OF LESS THAN 4" DIAMETER ARE CONSIDERED TO BE BRUSH. TREES WITH MULTIPLE TRUNKS AT THE POINT OF MEASUREMENT ARE MEASURED AND PAID FOR SEPARATELY.
4. MEASUREMENTS FOR PAYMENT OF TREE DIAMETERS ARE DIVIDED INTO THE RANGES SHOWN IN TABLE 1.



BRUSH REMOVAL UNDER BRIDGE AND IN CHANNEL

PAY ITEM	RANGE FOR PAY ITEMS			
	TRUNK DIAMETER *		TRUNK CIRCUMFERENCE	
	LOWER LIMIT IS GREATER THAN	UPPER LIMIT IS LESS THAN OR EQUAL TO	LOWER LIMIT IS GREATER THAN	UPPER LIMIT IS LESS THAN OR EQUAL TO
752 6005	4	12	12 1/2	37 1/2
752 6006	12	18	37 1/2	56 1/2
752 6007	18	24	56 1/2	75 1/2
752 6008	24	30	75 1/2	94
752 6009	30	36	94	113
752 6010	36	42	113	132
752 6011	42	48	132	151
752 6012	48	60	151	188 1/2
752 6013	60	72	188 1/2	226
752 6019	72	84	226	264
	84	GREATER THAN 84	264	NOT APPLICABLE

*SEE GENERAL NOTE #3.

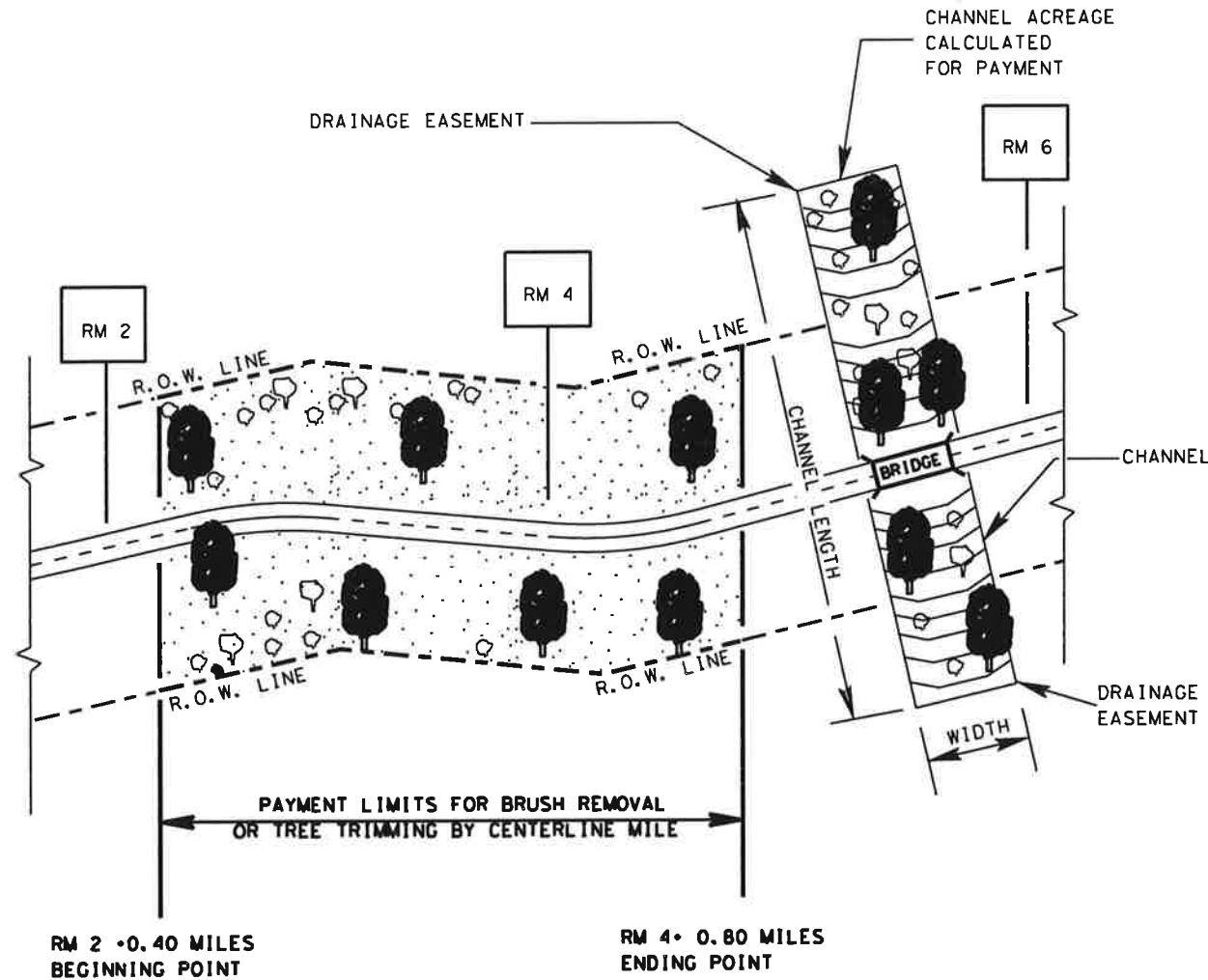
Maintenance Division Standard

TREE AND BRUSH REMOVAL

TRB-15(1)

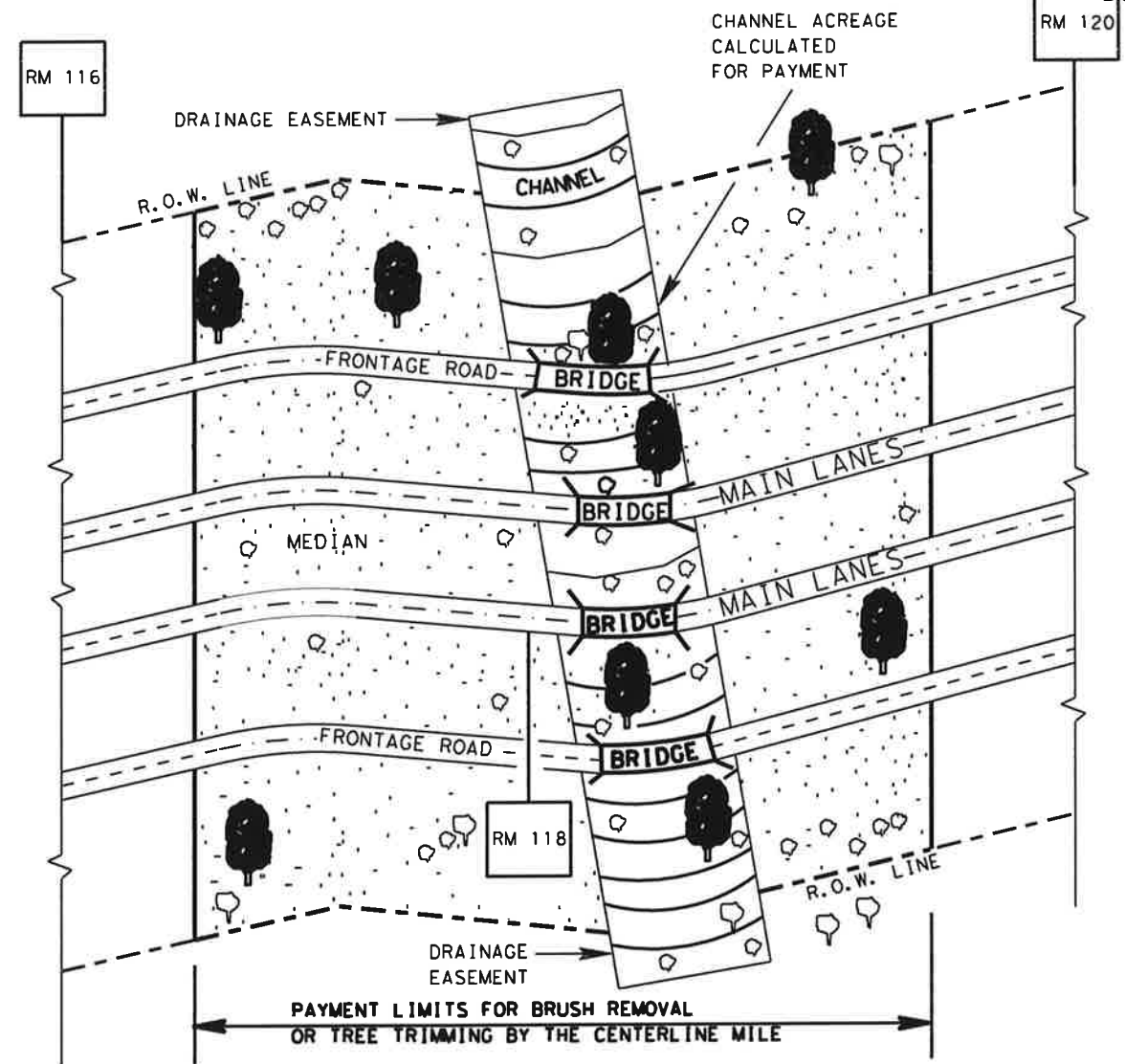
FILE:	DW: JED	CK: LJB	DW: JED	CK:
© TxDOT MARCH 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
Revised table 1 to 2014 Specification	DIST	COUNTY	SHEET NO. 140	

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BRUSH REMOVED TO WITHIN 1" OF GROUND <4" DIAMETER TRUNK IS DEFINED AS BRUSH UNLESS OTHERWISE DIRECTED

EXAMPLE: UNDIVIDED HIGHWAY



BRUSH REMOVED TO WITHIN 1" OF GROUND <4" DIAMETER TRUNK IS DEFINED AS BRUSH UNLESS OTHERWISE DIRECTED

EXAMPLE: DIVIDED HIGHWAY WITH FRONTAGE ROADS

GENERAL NOTES:

TREE TRIMMING AND BRUSH REMOVAL

1. PAYMENT BY THE CENTERLINE MILE IS MADE TO THE NEAREST 1/100 (0.01) MILE.
2. LIMITS OF WORK ARE SHOWN AS DISTANCES FROM REFERENCE MARKERS (RM).
3. PAY ITEMS BY THE CENTERLINE MILE INCLUDE ALL TREE TRIMMING OR BRUSH REMOVAL IN THE RIGHT OF WAY ON BOTH SIDES OF THE HIGHWAY. FOR DIVIDED HIGHWAYS, THE MEDIAN IS INCLUDED. FOR HIGHWAYS WITH FRONTAGE ROADS, THE AREAS BETWEEN THE FRONTAGE ROADS AND MAIN LANES, AND THE AREAS OUTSIDE OF THE FRONTAGE ROADS ARE INCLUDED.
4. BRUSH REMOVAL AND TREE TRIMMING UNDER BRIDGES, IN AND ALONG CHANNELS AND EASEMENTS ARE PAID FOR BY THE ACRE FOR AREAS DESIGNATED ON THE PLANS.

Texas Department of Transportation
Maintenance Division
Standard Plans

TREE AND BRUSH REMOVAL

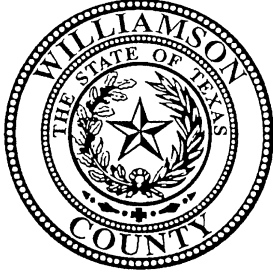
TRB-15(2)

NOT TO SCALE		SHEET 2 OF 2	
FILE: TRB-15(2).DGN	DRAWN: JEO	CHECKED: BHL/JJB	DATE: -
© TxDOT APRIL 2015	STATE DISTRICT	FEDERAL REGION	FEDERAL AID PROJECT
REVISED: 5/13/2004	LJB		
REVISED: 9/24/2004	LJB	COUNTY	CONTROL SECTION JOB HIGHWAY
REVISED: APRIL 2015	JEO		

RIVER RD & OLD WINDMILL RD - BID FORM
Williamson County, TX

ITEM	NO	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	COST
100	6002	PREPARING ROW	STA	80		
100	6017	PREP ROW (TREE) (GREATER THAN 8 IN DIA)	EA	20		
110	6001	EXCAVATION (ROADWAY)	CY	3741		
110	6002	EXCAVATION (CHANNEL)	CY	226		
132	6001	EMBANKMENT (FINAL)(ORD COMP)(TY A)	CY	821		
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	24626		
162	6002	BLOCK SODDING	SY	379		
164	6033	DRILL SEEDING (PERM) (RURAL) (SANDY)	SY	24626		
166	6001	FERTILIZER	AC	5		
168	6001	VEGETATIVE WATERING	MG	959		
169	6001	SOIL RETENTION BLANKETS (CL I) (TY A)	SY	7587		
247	6041	FL BS (CMP IN PLC)(TYA GR1-2)(FNAL POS	CY	2626		
260	6079	LIME TRT (SUBGRADE) (6")	SY	18905		
310	6027	PRIME COAT (MC-30 OR AE-P)	GAL	3437		
316	6175	AGGR (TY-B GR-4 SAC-B)	CY	300		
316	6466	ASPH (CHFRS-2P OR CRS-2P)	GAL	12032		
354	6100	PLANE ASPH CONC PAV (5")	SY	18905		
432	6002	RIPRAP (CONC)(5 IN)	CY	18		
432	6035	RIPRAP (STONE PROTECTION) (24 IN)	CY	350		
432	6045	RIPRAP (MOW STRIP) (4 IN)	CY	49		
460	6009	CMP AR (GAL STL DES 2)	LF	490		
460	6010	CMP AR (GAL STL DES 3)	LF	60		
460	6011	CMP AR (GAL STL DES 4)	LF	295		
462	6010	CONC BOX CULV (6 FT X 3 FT)	LF	29		
464	6017	RC PIPE (CL IV)(18 IN)	LF	49		
464	6018	RC PIPE (CL IV)(24 IN)	LF	422		
464	6019	RC PIPE (CL IV)(30 IN)	LF	39		
464	6020	RC PIPE (CL IV)(36 IN)	LF	40		
465	6187	INLET(COMPL)(DROP)(TY 1)(1 GRATE)	EA	1		
466	6039	HEADWALL (CH - FW - 30) (DIA= 36 IN)	EA	1		
466	6134	HEADWALL (CH - PW - S) (DIA= 36 IN)	EA	1		
466	6152	WINGWALL (FW - 0) (HW=5 FT)	EA	1		
466	6179	WINGWALL (PW - 1) (HW=4 FT)	EA	1		
467	6356	SET (TY II) (18 IN) (RCP) (3: 1) (C)	EA	4		
467	6388	SET (TY II) (24 IN) (RCP) (3: 1) (C)	EA	8		
467	6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	1		
467	6417	SET (TY II) (30 IN) (RCP) (3: 1) (C)	EA	2		
467	6525	SET (TY II) (DES 2) (CMP) (6: 1) (P)	EA	32		
467	6537	SET (TY II) (DES 3) (CMP) (6: 1) (P)	EA	4		
467	6551	SET (TY II) (DES 4) (CMP) (6: 1) (P)	EA	4		
496	6006	REMOV STR (HEADWALL)	EA	2		

496	6007	REMOV STR (PIPE)	LF	300		
496	6050	REMOV STR (DRIVEWAY CULVERT)	EA	12		
500	6001	MOBILIZATION	LS	1		
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	3		
506	6002	ROCK FILTER DAMS (INSTALL) (TY 2)	LF	245		
506	6011	ROCK FILTER DAMS (REMOVE) (TY 2)	LF	245		
506	6020	CONSTRUCTION EXISTS (INSTALL) (TY 1)	SY	333		
506	6024	CONSTRUCTION EXISTS (REMOVE)	SY	333		
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	6729		
506	6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	6729		
530	6006	DRIVEWAYS (SURF TREAT)	SY	2690		
540	6001	MTL W-BEAM GD FEN (TIM POST)	LF	1000		
540	6014	SHORT RADIUS	LF	25		
540	2005	TERMINAL ANCHOR SECTION	EA	8		
560	6001	MAILBOX INSTALL-S (TWG-POST) TY 1	EA	57		
UNFORSEEN WATER LINE ITEMS (from Cobb Fendley)						
W2.10.A.6"	Pipe, 6" Dia. PVC Water, Complete in Place, Including Excavation and Backfill		LF	800		
W2.10.AR.6"	Pipe, 6" Dia. PVC Water (Restrained), Complete in Place, Including Excavation and Backfill		LF	200		
W1.17.A	Ductile Iron Fittings		TON	2		
W1.17.B6x6	Wet Connection, 6"x6" Dia.		EA	6		
CIP11.06.B	Trench Excavation Safety Protection System (All Depths)		LF	1200		
W2.10.A2	Pipe, 2" Dia. SDR-9 PE, New Service Line		LF	100		
W3.21.A6	Valves, Gate 6" Dia.		EA	3		
W3.21.AR.2	Air Release Valve, 2"		EA	2		
W3.21.B	Fire Hydrant Assembly		EA	2		
W-04	Reconnect single service connections, incl. new meters per detail W-04		EA	10		
PROJECT TOTAL COST						



Agreement for Construction Services

This Agreement (“Agreement”) between Williamson County, Texas, a political subdivision of the State of Texas (“Owner”) and _____ (“Contractor”) is entered into in accordance with the following terms and conditions:

ARTICLE 1 SCOPE OF WORK: The Owner desires to retain Contractor to provide the construction services described herein. The Contractor shall have the overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the following described construction services, or any phase of such services, in accordance with the Owner’s requirements and the terms of this Agreement (hereinafter collectively referred to as the “Work”):

As described in the IFB Solicitation # _____, _____; including the specifications set forth therein, which is incorporated herein as if copied in full.

ARTICLE 2 CONTRACT PRICE: Owner agrees to pay to the Contractor, for the satisfactory performance of the Work, the not-to-exceed amount of _____ (\$_____) in accordance with the terms and conditions of this Agreement.

ARTICLE 3 PLANS AND SPECIFICATIONS: The Work shall be performed pursuant to and in accordance with the following described plans and specifications, as well as any revisions made thereto:

As described in the IFB Solicitation # _____, including the specifications set forth therein, which is incorporated herein as if copied in full.

Additional Work: Should Owner choose to add additional work, such additional work shall be described in a separate written amendment to this Agreement wherein the additional work shall be described and the parties shall set forth the amount of compensation to be paid by Owner for the additional work. Contractor shall not begin any additional work and Owner shall not be obligated to pay for any additional work unless a written amendment to this Agreement has been signed by both parties.

ARTICLE 4 SUBSTANTIAL AND FINAL COMPLETION:

4.1 Commencement of Work. Contractor shall commence the Work upon instruction to do so from the Owner and Construction shall be deemed to have commenced on the date of such instruction.

4.2 Substantial Completion. “Substantial Completion” means the stage in the progress of the Work when the Work, or designated portions thereof, may still require minor modifications or adjustments but, in the Owner’s opinion, the Work has progressed to the point such that all parts of the Work under consideration are fully operational and usable for intended purposes, as evidenced by a Certificate of Substantial Completion approved by the Owner. If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify Owner’s Designated Representative (sometimes referred to as the “ODR”) and request a determination as to whether the Work or designated portion thereof is substantially complete. If the ODR does not consider the Work substantially complete, the ODR will notify the Contractor giving reasons therefore. Failure on the Owner’s part to list a reason does not alter the responsibility of the Contractor to complete all Work in accordance with the terms of this Agreement. After satisfactorily completing items identified by Owner’s Designated Representative, the Contractor shall then submit another request for the ODR to determine Substantial Completion. If The ODR considers the Work substantially complete, The ODR will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final completion and final payment, shall establish the time within which the Contractor shall finish the punch list, and shall establish responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the terms and conditions of this Agreement. The certificate of Substantial Completion shall be signed by the Owner and the Contractor to evidence acceptance of the responsibilities assigned to them in such certificate.

Substantial Completion (as defined in this agreement) for all stages of the Work shall be achieved on or before the following Substantial Completion date:

DATE FOR SUBSTANTIAL COMPLETION: TBD

Under no circumstances will the time for Substantial Completion exceed this date without a written amendment to this Agreement. **THE TIMES SET FORTH IN THE CONSTRUCTION DOCUMENTS ARE AN ESSENTIAL ELEMENT OF THE AGREEMENT. TIME LIMITS STATED IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT.**

4.3 Final Completion. The Work shall be fully and finally completed **on or before TBD**; provided, however, Owner may extend said time period in the event bad weather affects the progress of the Work. Owner shall, at its sole discretion, determine when the Work has been fully and finally completed to its satisfaction.

4.4 Liquidated Damages. For each consecutive calendar day after the date of Substantial Completion that the Work is not Substantially Complete, the Owner may deduct the amount of **Two Hundred Dollars per day (\$200/day)** from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion. The parties stipulate and agree that calculating Owner’s actual damages for late completion of the Work would be impractical, unduly burdensome, and cause unnecessary delay and that the amount of daily liquidated damages set forth is reasonable.

ARTICLE 5 PAYMENT:

Contractor shall have a duty to submit to the ODR by the end of each month a statement showing the total value of the Work performed during such month. The statement shall also include the value of all sound materials delivered on the Work site and to be included in the Work and all partially completed Work, whether bid as a lump sum or a unit item, which in the opinion of the ODR is acceptable. The ODR shall examine and approve or modify and approve such statement. The Owner shall then pay the Contractor pursuant to Chapter 2251 of the Texas Government Code ("Texas Prompt Payment Act"), as set forth in Article 11.1 of this Agreement, the total amount of the approved statement less all previous payments and all further sums that may be retained by the Owner under the terms of this Agreement or under the law. **Statements are not considered "received" until reviewed by the ODR and an approved statement is submitted to the Williamson County Auditor's Office; therefore, Contractor must ensure timely delivery of statements for review and processing.**

At any time following the completion of all Work, including all punch list items, cleanup, and the delivery of record documents, the Contractor shall submit a certified application for final payment, including all sums held as retainage if any, to the ODR for its review and approval. Contractor shall submit, prior to or with the application for final payment, final copies of all close out documents, including maintenance and operating instructions, guarantees and warranties, certificates, and all other items required by this Agreement. Contractor shall also submit consent of surety to final payment, an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness connected with the Work, except as specifically noted, have been paid or will be paid or otherwise satisfied within the period of time required by Chapter 2251, Texas Government Code. Contractor shall furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims arising out of the Agreement. Owner is entitled to rely upon this affidavit and the Contractor may not submit a claim on behalf of a subcontractor or vendor if that claim has not been noted as an exception in the affidavit.

Owner may deduct from the final payment all sums due from Contractor for any reason, Liquidated Damages and all other deductions authorized by this Agreement.

Final payment shall constitute a waiver of all claims by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for final payment. Provided, however, that the Work shall not be deemed fully performed by the Contractor and closed until the expiration of all warranty periods.

ARTICLE 6 CONTRACTOR'S GENERAL RESPONSIBILITIES AND COVENANTS:

6.1 Contractor shall perform all services specifically allocated to it hereunder, as well as those services reasonably inferable and necessary for completion of the Work. The Contractor shall keep the Owner informed of the progress and quality of the Work. Contractor agrees and acknowledges that Owner is entering into this Agreement in reliance on Contractor's represented expertise and ability to provide the Work described in this Agreement. Contractor agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of Owner in accordance with Owner's requirements and procedures.

6.2 Contractor's duties as set forth herein shall at no time be in any way diminished by reason of any approval by the Owner nor shall the Contractor be released from any liability by reason of such approval by the Owner, it being understood that the Owner at all times is ultimately relying upon the Contractor's skill and knowledge in performing the services required hereunder.

6.3 Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

6.4 Contractor shall be an independent contractor under this Agreement and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions in this agreement which may appear to give Owner the right to direct Contractor as to details of doing the Work herein covered or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the Work only. Owner shall not retain or have the right to control the Contractor's means, methods or details pertaining to the Contractor's performance of the Work described herein, nor shall Owner have the power to direct the order in which Contractor's Work is performed under this agreement. Owner and Contractor hereby agree and declare that Contractor is an Independent Contractor and as such meets the qualifications of an Independent Contractor under Texas Worker's Compensation Act, Texas Labor Code, Section 406.141, that the Contractor is not an employee of Owner for purposes of this Agreement, and that the Contractor and its employees, agents and sub-subcontractors shall not be entitled to worker's compensation coverage or any other type of insurance coverage held by Owner.

6.5 As part of Contractor obligation to coordinate the Work, Contractor shall:

- a. cooperate with the ODR and endeavor to further the interests of the Owner and the Work;
- b. provide an on-site, full-time superintendent for the duration of the Work;
- c. visit the Work site and inspect the existing facilities, systems and conditions to insure an accurate understanding of the existing conditions as required;
- d. at Owner's request, attend public meetings and hearings concerning the development of the Work;
- e. review all drawings, specifications, and other plans as they are developed by the Owner and/or its architect and advise Owner of any error, inconsistency or omission discovered in the drawings, specifications, and other plans;
- f. review the drawings, specifications, and other plans for compliance with all applicable laws and code requirements;
- g. advise Owner of any tests that should be performed;
- h. organize and maintain a competent, full-time staff at the Work site with clearly defined lines of authority and communication as necessary to coordinate construction activities, monitor and direct progress of the Work;
- i. attend Owner's regularly scheduled Work progress meetings and fully advise the ODR of the Work status including schedule, costs, quality and changes;
- j. assist Owner in obtaining building permits and obtain special permits for permanent improvements as required by law; and
- k. shall coordinate, monitor and inspect the Work of subcontractors to ensure conformance with the drawings, specifications, other plans and with the terms of this Agreement.

6.6 Contractor shall identify every subcontractor it intends to use for the Work to the Owner in writing at least ten (10) days before entering into any subcontract. Contractor shall not use any subcontractor to which Owner has a reasonable objection. If Owner does not object to a particular subcontractor with said ten (10) days, such subcontract may be considered acceptable to Owner. Following Owner's acceptance of a subcontractor, that subcontractor shall not be changed without Owner's written consent, which shall not be unreasonably withheld.

6.7 Contractor's designated representative, which is set forth below Contractor's signature herein below, shall be responsible for the day-to-day management of the Work on behalf of Contractor. The designated representative shall be the Owner's primary contact during the Work and shall be available as required for the benefit of the Work and the Owner. The contractor's designated representative shall be authorized to act on behalf of and bind the Contractor in all matters related to the Work including, but not limited to, execution of Change Orders.

6.8 NO ALTERATIONS OR CHANGES SHALL BE MADE, HOWEVER, EXCEPT UPON THE WRITTEN ORDER OF THE OWNER, OR THE ODR.

6.9 Contractor shall promptly correct any defective Work at Contractor's sole expense, unless the Owner specifically agrees, in writing, to accept the Work.

6.10 Contractor shall maintain and deliver the close out documents that describe changes or deviations from the original drawings, specifications and plans that occurred during construction and that reflect the actual "As Built" conditions of the completed Work.

COMMISSIONING AND WARRANTY RESPONSIBILITIES

6.11 Contractor shall provide commissioning, starting and check-out services for the systems installed as a part of the Work prior to completion and acceptance. Operation manuals and instructions will be provided to the Owner, the systems will be demonstrated and training provided to Williamson County's operators upon completion and prior to acceptance.

6.12 Contractor hereby warrants that the materials and equipment provided for the Work will be of good quality and new unless otherwise required or permitted by the Owner; that the construction will be free from faults and defects; and that the construction will conform with the requirements of the plans, specifications, drawings and the terms of this Agreement.

6.13 Contractor shall provide warranty services for the Work for a full **12 months** (30 months for Work involving mechanical services, if any) following Final Completion and final payment. Just before the warranty period expires, Contractor shall attend an on-site meeting with the Owner to ensure that all warranty issues have been identified and properly remedied.

ARTICLE 7 OWNER'S RESPONSIBILITIES

7.1 The Owner shall:

- a. provide the general schedule for the Work provided Owner is of the opinion such schedule is necessary. The general schedule will set forth the Owner's plan for milestone dates and completion of the Work;
- b. identify a person as its ODR who is authorized to act in the Owner's behalf with respect to the Work. The ODR shall examine the documents submitted by the Contractor and shall render decisions on behalf of the Owner to the extent allowed by Texas law;

- c. at Owner's cost, will secure the services of surveyors, soils engineers, existing facility surveys, testing and balancing, environmental surveys or other special consultants to develop such additional information as may be necessary for the design or construction of the Work;
- d. furnish required information and services and shall render approvals and decisions as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Contractor's services and of the Work;
- e. shall have the right to reject any defective Work. Should Contractor refuse or neglect to correct any such Work within a reasonable time after notice, Owner may have the Work corrected and recover all expenses incurred from Contractor on demand; and
- f. Owner shall furnish to the Contractor a sufficient number of plans, drawings and specifications sets.

ARTICLE 8 INSURANCE AND INDEMNITY

8.1 Insurance. The Contractor shall carry insurance in the types and amounts indicated below for the duration of the Agreement, which shall include items owned by Owner in the care, custody and control of Contractor prior to and during construction. Contractor must also complete and file the declaration pages from the insurance policies with Owner whenever a previously identified policy period expires during the term of the Agreement, as proof of continuing coverage. Contractor shall update all expired policies prior to submission of any payment requests hereunder. Failure to update policies shall be reason for payment to be withheld until evidence for renewal is provided to the Owner.

8.1.1 The Contractor shall provide and maintain, until the Work covered in this Agreement is completed and accepted by the Owner, the minimum insurance coverage in the minimum amounts as described below. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company or otherwise acceptable to Owner.

Type of Coverage	Limits of Liability	
a. Worker's Compensation	Statutory	
b. Employer's Liability		
Bodily Injury by Accident	\$500,000 Ea. Accident	
Bodily Injury by Disease	\$500,000 Ea. Employee	
Bodily Injury by Disease	\$500,000 Policy Limit	
c. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:		
	PER PERSON	PER OCCURRENCE
Comprehensive General Liability (including premises, completed operations and contractual)	\$ 1,000,000	\$ 1,000,000
Aggregate policy limits:	\$1,000,000	

- d. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):

COVERAGE	PER PERSON	PER OCCURRENCE
Bodily injury (including death)	\$1,000,000	\$1,000,000
Property damage	\$1,000,000	\$1,000,000
Aggregate policy limits	No aggregate limit	

- e. Builder's Risk Insurance
(*all risks*)

An all risks policy shall be in the amount equal at all times to 100% of the Contract Sum. The policy shall include coverage for loss or damage caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act. The policy shall be issued in the name of the Contractor and shall name his Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

1. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.
2. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions., in this Agreement. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

- f. Umbrella coverage in the amount of not less than \$1,000,000.

8.1.2 The above insurance requirements are not intended to be compounded with the Contractor's standing insurance policies. If the Contractor already has in force insurance policies which provide the required coverage, there is no need to purchase duplicate coverage for this Work.

8.1.3 Policies must include the following clauses, as applicable.

- a. "This insurance shall not be canceled, limited in scope or coverage, or non-renewed until after thirty (30) days prior written notice, or ten (10) days for non-payment of premium, has been given to Williamson County."
- b. "It is agreed that the Contractor's insurance shall be deemed primary with respect to any insurance or self insurance carried by Williamson County for liability arising out of operations under the Agreement with Williamson County."
- c. "Williamson County, its officials, directors, employees, representatives, and volunteers are added as additional insured as respects operations and activities of, or on behalf of the named insured performed under Agreement with the Owner." This is not applicable to the workers' compensation policy.
- d. "The workers' compensation and employers' liability policy will provide a waiver of subrogation in favor of Williamson County."

8.1.4 Workers' Compensation Insurance Coverage:

In the event that Contractor employs any individual to perform any portion of the Work, Contractor shall comply with Texas Labor Code, §406.096, which requires workers' compensation insurance coverage for all employees providing services on a building or construction project for a governmental entity.

a. Definitions:

- (1) Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the Duration of the Work.
- (2) Duration of the Work - includes the time from the beginning of the Work until the Work has been completed and accepted by the Owner.
- (3) Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).
- (4) Persons providing services relating to the Work ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform the Work, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services in relation to the Work. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Work, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

b. The Contractor shall provide Coverage, based on proper reporting of classification codes and payroll amounts and filing of any Coverage agreements, which meets the statutory requirements of Texas labor Code, §401.011(44) for all employees of the Contractor providing services in relation to the Work, for the Duration of the Work.

c. The Contractor must provide a Certificate of Coverage to the Owner prior to or contemporaneously with the execution of this Agreement.

- d. If the Coverage period shown on the Contractor's current Certificate of Coverage ends during the Duration of the Work, the Contractor must, prior to the end of the Coverage period, file a new Certificate of Coverage with the Owner showing that Coverage has been extended.
- e. The Contractor shall obtain from each person providing services in relation to the Work, and provide to the Owner:
- (1) a Certificate of Coverage, prior to that person beginning any of the Work, so the Owner will have on file Certificates of Coverage showing Coverage for all persons providing services in relation to the Work; and
 - (2) no later than seven days after receipt by the Contractor, a new Certificate of Coverage showing extension of Coverage, if the Coverage period shown on the current Certificate of Coverage ends during the Duration of the Work.
- f. The Contractor shall retain all required Certificates of Coverage for the Duration of the Work and for one year thereafter.
- g. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of Coverage of any person providing services in relation to the Work.
- h. The Contractor shall post on the Work site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services in relation to the Work that they are required to be covered, and stating how a person may verify Coverage and report lack of Coverage.
- i. By signing this Agreement or providing or causing to be provided a Certificate of Coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services in relation to the Work and all persons providing services in relation to the Work will be covered by workers' compensation coverage for the Duration of the Work, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- j. The Contractor's failure to comply with any of these provisions is a breach of Agreement by the Contractor which entitles the Owner to declare the Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.5 The furnishing of the above listed insurance coverage must be tendered prior to execution of the Agreement, and in no event later than ten (10) calendar days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

8.1.6 The Contractor shall not cause or allow any of its required insurance to be canceled, nor permit any insurance to lapse during the term of the Agreement or as required in the Agreement. If the Contractor fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.7 The Owner reserves the right to review the insurance requirements set forth in this Article during the effective period of the Agreement and to make reasonable adjustments to the insurance coverage and their limits when deemed necessary and prudent by the Owner based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Contractor.

8.1.8 The Owner shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such policies. Damages caused by the Contractor and not covered by insurance shall be paid by the Contractor.

8.1.9 Contractor shall be responsible for payment of premiums for all of the insurance coverages required under this Agreement. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. **Any deductibles or self-insured retentions over \$50,000 in the Contractor's insurance must be declared and approved in writing by Owner in advance.**

8.1.10 The Contractor shall contractually require each person or entity with whom it contracts to provide services in relation to the Work, to comply with each and every insurance requirement that Contractor must comply with hereunder. More specifically, each person or entity with whom Contractor contracts to provide services on the in relation to the Work must comply with each insurance requirement under this Article 8 just as if such person or entity was the Contractor. Thus, every reference to Contractor under each insurance requirement of this Article 8 shall mean and include each person or entity with whom Contractor contracts to provide services in relation to the Work. If any such person or entity with whom Contractor contracts to provide services in relation to the Work fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.2 INDEMNITY.

8.2.1 INDEMNIFICATION - EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") AND SHALL ASSUME ENTIRE RESPONSIBILITY AND LIABILITY (OTHER THAN AS A RESULT OF INDEMNITEES' GROSS NEGLIGENCE) FOR ANY CLAIM OR ACTION BASED ON OR ARISING OUT OF THE PERSONAL INJURY, OR DEATH, OF ANY EMPLOYEE OF THE CONTRACTOR, OR OF ANY SUBCONTRACTOR, OR OF ANY OTHER ENTITY FOR WHOSE ACTS THEY MAY BE LIABLE, WHICH OCCURRED OR WAS ALLEGED TO HAVE OCCURRED ON THE WORK SITE OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK. CONTRACTOR HEREBY INDEMNIFIES THE INDEMNITEES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE SOLE, COMPARATIVE OR CONCURRENT NEGLIGENCE OF THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

8.2.2 INDEMNIFICATION - OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS AGREEMENT OR THE WORK DESCRIBED HEREIN, TO THE EXTENT CAUSED BY THE NEGLIGENCE, ACTS, ERRORS, OR OMISSIONS OF CONTRACTOR OR ITS SUBCONTRACTORS, ANYONE EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY A PARTY INDEMNIFIED HEREUNDER.

8.3 Except for the obligation of Owner to pay Contractor the Contract Price pursuant to the terms of this Agreement, and to perform certain other obligations pursuant to the terms and conditions explicitly set forth herein, Owner shall have no liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement. Notwithstanding any obligation or liability of Owner to Contractor, no present or future partner or affiliate of Owner or any agent, officer, director, or employee of Owner, Williamson County, or of the various departments comprising Williamson County, or anyone claiming under Owner has or shall have any personal liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement.

ARTICLE 9 BONDS

9.1 Performance Bond. Upon execution of this Agreement, Contractor shall provide a Performance Bond in the amount of 100% of the Contract Price. The surety for a Performance Bond shall meet the requirements of Texas law.

9.2 Payment Bond. Upon execution of this Agreement, Contractor shall provide a Payment Bond in the amount of 100% of the Contract Price, as security for the true and faithful payment in full of all subcontractors and persons performing labor, services, materials, machinery, and fixtures in connection with the Work. The surety for a Payment Bond shall meet the requirements of Texas law.

9.3 Warranty Bond. Upon execution of this Agreement, Contractor shall provide a Warranty Bond in the amount of 20% of the Contract Price, as security for the true and faithful performance of all warranties set forth in Bid Documents and this Agreement.

ARTICLE 10 TERMINATION

10.1 Termination for Cause. If either party commits an Event of Breach (a breach of any of the covenants, terms and/or conditions of this Agreement), the non-breaching party shall deliver written notice of such Event of Breach to the breaching party. Such notice must specify the nature of the Event of Breach and inform the breaching party that unless the Event of Breach is cured within three (3) business days of receipt of the notice, additional steps may be taken to terminate this Agreement. If the breaching party begins a good faith attempt to cure the Event of Breach within three (3) business days, then and in that instance, the three (3) business day period may be extended by the non-breaching party, so long as the breaching party continues to prosecute a cure diligently to completion and continues to make a good faith attempt to cure the Event of Breach. If, in the opinion of the non-breaching party, the breaching party does not cure the breach within three (3) business days or otherwise fails to make any diligent attempt to correct the Event of Breach, the breaching party shall be deemed to be in breach and the non-breaching party may, in addition to seeking the remedies available hereunder and under the law, terminate this Agreement.

10.2 Termination for Convenience. The Owner may terminate this Agreement for convenience and without cause or further liability upon thirty (30) days written notice to Contractor. In the event of such termination, it is understood and agreed that only the amounts due to Contractor for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for Owner's termination of this Agreement for convenience.

ARTICLE 11 MISCELLANEOUS PROVISIONS

11.1 Interest and Late Payments. Except as otherwise specifically set forth herein, Owner's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Interest charges for any overdue payments shall be paid by Owner in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Owner's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice/application for payment submitted by Contractor, Owner shall notify Contractor of the error not later than the twenty first (21st) day after the date Owner receives the invoice/application for payment. If the error is resolved in favor of Contractor, Contractor shall be entitled to receive interest on the unpaid balance of the invoice/application for payment submitted by Contractor beginning on the date that the payment for the invoice/application for payment became overdue. If the error is resolved in favor of the Owner, Contractor shall submit a corrected invoice/application for payment that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice/application for payment is not paid by the appropriate date.

11.2 Assignment; Successors and Assigns. This Agreement is a personal service contract for the services of Contractor, and Contractor's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party. This Agreement shall be binding upon and inure to the benefit of parties hereto and their respective successors and assigns.

11.3 Captions. The captions of paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

11.4 Governing Law and Venue. This Agreement and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. Williamson County where the Work site is located shall be the sole place of venue for any legal action arising from or related to this Agreement or the project in which the Owner is a party.

11.5 Waivers. No delay or omission by either party in exercising any right or power arising from non-compliance or failure of performance by the other party with any of the provisions of this Agreement shall impair or constitute a waiver of any such right or power. A waiver by either party of any covenant or condition of this Agreement shall not be construed as a waiver of any subsequent breach of that or of any other covenant or condition of the Agreement.

11.6 Interpretation. In the event of any dispute over the meaning or application of any provision of the Contract Documents, the Contract Documents shall be interpreted fairly and reasonably, and neither more strongly for or against any party, regardless of the actual drafter of the Contract Documents.

11.7 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

11.8 Appointment. Owner hereby expressly reserves the right from time to time to designate by notice to Contractor a representative(s) to act partially or wholly for Owner in connection with the performance of Owner's obligations. Contractor shall act only upon instructions from the designated representative(s) unless otherwise specifically notified to the contrary.

11.9 Audits. Contractor agrees that Owner or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Contractor which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Contractor agrees that Owner shall have access during normal working hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Owner shall give Contractor reasonable advance notice of intended audits.

11.10 Severability. Should any term or provision of this Agreement be held invalid or unenforceable in any respect, the remaining terms and provisions shall not be affected and this Agreement shall be construed as if the invalid or unenforceable term or provision had never been included.

11.11 No Waiver of Immunities. Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Owner, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Owner does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

11.12 Current Revenues. Under Texas law, a contract with a governmental entity that contains a claim against future revenues is void; therefore, each party paying for the performance of governmental functions or services must make those payments from current revenues available to the paying party.

11.13 Compliance with Laws. Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, Contractor shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

11.14 Sales and Use Tax Exemption. Owner is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code Ann. § 151.309, as amended.

11.15 Texas Public Information Act. To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 *et seq.*, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Owner, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any information or data furnished to Owner whether or not the same are available to the public. It is further understood that Owner, its officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Owner, its officers and employees shall have no liability or obligation to Contractor for the disclosure to the public, or to any person or persons, of any software or a part thereof, or other items or data furnished to Owner by Contractor in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

11.16 Force Majeure. If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance of this Agreement. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

11.17 Equal Opportunity in Employment. The parties to this Agreement agree that during the performance of the services under this Agreement they will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The parties to this Agreement will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship.

11.18 Reports of Accidents. Within 24 hours after Contractor becomes aware of the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Contractor), whether or not it results from or involves any action or failure to act by the Contractor or any employee or agent of the Contractor and which arises in any manner from the performance of this Agreement, the Contractor shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts pertaining thereto. The Contractor shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Contractor, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Contractor's performance of work under this Agreement.

11.19 Relationship of the Parties. Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

11.20 Appropriation of Funds by Owner. Owner believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Agreement. Contractor understands and agrees that the Owner's payment of amounts under this Agreement is contingent on the Owner receiving appropriations or other expenditure authority sufficient to allow the Owner, in the exercise of reasonable administrative discretion, to continue to make payments under this Agreement.

11.21 Execution in Counterparts. This Agreement may be executed in counterparts, each of which, when executed and delivered, shall be deemed to be an original and all of which together shall constitute one and the same document.

11.22 Entire Agreement. This Agreement represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either oral or written. This Agreement may be amended only by written instrument signed by each party to this Agreement. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE OWNER HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIED, TO AMEND THIS AGREEMENT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE WILLIAMSON COUNTY COMMISSIONERS COURT.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution hereof (Effective Date).

OWNER:

CONTRACTOR:

WILLIAMSON COUNTY, TEXAS,
a political subdivision of the state of Texas

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Party Representatives

Owner's Designated Representative ("ODR"):

Contractor's Designated Representative:

Phone _____

Phone _____

Fax _____

Fax _____

BID AFFIDAVIT

This form must be completed, signed, notarized and returned with Bid package

The undersigned certifies that the IFB and the Bidder's Bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all goods and/or services upon which prices are extended at the price Bid, and upon the conditions contained in the IFB.

I hereby certify that the foregoing Bid has not been prepared in collusion with any other Bidder or other person or persons engaged in the same line of business prior to the official opening of this Bid. Further, I certify that the Bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities Bid on, or to influence any person or persons to submit a Bid or not to submit a Bid thereon."

Name of Bidder:	<input style="width: 100%;" type="text"/>
Address of Bidder:	<input style="width: 100%;" type="text"/>
Email:	<input style="width: 100%;" type="text"/>
Telephone:	<input style="width: 100%;" type="text"/>
Printed Name of Person Submitting Affidavit:	<input style="width: 100%;" type="text"/>
Signature of Person Submitting Affidavit:	<input style="width: 100%;" type="text"/>

Cooperative Purchasing Program

Check one of the following options below. A non-affirmative Bid will in no way have a negative impact on the County's evaluation of the Bid.

<input type="checkbox"/>	I will offer the quoted prices to all authorized entities during the term of the County's Contract.
<input type="checkbox"/>	I will not offer the quoted prices to all authorized entities.

If no box is checked, the Bidder agrees to make best efforts in good faith to offer the quoted prices to all authorized entities.

BEFORE ME, the undersigned authority, a Notary Public, personally appeared
 (*Name of Signer*), who after being by me duly sworn, did depose and say: "I, ,
 (*Name of Signer*) am a duly authorized officer of/agent for (*Name of Bidder*) and
 have been duly authorized to execute the foregoing on behalf of the said (*Name of Bidder*).

SUBSCRIBED AND SWORN to before me by the above-named
 on this the day of , 20.

Notary Public in and for
 The State of
 The County of

SIGNATURE AND NOTARY NOT REQUIRED IF COMPLETING IN BIDSYSN ELECTRONICALLY.

CONFLICT OF INTEREST QUESTIONNAIRE		Form CIQ
For vendor or other person doing business with local governmental entity		
<p>This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.</p> <p>By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>		<p>OFFICE USE ONLY</p> <p>Date Received</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
1	<p>Name of person doing business with local governmental entity.</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div>	
2	<p>Check this box if you are filing an update to a previously filed questionnaire.</p> <p><input type="checkbox"/></p> <p>(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)</p>	
3	<p>Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div>	
4	<p>Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div>	

CONFLICT OF INTEREST QUESTIONNAIRE For vendor or other person doing business with local governmental entity		Form CIQ Page 2
5	<p style="text-align: center;">Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)</p> <p>This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or other relationship. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>D. Describe each affiliation or business relationship.</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
	<p>6. Describe any other affiliation or business relationship that might cause conflict of interest:</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
7	<div style="border: 1px solid black; height: 20px; margin-top: 10px;"></div>	<div style="border: 1px solid black; height: 20px; margin-top: 10px;"></div>
	Signature of person doing business with the governmental entity	Date
Signature not required if completing in BIDSYNC electronically.		

Bidder References

List the last (3) companies or governmental agencies, where the same or similar goods and/or services as contained in this IFB package, were recently provided by Bidder.

Reference 1

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

5

6

Reference 2

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

5

6

Reference 3

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

Question and Answers for Bid #1708-182 - River Rd & Old Windmill Rd

Overall Bid Questions

There are no questions associated with this bid.

Commissioners Court - Regular Session

52.

Meeting Date: 08/15/2017

IFB 1708-183 FY 17 Cross Culvert Replacements

Submitted For: Randy Barker

Submitted By: Will Hutchinson, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action on authorizing Purchasing Agent to advertise and receive sealed bids for FY 17 Cross Culvert Replacements under IFB # 1708-183

Background

Williamson County is seeking qualified contractors to provide materials, experienced construction crew and equipment to construct the FY 17 Cross Culvert Replacements throughout the Precinct 2, 3, and 4 of Williamson County with an estimated budget of \$663,785.00.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Bid Packet

Form Review

Inbox

Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Will Hutchinson
Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
Wendy Coco

Date

08/10/2017 10:17 AM
08/10/2017 10:27 AM
Started On: 08/10/2017 09:10 AM

Solicitation 1708-183

FY 17 Cross Culvert Replacements

Bid Designation: Public



Williamson County, Texas

Bid 1708-183

FY 17 Cross Culvert Replacements

Bid Number 1708-183
 Bid Title FY 17 Cross Culvert Replacements

Bid Start Date In Held
 Bid End Date Sep 5, 2017 3:00:00 PM CDT
 Question & Answer End Date Aug 30, 2017 5:00:00 PM CDT

Bid Contact Will Hutchinson
 Purchasing Specialist III
 512-943-1553
 will.hutchinson@wilco.org

Contract Duration 1 year
 Contract Renewal Not Applicable
 Prices Good for 365 days
 Pre-Bid Conference Aug 29, 2017 10:00:00 AM CDT
 Attendance is optional
 Location: 3151 South East Inner Loop
 Georgetown, TX 78626

Bid Comments **Williamson County is seeking qualified contractors to provide materials, experienced construction crew and equipment to construct the FY 17 Cross Culvert Replacements throughout the Precinct 2, 3, and 4 of Williamson County.**

Item Response Form

Item 1708-183--01-01 - Total Price
 Quantity 1 lump sum
 Unit Price
 Delivery Location **Williamson County, Texas**
No Location Specified
 Qty 1

Description

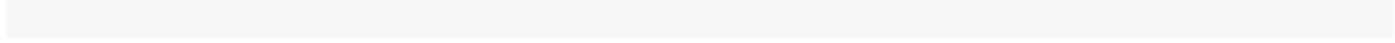
Total Price. This does not replace the bit Tabulation you need to upload.

Item 1708-183--01-02 - Attach Documents Here
 Quantity 1 each
 Prices are not requested for this item.
 Delivery Location **Williamson County, Texas**
No Location Specified

Qty 1

Description

Attach Documents Here





PUBLIC ANNOUNCEMENT AND GENERAL INFORMATION

WILLIAMSON COUNTY PURCHASING DEPARTMENT SOLICITATION 1708-183 FY 17 Cross Culvert Replacements

**BIDS MUST BE RECEIVED ON OR BEFORE:
Sep 5, 2017 3:00:00 PM CDT**

**BIDS WILL BE PUBLICLY OPENED:
Sep 5, 2017 3:00:00 PM CDT**

Notice is hereby given that sealed Bids for the above-mentioned goods and/or services will be accepted by the Williamson County Purchasing Department. Williamson County uses BidSync to distribute and receive bids. Specifications for this IFB may be obtained by registering at www.bidsync.com.

Williamson County prefers and requests electronic submittal of this Bid.

All electronic bids must be submitted via: www.bidsync.com

Electronic bids are requested, however paper bids will currently still be received, until further notice and may be mailed or delivered to the address listed below.

Bidders are strongly encouraged to carefully read this entire IFB.

All interested Bidders are invited to submit a Bid in accordance with the Instructions and General Requirements, Bid Format, Bid Specifications, and Definitions, Terms and Conditions stated in this IFB.

Please note that a complete package must be submitted choosing one of the above two methods. Split packages submitted will be considered “unresponsive” and will not be accepted or evaluated.

Williamson County will not accept any Bids received after the submittal deadline, and shall return such Bids unopened to the Bidder.

General Information:

- If mailed or delivered in person, Bids and Bid addenda are to be delivered in sealed envelope on or before the submittal deadline, as noted in the Public Announcement and General Information listed above for this IFB, to:

Williamson County Purchasing Department
Attn: **BID NAME AND NUMBER**
901 South Austin Avenue
Georgetown, Texas 78626

- Bidders should list the Bid Number, Bid Name, Name and Address of Bidder, and the Date of the Bid opening on the outside of the box or envelope and note "Sealed Bid Enclosed."
 - Bidder should submit one (1) original.
 - Williamson County will NOT be responsible for unmarked or improperly marked envelopes.
 - Williamson County will not accept any responsibility for Bids being delivered by third party carriers.
 - Facsimile transmittals will NOT be accepted.
- Bids will be opened publicly in a manner; however, to avoid public disclosure of contents only the names and of Bidders and prices will be read aloud.
 - All submitted questions with their answers will be posted and updated on www.bidsync.com.
 - It is the Bidder's responsibility to review all documents in BidSync, including any Addenda that may have been added after the document packet was originally released and posted.
 - Any Addenda and/or other information relevant to the IFB will be posted on www.bidsync.com.
 - The Williamson County Purchasing Department takes no responsibility to ensure any interested Bidder has obtained any outstanding addenda or additional information.



Williamson County – Invitation for Bid (IFB)

SECTION 1 - DEFINITIONS

Addendum/Addenda – means any written or graphic instruments issued by the County prior to the consideration of Bids which modify or interpret the Bid Documents by additions, deletions, clarifications, or corrections.

Agreement/Ensuing Agreement(s) – means the Successful Bidder may be required by the County to sign an additional Agreement containing terms necessary to ensure compliance with the IFB and the Bidder's Bid. Such Ensuing Agreement(s) shall contain the Bid specifications, terms and conditions that are derived from the IFB.

Bid Documents – means the Legal Notice, IFB including attachments, and any Addenda issued by the County prior to the consideration of any Bids.

Bid – means the completed and signed bid form, (sometimes referred to as the Price Sheet), and ALL required forms and documentation listed in the IFB package which have been submitted in accordance with the terms and conditions described in the IFB package. A Bid submitted in accordance with this IFB is irrevocable during the specified period for evaluation and acceptance of Bids unless a waiver is obtained from the Williamson County Purchasing Agent.

Bidder – means a person or entity who submits a Bid in response to this IFB.

Contract – means this IFB and the Bid of the Successful Bidder shall become a Contract between the Successful Bidder and the County once the Successful Bidder's Bid is properly accepted by the Williamson County Commissioners Court.

Commissioner's Court – means the Williamson County Commissioners Court.

County – means Williamson County, a political subdivision of the State of Texas.

Invitation for Bid (IFB) – means this document, together with the attachments thereto and any future Addenda issued by the County.

Successful Bidder – means the liable Bidder to whom the County intends to award the Contract.

SECTION 2 - BID FORMAT AND SUBMISSION

2.1 ORGANIZATION OF BID CONTENTS FOR SUBMITTAL

Each Bid should be organized and items submitted in the order described below:

- A. Transmittal Letter. Please see Section 2.3, Transmittal Letter, for more information.
- B. Price Sheet.
- C. Conflict of Interest Questionnaire. Please see Section 2.2, Conflict of Interest, for more information in regards to this. Please note that even if you deem there to be no Conflict of Interest, this signed questionnaire must be included in your package.
- D. References. Please see Section 3.15, References, for more information.
- E. Bid Affidavit.
- F. Form 1295. Please see Section 2.4, Certificate of Interested Parties – Form 1295.

2.2 CONFLICT OF INTEREST

No public official shall have interest in a Contract, in accordance with Vernon's Texas Codes Annotated, Local Government Code, Title 5, Subtitle C, Chapter 171, as amended.

As of January 1, 2006, all Bidders are responsible for complying with Local Government Code, Title 5, Subtitle C, Chapter 176. Additional information may be obtained from the County's website at the following link:

<http://www.wilco.org/CountyDepartments/Purchasing/ConflictofInterestDisclosure/tabid/689/language/en-US/Default.aspx>

Each Bidder must disclose any existing or potential conflict of interest relative to the performance of the requirements of this IFB. **Examples of potential conflicts of interest may include an existing business or personal relationship between the Bidder, its principal, or any affiliate or subcontractor with the County or any other entity or person involved in any way with the project that is subject to this IFB.** Similarly, any personal or business relationship between the Bidder, the principals, or any affiliate or subcontractor with any employee, or official of the County or its suppliers must be disclosed. Any such relationship that might be perceived or represented as a conflict must be disclosed. Failure to disclose any such relationship or reveal personal relationships with the County employees or officials may be cause for termination.

The County will decide if an actual or perceived conflict should result in Bid disqualification.

By submitting a Bid in response to this IFB, all Bidders affirm they have not given, nor intend to give, at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a the County public servant or any employee, official or representative of same, in connection with this procurement.

Each Bidder must provide a Conflict of Interest Statement with their Bid Package. Package may be deemed incomplete without this form.

2.3 TRANSMITTAL LETTER

The Bidder should submit a Transmittal Letter that provides the following information:

- A. Name and address of individual or business entity submitting the Bid.
- B. Name, physical address, email address, business and fax number of the Bidder's principal contact person regarding all contractual matters relating to this IFB.
- C. The Bid's Federal Employer Identification Number.
- D. If the Proposal being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Respondent is encouraged to provide information in narrative indicating the anticipated air quality impact. See Section 4.36, Air Quality for more information.

2.4 CERTIFICATE OF INTERESTED PARTIES – FORM 1295

As of January 1, 2016, all Successful Bidders are responsible for complying with the Texas Government Code, Section 2252.908. The law states that the County may not enter into certain contracts with a Bidder unless the Bidder submits a disclosure of interested parties to the County at the time the Bidder submits the signed Contract. The law applies only to a Contract of the County on or after January 1, 2016 that either:

- A. Requires an action or vote by the Commissioners Court before the Contract may be signed (all contracts that fall under the jurisdiction of the Commissioners Court approval, such as contracts resulting from an Initiation for Bid (IFB), RFP, Request for Qualifications (RFQ), etc., excluding, but not limited to, certain Juvenile Service contracts, contracts funded with Sheriff's seized monies, etc.); or
- B. Has a value of at least \$1,000,000.

By January 1, 2016, the Texas Ethics Commission will make available on its website, a new filing application that must be used to file Form 1295. Information regarding how to use the filing application is available on the Texas Ethics Commission website at the following link:

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

A Respondent must:

- A. Use the online application to process the required information on Form 1295.
- B. Print a copy of the form which will contain a unique certification number.
- C. An authorized agent of the Bidder must sign the printed copy of the form.
- D. Have the form notarized.
- E. File the completed Form 1295 and certification of filing (scanning and emailing form is sufficient) with Williamson County Purchasing Agent at the time the signed Contract is submitted for approval.

After the Commissioners Court award of the Contract, the County shall notify the Texas Ethics Commission, using the Texas Ethics Commission's filing application, of the receipt of the filed Form 1295 and certification of filing not later than the 30th day after the date the Contract binds all parties to the Contract. The Texas Ethics Commission will post the completed Form 1295 to its website within seven business days after receiving notice from the County.

2.5 ETHICS

The Bidder shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official or agent of the County.

2.6 BID SUBMITTAL DEADLINE

The Bid is due no later than the submittal date and time set forth in the Public Announcement and General Information listed in this IFB package. Contents of each Bid shall be submitted in accordance with this IFB.

2.7 DELIVERY OF BIDS

The County uses BidSync to distribute and receive Bids and proposals. It is preferred that Bids submitted electronically through BidSync; however, Bidders can submit a hard copy.

Refer to www.bidsync.com for further information on how to submit electronically.

If mailed or delivered in person, Bids and Bid Addenda are to be delivered in sealed envelope on or before the submittal deadline, as noted in the Public Announcement and General Information listed in this IFB package, to:

Williamson County Purchasing Department
Attn: **Bid Name and Number**
901 South Austin Avenue
Georgetown, Texas 78626

Also, all Bidders should list their Name and Address, and the Date of the Bid opening on the outside the box or envelope and note "Sealed Bid Enclosed." The County will not accept any Bids received after the submittal deadline, and shall return such Bids unopened to the Bidder. The County will not accept any responsibility for Bids being delivered by third party carriers.

Bids will be opened publically and the names of Bidders and pricing will be read aloud.

SECTION 3 - INSTRUCTIONS AND GENERAL REQUIREMENTS

3.1 INSTRUCTIONS

Read this document carefully, and follow all instructions and requirements. All Bidders are responsible for fulfilling all requirements and specifications. Be sure to have a clear understanding of this IFB.

General requirements apply to all advertised IFBs; however, these may be superseded, in whole or in part, by the bid specifications, Addenda and modifications issued as a part of this IFB. Be sure your Bid package is complete.

3.2 AMBIGUITY, CONFLICT, OR OTHER ERRORS IN THIS IFB

If a Bidder discovers any ambiguity, conflict, discrepancy, omission or other error in this IFB, the Bidder shall immediately notify the County Purchasing Department of such error in writing and request modification or clarification of the document.

Modifications will be made by issuing Addenda. If the Bidder fails to notify the County prior to the date and time fixed for submission of Bids of an error or ambiguity in the IFB known to the Bidder, or an error or ambiguity that reasonably should have been known to the Bidder, then the Bidder shall be deemed to have waived the error or ambiguity or its later resolution.

The County may also modify the IFB, no later than forty-eight (48) hours prior to the date and time fixed for submission of Bids, by issuance of an Addendum. All Addenda will be numbered consecutively, beginning with one (1).

3.3 NOTIFICATION OF MOST CURRENT ADDRESS

All Bidders in receipt of this IFB shall notify the Williamson County Purchasing Department of any address changes, contact person changes, and/or telephone number changes no later than forty-eight (48) hours prior to the date and time fixed for submission of Bids.

3.4 SIGNATURE OF BIDDER

- A. If the Bidder is a Corporation or Limited Liability Company, the legal name of the Corporation Limited Liability Company shall be provided together with the signature of the officer or officers authorized to sign on behalf of such entity.
- B. If the Bidder is a General Partnership, the true name of the firm shall be provided with the signature of each partner authorized to sign.
- C. If the Bidder is a Limited Partnership, the name of the Limited Partner's General Partner shall be provided with the signature of the officer authorized to sign on behalf of the General Partner.
- D. If the Bidder is a Sole Proprietor(s) (individual), each Sole Proprietor(s) shall sign.
- E. If signature is by an agent, other than the Sole Proprietor(s) or an officer of a Corporation, Limited Liability Company, General Partner or a member of a General Partnership, a power of attorney equivalent document must be submitted to the Williamson County Purchasing Department.

3.5 ASSUMED BUSINESS NAME

If the Bidder operates business under an Assumed Business Name, the Bidder must have on file with the

Williamson County Clerk a current Assumed Name Certificate and provide a file marked copy of same.

3.6 BID OBLIGATION

The contents of the IFB, Bid, and any clarification thereof submitted by the Successful Bidder shall become part of the contractual obligation and incorporated by reference into the Contract and any Ensuing Agreement(s).

3.7 COMPLIANCE WITH IFB SPECIFICATIONS

It is intended that this IFB describe the requirements and the Bid format in sufficient detail to secure comparable Bids. Failure to comply with all provisions of the IFB may, at the sole discretion of the County, result in disqualification.

3.8 WITHDRAWAL OF BID

The Bidder may withdraw its Bid by submitting a written request with the company letterhead and the signature of an authorized individual, as described in Section 3.4, Signature of Bidder, to the Williamson County Purchasing Department any time prior to the submission deadline.

The Bidder may submit a new Bid prior to the deadline. Alterations of the Bid in any manner will not be considered if submitted after the deadline. Withdrawal of a Bid after the deadline will be subject to written approval of the Williamson County Purchasing Agent.

3.9 EVALUATION AND AWARD

The County reserves the right to use all pertinent information (also learned from sources other than disclosed in the Bid process) that might affect the County's judgment as to the appropriateness of award to the lowest and best evaluated Bid. This information may be appended to the Bid evaluation process results. Information on a Bidder from reliable sources, and not within the Bidder's Bid, may also be noted and made part of the evaluation file. The County shall have sole discretion for determining the reliability of the source.

To ensure the proper and fair evaluation of a solicitation, the County prohibits unsolicited communication initiated by the Bidder to the County Official or Employee evaluating or considering the Bids prior to the time an award has been made. Unsolicited communication may be ground for disqualifying the offending Bidder from consideration or award of the solicitation, or any future solicitation.

Communication between the Bidder and the County will be initiated by the appropriate County Official Employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the solicitation.

The County intends to award a Contract to the most responsible and responsive Bidder whose Bid will be most advantageous to the County. In accordance with Texas Government Code and Local Government Code, the County may consider, to the extent allowed by law, the following:

- A. Price;
- B. The Bidder's experience and reputation;
- C. Quality of the Bidder's goods and/or services;
- D. The Bidder's safety record;
- E. The Bidder's proposed personnel;
- F. The Bidder's financial capabilities; and
- G. Any other relevant factors specifically listed in this IFB or authorized by law.

3.10 CONSIDERATION OF LOCATION OF PRINCIPAL OFFICE

Pursuant to Texas Local Government Code, Section 271.905, in purchasing any real property or personal property that is not affixed to real property, if the County receives one or more Bids from a Bidder whose principal place of business is in Williamson County and whose Bid is within three (3) percent of the lowest Bid price received by the County from a Bidder who is not a resident of Williamson County, the County may enter into a contract with:

- A. The lowest Bidder; or the Bidder whose principal place of business is in Williamson County if the Commissioners Court determines, in writing, that the local Bidder offers the County the best combination of contract price and additional economic development opportunities Williamson County created by the contract award, including the employment of residents Williamson County and increased tax revenues to Williamson County.

It is understood that the Commissioners Court of Williamson County, Texas, reserves the right to accept or reject any and/or all Bids for any or all goods and/or services covered in this IFB, and to waive informalities or defects in the Bid or to accept such Bid, if it shall deem to be in the best interest of the County.

Awards should be made approximately sixty (60) business days after the Bid opening date. Results may be obtained by viewing the Williamson County vendor portal at the following link:

<http://www.wilco.org/CountyDepartments/Purchasing/SearchforaPastBid/tabid/5213/language/en-US/Default.aspx>

3.11 RESPONSIBILITY

It is expected that a prospective Bidder will be able to affirmatively demonstrate responsibility. A prospective Bidder should be able to meet the following requirements:

- A. Have adequate financial resources, or the ability to obtain such resources as required;
- B. Be able to comply with the required or proposed delivery schedule;
- C. Have a satisfactory record of performance that can be determined thru references provided; and
- D. Be otherwise qualified and eligible to receive an award.

The County may request representation and other information sufficient to determine the Bidder's ability to meet these minimum standards listed above.

3.12 FIRM PRICING

For unit price items, all of the items listed are to be on a "per unit" basis, stating a firm price per unit or unit quantity of each item. The Bidder must submit a firm price that must be good from the date of Bid opening for the fixed period of time set out in this IFB. Unless the IFB expressly states otherwise, this period shall be until the end of the Initial Contract Period.

Bids which do not state a fixed price, or which are subject to change without notice, will not be considered. The Court may award a Contract for the period implied or expressly stated in the lowest and best Bid.

3.13 PURCHASE ORDERS

If required by the Williamson County Purchasing Department, a purchase order(s) may be generated to the Successful Bidder for goods and/or services. If a purchase order is issued, the purchase order number must appear on all itemized invoices and/or requests for payment.

3.14 SILENCE OF SPECIFICATIONS

The apparent silence of these specifications as to any detail or to the apparent omission from it of a

detailed description concerning any point, shall be regarded as meaning that only the best practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

3.15 REFERENCES

The County may require the Bidder to supply a list of at least three (3) references where like services and/or goods have been supplied by their firm within the past five (5) years, to include names, titles, phone numbers and email addresses of key personnel, and dates of performance.

The County may contact some or all of the references in order to determine the Respondent performance record on work similar to that described in this RFP. The County reserves the right to contact references other than those provided in the response and to use the information gained from them in the evaluation process.

References, if requested, should be provided in accordance with this IFB. Bid may not be deemed complete without the inclusion of requested references.

SECTION 4 - TERMS AND CONDITIONS

4.1 VENUE AND GOVERNING LAW

The Bidder hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this IFB, the Contract and any Ensuing Agreement(s), shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this IFB, the Contract and any Ensuing Agreement(s) is governed by the laws of the United States, this IFB, the Contract and any Ensuing Agreement(s) shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.

4.2 INCORPORATION BY REFERENCE AND PRECEDENCE

- A. The Contract shall be derived from the IFB and its Addenda (if applicable), and the Bidder's Bid. In the event of a dispute under the Contract, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. The IFB and its Addenda (if applicable); and
 2. The Bidder's Bid.
- B. In the event the County requires that an Ensuing Agreement be executed following award and a dispute arises between the terms and conditions of the Ensuing Agreement, the IFB and its Addenda (if applicable), and the Bidder's Bid, applicable documents will be referred to for the purpose of clarification or for additional detail in the following order of precedence:
1. Terms and conditions of the Ensuing Agreement;
 2. The IFB its Addenda; and
 3. The Bidder's Bid.

4.3 OWNERSHIP OF BID

Each Bid shall become the property of the County upon submittal and will not be returned to Bidders unless received after the submittal deadline.

4.4 DISQUALIFICATION OF BIDDER

Upon signing and submittal of the Bid, a Bidder offering to sell supplies, materials, services, or equipment to the County, certifies that the Bidder has not violated the antitrust laws of the State of Texas codified in Business & Commerce Code, Section 15.01, or the Federal Antitrust Laws, and has not communicated directly or indirectly the offer made to any competitor or any other person engaged in such line of business. Any or all Bids may be rejected if the County believes that collusion exists among the Bidders.

4.5 FUNDING

The County intends to budget and make sufficient funds available and authorize funds for expenditure to finance the costs of the Contract. All Bidders understand and agree that the County's payment of amounts under the Contract shall be contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to make payments under this Contract.

4.6 ASSIGNMENT, SUCCESSORS AND ASSIGNS

The Successful Bidder may not assign, sell, or otherwise transfer the Contract or any other rights or interests obtained under the Contract without written permission of the Commissioners Court. The Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the contracting parties hereto and their respective successors and permitted assigns.

4.7 IMPLIED REQUIREMENTS

Products or services not specifically described or required in the IFB, but are necessary to provide the functional capabilities described by the Bidder, shall be implied and deemed to be included in the Bid.

4.8 TERMINATION

- A. Termination for Cause:** The County reserves the right to terminate the Contract and/or any Ensuing Agreement(s) for default if the Successful Bidder breaches any of the Bid specifications, terms and conditions, including warranties of the Bidder, if any, or if the Successful Bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies the County may have at law or in equity or as may otherwise provided hereunder. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all other requirements to the County's satisfaction, and/or to meet all other obligations and requirements.
- B. Termination for Convenience:** The County may terminate the Contract and/or any Ensuing Agreement(s) for convenience and without cause or further liability, upon no less than thirty (30) calendar days written notice to the Successful Bidder. The County reserves the right to extend this period if it is in the best interest of the County. In the event the County exercises its right to terminate without cause, it is understood and agreed that only the amounts due to the Successful Bidder for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for the County termination for convenience.

4.9 NON-PERFORMANCE

It is the objective of the County to obtain complete and satisfactory performance of the requirements set forth herein. In addition to any other remedies available at law, in equity or that may be set out herein, failure to perform may result in a deduction of payment equal to the amount of the goods and/or services that were not provided and/or performed to the County's satisfaction.

In the event of such non-performance, the County shall have the right, but shall not be obligated, to complete the services itself or by others and/or purchase the goods from other sources. If the County elects to acquire the goods or perform the services itself or by others, pursuant to the foregoing, the Successful Bidder shall reimburse the County, within ten (10) calendar days of demand, for all costs incurred by the County (including, without limitation, applicable, general, and administrative expenses, and field overhead, and the cost of necessary equipment, materials, and field labor) in correcting the nonperformance which the Successful Bidder fails to meet pursuant to the requirements set out herein. In the event the Successful Bidder refuses to reimburse the County as set out in this provision, the County shall have the right to deduct such reimbursement amounts from any amounts that may be then owing or that may become owing in the future to the Successful Bidder.

4.10 PROPRIETARY INFORMATION AND THE TEXAS PUBLIC INFORMATION ACT

All material submitted to the County shall become public property and subject to the Texas Public Information Act upon receipt. If a Bidder does not desire proprietary information in the Bid to be

disclosed, each page must be clearly identified and marked proprietary at time of submittal or, more preferably, all proprietary information may be placed in a folder or appendix and be clearly identified and marked as being proprietary. Failure to clearly identify and mark information as being proprietary as set forth under this provision will result in all unmarked information being deemed non-proprietary and available to the public. For all information that has not been clearly identified and marked as proprietary by the Bidder, the County may choose to place such information on the County's website and/or a similar public database without obtaining any type of prior consent from the Bidder.

The County will, to the extent allowed by law, endeavor to protect from public disclosure the information that has been identified and marked as proprietary. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General.

To the extent, if any, that any provision in this IFB or in the Bidder's Bid is in conflict with Texas Government Code, Chapter 552, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood, and agreed, that the County, and its officers and employees, may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to the County as to whether or not the same are available to the public. It is further understood that the County, and its officers and employees, shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that the County, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to the County by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

4.11 RIGHT TO AUDIT

The Successful Bidder agrees that the County or its duly authorized representatives shall, until the expiration of three (3) years after termination or expiration of the services to be performed, have access to and the right to examine and photocopy any and all books, documents, papers and records of the Successful Bidder, which are directly pertinent to the services to be performed or goods to be delivered for the purposes of making audits, examinations, excerpts and transcriptions. The Successful Bidder agrees that the County shall have access during normal working hours to all necessary facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. The County shall give the Successful Bidder reasonable advance notice of intended audits.

4.12 TESTING AND INSPECTIONS

The County reserves the right to inspect and test equipment, supplies, materials and goods for quality and compliance with this IFB, and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the County can deem the Bidder to be in breach and terminate the Contract and/or any Ensuing Agreement(s).

4.13 BID PREPARATION COSTS

The cost of developing Bids is the sole responsibility of the Bidders and shall not be charged to the County. There is no expressed or implied obligation for the County to reimburse the Bidders for any expense incurred in preparing a Bid in response to this IFB and the County will not reimburse the Bidders for such expenses.

4.14 INDEMNIFICATION

The Successful Bidder shall indemnify, defend and save harmless, the County, its officials, employees, agents and agent's employees from, and against, all claims, liability, and expenses including reasonable attorneys' fees, arising from activities of the Bidder, its agents, servants or employees, performed

hereunder that result from the negligent act, error, or omission of the Bidder or any of the Bidder agents, servants or employees, as well as all claims of loss or damage to the Bidder's and the County property, equipment, and/or supplies.

Furthermore, the County, its officials, employees, agents and agents' employees shall not be liable for damages to the Successful Bidder arising from any act of any third party, including, but not limited to, theft. The Successful Bidder further agrees to indemnify, defend and save harmless, the County from its officials, employee, agents and agents' employees against all claims of whatever nature arising from any accident, injury, or damage whatsoever, caused to any person, or the property of any person, occurring in relation to the Successful Bidder's performance of any services requested hereunder during the term of the Contract and/or any Ensuing Agreement(s).

The Successful Bidder shall timely report all claims, demands, suits, actions, proceedings, liens or judgements to the County and shall, upon the receipt of any claim, demand, suit, action, proceeding, lien or judgement, not later than the fifteenth (15th) day of each month; provide the County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of the County required by the Successful Bidder in the defense of each matter. The Successful Bidder's duty to defend, indemnify and hold the County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of the Contract and/or any Ensuing Agreement(s), unless otherwise agreed by the County in writing. The provisions of this section shall survive the termination of the Contract and shall remain in full force and effect with respect to all such matters no matter when they arise.

In the event of any dispute between the parties, as to whether a claim, demand, suit, action, proceeding, lien or judgement, that appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of the County, the Bidder shall nevertheless fully defend such claim, demand, suit or action, proceeding, lien or judgement, until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of the Bidder are not an issue in the matter.

The Successful Bidder's indemnification shall cover, and the Successful Bidder agrees to, indemnify the County, in the event the County is found to have been negligent for having selected the Successful Bidder to perform the work described in this request. The provision by the Successful Bidder of insurance shall not limit the liability of the Successful Bidder under the Contract and/or any Ensuing Agreement(s).

4.15 WAIVER OF SUBROGATION

The Successful Bidder and the Successful Bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against the County as an indirect party to any suit arising out of personal or property damages resulting from the Bidder's performance under this Contract and any Ensuing Agreement(s).

4.16 RELATIONSHIP OF THE PARTIES

The Successful Bidder shall be an independent contractor and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions herein which may appear to give the County the right to direct the Successful Bidder as to details of doing work herein covered, or to exercise a measure of control over the work, shall be deemed to mean that the Successful Bidder shall follow the desires of the County in the results of the work only. The County shall not retain or have the right to control the Successful Bidder's means, methods or details pertaining to the Successful Bidder's performance of the work. The County and the Successful Bidder hereby agree and declare that the Successful Bidder is an independent contractor and as such meets the qualifications of an "Independent Contractor" under Texas Workers Compensation Act, Texas Labor Code, Section 406.141, that the Successful Bidder is not an employee of the County, and that the Successful Bidder and its employees, agents and subcontractors shall not be entitled to workers compensation coverage or any other type of insurance coverage held by the County.

4.17 SOLE PROVIDER

The Successful Bidder agrees and acknowledges that it shall not be considered a sole provider of the goods and/or services described herein and that the County may contract with other providers of such goods and/or services if the County deems, at its sole discretion, that multiple providers of the same goods and/or services will serve the best interest of the County.

4.18 FORCE MAJEURE

If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

4.19 SEVERABILITY

If any provision of this IFB, the Contract or any Ensuing Agreement(s) shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision thereof, but rather the entire IFB, Contract or any Ensuing Agreement (s) will be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligation of the parties shall be construed and enforced in accordance therewith. The parties acknowledge that if any provision of this IFB, the Contract or any Ensuing Agreement(s) is determined to be invalid or unenforceable, it is the desire and intention of each that such provision be reformed and construed in such a manner that it will, to the maximum extent practicable, give effect to the intent of this IFB, the Contract or any Ensuing Agreement(s) and be deemed to be validated and enforceable.

4.20 EQUAL OPPORTUNITY

Neither party shall discriminate against any employee or applicant for employment because of race, color, sex, religion or national origin.

4.21 NOTICE

Any notice to be given shall be in writing and may be distributed by personal delivery, or by registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

The County: Williamson County Purchasing Department
Attn: Purchasing Agent
901 South Austin Avenue
Georgetown, Texas 78626

The Bidder: Address set out in Bidder's Transmittal Letter.

Notices given in accordance with this provision shall be effective upon (1) receipt by the party to which notice is given, or (2) on the third (3rd) calendar day following mailing, whichever occurs first.

4.22 SALES AND USE TAX EXEMPTION

The County is a body, corporate and politic, under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code, Section 151.309, as amended, and the services and/or goods subject hereof are being secured for use by the County.

4.23 COMPLIANCE WITH LAWS

The County and the Successful Bidder shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of the Contract and any Ensuing Agreement(s), including, without limitation, Workers' Compensation laws, salary and wage statutes and regulations, licensing laws and regulations. When required, the Successful Bidder shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

4.24 INCORPORATION OF EXHIBITS, APPENDICES AND ATTACHMENTS

All of the Exhibits, Appendices and Attachments referred to herein are incorporated by reference as if set forth verbatim herein. Any conflicting terms in the Contract documents will be resolved at the sole discretion of the Commissioners Court.

4.25 NO WAIVER OF IMMUNITIES

Nothing herein shall be deemed to waive, modify or amend any legal defense available at law or in equity to the County, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. The County does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

4.26 NO WAIVER

The failure or delay of any party to enforce at any time or any period of time any of the provisions of this IFB, the Contract or any Ensuing Agreement(s) shall not constitute a present or future waiver of such provisions nor the right of either party to enforce each and every provision. Furthermore, no term or provision hereof shall be deemed waived and no breach excused unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether expressed or implied, shall not constitute a consent to, waiver of or excuse for any other, different or subsequent breach.

4.27 CURRENT REVENUES

The obligations of the parties under the Contract and any Ensuing Agreement(s) do not constitute a general obligation or indebtedness of the County for which the County is obligated to levy, pledge, or collect any of taxation. It is understood and agreed that the County shall have the right to terminate the Contract and any Ensuing Agreement(s) at the end of any the County fiscal year if the governing body of the County does not appropriate sufficient funds as determined by the County's budget for the fiscal year in question. The County may effect such termination by giving written notice of termination to Successful Bidder at the end of its then-current fiscal year.

4.28 FOB DESTINATION

To the extent applicable to this IFB, all of the items listed are to be Free On Board to final destination (FOB Destination) with all transportation charges if applicable to be included in the Bid, unless otherwise specified in the Invitation for Bids. The title and risk of loss of the goods shall not pass to the County until receipt and acceptance takes place at the FOB Destination point.

4.29 BINDING EFFECT

This Contract and any Ensuing Agreement(s) shall be binding upon and inure to the benefit of the parties

and their respective permitted assigns and successors.

4.30 ASSIGNMENT

The Successful Bidder's interest and duties hereunder may not be assigned or delegated to a third party without the express written consent of the County.

4.31 SAFETY

The Successful Bidder is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with any services to be provided hereunder. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

4.32 GENERAL OBLIGATIONS AND RELIANCE

The Successful Bidder shall perform all services and/or provide all goods, as well as those reasonably inferable and necessary for completion and provision of services and/or goods required hereunder. The Successful Bidder shall keep the County informed of the progress and quality of the services. The Successful Bidder agrees and acknowledges that the County is relying on the Successful Bidder's represented expertise and ability to provide the goods and/or services described herein. The Successful Bidder agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of the County accordance with the County's requirements and procedures. The Successful Bidder's duties, set forth herein, shall at no time be in any way diminished by reason of any approval by the County, nor shall the Successful Bidder be released from any liability by reason of such approval by the County, it being understood that the County at all times is ultimately relying upon the Successful Bidder's skill and knowledge in performing the services and providing any goods required hereunder.

4.33 ESTIMATED QUANTITIES

To the extent applicable to this IFB, the estimated quantity of each item listed in this IFB is only estimate; the actual quantity to be purchased may be more or less. The County is not obligated purchase any minimum amount, and the County may purchase any reasonable amount greater than the estimate for the same unit price. Any limit on quantities available must be stated expressly in the Bid.

4.34 CONTRACTUAL DEVELOPMENT

The contents of the IFB and the Successful Bidder's Bid will become an integral part of the Contract, but may be modified, at the County's sole discretion, by provisions of an Ensuing Agreement. Therefore, the Bidder must agree to an inclusion of an Ensuing Agreement of the Bid specifications, terms and conditions of this IFB. If an Ensuing Agreement is required under this IFB, information relative to the Agreement will be located in the Special Provisions Section of this IFB.

4.35 SURVIVABILITY

All applicable agreements that were entered into between the Successful Bidder and the County, under the terms and conditions of the Contract and/or any Ensuing Agreement(s), shall survive the expiration or termination thereof for ninety (90) days unless a new contract has been awarded.

The County may exercise, by written notice to the Successful Bidder no later than ten (10) calendar days of the Contract expiration, this clause for emergencies only.

4.36 AIR QUALITY

In determining the overall best Bid, the County may, to the extent applicable, exercise the option granted to local governments under the Texas Local Government Code, Section 271.907.

This option allows the County to evaluate Bids and give preference to goods and/or services of a Bidder that demonstrates that the Bidder meets or exceeds any and all state or federal environmental standards, including voluntary standards, relating to air quality. If the Bid being submitted will have an effect on air quality for the County (as it relates to any state, federal, or voluntary air quality standard), then the Bidder is encouraged to provide information in narrative indicating the anticipated air quality impact. All Bidders are expected to meet all mandated state and federal air quality standards.

4.37 ENTIRE AGREEMENT

The Contract and any Ensuing Agreement(s) shall supersede all prior Agreements, written or oral between the Successful Bidder and the County and shall constitute the entire Agreement and understanding between the parties with respect to the services and/or goods to be provided. Each of the provisions herein shall be binding upon the parties and may not be waived, modified, amended or altered, except by writing signed by the Successful Bidder and the County.

4.38 PAYMENT

The County's payment for goods and services shall be governed by the Texas Government Code, Chapter 2251. An invoice shall be deemed overdue the thirty-first (31st) day after the later of the following:

- A. The date the County receives the goods under the Contract;
- B. The date the performance of the service under the Contract is completed; or
- C. The date the Williamson County Auditor receives an invoice for the goods or services.

Interest charges for any overdue payments shall be paid by the County in accordance with Texas Government Code, Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of the County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one (1) percent, and the prime rate published in the Wall Street Journal on the first (1st) day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice submitted by the Successful Bidder, the County shall notify the Successful Bidder of the error not later than the twenty-first (21st) day after the date the County receives the invoice. If the error is resolved in favor of the Successful Bidder, the Successful Bidder shall be entitled to receive interest on the unpaid balance of the invoice submitted by the Successful Bidder beginning on the date that the payment for the invoice became overdue. If the error is resolved in favor of the County, the Successful Bidder shall submit a corrected invoice that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by the Texas Government Code, Chapter 2251, if the corrected invoice is not paid by the appropriate date.

As a minimum, invoices shall include:

- A. Name, address, and telephone number of the Successful Bidder and similar information in the event the payment is to be made to a different address.
- B. The County Contract, Purchase Order.
- C. Identification of items or service as outlined in the Contract.
- D. Quantity or quantities, applicable unit prices, total prices and total amount.

E. Any additional payment information which may be called for by the Contract.

Payment inquiries should be directed to the following address:

Williamson County Auditor's Office, Accounts Payable Department
Email: accountspayable@wilco.org
Phone: 512-943-1500

4.39 CONTRACTUAL FORMATION AND ENSUING AGREEMENT

The IFB and the Bidder's Bid, when properly accepted by the Commissioners Court, shall constitute a Contract equally binding between the Successful Bidder and the County.

If an Ensuing Agreement is required by this IFB, that information will be provided in Special Provisions section of this IFB. The Successful Bidder shall be required to execute the Agreement at the Williamson County Purchasing Department approximately ten (10) calendar days after the Successful Bidder is notified of award. The Ensuing Agreement shall be in the same form as the Agreement which is attached to the end of this IFB. The only anticipated changes in the Ensuing Agreement will be to include additional exhibits, to fill in blanks to identify the Successful Bidder, and terms relating to the compensation, or to revise the Agreement to accommodate corrections, changes in the scope of services, or changes pursuant to Addenda issued. **Bidders should raise any questions regarding the terms of the Agreement in the form of written questions or submittals as described in the Public Announcement and General Information portion of this IFB.** Because the signed Ensuing Agreement will be substantively and substantially derived from the attached Agreement, each Bidder is urged to seek independent legal counsel as to any questions about the terms, conditions or provisions contained in the Agreement *before* submitting a Bid. Again, the attached Agreement, if applicable, contains important legal provisions and is considered part and parcel of this IFB. Failure or refusal to sign aforesaid Agreement shall be grounds for the County to revoke any award which has been issued, forfeit Bid security, if applicable, and select another Bidder.

4.40 COOPERATIVE PURCHASING PROGRAM

During the term of the Contract resulting from this IFB, the County would like to afford the same prices, terms and conditions to other political subdivisions or public entities. Another entity's participation in the Contract resulting from this IFB is subject to a properly authorized Purchasing Cooperative Inter-local Agreement with the County. Any liability created by purchase orders issued against the Contract shall be the sole responsibility of the governmental agency placing the order.

4.41 INSURANCE REQUIREMENTS

To the extent applicable Insurance information will appear in the Additional Stipulations section that is in this IFB Package.

4.42 BIDDERS BOND, WARRANTY BOND, PERFORMANCE AND PAYMENT BONDS

To the extent applicable Bond information will appear in the Additional Stipulations section that is in this IFB Package.

4.43 LEGAL LIABILITY INFORMATION

The Successful Bidder shall disclose all legal liability information by listing any pending litigation anticipated litigation that your firm is involved in including, but not limited to, potential or actual legal matters with private parties and any local, state, federal or international governmental entities. The County reserves the right to consider legal liability information in the recommendation of any proposed contract to the Commissioners Court.

4.44 INCLEMENT WEATHER

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a Bid submission deadline, the Bid closing will automatically be postponed until the next business day the County is open. If inclement weather conditions or any other unforeseen event causes delays in carrier service operations, the County may issue an Addendum to all known Bidders interested in the project to extend the deadline. It will be the responsibility of the Bidder to notify the County of their interest in the project if these conditions are impacting their ability to turn in a submission within the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

4.45 PREVAILING WAGE RATES

To the extent this procurement is for the construction of a public work, including a building, highway, road, excavation, and repair work or other project development or improvement, paid for in whole or in part from public funds, without regard to whether the work is done under public supervision or direction, Texas Government Code, Chapter 2258, shall apply and the contractor shall pay not less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule" provided by the County. Pursuant to Texas Government Code, Section 2258.022(a)(2), the County has determined the general prevailing rate of the "Prevailing Wage Schedule" in the locality in which the public work is to be performed for each craft or type of worker needed to execute the contract and the prevailing rate for legal holiday and overtime work by using the prevailing wage rate as determined by the United States Department of Labor in accordance with the United States Code, Section 276a (Davis-Bacon Act).

The specified wage rates are minimum rates only, and are not representations that qualified labor adequate to perform the work is available locally at the prevailing wage rates. The County is not bound to pay—and will not consider—any claims for additional compensation made by any contractor because the contractor pays wages in excess of the applicable minimum rate contained in the Contract Documents. The "Prevailing Wage Schedule" is not a representation that quantities of qualified labor adequate to perform the work may be found locally at the specified wage rates.

For classifications not shown, workers shall not be paid less than the wage indicated for laborers. The contractor shall notify each worker commencing work on the project the worker's job classification and the established minimum wage rate required to be paid, as well as the actual amount being paid. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the monetary wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by the County, competent evidence of compliance with the Texas Prevailing Wage Law shall be furnished by contractor. A copy of each worker wage rate notification shall be submitted to the County with the Application for Payment for the period during which the worker began on-site activities.

Should the contractor at any time become aware that a particular skill or trade not reflected on the County's "Prevailing Wage Schedule" will be or is being employed in the work, whether by the contractor or by a subcontractor, the contractor shall promptly inform the County and shall specify a wage rate for that skill or trade, which shall bind the contractor.

The contractor and any subcontractor shall pay to the County a penalty of sixty dollars (\$60.00) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the "Prevailing Wage Schedule" or any supplement thereto. The contractor and each subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all workers employed in connection with the work, and showing the actual per diem wages paid to each worker, which records shall be open at all reasonable hours for the inspection by the County.

Within thirty-one (31) days of receipt of information concerning a violation of the Texas Government Code Chapter 2258, the County shall make an initial determination as to whether good cause exists to believe a violation occurred. The County's decision on the initial determination shall be reduced to writing and sent to the contractor or subcontractor against whom the violation was alleged, and to the affected

worker. When a good cause finding is made, the County shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the "Prevailing Wage Schedule" and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

After the County makes its initial determination, the affected contractor or subcontractor and worker have fourteen (14) calendar days in which to resolve the issue of whether a violation occurred, including the amount that should be retained by the County or paid to the affected worker. If the contractor or subcontractor and affected worker reach an agreement concerning the worker's claim, the contractor shall promptly notify the County in a written document signed by the worker. If the contractor or Subcontractor and affected worker do not agree before the fifteenth (15th) calendar day after the County determination, the contractor or subcontractor and affected worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Chapter 171, (Texas Civil Practice and Remedies Code). The parties to the arbitration have ten (10) calendar days after the expiration of the fifteen (15) calendar days referred to above, to agree on an arbitrator; if by the eleventh (11th) calendar day there is no agreement to an arbitrator, a district court shall appoint an arbitrator on the petition of any of the parties to the arbitration.

If an arbitrator determines that a violation has occurred, the arbitrator shall assess and award against the contractor or subcontractor the amount of penalty as provided above and the amount owed the worker. The County may use any amounts retained hereunder to pay the worker the amount as designated in the arbitration award. If the County has not retained enough from the contractor or subcontractor to pay the worker in accordance with the arbitration award, the worker has a right of action against the contractor and subcontractor as appropriate, and the surety of either to receive the amount owed, attorneys' fees and court costs. The contractor shall promptly furnish a copy of the arbitration award to the County.

Money retained pursuant to the provisions above shall be used to pay the claimant or claimants the difference between the amount the worker received in wages for labor on the project at the rate paid by the contractor or subcontractor and the amount the worker would have received at the general prevailing wage rate as provided by the agreement of the claimant and the contractor or subcontractor affected, or in the arbitrator's award. The full statutory penalty of sixty dollars (\$60.00) per calendar day of violation per worker shall be retained by Williamson County to offset its administrative costs, pursuant to Texas Government Code, Section, 2258.023. Any retained funds in excess of these amounts shall be paid to the contractor on the earlier of the next progress payment or final payment. Provided, however, that the County shall have no duty to release any funds to either the claimant or the contractor until it has received the notices of agreement or the arbitration award as provided under the provision herein-above.

4.46 CONFIDENTIALITY

The Bidder expressly agrees that it will not use any direct or incidental confidential information that may be obtained while working in a governmental setting for its own benefit, and agrees that it will not access unauthorized areas or confidential information and it will not disclose any information to unauthorized third parties, and will take care to guard the security of the information at all times.



Additional Stipulations

1 Additional Stipulations

1.1 Introduction

The Bid evaluation and selection process is detailed in this section, as are other factors, and the format in which the Price Bid of each Bid should be submitted.

1.2 Contract Administrator

J. Terron Evertson, P.E. (or successor), County Engineer, Williamson County 3151 South East Inner Loop, Suite B, Georgetown, Texas shall serve as the County's Technical Contact with designated responsibility to ensure compliance with the requirements of the Contract and any Ensuing Agreement, such as, but not limited to, acceptance, inspection and delivery. The Technical Contact together with the Purchasing Department will serve as a liaison between the Williamson County Commissioners Court and the Successful Bidder.

1.3 Time for Performance

A time frame of Sixty (60) days (Fifty (50) to substantial completion / Sixty (60) to final completion) is given for completion of plans on this bid. This may begin at the time specified by the County within the three hundred sixty-five (365) days of the pricing quoted on this bid, starting on the day of award. The Contractor will be given written notice to begin work on this project. The Work on this project shall begin within five (5) calendar days after such notification.

Liquidated damages for failure to substantially complete the work within the allotted time will be applied. Liquidated damages are \$200 per working day.

The Contractor will be given written notice to begin work on this project. Work on this project shall begin within five (5) working days after such notification. Failure to begin work within the allotted time will result in liquidated damages being incurred at the rate of \$200 per working day.

Additional Stipulations - Bid

1.4 Performance and Payment Bonds

To the extent, this IFB is for the procurement of a public work contract, and the following shall apply:

Texas Local Government Code, Chapter 262.032, governs the requirements for performance bonds for government entities making public work contracts. A performance bond is required if the contract is in excess of \$50,000 and is to be made for the full amount of the contract.

Texas Government Code, Chapter 2253.021, governs the requirements for payment bonds for government entities making public work contracts. A payment bond is required if the contract is in excess of \$25,000 and is to be made for the full amount of the contract.

The bonds are to be executed and delivered to the County **prior to issuing Notice to Proceed**. The bonds must be executed by a corporate surety or sureties in accordance with the Texas Insurance Code. For unit price contracts, the total contract price shall be estimated and calculated by multiplying the estimated quantities to the Bidder's unit bid price.

If the public works contract is less than \$50,000, the performance bond will not be required as long as the contract provides that payment is not due until the work is completed and accepted by the County.

1.5 Bidder's Bonds

All Bids requiring a Bid Bond shall be accompanied by a certified cashier's check upon a National or State bank in an amount not less than five (5) percent of the total maximum bid price, payable without recourse to the County, or a bid bond in the same amount from a reliable surety company, as a guarantee that the Bidder will enter into a contract and **execute and deliver to the County performance and payment bonds prior to being recommended for award of the Contract. Bid guarantees must be submitted in the same sealed envelope with the Bid.** Bids submitted without check or bid bonds will not be considered. For unit price contracts, the total maximum bid price shall be estimated and calculated by multiplying the estimated quantities to the unit bid price.

1.6 Warranty Bonds

When a Warranty Bond is required it shall be submitted by the Successful Bidder prior to issuing Notice to Proceed, and shall be in the amount of **twenty (20) percent of the total project construction cost**. This Warranty Bond shall be security for the true and faithful performance of all warranties for two (2) year from the date of final payment. For unit price contracts, the total project construction cost shall be estimated and calculated by multiplying the estimated quantities to the bidder's unit bid price.

Additional Stipulations - Bid

1.7 Insurance Requirements

By signing its Bid, the Bidder agrees to maintain at all times during any term of the Contract and any ensuing Agreement at Bidder's cost, insurance in accordance with this provision.

Bidder will be required to submit Certificates of Insurance **prior to contract award and any renewals.**

All certificates of insurance coverage as specified below must be provided to the following location:

Williamson County Purchasing Department
901 S Austin Ave
Georgetown, Texas 78626

Failure to comply with these Insurance Requirements may result in the termination of the Contract and any ensuing Agreement(s) between the Successful Bidder and County.

The following coverage limits shall be required at a minimum:

A.	Worker's Compensation	Statutory – Texas Law
B.	Employer's Liability:	
	Bodily Injury by Accident	\$500,000 Ea. Accident
	Bodily Injury by Disease	\$500,000 Ea. Employee
	Bodily Injury by Disease	\$500,000 Policy Limit
C.	Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:	
	COVERAGES	PER PERSON PER OCCURRENCE
	Comprehensive General Liability	\$1,000,000 \$1,000,000
	Aggregate policy limits:	\$1,000,000

Successful Bidder's property will not be covered by any insurance that may be carried by the County. Successful Bidder assumes the risk of loss on its contents and property that are situated on/in/around the County property. The Successful Bidder is strongly encouraged to obtain insurance on its property to the extent deemed necessary by the Successful Bidder.

The deductible for an insurance policy required hereunder shall not exceed \$100,000. **The County shall be named as an additional insured under any policy of insurance required hereunder.**

Successful Bidder shall not commence any work until it has obtained all required insurance and such insurance has been approved by County. Successful Bidder shall not allow any subcontractor(s) to commence work to be performed until all required insurance has been obtained by such subcontractor(s) and approved by County. Approval of the insurance by County shall not relieve or decrease the liability of Successful Bidder or its subcontractor(s) hereunder.

Additional Stipulations - Bid

The required insurance must be written by a company approved to do business in the State of Texas with a financial standing of at least an A- rating, as reflected in Best's insurance ratings or by a similar rating system recognized within the insurance industry at the time the policy is issued. Successful Bidder shall furnish County with a certificate of coverage issued by the insurer. Successful Bidder shall not cause any insurance to be canceled nor permit any insurance to lapse. ALL INSURANCE CERTIFICATES SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT BE CANCELED OR REDUCED, RESTRICTED OR LIMITED UNTIL TEN (10) CALENDAR DAYS AFTER COUNTY HAS RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURN RECEIPT OF REGISTERED OR CERTIFIED LETTER.

It is the intention of the County, and agreed to and hereby acknowledged by the Successful Bidder, that no provision of this Contract or any ensuing Agreement shall be construed to require the County to submit to mandatory arbitration or mediation in the settlement of any claim, cause of action or dispute, except as specifically required in direct connection with an insurance claim or threat of claim under an insurance policy required hereunder which absolutely requires arbitration or mediation of such claim, or as otherwise required by law or a court of law with jurisdiction over the provisions of this Contract or any ensuing Agreement.

Workers' Compensation Coverage Requirements

The Texas Labor Code, Section 406.096, requires workers' compensation insurance coverage for all persons providing services on a building or construction project for a governmental entity such as the County. The rule requires the County to timely obtain certificates of coverage and retain them for the duration of the project. The rule also sets out the language to be included in the Bid specifications and in contracts awarded by a governmental entity and the information required to be in the posted notice to employees. The rule is adopted under the Texas Labor Code, Section 402.061.

The information provided below is a result of this rule. By submitting your Bid to the County, you are acknowledging that this rule is a part of these Bid specifications, and that you will observe and abide by all of the requirements outlined in the rule. You are further agreeing that should your Bid be accepted by the Williamson County Commissioners Court, the necessary certificates of coverage showing workers' compensation coverage, will be provided to the following name and address prior to beginning work:

Williamson County Purchasing Department
901 S. Austin Ave.
Georgetown, TX 78626

Failure to comply with this request may result in termination of the Contract and any ensuing Agreement. If you have any questions related to this ruling and/or requirement, you are encouraged to contact either the Williamson County Purchasing Department at (512) 943-1546, or you may call the Texas Workers' Compensation Commission at (800) 372-7713.

- A. The following words and terms, when used in this provision, shall have the following meanings. Terms not defined in this rule shall have the meaning defined in the Texas Labor Code, if so defined.

Additional Stipulations - Bid

1. Certificate of coverage (certificate) – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a workers' compensation coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees (including those subject to a coverage agreement) providing services on a project, for the duration of the project.
 2. Building or Construction – Has the meaning defined in the Texas Labor Code, Section 406.096(e)(1).
 3. Contractor – A person bidding for or awarded a building or construction project by Williamson County.
 4. Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, Section 401.011(44).
 5. Coverage agreement – A written agreement on form TWCC-81, form TWCC-82, form TWCC-83, or form TWCC-84, filed with the Texas Workers' Compensation Commission which establishes a relationship between the parties for purposes of the Texas Workers' Compensation Act, pursuant to the Texas Labor Code, Chapter 406, Subchapters F and G, as one of employer/employee and establishes who will be responsible for providing workers' compensation coverage for persons providing services on the project.
 6. Duration of the project--Includes the time from the beginning of work on the project until the work on the project has been completed and accepted by the County.
 7. Persons providing services on the project ("subcontractor" in the Texas Labor Code, Section 406.096) – includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
 8. Project – Includes the provision of all services related to a building or construction contract for the County.
- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of the Texas Labor Code, Section 401.011(44), for all employees of the contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of workers compensation coverage to Williamson County prior to being awarded the Contract.

Additional Stipulations - Bid

- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with Williamson County showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the County:
 - 1. A certificate of coverage, prior to that person beginning work on the project, so Williamson County will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - 2. No later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the County in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
 - 1. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44), for all of its employees providing services on the project, for the duration of the project;
 - 2. Provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - 3. Provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

Additional Stipulations - Bid

4. Obtain from each other person with whom it contracts, and provide to the contractor:
 - i. (a) a certificate of coverage, prior to the other person beginning work on the project; and
 - ii. (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 5. Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
 6. Notify the County in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 7. Contractually require each person with whom it contracts, to perform as required by paragraphs 1 – 7, with the certificates of coverage to be provided to the person for whom they are providing services
- J. By signing this Contract or providing or causing to be provided a certificate of coverage, the contractor is representing to Williamson County that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- K. The contractor's failure to comply with any of these provisions is a breach of Contract by the contractor which entitles the County to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the County.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

GENERAL NOTES AND TECHNICAL SPECIFICATIONS

DEFINITION OF TERMS

County: Williamson County acting through the Road and Bridge Division.

Contractor: Successful bidder of the attached Invitation for Bid.

Engineer: Williamson County Engineer of Road and Bridge Division, or designee.

Inspector: Engineer's designee assigned full, or part, time to the contractor's crew for the oversight of the work.

Specifications: Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2014.

TxDOT: Texas Department of Transportation

Working Day: Monday through Friday (excluding County approved holidays), if weather permits the performance of the contract (as determined by the Inspector) for a continuous period of at least 6 hrs. (excluding lunch) between 8:00 A.M. and 5:00 P.M.

CONTROL OF MATERIALS

Source Control. The Contractor shall use only materials that meet Contract requirements. Unless otherwise specified or approved by the Engineer, the Contractor shall use new materials for the work. The Contractor shall secure the Engineer's approval of the proposed source of materials to be used before their delivery to the site. Materials can be approved by the Engineer at a supply source or staging area but may be re-inspected at the job site. Contractor shall be responsible for cost of additional sampling and testing if material source changes.

Material Quality. It is the Contractor's responsibility to correct or remove materials that fail to meet the Contract requirements.

Materials not meeting Contract requirements will be rejected, unless the Engineer approves corrective actions. Upon rejection by the Engineer, the Contractor must immediately remove and replace rejected materials.

If the Contractor does not comply with this Article, the County may remove and replace defective material. The cost of testing, removal, and replacement will be deducted from invoice submitted to the County.

Manufacturer Warranties. Contractor shall transfer to the County warranties and guarantees required by the Contract, from Contractor sources, or received as part of normal trade practice.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Plant Inspection and Testing

The Engineer may, but is not obligated to, inspect materials at the acquisition or manufacturing source. Material samples will be obtained and tested for compliance with quality requirements. Materials produced under County inspection are for County use only unless released in writing by the Engineer.

If inspection is at the plant, Contractor shall meet the following conditions unless otherwise specified:

- Cooperate fully and assist the Engineer during the inspection.
- Ensure the Engineer has full access to all parts of the plant used to manufacture or produce materials.
- In accordance with pertinent Items and the Contract, provide a facility at the plant for use by the Engineer as an office or laboratory.

The Engineer may provide inspection for periods other than daylight hours if:

- Continuous production of materials for County use is necessary due to the production volume being handled at the plant, and
- The lighting is adequate to allow satisfactory inspection.

The Contractor shall provide copies of all test results to the County and the Engineer prior to the County's acceptance of improvements.

The Contractor shall coordinate with the County's field representative 48 hours prior to schedule density testing. The County's field representative shall witness all testing.

GENERAL NOTES

All work performed and all products furnished under the provision of the contract shall comply with requirements which pertain to the various Items of work included herein as *Standard Specification for Construction of Highways, Streets and Bridges* of the Texas Department of Transportation, adopted November 1, 2014, and as amended and/or updated, which is incorporated herein by reference for all purposes. In the event that any specification set out herein conflicts with said TxDOT specifications, the specification set out herein shall control and govern.

The Contractor will be given written Notice to Proceed on this project. The project shall begin within five (5) working days after such notification and shall continue for sixty (60) working days.

Contractor shall not begin asphalt work prior to the beginning of the asphalt season (April 1), nor after the ending of the asphalt season (September 30), except with the approval of the Engineer.

Contractor specifically acknowledges that Williamson County will sustain damages for each working day beyond the date in which construction work is to begin. Once the written Notice to

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Proceed is given by Williamson County, the Contractor has five (5) working days to begin the work. Contractor agrees that two-hundred and No/100 Dollars (\$200.00) per working day shall be retained by Williamson County from any amounts due Contractor for every day that Contractor does not begin the construction work.

Contractor specifically acknowledges that Williamson County will sustain damages for each working day beyond the required dates of substantial completion of the project. Because of the impracticality and extreme difficulty of fixing and ascertaining Williamson County's actual damages, Contractor agrees that two-hundred and No/100 Dollars (\$200.00) per working day shall be retained by Williamson County from any amounts due Contractor for every day that Contractor does not complete the project.

Periods of time (i) during which Williamson County suspends the work by written notice to Contractor, or (ii) during which contractor has performed work and is waiting for Williamson County's acceptance, or (iii) during which a delay directly related to delays caused by "Acts of God", non-county governmental processes, national emergency, or any other causes beyond Contractor's or Williamson County's reasonable control, shall not be taken into account in computing the amount retained. In the event that work received by Williamson County is found to be incomplete, the period of time from the end of the performance of the work to the receipt of subsequent performance necessary to produce completed work will be taken into account in computing the number of days and the amount retained.

Contractor shall submit a basic work plan, bar chart, or schedule for the Engineer to review one week prior to commencement of work.

Once work begins, Contractor shall continuously execute the work until completion at each culvert crossing site, unless otherwise directed by the Engineer.

The Contractor shall determine the exact location of all existing utilities before commencing work, and is fully responsible for any and all damages associated by Contractor's failure to locate and preserve utilities.

The actual quantity required may be varied from the estimated quantities in the contract. The Contractor shall be compensated for completed work based on actual quantities per bid item.

If multiple days are required to complete work, Contractor shall not leave work in hazardous conditions, as determined by the Engineer.

Do not park equipment or make stockpiles where driver sight distance to businesses and side street intersections is obstructed, especially after work hours. If it is necessary to park where driver's views are blocked, Contractor shall make every effort to flag traffic accordingly. Give the travelling public first priority.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

The Contractor shall be responsible for marking every 100 foot station, and shall maintain the markings at the applicable culvert crossing site for the duration of the project. This work shall be considered subsidiary to the various bid Items.

An English-speaking superintendent shall be available on the project at all times when work is being performed. The Contractor shall provide the Construction Inspector with contact information for the superintendent.

If any significant recharge features, such as sinkholes, caves, or any other subterranean openings are discovered during construction or core sampling, all activities near the feature must be immediately suspended. The Construction Inspector must be contacted for evaluation. The discovery may require TCEQ review and approval for the methods proposed to protect the aquifer from any potential adverse impacts.

Construction vehicles may be restricted from traversing or utilizing existing roadways, unprotected construction areas, and areas with vegetative cover, as determined by the Construction Inspector.

Contractor's equipment and vehicles shall not be maintained on-site during construction, except at designated maintenance sites as approved by the Construction Inspector.

Any soils contaminated during construction of the proposed project shall be transported from the site and properly disposed of off-site, off the contributing zone, and off any draining to the recharge zone of the Edwards Aquifer. Payment for this work shall be considered subsidiary to the pertinent bid Items.

Contractor shall provide at least one portable restroom near the work site(s) at all times in order to provide a bathroom to individuals providing work hereunder. Contractor shall monitor and prevent its employees and any of its subcontractors that are providing work on the project from urinating or defecating on property in, on or adjacent to the areas in which work is being performed.

Contractor shall maintain positive drainage for permanent and temporary site conditions for duration of project.

Contractor shall comply with insurance requirements dictated within this contract.

Weekend and holiday work is allowed with prior approval by the Engineer.

The Contractor shall perform work during appropriate weather conditions, unless otherwise directed by the Engineer. If work is performed at the Contractor's option during, or prior to, inclement weather conditions and the work is damaged, the Contractor is responsible for all costs associated with replacing the work.

ABOVE-GROUND STORAGE TANKS

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Shall not be permitted.

BLASTING

No Blasting will be allowed on the project.

ENTRY INTO AND PROTECTION OF ADJACENT PROPERTIES

Design of this project did not contemplate a need to enter adjacent properties except where either permanent or temporary working easements are shown on the Plans. Should it be necessary during construction of the work to enter on adjacent properties, the County shall be notified. The Contractor shall be responsible for all arrangements to enter and shall be liable for repair of fences and restoration of any property damage outside of the right of way and easements shown in the plans.

Access to the right of way and easements adjacent to private property shall be coordinated with the adjacent property owner at least 48 hours in advance.

LOCATION AND PROTECTION OF UTILITIES

Notwithstanding any other provision of this Contract, the Contractor shall be solely responsible for the location and protection of any and all public and/or private utility lines and utility customer service lines in the work area. The Contractor shall exercise due care to locate and to mark, uncover or otherwise protect all such lines in the construction zone and any of the Contractor's work or storage area. Upon request, the County may provide such information that it has about the location and grade of water, gas, telephone cable TV and electric lines and other utilities in the work area, but such information shall not relieve or be deemed to be in satisfaction of the Contractor's obligation hereunder, which shall be primary and nondelegable. Any such lines damaged by the Contractor's operations shall be immediately repaired by the Contractor or he shall cause such damage to be repaired at his expense. Contractor shall contact Dig-Test at 1-800-344-8377, for utility verification prior to beginning construction.

SURPLUS MATERIAL

Excavated or surplus natural soil and rock material, unless otherwise noted in the Plan or Specifications, shall be known as a "spoil" and properly disposed of by the Contractor off-site at his sole expense. Any permits necessary for the disposal of such material shall be acquired by the Contractor at his expense.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Any surplus material defined as "solid waste" under the Texas Commission on Environmental Quality Municipal Solid Waste Regulations shall be disposed of in compliance with all applicable solid waste management regulations.

Final cleanup will include the removal of excess material considered detrimental to vegetation growth within the working area. Materials such as excess concrete and other materials, as specified by the Engineer will be removed at the Contractor's expense.

RESTORATION/REVEGETATION

All disturbed areas within the right of way, easements and limits of construction shall be restored. Restoration shall include all topsoil, seeding/sodding, watering, fertilizer, labor and equipment necessary to complete the project in accordance with the Plans and Specifications. Restoration shall be installed and vegetation established prior to final acceptance of the project, or as approved by the County.

Care shall be exercised to prevent damage to all property in and around the construction zone. The Contractor shall be liable for the repair and restoration of any property damaged as a result of the Contractor's prosecution of the work. This shall include, but is not limited to revegetation of all areas damaged or destroyed by construction. Contractor will be held liable and responsible for such areas until growth is reestablished to the satisfaction of the County.

Ornamental landscape plantings of trees, shrubs and grasses that are damaged or destroyed during construction shall be replaced with plant material of comparable size and quality approved by the County.

Revegetation measures will begin as soon as practical. The County reserves the right to require the immediate installation of revegetation measures whenever deemed necessary.

The County reserves the right to require additional revegetation measures deemed necessary at any time after construction has begun until the County has accepted the erosion control measures and revegetation measures.

The Contractor shall be responsible for maintaining, repairing or replacing all erosion control devices as may be directed by the Construction Inspector. This work will be considered subsidiary to the various bid Items.

Item 100

The Contractor shall notify the Construction Inspector prior to clearing operations. Upon notification, the Inspector will schedule a walk-through with the Contractor and designate all trees and other features to be protected during construction. The Contractor shall not begin any clearing of the right-of-way prior to this walk-through. The designated features shall be protected in accordance with the plans and specifications, or as directed by the Inspector. No fences shall be removed without notification to the Inspector.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Removal of any obstructions on the right of way, including fences, that are not shown on the plans is included under preparing right of way. The Inspector shall be notified prior to removal of obstructions. All right-of-way clearing operations will be coordinated with the project's SW3P and as directed or approved by the Construction Inspector.

The Contractor may be required to trim and remove brush and trees in order to construct the project or to provide a horizontal clearance of approximately 2 feet inside the right-of-way line and a vertical clearance of at least 14 feet. For this operation, no vertical flailing equipment shall be used and the method shall be approved by the Construction Inspector.

Burning of brush will not be permitted, unless otherwise directed by the County.

The Contractor is responsible for plugging and capping all irrigation systems at the right-of-way line. The Contractor shall notify the County at least 48-hours in advance of performing modifications to irrigation systems.

De-watering of creek beds and stock tanks shall be considered subsidiary.

Item 160

To the extent possible, all existing topsoil shall be salvaged, stockpiled and redistributed to the graded areas.

The Construction Inspector shall be notified to inspect all topsoil sources before digging begins. All off-site topsoil shall have a minimum PI of 20. The actual depth of the topsoil source shall be as approved by the Construction Inspector. Topsoil shall comply with the requirements of item 20-1 of the Williamson County Protocol for Sustainable Roadsides.

Item 161 and Item 164

Compost, mulch and seed mixtures shall comply with the requirements of the Williamson County Protocol for Sustainable Roadsides. Apply 3" of erosion control compost (ECC) on top of 4" of topsoil in all areas to be revegetated, unless otherwise directed. Install topsoil at proposed grade and place ECC above proposed grade.

The Contractor shall obtain water at a source that is metered or shall furnish the manufacturer's specifications showing tank capacity for each truck used. The Contractor shall notify the Construction Inspector prior to watering so that the Construction Inspector may verify meter readings or truck counts. Water all areas of the project to be seeded or sodded. Maintain the seed bed in a condition favorable for the growth of grass. Watering can be postponed immediately after a rainfall on the site of 1/2-inch or greater, but shall be resumed before the soil dries out, continue watering until final acceptance. County is not responsible for the source of water to be used on the project even during a drought condition. Watering rates shall comply with the requirements of the Williamson County Protocol for Sustainable Roadsides.

Item 247

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

The lift thickness will be 4" to 6" unless shown in the plans. When compacted in multiple lifts, the density of the bottom and middle lifts will be 95% and 98% of the maximum dry density, respectively.

Correction of subgrade soft spots is subsidiary.

Complete all subgrade, ditches, slopes, and place all drainage structures to conform to required lines, grades, and cross-sections, as shown and directed, prior to the placement of Flex Base.

Do not use a vibratory roller to compact the material directly over a box culvert.

Item 340

Recycled Asphalt Shingles (RAS) or Recycled Asphalt Pavement (RAP) are not permitted for surface course.

Item 402

Temporary special shoring is required for headwalls 5' and taller. Temporary special shoring shall be considered subsidiary.

Item 432

Typical concrete riprap shall be placed at a 5" thickness or as directed by the Engineer.

Item 460 and Item 462

All excavation necessary to install the pipe and boxes shall be replaced with flowable backfill. Flowable backfill shall be considered subsidiary to Items 460 and 462.

Item 460

Field adjust pipe end to maintain the necessary slope. Field cutting of pipe end is allowed. Coat all field cuts with asphalt paint.

Item 462

For pre-cast units, the fill material between the boxes shall consist of concrete aggregate with two sacks of Portland Cement per cubic yard (two sack concrete). The two sacks of cement are part of the box culvert work and will not be paid for directly.

Item 496

If necessary, Contractor shall perform traffic control for any structure removal, as directed by the Engineer.

Item 502

Traffic control plans shown within these plans are a minimum requirement. The contractor shall be responsible for any additional signs, barricades, flagmen or other traffic control devices as necessary for the safety of the traveling public. All traffic control devices shall be compliant with the current Texas Manual of Uniform Traffic Control Devices.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

Necessary barricades, sufficient lighting, signage and other traffic control methods as may be necessary for the protection and safety of the public shall be provided by the Contractor and maintained during the construction process. Any open trenches shall be covered and protected overnight as needed. The traffic control shall be adjusted in the morning prior to beginning any work.

The Contractor shall notify the County when any traffic control changes are to be made. The Contractor shall also notify all affected emergency service districts, school districts, and U.S. postal offices. The notifications must be made TWO DAYS prior to any change.

The Contractor shall provide all traffic control measures to prosecute the work in conformance with the Texas Manual on Uniform Traffic Control Devices, latest edition.

Access to all side streets and driveways shall be maintained at all times by the Contractor. The Contractor shall maintain 3:1 safety slopes on drop-offs greater than 2-inches that are adjacent to traffic.

The Contractor's crew leader shall be a competent person who will be responsible and available on the project site or in the immediate area to insure compliance with the TCP.

Item 644

All small signs not detailed in the plans shall be built in accordance with the latest edition of the Standard Highway Sign Designs for Texas. Where a sign size or particular legend is shown and such sign size or legend is not shown in the publication, the Contractor shall furnish the sign as detailed in the plans.

All existing regulatory signs must remain displayed at all times unless the roadway is closed to traffic.

The Contractor shall be responsible for removing and replacing any signs that are in the way of construction. Existing signs and sign posts that are in good condition can be replaced with a new triangular slipbase per TxDOT detail. A complete new sign assembly will be required if sign is damaged or at the direction of the Engineer. Sign mounting height shall comply with TxDOT standards.

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

County: Williamson

Project Name: FY 17 Cross Culvert Replacements

GOVERNING SPECIFICATIONS (STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND SPECIAL SPECIFICATIONS)

WHERE DISCREPENCIES OCCUR BETWEEN THE VARIOUS GOVERNING SPECIFICATIONS, THE SPECIAL PROVISIONS SHALL GOVERN OVER BOTH STANDARD SPECIFICATIONS AND SPECIAL SPECIFICATIONS.

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1 – 9 ARE SUPERSEDED BY THE CONTRACT GENERAL AND SPECIAL CONDITIONS, WHERE APPLICABLE. WHEREVER, IN THE TXDOT STANDARD SPECIFICATIONS, REFERENCE IS MADE TO THE STATE OF TEXAS, THE DEPARTMENT AND ITS REPRESENTATIVES, SUCH REFERENCE SHALL BE TAKEN TO MEAN WILLIAMSON COUNTY AND ITS REPRESENTATIVES.

ITEM 100	PREPARING RIGHT OF WAY
ITEM 105	REMOVING STAB BASE AND ASPH PAV
ITEM 132	EMBANKMENT
ITEM 160	FURNISHING AND PLACING TOPSOIL
ITEM 161	COMPOST
ITEM 164	SEEDING FOR EROSION CONTROL
ITEM 247	FLEXIBLE BASE
ITEM 334	HOT-MIX COLD-LAID ASPHALT CONCRETE PAVEMENT
ITEM 340	DENSE-GRADED HOT-MIX ASPHALT (SMALL QUANTITY)
ITEM 360	CONCRETE PAVEMENT
ITEM 400	EXCAVATION AND BACKFILL FOR STRUCTURES
ITEM 402	TRENCH EXCAVATION PROTECTION
ITEM 432	RIPRAP
ITEM 460	CORRUGATED METAL PIPE
ITEM 462	CONCRETE BOX CULVERTS AND DRAINS
ITEM 466	HEADWALLS AND WINGWALLS
ITEM 467	SAFETY END TREATMENT

County: Williamson

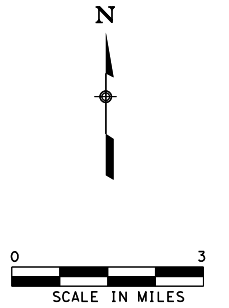
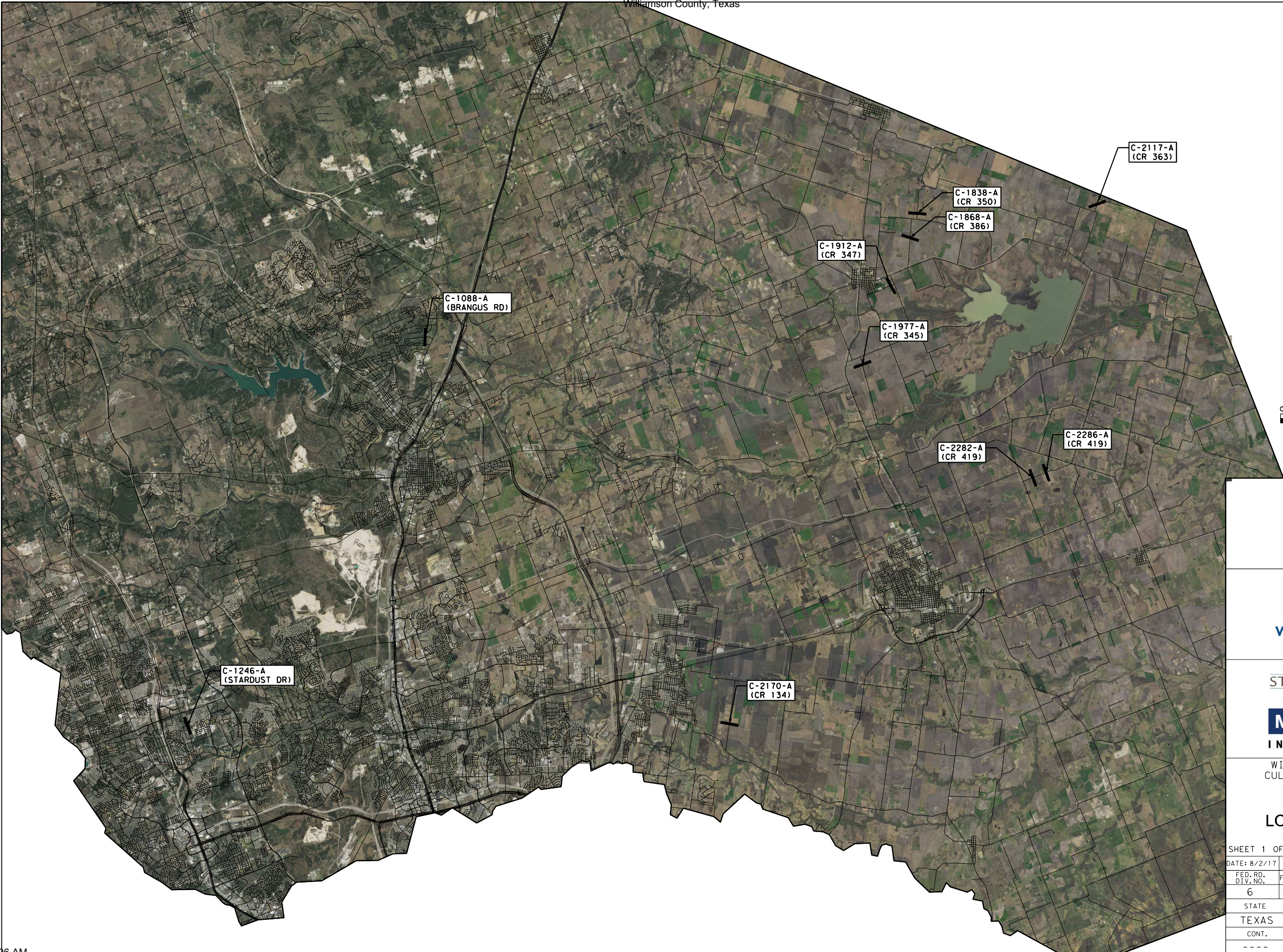
Project Name: FY 17 Cross Culvert Replacements

ITEM 496 REMOVING STRUCTURES
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS AND TRAFFIC HANDLING
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS
ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES
ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES

STANDARD SPECIFICATIONS: MOST CURRENT VERSION ADOPTED BY THE CITY OF AUSTIN

ITEM 628S TRIANGULAR SEDIMENT FILTER DIKE

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PLOT DRIVER:



WILLIAMSON COUNTY
CULVERT REPLACEMENT
**PROJECT
LOCATION MAP**

SHEET 1 OF 1 SCALE: 1"=3 MI

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----			SHEET NO. 2
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. ----	

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ITEM NO	100 6001	105 6037	132 6001	247 6366	334 6088	340 6004	340 6106	360 6001	400 6001	402 6001	432 6002	432 6027	460 6012	460 6024	462 6002	462 6003	462 6004	462 6008	462 6012	462 6016
DESCRIPTION	PREPARING ROW	REMOVING STAB BASE AND ASPH PAV (0"-16")	EMBANKMENT (FINAL) (ORD COMP) (TY A)	FL BS (CMP IN PLC) (TY A GR 5) (FNAL POS)	HMCL ACP TY-D AES-300	D-GR HMA (SQ) TY-A PG64-22	D-GR HMA (SQ) TY-D PG64-22	CONC PVMT (CONT REINF - CRCP) (7")	STRUCT EXCAV	TRENCH EXCAVATION PROTECTION	RIPRAP (CONC) (5 IN)	RIPRAP (STONE COMMON) (DRY) (24 IN)	CMP AR (GAL STL DES 5)	CMP AR (GAL STL DES 7)	CONC BOX CULV (3 FT X 3 FT)	CONC BOX CULV (4 FT X 2 FT)	CONC BOX CULV (4 FT X 3 FT)	CONC BOX CULV (5 FT X 4 FT)	CONC BOX CULV (6 FT X 5 FT)	CONC BOX CULV (7 FT X 5 FT)
UNITS	AC	SY	CY	CY	TON	TON	TON	SY	CY	LF	CY	CY	LF	LF	LF	LF	LF	LF	LF	LF
C-1088-A	0.52	25		8	3				32	60	2					30				
C-1246-C	0.31	28	58	8		28	63		58	36	5			26			26			
C-1838-A	0.49	13	197	4		34	48		566	40	2									
C-1868-A	0.22	36	21	10		24	44		500	40								52		
C-1912-A	0.12	74		25	8			74	100	42	20		84							
C-1977-A	0.34	65	58	18		52	62		120	40	9									78
C-2117-A	0.22	40	8	9		40	43	90	127	40	4	73								56
C-2170-A	0.25	65	2	19		18	33		231	40										
C-2282-A	0.12	36		12	4				118	40	4	100		60						
C-2286-A	0.18	31		10	3				98	40	4	35		60						
Project Wide																				
Total	2.77	413	344	123	18	196	293	164	1950	418	50	208	110	120	26	30	26	52	56	78

ITEM NO	462 6029	466 6064	466 6066	466 6112	466 6150	466 6153	466 6154	466 6164	466 6178	466 6179	466 6181	466 6182A	466 6182	467 6556	496 6001	496 6007
DESCRIPTION	CONC BOX CULV (10 FT X 5 FT)	HEADWALL (CH - FW - A - 0) (DES= 5)	HEADWALL (CH - FW - A - 0) (DES= 7)	HEADWALL (CH - PW - A - 0) (DES= 5)	WINGWALL (FW - 0) (HW=3 FT)	WINGWALL (FW - 0) (HW=6 FT)	WINGWALL (FW - 0) (HW=7 FT)	WINGWALL (FW - 5) (HW=3 FT)	WINGWALL (PW - 1) (HW=3 FT)	WINGWALL (PW - 1) (HW=4 FT)	WINGWALL (PW - 1) (HW=6 FT)	WINGWALL (PW - 1) (HW=7 FT)	SET (TY II) (DES 5) (3:1) - SETP-CD-A	REMOV STR (BOX CULVERT)	REMOV STR (PIPE)	
UNITS	LF	EA	EA	EA	EA	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	LF
C-1088-A								1	1							82
C-1246-C					2											93
C-1838-A		1		1						2						30
C-1868-A														2		60
C-1912-A																60
C-1977-A							1						1			102
C-2117-A						1					1					60
C-2170-A	52											1			1	
C-2282-A			2													62
C-2286-A			2													62
Project Wide																
Total	52	1	4	1	2	1	1	1	1	2	1	1	2	2	1	611

ITEM NO	500 6001	502 6001	506 6001	506 6011	506 6038	506 6039	628S-B	628S-C	658 6047
DESCRIPTION	MOBILIZATION	BARRICADES, SIGNS AND TRAFFIC HANDLING	ROCK FILTER DAMS (INSTALL) (TY 1)	ROCK FILTER DAMS (REMOVE)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)	SEDIMENT CONTAINMENT DIKES WITH FILTER FABRIC (TRIANGULAR FILTER DIKE)	SEDIMENT CONTAINMENT DIKES WITH FILTER FABRIC (TRIANGULAR FILTER DIKE) (REMOVE)	INSTL OM ASSM (OM-2Y) (WC)GND
UNITS	LS	MO	LF	LF	LF	LF	LF	LF	EA
C-1088-A			30	30	170	170			2
C-1246-C			20	20	236	236			2
C-1838-A			30	30	600	600			2
C-1868-A			50	50	600	600			2
C-1912-A			40	40	560	560			2
C-1977-A			60	60			100	100	2
C-2117-A			80	80	640	640	100	100	2
C-2170-A			50	50	90	90	35	35	2
C-2282-A			30	30	240	240	40	40	2
C-2286-A			20	20	260	260			2
Project Wide	1	3							
Total	1	3	410	410	3396	3396	275	275	20



WILLIAMSON COUNTY
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Michael Baker INTERNATIONAL
TBPE FIRM NO. 2677

WILLIAMSON COUNTY CULVERT REPLACEMENT

SUMMARY OF QUANTITIES

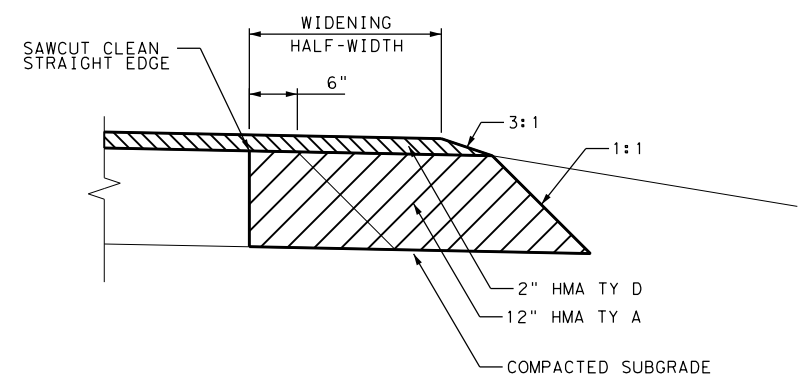
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STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. --	JOB ---	HIGHWAY NO. ---	

p. 46

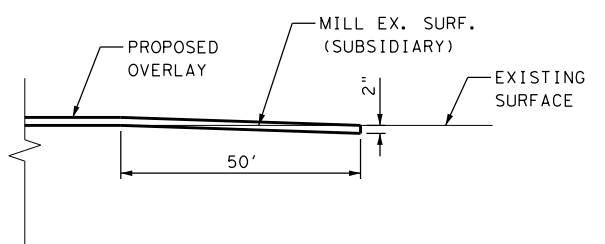
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CULVERT	ROADWAY	EXISTING ROADWAY WIDTH	PROPOSED ROADWAY WIDTH	WIDENING HALF-WIDTH	EST. TOTAL NEW PAVEMENT	EST. HMA TY D	EST. HMA TY A	COMMENT
		FT	FT	FT	SY	TON	TON	
C-1088	BRANGUS RD	18.8	N/C	--	--	--	--	
C-1246	STARDUST DR	17.4	20	1.3	42	63	28	
C-1838	CR 350	16.9	20	1.55	51	48	34	
C-1868	CR 386	16.5	20	1.75	36	44	24	
C-1912	CR 347	19	N/C	--	--	--	--	
C-1977	CR 345	15.8	20	2.1	78	62	52	
C-2117	CR 363	14.5	20	2.75	58	43	40	
C-2170	CR 134	17.2	20	1.4	27	33	18	
C-2282	CR 419	19	N/C	--	--	--	--	
C-2286	CR 419	19	N/C	--	--	--	--	
N/C = NO CHANGE SUM =					292	293	196	

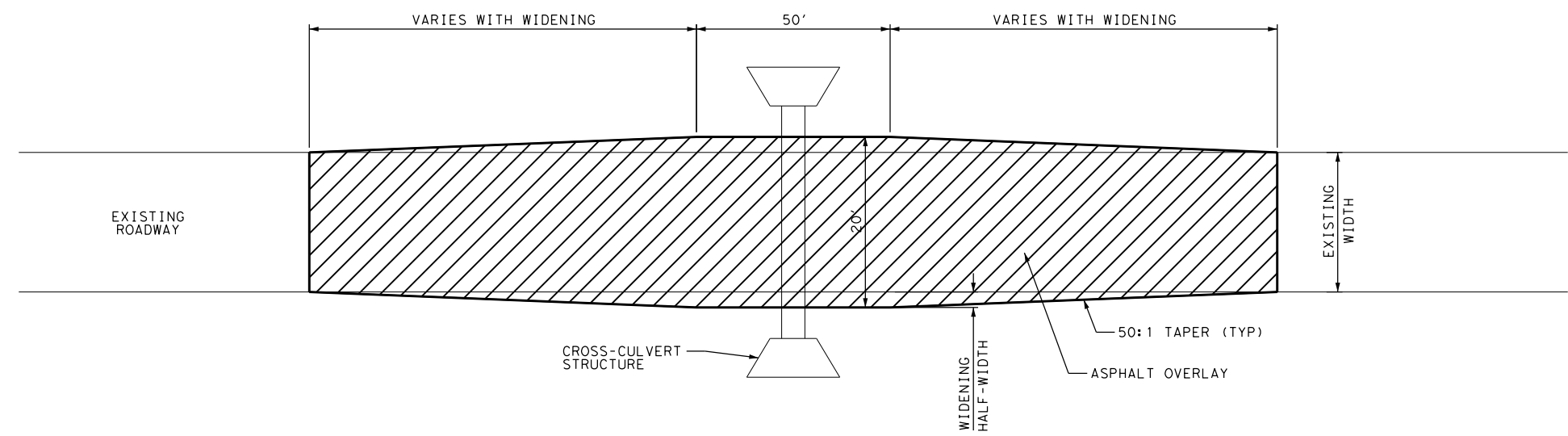


TYPICAL PAVEMENT SECTION
N. T. S.

- NOTES:
1. THE TAPERED HMA EDGE SHALL BE PRODUCED BY USE OF A SCREED ATTACHMENT CAPABLE OF PRODUCING A SMOOTH COMPACTED SURFACE. ADDITIONAL COMPACTING EFFORT BEHIND THE SCREED IS NOT REQUIRED.
 2. THE SLOPE OF NEW PAVEMENT SHALL MATCH EXISTING PAVEMENT, BUT IN NO CASE BE FLATTER THAN 2.0%.



MILLING BUTT JOINT
N. T. S.



TYPICAL ROADWAY WIDENING
N. T. S.

WILLIAMSON COUNTY
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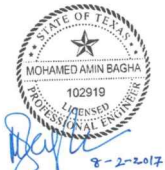
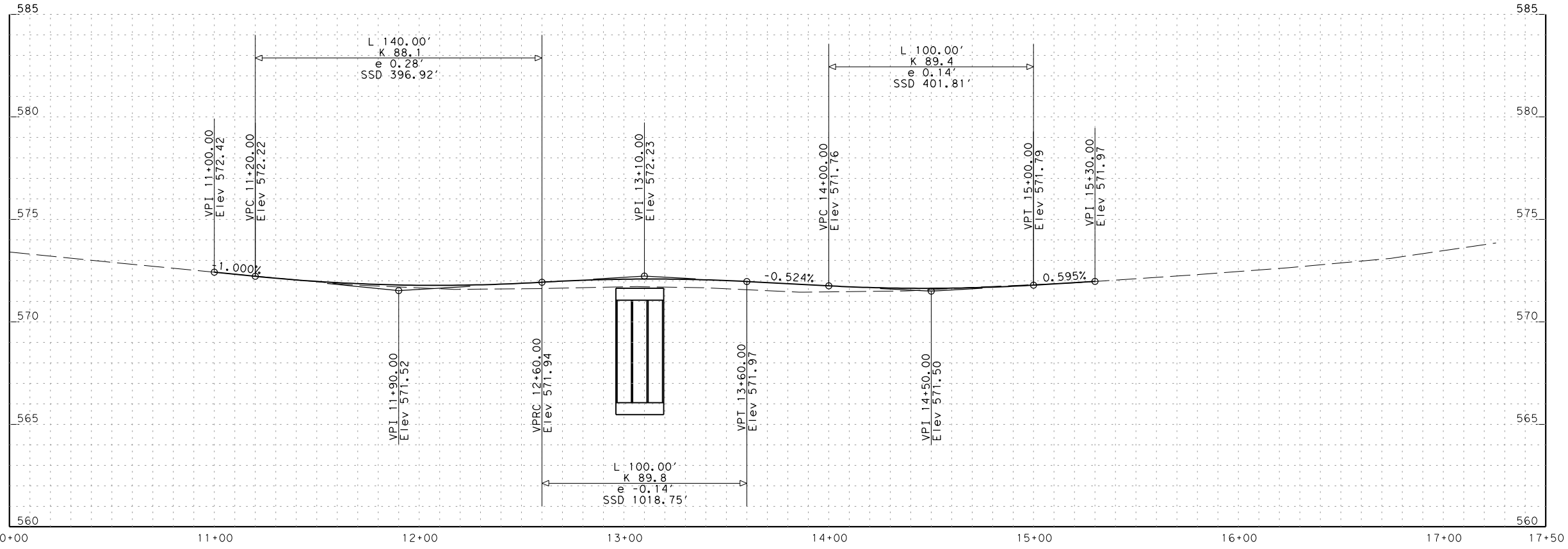
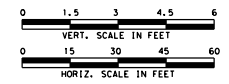
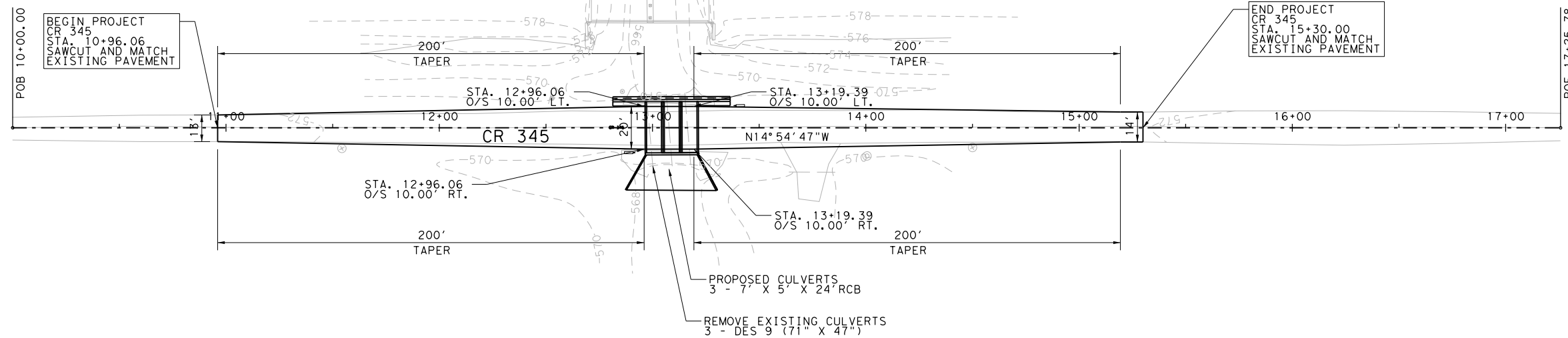
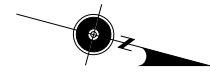
STEGER BIZZELL
TBPE FIRM NO. 101

Michael Baker
INTERNATIONAL
TBPE FIRM NO. 2677

WILLIAMSON COUNTY
CULVERT REPLACEMENT

ROADWAY TAPER DETAILS

SHEET 1 OF 1		SCALE: 1"=100'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----		SHEET NO. 4
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
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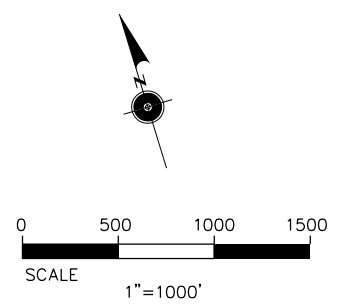
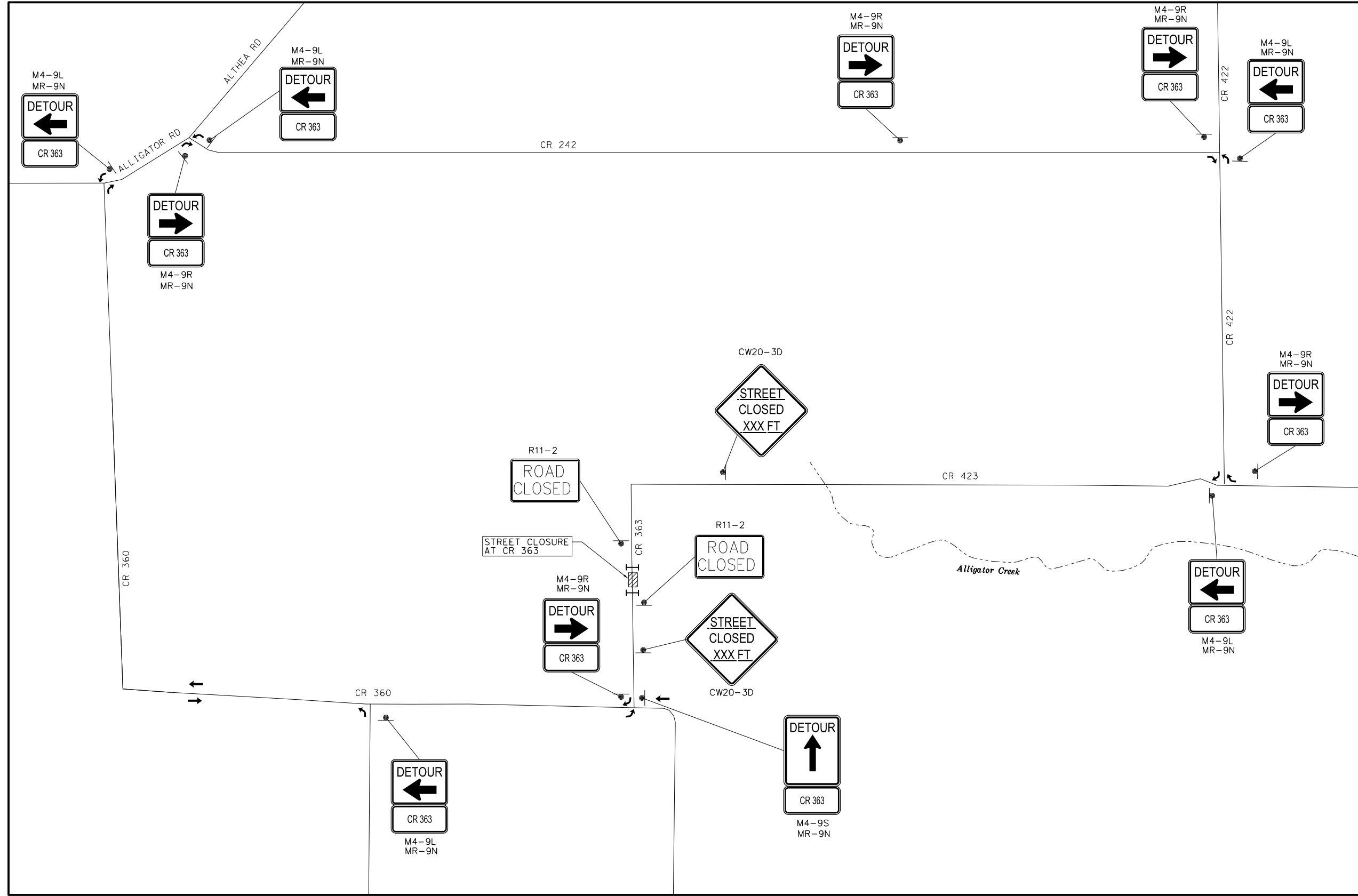


WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1977-A
ROADWAY PLAN AND
PROFILE

SHEET 1 OF 1				SCALE: 1" = 60' H 1" = 6' V
DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 5	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 345	

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 \$FILEL\$ \$PENTBL\$
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PLOT_DRIVER:



LEGEND:

- TYPE III BARRICADE
- SIGN POST
- ← DETOUR TRAFFIC FLOW

WILLIAMSON COUNTY
 CULVERT REPLACEMENT
 TRAFFIC CONTROL PLAN
 C-2117-A AT CR 363

SHEET 1 OF 9

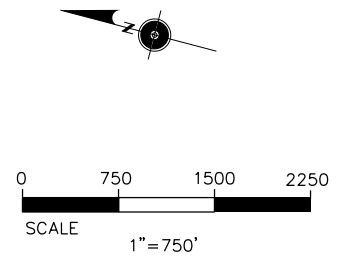
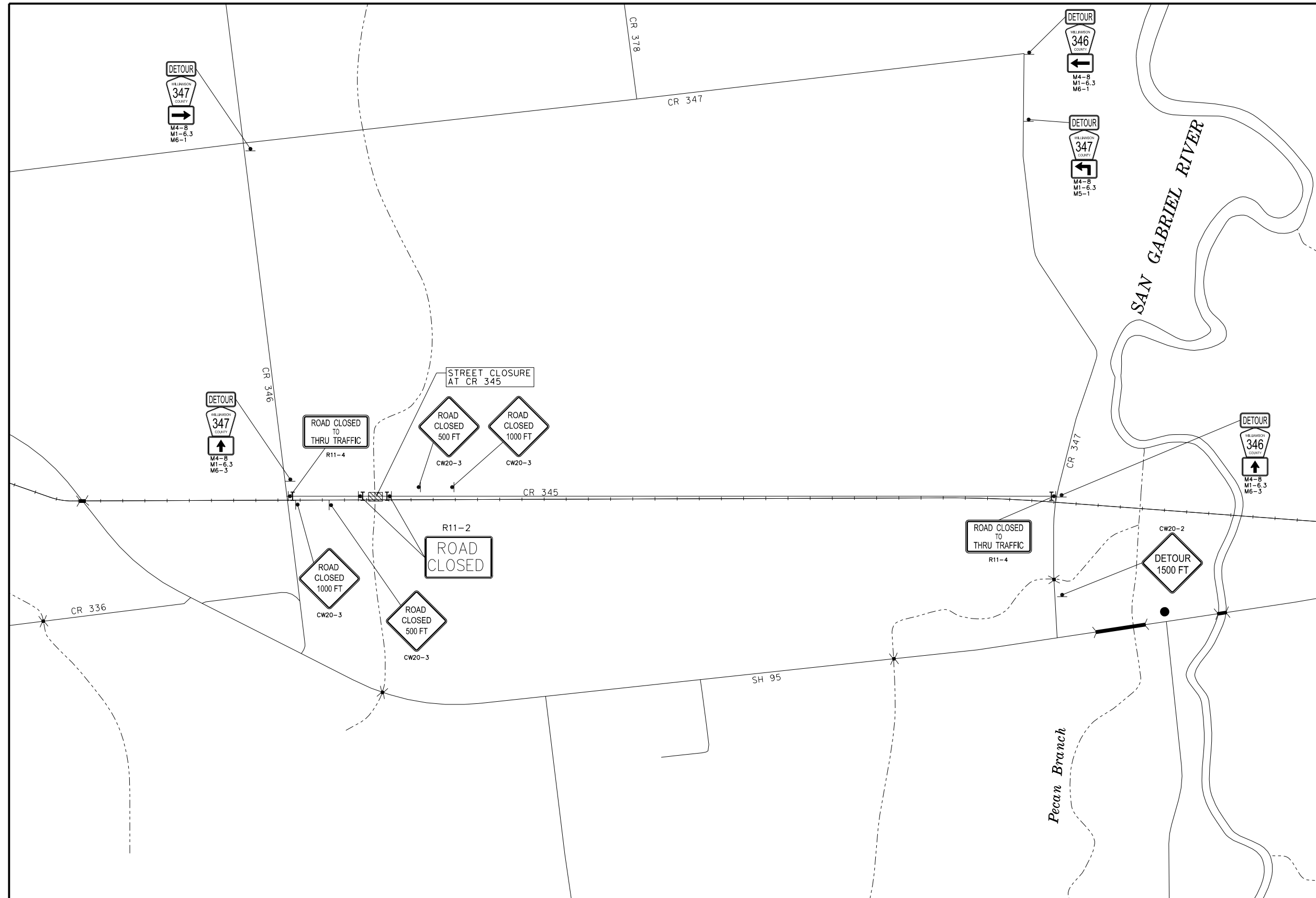
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STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT.	SECT.	JOB	HIGHWAY NO. CR 363	

TRAFFIC CONTROL PHASING:

1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE CR 363
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN CR 363 FOR TRAFFIC

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 363 AT ALL TIMES.



- LEGEND:**
- TYPE III BARRICADE
 - SIGN POST
 - DETOUR TRAFFIC FLOW



WILLIAMSON COUNTY
CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
C-1977-A AT CR 345

SHEET 2 OF 9

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----		SHEET NO. 7	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. CR 345	

TRAFFIC CONTROL PHASING:

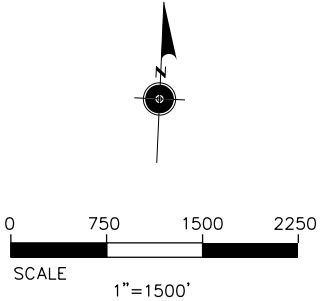
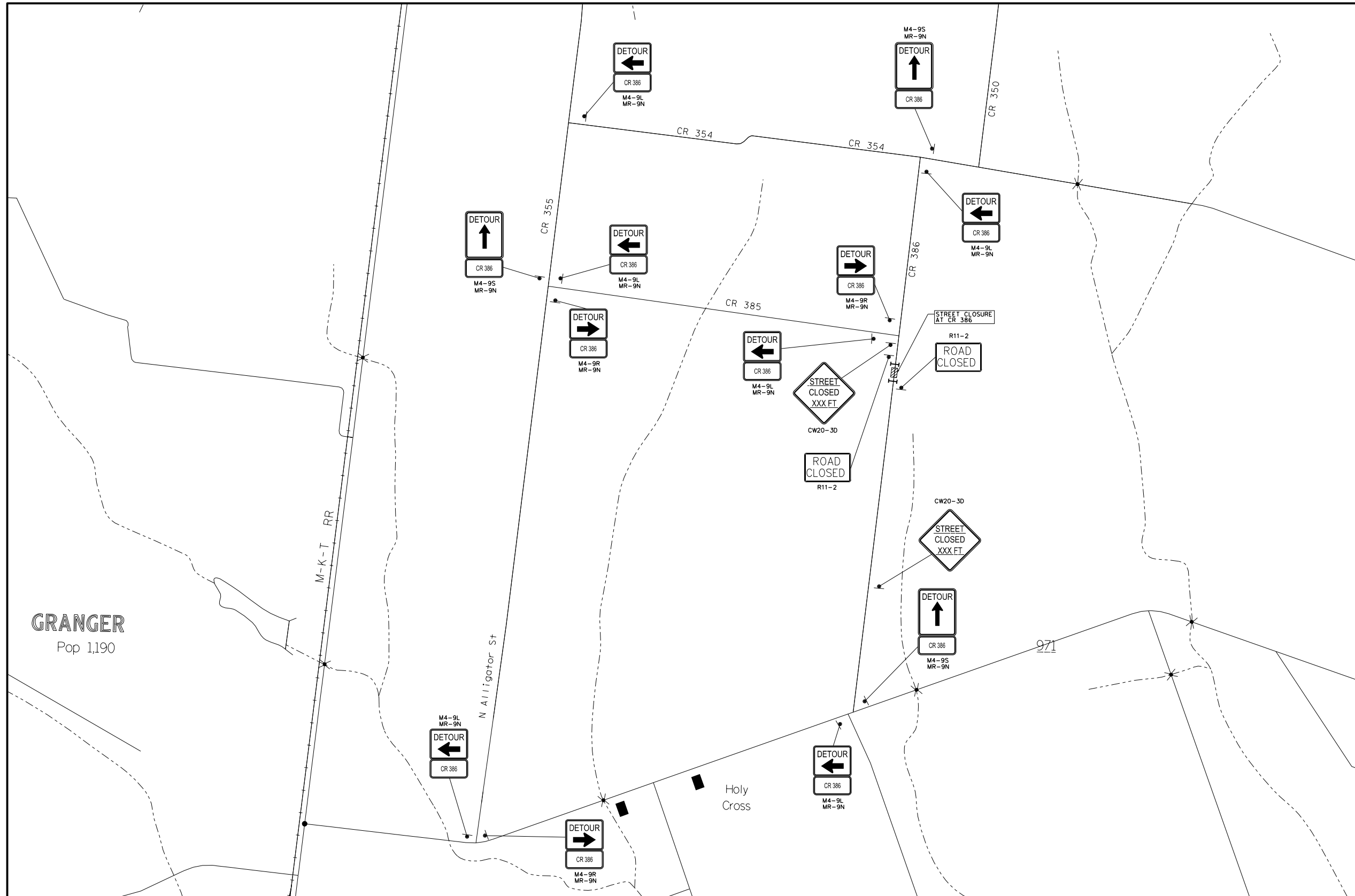
1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE CR 345
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN CR 345 FOR TRAFFIC

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 345 AT ALL TIMES.

FILE: P:\DCP\WAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\158670\Williamson\County\PS&E\SBV1-0\DeSIGN\5044 - Design\Plan Set\2. TCP\MBaker\218670\CR21021021\DRVL\$.PLOT.DRIVER: \$PENTBLL\$ 8/10/2017 8:06 AM

FILE: \\DCPWAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\158670*Williamson*County*PS&E*SBV1-0*DeSIGN\158670*CR386*TRAFFIC CONTROL PLAN*PLOT.DRVL\$
 DATE: 8/10/2017 8:06 AM
 PLOT DRIVER: \$PENTBL\$



- LEGEND:**
- TYPE III BARRICADE
 - SIGN POST
 - DETOUR TRAFFIC FLOW

TRAFFIC CONTROL PHASING:

1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE CR 386
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN CR 386 FOR TRAFFIC

NOTES:

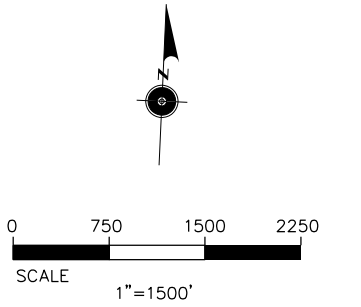
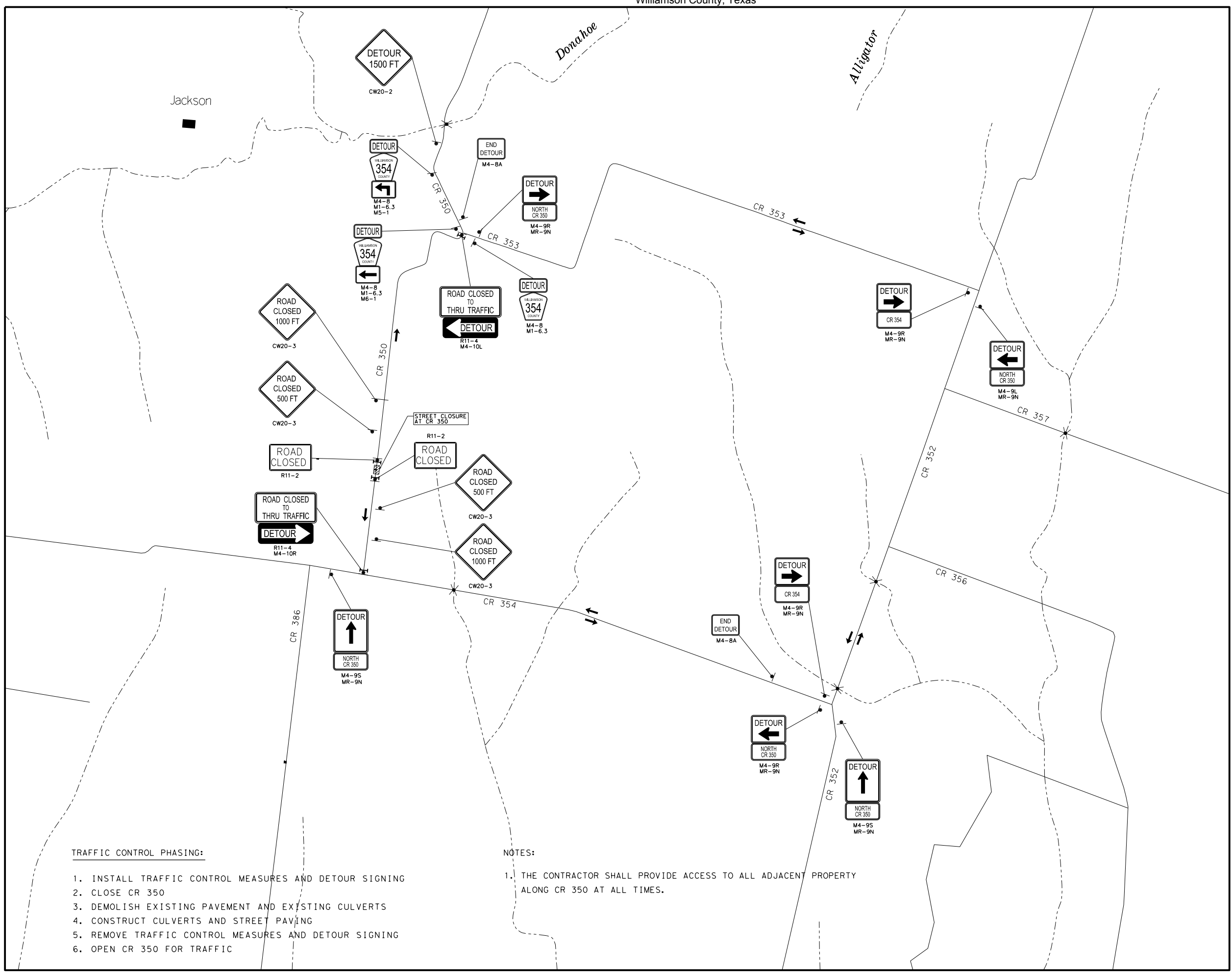
1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 386 AT ALL TIMES.

WILLIAMSON COUNTY
CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
C-1868-A AT CR 386

SHEET 3 OF 9

DATE: 8/2/17		DN:	DW:	CK:	AP:
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.			SHEET NO.	
6	----			8	
STATE	DIST.	COUNTY			
TEXAS	---	WILLIAMSON			
CONT.	SECT.	JOB	HIGHWAY NO.		
----	--	---	CR 386		



- LEGEND:**
- TYPE III BARRICADE
 - SIGN POST
 - ← DETOUR TRAFFIC FLOW

- TRAFFIC CONTROL PHASING:**
1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
 2. CLOSE CR 350
 3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
 4. CONSTRUCT CULVERTS AND STREET PAVING
 5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
 6. OPEN CR 350 FOR TRAFFIC

- NOTES:**
1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 350 AT ALL TIMES.

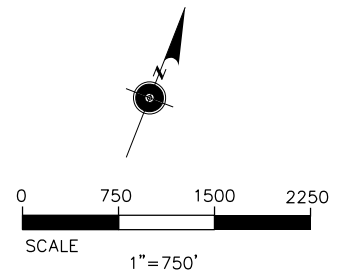
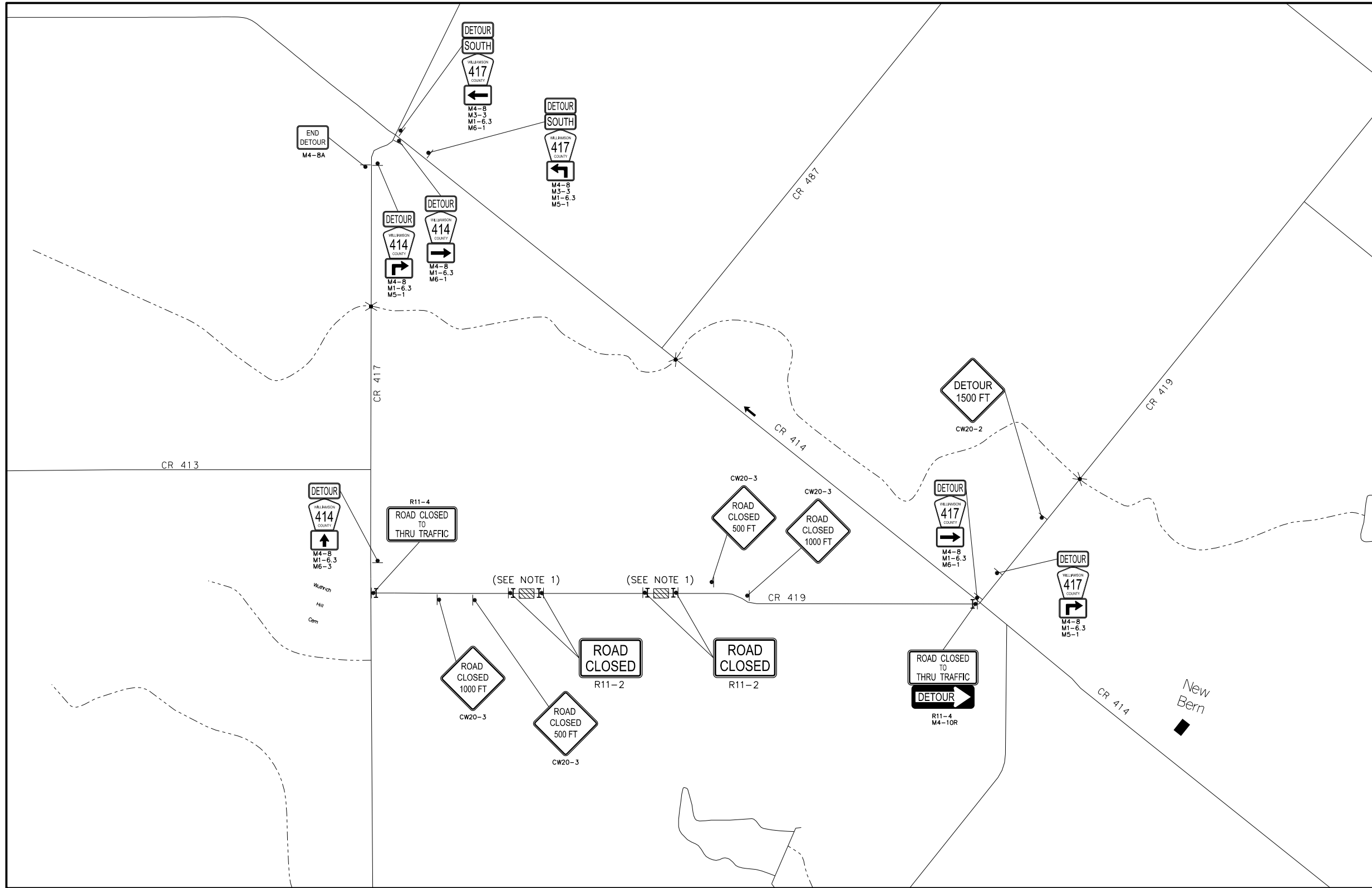
**WILLIAMSON COUNTY
CULVERT REPLACEMENT**

**TRAFFIC CONTROL PLAN
C-1838-A AT CR 350**

SHEET 5 OF 9

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----	SHEET NO. 10		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. CR 350	

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 PLOT DRIVER: \$PENTBLL\$



- LEGEND:**
- TYPE III BARRICADE
 - ▬ SIGN POST
 - ← DETOUR TRAFFIC FLOW

WILLIAMSON COUNTY
CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
C-2282-A AND C-2286-A
AT CR 419

SHEET 6 OF 9

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----	SHEET NO. 11		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. CR 419	

TRAFFIC CONTROL PHASING:

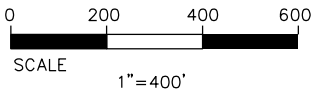
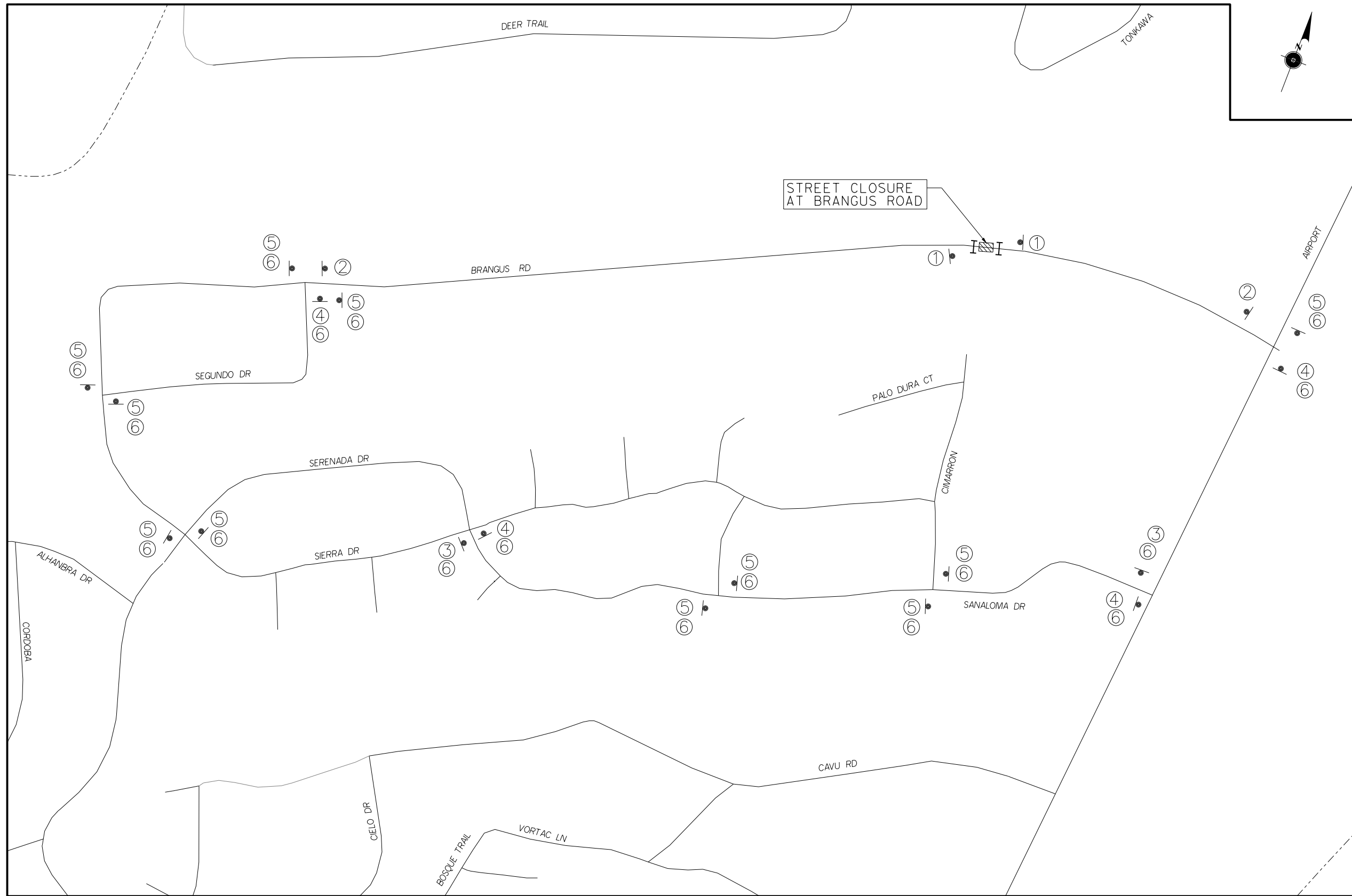
1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE CR 419
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN CR 419 FOR TRAFFIC

NOTES:

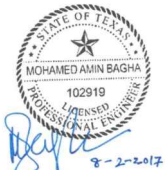
1. CULVERT C-2282-A RECONSTRUCTION SHALL NOT BE CONSTRUCTED CONCURRENTLY WITH CULVERT C-2286-A. TYPE III BARRICADES AND SIGNS "R11-2" SHALL BE PLACED ONLY DURING THE CONSTRUCTION OF THE RESPECTIVE CULVERT.
2. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 419 AT ALL TIMES.
3. ADJUST SPACING FOR SIGNS 'CW20-3' APPROPRIATELY PER CULVERT RECONSTRUCTION SITE.

FILE: P:\DCP\WAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\Williamson\County\PS&E\SBV1-0*DebrisRemoval\4 - Design\Plan Set\2. TCP\MBaker\2188670*02*08.dgn
 PLOT DRIVER: \$PENTBLL\$

FILE: \\DCPWAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\158670*Williamson County*PS&E*SBV1-0*Deer Creek*BRANGUS RD*4 - Design\Plan Set\2. TCP\MBaker\2158670*02*09*49*PLOT.DRIVL\$.
 PLOT.DRIVL\$.
 DATE: 8/10/2017 8:06 AM



- LEGEND:**
- TYPE III BARRICADE
 - SIGN POST
 - DETOUR TRAFFIC FLOW
 - ① R11-2 ROAD CLOSED
 - ② CW20-3D STREET CLOSED XXX FT
 - ③ M4-9R DETOUR
 - ④ M4-9L DETOUR
 - ⑤ M4-9S DETOUR
 - ⑥ MR-9N BRANGUS ROAD
 - ⑦ M4-8a END DETOUR



WILLIAMSON COUNTY
CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
C-1088-A AT BRANGUS RD

SHEET 7 OF 9

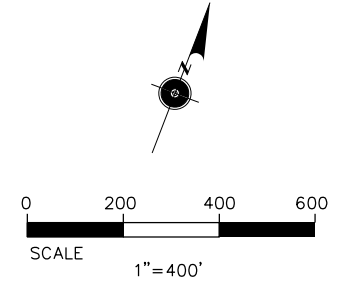
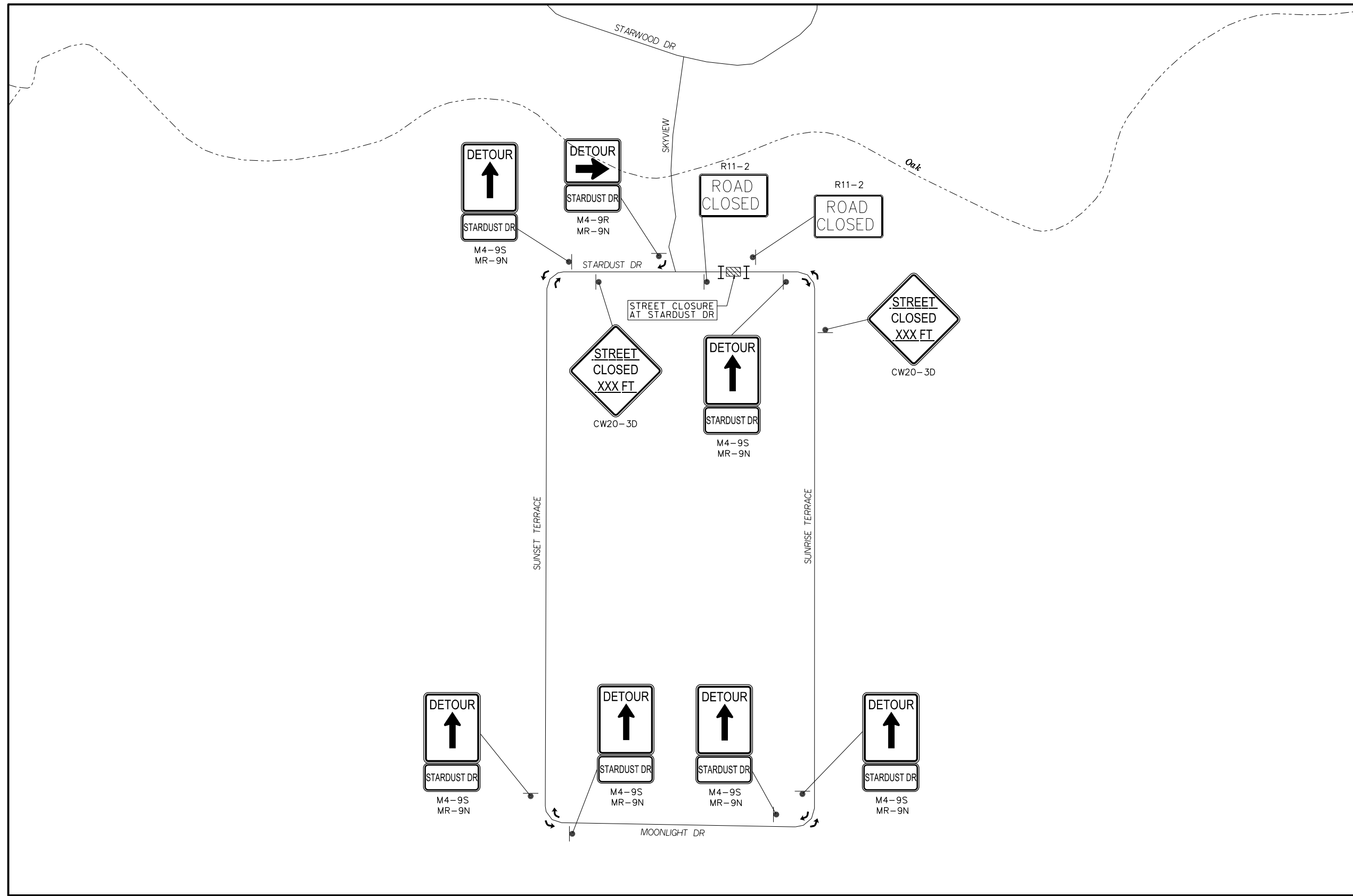
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FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----			SHEET NO. 12
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. BRANGUS RD	

TRAFFIC CONTROL PHASING:

1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE BRANGUS RD
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN BRANGUS RD FOR TRAFFIC

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG BRANGUS RD AT ALL TIMES.



LEGEND:

- TYPE III BARRICADE
- SIGN POST
- ← DETOUR TRAFFIC FLOW

WILLIAMSON COUNTY
CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
C-1246-C AT STARDUST DR

SHEET 8 OF 9

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 13		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. STARDUST DR	

TRAFFIC CONTROL PHASING:

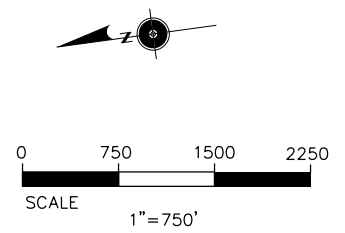
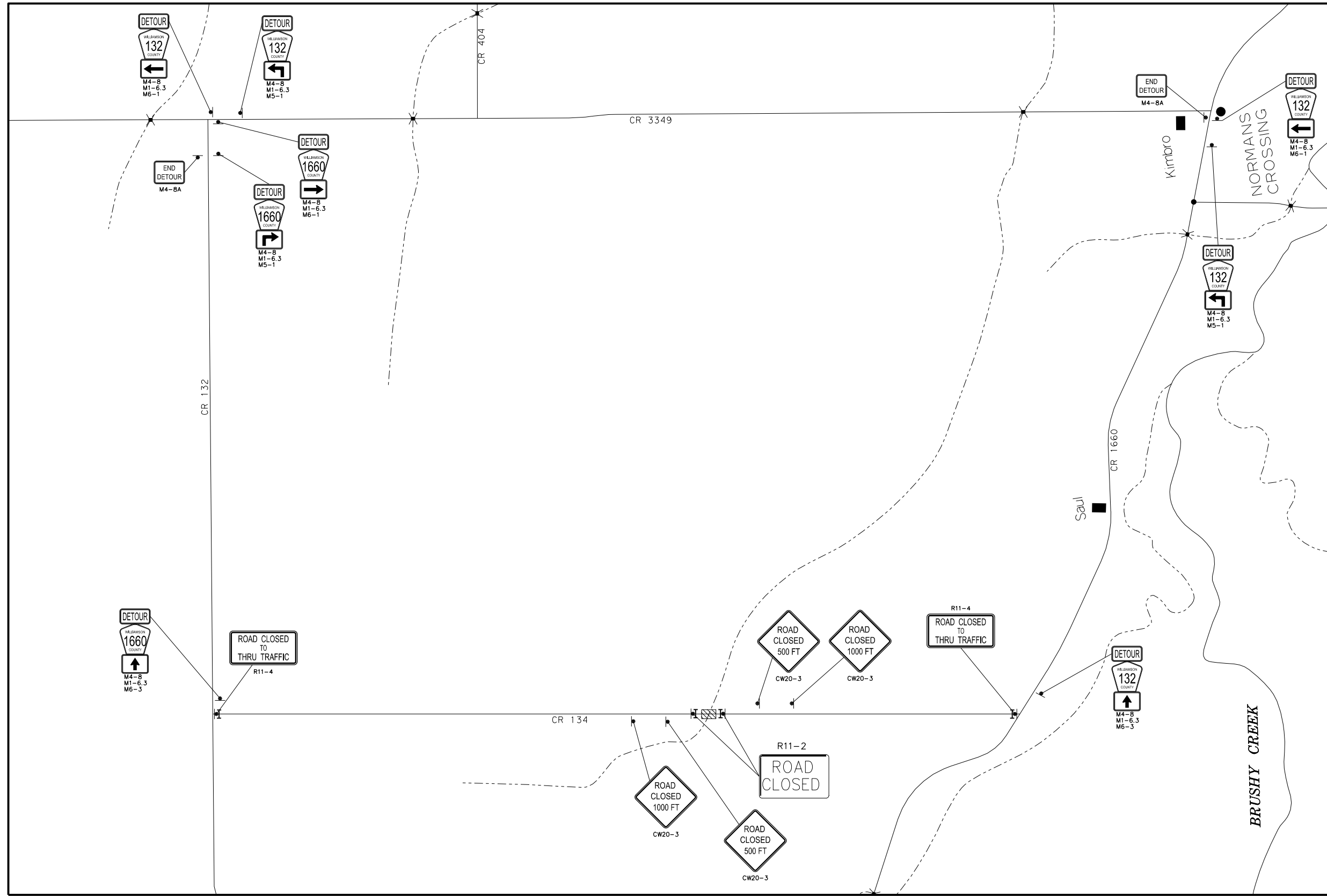
1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE STARDUST DR
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN STARDUST DR FOR TRAFFIC

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG STARDUST DR AT ALL TIMES.

FILE: P:\DCP\WAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\158670*Williamson County*PS&E*SB\1-0*Debris\158670*02*09*8pm\TABLE: \$PENTBL\$. \$PLTDRVL\$.

FILE: \\DCPWAPP1.bkr.mbakercorp.com\pwwprod\Documents\Projects\Texas\158670*Williamson*County*PS&E*SBV1-0*Debris*Removal*4 - Design\Plan Set\2. TCP\MBaker\2158670*CR2100*06*PLOT.DRVL\$
 PLOT DRIVER: \$PENTBLL\$



- LEGEND:**
- TYPE III BARRICADE
 - ⊣ SIGN POST
 - ← DETOUR TRAFFIC FLOW



WILLIAMSON COUNTY
 CULVERT REPLACEMENT

TRAFFIC CONTROL PLAN
 C-2170-A AT CR 134

SHEET 9 OF 9

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----		SHEET NO. 14	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. --	JOB ---	HIGHWAY NO. CR 134	



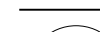


TRAFFIC CONTROL PHASING:

1. INSTALL TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
2. CLOSE CR 134
3. DEMOLISH EXISTING PAVEMENT AND EXISTING CULVERTS
4. CONSTRUCT CULVERTS AND STREET PAVING
5. REMOVE TRAFFIC CONTROL MEASURES AND DETOUR SIGNING
6. OPEN CR 134 FOR TRAFFIC

NOTES:

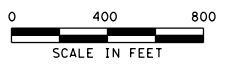
1. THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTY ALONG CR 134 AT ALL TIMES.

LEGEND

-  WATER FLOWLINE
-  DRAINAGE FLOW
-  DRAINAGE AREA BOUNDARY
-  DRAINAGE AREA
DA
X.XXX
SQ MI
-  ADJACENT DRAINAGE AREA

NOTES

1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-55 METHOD.
2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TXDOT HYDRAULIC MANUAL.
3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



Alligator Creek

C-2117-A
1.129
SQ MI

C-2117-A
PROPOSED CULVERTS
2 - 6' X 5'

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-2117-A	722.44	1.129	72	54	2 yr	50%	394
					5 yr	20%	710
					10 yr	10%	959
					25 yr	4%	1240
					50 yr	2%	1478
					100 yr	1%	1744









WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-2117-A
DRAINAGE AREA MAP

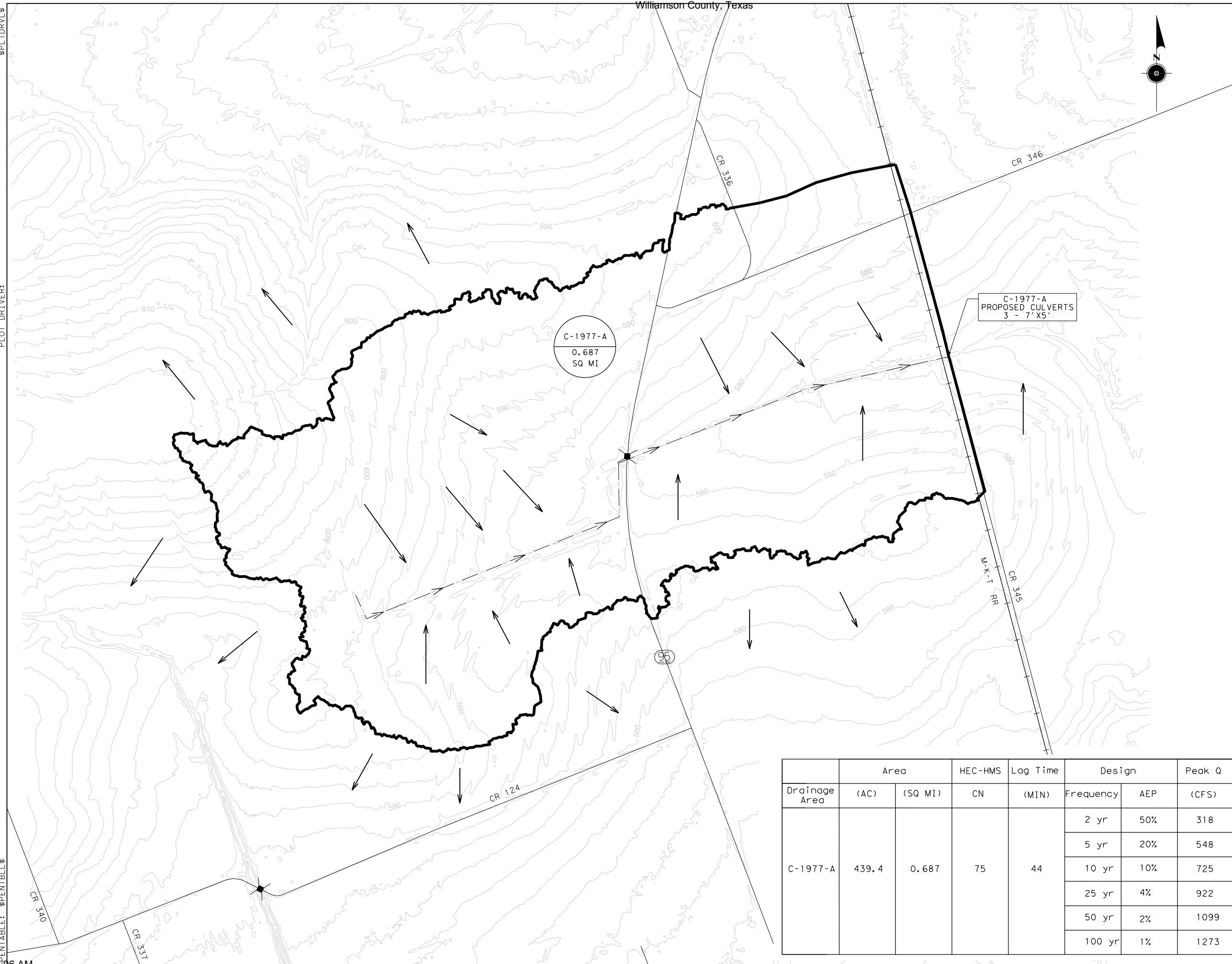
SHEET 1 OF 8

DATE: 8/2/17 DN: DW: CK: AP:

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
6	----	15	
STATE	DIST.	COUNTY	
TEXAS	---	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
----	--	---	CR 363

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$
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 \$FILEL\$ \$PENTBL\$
 8/10/2017 8:06 AM

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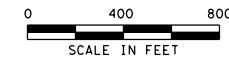


LEGEND

- WATER FLOWLINE
- DRAINAGE FLOW
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA
- ADJACENT DRAINAGE AREA

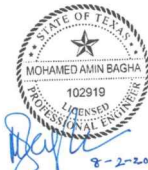
NOTES

1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-5 METHOD.
2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TXDOT HYDRAULIC MANUAL.
3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



C-1977-A
0.687
SQ MI

C-1977-A
PROPOSED CULVERTS
3 - 7' X 5'



WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-1977-A
DRAINAGE AREA MAP

SHEET 2 OF 8

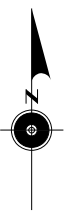
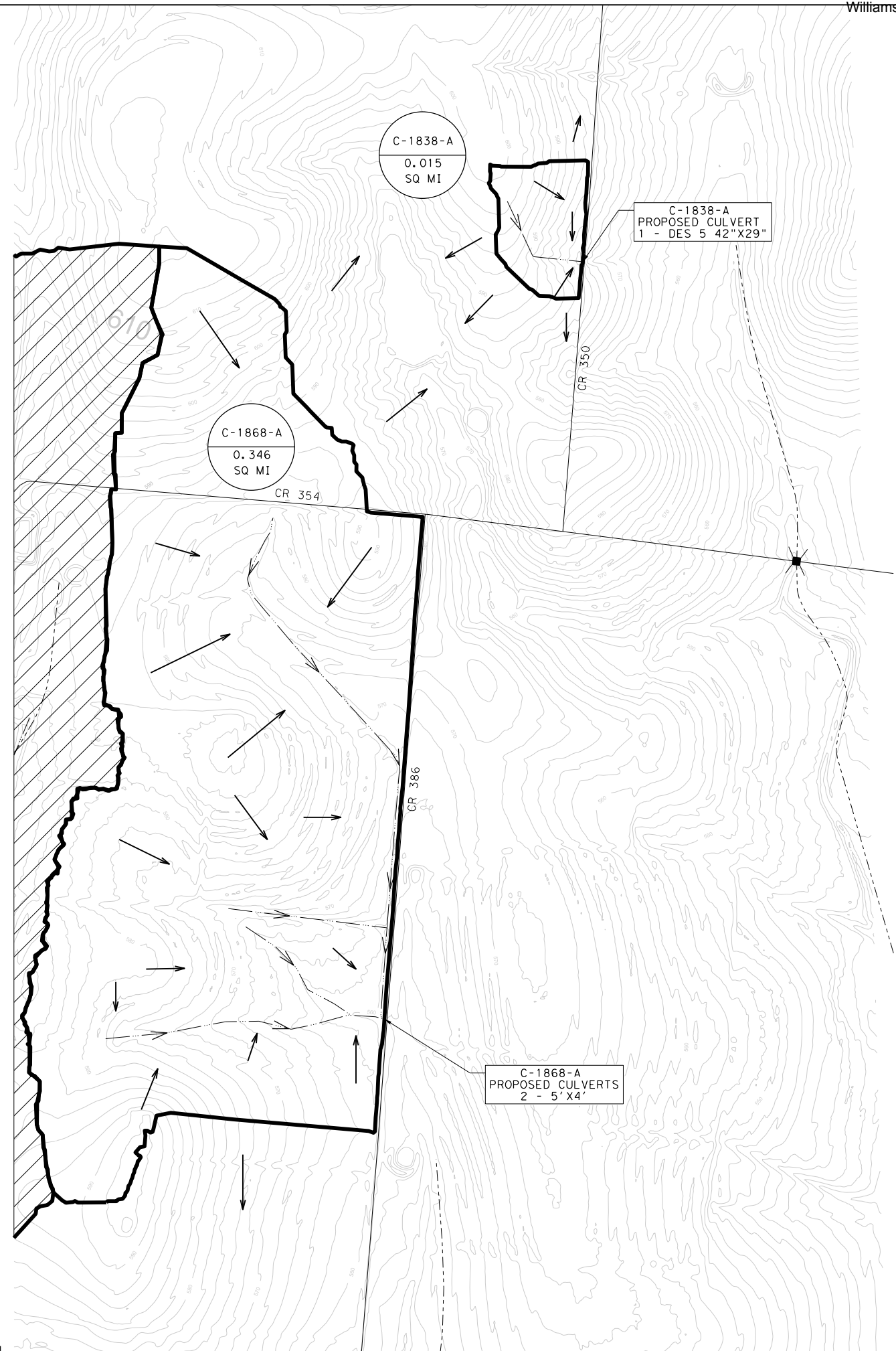
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STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 345	

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1977-A	439.4	0.687	75	44	2 yr	50%	318
					5 yr	20%	548
					10 yr	10%	725
					25 yr	4%	922
					50 yr	2%	1099
					100 yr	1%	1273

\$DATES\$ @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

FILE: \$FILEL\$ \$ENTABLE: \$ENTBL\$



LEGEND

- WATER FLOWLINE
- DRAINAGE FLOW
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA
- ADJACENT DRAINAGE AREA

Drainage Area	Area		Rational C	Tc (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1838-A	9.74	0.015	2-10: 0.34 25: 0.374 50: 0.408 100: 0.425	12	2 yr	50%	17
					5 yr	20%	22
					10 yr	10%	25
					25 yr	4%	32
					50 yr	2%	38
				100 yr	1%	45	

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1868-A	221.68	0.346	74	24	2 yr	50%	211
					5 yr	20%	356
					10 yr	10%	485
					25 yr	4%	621
					50 yr	2%	735
				100 yr	1%	863	



NOTES : C-1838-A

1. PEAK FLOWS DETERMINED BY RATIONAL METHOD.
2. EBD VALUES OBTAINED FROM TABLE 2.6-1 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
3. RUNOFF COEFFICIENTS WERE OBTAINED FROM TABLE 2.6-3 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.

NOTES : C-1868-A

1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-55 METHOD.
2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TXDOT HYDRAULIC MANUAL.
3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-1838-A & C-1868-A
DRAINAGE AREA MAP

SHEET 3 OF 8

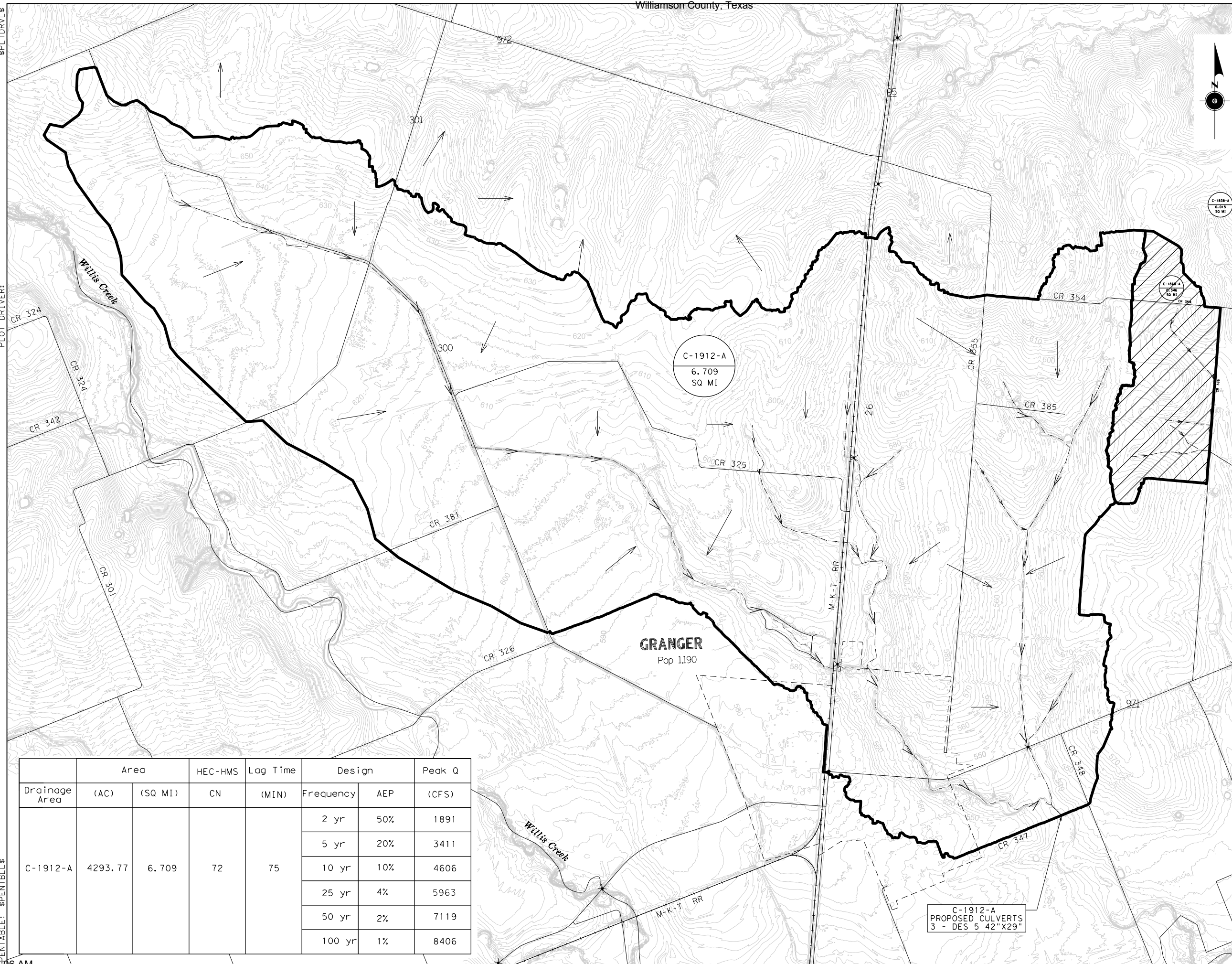
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STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. ---	CR 350 & CR 386

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$

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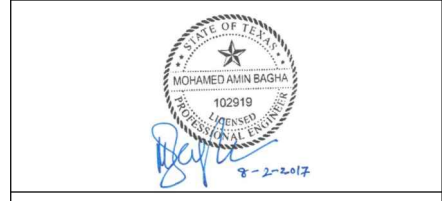
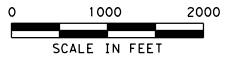
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LEGEND

- WATER FLOWLINE
- DRAINAGE FLOW
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA
- ADJACENT DRAINAGE AREA

- NOTES**
1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-55 METHOD.
 2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TxDOT HYDRAULIC MANUAL.
 3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
 4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-1912-A
DRAINAGE AREA MAP

SHEET 4 OF 8

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 18		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 347	

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1912-A	4293.77	6.709	72	75	2 yr	50%	1891
					5 yr	20%	3411
					10 yr	10%	4606
					25 yr	4%	5963
					50 yr	2%	7119
					100 yr	1%	8406

C-1912-A
PROPOSED CULVERTS
3 - DES 5'42"X29"

\$DATE\$ @ \$TIME\$ \$PLTRVL\$

PRINTED: PLOT DRIVER:

FILE: \$FILEL\$
PENTABLE: \$PENTBL\$

Drainage Area	Area		Rational C	Tc (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-2282-A	71.7	0.112	2-10:0.36 25:0.396 50:0.432 100:0.45	34	2 yr	50%	74
					5 yr	20%	95
					10 yr	10%	109
					25 yr	4%	141
					50 yr	2%	172
					100 yr	1%	202

Drainage Area	Area		Rational C	Tc (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-2286-A	72.18	0.113	2-10:0.36 25:0.396 50:0.432 100:0.45	22	2 yr	50%	97.41
					5 yr	20%	125
					10 yr	10%	142
					25 yr	4%	183
					50 yr	2%	222
					100 yr	1%	263

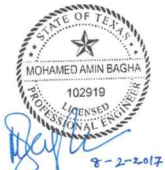


LEGEND

- WATER FLOWLINE
- DRAINAGE FLOW
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA
- ADJACENT DRAINAGE AREA

NOTES

1. PEAK FLOWS DETERMINED BY RATIONAL METHOD.
2. EBD VALUES OBTAINED FROM TABLE 2.6-1 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
3. RUNOFF COEFFICIENTS WERE OBTAINED FROM TABLE 2.6-3 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.








WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-2282-A & C-2286-A
DRAINAGE AREA MAP

SHEET 5 OF 8

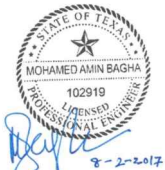
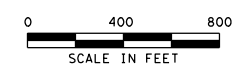
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FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----	SHEET NO. 19		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. CR 419	

LEGEND

-  WATER FLOWLINE
-  DRAINAGE FLOW
-  DRAINAGE AREA BOUNDARY
-  DRAINAGE AREA
-  ADJACENT DRAINAGE AREA

NOTES

1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-55 METHOD.
2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TXDOT HYDRAULIC MANUAL.
3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-1088-A
DRAINAGE AREA MAP

SHEET 6 OF 8

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 20
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. BRANGUS RD	

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1088-A	460.63	0.720	66	33	2 yr	50%	238
					5 yr	20%	476
					10 yr	10%	669
					25 yr	4%	891
					50 yr	2%	1082
					100 yr	1%	1297

C-1088-A
0.720
SQ MI

C-1088-A
PROPOSED CULVERT
1 - 4' X 2'

GEORGETOWN
Pop 14,842

GEORGETOWN
MUNICIPAL
AIRPORT

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

FILE: \$FILEL\$ \$ENTBL\$ \$ENTBL\$

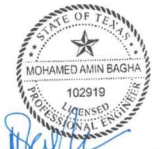


NOTES

1. PEAK FLOWS DETERMINED BY RATIONAL METHOD.
2. EBD VALUES OBTAINED FROM TABLE 2.6-1 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
3. RUNOFF COEFFICIENTS WERE OBTAINED FROM TABLE 2.6-3 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.

LEGEND

- WATER FLOWLINE
- DRAINAGE FLOW
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA
- ADJACENT DRAINAGE AREA

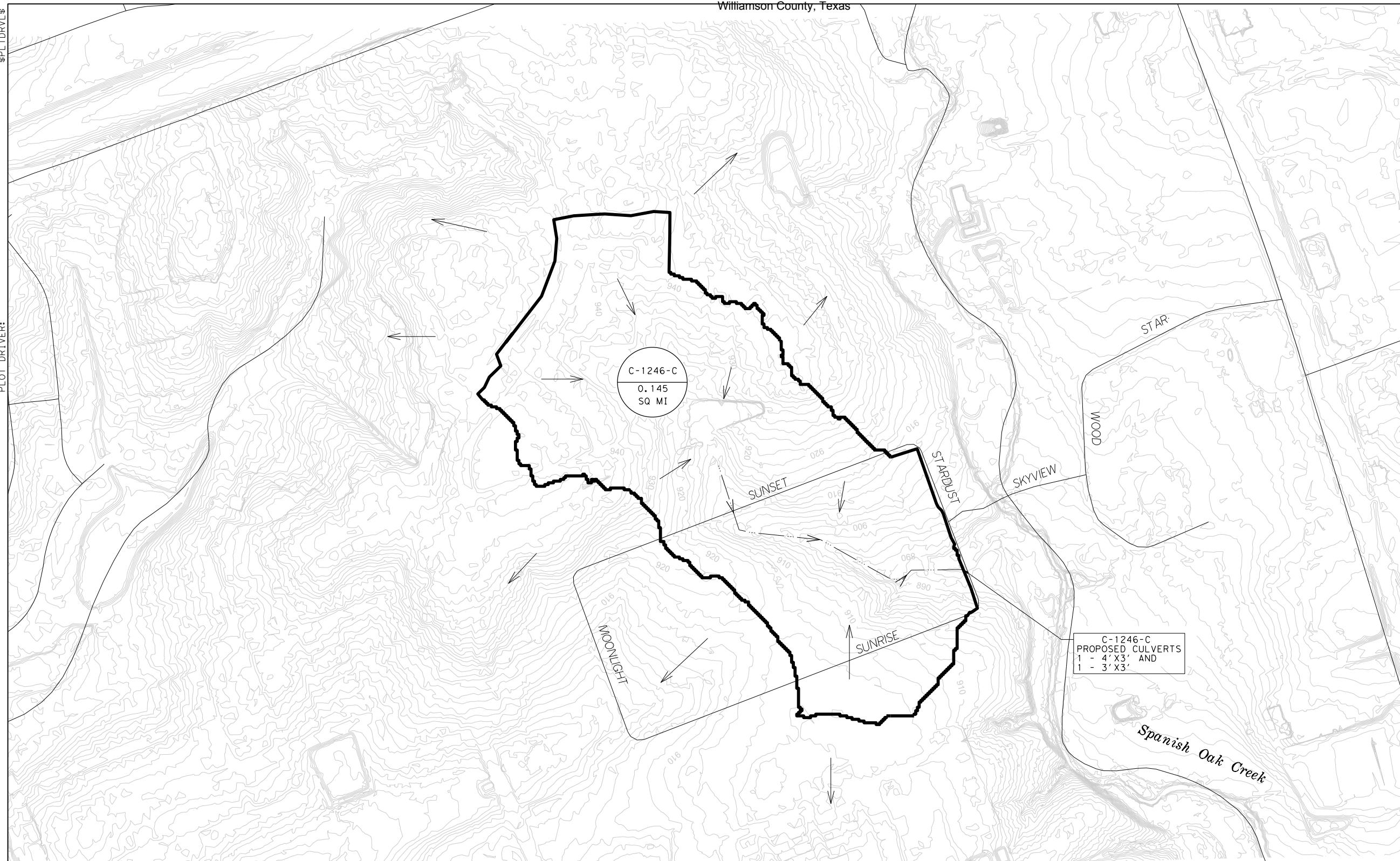


WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-1246-A
DRAINAGE AREA MAP

SHEET 7 OF 8

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----			SHEET NO. 21
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ----	SECT. --	JOB ---	HIGHWAY NO. STARDUST DR	



C-1246-C
PROPOSED CULVERTS
1 - 4' X 3' AND
1 - 3' X 3'

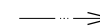

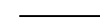
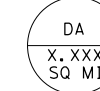
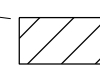
Drainage Area	Area		Rational C	Tc (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-1246-C	92.76	0.145	2-10: 0.3 25: 0.33 50: 0.36 100: 0.375	21	2 yr	50%	105
					5 yr	20%	134
					10 yr	10%	153
					25 yr	4%	198
					50 yr	2%	240
					100 yr	1%	284

\$DATES @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

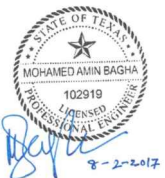
FILE: \$FILEL\$ \$PENTBL\$

LEGEND

-  WATER FLOWLINE
-  DRAINAGE FLOW
-  DRAINAGE AREA BOUNDARY
-  DRAINAGE AREA
DA
X.XXX
SQ MI
-  ADJACENT DRAINAGE AREA

NOTES

1. THE HYDROLOGIC MODELS WERE DEVELOPED IN HEC-HMS VER 3.5 FOLLOWING TR-55 METHOD.
2. THE CURVE NUMBERS WERE DETERMINED BY FOLLOWING NRCS TR-55 AND ADJUSTED USING THE CLIMATIC ADJUSTMENTS AS DISCUSSED IN CHAPTER 4, SECTION 13 OF 2016 TXDOT HYDRAULIC MANUAL.
3. ACCUMULATED RAINFALL FOR 24 HR STORMS WERE OBTAINED FROM TABLE 2.6-4 FROM CHAPTER 4 OF WILLIAMSON COUNTY DESIGN CRITERIA MANUAL.
4. THE SCS TYPE III 24 HR STORM HYDROGRAPH WAS UTILIZED.



WILLIAMSON COUNTY
CULVERT REPLACEMENT

C-2170-A
DRAINAGE AREA MAP

SHEET 8 OF 8

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ----			SHEET NO. 22
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. --	JOB ---	HIGHWAY NO. CR 134	

Drainage Area	Area		HEC-HMS CN	Lag Time (MIN)	Design		Peak Q (CFS)
	(AC)	(SQ MI)			Frequency	AEP	
C-2170-A	229	0.358	74	56	2 yr	50%	136
					5 yr	20%	238
					10 yr	10%	317
					25 yr	4%	406
					50 yr	2%	481
					100 yr	1%	564

C-2170-A
0.358
SQ MI

C-2170-A
PROPOSED CULVERTS
2 - 10'X5'

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

\$FILEL\$ \$ENTABLE\$ \$ENTBL\$

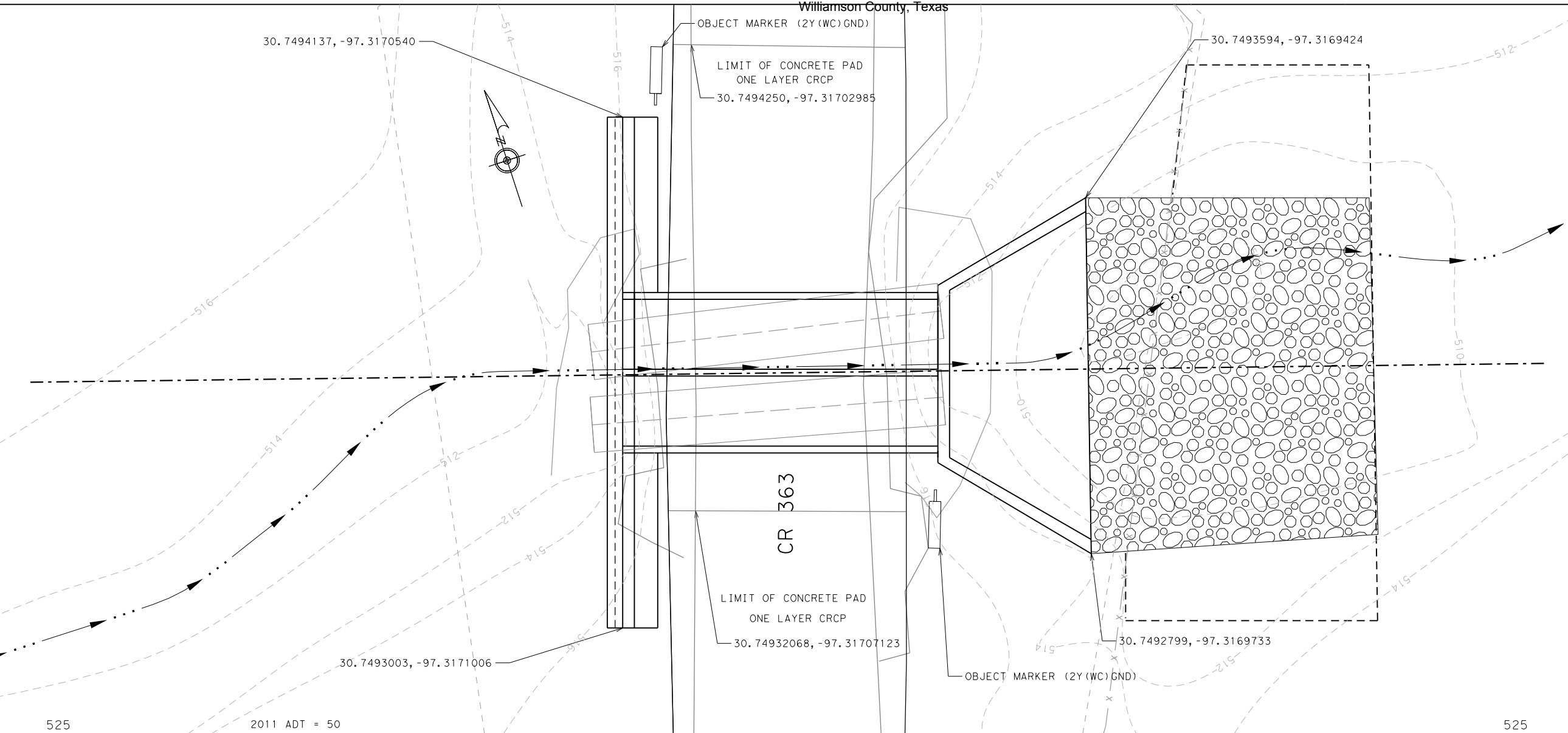
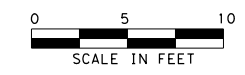
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 PLOT DRIVER: \$PLOTDRVL\$.

LEGEND

- X — FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- - - - FLOW LINE

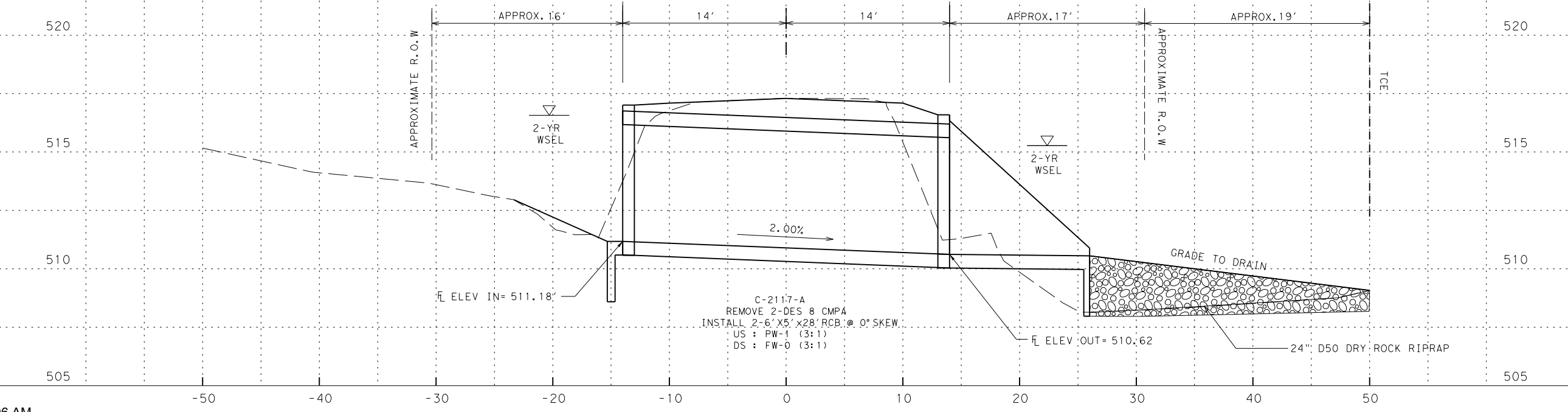
NOTES:

1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			EXISTING			
				HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-2117-A	2	394	2-6' x 5' RCB	516.65	515.13	7.28	2-CMPA DES 8	517.76	515.13	7.56
	25	1240		518.3	516.55	8.62		518.44	516.44	7.44
	100	1744		518.58	516.87	8.57		518.73	516.87	6.57

NOTE : CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.

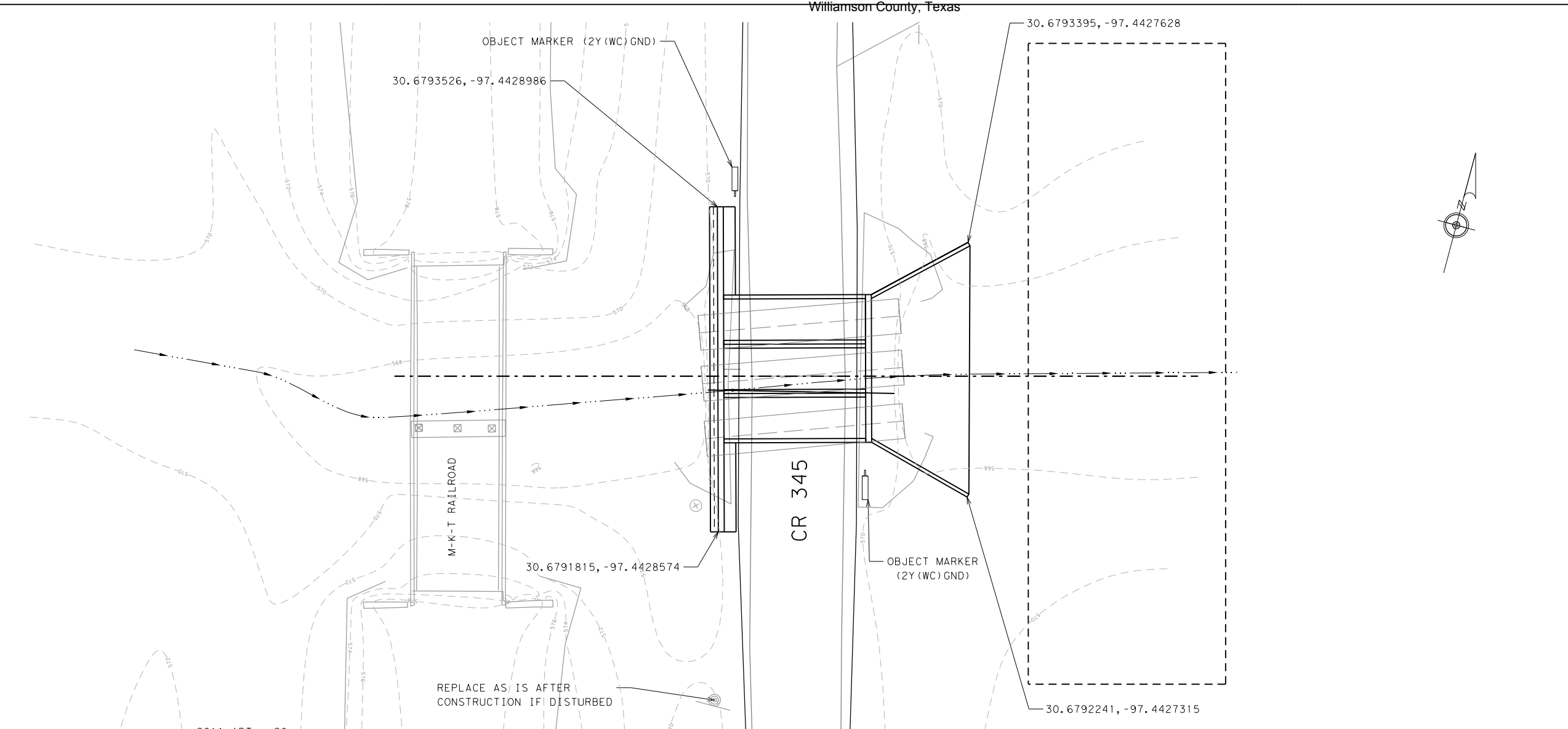


WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-2117-A
CROSS SECTION

SHEET 1 OF 10
SCALE: 1" = 10' H
1" = 5' V

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 23
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 363	

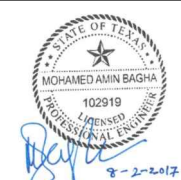
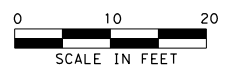
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 PLOT DRIVER:



LEGEND

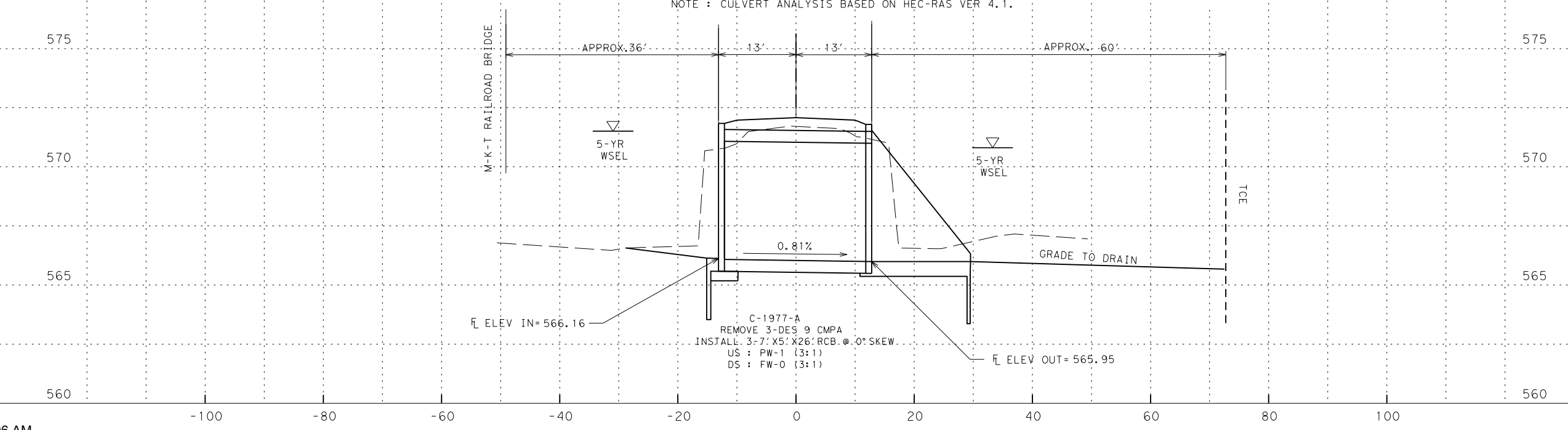
- X — FENCE LINE
- - - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - - PROPERTY LINE
- - - - - PROPOSED CENTERLINE
- - - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - - EXISTING GROUND PROFILE (AERIAL DATA)
- - - - - FLOW LINE

- NOTES:**
- ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 - CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
 - THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
 - CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
 - EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q (CFS)	PROPOSED			EXISTING				
			DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-1977-A	5	548		571.49	570.78	5.4	3-CMPA DES 9	572.09	570.82	5.78
	25	922	3-7' x 5' RCB	572.47	571.43	6.47		572.49	571.45	5.24
	100	1273		572.81	571.86	6.29		572.74	571.88	4.81

NOTE : CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1977-A
CROSS SECTION

SHEET 2 OF 10 SCALE: 1" = 20' H
1" = 5' V

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 24	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 345	

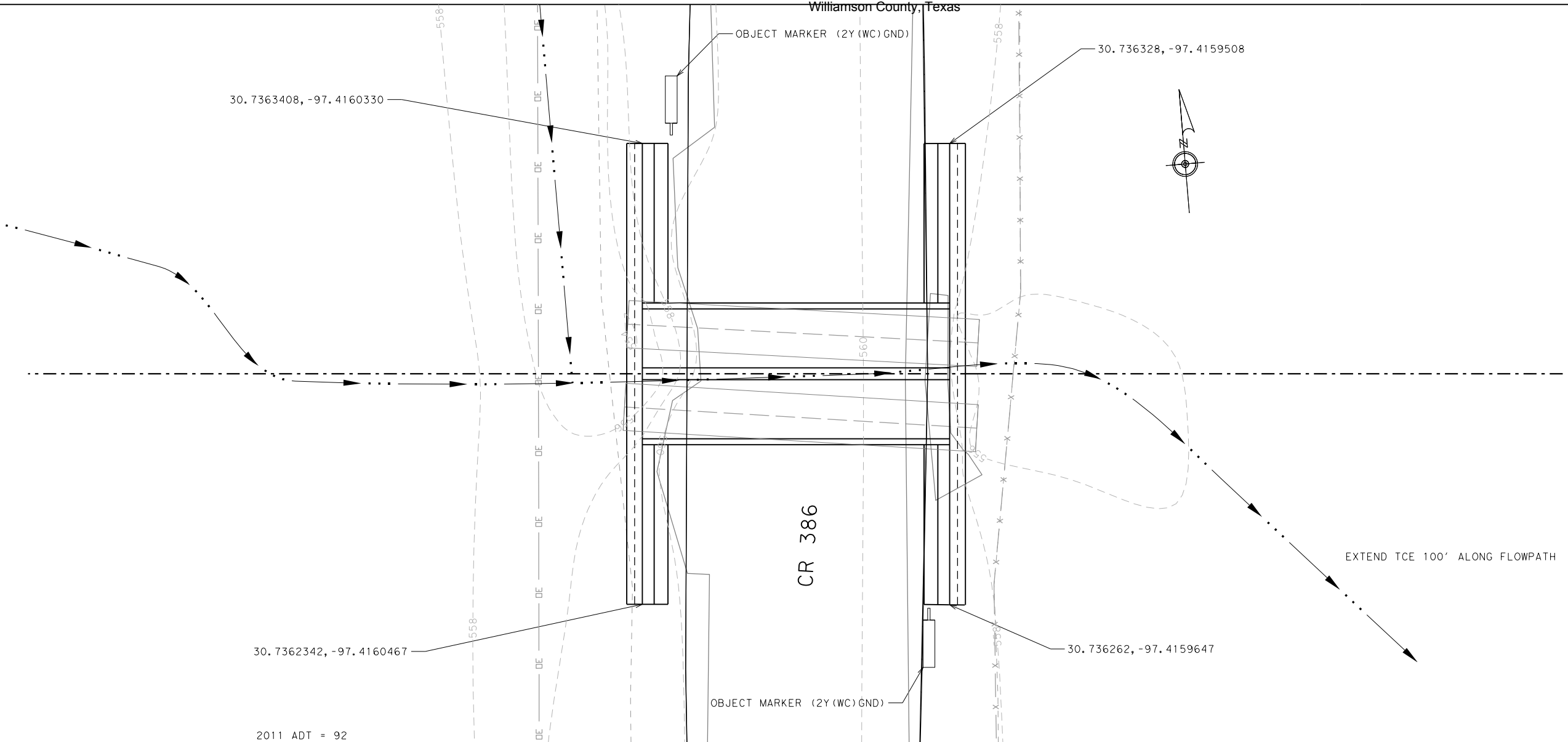
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 PLOT_DRIVER: \$PENTBL\$.

LEGEND

- X — FENCE LINE
- - - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - - PROPERTY LINE
- - - - - PROPOSED CENTERLINE
- - - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - - EXISTING GROUND PROFILE (AERIAL DATA)
- · — · — FLOW LINE

NOTES:

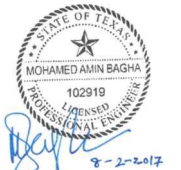
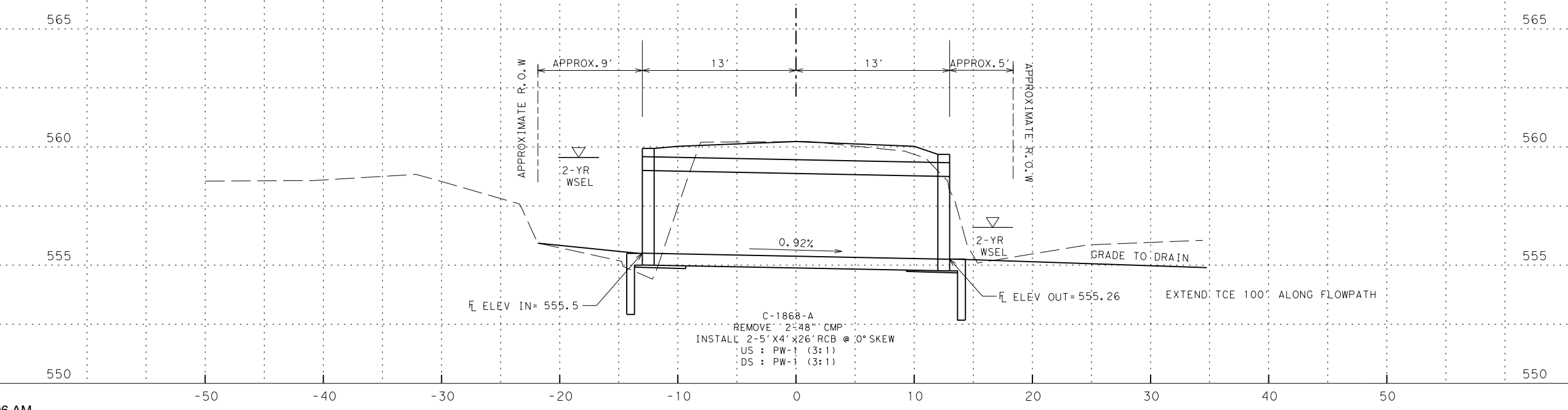
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



2011 ADT = 92
LESS THAN 2' COVER

CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			DESCRIPTION	EXISTING		
				HW ELEV	TW ELEV	V (FT/SEC)		HW ELEV	TW ELEV	V (FT/SEC)
C-1868-A	2	211	2-5' x4' RCB	559.47	558.38	6.75	2-48" CMP	560.07	558.38	7.22
	25	621		560.6	559.39	0.93		560.58	559.39	0.16
	100	863		560.78	560.5	1.24		560.75	560.43	0.78

NOTE : CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.



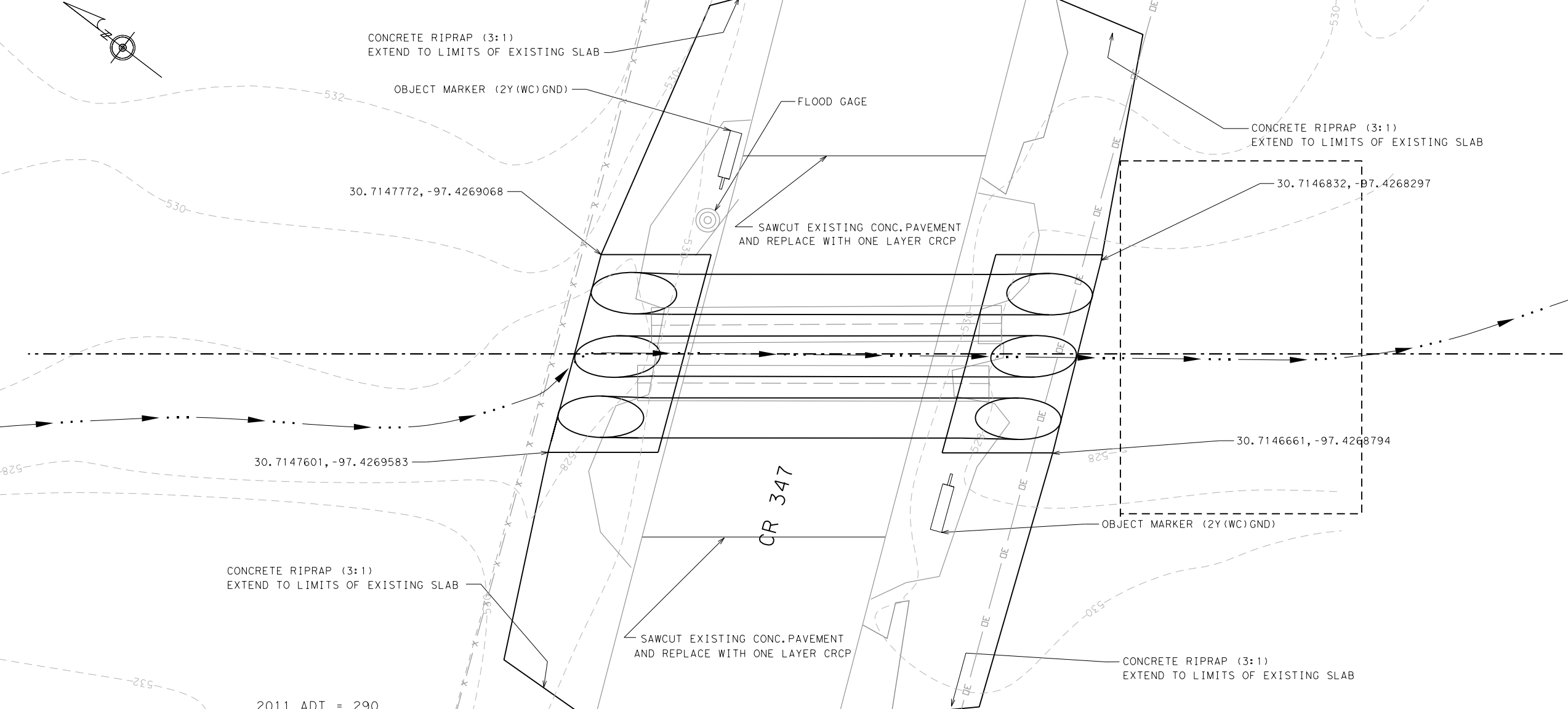
WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1868-A
CROSS SECTION

SHEET 3 OF 10

DATE: 8/2/17 DN: DW: CK: AP:

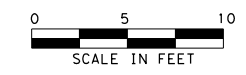
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
6	---	25	
STATE	DIST.	COUNTY	
TEXAS	---	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
---	--	---	CR 386

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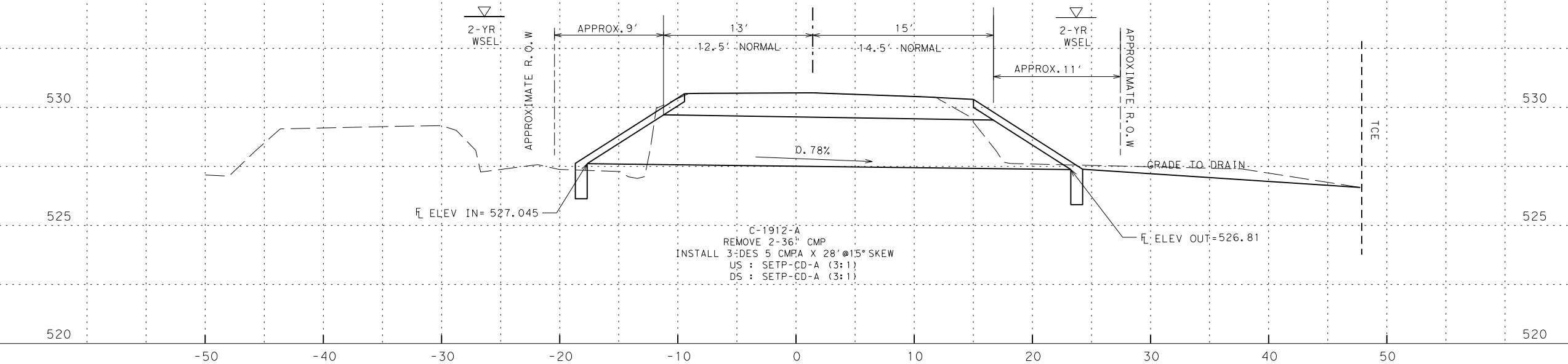
- LEGEND**
- X — FENCE LINE
 - - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
 - - - - PROPERTY LINE
 - - - - PROPOSED CENTERLINE
 - - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
 - - - - EXISTING GROUND PROFILE (AERIAL DATA)
 - - - - FLOW LINE

- NOTES:**
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
 2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
 3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
 4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
 5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q (CFS)	PROPOSED			EXISTING				
			DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-1912-A	2	2169		534.69	533.99	5.36	2-36" CMP	534.69	533.99	5.36
	25	3794	3-CMPA DES 5	535.24	535.22	3.06		535.24	535.22	3.06
	100	5146		535.88	535.94	2.07		535.88	535.94	2.07

- NOTES :**
1. CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.
 2. 100 YEAR FLOWS FROM FIS REPORT, 2 and 25 YEAR FLOWS INTERPOLATED.
 3. EFFECTIVE FEMA MODEL CONVERTED FROM WSP-2 TO HEC-RAS 4.1 AND UPDATED TO REFLECT EXISTING CONDITIONS.



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1912-A
CROSS SECTION

SHEET 4 OF 10		SCALE: 1" = 10' H 1" = 5' V	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 26
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 347

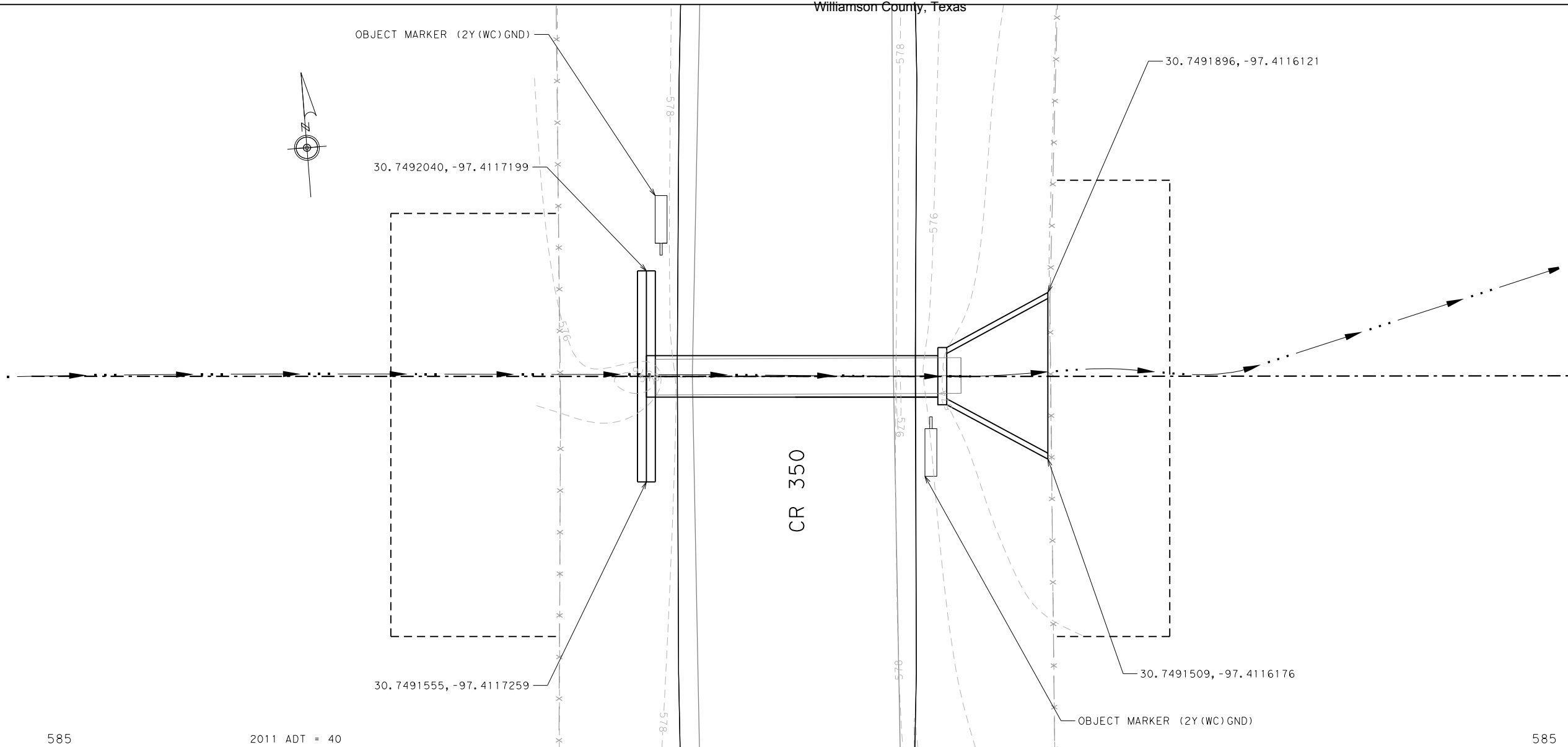
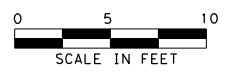
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 PLOT DRIVER:

LEGEND

- X — FENCE LINE
- - - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - - PROPERTY LINE
- - - - - PROPOSED CENTERLINE
- - - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - - EXISTING GROUND PROFILE (AERIAL DATA)
- — — — — FLOW LINE

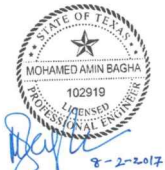
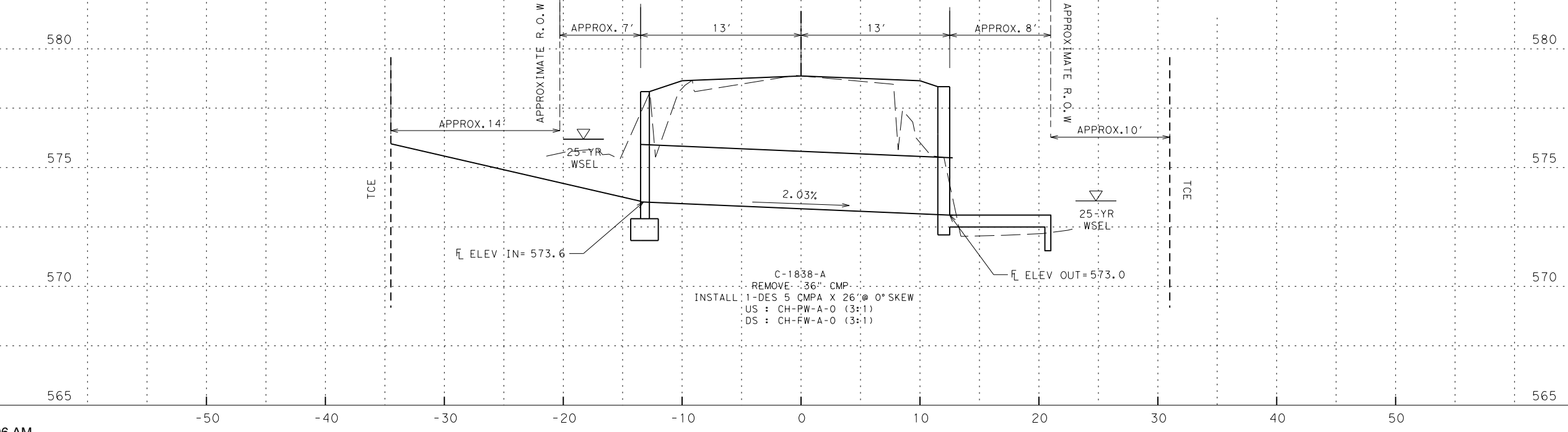
NOTES:

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2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
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5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q (CFS)	PROPOSED			EXISTING				
			DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-1838-A	25	31.6	1-CMPA DES 5	576.22	572.63	7.6	36" CMP	578.3	572.63	13.46
	100	45.2		577.4	572.75	8.18		578.7	572.75	13.93

NOTE : CULVERT ANALYSIS BASED ON HY-8 VER 7.3.



WILLIAMSON COUNTY
 CULVERT REPLACEMENT
 C-1838-A
 CROSS SECTION

SHEET 5 OF 10

SCALE: 1" = 10' H
 1" = 5' V

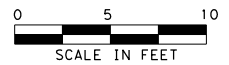
DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 27	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 350	

LEGEND

- X— FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- — — — FLOW LINE

NOTES:

1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



30.6280043, -97.3477438

OBJECT MARKER (2Y (WC) GND)

30.6278899, -97.3476949

30.6279840, -97.3478080

30.6278697, -97.3477591

CR 419

OBJECT MARKER (2Y (WC) GND)

550

2011 ADT = 230

550

CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			EXISTING			
				HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-2286-A	25	183	2-CMPA DES 7	541.43	538.13	9.96	2-48" CMP	541.94	538.13	11.19
	100	263		542.73	538.7	9.55		542.75	538.7	11.57

NOTE : CULVERT ANALYSIS BASED ON HY-8 VER 7.3.

545

545

540

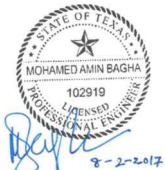
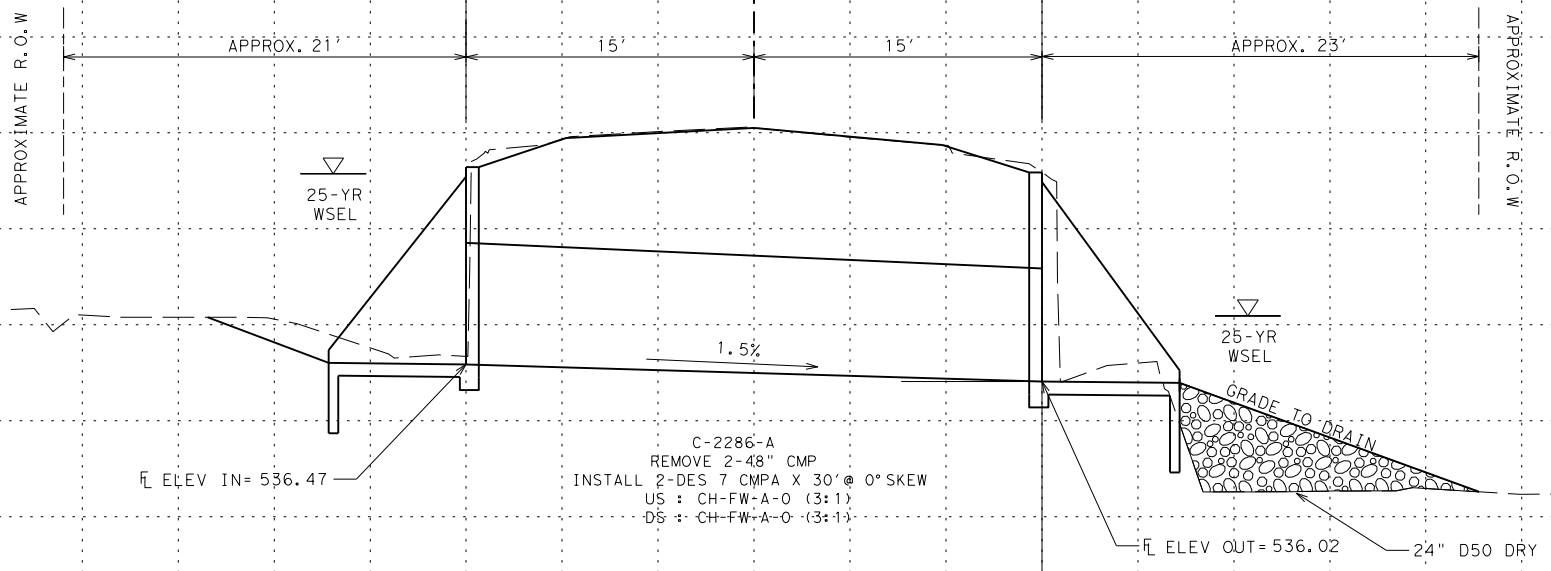
540

535

535

530

530



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-2286-A
CROSS SECTION

SHEET 6 OF 10

SCALE: 1" = 10' H
1" = 5' V

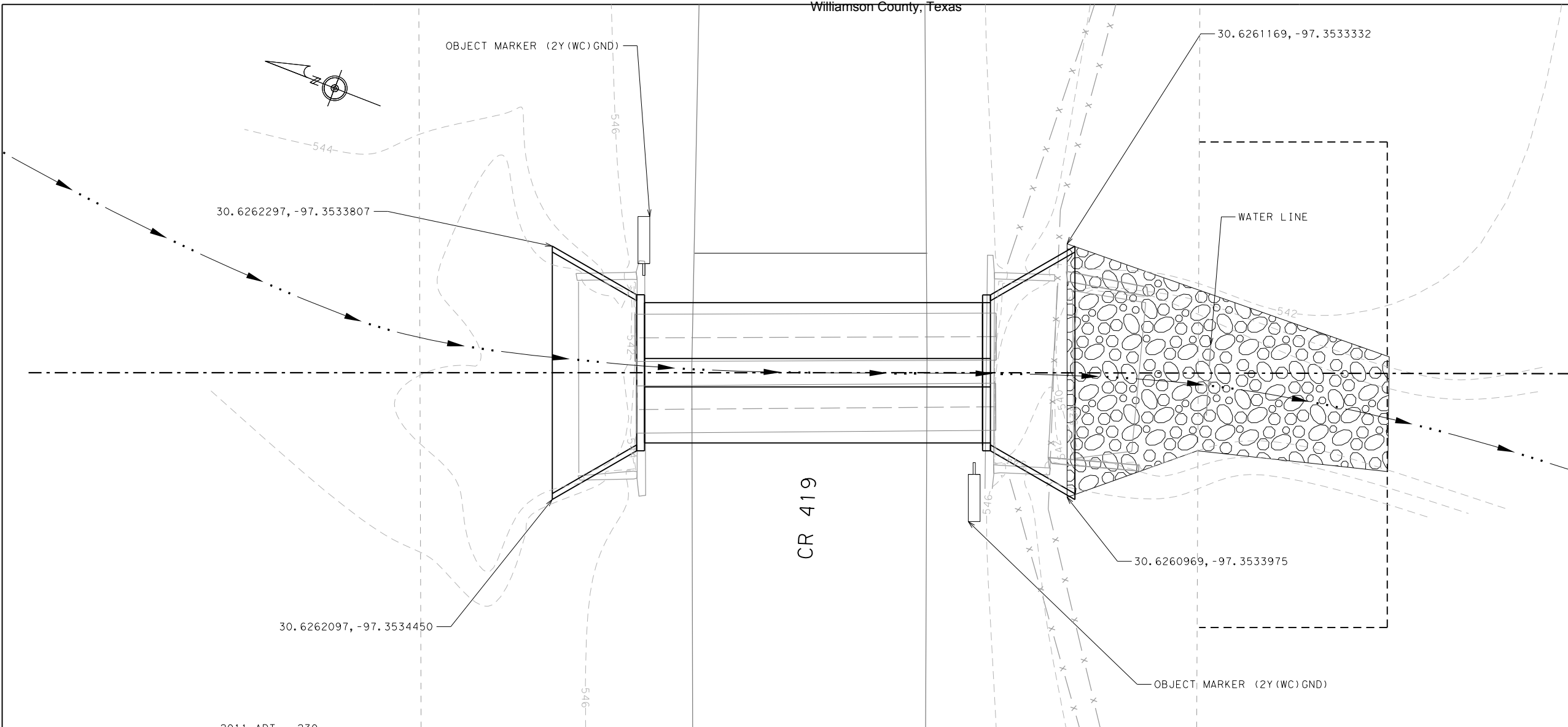
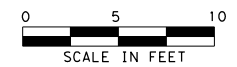
DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 28
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 419	

LEGEND

- X— FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- - - - FLOW LINE

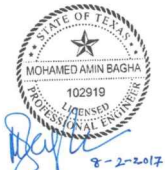
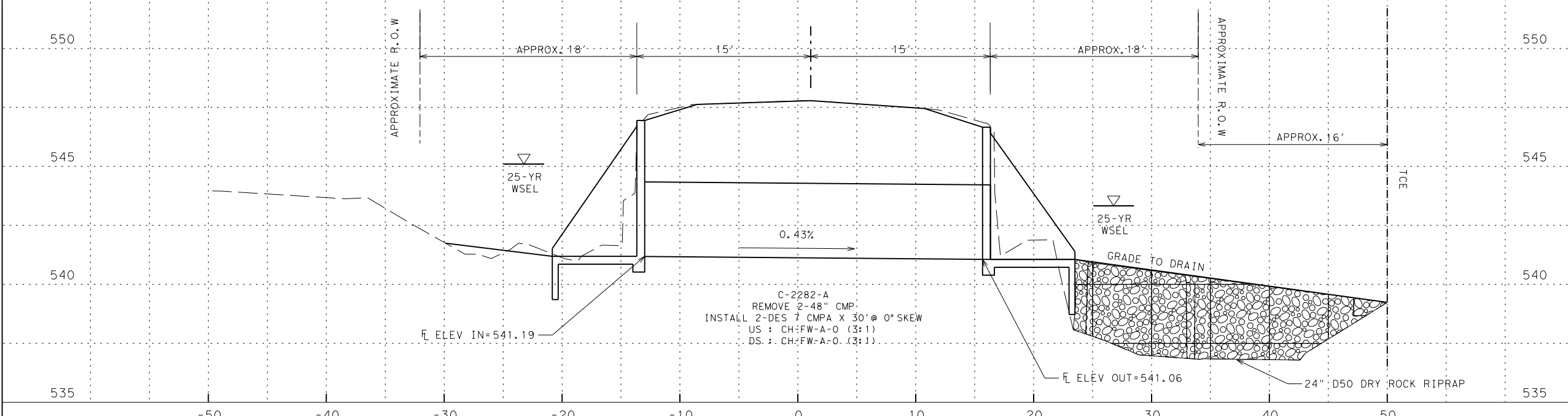
NOTES:

1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			EXISTING			
				HW ELEV	TW ELEV	V (FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V (FT/SEC)
C-2282-A	25	141	2-CMPA DES 7	545.1	543.33	7.41	2-48" CMP	545.64	543.33	8.97
	100	202		546.93	543.85	9.03		547.24	543.85	9.85

NOTE : CULVERT ANALYSIS BASED ON HY-8 VER 7.3.



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-2282-A
CROSS SECTION

SHEET 7 OF 10

SCALE: 1" = 10' H
1" = 5' V

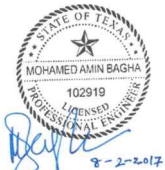
DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 29
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 419	

LEGEND

- X— FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- FLOW LINE

NOTES:

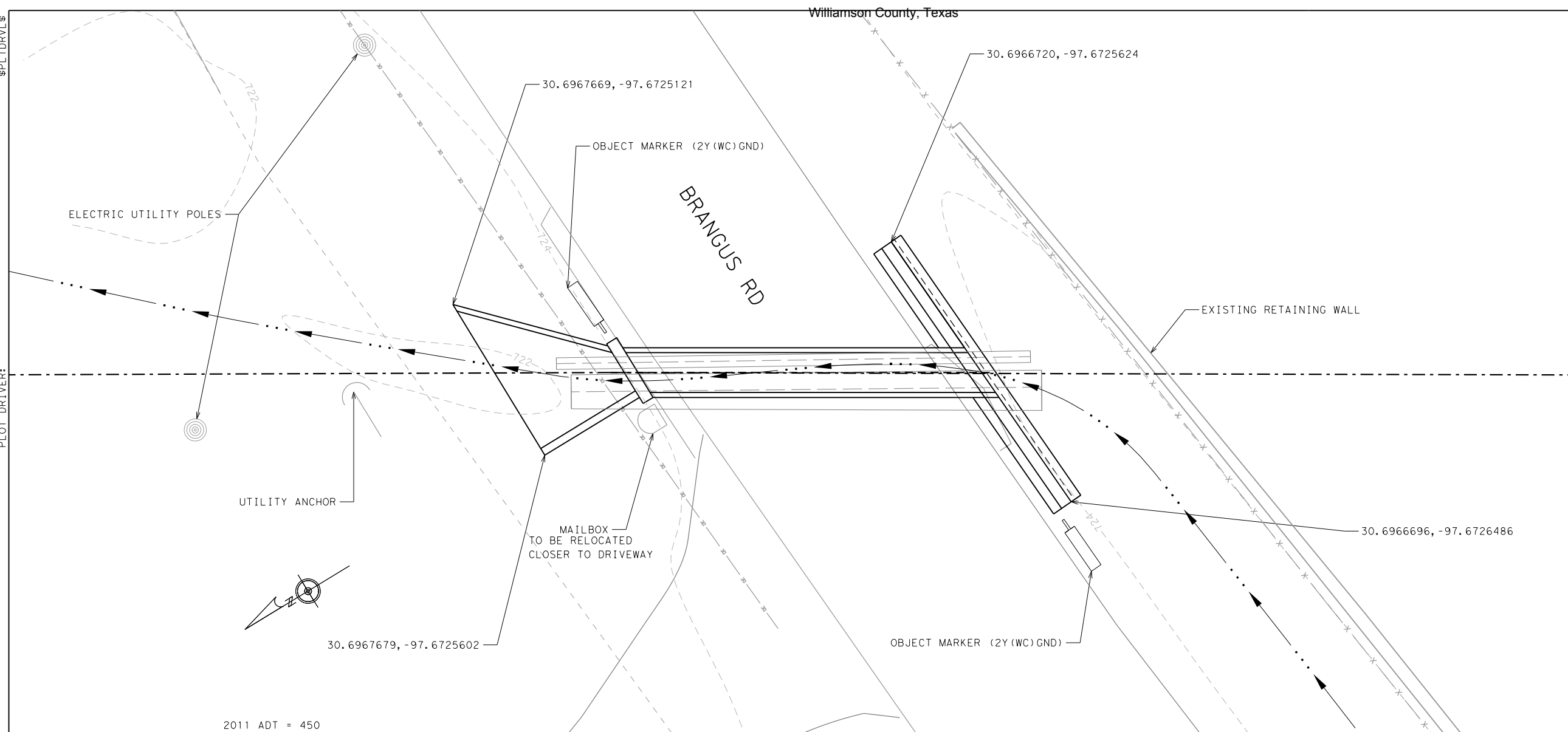
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
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4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1088-A
CROSS SECTION

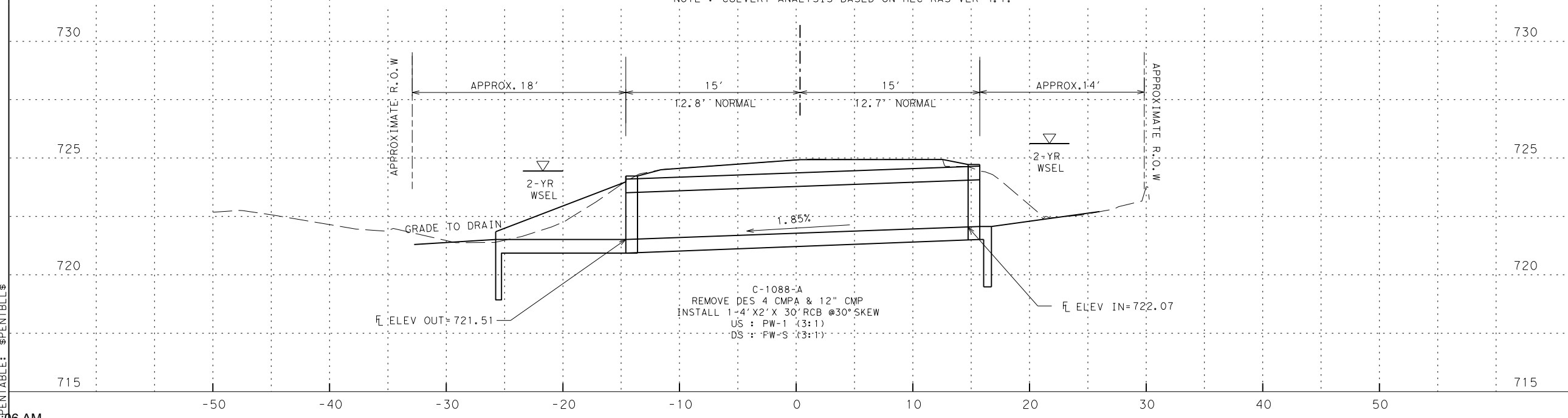
SHEET 8 OF 10 SCALE: 1" = 10' H
1" = 5' V

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 30
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. BRANGUS RD	



CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			DESCRIPTION	EXISTING		
				HW ELEV	TW ELEV	V (FT/SEC)		HW ELEV	TW ELEV	V (FT/SEC)
C-1088-A	2	238	1-4' x 2' RCB	725.55	723.48	11.59	CMP/A - 12" & DES 4	725.62	724.43	1.13
	25	891		726.23	724.29	8.74		726.26	725.01	5.35
	100	1297		726.53	724.66	8.64		726.51	725.01	5.89

NOTE: CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.

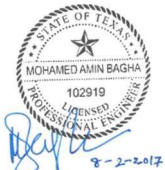
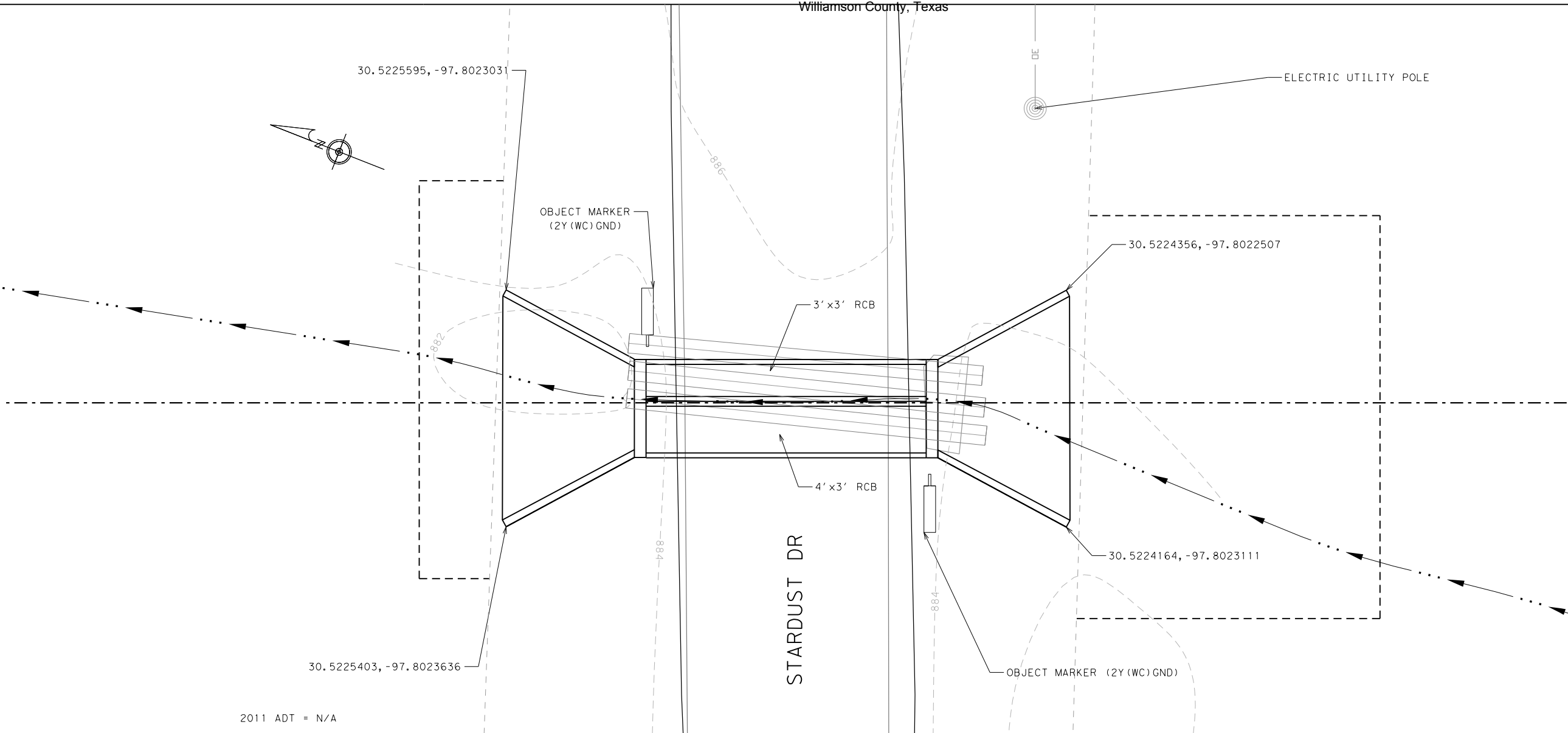
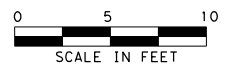


LEGEND

- X — FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- - - - FLOW LINE

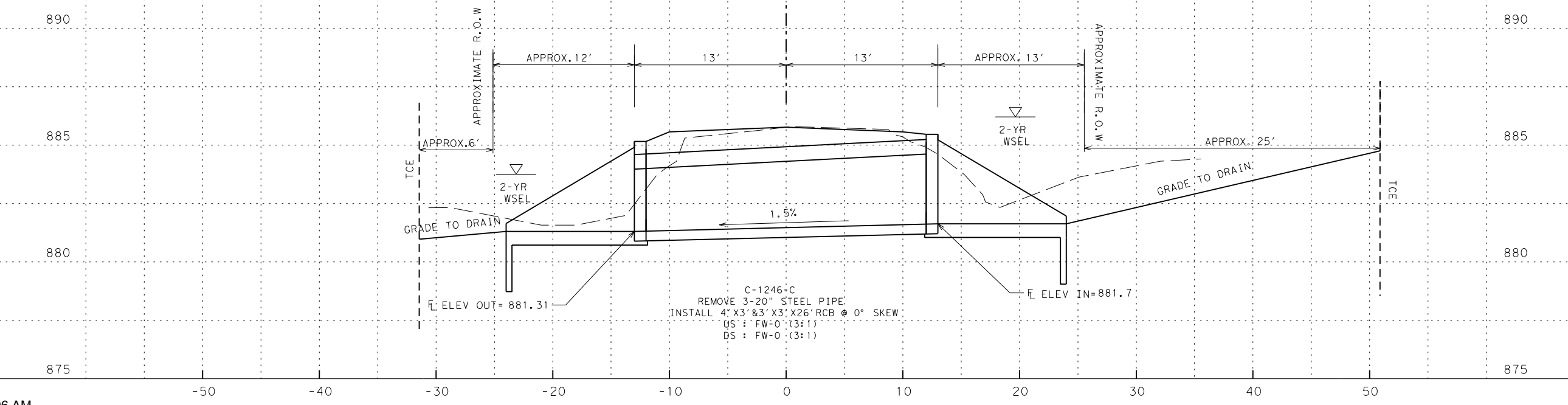
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2. CONTRACTOR SHALL REPAIR/RECONNECT EXISTING UTILITIES DISCONNECTED OR DAMAGED DURING CONSTRUCTION.
3. THE "ONE CALL" SYSTEM WILL BE USED TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.



CULVERT	FREQ YR	Q(CFS)	PROPOSED			EXISTING				
			DESCRIPTION	HW ELEV	TW ELEV	V(FT/SEC)	DESCRIPTION	HW ELEV	TW ELEV	V(FT/SEC)
C-1246-C	2	105	4' x 3' & 3' x 3' RCB	885.6	883.03	10.15	3-20" STEEL PIPE	886.17	883.03	7.54
	25	198		886.13	883.61	11.16		886.42	883.61	7.73
	100	284		886.42	884.03	11.3		886.6	884.03	7

NOTE : CULVERT ANALYSIS BASED ON HY-8 VER 7.3.



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-1246-A
CROSS SECTION

SHEET 9 OF 10

DATE: 8/2/17

SCALE: 1" = 10' H
1" = 5' V

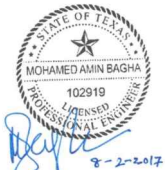
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	---	31
STATE	DIST.	COUNTY
TEXAS	---	WILLIAMSON
CONT.	SECT.	JOB
---	---	---
		HIGHWAY NO.
		STARDUST DR

LEGEND

- X — FENCE LINE
- - - - PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- - - - PROPERTY LINE
- - - - PROPOSED CENTERLINE
- - - - EXISTING GROUND PROFILE (FIELD SURVEY DATA)
- - - - EXISTING GROUND PROFILE (AERIAL DATA)
- - - - FLOW LINE

NOTES:

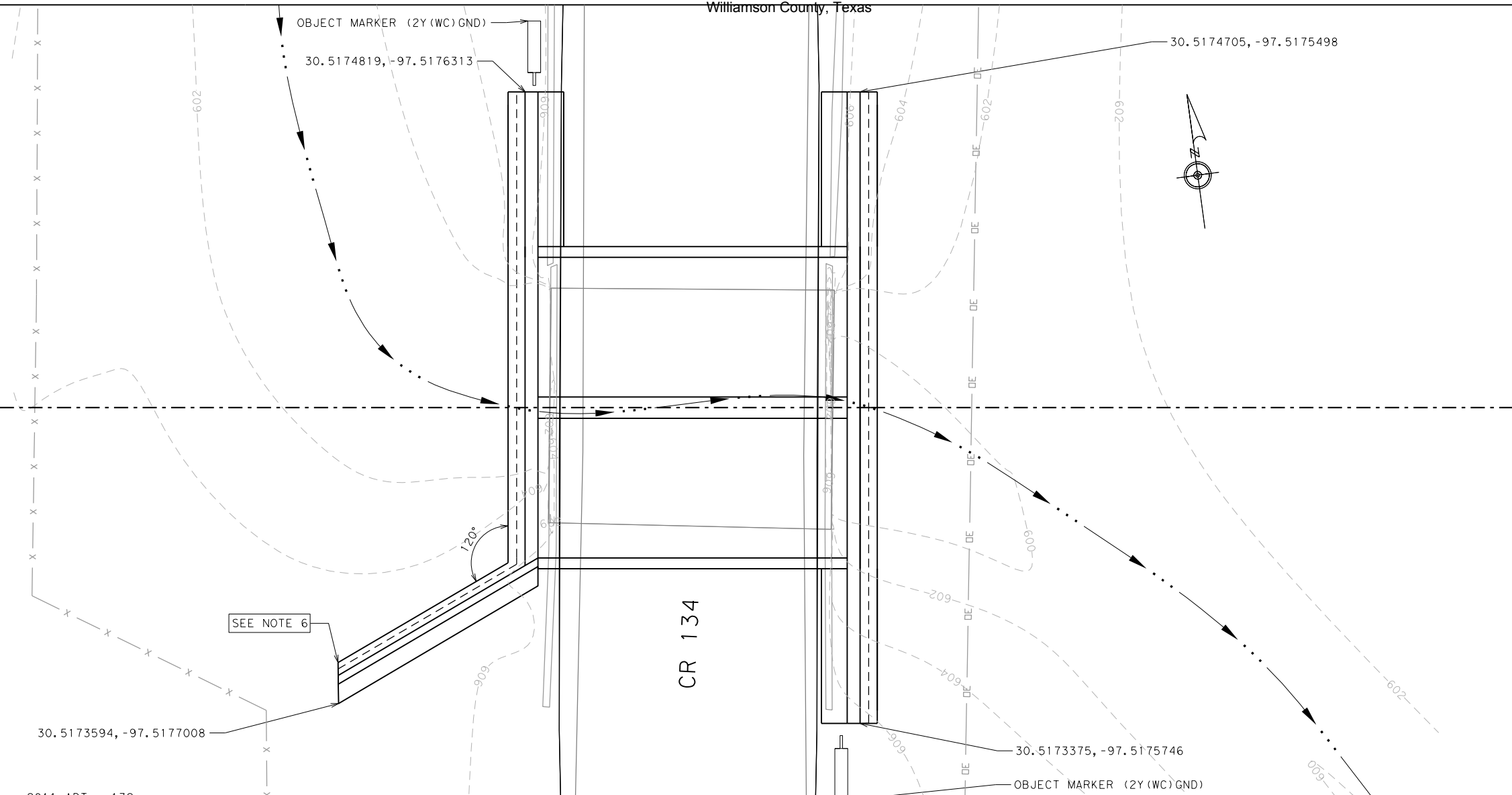
1. ALL UTILITIES SHOWN ARE BY APPROXIMATE LOCATION ONLY AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
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4. CONTRACTOR SHALL RETURN THE GROUND AREA DISTURBED BY CONSTRUCTION ACTIVITY TO EQUAL OR BETTER CONDITION IN SUCH A MANNER AS TO NOT CHANGE THE ROUTE OF STORM WATER FLOW.
5. EXIST. MAILBOXES TO BE RELOCATED TO EDGE OF PROPOSED SHOULDER AS REQUIRED.
6. FLARED WING TO BE CONSTRUCTED PER FW-0 STD SHEET



WILLIAMSON COUNTY
CULVERT REPLACEMENT
C-2170-A
CROSS SECTION

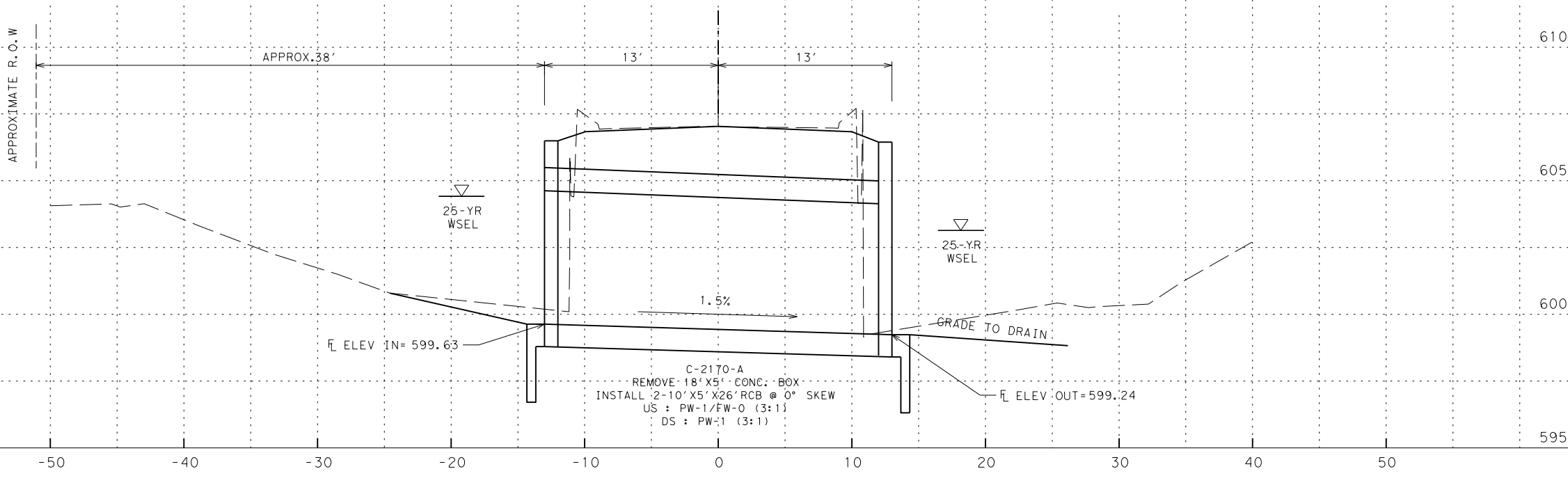
SHEET 10 OF 10 SCALE: 1" = 10' H
1" = 5' V

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 32		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 134	



CULVERT	FREQ YR	Q (CFS)	DESCRIPTION	PROPOSED			EXISTING		
				HW ELEV	TW ELEV	V (FT/SEC)	HW ELEV	TW ELEV	V (FT/SEC)
C-2170-A	25	406	2-10' X5' RCB	604.72	604.23	4.7	604.79	604.23	6.5
	100	564		605.44	604.44	6.15	605.63	604.44	6.01

NOTE : CULVERT ANALYSIS BASED ON HEC-RAS VER 4.1.

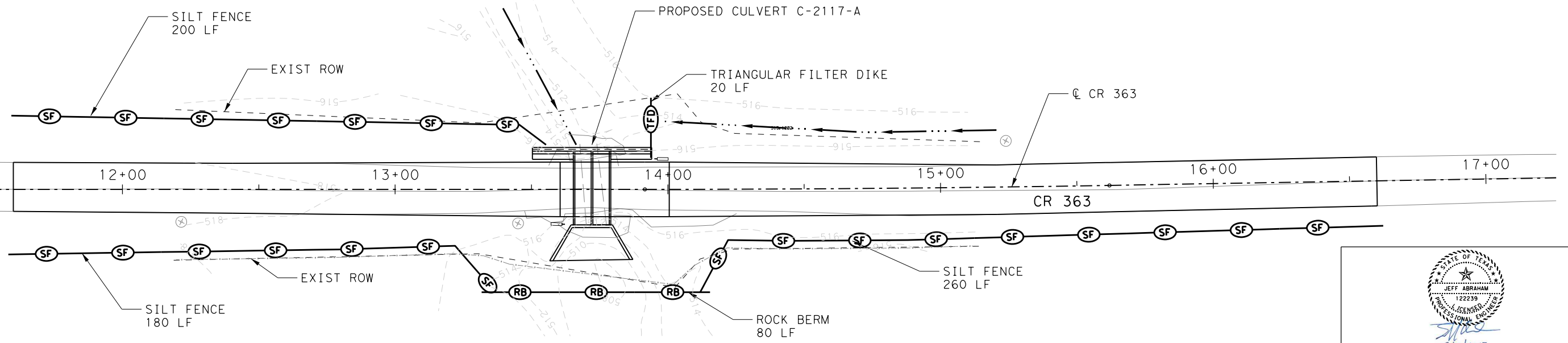


C-2170-A
REMOVE 18' X5' CONC. BOX
INSTALL 2-10' X5' X26' RCB @ 0° SKEW
US : PW-1/FW-0 (3:1)
DS : PW-1 (3:1)

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$
PRINTED: PLOT DRIVER:
FILE: \$FILEL\$ \$ENTBL\$

LEGEND

- ... → FLOW LINE
- ⊙ RB ⊙ ROCK BERM
- ⊙ SF ⊙ SILT FENCE
- ⊙ TFD ⊙ TRIANGULAR FILTER DIKE



SILT FENCE

STEEL OR WOOD FENCE POSTS MAX. 2.4 m (8') SPACING

2" X 4" WELDED WIRE BACKING SUPPORT FOR FABRIC (12.5 GA. WIRE)

FABRIC TOE-IN TRENCH (BACKFILLED)

TRENCH CROSS SECTION

STANDARD SYMBOL FOR SILT FENCE (SF)

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

ROCK BERM

WOVEN WIRE SHEATHING

CROSS SECTION

STANDARD SYMBOL FOR ROCK BERM (RB)

NOTES:

1. USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.

2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).

3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.

5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO. 639S-1
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

TRIANGULAR FILTER DIKE

CUT AWAY OF FILTER FABRIC

CROSS SECTION

STANDARD SYMBOL FOR TRIANGULAR FILTER DIKE (TFD)

NOTE: FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:

1. TOE-IN 150 mm (6") MINIMUM.

2. WEIGHTED WITH 75 mm-125 mm (3"-5") OPEN.

3. TRENCHED IN 100 mm (4").

4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

GENERAL NOTES:

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.

2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.

3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3"-5") OPEN GRADED ROCK OR TOE-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").

4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/4") DIAMETER RE-BAR WITH TEE ENDS.

5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOT RINGS.

6. THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"x6") WIRE MESH, 450 mm (18") ON A SIDE.

7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.

8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

9. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	STANDARD NO. 628S
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



WILLIAMSON COUNTY
CULVERT REPLACEMENT

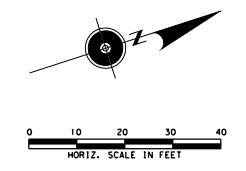
CR 363
EROSION CONTROL PLAN
C-2117-A

SHEET 1 OF 10 SCALE: 1"=20'

DATE: 8/2/17 DN: DW: CK: AP:

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
6	----	33	
STATE	DIST.	COUNTY	
TEXAS	---	WILLIAMSON	
CONT.	SECT.	JOB	HIGHWAY NO.
----	--	---	CR 363

p. 78

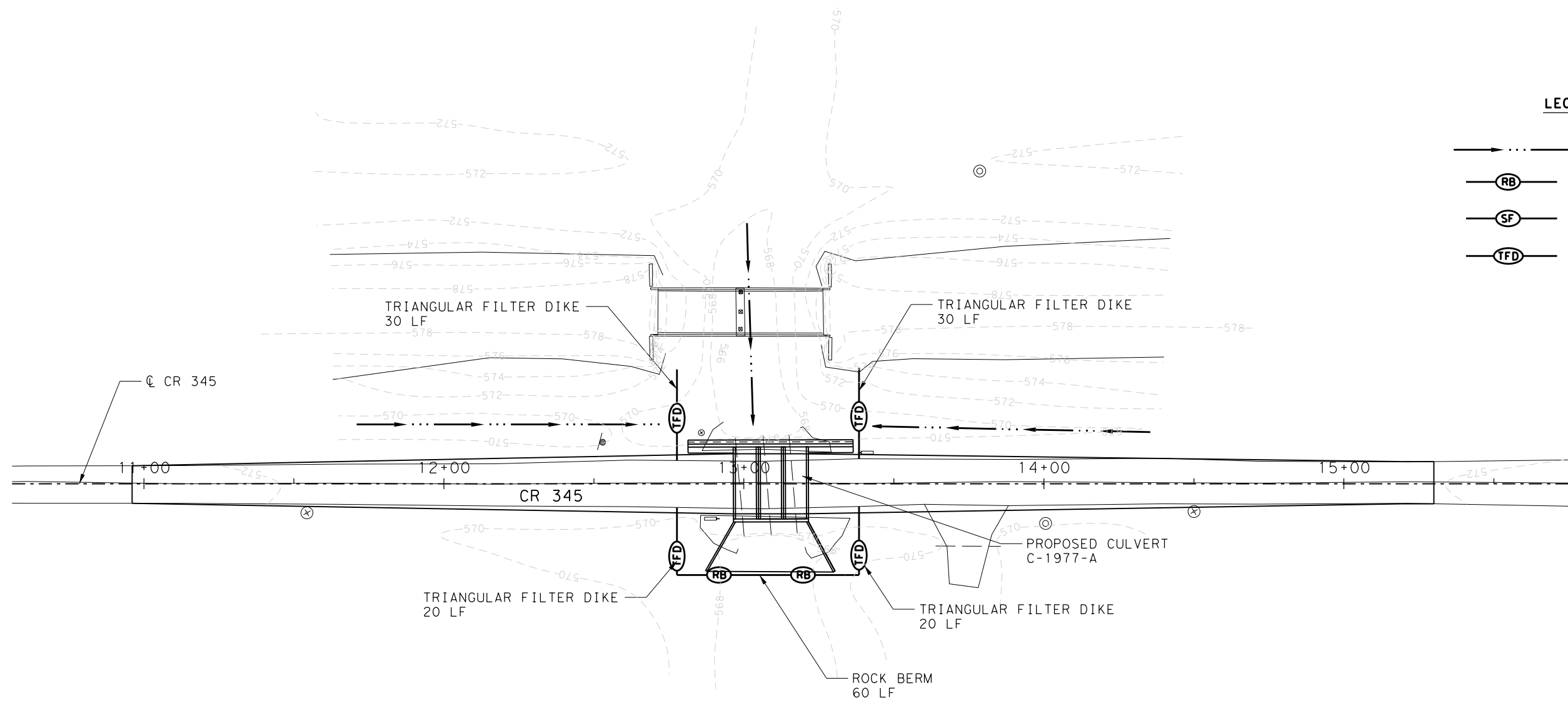


PRINTED: PLOT DRIVER: @ \$TIME\$ \$PLTRVL\$ \$DATE\$ \$ \$

FILE: \$FILEL\$ \$ENTBL\$ \$ \$

LEGEND

- FLOW LINE
- ⊙ RB ROCK BERM
- ⊙ SF SILT FENCE
- ⊙ TFD TRIANGULAR FILTER DIKE



STANDARD SYMBOL FOR SILT FENCE (SF)

TRENCH CROSS SECTION

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE FLATTENED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

STANDARD SYMBOL FOR ROCK BERM (RB)

CROSS SECTION

NOTES:

- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO. 639S-1
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

STANDARD SYMBOL FOR TRIANGULAR FILTER DIKE (TFD)

CROSS SECTION

NOTE: FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:

- TOE-IN 150 mm (6") MINIMUM.
- WEIGHTED WITH 75 mm-125 mm (3"-5") OPEN.
- TRENCHED IN 100 mm (4").
- CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

CUT AWAY OF FILTER FABRIC

GENERAL NOTES:

- DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
- THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
- THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOE-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
- DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2") CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/4") DIAMETER RE-BAR WITH TEE ENDS.
- FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOT RINGS.
- THE DIKE STRUCTURE SHALL BE MW40-150 mmx150 mm (6 GA. 6"x6") WIRE MESH, 450 mm (18") ON A SIDE.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
- AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	STANDARD NO. 628S
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



WILLIAMSON COUNTY
CULVERT REPLACEMENT

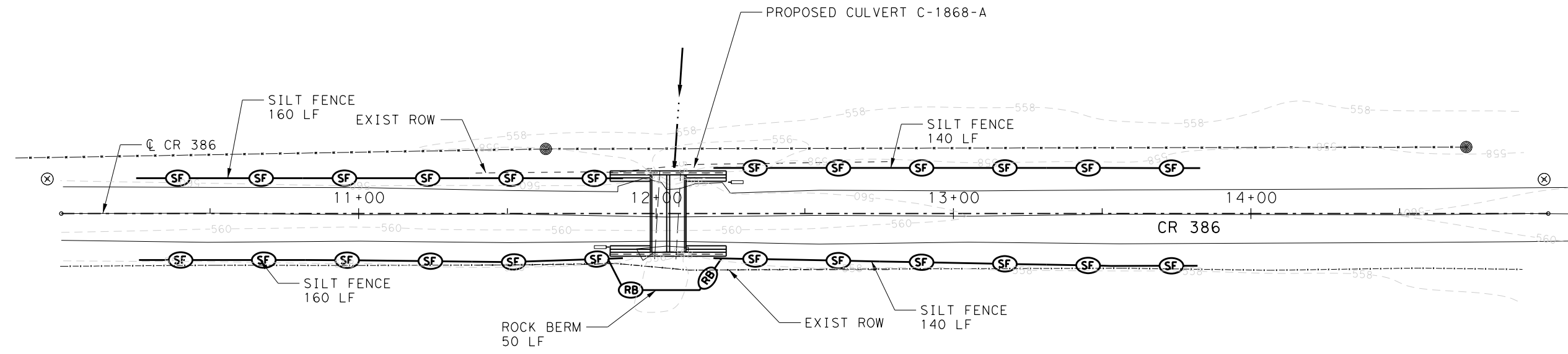
CR 345
EROSION CONTROL PLAN
C-1977-A

SHEET 2 OF 10		SCALE: 1"=20'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 34	
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 345

PRINTED: PLOT DRIVER: \$FILEL\$ \$PENTBL\$ @ \$TIME\$ \$PLTDRVL\$ \$DATE\$ \$ \$

LEGEND

- ... → FLOW LINE
- ⊖ RB ⊖ ROCK BERM
- ⊖ SF ⊖ SILT FENCE
- ⊖ TFD ⊖ TRIANGULAR FILTER DIKE



CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

SILT FENCE

RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 642S-1

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

ROCK BERM

RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 639S-1

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

- NOTES:**
- USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
 - THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
 - THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 - IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 - WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



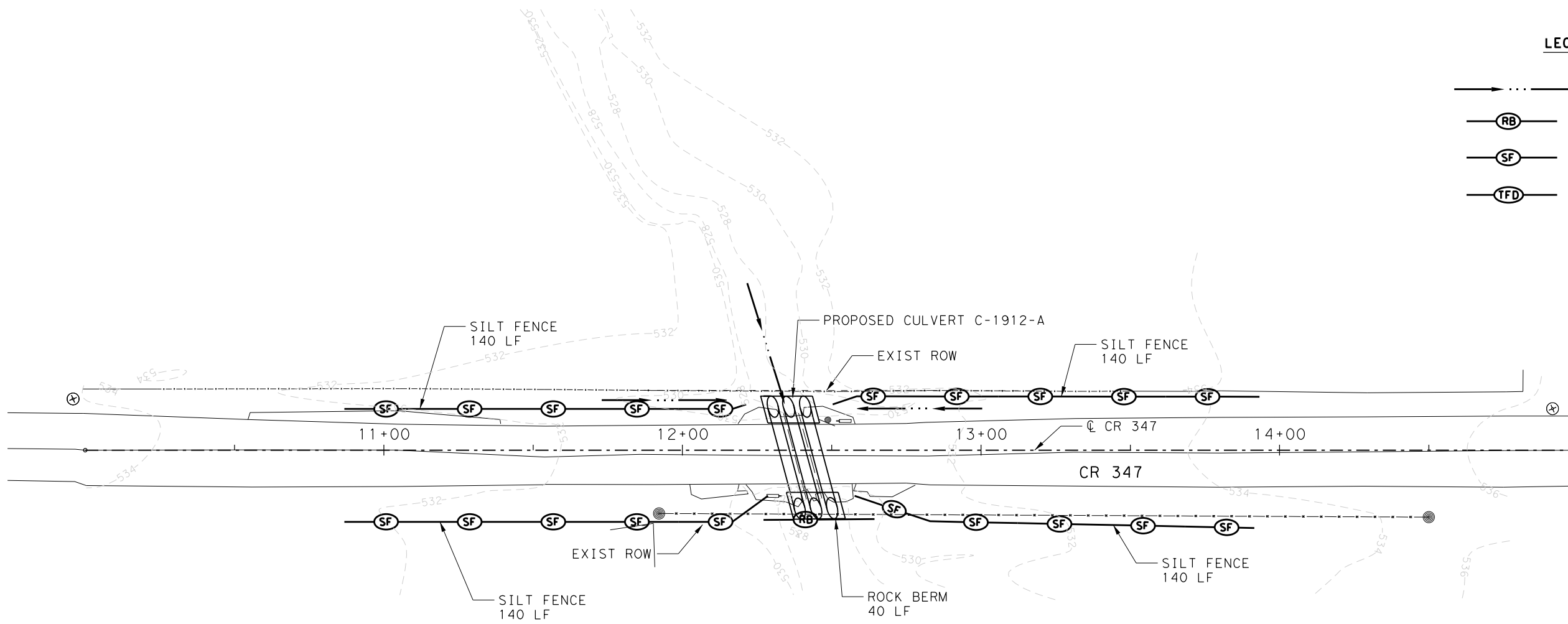
WILLIAMSON COUNTY
CULVERT REPLACEMENT

CR 386
EROSION CONTROL PLAN
C-1868-A

SHEET 3 OF 10 SCALE: 1"=20'

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---			SHEET NO. 35
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 386	

\$DATE\$ @ \$TIME\$ \$PLTDRVL\$
 PRINTED: PLOT DRIVER:
 \$FILEL\$ \$PENTBL\$



LEGEND

- FLOW LINE
- ROCK BERM
- SILT FENCE
- TRIANGULAR FILTER DIKE

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

SILT FENCE

RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 642S-1

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

ROCK BERM

RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 639S-1

NOTES:

- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

WILLIAMSON COUNTY
1848 © 2017

STEGER BIZZELL
TBPE FIRM NO. 101

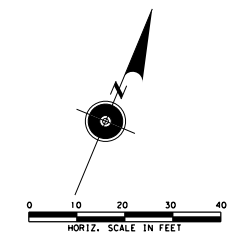
Michael Baker INTERNATIONAL
TBPE FIRM NO. 2677

WILLIAMSON COUNTY CULVERT REPLACEMENT

CR 347 EROSION CONTROL PLAN C-1912-A

SHEET 4 OF 10 SCALE: 1"=20'





DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 36		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 347	

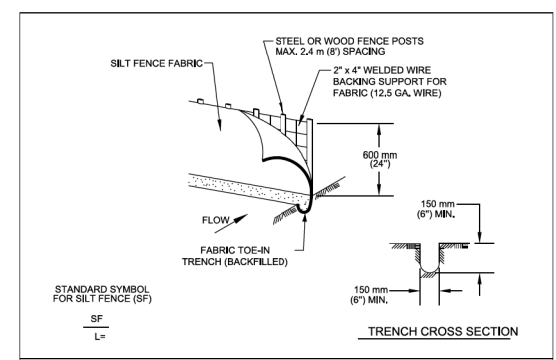
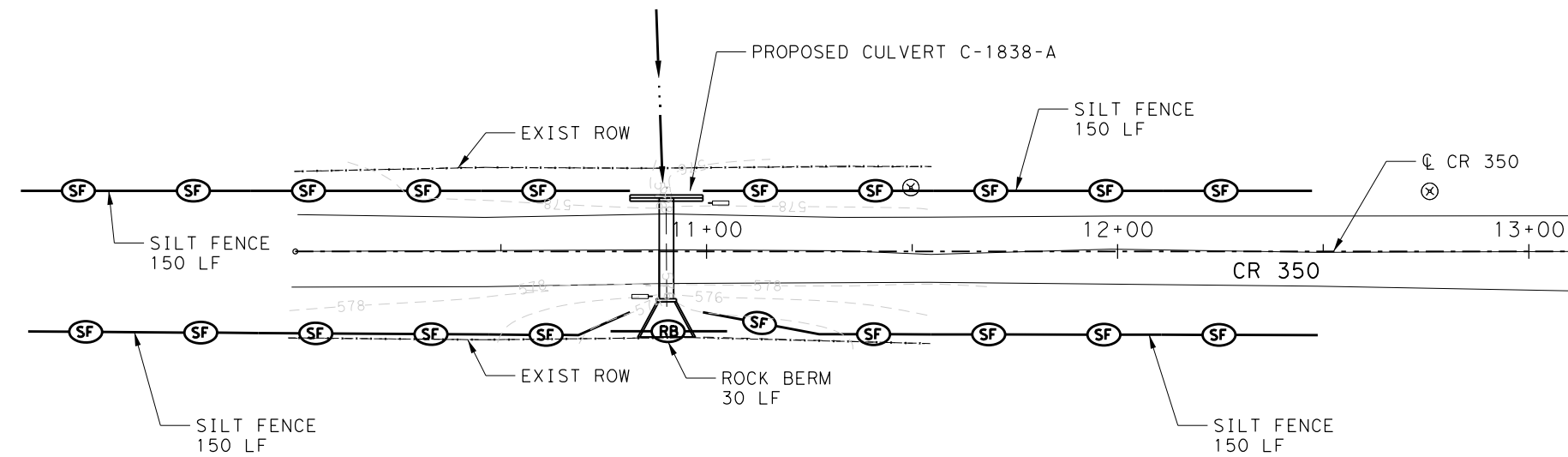


PRINTED: PLOT DRIVER: \$DATE\$ @ \$TIME\$ \$PLTDRVL\$

FILE: \$FILEL\$ \$ENTBL\$

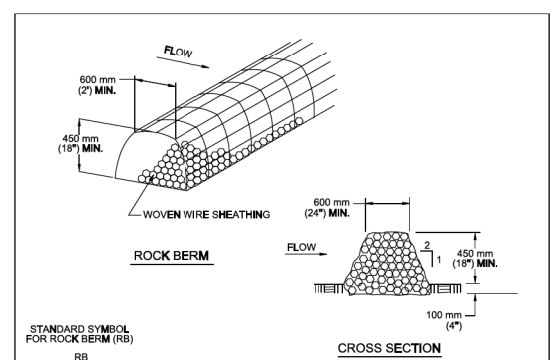
LEGEND

-  FLOW LINE
-  ROCK BERM
-  SILT FENCE
-  TRIANGULAR FILTER DIKE



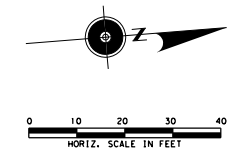
1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



- NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
 3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 5. WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



WILLIAMSON COUNTY
CULVERT REPLACEMENT

CR 350
EROSION CONTROL PLAN
C-1838-A





SHEET 5 OF 10		SCALE: 1"=20'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 37
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 350

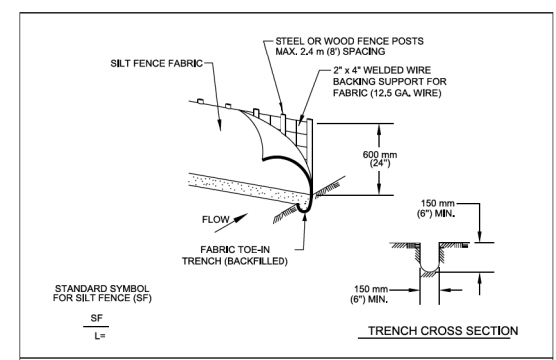
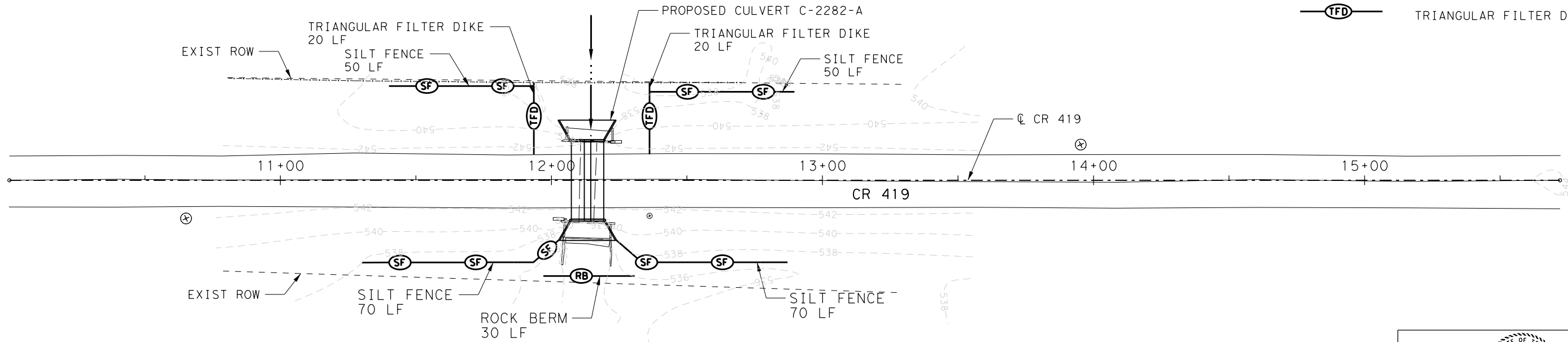
\$DATE\$ @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

\$FILEL\$ \$ENTBL\$

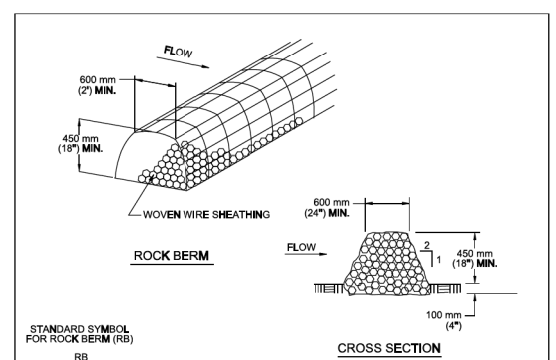
LEGEND

-  FLOW LINE
-  ROCK BERM
-  SILT FENCE
-  TRIANGULAR FILTER DIKE



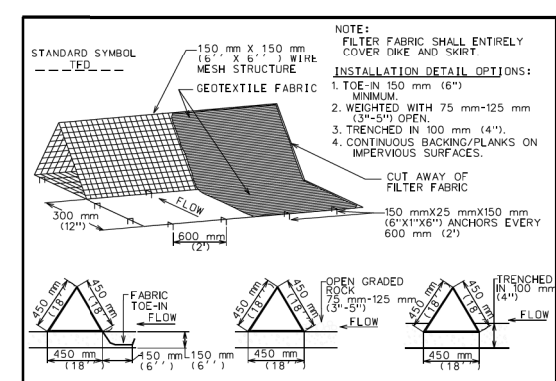
1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
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6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



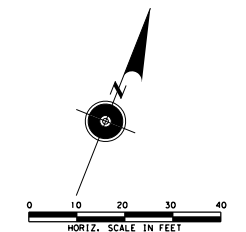
- NOTES:**
1. USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
 3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



- GENERAL NOTES:**
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
 2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
 3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOE-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
 4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (24") CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8") DIAMETER RE-BAR WITH TEE ENDS.
 5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOT RINGS.
 6. THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"x6") WIRE MESH, 450 mm (18") ON A SIDE.
 7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
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 9. AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TRIANGULAR SEDIMENT FILTER DIKE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S







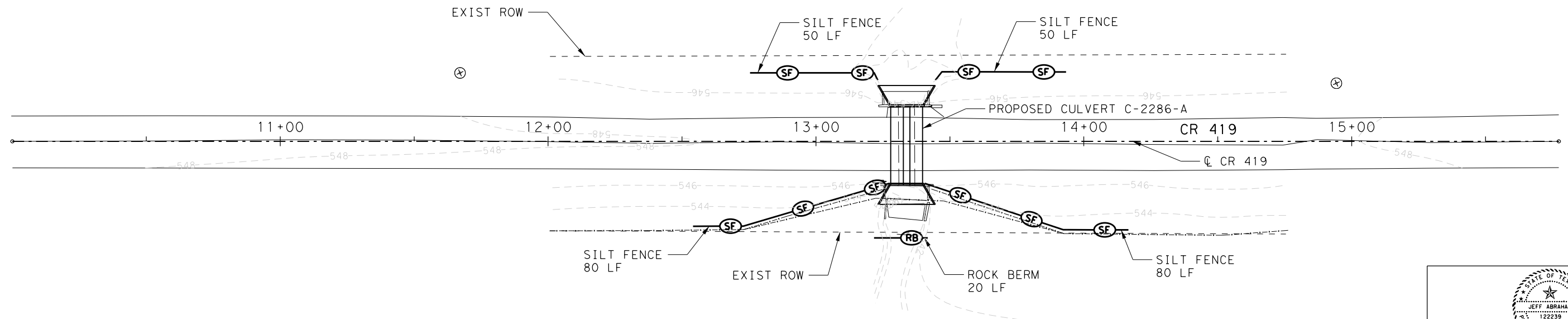
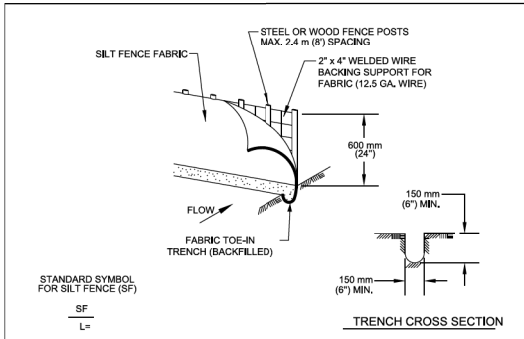
WILLIAMSON COUNTY
CULVERT REPLACEMENT
CR 419
EROSION CONTROL PLAN
C-2282-A

SHEET 6 OF 10		SCALE: 1"=20'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 38
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 419

PRINTED: PLOT DRIVER: \$DATE\$ @ \$TIME\$ \$PLTDRVL\$. \$FILEL\$. \$PENTBL\$. 8/10/2017 8:06 AM

LEGEND

-  FLOW LINE
-  ROCK BERM
-  SILT FENCE
-  TRIANGULAR FILTER DIKE

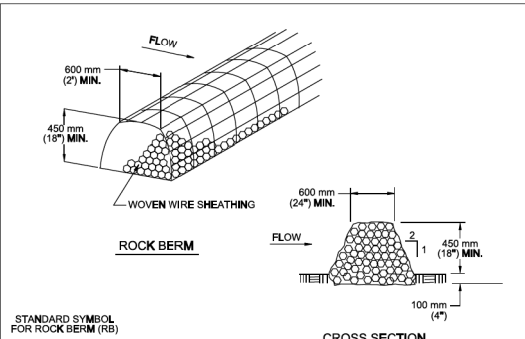



STANDARD SYMBOL FOR SILT FENCE (SF)

TRENCH CROSS SECTION

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



STANDARD SYMBOL FOR ROCK BERM (RB)

CROSS SECTION

NOTES:

- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO. 639S-1
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



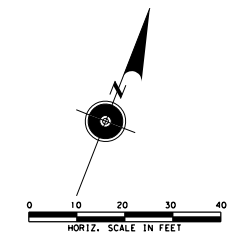



WILLIAMSON COUNTY
CULVERT REPLACEMENT

CR 419
EROSION CONTROL PLAN
C-2286-A

SHEET 7 OF 10 SCALE: 1"=20'

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO.	SHEET NO. 39		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT.	SECT.	JOB	HIGHWAY NO. CR 419	

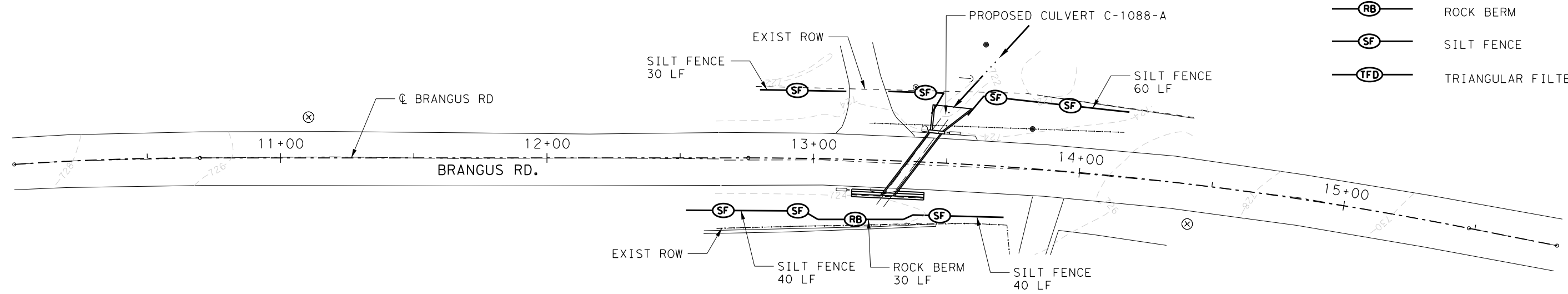


PRINTED: PLOT DRIVER: \$DATE\$ @ \$TIME\$ \$PLTDRVL\$

FILE: \$FILEL\$ \$ENTBL\$

LEGEND

- FLOW LINE
- ⊙ RB ROCK BERM
- ⊙ SF SILT FENCE
- ⊙ TFD TRIANGULAR FILTER DIKE



STANDARD SYMBOL FOR SILT FENCE (SF)

TRENCH CROSS SECTION

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

STANDARD SYMBOL FOR ROCK BERM (RB)

CROSS SECTION

NOTES:

- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO. 639S-1
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	

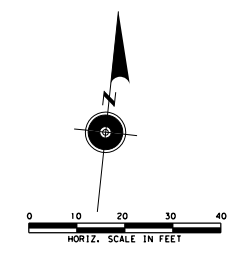


**WILLIAMSON COUNTY
CULVERT REPLACEMENT**

BRANGUS RD.
EROSION CONTROL PLAN
C-1088-A

SHEET 8 OF 10 SCALE: 1"=20'

DATE: 8/2/17	DN:	DW:	CK:	AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---	SHEET NO. 40		
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON		
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. BRNGUS RD	



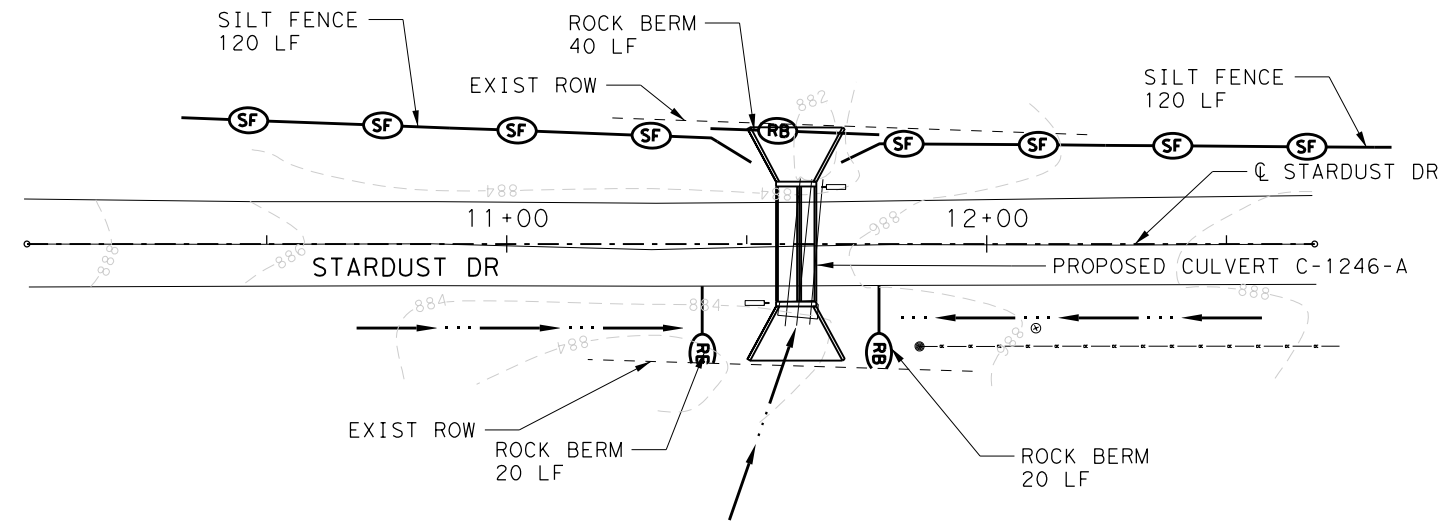
\$DATE\$ @ \$TIME\$ \$PLTDRVL\$

PRINTED: PLOT DRIVER

\$FILEL\$ \$PENTBL\$

LEGEND

- ... → FLOW LINE
- ⊙ RB ⊙ ROCK BERM
- ⊙ SF ⊙ SILT FENCE
- ⊙ TFD ⊙ TRIANGULAR FILTER DIKE



STANDARD SYMBOL FOR SILT FENCE (SF)

TRENCH CROSS SECTION

- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
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- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 642S-1	

STANDARD SYMBOL FOR ROCK BERM (RB)

CROSS SECTION

NOTES:

- USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 639S-1	

WILLIAMSON COUNTY
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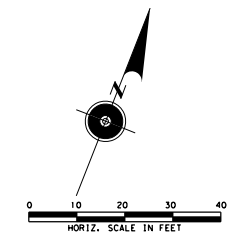
STEGER BIZZELL
TBPE FIRM NO. 101

Michael Baker INTERNATIONAL
TBPE FIRM NO. 2677

WILLIAMSON COUNTY CULVERT REPLACEMENT

STARDUST DR.
EROSION CONTROL PLAN
C-1246-A

SHEET 9 OF 10		SCALE: 1"=20'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 41
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. STARDUST DR

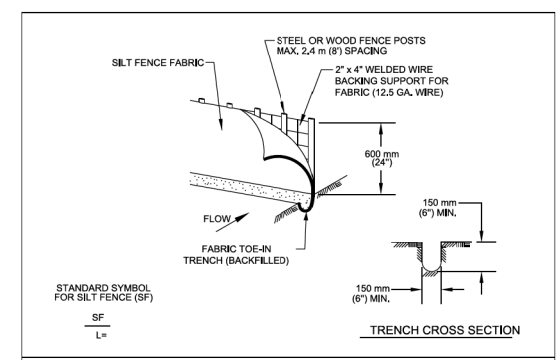
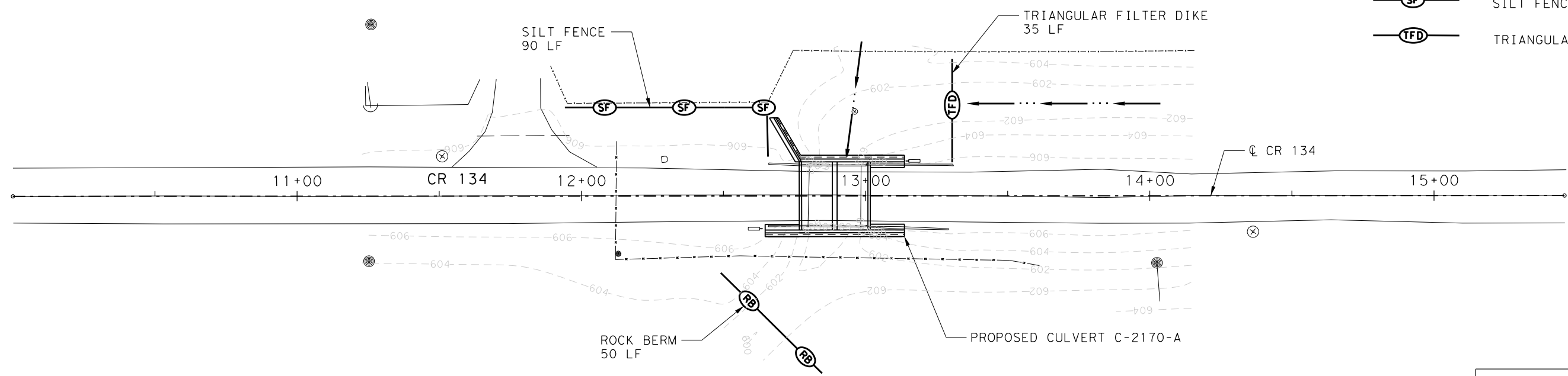


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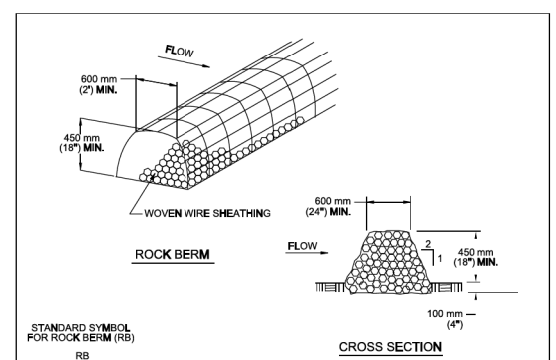
LEGEND

- FLOW LINE
- ⊙ RB ROCK BERM
- ⊙ SF SILT FENCE
- ⊙ TFD TRIANGULAR FILTER DIKE



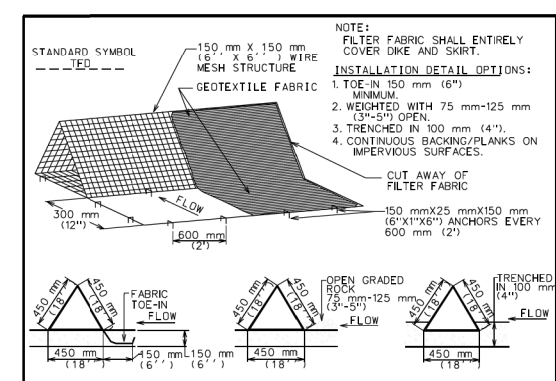
- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO. 642S-1
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



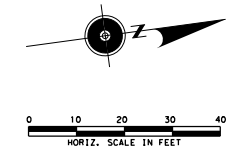
- NOTES:**
- USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
 - THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (3/8 GAUGE).
 - THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 - IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 - WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO. 639S-1
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



- NOTE:** FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.
- INSTALLATION DETAIL OPTIONS:**
- TOE-IN 150 mm (6") MINIMUM.
 - WEIGHTED WITH 75 mm-125 mm (3"-5") OPEN.
 - TRENCHED IN 100 mm (4").
 - CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.
- CUT AWAY OF FILTER FABRIC**
- GENERAL NOTES:**
- DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
 - THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
 - THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOE-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
 - DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/4") DIAMETER RE-BAR WITH TEE ENDS.
 - FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOOT RINGS.
 - THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"X6") WIRE MESH, 450 mm (18") ON A SIDE.
 - INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
 - ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
 - AFTER THE DEVELOPMENT SITE IS COMPLETELY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	STANDARD NO. 628S
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	



**WILLIAMSON COUNTY
CULVERT REPLACEMENT**

**CR 134
EROSION CONTROL PLAN
C-2170-A**

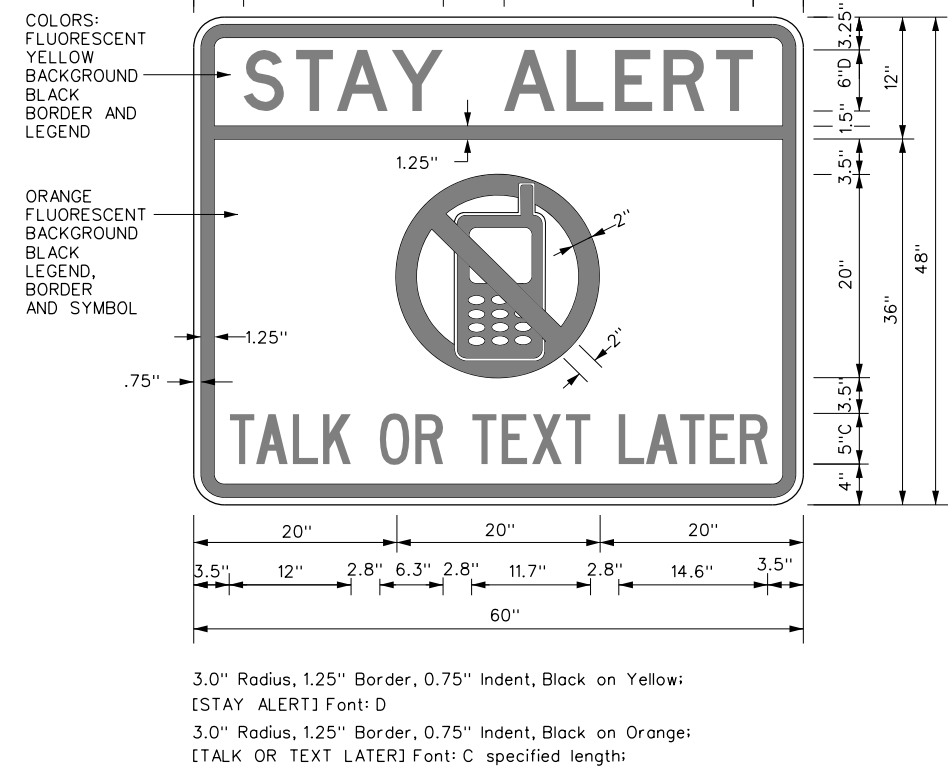
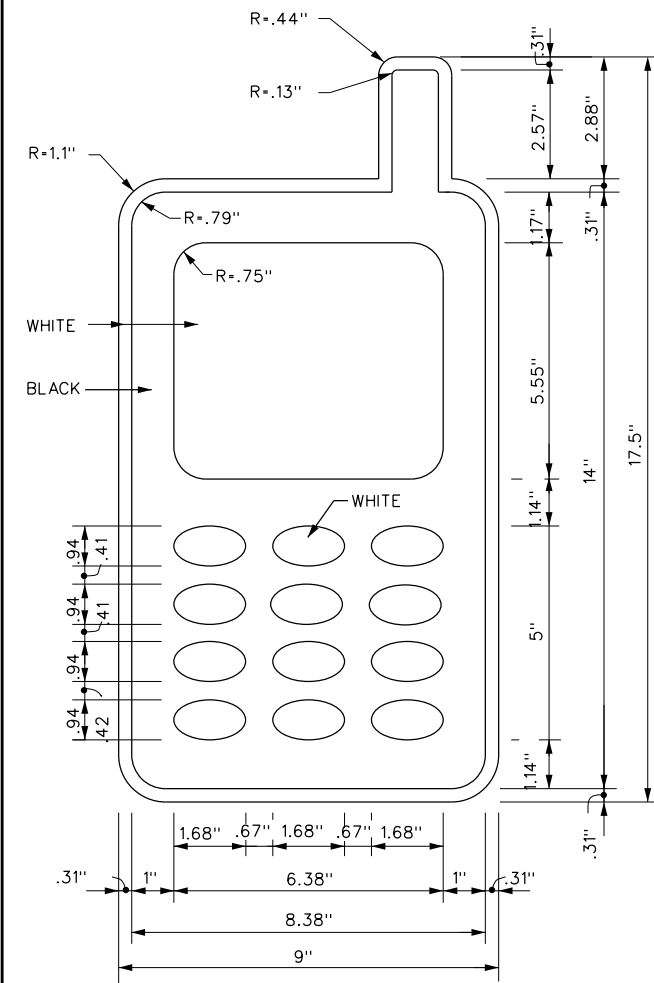
SHEET 10 OF 10		SCALE: 1"=20'	
DATE: 8/2/17	DN:	DW:	CK: AP:
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. ---		SHEET NO. 42
STATE TEXAS	DIST. ---	COUNTY WILLIAMSON	
CONT. ---	SECT. ---	JOB ---	HIGHWAY NO. CR 134

BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

- The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
- The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
- The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
- Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
- When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
- The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
- The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
- As shown on BC(2), the OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER (see Sign Detail G20-10T) and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. However, the TRAFFIC FINES DOUBLE sign will not be required on projects consisting solely of mobile operation work, such as striping or milling edgeline rumble strips. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits.
- Except for devices required by Note 10, traffic control devices should be in place only while work is actually in progress or a definite need exists.
- The Engineer has the final decision on the location of all traffic control devices.
- Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY APPAREL NOTES:

- Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.



SIGN DETAIL (G20-10T)

Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found on-line at the web address given below or by contacting:

Texas Department of Transportation
Traffic Operations Division - TE
Phone (512) 416-3118

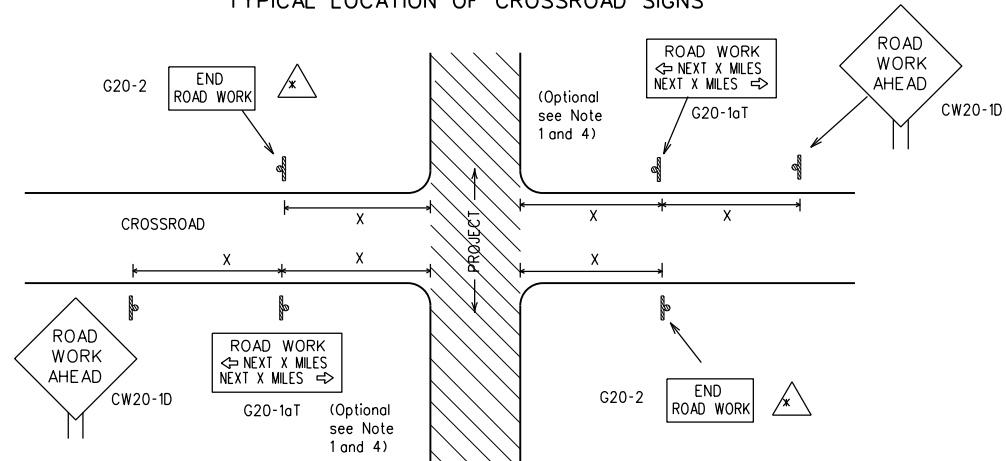
THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

SHEET 1 OF 12

<p>BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS</p> <p>BC(1)-14</p>				
FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
4-03	5-10	8-14		
9-07	7-13			
	DIST	COUNTY	SHEET NO.	

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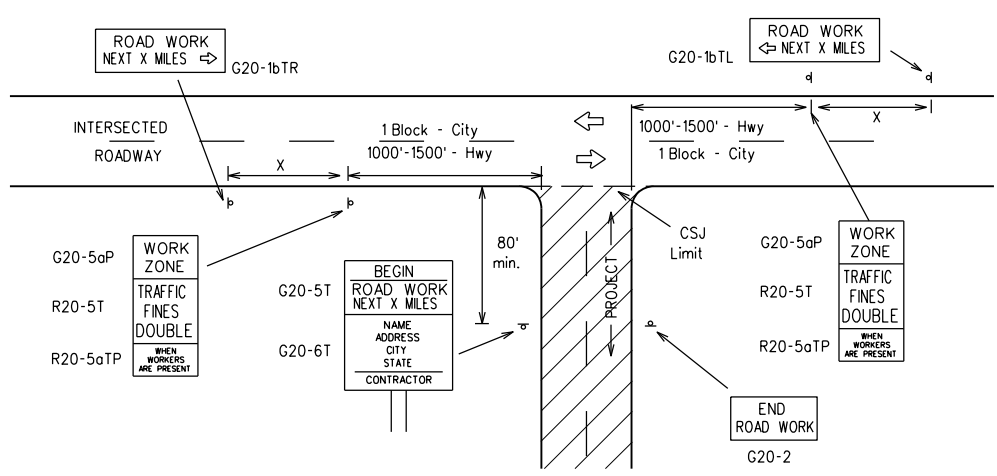
TYPICAL LOCATION OF CROSSROAD SIGNS



△ May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)

- The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
- The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume. This information shall be shown in the plans.
- Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
- The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
- Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
- When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- If construction closes the road at a T-intersection the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed MPH	Sign Spacing "X" Feet (Apprx.)
CW20 ⁴	48" x 48"	48" x 48"	30	120
CW21			35	160
CW22			40	240
CW23			45	320
CW25			50	400
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"	60	600 ²
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	75	900 ²
			80	1000 ²
			*	* ³

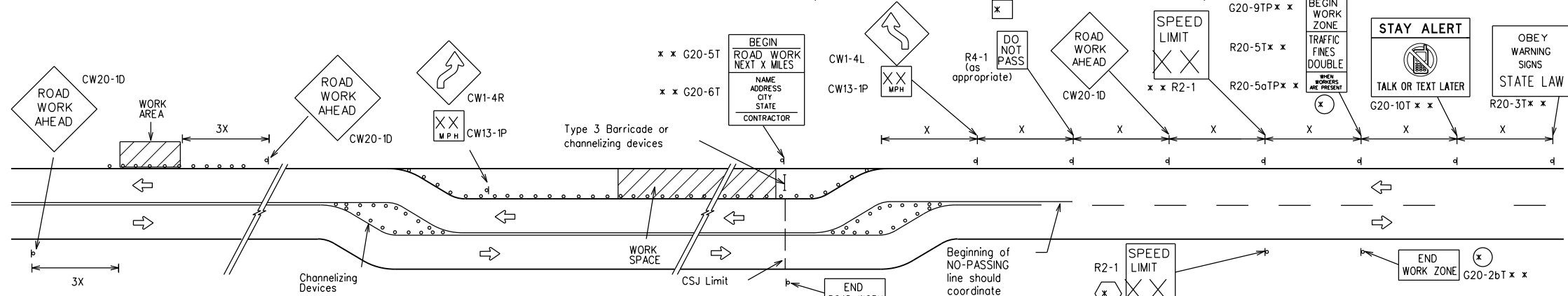
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

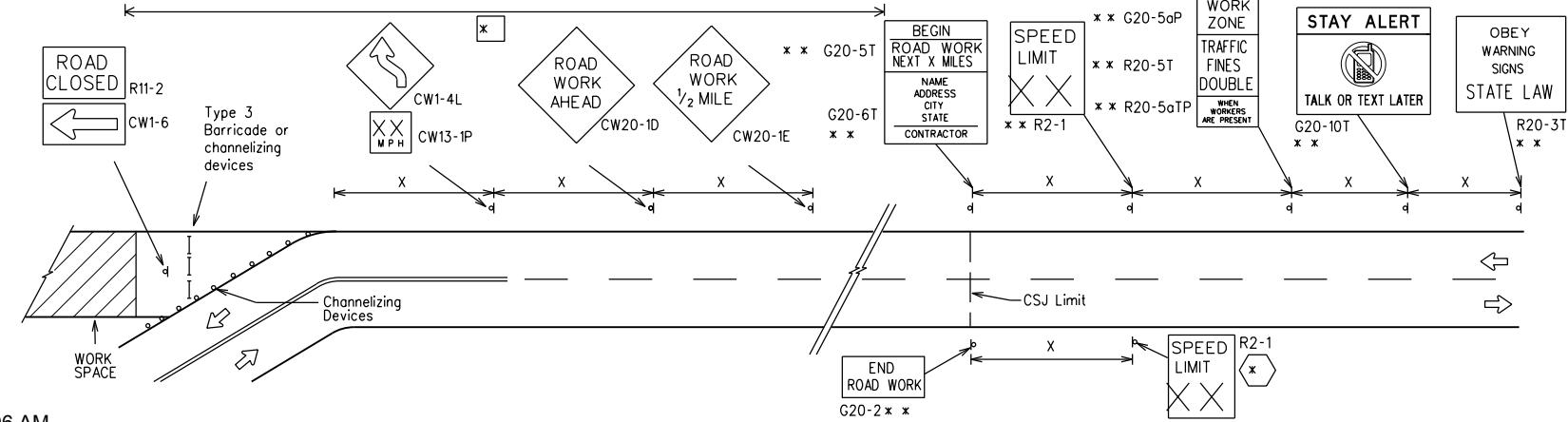
- Special or larger size signs may be used as necessary.
- Distance between signs should be increased as required to have 1500 feet advance warning.
- Distance between signs should be increased as required to have 1/2 mile or more advance warning.
- 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer. See Note 2 under "Typical Location of Crossroad Signs".
- Only diamond shaped warning sign sizes are indicated.
- See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS

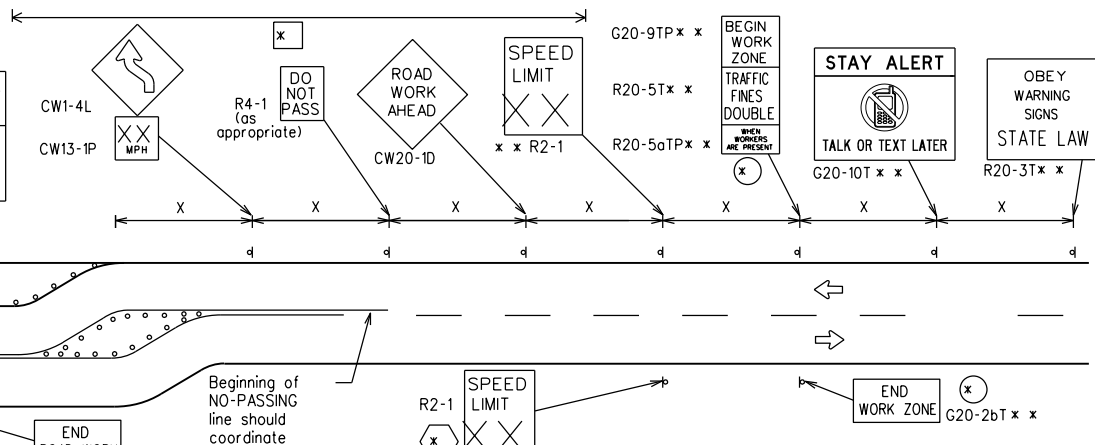


When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS



NOTES

- The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.
- ⊗ The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
 - ⊗⊗ Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.
 - ⊗ Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.
 - ⊗ Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND	
—	Type 3 Barricade
○ ○ ○	Channelizing Devices
⊗	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.



BARRICADE AND CONSTRUCTION PROJECT LIMIT

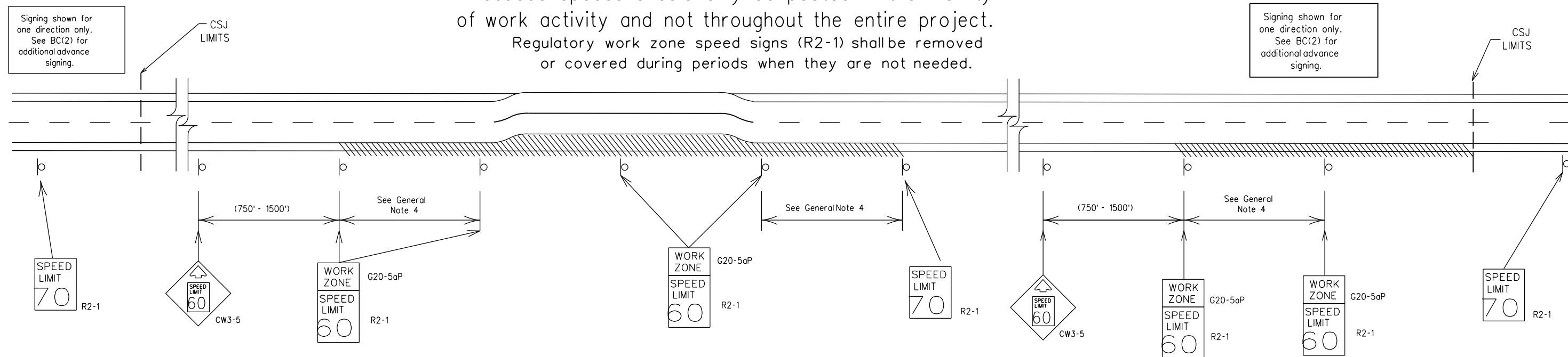
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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- a) rough road or damaged pavement surface
- b) substantial alteration of roadway geometrics (diversions)
- c) construction detours
- d) grade
- e) width
- f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the travelled way.



Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

GENERAL NOTES

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
 - 40 mph and greater 0.2 to 2 miles
 - 35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
 - A. Law enforcement.
 - B. Flagger stationed next to sign.
 - C. Portable changeable message sign (PCMS).
 - D. Low-power (drone) radar transmitter.
 - E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form *1204 in the TxDOT e-form system.

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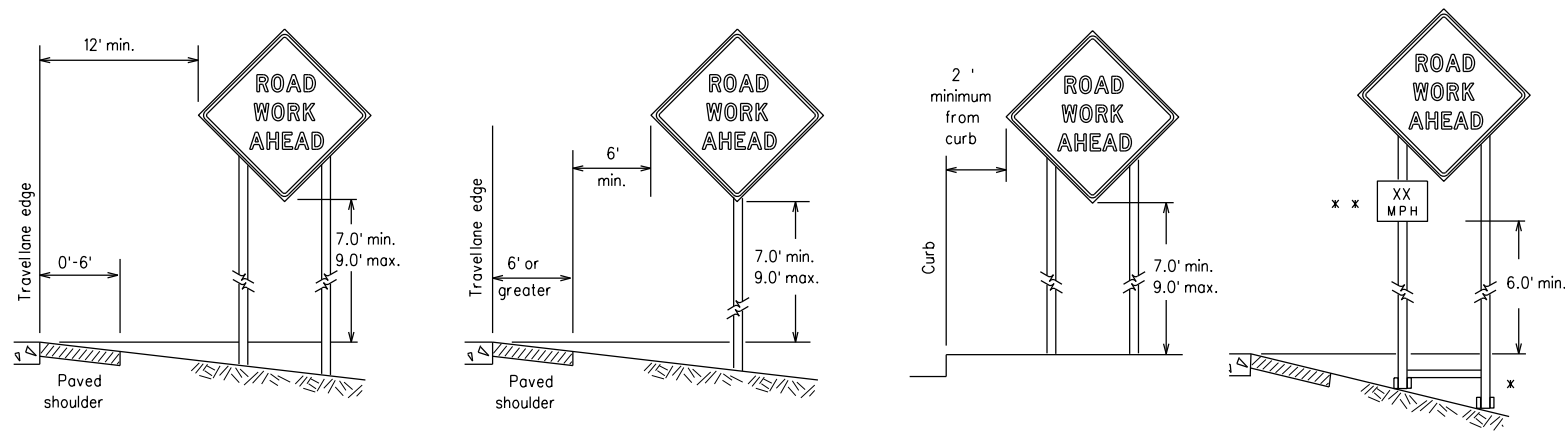
BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

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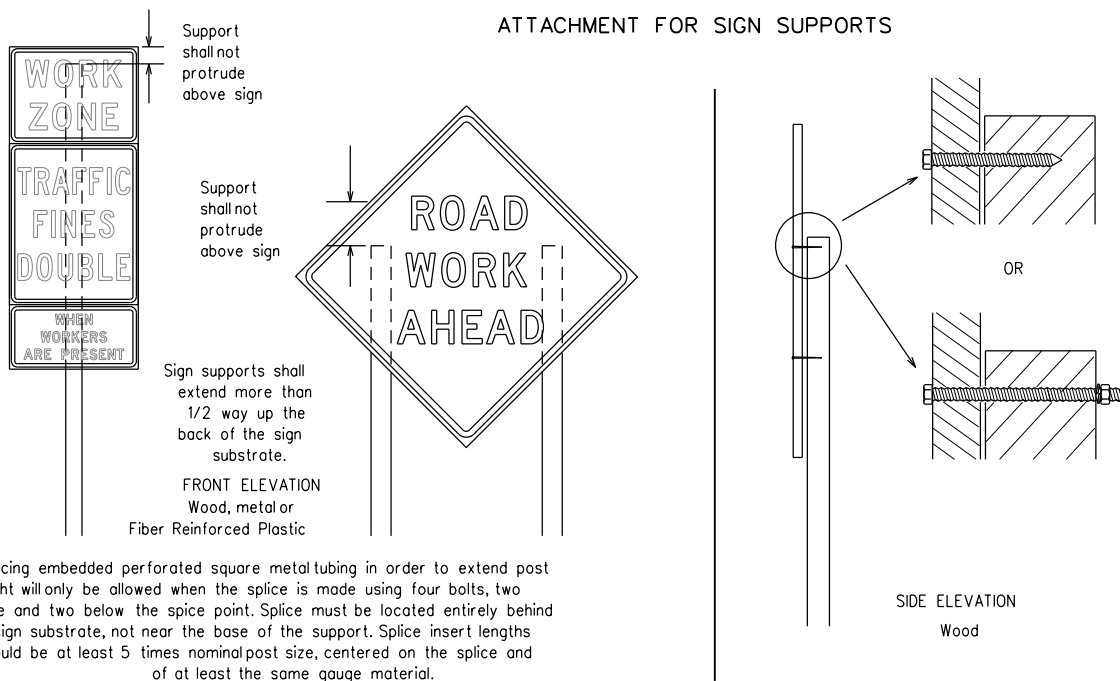
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



x When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

x x When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS



Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
 - Long-term stationary - work that occupies a location more than 3 days.
 - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
 - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
 - Short, duration - work that occupies a location up to 1 hour.
 - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

- All signs shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 Type B or Type B_L, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

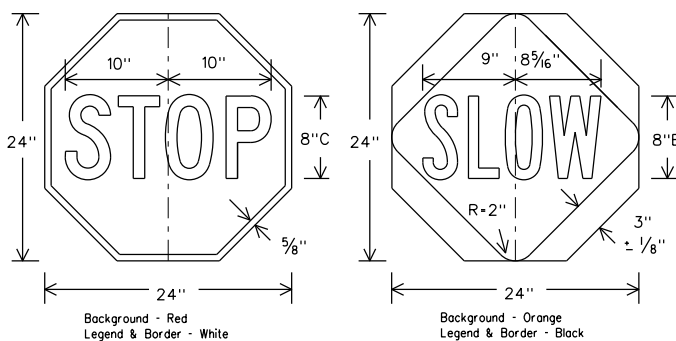
- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
- Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

- Flags may be used to draw attention to warning signs. When used the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

STOP/SLOW PADDLES

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
- When used at night, the STOP/SLOW paddle shall be retroreflectORIZED.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

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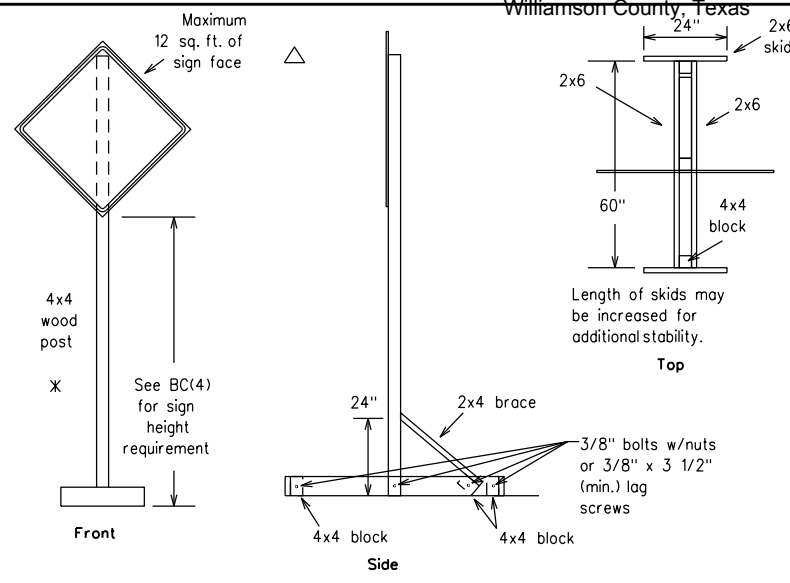
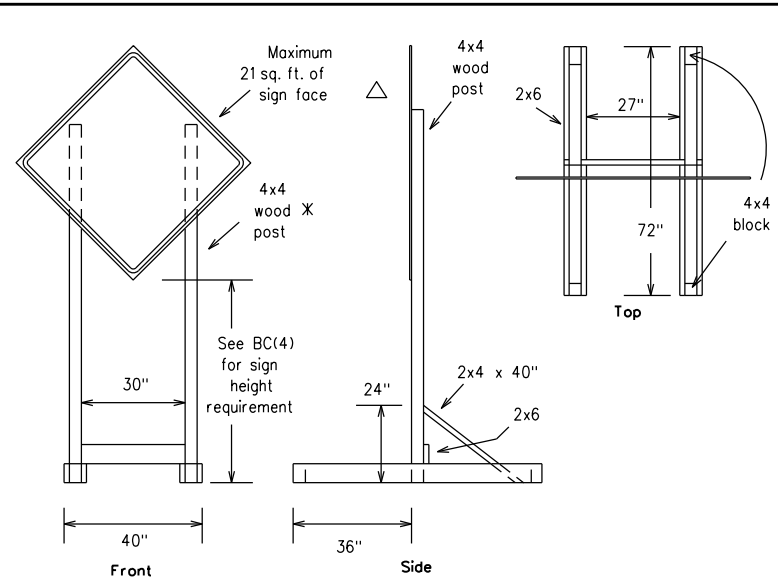
BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

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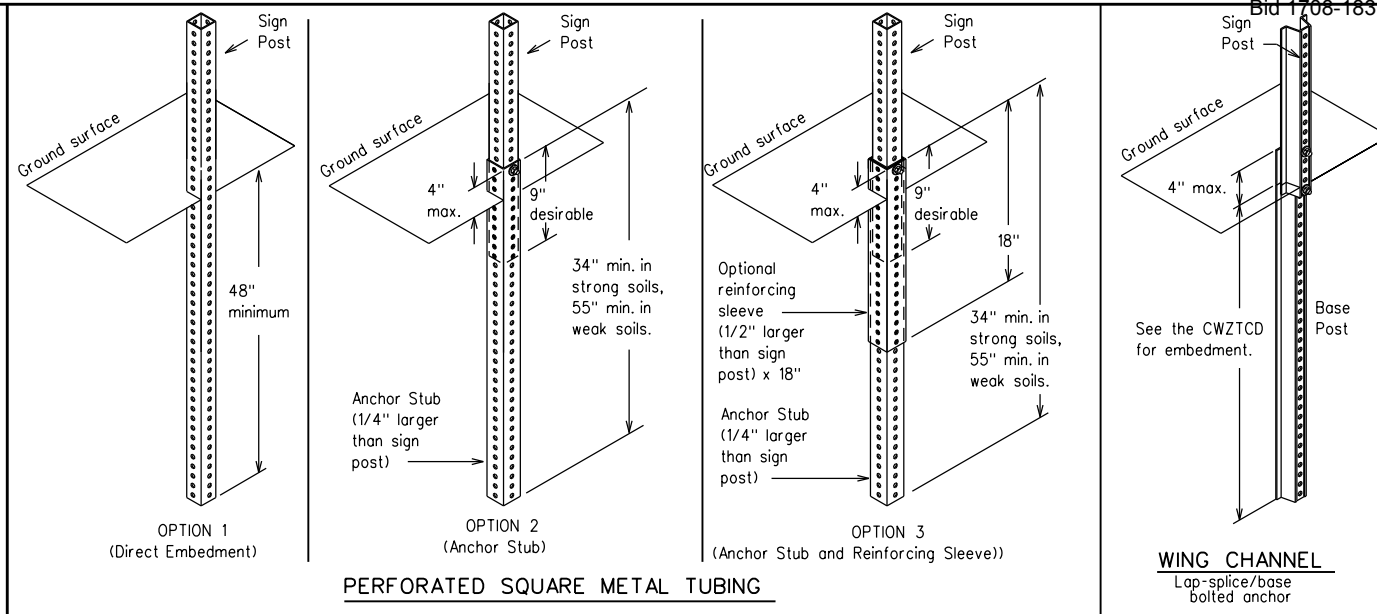
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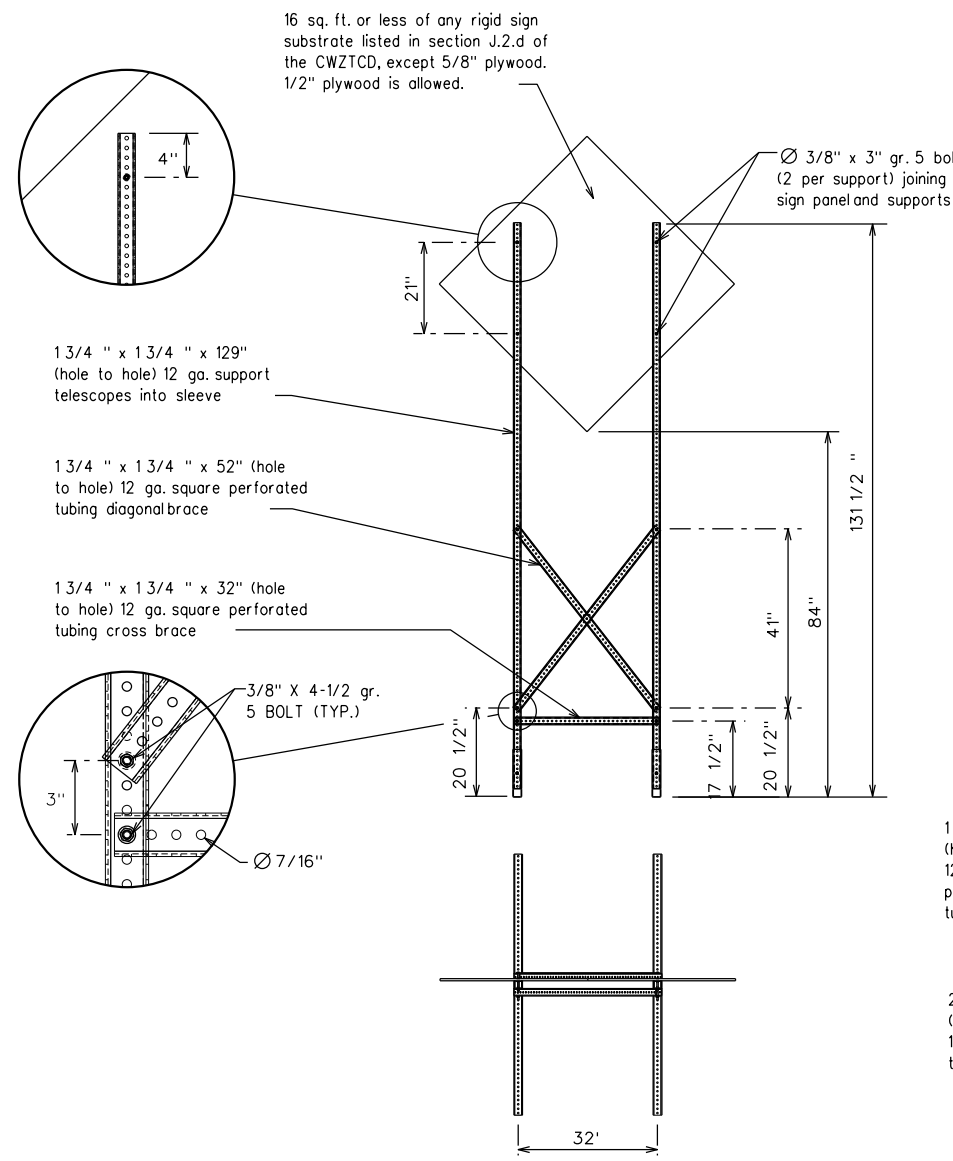
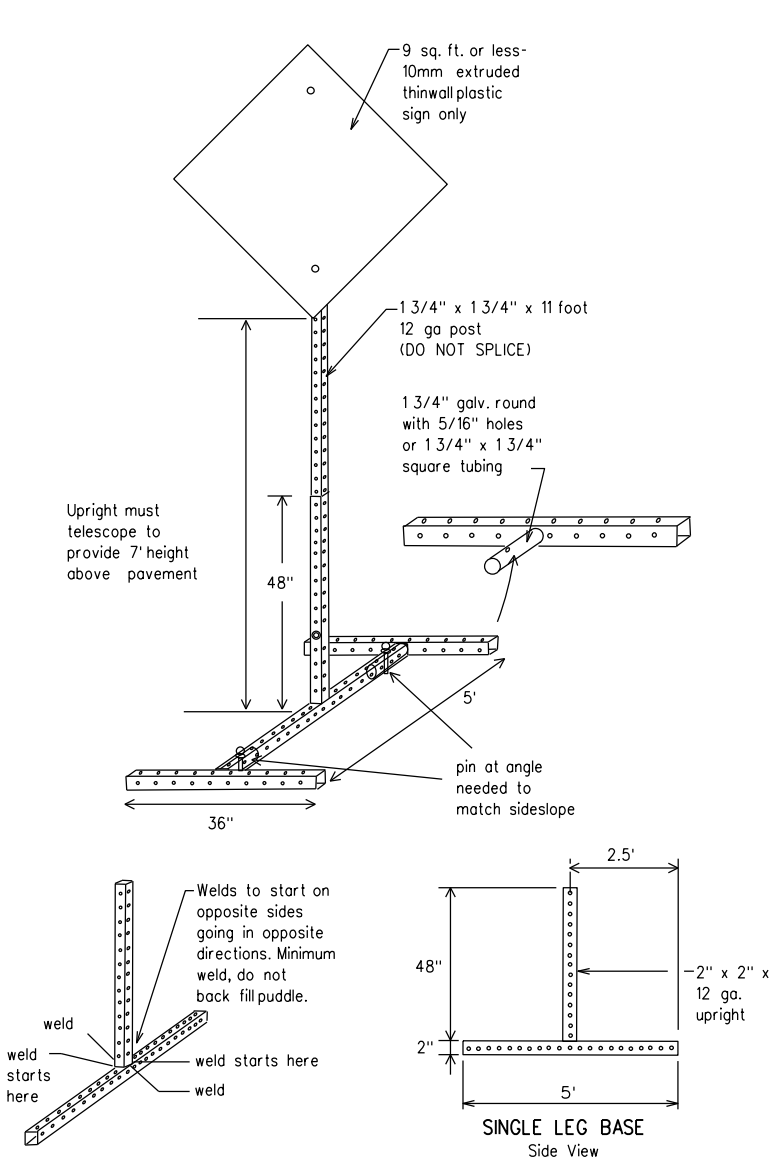
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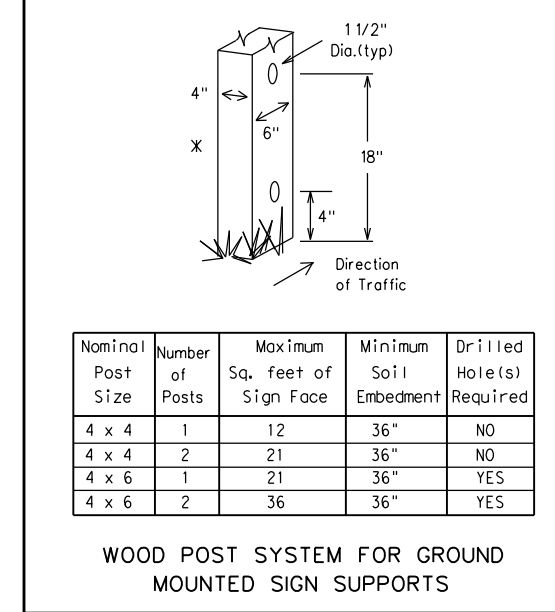
SKID MOUNTED WOOD SIGN SUPPORTS
LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □



GROUND MOUNTED SIGN SUPPORTS
Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS



WEDGE ANCHORS
Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS
MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

- GENERAL NOTES**
- Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
 - No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
 - When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

- See BC(4) for definition of "Work Duration."
- X Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
- △ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

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BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

PORTABLE CHANGEABLE MESSAGE SIGNS

- 1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

Table with 4 columns: Road/Lane/Ramp Closure List, Other Condition List, Action to Take/Effect on Travel List, Location List. Includes items like FREEWAY CLOSED X MILE, FRONTAGE ROAD CLOSED, ROADWORK XXX FT, ROAD REPAIRS XXXX FT, ROAD CLOSED AT SH XXX, SHOULDER CLOSED XXX FT, FLAGGER XXXX FT, LANE NARROWS XXXX FT, etc.

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

Table with 2 columns: Action to Take/Effect on Travel List, Location List. Includes items like MERGE RIGHT, FORM X LINES RIGHT, DETOUR NEXT X EXITS, USE XXXX RD EXIT, etc.

Location List

Table with 1 column: Location List. Includes items like AT FM XXXX, BEFORE RAILROAD CROSSING, NEXT X MILES, PAST US XXX EXIT, etc.

Warning List

Table with 1 column: Warning List. Includes items like SPEED LIMIT XX MPH, MAXIMUM SPEED XX MPH, MINIMUM SPEED XX MPH, ADVISORY SPEED XX MPH, etc.

** Advance Notice List

Table with 1 column: ** Advance Notice List. Includes items like TUE-FRI XX AM-X PM, APR XX-XX X PM-X AM, BEGINS MONDAY, BEGINS MAY XX, etc.

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

- 1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

- 1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

- 1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol"(CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

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Table with 4 columns: WORD OR PHRASE, ABBREVIATION, WORD OR PHRASE, ABBREVIATION. Lists various roadwork terms and their abbreviations like Access Road, Alternate, Avenue, Best Route, etc.

Roadway designation * IH-number, US-number, SH-number, FM-number

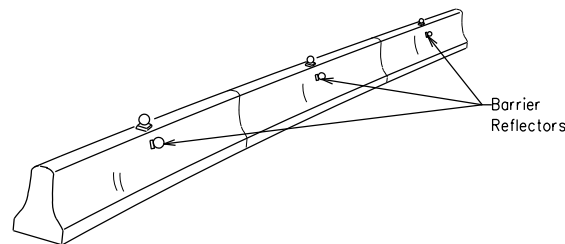


BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

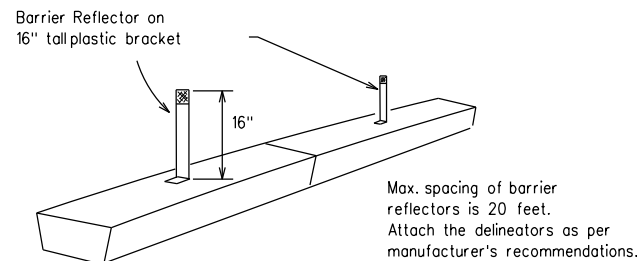
BC(6)-14

Table with columns: FILE, DWT, CK, DW, CK, TXDOT, CON, SECT, JOB, HIGHWAY, REVISIONS, DIST, COUNTY, SHEET NO.

- Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
- Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.

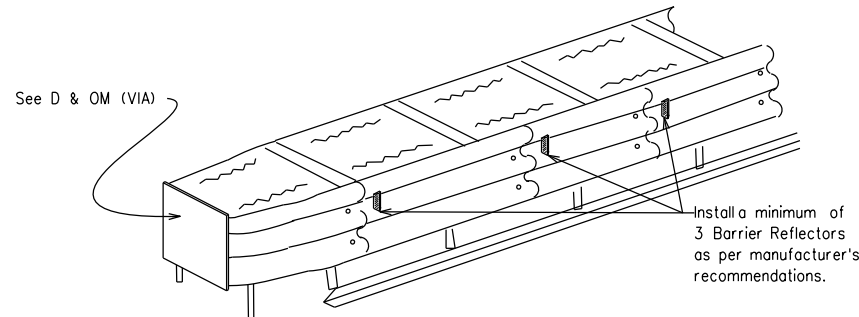


CONCRETE TRAFFIC BARRIER (CTB)



LOW PROFILE CONCRETE BARRIER (LPCB)

- Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
- Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
- When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
- Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
- Maximum spacing of Barrier Reflectors is forty (40) feet.
- Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
- Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
- Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
- Single slope barriers shall be delineated as shown on the above detail.



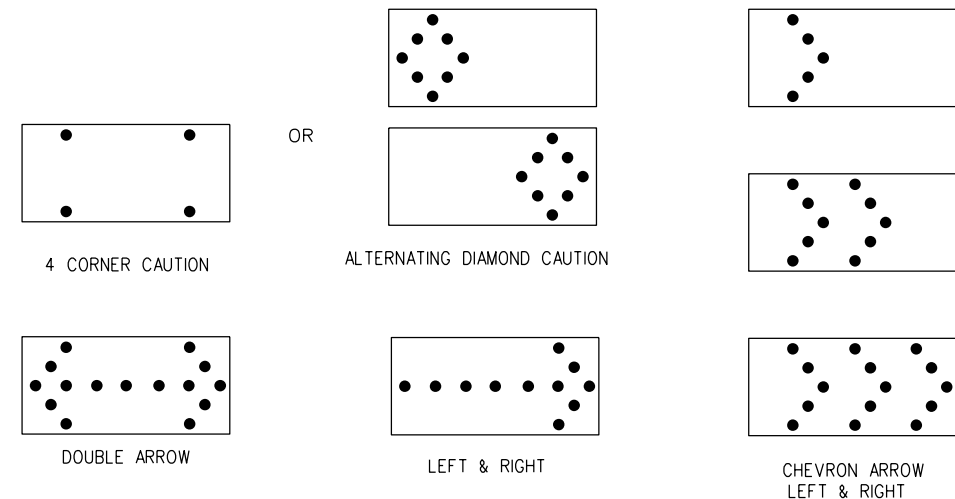
DELINEATION OF END TREATMENTS

END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCD List for approved end treatments and manufacturers.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

- The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
- Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
- The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
- The Flashing Arrow Board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
- The straight line caution display is NOT ALLOWED.
- The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
- The sequential arrow display is NOT ALLOWED.
- The flashing arrow display is the TxDOT standard; however, the sequential Chevron display may be used during daylight operations.
- The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
- A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
- A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
- Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION
Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS

WARNING LIGHTS

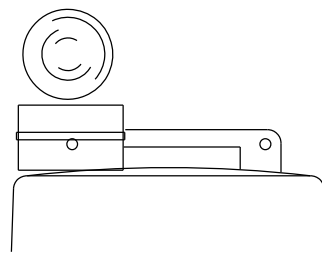
- Warning lights shall meet the requirements of the TMUTCD.
- Warning lights shall NOT be installed on barricades.
- Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B or C sheeting meeting the requirements of Departmental Material Specification DMS-8300.
- Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
- The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
- When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
- When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
- The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

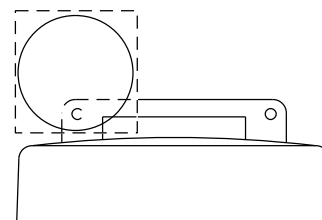
- Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
- Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
- A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
- Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
- Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
- Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
- The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

- A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
- The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
- The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
- Round reflectors shall be fully reflectorized, including the area where attached to the drum.
- Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
- The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
- When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
- The warning reflector should be mounted on the side of the handle nearest approaching traffic.
- The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches

FLASHING ARROW BOARDS

SHEET 7 OF 12

TRUCK-MOUNTED ATTENUATORS

- Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350) or the Manual for Assessing Safety Hardware (MASH).
- Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
- Refer to the CWZTCD for a list of approved TMAs.
- TMAs are required on freeways unless otherwise noted in the plans.
- A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
- The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.



BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-14

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7-13				
DIST			COUNTY	SHEET NO.

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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

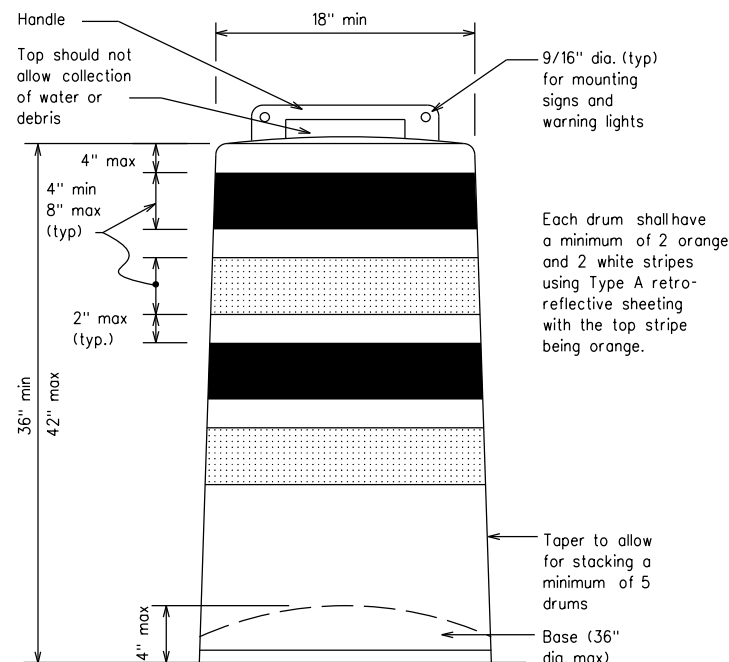
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

RETROREFLECTIVE SHEETING

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

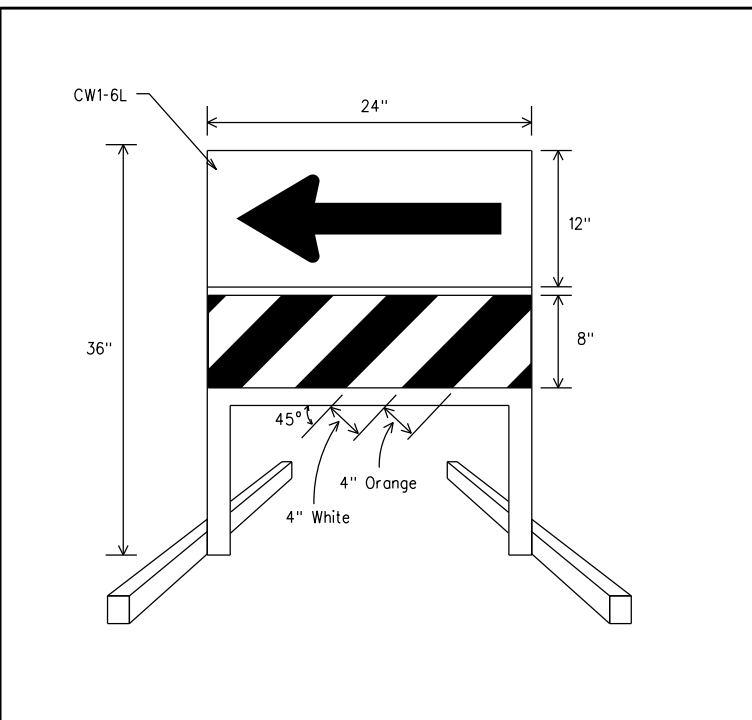
BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.



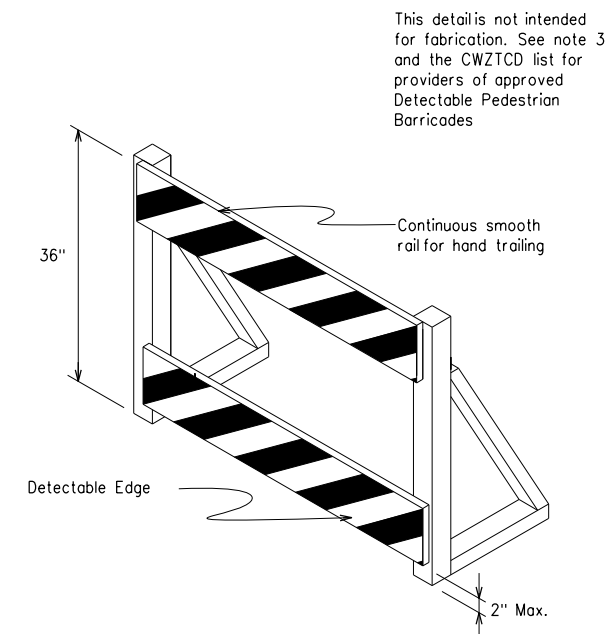
Each drum shall have a minimum of 2 orange and 2 white stripes using Type A retro-reflective sheeting with the top stripe being orange.

Taper to allow for stacking a minimum of 5 drums
Base (36" dia. max)



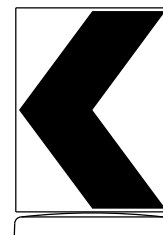
DIRECTION INDICATOR BARRICADE

1. The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
2. If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
3. The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B or Type C Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheeting types shall be as per DMS 8300.
4. Double arrows on the Direction Indicator Barricade will not be allowed.
5. Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.

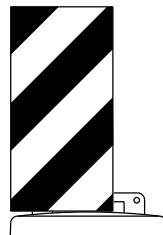


DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24" Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B or Type C Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

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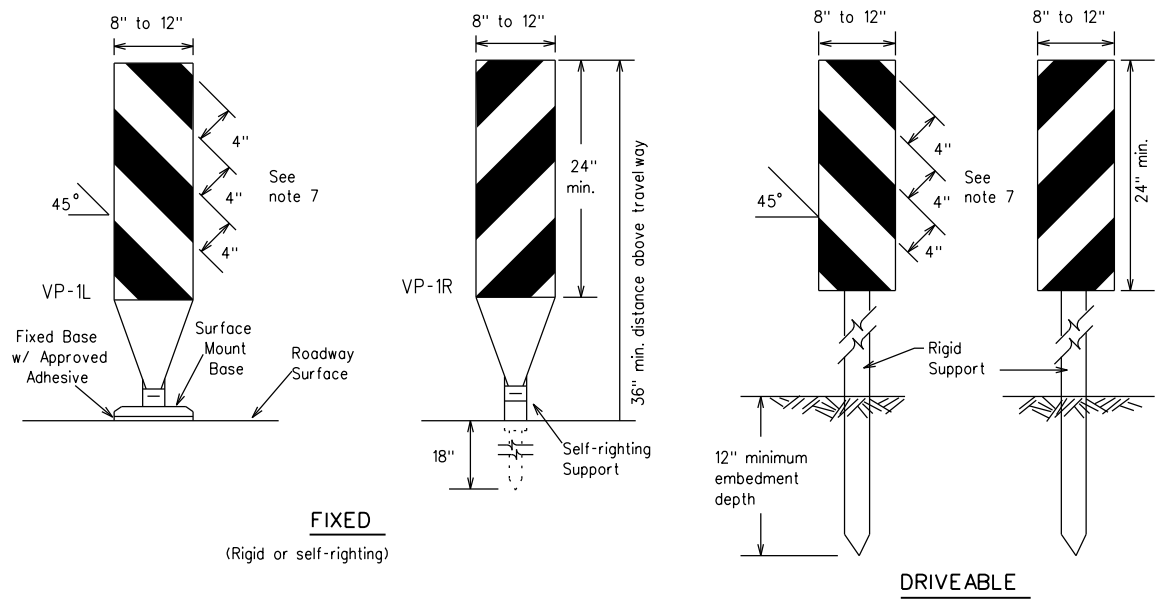


BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

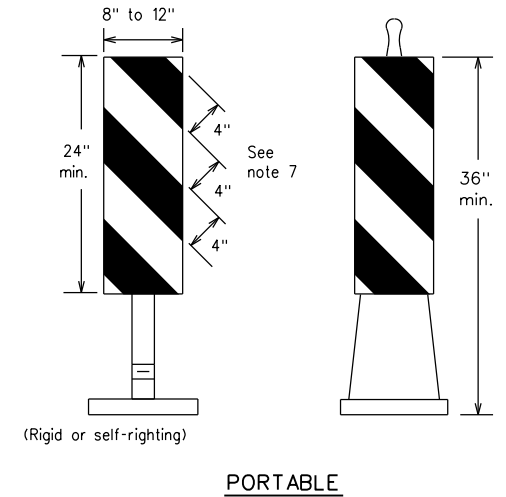
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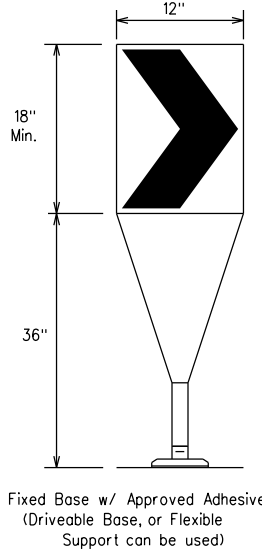


- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual Appendix B "Treatment of Pavement Drop-offs in Work Zones" for additional guidelines on the use of VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panels is 36 inches or greater, a panel stripe of 6 inches shall be used.

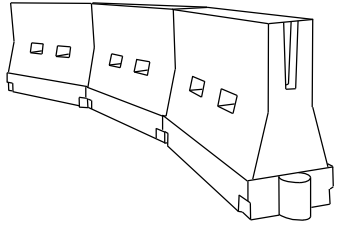


VERTICAL PANELS (VPs)

- The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
- Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
- Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
- To be effective, the chevron should be visible for at least 500 feet.
- Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B or Type C conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
- For Long Term Stationary use on tapers or transitions on freeways and divided highways self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.



CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

- LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10) placed near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate NCHRP 350 crashworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

- Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed *	Formula	Minimum Desirable Taper Lengths x x			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS ² / 60	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

* x x Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

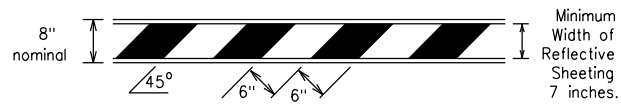
BC(9)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
9-07 8-14	DIST	COUNTY	SHEET NO.	
7-13				

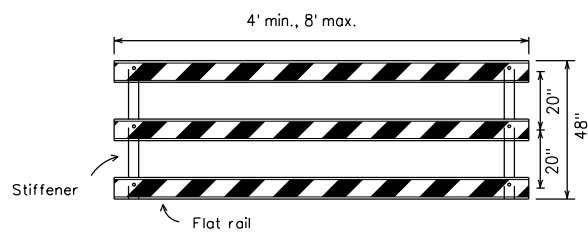
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stocked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

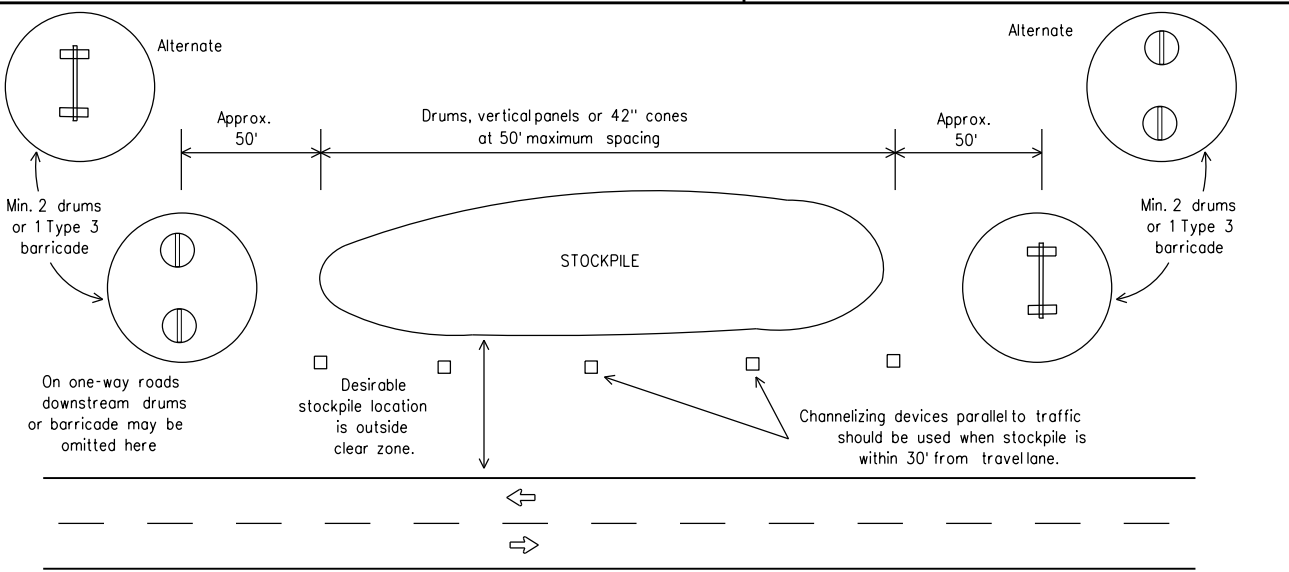
Barricades shall NOT be used as a sign support.



TYPICAL STRIPING DETAIL FOR BARRICADE RAIL

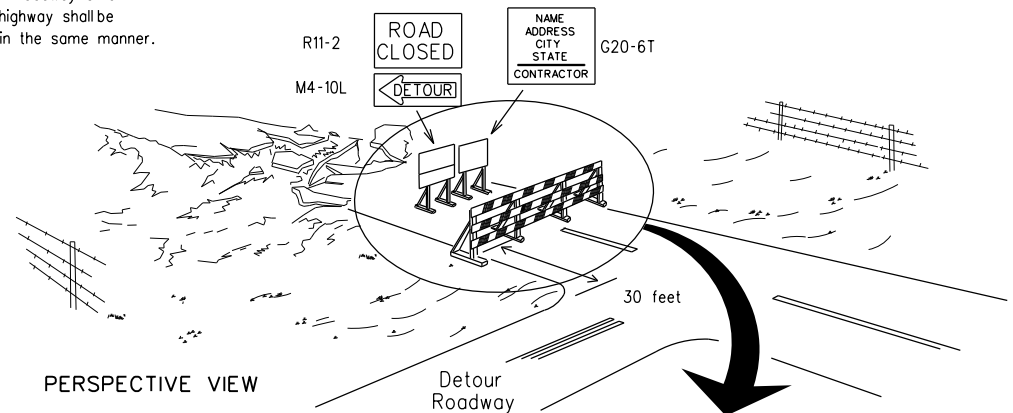


TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES



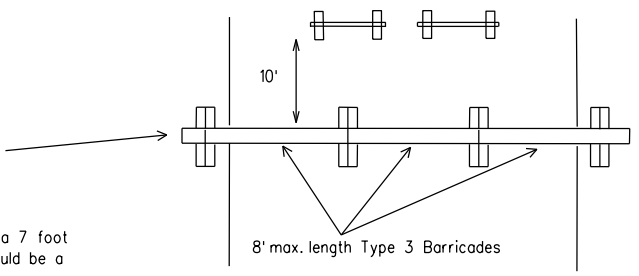
TRAFFIC CONTROL FOR MATERIAL STOCKPILES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

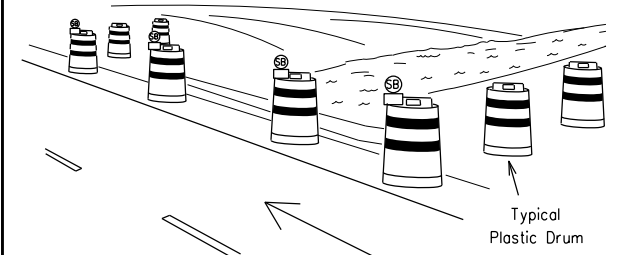
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



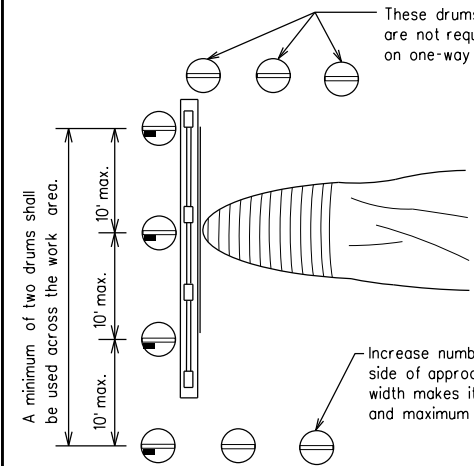
PLAN VIEW

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

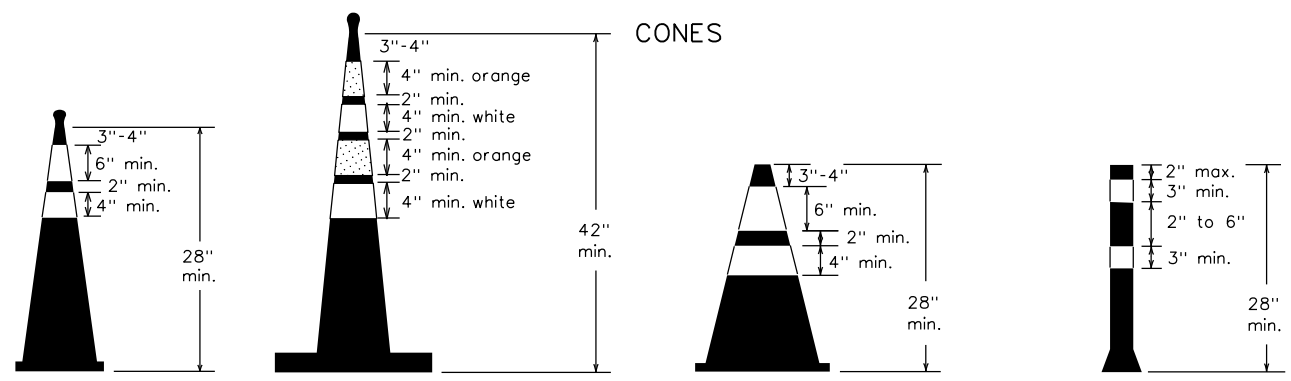


PLAN VIEW

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



Two-Piece cones

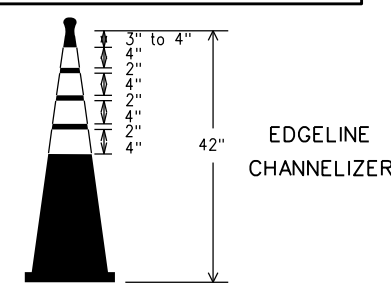
One-Piece cones

Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers used at night shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



EDGELINE CHANNELIZER

1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or tapers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.

SHEET 10 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-14

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

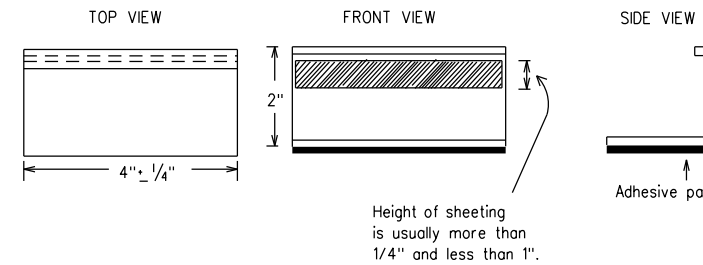
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
 - A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
 YELLOW - (two amber reflective surfaces with yellow body).
 WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

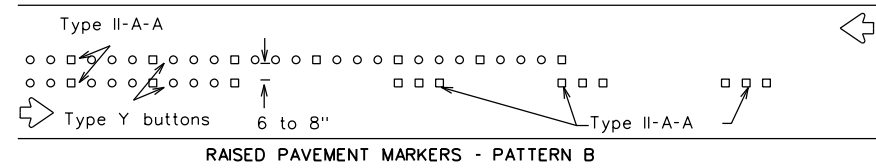
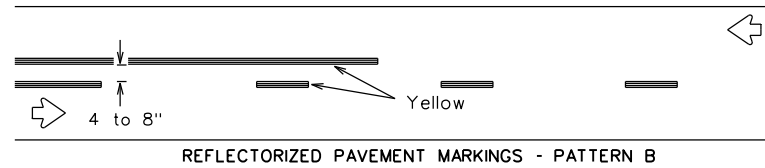
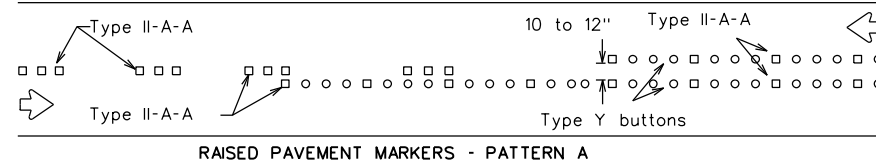
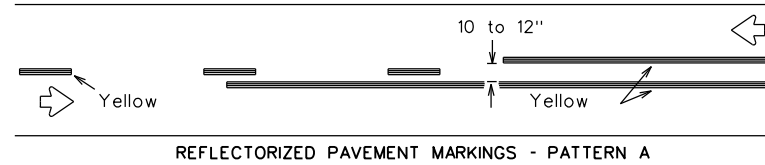
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SHEET 11 OF 12

Texas Department of Transportation		Traffic Operations Division Standard
<h2 style="margin: 0;">BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS</h2> <h3 style="margin: 0;">BC(11)-14</h3>		
FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT
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2-98 9-07	DIST	COUNTY
1-02 7-13	SHEET NO.	
11-02 8-14	105	

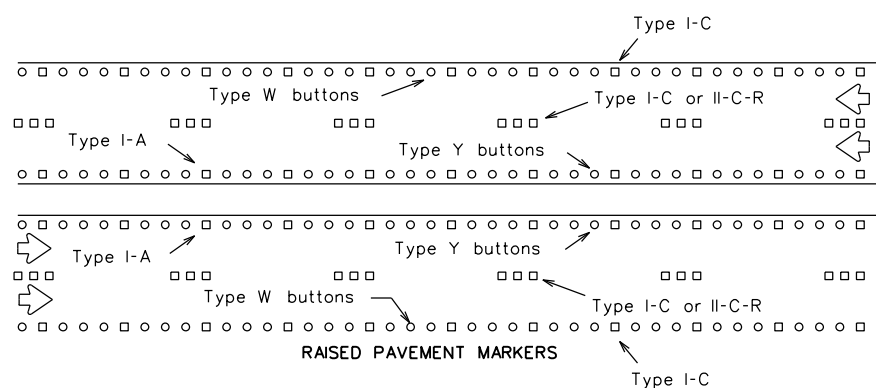
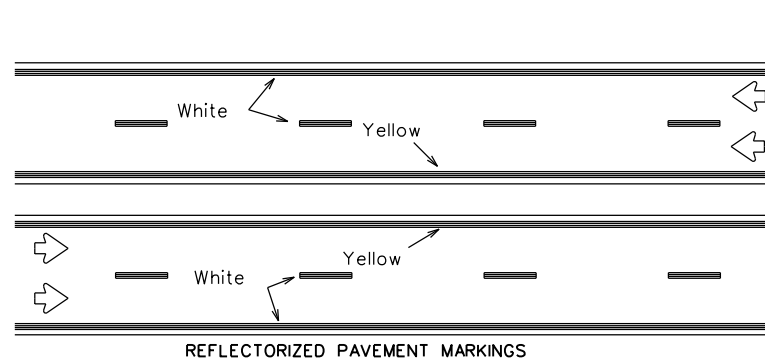
p. 96

PAVEMENT MARKING PATTERNS



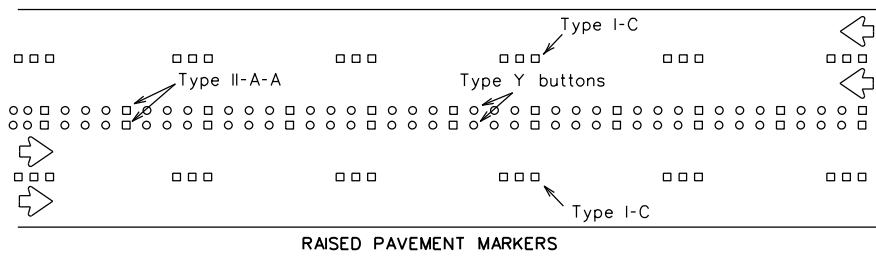
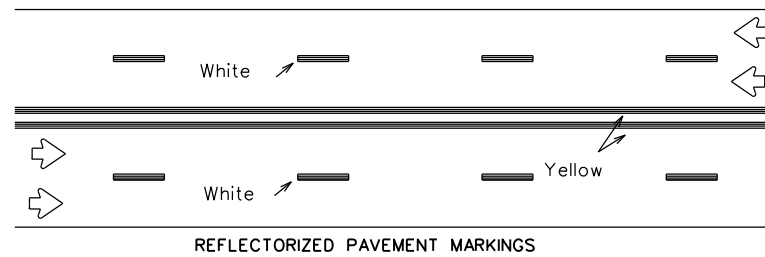
Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectorized pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



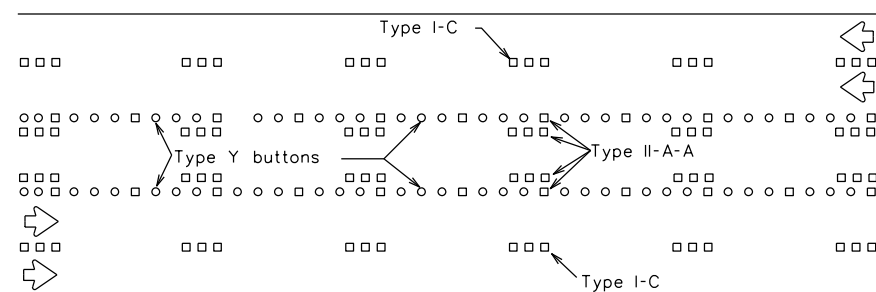
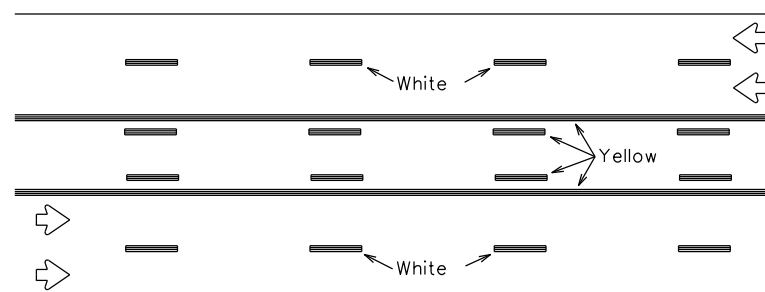
Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



Prefabricated markings may be substituted for reflectorized pavement markings.

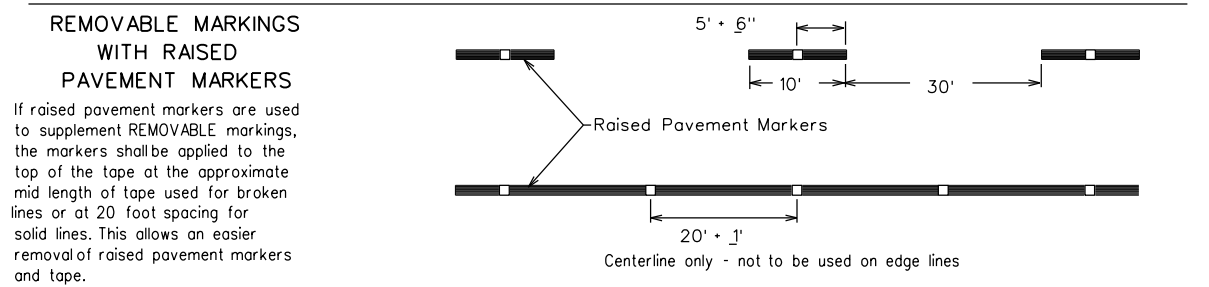
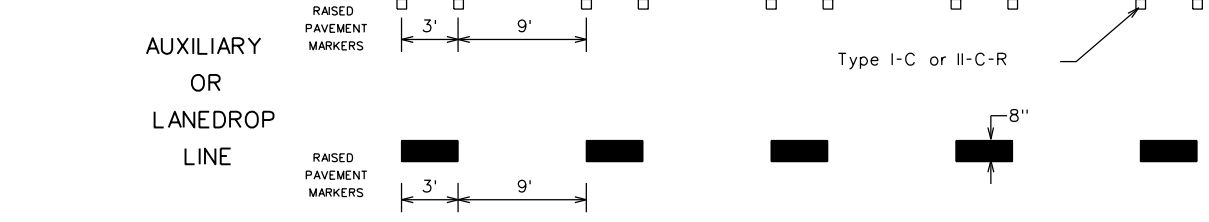
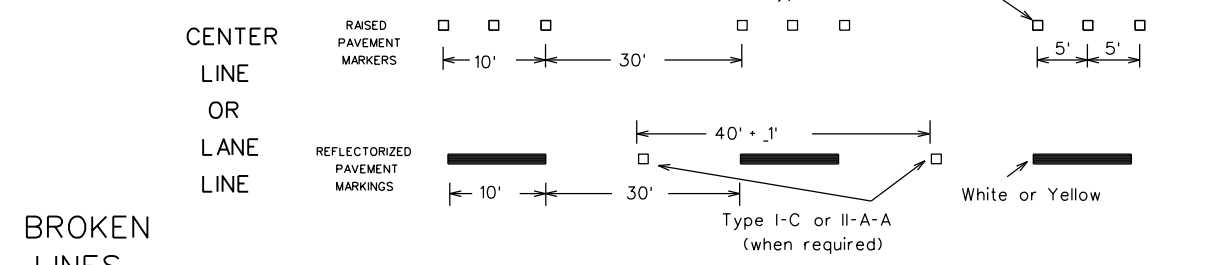
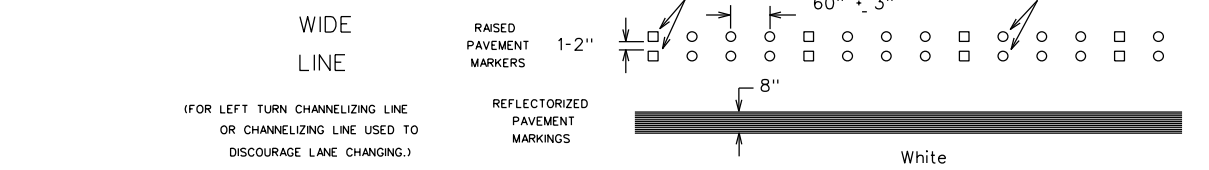
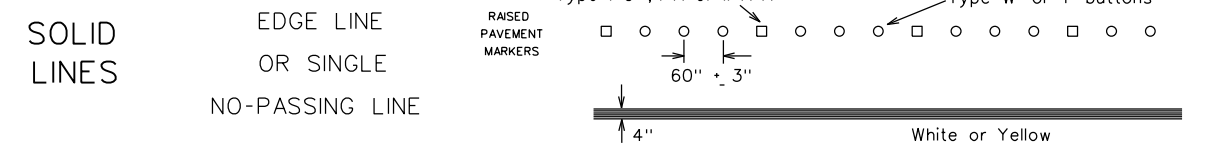
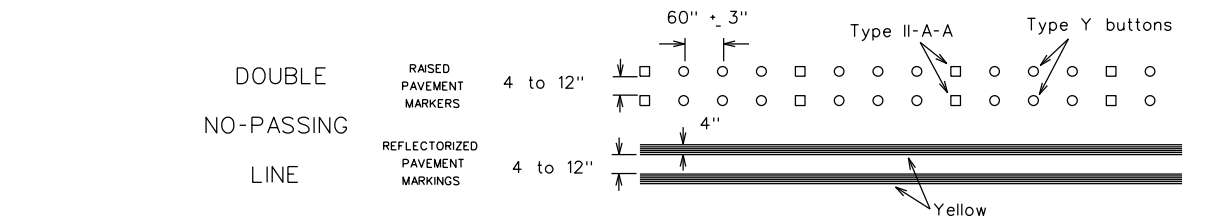
LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS




Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



SHEET 12 OF 12



Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

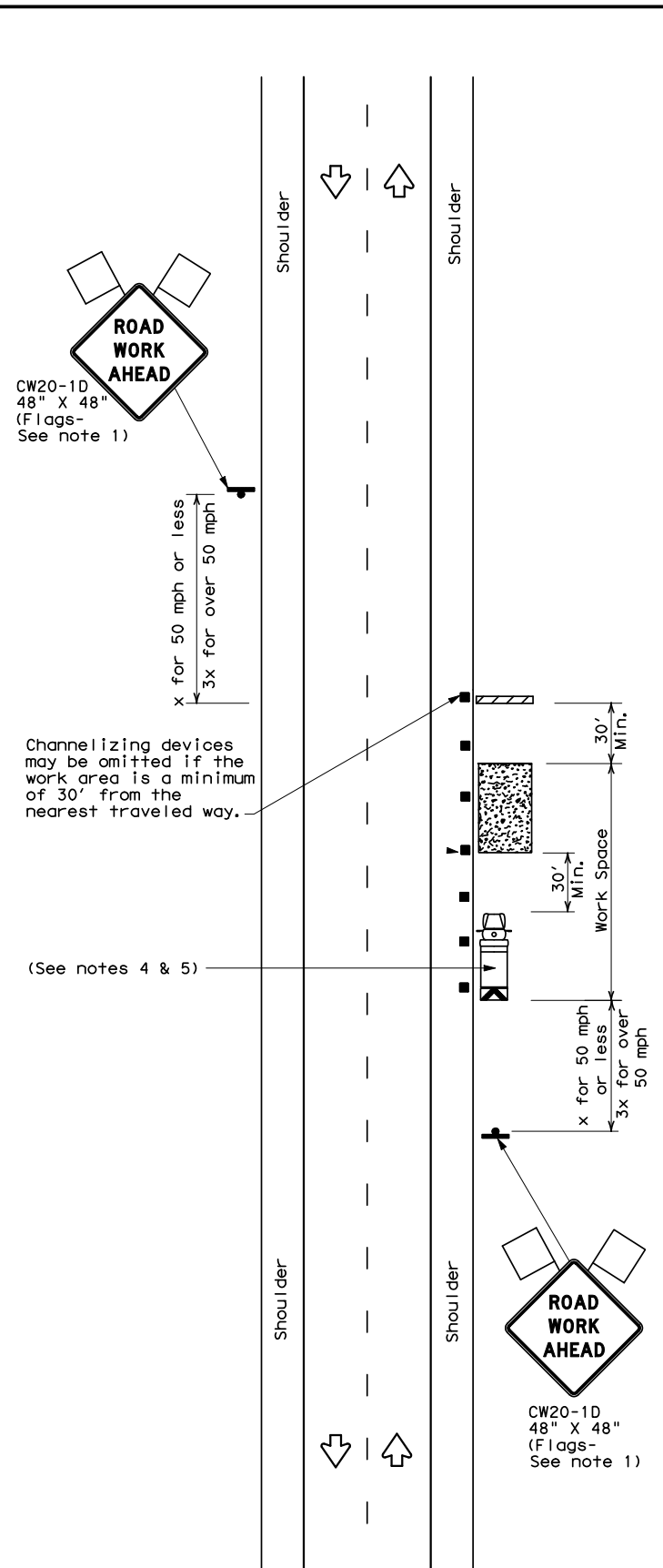
BC(12)-14

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

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11-02 8-14				
	DIST	COUNTY	SHEET NO.	
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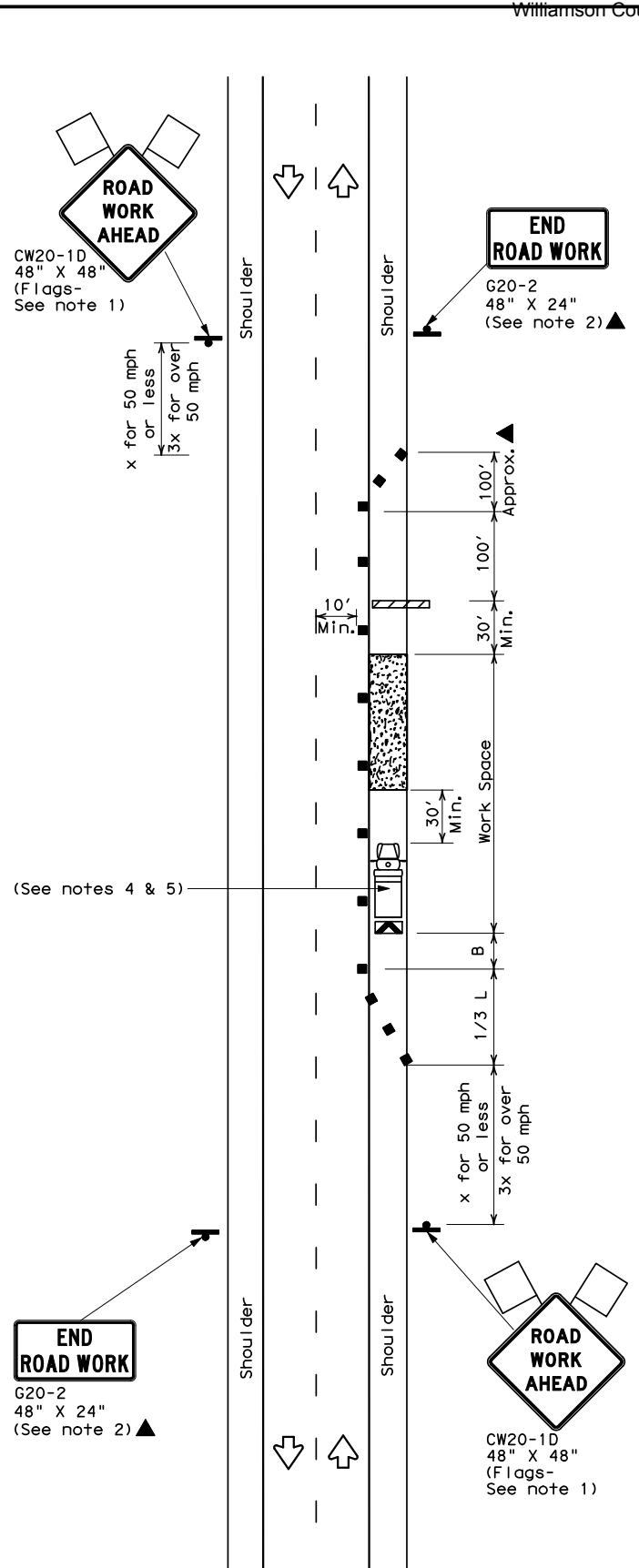
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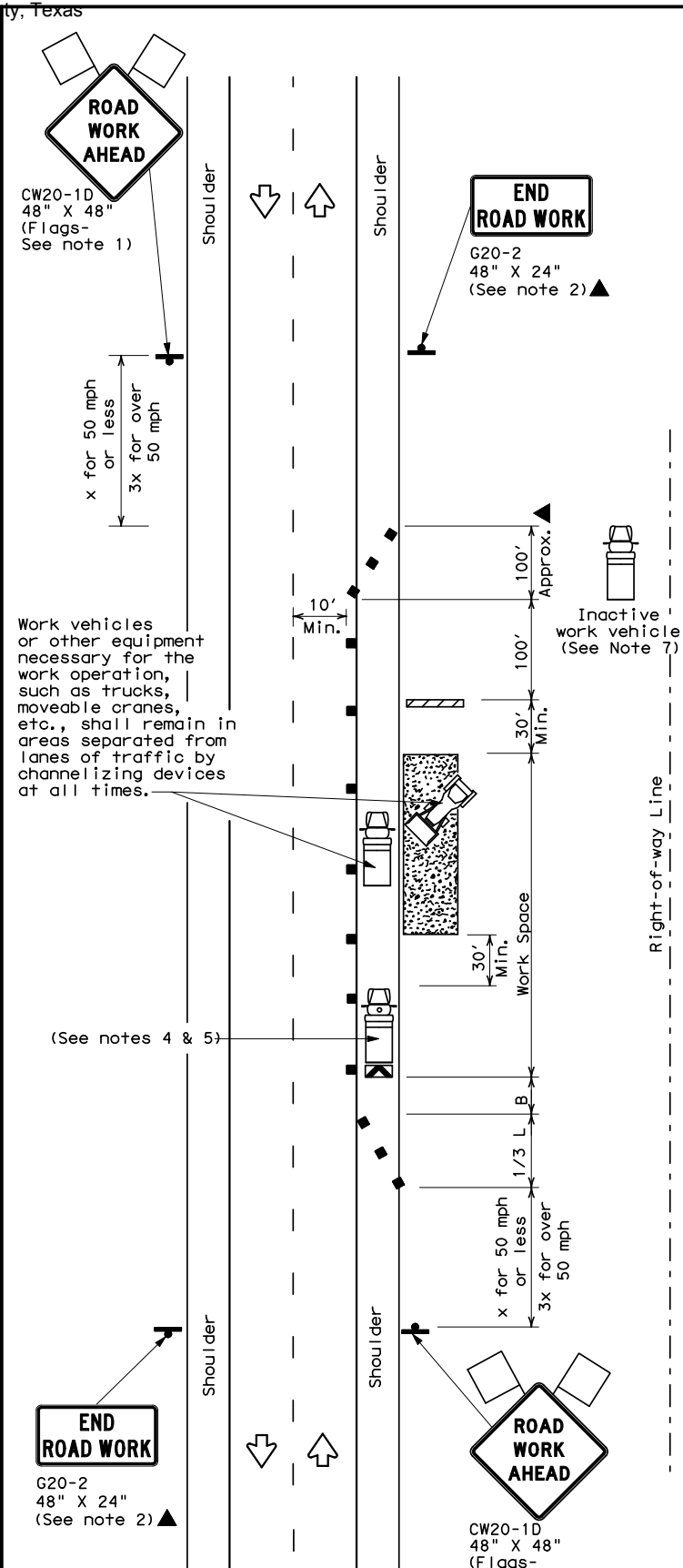
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	✓

- GENERAL NOTES**
- Flags attached to signs where shown, are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
 - Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
 - Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
 - See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
 - Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
 - CW21-5 "SHOULDER WORK" signs may be used in place of CW21-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

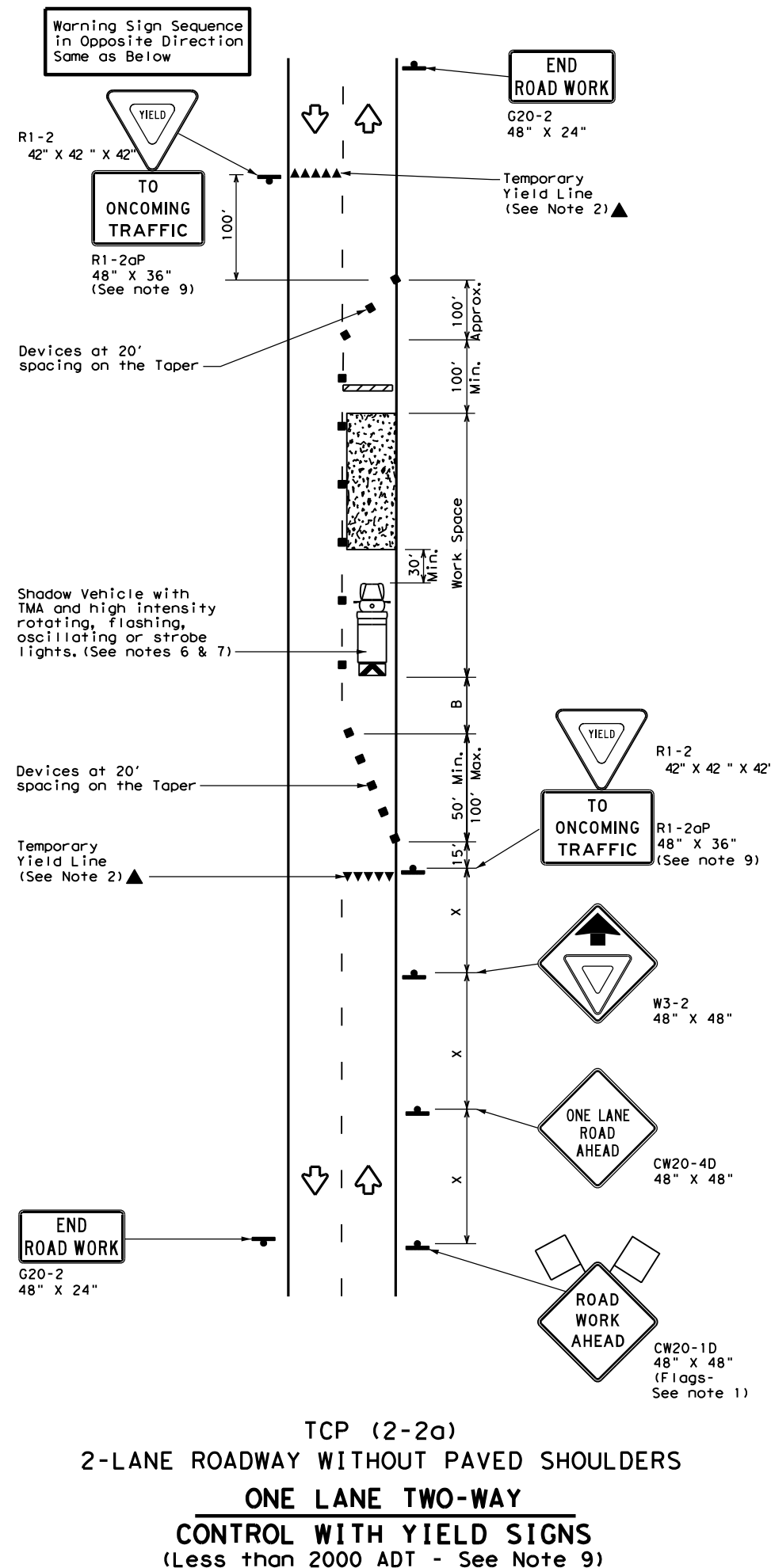


TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

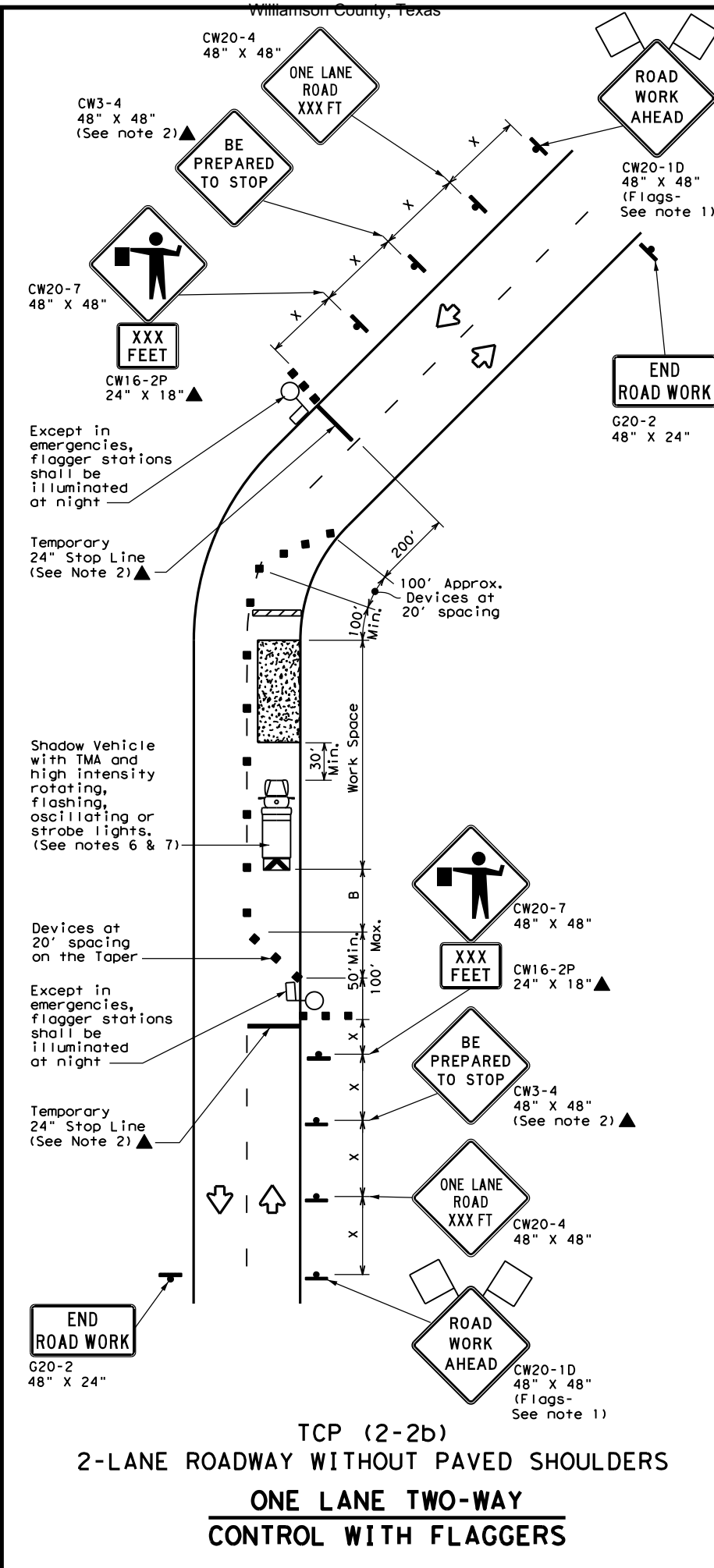
TCP (2-1) - 12

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REVISIONS					
2-94	2-12	CONT	SECT	JOB	HIGHWAY
8-95					
1-97		DIST		COUNTY	SHEET NO.
4-98					
161					

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TCP (2-2a)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH YIELD SIGNS
 (Less than 2000 ADT - See Note 9)



TCP (2-2b)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH FLAGGERS

Williamson County, Texas

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS ² / 60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓	✓	

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
 - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
 - Flaggers should use two-way radios or other methods of communication to control traffic.
 - Length of work space should be based on the ability of flaggers to communicate.
 - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
- TCP (2-2a)**
- The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
 - The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support at a 7 foot minimum mounting height.
- TCP (2-2b)**
- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
 - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
 - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
 Traffic Operations Division

TRAFFIC CONTROL PLAN
ONE-LANE TWO-WAY
TRAFFIC CONTROL

TCP (2-2) - 12

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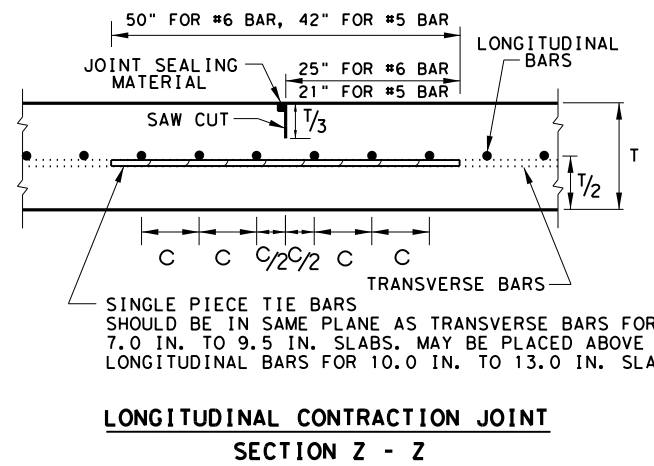
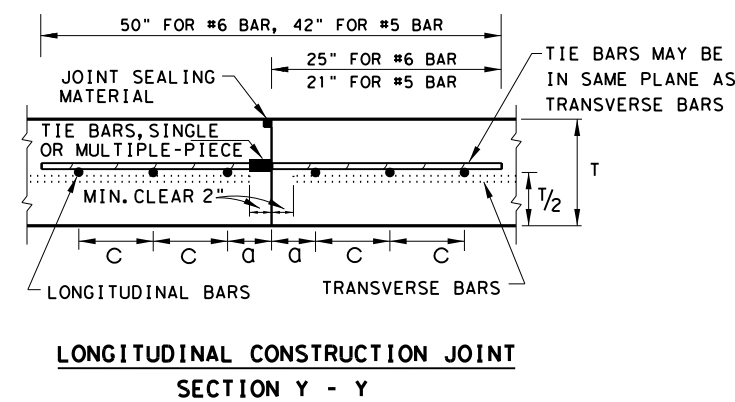
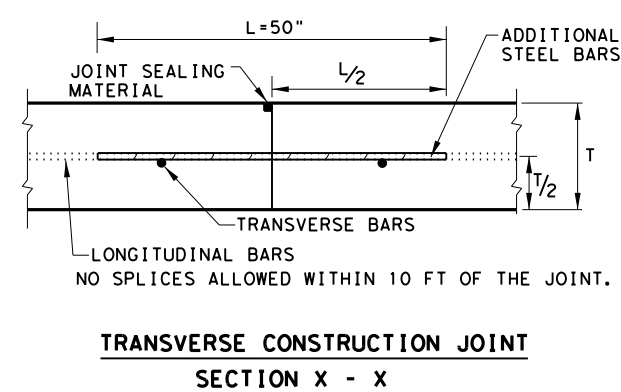
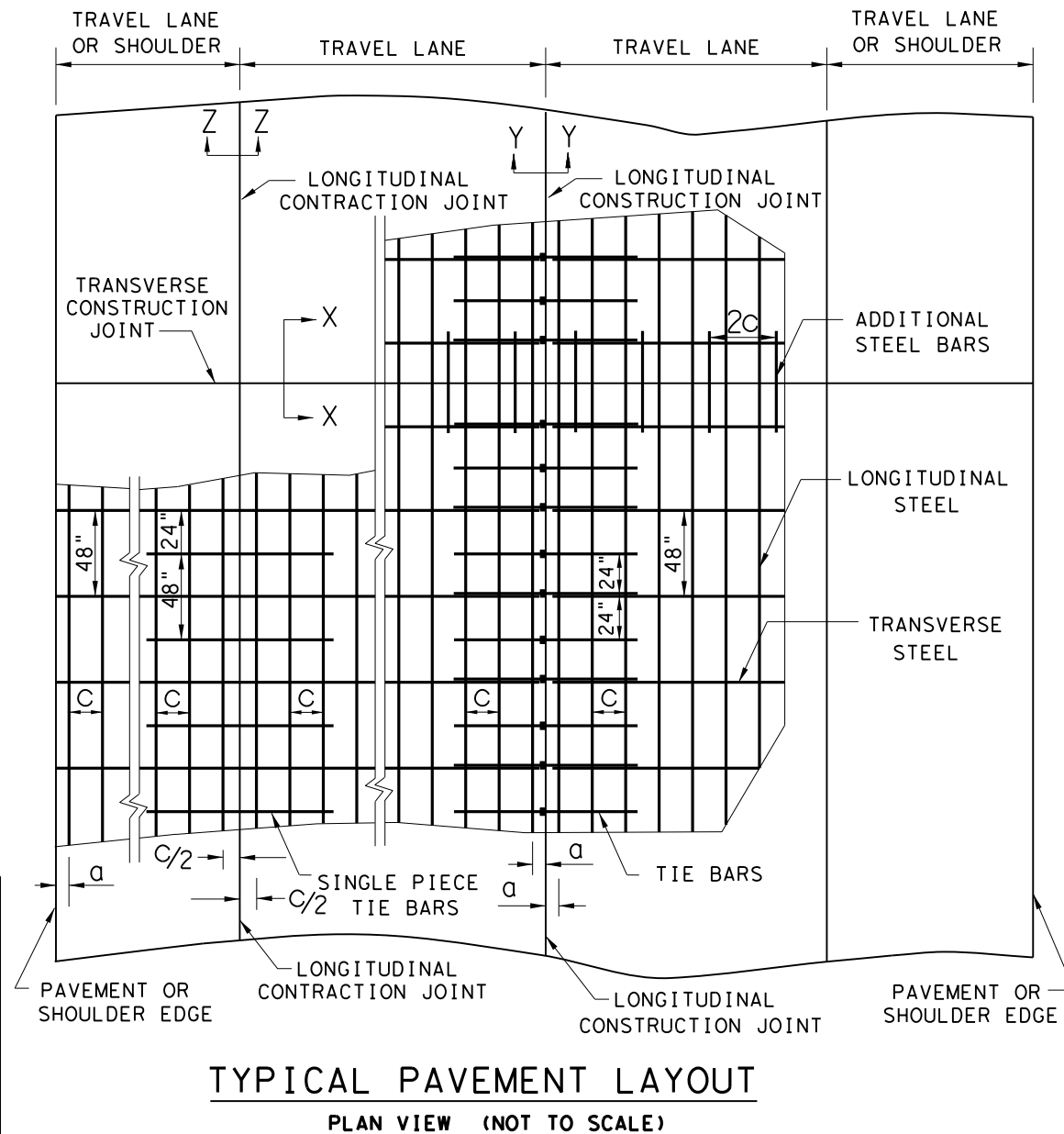
DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
REVISONS	CONT	SECT	JOB
8-95	2-12		
1-97			
4-98			
3-03			
DIST	COUNTY	SHEET NO.	

GENERAL NOTES

1. DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE SHOWN ELSEWHERE IN THE PLANS. PAVEMENTS WIDER THAN 100 FT. WITHOUT A FREE LONGITUDINAL JOINT ARE NOT COVERED BY THIS STANDARD.
2. USE COARSE AGGREGATES WITH A RATED COEFFICIENT OF THERMAL EXPANSION (COTE) OF NOT MORE THAN 5.5×10^{-6} IN/IN/°F AS LISTED IN THE CONCRETE RATED SOURCE QUALITY CATALOG (CRSQC).
3. ALL THE REINFORCING STEEL AND TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A 615 (GRADE 60) OR ASTM A 996 (GRADE 60) OR ABOVE. STEEL BAR SIZES AND SPACINGS SHALL CONFORM TO TABLE NO.1 AND TABLE NO.2.
4. WHEN COARSE AGGREGATE WITH A RATED COTE OF NOT MORE THAN 4.3×10^{-6} IN/IN/°F IS USED, TABLE NO.1A MAY BE USED FOR LONGITUDINAL STEEL AS APPROVED BY THE ENGINEER.
5. STEEL BAR PLACEMENT TOLERANCE SHALL BE +/- 1 IN. HORIZONTALLY AND +/- 0.5 IN. VERTICALLY. CALCULATED AVERAGE BAR SPACING (CONCRETE PLACEMENT WIDTH / NUMBER OF LONGITUDINAL BARS) SHALL CONFORM TO TABLE NO.1 OR TABLE NO.1A.
6. PAVEMENT WIDTHS OF MORE THAN 15 FT. SHALL HAVE A LONGITUDINAL JOINT (SECTION Z-Z OR SECTION Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6 IN. OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
7. THE SAW CUT DEPTH FOR THE LONGITUDINAL CONTRACTION JOINT (SECTION Z-Z) SHALL BE ONE THIRD OF THE SLAB THICKNESS (T/3).
8. WHEN TYING CONCRETE GUTTER AT A LONGITUDINAL JOINT, THE TIE BAR LENGTH OR POSITION MAY BE ADJUSTED. PROVIDE 3 IN. OF CONCRETE COVER FROM THE BACK OF GUTTER TO THE END OF TIE BAR.
9. REPLACE MISSING OR DAMAGED TIE BARS WITHOUT ADDITIONAL COMPENSATION BY DRILLING MIN.10 IN. DEEP AND GROUTING TIE BARS WITH TYPE III, CLASS C EPOXY. MEET THE PULL-OUT TEST REQUIREMENTS IN ITEM 361.
10. OMIT TIE BARS LOCATED WITHIN 18-IN. OF THE TRANSVERSE CONSTRUCTION JOINTS (SECTION X-X). USE HAND-OPERATED IMMERSION VIBRATORS TO CONSOLIDATE THE CONCRETE ADJACENT TO ALL FORMED JOINTS.
11. LONGITUDINAL REINFORCING STEEL SPLICES SHALL BE A MINIMUM OF 25 IN. STAGGER THE LAP LOCATIONS SO THAT NO MORE THAN 1/3 OF THE LONGITUDINAL STEEL IS SPLICED IN ANY GIVEN 12-FT. WIDTH AND 2-FT. LENGTH OF THE PAVEMENT.
12. THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR IS SHOWN ON STANDARD SHEET "CONCRETE PAVING DETAILS, JOINT SEALS."

SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT (SECTION X-X)	
T (IN.)	BAR SIZE	SPACING C (IN.)	SPACING a (IN.)	SPACING 2 x C (IN.)	LENGTH L (IN.)
7.0	#5	6.5	3 TO 4	13	50
7.5	#5	6.0	3 TO 4	12	50
8.0	#6	9.0	3 TO 4	18	50
8.5	#6	8.5	3 TO 4	17	50
9.0	#6	8.0	3 TO 4	16	50
9.5	#6	7.5	3 TO 4	15	50
10.0	#6	7.0	3 TO 4	14	50
10.5	#6	6.75	3 TO 4	13.5	50
11.0	#6	6.5	3 TO 4	13	50
11.5	#6	6.25	3 TO 4	12.5	50
12.0	#6	6.0	3 TO 4	12	50
12.5	#6	5.75	3 TO 4	11.5	50
13.0	#6	5.5	3 TO 4	11	50

SLAB THICKNESS (IN.)	TRANSVERSE STEEL		TIE BARS AT LONGITUDINAL CONTRACTION JOINT (SECTION Z-Z)		TIE BARS AT LONGITUDINAL CONTRACTION JOINT (SECTION Y-Y)	
	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)
7.0 - 7.5	#5	48	#5	48	#5	24
8.0 - 13.0	#5	48	#6	48	#6	24



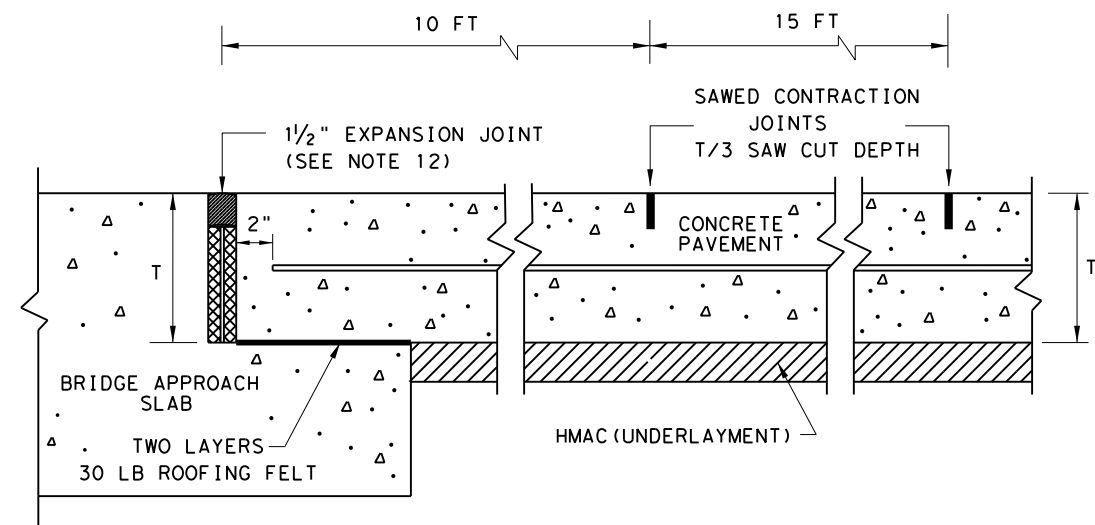
SHEET 1 OF 2

		Design Division Standard	
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT ONE LAYER STEEL BAR PLACEMENT T - 7 to 13 INCHES CRCP(1)-17			
FILE: crcp117.dgn	DN: TxDOT	CK: AN	DW: HC
©TxDOT: May 2017	CONT	SECT	JOB
10/10/2011 ADD CN #12			HIGHWAY
04/09/2013 REMOVE 6" AND 6.5" ADD CTE REQUIREMENTS	DIST	COUNTY	SHEET NO.
05/05/2017 COTE AS RATED 4.3			

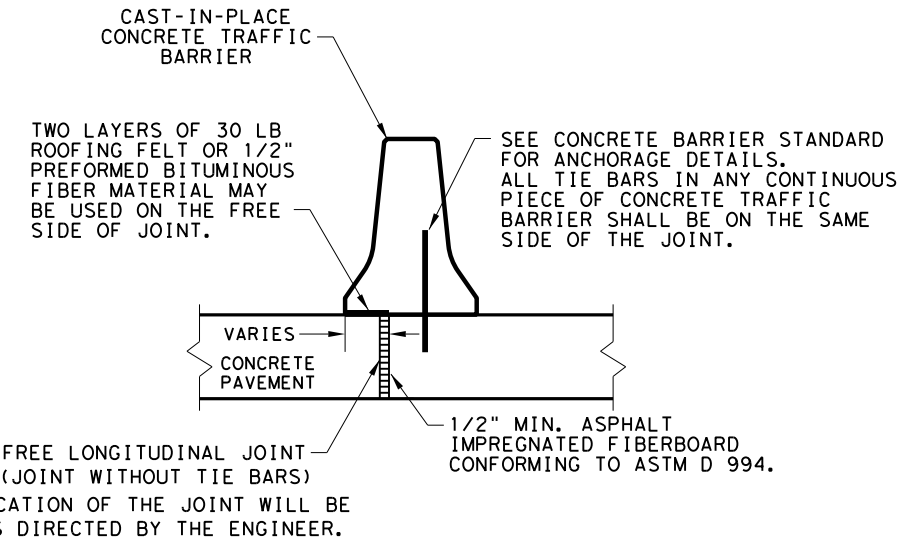
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TABLE NO. 1A LONGITUDINAL STEEL FOR LOW COTE CONCRETE AS APPROVED BY THE ENGINEER

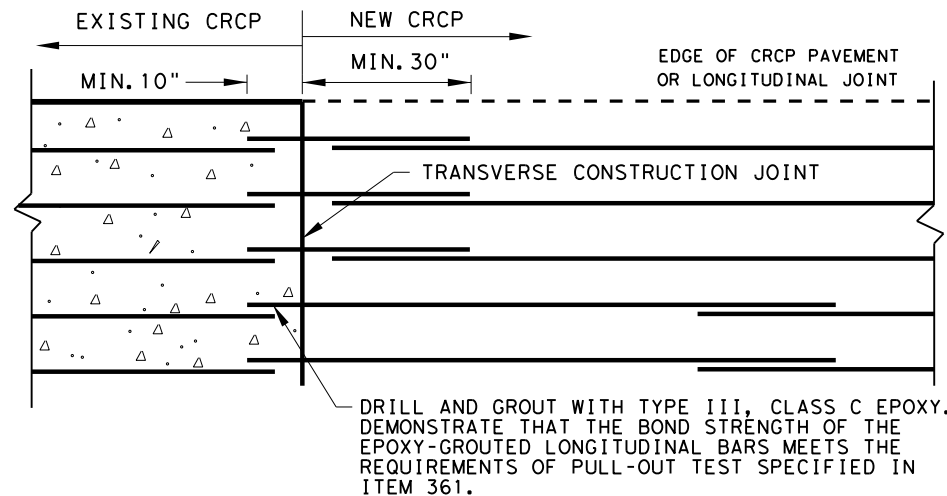
SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT (SECTION X-X)	
T (IN.)	BAR SIZE	SPACING C (IN.)	SPACING a (IN.)	SPACING 2 x c (IN.)	LENGTH L (IN.)
7.0	#5	7.5	3 TO 4	15	50
7.5	#5	7.0	3 TO 4	14	50
8.0	#6	10.0	3 TO 4	20	50
8.5	#6	9.5	3 TO 4	19	50
9.0	#6	9.0	3 TO 4	18	50
9.5	#6	8.5	3 TO 4	17	50
10.0	#6	8.0	3 TO 4	16	50
10.5	#6	7.5	3 TO 4	15	50
11.0	#6	7.0	3 TO 4	14	50
11.5	#6	6.75	3 TO 4	13.5	50
12.0	#6	6.50	3 TO 4	13	50
12.5	#6	6.25	3 TO 4	12.5	50
13.0	#6	6.0	3 TO 4	12	50



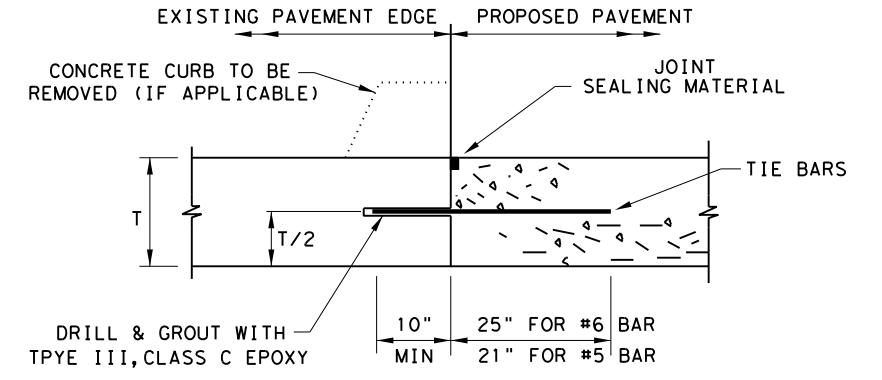
TRANSVERSE EXPANSION JOINT DETAIL AT BRIDGE APPROACH



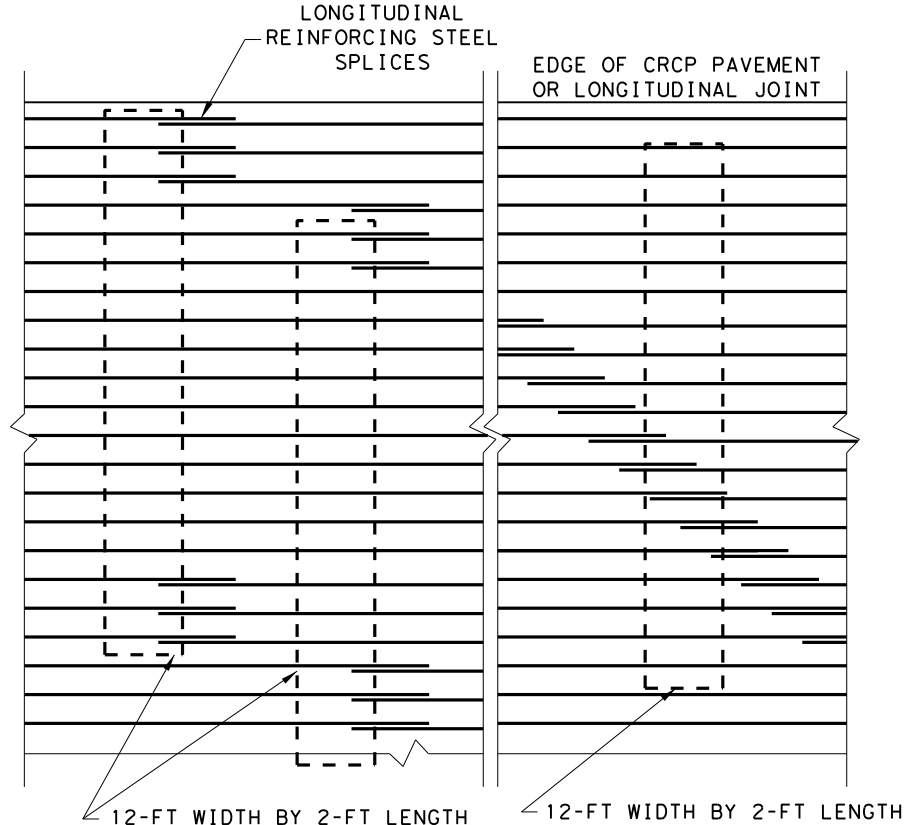
FREE LONGITUDINAL JOINT DETAIL



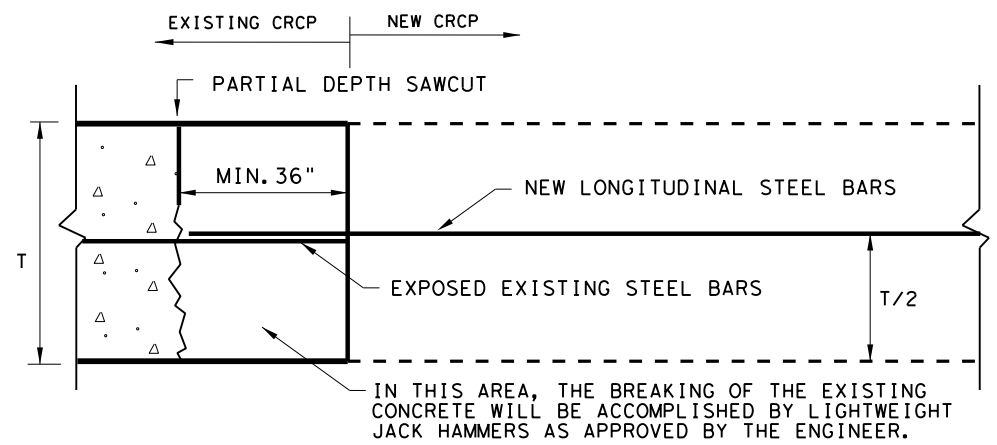
OPTION A: DRILL AND EPOXY PLAN VIEW (NOT TO SCALE)



LONGITUDINAL WIDENING JOINT DETAIL



EXAMPLES OF LAP CONFIGURATION PLAN VIEW (NOT TO SCALE)



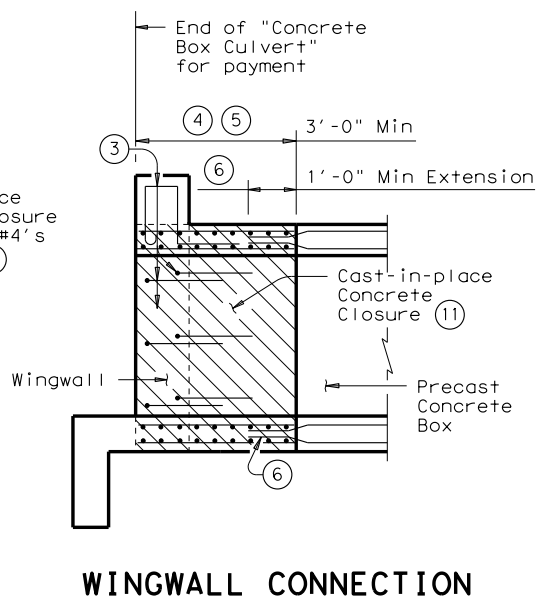
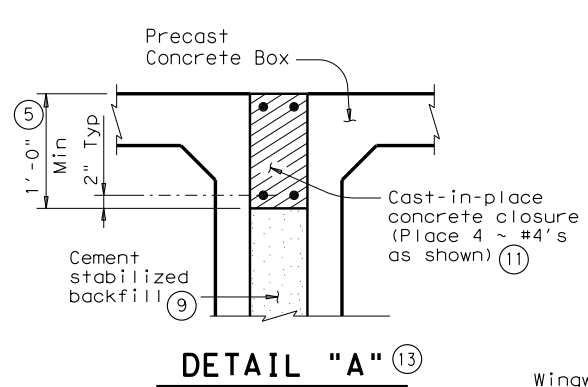
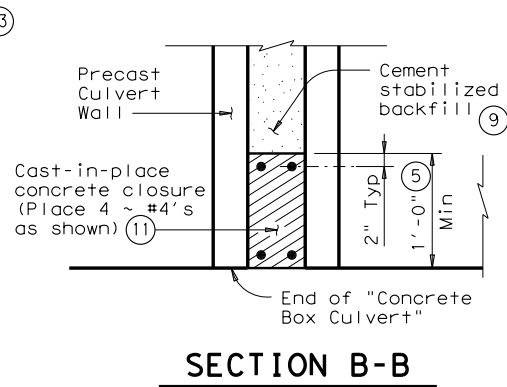
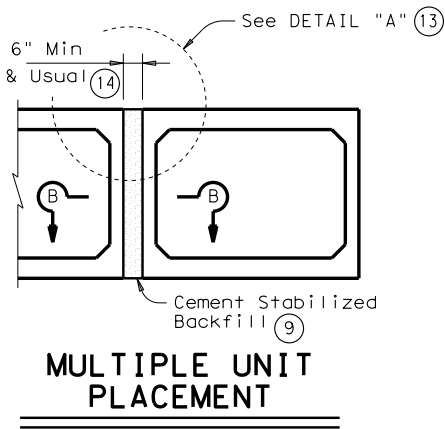
OPTION B: BREAKBACK AND LAP TRANSVERSE TIE JOINT DETAIL EXISTING CRCP TO NEW CRCP

1. BEFORE WIDENING WORK, DEMONSTRATE THAT THE BOND STRENGTH OF THE EPOXY-GROUTED TIE BARS MEETS THE REQUIREMENTS OF PULL-OUT TEST SPECIFIED IN ITEM 361.
2. SPACE TIE BARS AT 24" SPACING. USE #6 TIE BARS FOR 8" AND THICKER SLABS, USE #5 TIE BARS FOR LESS THAN 8" THICK SLABS.

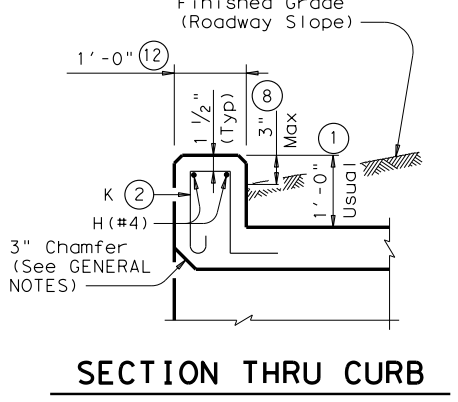
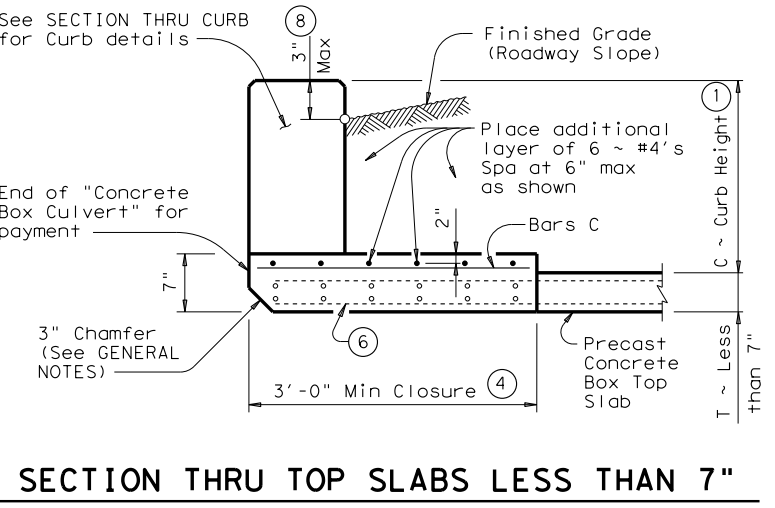
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CONTINUOUSLY REINFORCED CONCRETE PAVEMENT ONE LAYER STEEL BAR PLACEMENT T - 7 to 13 INCHES CRCP(1)-17			
FILE: crcp117.dgn	DN: TxDOT	CK: AN	DW: HC
©TxDOT: May 2017	CONT	SECT	JOB
REVISIONS	DIST	COUNTY	SHEET NO.

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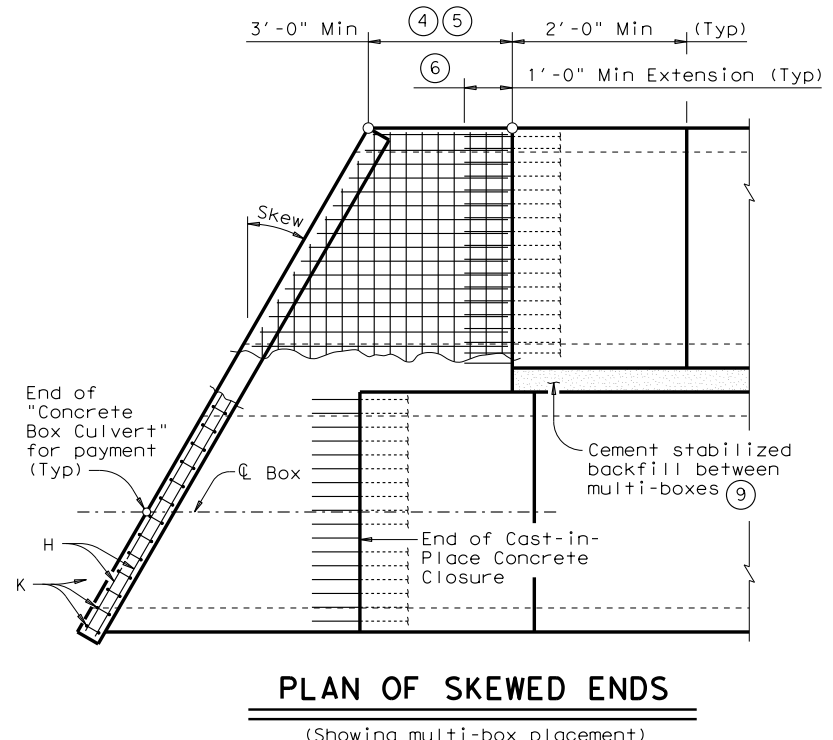
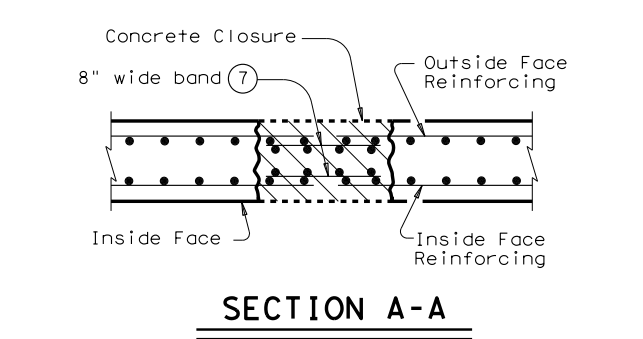
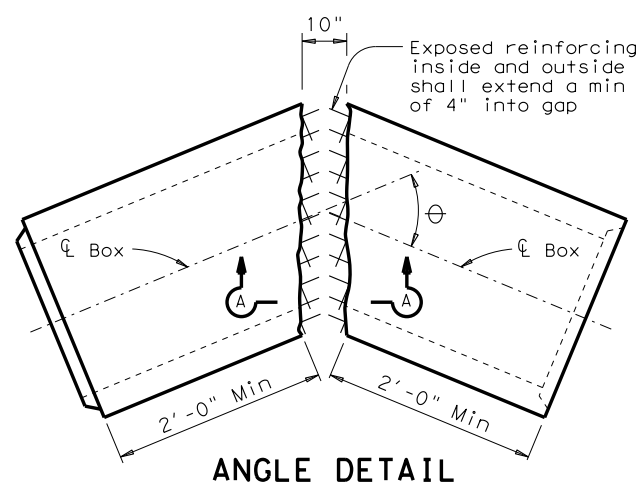
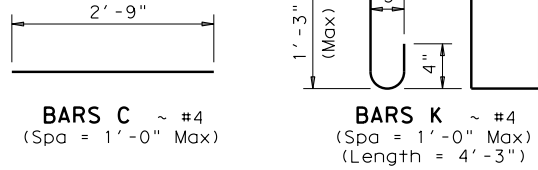


- 1 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 traffic rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- 2 For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.
- 3 Curb, Wingwall or Safety End Treatment reinforcing shall extend into concrete closure. Any reinforcing that does not fit into the closure shall be bent or trimmed as necessary.
- 4 Cast-in-place concrete closure shall be 3'-0" min. Boxes shall be cast short or broken back in the field. All reinforcing in the closure shall be the same size and spacing as in the precast box section. Except where shown otherwise, the cast-in-place closure shall be flush with the inside and outside faces of the precast box section.
- 5 For multiple unit placements the length of the closure for the interior walls may be adjusted as necessary. The length of the top slab, bottom slab, and exterior wall closure shall not be less than 3'-0". See Section B-B detail when interior walls are cast full length.
- 6 Precast box reinforcing shall extend a minimum of 1'-0" into concrete closure (Typ).
- 7 Bands of reinforcing matching the inside and outside face reinforcing shall be placed in the gaps of the top and bottom slabs. A band matching the outside face reinforcing of the wall shall be placed in the gaps of the walls (placed in the outside face only). The bands shall be tack welded to the exposed reinforcing at each point of contact.
- 8 For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, curbs shall project no more than 3" above finished grade.
 - For structures with bridge rail, curbs shall be flush with finished grade.
 Curb heights shall be reduced, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- 9 Cement Stabilized Backfill between boxes is considered part of the Box Culvert for payment.
- 10 All curb concrete and reinforcing is considered part of the Box Culvert for payment.
- 11 Any additional concrete and reinforcing required for the closures shall be considered as subsidiary to the Concrete Box Culvert.
- 12 1'-0" typical. 2'-0" when RAC standard is referred to elsewhere in the plans.
- 13 For multiple unit placement with overlay, with 1 to 2 course surface treatment, or with the top slab as the final riding surface, provide wall closure as shown in DETAIL "A".
- 14 This dimension may be increased with approval of the Engineer to allow the precast boxes to be tunneled or jacked in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box". No payment will be made for any additional material in the gap between adjacent boxes.



(10) QUANTITIES PER FOOT OF CURB

Reinforcing Steel	4.18 Lb
Concrete	0.037 CY



GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 All closure concrete shall be Class "C" with a minimum compressive strength of 3600 psi and shall be placed according to the Item, "Concrete Substructures".
 Any additional concrete required for the closures shall be considered as subsidiary to the Concrete Box Culvert.
 Refer to the Single Box Culverts Precast standard for details not shown.
 The bottom edge of the top slab closure shall be chamfered 3 inches at the entrance.

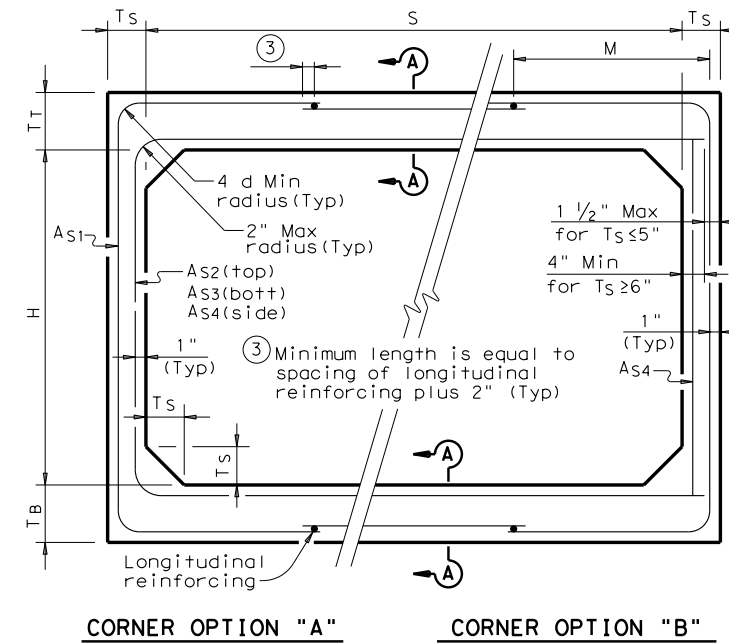
HL93 LOADING

		Bridge Division Standard	
BOX CULVERTS PRECAST MISCELLANEOUS DETAILS			
SCP-MD			
FILE: scpmdsts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT
©TxDOT February 2010	CONT	SECT	JOB
REVISIONS			HIGHWAY
	DIST	COUNTY	SHEET NO.

BOX DATA

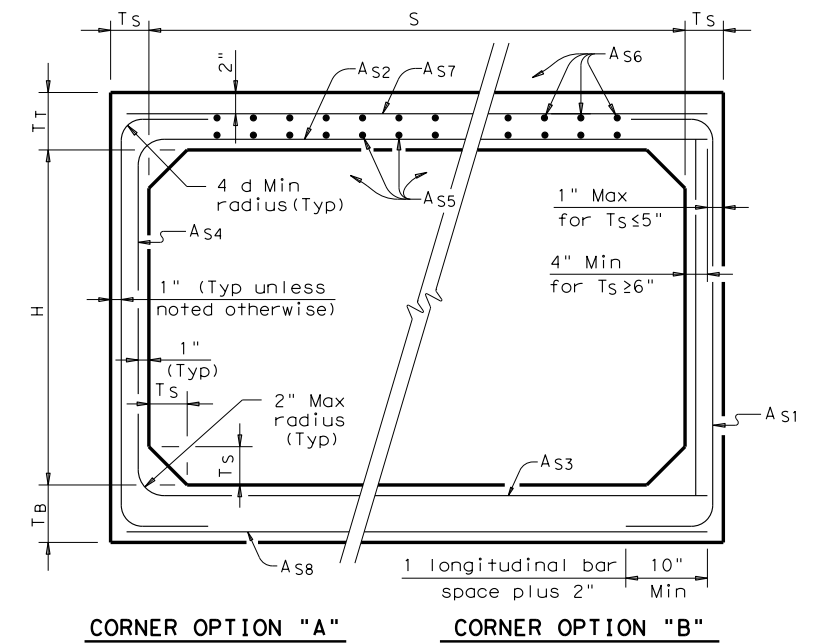
SECTION DIMENSIONS					Fill Height (ft)	M (Min) (in)	REINFORCING (in ² /ft) ②								Lift Weight (Tons) ①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
3	2	7	6	4	<2	-	0.17	0.25	0.16	0.10	0.17	0.17	0.17	0.14	3.3
3	2	4	4	4	2<3	31	0.13	0.19	0.18	0.10	-	-	-	-	2.4
3	2	4	4	4	3-5	31	0.10	0.11	0.12	0.10	-	-	-	-	2.4
3	2	4	4	4	10	31	0.10	0.10	0.10	0.10	-	-	-	-	2.4
3	2	4	4	4	15	31	0.10	0.13	0.13	0.10	-	-	-	-	2.4
3	2	4	4	4	20	31	0.11	0.17	0.17	0.10	-	-	-	-	2.4
3	2	4	4	4	25	31	0.14	0.21	0.21	0.10	-	-	-	-	2.4
3	2	4	4	4	30	31	0.17	0.25	0.25	0.10	-	-	-	-	2.4
3	2	4	4	4	35	31	0.20	0.29	0.30	0.10	-	-	-	-	2.4
3	3	7	6	4	<2	-	0.17	0.27	0.17	0.10	0.17	0.17	0.17	0.14	3.7
3	3	4	4	4	2<3	31	0.10	0.22	0.21	0.10	-	-	-	-	2.8
3	3	4	4	4	3-5	31	0.10	0.14	0.14	0.10	-	-	-	-	2.8
3	3	4	4	4	10	31	0.10	0.11	0.11	0.10	-	-	-	-	2.8
3	3	4	4	4	15	31	0.10	0.14	0.15	0.10	-	-	-	-	2.8
3	3	4	4	4	20	31	0.10	0.18	0.19	0.10	-	-	-	-	2.8
3	3	4	4	4	25	31	0.10	0.23	0.23	0.10	-	-	-	-	2.8
3	3	4	4	4	30	31	0.12	0.27	0.28	0.10	-	-	-	-	2.8
3	3	4	4	4	35	31	0.14	0.32	0.32	0.10	-	-	-	-	2.8

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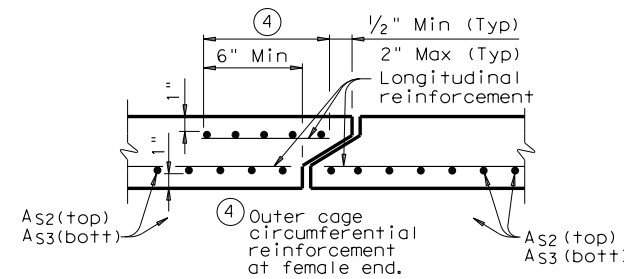
CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT



SECTION A-A
(TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:

Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.
 See SCP-MD standard sheet for miscellaneous details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING

		Bridge Division Standard	
SINGLE BOX CULVERTS PRECAST 3'-0" SPAN			
SCP-3			
FILE: scp03sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT CK: GAF
©TxDOT February 2010	CONT	SECT	JOB HIGHWAY
REVISIONS			
DIST	COUNTY	SHEET NO.	

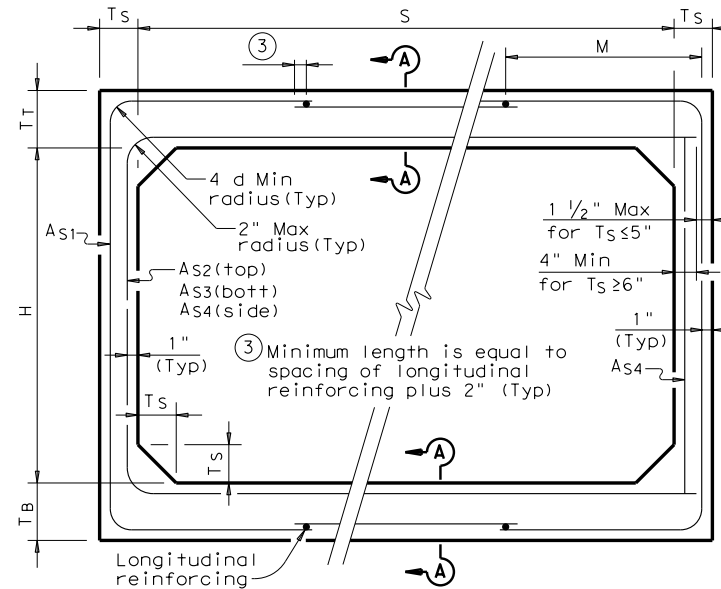
① For Box Length = 8'-0"

② As₁ thru As₄, As₇ and As₈ are minimum required areas of reinforcement per linear foot of box length. As₆ and As₅ are minimum required areas of reinforcement per linear foot of box width.

BOX DATA

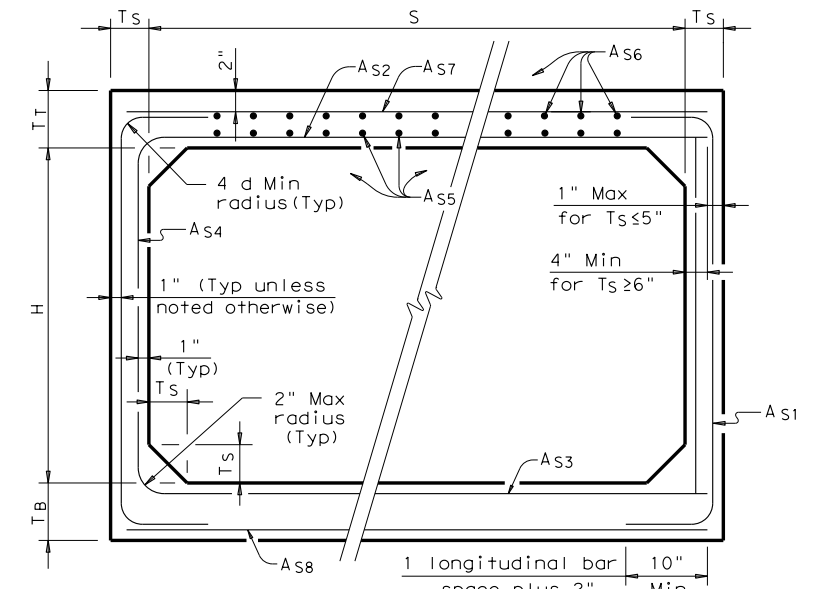
SECTION DIMENSIONS					Fill Height (ft)	M (Min) (in)	REINFORCING (in ² /ft) ②								Lift Weight (Tons) ①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
4	2	7.5	6	5	<2	-	0.18	0.27	0.15	0.12	0.18	0.18	0.18	0.14	4.5
4	2	5	5	5	2<3	38	0.18	0.19	0.17	0.12	-	-	-	-	3.6
4	2	5	5	5	3-5	38	0.13	0.13	0.13	0.12	-	-	-	-	3.6
4	2	5	5	5	10	38	0.12	0.12	0.12	0.12	-	-	-	-	3.6
4	2	5	5	5	15	38	0.14	0.16	0.16	0.12	-	-	-	-	3.6
4	2	5	5	5	20	38	0.18	0.20	0.21	0.12	-	-	-	-	3.6
4	2	5	5	5	25	38	0.23	0.25	0.25	0.12	-	-	-	-	3.6
4	2	5	5	5	30	38	0.28	0.30	0.30	0.12	-	-	-	-	3.6
4	3	7.5	6	5	<2	-	0.18	0.31	0.18	0.12	0.18	0.18	0.18	0.14	5.0
4	3	5	5	5	2<3	38	0.15	0.23	0.20	0.12	-	-	-	-	4.1
4	3	5	5	5	3-5	38	0.12	0.16	0.16	0.12	-	-	-	-	4.1
4	3	5	5	5	10	38	0.12	0.14	0.14	0.12	-	-	-	-	4.1
4	3	5	5	5	15	38	0.12	0.18	0.18	0.12	-	-	-	-	4.1
4	3	5	5	5	20	38	0.14	0.23	0.24	0.12	-	-	-	-	4.1
4	3	5	5	5	25	38	0.17	0.29	0.29	0.12	-	-	-	-	4.1
4	3	5	5	5	30	38	0.21	0.35	0.35	0.12	-	-	-	-	4.1
4	4	7.5	6	5	<2	-	0.18	0.33	0.20	0.12	0.18	0.18	0.18	0.14	5.5
4	4	5	5	5	2<3	38	0.12	0.26	0.23	0.12	-	-	-	-	4.6
4	4	5	5	5	3-5	38	0.12	0.18	0.18	0.12	-	-	-	-	4.6
4	4	5	5	5	10	38	0.12	0.15	0.15	0.12	-	-	-	-	4.6
4	4	5	5	5	15	38	0.12	0.19	0.20	0.12	-	-	-	-	4.6
4	4	5	5	5	20	38	0.12	0.25	0.25	0.12	-	-	-	-	4.6
4	4	5	5	5	25	38	0.14	0.31	0.31	0.12	-	-	-	-	4.6
4	4	5	5	5	30	38	0.17	0.37	0.37	0.12	-	-	-	-	4.6

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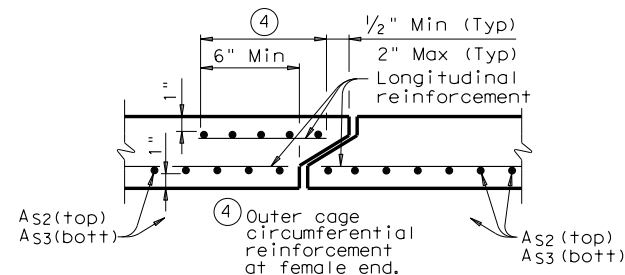
CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT



SECTION A-A
(TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:
 Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.
 See SCP-MD standard sheet for miscellaneous details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING



**SINGLE BOX CULVERTS
 PRECAST
 4'-0" SPAN**

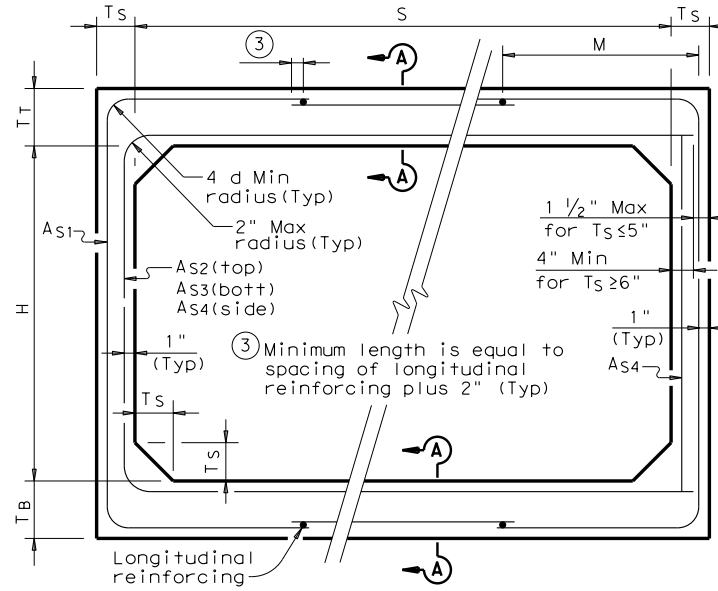
SCP-4

FILE: scp04sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT	CK: GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY	SHEET NO.	

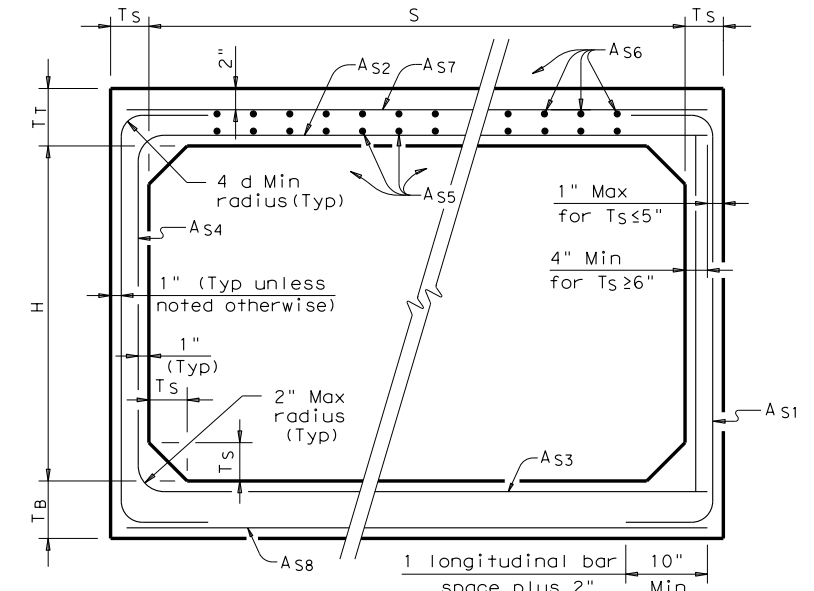
BOX DATA

SECTION DIMENSIONS					Fill Height (ft)	M (Min) (in)	REINFORCING (in ² /ft) ②								Lift Weight (Tons) ①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
5	3	8	7	6	<2	-	0.19	0.31	0.21	0.14	0.19	0.19	0.19	0.17	6.6
5	3	6	6	6	2<3	45	0.18	0.24	0.19	0.14	-	-	-	-	5.7
5	3	6	6	6	3-5	36	0.14	0.17	0.16	0.14	-	-	-	-	5.7
5	3	6	6	6	10	36	0.14	0.16	0.17	0.14	-	-	-	-	5.7
5	3	6	6	6	15	35	0.16	0.21	0.22	0.14	-	-	-	-	5.7
5	3	6	6	6	20	35	0.21	0.27	0.28	0.14	-	-	-	-	5.7
5	3	6	6	6	25	35	0.26	0.34	0.34	0.14	-	-	-	-	5.7
5	3	6	6	6	30	35	0.31	0.41	0.41	0.14	-	-	-	-	5.7
5	4	8	7	6	<2	-	0.19	0.33	0.24	0.14	0.19	0.19	0.19	0.17	7.2
5	4	6	6	6	2<3	45	0.16	0.27	0.22	0.14	-	-	-	-	6.3
5	4	6	6	6	3-5	45	0.14	0.19	0.18	0.14	-	-	-	-	6.3
5	4	6	6	6	10	36	0.14	0.18	0.18	0.14	-	-	-	-	6.3
5	4	6	6	6	15	35	0.14	0.23	0.24	0.14	-	-	-	-	6.3
5	4	6	6	6	20	35	0.17	0.30	0.31	0.14	-	-	-	-	6.3
5	4	6	6	6	25	35	0.21	0.37	0.38	0.14	-	-	-	-	6.3
5	4	6	6	6	30	35	0.25	0.44	0.45	0.14	-	-	-	-	6.3
5	5	8	7	6	<2	-	0.19	0.35	0.26	0.14	0.19	0.19	0.19	0.17	7.8
5	5	6	6	6	2<3	45	0.14	0.29	0.24	0.14	-	-	-	-	6.9
5	5	6	6	6	3-5	45	0.14	0.21	0.20	0.14	-	-	-	-	6.9
5	5	6	6	6	10	45	0.14	0.19	0.20	0.14	-	-	-	-	6.9
5	5	6	6	6	15	36	0.14	0.24	0.25	0.14	-	-	-	-	6.9
5	5	6	6	6	20	35	0.15	0.31	0.32	0.14	-	-	-	-	6.9
5	5	6	6	6	25	35	0.18	0.38	0.39	0.14	-	-	-	-	6.9
5	5	6	6	6	30	35	0.21	0.46	0.47	0.14	-	-	-	-	6.9
5	2	8	7	6	<2	-	0.20	0.31	0.20	0.14	0.22	0.19	0.19	0.17	6.0
5	2	6	6	6	30	44	0.39	0.33	0.34	0.14	-	-	-	-	5.1

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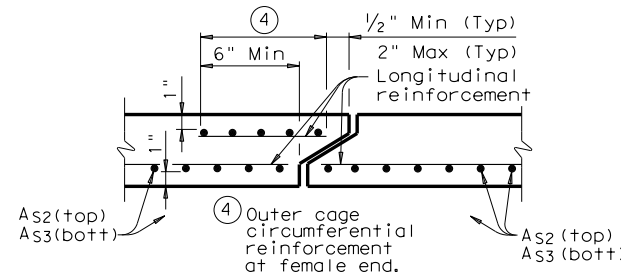
CORNER OPTION "A" CORNER OPTION "B"



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER

FILL HEIGHT LESS THAN 2 FT



SECTION A-A (TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:

Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.
 See SCP-MD standard sheet for miscellaneous details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING

Texas Department of Transportation
 Bridge Division Standard

**SINGLE BOX CULVERTS
 PRECAST
 5'-0" SPAN**

SCP-5

FILE: scp05sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT	CK: GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY	SHEET NO.	

① For Box Length = 8'-0"

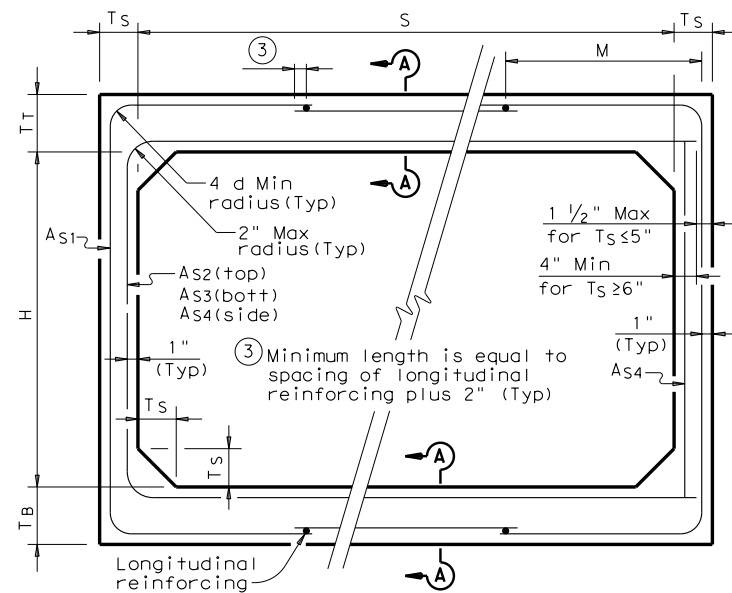
② A_{S1} thru A_{S4}, A_{S7} and A_{S8} are minimum required areas of reinforcement per linear foot of box length. A_{S6} and A_{S5} are minimum required areas of reinforcement per linear foot of box width.

⑤ These designs were created by TxDOT and are not shown in the ASTM Specifications.

BOX DATA

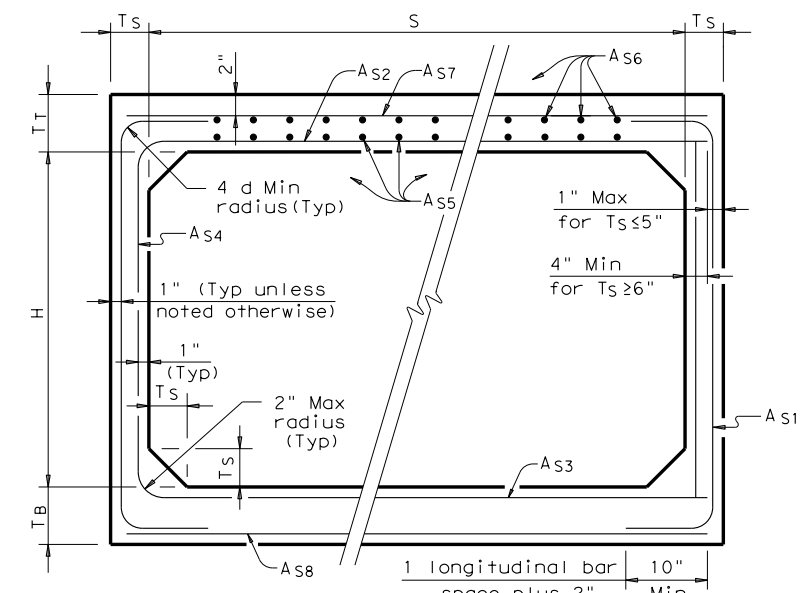
SECTION DIMENSIONS					Fill Height (ft)	M (Min) (in)	REINFORCING (in ² /ft) ②								Lift Weight (Tons) ①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
6	3	8	7	7	<2	-	0.20	0.31	0.22	0.17	0.19	0.19	0.19	0.17	7.9
6	3	7	7	7	2<3	43	0.21	0.24	0.19	0.17	-	-	-	-	7.5
6	3	7	7	7	3-5	39	0.17	0.18	0.17	0.17	-	-	-	-	7.5
6	3	7	7	7	10	39	0.17	0.18	0.19	0.17	-	-	-	-	7.5
6	3	7	7	7	15	38	0.22	0.24	0.24	0.17	-	-	-	-	7.5
6	3	7	7	7	20	38	0.28	0.31	0.31	0.17	-	-	-	-	7.5
6	3	7	7	7	25	38	0.35	0.38	0.39	0.17	-	-	-	-	7.5
6	3	7	7	7	30	38	0.42	0.46	0.46	0.17	-	-	-	-	7.5
6	4	8	7	7	<2	-	0.19	0.34	0.25	0.17	0.19	0.19	0.19	0.17	8.6
6	4	7	7	7	2<3	43	0.19	0.27	0.21	0.17	-	-	-	-	8.2
6	4	7	7	7	3-5	39	0.17	0.21	0.19	0.17	-	-	-	-	8.2
6	4	7	7	7	10	39	0.17	0.20	0.21	0.17	-	-	-	-	8.2
6	4	7	7	7	15	38	0.18	0.27	0.27	0.17	-	-	-	-	8.2
6	4	7	7	7	20	38	0.24	0.34	0.35	0.17	-	-	-	-	8.2
6	4	7	7	7	25	38	0.29	0.43	0.42	0.17	-	-	-	-	8.2
6	4	7	7	7	30	38	0.35	0.51	0.52	0.17	-	-	-	-	8.2
6	5	8	7	7	<2	-	0.19	0.37	0.28	0.17	0.19	0.19	0.19	0.17	9.3
6	5	7	7	7	2<3	43	0.17	0.30	0.24	0.17	-	-	-	-	8.9
6	5	7	7	7	3-5	43	0.17	0.23	0.21	0.17	-	-	-	-	8.9
6	5	7	7	7	10	39	0.17	0.22	0.23	0.17	-	-	-	-	8.9
6	5	7	7	7	15	38	0.17	0.28	0.29	0.17	-	-	-	-	8.9
6	5	7	7	7	20	38	0.20	0.37	0.38	0.17	-	-	-	-	8.9
6	5	7	7	7	25	38	0.25	0.45	0.46	0.17	-	-	-	-	8.9
6	5	7	7	7	30	38	0.30	0.54	0.55	0.17	-	-	-	-	8.9
6	6	8	7	7	<2	-	0.19	0.38	0.30	0.17	0.19	0.19	0.19	0.17	10.0
6	6	7	7	7	2<3	52	0.17	0.32	0.26	0.17	-	-	-	-	9.6
6	6	7	7	7	3-5	52	0.17	0.24	0.22	0.17	-	-	-	-	9.6
6	6	7	7	7	10	43	0.17	0.23	0.24	0.17	-	-	-	-	9.6
6	6	7	7	7	15	39	0.17	0.29	0.31	0.17	-	-	-	-	9.6
6	6	7	7	7	20	39	0.18	0.38	0.39	0.17	-	-	-	-	9.6
6	6	7	7	7	25	38	0.23	0.46	0.48	0.17	-	-	-	-	9.6
6	6	7	7	7	30	38	0.27	0.55	0.57	0.17	-	-	-	-	9.6

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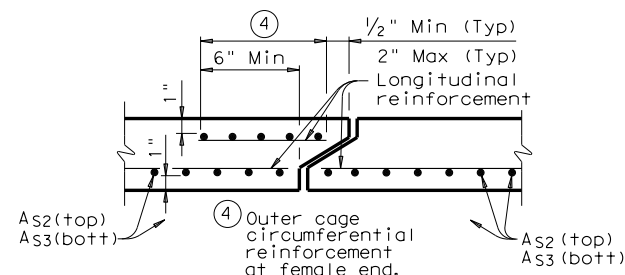
CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT



SECTION A-A

(TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:
 Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.
 See SCP-MD standard sheet for miscellaneous details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

- ① For Box Length = 8'-0"
- ② A_{S1} thru A_{S4}, A_{S7} and A_{S8} are minimum required areas of reinforcement per linear foot of box length. A_{S6} and A_{S5} are minimum required areas of reinforcement per linear foot of box width.

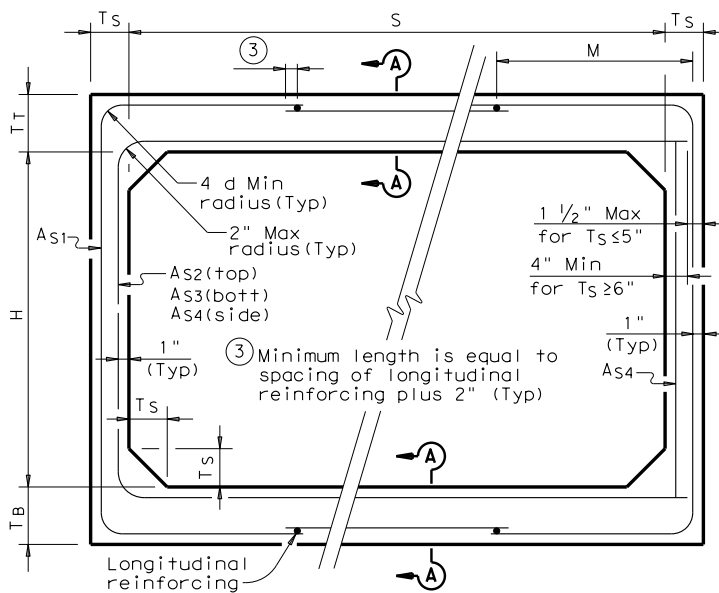
HL93 LOADING

		Bridge Division Standard	
SINGLE BOX CULVERTS PRECAST 6'-0" SPAN			
SCP-6			
FILE: scp06sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT
©TxDOT February 2010	CONT	SECT	JOB
REVISIONS			HIGHWAY
	DIST	COUNTY	SHEET NO.

BOX DATA

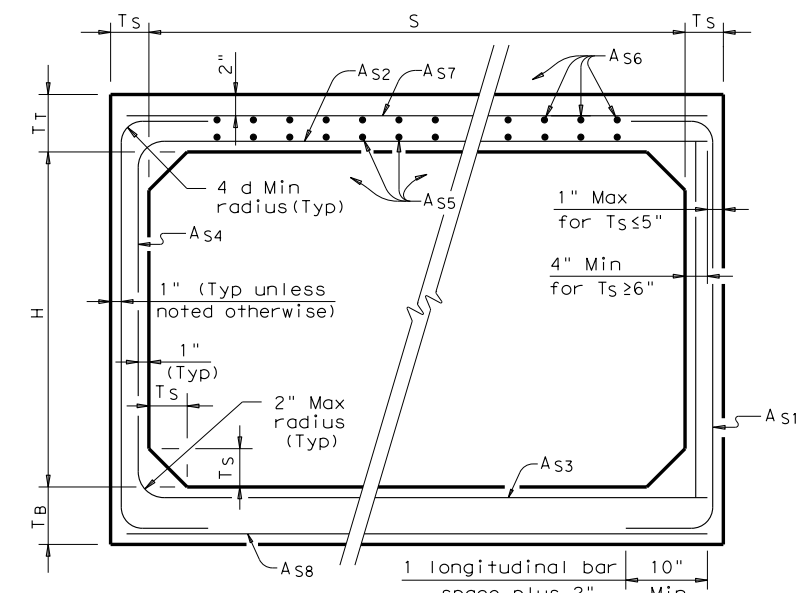
SECTION DIMENSIONS					Fill Height (ft)	M (in)	REINFORCING (in ² /ft) ②								Lift Weight (Tons) ①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
7	4	8	8	8	<2	-	0.21	0.34	0.25	0.19	0.19	0.19	0.19	10.4	
7	4	8	8	8	2<3	43	0.23	0.28	0.28	0.19	-	-	-	10.4	
7	4	8	8	8	3-5	43	0.19	0.22	0.19	0.19	-	-	-	10.4	
7	4	8	8	8	10	43	0.19	0.23	0.23	0.19	-	-	-	10.4	
7	4	8	8	8	15	41	0.24	0.30	0.30	0.19	-	-	-	10.4	
7	4	8	8	8	20	41	0.31	0.38	0.39	0.19	-	-	-	10.4	
7	4	8	8	8	25	41	0.38	0.47	0.48	0.19	-	-	-	10.4	
7	4	8	8	8	30	41	0.46	0.57	0.57	0.19	-	-	-	10.4	
7	5	8	8	8	<2	-	0.19	0.36	0.27	0.19	0.19	0.19	0.19	11.2	
7	5	8	8	8	2<3	47	0.21	0.31	0.31	0.19	-	-	-	11.2	
7	5	8	8	8	3-5	43	0.19	0.24	0.21	0.19	-	-	-	11.2	
7	5	8	8	8	10	43	0.19	0.25	0.26	0.19	-	-	-	11.2	
7	5	8	8	8	15	41	0.21	0.32	0.33	0.19	-	-	-	11.2	
7	5	8	8	8	20	41	0.27	0.41	0.42	0.19	-	-	-	11.2	
7	5	8	8	8	25	41	0.33	0.51	0.52	0.19	-	-	-	11.2	
7	5	8	8	8	30	41	0.40	0.61	0.62	0.19	-	-	-	11.2	
7	6	8	8	8	<2	-	0.19	0.38	0.30	0.19	0.19	0.19	0.19	12.0	
7	6	8	8	8	2<3	59	0.19	0.33	0.34	0.19	-	-	-	12.0	
7	6	8	8	8	3-5	47	0.19	0.25	0.23	0.19	-	-	-	12.0	
7	6	8	8	8	10	43	0.19	0.26	0.27	0.19	-	-	-	12.0	
7	6	8	8	8	15	41	0.19	0.34	0.35	0.19	-	-	-	12.0	
7	6	8	8	8	20	41	0.24	0.43	0.45	0.19	-	-	-	12.0	
7	6	8	8	8	25	41	0.29	0.53	0.55	0.19	-	-	-	12.0	
7	6	8	8	8	30	41	0.35	0.64	0.65	0.19	-	-	-	12.0	
7	7	8	8	8	<2	-	0.19	0.40	0.33	0.19	0.19	0.19	0.19	12.8	
7	7	8	8	8	2<3	59	0.19	0.36	0.37	0.19	-	-	-	12.8	
7	7	8	8	8	3-5	59	0.19	0.27	0.25	0.19	-	-	-	12.8	
7	7	8	8	8	10	47	0.19	0.27	0.29	0.19	-	-	-	12.8	
7	7	8	8	8	15	43	0.19	0.35	0.37	0.19	-	-	-	12.8	
7	7	8	8	8	20	43	0.22	0.44	0.46	0.19	-	-	-	12.8	
7	7	8	8	8	25	43	0.27	0.54	0.57	0.19	-	-	-	12.8	
7	7	8	8	8	30	41	0.32	0.65	0.67	0.19	-	-	-	12.8	
7	3	8	8	8	<2	-	0.28	0.36	0.24	0.19	0.21	0.19	0.19	9.6	
7	3	8	8	8	30	58	0.53	0.49	0.50	0.19	-	-	-	9.6	

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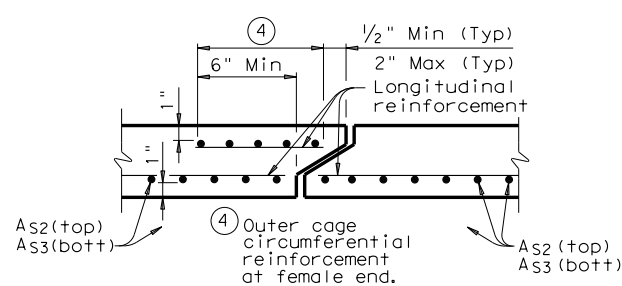
CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT



SECTION A-A

(TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:
 Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
 All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi.
 See SCP-MD standard sheet for miscellaneous details and notes not shown.
 In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

① For Box Length = 8'-0"
 ② AS₁ thru AS₄, AS₇ and AS₈ are minimum required areas of reinforcement per linear foot of box length. AS₆ and AS₅ are minimum required areas of reinforcement per linear foot of box width.
 ⑤ These designs were created by TxDOT and are not shown in the ASTM Specifications.

HL93 LOADING

Texas Department of Transportation
 Bridge Division Standard

**SINGLE BOX CULVERTS
 PRECAST
 7'-0" SPAN**

SCP-7

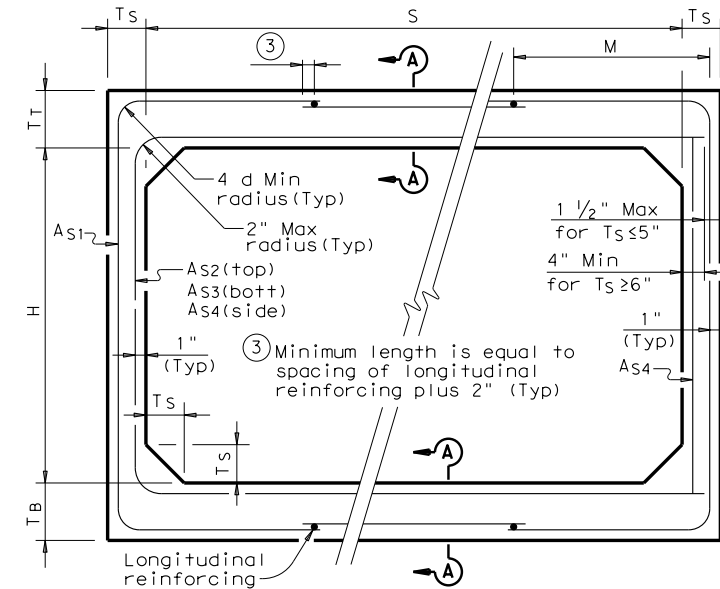
FILE: scp07sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT	CK: GAF
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REVISIONS				
DIST	COUNTY			SHEET NO.

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BOX DATA

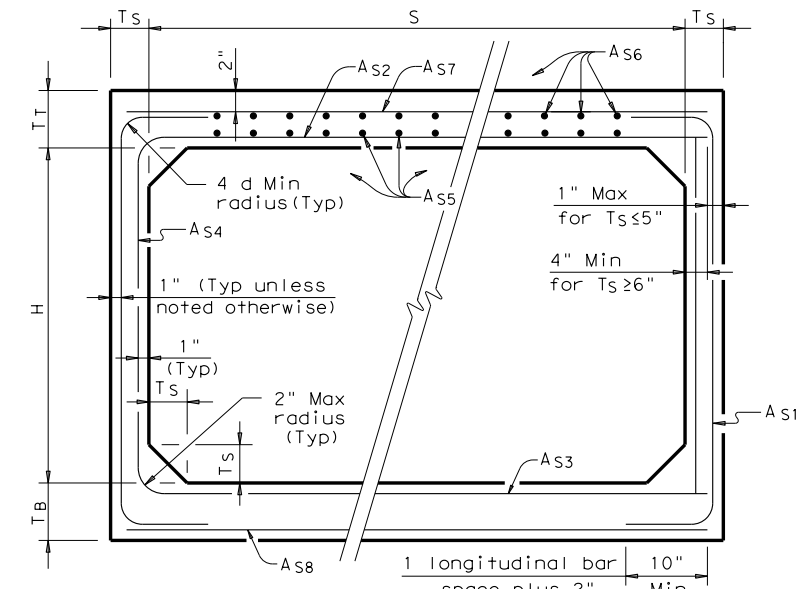
SECTION DIMENSIONS					Fill Height (ft)	M (in)	REINFORCING (in ² /ft) ^②								Lift Weight (Tons) ^①
S (ft)	H (ft)	T _T (in)	T _B (in)	T _S (in)			A _{S1}	A _{S2}	A _{S3}	A _{S4}	A _{S5}	A _{S6}	A _{S7}	A _{S8}	
10	5	10	10	10	<2	-	0.30	0.36	0.30	0.24	0.24	0.24	0.24	17.5	
10	5	10	10	10	2<3	58	0.35	0.39	0.34	0.24	-	-	-	17.5	
10	5	10	10	10	3-5	53	0.28	0.31	0.30	0.24	-	-	-	17.5	
10	5	10	10	10	10	52	0.33	0.35	0.36	0.24	-	-	-	17.5	
10	5	10	10	10	15	47	0.42	0.46	0.47	0.24	-	-	-	17.5	
10	5	10	10	10	20	47	0.55	0.59	0.61	0.24	-	-	-	17.5	
10	5	10	10	10	25	47	0.68	0.73	0.75	0.24	-	-	-	17.5	
10	6	10	10	10	<2	-	0.28	0.38	0.33	0.24	0.24	0.24	0.24	18.5	
10	6	10	10	10	2<3	58	0.32	0.42	0.37	0.24	-	-	-	18.5	
10	6	10	10	10	3-5	52	0.26	0.34	0.33	0.24	-	-	-	18.5	
10	6	10	10	10	10	52	0.30	0.38	0.39	0.24	-	-	-	18.5	
10	6	10	10	10	15	47	0.39	0.49	0.51	0.24	-	-	-	18.5	
10	6	10	10	10	20	47	0.50	0.63	0.65	0.24	-	-	-	18.5	
10	6	10	10	10	25	47	0.61	0.78	0.80	0.24	-	-	-	18.5	
10	7	10	10	10	<2	-	0.25	0.40	0.36	0.24	0.24	0.24	0.24	19.5	
10	7	10	10	10	2<3	58	0.30	0.45	0.40	0.24	-	-	-	19.5	
10	7	10	10	10	3-5	58	0.24	0.36	0.35	0.24	-	-	-	19.5	
10	7	10	10	10	10	52	0.28	0.40	0.42	0.24	-	-	-	19.5	
10	7	10	10	10	15	47	0.36	0.52	0.54	0.24	-	-	-	19.5	
10	7	10	10	10	20	47	0.46	0.67	0.69	0.24	-	-	-	19.5	
10	7	10	10	10	25	47	0.56	0.82	0.85	0.24	-	-	-	19.5	
10	8	10	10	10	<2	-	0.24	0.41	0.38	0.24	0.24	0.24	0.24	20.5	
10	8	10	10	10	2<3	64	0.27	0.47	0.43	0.24	-	-	-	20.5	
10	8	10	10	10	3-5	58	0.24	0.38	0.38	0.24	-	-	-	20.5	
10	8	10	10	10	10	52	0.26	0.42	0.44	0.24	-	-	-	20.5	
10	8	10	10	10	15	47	0.34	0.54	0.57	0.24	-	-	-	20.5	
10	8	10	10	10	20	47	0.43	0.69	0.72	0.24	-	-	-	20.5	
10	9	10	10	10	<2	-	0.24	0.42	0.41	0.24	0.24	0.24	0.24	21.5	
10	9	10	10	10	2<3	70	0.26	0.50	0.46	0.24	-	-	-	21.5	
10	9	10	10	10	3-5	64	0.24	0.40	0.40	0.24	-	-	-	21.5	
10	9	10	10	10	10	58	0.25	0.43	0.46	0.24	-	-	-	21.5	
10	9	10	10	10	15	52	0.32	0.56	0.59	0.24	-	-	-	21.5	
10	9	10	10	10	20	47	0.40	0.71	0.75	0.24	-	-	-	21.5	
10	10	10	10	10	<2	-	0.24	0.44	0.44	0.24	0.24	0.24	0.24	22.5	
10	10	10	10	10	2<3	79	0.25	0.52	0.48	0.24	-	-	-	22.5	
10	10	10	10	10	3-5	70	0.24	0.42	0.43	0.24	-	-	-	22.5	
10	10	10	10	10	10	64	0.24	0.44	0.48	0.24	-	-	-	22.5	
10	10	10	10	10	15	52	0.30	0.57	0.61	0.24	-	-	-	22.5	
10	10	10	10	10	20	52	0.38	0.73	0.77	0.24	-	-	-	22.5	

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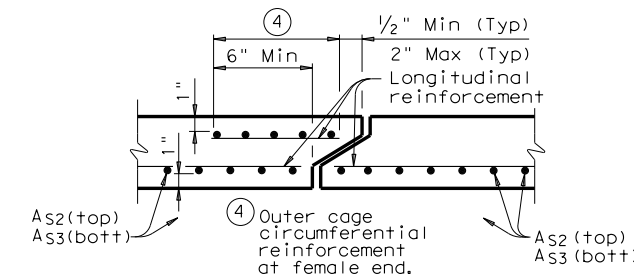
CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT 2 FT AND GREATER



CORNER OPTION "A" CORNER OPTION "B"

FILL HEIGHT LESS THAN 2 FT



SECTION A-A (TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

GENERAL NOTES:

Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown. All concrete shall be Class "H" Concrete with a minimum compressive strength of 5,000 psi. See SCP-MD standard sheet for miscellaneous details and notes not shown. In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Shop plans for alternate designs shall be submitted in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING



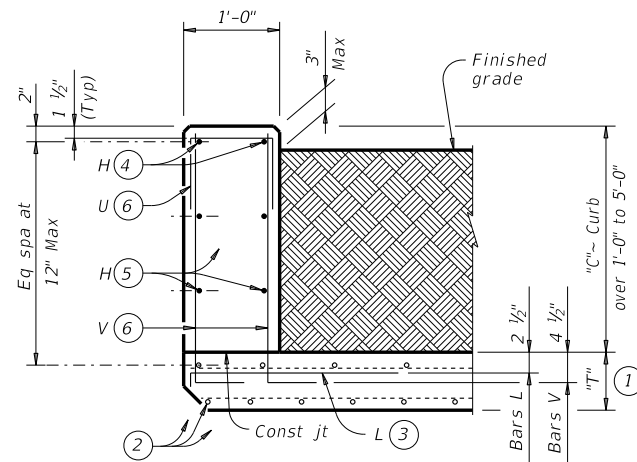
SINGLE BOX CULVERTS PRECAST 10'-0" SPAN

SCP-10

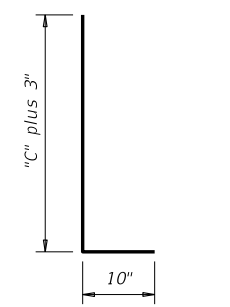
FILE: scp10sts.dgn	DN: GAF	CK: LMW	DW: BWH/TxDOT	CK: GAF
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REVISIONS				
DIST	COUNTY			SHEET NO.

TABLE OF ESTIMATED CURB QUANTITIES (8)

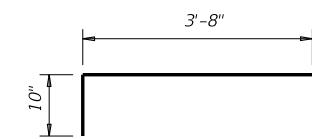
Curb Height "C"	Conc (CY/LF)	Reinf Steel (Lb/LF)
1'-0"	0.037	8.9
1'-6"	0.056	14.3
2'-0"	0.074	15.4
2'-6"	0.093	17.7
3'-0"	0.111	18.8
3'-6"	0.130	21.2
4'-0"	0.148	22.2
4'-6"	0.167	24.6
5'-0"	0.185	25.6



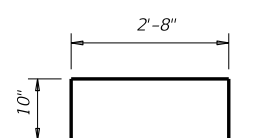
TYPICAL SECTION
Used for curbs over 1'-0" to 5'-0"



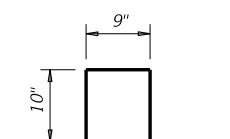
BARS V (#5) (6)
Spaced at 12" Max



BARS L (#5) (3)
Spaced at 12" Max



OPTIONAL BARS L (#5) (3) (7)
Spaced at 12" Max



BARS U (#4) (6)
Spaced at 12" Max

- ① "T" is equal to the culvert top slab thickness. For precast boxes with slabs less than 7" thick, see SCP-MD standard for additional details.
- ② Adjust normal culvert slab bars as necessary to clear obstructions.
- ③ Place bars L as shown. Tilt hook as necessary to maintain cover.
- ④ Place normal culvert curb bars H(#4) as shown. Adjust as necessary to clear obstructions.
- ⑤ Additional bars H(#4) as required to maintain 12" Max spacing.
- ⑥ Replace normal culvert curb bars K with one bar U and two bars V as shown spaced at 12" Max. Adjust length of bars V as necessary to maintain clear cover.
- ⑦ Optional bars L are to be used only for precast box culverts with 3'-0" closure pour.
- ⑧ Quantities shown are for Contractor's information only. Quantities are per linear foot of curb length. The value in table can be interpolated for intermediate values of curb height, "C". Quantity includes bars K (when applicable).

CONSTRUCTION NOTES:
Adjust reinforcing steel as necessary to provide 1 1/4" cover.
For vehicle safety, top of the curb must not project more than 3" above the finished grade.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide Class "C" concrete (f'c = 3,600 psi) minimum for curbs.

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
These extended curb details have sufficient strength to allow for future retrofit of Type T631 or T631LS railing. These details are suitable for use with PR1, PR2 and PR3 type rails. These details are not suitable for the mounting of other rail types. For new construction using T631 or T631LS railing, use the T631-CM standard.
This Curb is considered as part of the Box Culvert for payment.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.

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Bridge Division Standard

EXTENDED CURB DETAILS

FOR BOX CULVERTS WITH CURBS OVER 1'-0" TO 5'-0" TALL

ECD

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REVISIONS				
03-16: General Notes added T631-CM.	DIST	COUNTY	SHEET NO.	

Culvert Station and/or Creek name followed by applicable end (Lt, Rt or Both)	Description of Box Culvert No. Spans ~ Span X Height	Max Fill Height (Ft)	Applicable Box Culvert Standard (4)	Applicable Wingwall or End Treatment Standard	Skew Angle (0°, 15°, 30° or 45°)	Side Slope or Channel Slope Ratio (SL:1)	T Culvert Top Slab Thickness (In)	U Culvert Wall Thickness (In)	C Estimated Curb Height (Ft)	Hw (1) Height of Wingwall (Ft)	A Curb to End of Wingwall (Ft)	B Offset of End of Wingwall (Ft)	Lw Length of Longest Wingwall (Ft)	Ltw Culvert Toewall Length (Ft)	Atw Anchor Toewall Length (Ft)	Riprap Apron (C.Y.)	Class "C" Conc (Curb) (C.Y.) (2)	Class "C" Conc (Wingwall) (C.Y.) (3)	Total Wingwall Area (S.F.)
C-2117-A, CR 363 (Lt)	2 ~ 6' x 5'	2'	SCP-6	PW-1	0°	3:1	7"	7"	0.250'	5.833'	N/A	N/A	17.500'	14.833'	N/A	0.0	0.1	13.9	204
C-2117-A, CR 363 (Rt)	2 ~ 6' x 5'	2'	SCP-6	FW-0	0°	3:1	7"	7"	0.375'	5.708'	16.125'	9.310'	18.620'	N/A	N/A	5.7	0.2	6.8	112
C-1977-A, CR 345 (Lt)	3 ~ 7' x 5'	2'	SCP-7	PW-1	0°	3:1	8"	8"	0.250'	5.917'	N/A	N/A	17.750'	26.000'	N/A	0.0	0.2	15.0	210
C-1977-A, CR 345 (Rt)	3 ~ 7' x 5'	2'	SCP-7	FW-0	0°	3:1	8"	8"	0.585'	6.000'	17.000'	9.815'	19.630'	N/A	N/A	9.3	0.6	7.2	124
C-1868-A, CR 386 (Both)	2 ~ 5' x 4'	2'	SCP-5	PW-1	0°	3:1	6"	6"	0.365'	4.875'	N/A	N/A	14.625'	12.500'	N/A	0.0	0.4	20.4	286
C-1088-A, BRANGUS RD (Lt)	1 ~ 4' x 2'	2'	SCP-4	PW-1	30°	3:1	5"	5"	0.100'	2.521'	N/A	N/A	8.732'	5.581'	N/A	0.0	0.0	4.1	44
C-1088-A, BRANGUS RD (Rt)	1 ~ 4' x 2'	2'	SCP-4	FW-S	30°	3:1	5"	5"	0.100'	2.271'	5.813'	5.813'	8.220'	N/A	N/A	0.7	0.0	1.7	18
C-1246-C, STARDUST DR (Both)	2 ~ 4' x 3'	2'	SCP-4	FW-0	0°	3:1	5"	5"	0.500'	3.667'	10.000'	5.774'	11.547'	N/A	N/A	4.8	0.4	6.6	92
C-2170-A, CR 134 (Lt)	2 ~ 10' x 5'	2'	SCP-10	PW-1	0°	3:1	10"	10"	1.000'	6.833'	N/A	N/A	20.500'	23.833'	N/A	0.0	0.9	19.9	280
C-2170-A, CR 134 (Lt)(FLARE WING)*	2 ~ 10' x 5'	2'	SCP-10	FW-0	0°	3:1	10"	10"	1.000'	6.583'	18.750'	10.825'	21.651'	23.833'	N/A	0.0	N/A	N/A	N/A
C-2170-A, CR 134 (Rt)	2 ~ 10' x 5'	2'	SCP-10	PW-1	0°	3:1	10"	10"	1.500'	7.333'	N/A	N/A	22.000'	23.833'	N/A	0.0	1.3	22.1	323

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NOTES:

Skew Angle = 0° for SW-0, FW-0, SETB-CD, SETB-SW-0, and SETB-FW-0 standards.
30° Maximum for Safety End Treatment

SL:1 = Horizontal:1 Vertical
Side Slope at culvert for Flared or Straight Wingwalls. Channel Slope for Parallel Wingwalls.
Slope shall be 3:1 or flatter for Safety End Treatments.

T = Box Culvert Top Slab Thickness. Dimension can be found on the applicable Box Culvert Standard.

U = Box Culvert Wall Thickness. Dimension can be found on the applicable Box Culvert Standard.

C = Curb Height.

See applicable wing or end treatment standards for calculations of Hw, A, B, Lw, Ltw, Atw, and Total Wingwall Area.

Hw = Height of Wingwall.
A = Distance from Face of Curb to End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
B = Offset of End of Wingwall (Not applicable to Parallel or Straight Wingwalls).
Lw = Length of Longest Wingwall.
Ltw = Length of Culvert Toewall (Not applicable when using Riprap Apron).
Atw = Length of Anchor Toewall (Applicable to Safety End Treatment only).
Total Wingwall Area = Wingwall area in S.F. for two wingwalls (one structure end) if Lt or Rt.
Area for four wingwalls (two structure ends) if Both.

*QUANTITIES INCLUDED IN PREVIOUS LINE

- ① The wall heights shown will be rounded to the nearest Foot for bidding purposes.
- ② Concrete volume shown is for box culvert curb only. For curbs using the RAC standard, quantities shown must be increased by a factor of 2. If Class "S" concrete is required for the top slab of the culvert, the curb concrete shall also be Class "S". Curb concrete is considered part of the Box Culvert for payment.
- ③ Concrete volume shown is total of wing, footing, culvert toewall (if any), anchor toewall (if any) and wingwall toewall. Riprap apron, culvert and curb quantities are not included.
- ④ Regardless of the type of culvert shown on this sheet, the Contractor shall have the option of furnishing cast-in-place or precast culverts unless otherwise shown elsewhere on the plans. If the Contractor elects to provide culverts of a different type than those shown on this sheet, it shall be the Contractor's responsibility to make the necessary adjustments to the dimensions and quantities shown.

SPECIAL NOTE:

This sheet is a supplement to the Box Culvert standards. It is to be filled out by the culvert specifier and provides dimensions for the construction of the Box Culvert Wingwalls and Safety End Treatments.

An Excel 97 spreadsheet to assist in completing this table can be downloaded from the Bridge Standards (English) web page on the TxDOT web site. The completed sheet shall be signed, sealed, and dated by a licensed Professional Engineer.

Texas Department of Transportation
Bridge Division Standard

BOX CULVERT SUPPLEMENT
 WINGS AND END TREATMENTS

BCS

FILE: bcsstd01.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: GAF
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TABLE OF DIMENSIONS & REINFORCING STEEL (Wings for One Structure End)

Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing				Estimated Quantities per ft of wing length (2-Wings)	
	W	X	Y	Z	Bars J1		Bars J2		Reinf (Lb/Ft)	Conc (CY/Ft)
					Size	Spa	Size	Spa		
2'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	33.73	0.248
3'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.07	0.261
3'-6"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	37.74	0.273
4'-0"	2'-5"	1'-0"	9"	7"	#4	1'-0"	#4	1'-0"	38.41	0.285
4'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	41.75	0.330
5'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.09	0.343
5'-6"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	45.75	0.355
6'-0"	3'-2"	1'-6"	1'-0"	7"	#4	1'-0"	#4	1'-0"	46.42	0.367
7'-0"	3'-8"	1'-9"	1'-3"	7"	#4	1'-0"	#4	1'-0"	52.77	0.414
8'-0"	4'-2"	2'-0"	1'-6"	8"	#5	1'-0"	#4	1'-0"	60.19	0.486
9'-0"	4'-8"	2'-3"	1'-9"	8"	#4	6"	#4	6"	81.49	0.535
10'-0"	5'-2"	2'-6"	2'-0"	8"	#5	6"	#4	6"	97.25	0.584
11'-0"	5'-8"	2'-9"	2'-3"	8"	#6	6"	#5	6"	133.65	0.634
12'-0"	6'-2"	3'-0"	2'-6"	9"	#7	6"	#5	6"	162.29	0.721
13'-0"	6'-8"	3'-3"	2'-9"	11"	#7	6"	#5	6"	178.80	0.856
14'-0"	7'-2"	3'-6"	3'-0"	1'-0"	8"	6"	#5	6"	216.78	0.959
15'-0"	7'-8"	4'-0"	3'-0"	1'-1"	#9	6"	#6	6"	283.06	1.068
16'-0"	8'-2"	4'-6"	3'-0"	1'-3"	#9	6"	#6	6"	297.02	1.234

TABLE OF WINGWALL REINFORCING (2-Wings)

Bar	Size	No.	Spa
D	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
R	#5	6	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

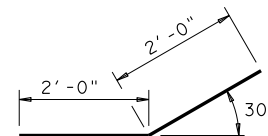
Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION CALCULATIONS:

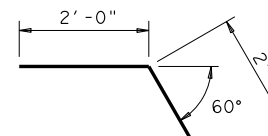
Formulas: (All values are in Feet)
 $H_w = H + T + C - 0.250'$
 $A = (H_w - 0.333')$ (SL)
 $B = (A)$ Tangent (30°)
 $L_w = (A) \div \text{Cosine } (30^\circ)$
 For Cast-in-place culverts:
 $L_{tw} = (N) (S) + (N+1) (U)$
 For Precast culverts:
 $L_{tw} = (N) (2U+S) + (N-1) (0.500')$
 $\text{Total Wingwall Area (Two Wings ~ S.F.)} = (H_w + 0.333') (L_w)$

H_w = Height of Wingwall
 $SL:1$ = Side Slope Ratio (Horizontal:1 Vertical)
 L_w = Length of Wingwall
 L_{tw} = Culvert Toewall Length
 N = Number of Culvert Spans

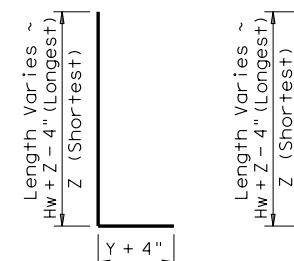
See applicable box culvert standard for H, S, T, and U values.



BARS D



BARS R

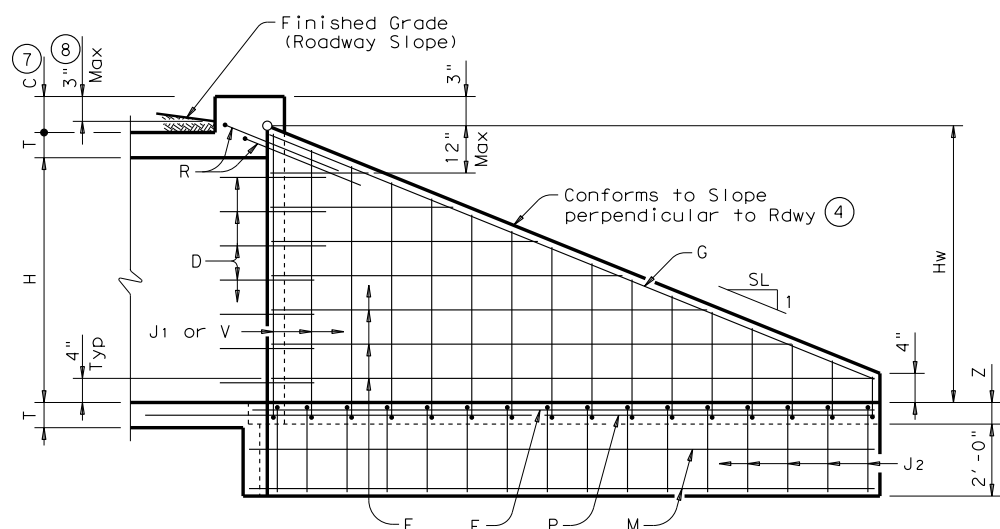


BARS J1

BARS V

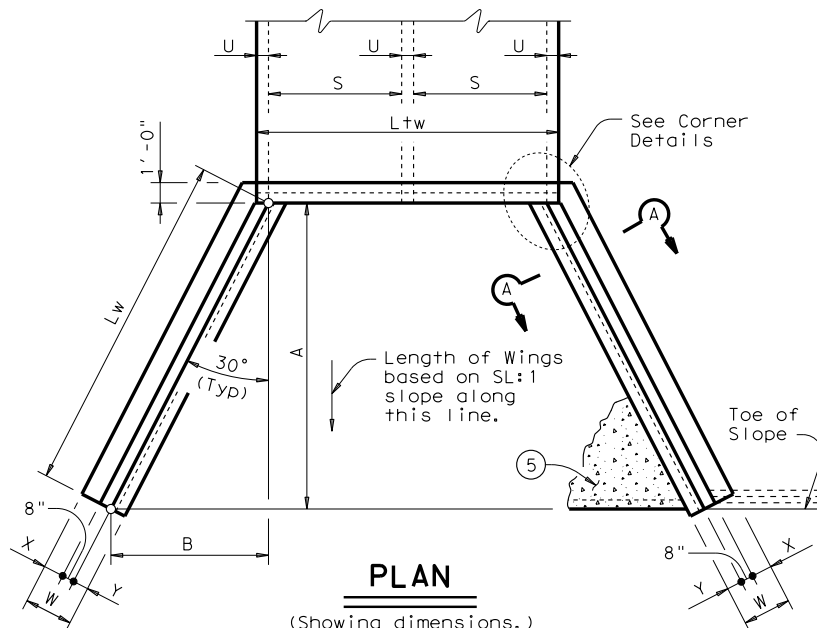
BARS L

BARS J2



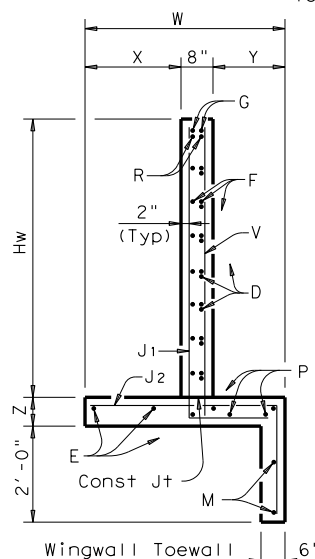
INSIDE ELEVATION

(Showing reinforcing. Culvert and Culvert Toewall reinforcing not shown for clarity.)

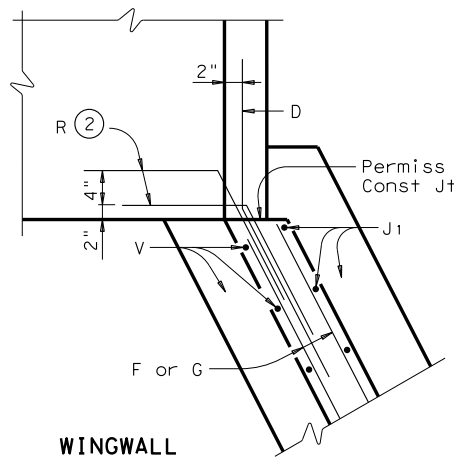


PLAN

(Showing dimensions.)

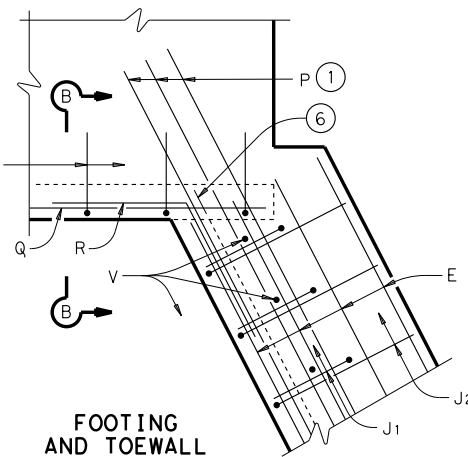


SECTION A-A

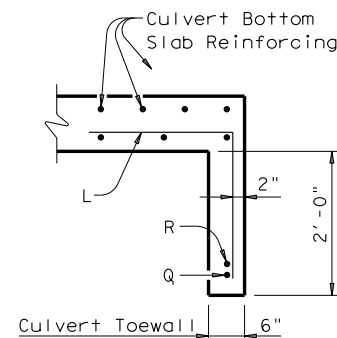


CORNER DETAILS

(Culvert and Culvert Toewall reinforcing not shown for clarity.)



FOOTING AND TOEWALL



SECTION B-B

- Extend Bars P 3'-0" minimum into bottom slab of Box Culvert.
- Adjust to fit as necessary to maintain 1 1/4" clear cover and 4" minimum between bars.
- Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings multiply the tabulated values by Lw.
- Recommended values of Slope are: 2:1, 3:1, 4:1, & 6:1.
- When shown elsewhere on the plans, a 5" deep concrete riprap shall be constructed. Payment for riprap shall be as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, the riprap shall have a 6" wide by 1'-6" deep reinforced concrete toewall along all edges adjacent to natural ground; the toewall shall be reinforced by extending typical riprap reinforcing into the toewall; construction joints or grooved joints, oriented in the direction of flow, shall extend across the full distance of the riprap, at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
- At Contractor's option, Culvert Toewall may be ended flush with Wingwall Toewall. Adjust reinforcing from that shown as necessary.
- 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- For vehicle safety, curb heights and wall heights shall be reduced, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.

GENERAL NOTES:

Designed according to AASHTO LRFD Specifications. All reinforcing steel shall be Grade 60. Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise. All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi. All reinforcing bars shall be adjusted to provide a minimum of 1 1/4" clear cover. When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer. See BCS sheet for additional dimensions and information. The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.



CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS

FW-0

FILE: fw-0std.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: GAF
TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
11-10: Add note for synthetic fibers.	DIST	COUNTY	SHEET NO.	

TABLE OF DIMENSIONS & REINFORCING STEEL (Wings for One Structure End)

Dimensions	Variable Reinforcing		Estimated Quantities per ft of wing length (2-Wings)	
	W	X	Y	Z
2'-6"	2'-5"	1'-0"	9"	7"
3'-0"	2'-5"	1'-0"	9"	7"
3'-6"	2'-5"	1'-0"	9"	7"
4'-0"	2'-5"	1'-0"	9"	7"
4'-6"	3'-2"	1'-6"	1'-0"	7"
5'-0"	3'-2"	1'-6"	1'-0"	7"
5'-6"	3'-2"	1'-6"	1'-0"	7"
6'-0"	3'-2"	1'-6"	1'-0"	7"
7'-0"	3'-8"	1'-9"	1'-3"	7"
8'-0"	4'-2"	2'-0"	1'-6"	8"
9'-0"	4'-8"	2'-3"	1'-9"	8"
10'-0"	5'-2"	2'-6"	2'-0"	8"
11'-0"	5'-8"	2'-9"	2'-3"	8"
12'-0"	6'-2"	3'-0"	2'-6"	9"
13'-0"	6'-8"	3'-3"	2'-9"	11"
14'-0"	7'-2"	3'-6"	3'-0"	11"
15'-0"	7'-8"	4'-0"	3'-0"	11"
16'-0"	8'-2"	4'-6"	3'-0"	11"

TABLE OF WINGWALL REINFORCING (2-Wings)

Bar	Size	No.	Spa
DL	#5	~	1'-0"
DS	#5	~	1'-0"
E	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'-0"
RS	#5	3	~
RL	#5	3	~
V	#4	~	1'-0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

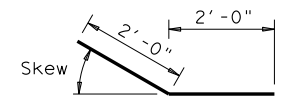
Bar	Size	No.	Spa
L	#4	~	1'-6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION CALCULATIONS:

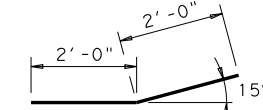
Formulas: (All values are in Feet)
 $Hw = H + T + C - 0.250'$
 $A = (Hw - 0.333')$ (SL)
 $B = (A) [\text{Tangent } (\theta + 15^\circ)]$
 $Lw = (A) \div [\text{Cosine } (\theta + 15^\circ)]$
 For Cast-in-place culverts:
 $Ltw = [(N) (S) + (N+1) (U)] \div (\text{Cosine } \theta)$
 For Precast culverts:
 $Ltw = [(N) (2U+S) + (N-1) (0.500')] \div (\text{Cosine } \theta)$
 $\text{Total Wingwall Area (Two Wings ~ S.F.)} = (0.5) (Hw + 0.333') (Lw + A)$

Hw = Height of Wingwall
 SL:1 = Side Slope Ratio (Horizontal:1 Vertical)
 A = Length of Short Wingwall
 Lw = Length of Long Wingwall
 Ltw = Culvert Toewall Length
 N = Number of Culvert Spans
 θ = Culvert Skew

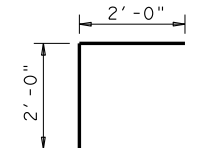
See applicable box culvert standard for H, S, T, and U values.



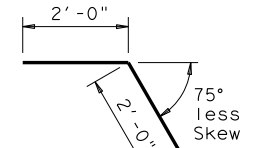
BARS DS (Short Wing)



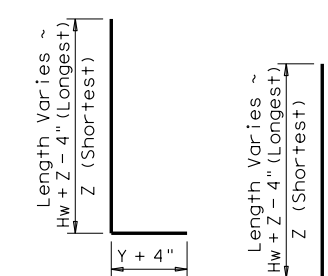
BARS DL (Long Wing)



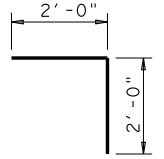
BARS RS (Short Wing)



BARS RL (Long Wing)

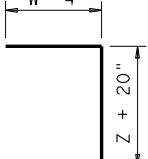


BARS J1



BARS L

BARS V



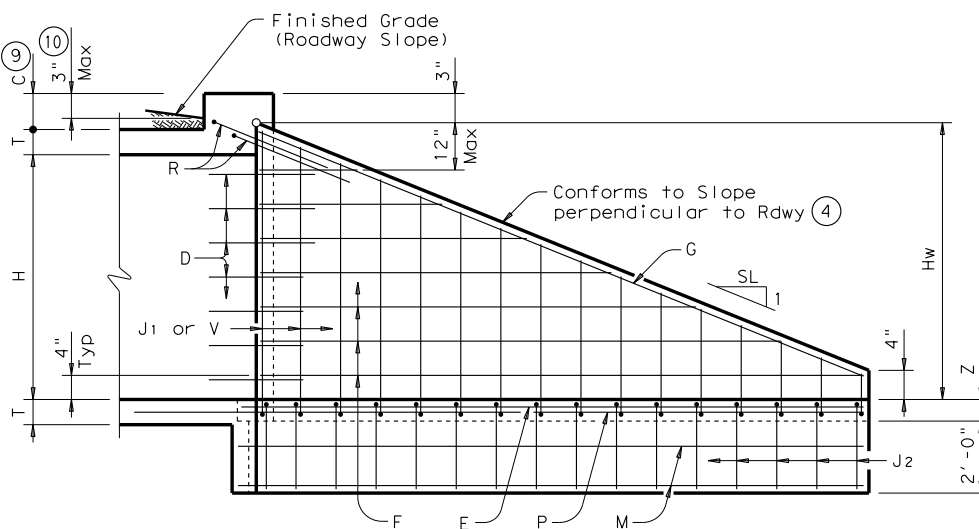
BARS J2

- Extend Bars P 3'-0" minimum into bottom slab of Box Culvert.
- Adjust to fit as necessary to maintain 1 1/4" clear cover and 4" minimum between bars.
- Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings multiply the tabulated values by 0.5 x (A+Lw).
- Recommended values of Slope are: 2:1, 3:1, 4:1, & 6:1.
- When shown elsewhere on the plans, a 5" deep concrete riprap shall be constructed. Payment for riprap shall be as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, the riprap shall have a 6" wide by 1'-6" deep reinforced concrete toewall along all edges adjacent to natural ground; the toewall shall be reinforced by extending typical riprap reinforcing into the toewall; construction joints or grooved joints, oriented in the direction of flow, shall extend across the full distance of the riprap, at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B-B will not be required.
- At Contractor's option, Culvert Toewall may be ended flush with Wingwall Toewall. Adjust reinforcing from that shown as necessary.
- Applicable values of of Skew are: 15°, 30°, and 45°.
- Typical wingwall angle for all skews.
- 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- For vehicle safety, curb heights and wall heights shall be reduced, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.

GENERAL NOTES:

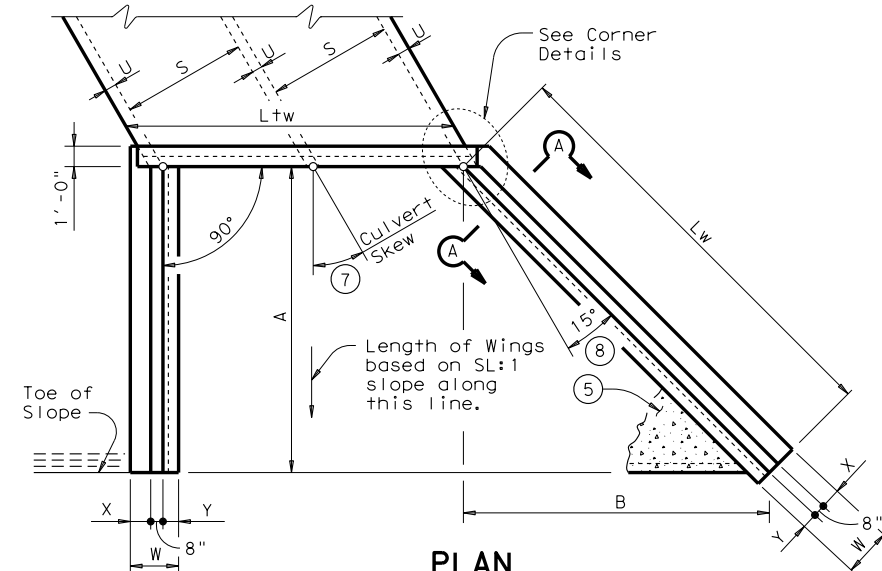
Designed according to AASHTO LRFD Specifications. All reinforcing steel shall be Grade 60. Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise. All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi. All reinforcing bars shall be adjusted to provide a minimum of 1 1/4" clear cover. When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer. See BCS sheet for additional dimensions and information. The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



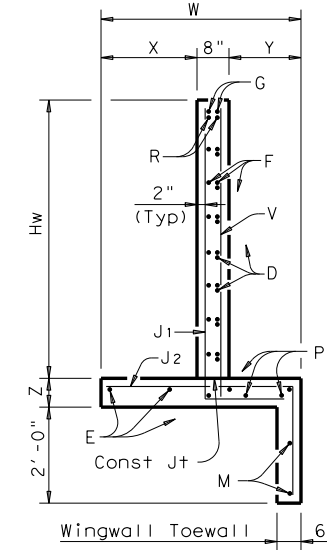
INSIDE ELEVATION

(Showing reinforcing. Culvert and Culvert Toewall reinforcing not shown for clarity.)

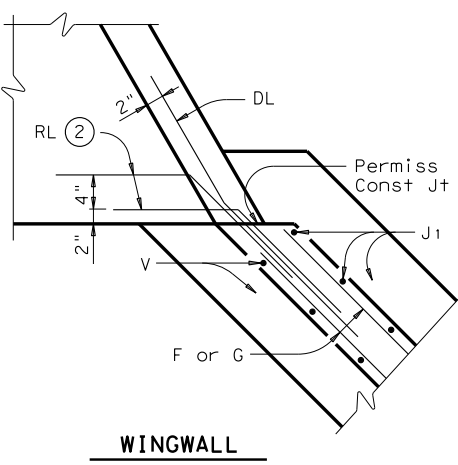


PLAN

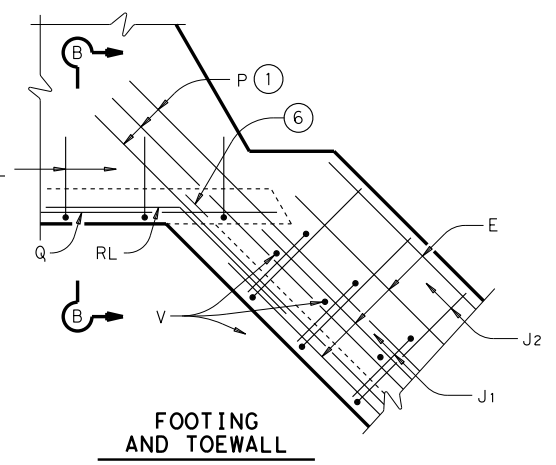
(Showing dimensions and 30° Skew.)



SECTION A-A

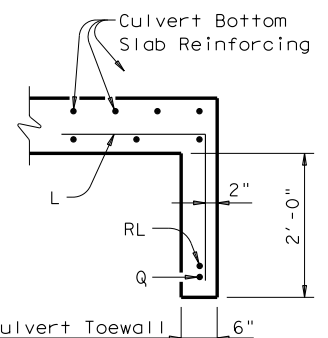


WINGWALL



CORNER DETAILS

(Culvert and Culvert Toewall reinforcing not shown for clarity.)



SECTION B-B

Bridge Division Standard

CONCRETE WINGWALLS WITH FLARED WINGS FOR SKEWED BOX CULVERTS

FW-S

FILE: fw-sstd.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
11-10: Add note for synthetic fibers.				
DIST		COUNTY		SHEET NO.

TABLE OF DIMENSIONS & REINFORCING STEEL (Wings for One Structure End)

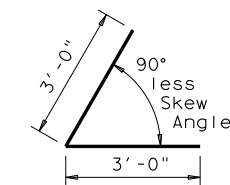
Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing				Estimated Quantities per ft of wing (2-Wings)		Estimated Quantities per ft of Toewall (1-Toewall)	
	W	X	Y	Z	Bars J1		Bars J2		Reinf (Lb/Ft)	Conc (CY/Ft)	Reinf (Lb/Ft)	Conc (CY/Ft)
	Size	Spa	Size	Spa	Size	Spa	Size	Spa				
2'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	48.64	0.406	6.85	0.071
2'-9"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.31	0.424	6.85	0.071
3'-0"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	49.98	0.444	6.85	0.071
3'-3"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.32	0.462	6.85	0.071
3'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	#4	1'-0"	53.98	0.480	6.85	0.071
4'-0"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	55.77	0.532	6.85	0.071
4'-6"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	#4	1'-0"	59.77	0.568	6.85	0.071
5'-0"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	63.45	0.632	6.96	0.075
5'-6"	3'-9"	1'-7"	1'-2"	7"	#4	1'-0"	#4	1'-0"	67.46	0.668	6.96	0.075
6'-0"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	80.67	0.730	7.07	0.078
6'-6"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	#5	1'-0"	85.05	0.768	7.07	0.078
7'-0"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	92.15	0.864	8.07	0.093
7'-6"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	#5	1'-0"	96.54	0.902	8.07	0.093
8'-0"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	139.04	0.962	8.13	0.095
8'-6"	5'-6"	2'-8"	1'-10"	8"	#5	6"	#5	6"	144.47	1.000	8.13	0.095
9'-6"	6'-0"	2'-10"	2'-2"	9"	#5	6"	#5	6"	156.93	1.136	8.41	0.110
10'-6"	6'-5"	3'-0"	2'-5"	9"	#6	6"	#5	6"	196.27	1.234	8.57	0.117
11'-6"	7'-2"	3'-6"	2'-8"	11"	#6	6"	#6	6"	230.13	1.438	9.52	0.140
12'-6"	7'-8"	3'-9"	2'-11"	1'-0"	#7	6"	#6	6"	283.41	1.592	9.74	0.157
13'-6"	8'-2"	4'-0"	3'-2"	1'-2"	#8	6"	#6	6"	348.72	1.804	10.02	0.186
14'-6"	8'-10"	4'-5"	3'-5"	1'-4"	#9	6"	#6	6"	432.94	2.046	10.30	0.218
15'-6"	9'-6"	4'-10"	3'-8"	1'-6"	#9	6"	#7	6"	489.52	2.302	11.24	0.253
16'-0"	9'-11"	5'-0"	3'-11"	1'-7"	#9	6"	#7	6"	505.72	2.448	11.47	0.279

TABLE OF WINGWALL REINFORCING (2-Wings)

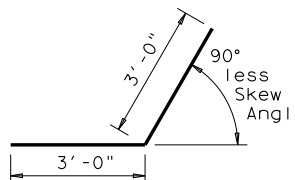
Bar	Size	No.	Spa
D1	#6	~	1'-0"
D2	#6	~	1'-0"
E1	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	~	8"
M1	#4	4	~
P	#4	~	1'-0"
V	#4	~	1'-0"

TABLE OF TOEWALL REINFORCING

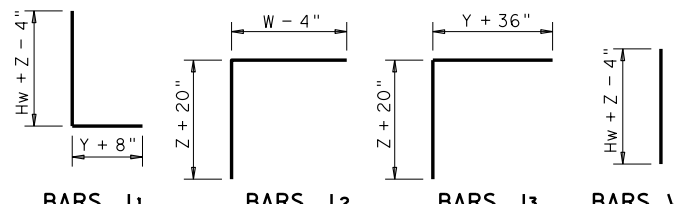
Bar	Size	No.	Spa
J3	#4	~	1'-0"
M2	#4	2	~
E2	#4	~	1'-0"



BARS D1



BARS D2



BARS J1 BARS J2 BARS J3 BARS V

WING DIMENSION CALCULATIONS:

Formulas: (All values are in Feet)

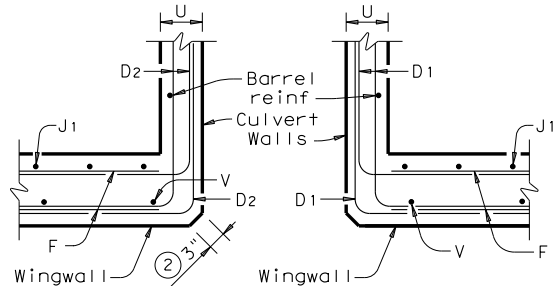
$H_w = H + T + C$
 $L_w = (H_w) (SL) \div \text{Cosine } \theta$ for Ty PW-1
 $L_w = (H_w - 1') (SL) \div \text{Cosine } \theta$ for Ty PW-2 and $H_w \geq 4'$
 $L_w = (H_w - 0.5') (SL) \div \text{Cosine } \theta$ for Ty PW-2 and $H_w < 4'$

For Cast-in-place culverts:
 $L_{tw} = [(N) (S) + (N + 1) (U)] \div \text{Cosine } \theta$

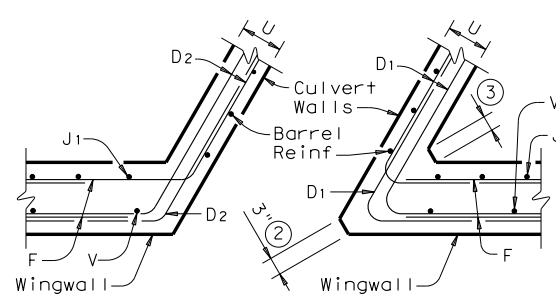
For Precast culverts:
 $L_{tw} = [(N) (2U + S) + (N - 1) (0.5')] \div \text{Cosine } \theta$
 Total Wingwall Area (Two Wings ~ SF)
 $= (2) (H_w) (L_w)$ for Ty PW-1
 $= (2) (H_w) (L_w) - 6 \text{ SF}$ for Ty PW-2 and $H_w \geq 4'$
 $= (2) (H_w) (L_w) - 1.5 \text{ SF}$ for Ty PW-2 and $H_w < 4'$

H_w = Height of Wingwall
 L_w = Length of Wingwall
 L_{tw} = Culvert Toewall Length
 N = Number of Culvert Spans
 $SL:1$ = Channel Slope ratio. (Horizontal: 1 Vertical, Usual value is 2:1)
 θ = Culvert Skew

See applicable box culvert standard for S, H, T and U values.



SECTION C-C



SECTION C-C

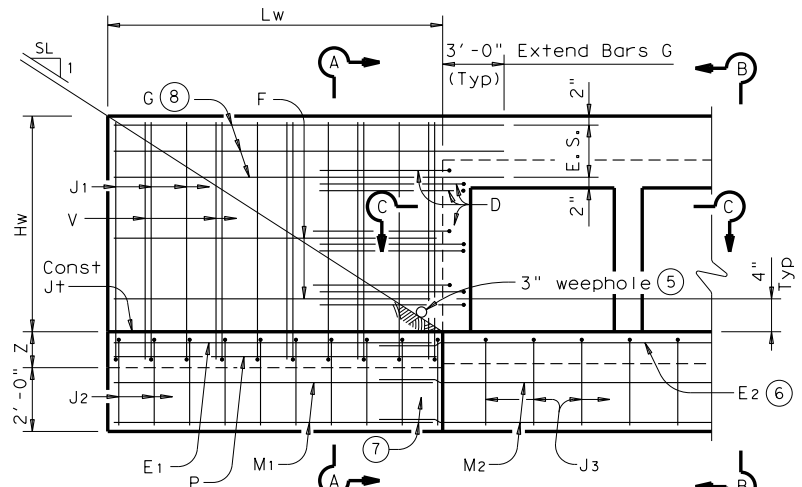
- Skew Angle = 0°
- At discharge end, chamfer may be 3/4".
- For 15° Skew ~ 1"
For 30° Skew ~ 2"
For 45° Skew ~ 3"
- Quantities shown are for two Type PW-1 wings. Adjust concrete volume for Type PW-2 wings. To determine estimated quantities for two wings, multiply the tabulated values by Lw. Quantities shown do not include weight of Bars D.
- Provide weepholes for Hw = 5'-0" and greater. Fill around weepholes with coarse gravel.
- Extend Bars E2 1'-6" minimum into the wingwall footing.
- Lap Bars M1 1'-6" minimum with Bars M2.
- Bars G equally spaced at 8" maximum, place as shown. Provide at least two pair Bars G per wing.
- 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail, bicycle rail or curbs taller than 1'-0", refer to ECD standard. For structures with T6 bridge rail, refer to T6-CM standard. For structures with traffic rail, other than T6, refer to RAC standard.
- For vehicle safety, the following requirements must be met:
- For structures without bridge rail, curbs cannot project more than 3" above finished grade.
- For structures with bridge rail, build curbs flush with finished grade.
Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- 1'-0" typical. 2'-0" typical when RAC standard is referenced elsewhere in the plans.
- 3'-0" for Hw < 4'.
- 6" for Hw < 4'.

GENERAL NOTES:

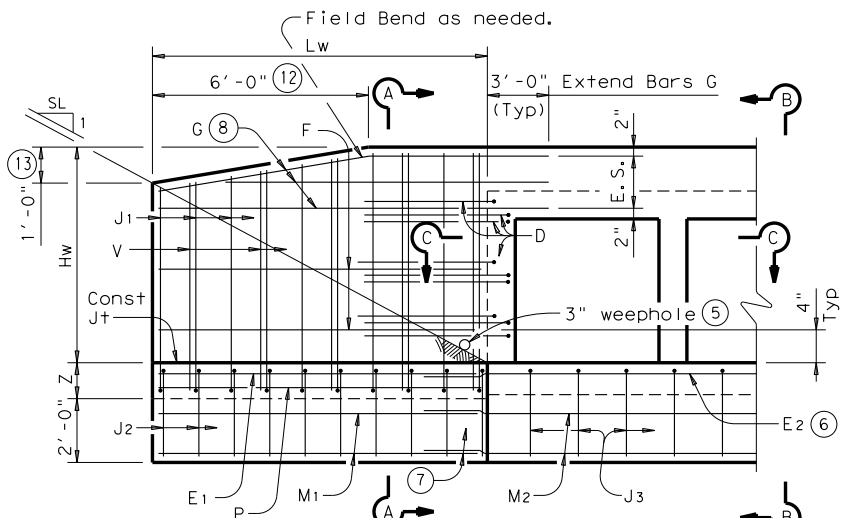
Designed in accordance with AASHTO LRFD Bridge Design Specifications.
 Provide Class "C" Concrete ($f'_c = 3,600 \text{ psi}$ Min) and Grade 60 reinforcing steel.
 Provide 1 1/4" Min clear cover to reinforcing steel. Depth of toewalls for wingwalls and culverts may be reduced or eliminated when founded on solid rock, when directed by the Engineer.
 See BCS sheet for wingwall type and additional dimensions and information.
 The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for the Contractor's information only.

DESIGNER NOTES:

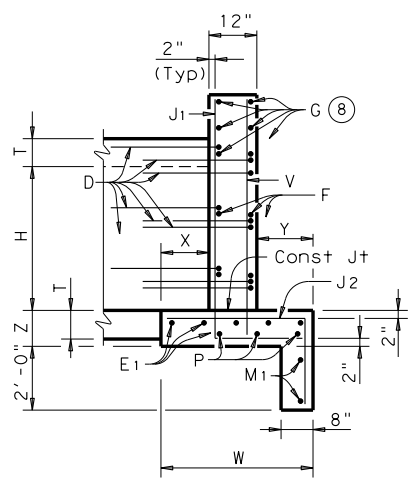
Type PW-1 can be used for all applications and must be used if railing is to be mounted to the wingwall.
 Type PW-2 can only be used for applications without a railing mounted to the wingwall.



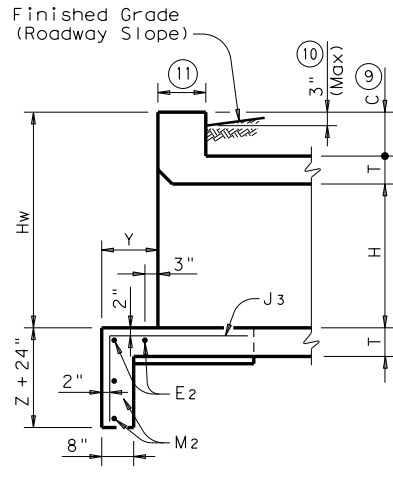
PARTIAL ELEVATION - PW-1



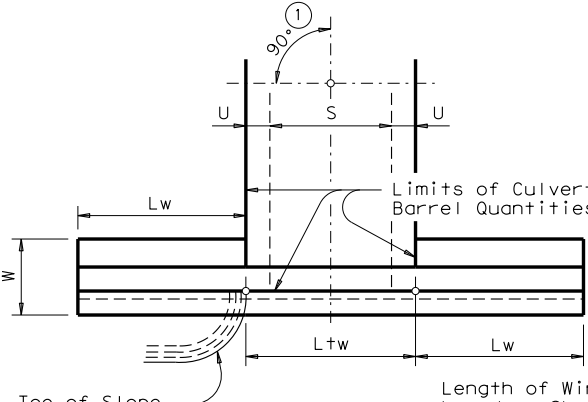
PARTIAL ELEVATION - PW-2



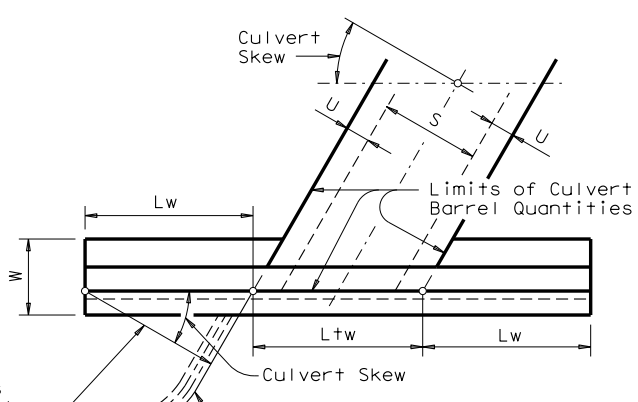
SECTION A-A (Showing Wing Reinf)



SECTION B-B (Showing Wing Reinf)



PLAN DETAILS FOR NON-SKEWED BOX CULVERTS



PLAN DETAILS FOR SKEWED BOX CULVERTS (Showing 30° Skew)

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Bridge Division Standard

CONCRETE WINGWALLS WITH PARALLEL WINGS FOR BOX CULVERTS TYPES PW-1 AND PW-2

PW

FILE: pwstd01.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
11-10: Reinforcing Quantities.	DIST		COUNTY	SHEET NO.
01-12: PW-1 & PW-2.				

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①③

CROSS PIPE LENGTHS, PIPE RUNNER LENGTHS, & REQUIRED PIPE SIZES

CORRUGATED METAL PIPE CULVERTS

Design	Pipe Culvert Span	Pipe Culvert Rise	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length												
					3:1 Side Slope				4:1 Side Slope				6:1 Side Slope				
					0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	
1	17"	13"	1'-0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	21"	15"	1'-2"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	28"	20"	1'-5"	3'-9"	N/A	N/A	3'-5"	4'-7"	N/A	N/A	4'-11"	6'-5"	N/A	N/A	7'-11"	10'-2"	
4	35"	24"	1'-8"	4'-4"	3'-10"	4'-0"	4'-7"	6'-0"	5'-5"	5'-8"	6'-6"	8'-4"	8'-8"	9'-1"	10'-3"	12'-11"	
5	42"	29"	1'-11"	4'-11"	5'-1"	5'-4"	6'-1"	7'-10"	7'-2"	7'-5"	8'-6"	10'-9"	11'-2"	11'-8"	13'-2"	16'-6"	
6	49"	33"	2'-2"	5'-6"	6'-2"	6'-5"	7'-4"	N/A	8'-6"	8'-10"	10'-0"	N/A	13'-3"	13'-9"	15'-6"	N/A	
7	57"	38"	2'-5"	6'-2"	7'-6"	7'-9"	N/A	N/A	10'-2"	10'-7"	N/A	N/A	15'-9"	16'-4"	N/A	N/A	

CONCRETE PIPE CULVERTS

Design	Pipe Culvert Span	Pipe Culvert Rise	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length												
					3:1 Side Slope				4:1 Side Slope				6:1 Side Slope				
					0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	
1	22"	13 1/2"	1'-0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	26"	15 1/2"	1'-2"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	28 1/2"	18"	1'-5"	3'-9 1/2"	N/A	N/A	2'-10"	3'-10"	N/A	N/A	4'-2"	5'-5"	N/A	N/A	6'-9"	8'-9"	
4	36 1/4"	22 1/2"	1'-8"	4'-5 1/4"	3'-5"	3'-7"	4'-2"	5'-6"	4'-11"	5'-1"	5'-11"	7'-7"	7'-11"	8'-3"	9'-5"	11'-11"	
5	43 3/4"	26 5/8"	1'-11"	5'-0 3/4"	4'-6"	4'-8"	5'-5"	6'-11"	6'-4"	6'-7"	7'-6"	9'-7"	10'-0"	10'-5"	11'-9"	14'-10"	
6	51 1/8"	31 3/8"	2'-2"	5'-8"	5'-9"	6'-0"	6'-10"	N/A	7'-11"	8'-3"	9'-4"	N/A	12'-4"	12'-10"	14'-6"	N/A	
7	58 1/2"	36"	2'-5"	6'-3 1/2"	6'-11"	7'-3"	N/A	N/A	9'-6"	9'-11"	N/A	N/A	14'-9"	15'-4"	N/A	N/A	

TYPICAL PIPE CULVERT MITERS ④

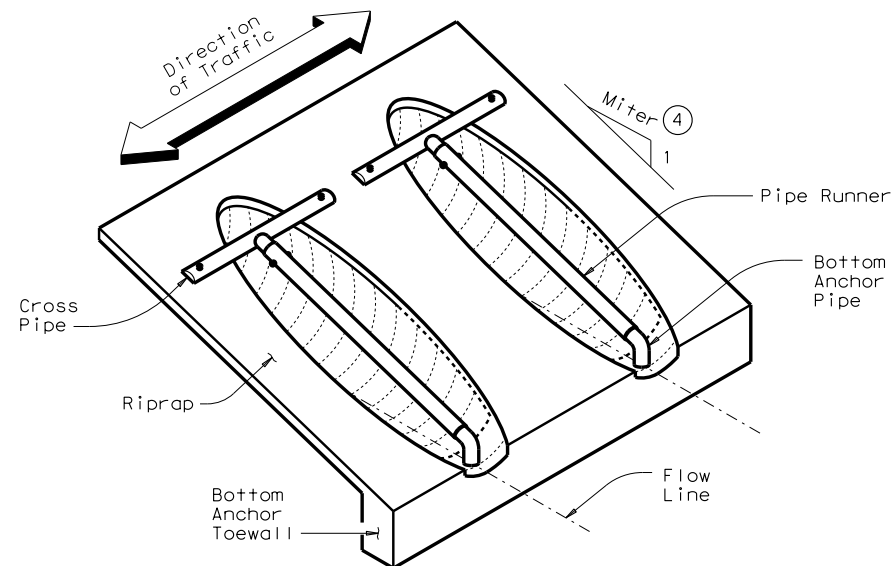
Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

STANDARD PIPE SIZES & MAX PIPE RUNNER LENGTHS ①

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10'-0"
4" STD	4.500"	4.026"	19'-8"
5" STD	5.563"	5.047"	34'-2"

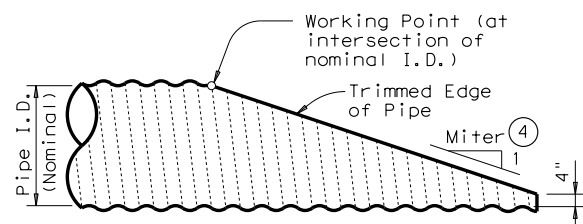
CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED ③

Design	Single Pipe Culvert	Multiple Pipe Culverts
1 & 2	Skews thru 45°	Skews thru 45°
3	Skews thru 30°	Skews thru 15°
4	Normal (No Skew)	Always required
5 thru 7	Always required	Always required



ISOMETRIC VIEW OF TYPICAL INSTALLATION

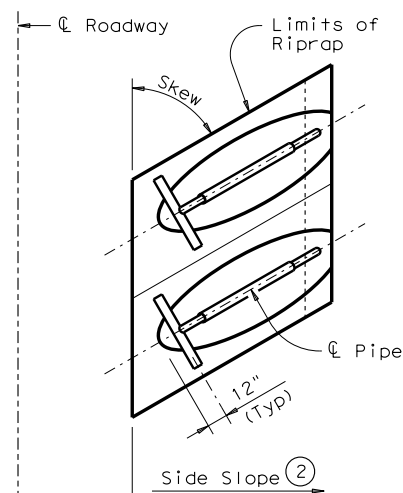
(Showing installation with no skew.)



NOTE: All Pipe Runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing Corrugated Metal Pipe Culvert. Details of Concrete Pipe Culvert are similar.)



PLAN OF SKEWED INSTALLATION

GENERAL NOTES:

Pipe Runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.
 The Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Pipe Runners.
 Riprap and all necessary inverts shall be Concrete Riprap conforming to the requirements of Item 432, "Riprap".
 Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.
 Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment.
 Pipe Runners, Cross Pipes, and Anchor Pipes shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.
 Bolts and nuts shall conform to ASTM A307.
 All steel components, except concrete reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.

- ① Size of Pipe Runner shall be as shown in the tables. Cross Pipe shall be the same size as the Pipe Runner. Cross Pipe Stub Out and Bottom Anchor Pipe shall be the next smaller size pipe as shown in the STANDARD PIPE SIZES table.
- ② Recommended values of slope are 3:1, 4:1, & 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.
- ③ This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:
 For Design 1 through 5 culvert pipe sizes, the skew must not exceed 45°.
 For Design 6 culvert pipes, the skew must not exceed 30°.
 For Design 7 culvert pipes, the skew must not exceed 15°.
 If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT "Roadway Design Manual".
- ④ Miter = Slope of Mitered Pipe Culvert End

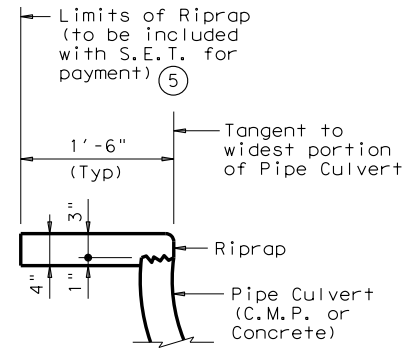
SHEET 1 OF 3

				Bridge Division Standard	
SAFETY END TREATMENT FOR DESIGN 1 TO 7 ARCH PIPE CULVERTS TYPE II ~ CROSS DRAINAGE					
SETP-CD-A					
FILE: setpcae.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF	
TxDOT February 2010	CONT	SECT	JOB	HIGHWAY	
REVISIONS 11-10: Add note for synthetic fibers.					
DIST		COUNTY		SHEET NO.	

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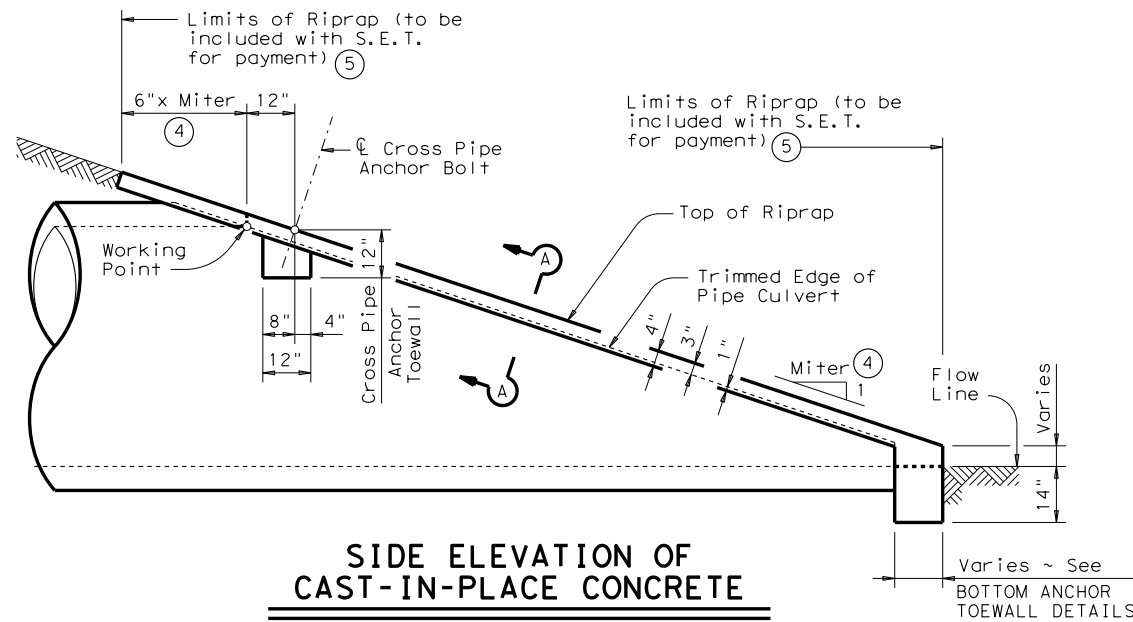
ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) ⑥
BOTH CORRUGATED METAL PIPE CULVERTS AND CONCRETE PIPE CULVERTS

Design	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
1	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
2	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	1.0
3	0.6	0.6	0.7	0.8	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.2
4	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.4
5	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.7
6	0.9	1.0	1.0	N/A	1.1	1.1	1.2	N/A	1.4	1.5	1.6	N/A
7	1.0	1.1	N/A	N/A	1.3	1.3	N/A	N/A	1.7	1.7	N/A	N/A



SHOWING TYPICAL PIPE CULVERT & RIPRAP
SECTION A-A

- ④ Miter = Slope of Mitered Pipe Culvert End
- ⑤ Riprap placed beyond the limits shown will be paid as Concrete Riprap in accordance with Item 432, "Riprap".
- ⑥ Quantities shown are for one end of one Pipe Culvert. For multiple Pipe Culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.



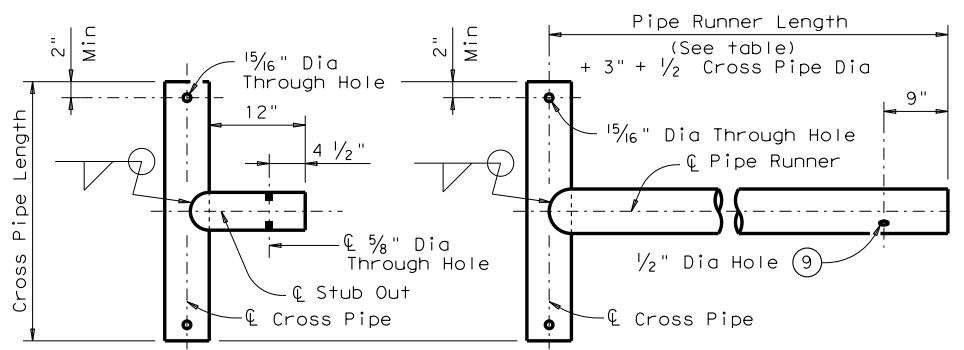
SIDE ELEVATION OF CAST-IN-PLACE CONCRETE
 (Showing Concrete Pipe Culvert. Details of Corrugated Metal Pipe Culvert are similar. Pipe Runners not shown for clarity)

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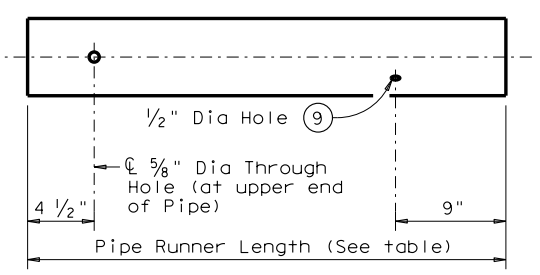
SHEET 2 OF 3

		Bridge Division Standard	
SAFETY END TREATMENT FOR DESIGN 1 TO 7 ARCH PIPE CULVERTS TYPE II ~ CROSS DRAINAGE			
SETP-CD-A			
FILE: setpcase.dgn	DN: GAF	CK: CAT	DW: JRP
©TxDOT February 2010	CONT	SECT	JOB
REVISIONS		HIGHWAY	
11-10: Add note for synthetic fibers.		DIST	COUNTY
		SHEET NO.	

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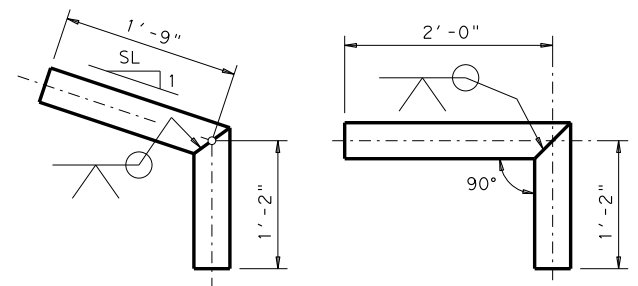


CROSS PIPE AND CONNECTIONS DETAILS

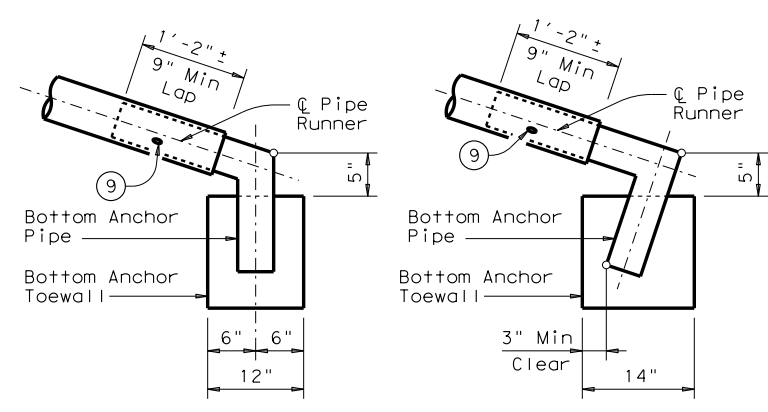


NOTE: The separate Pipe Runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS

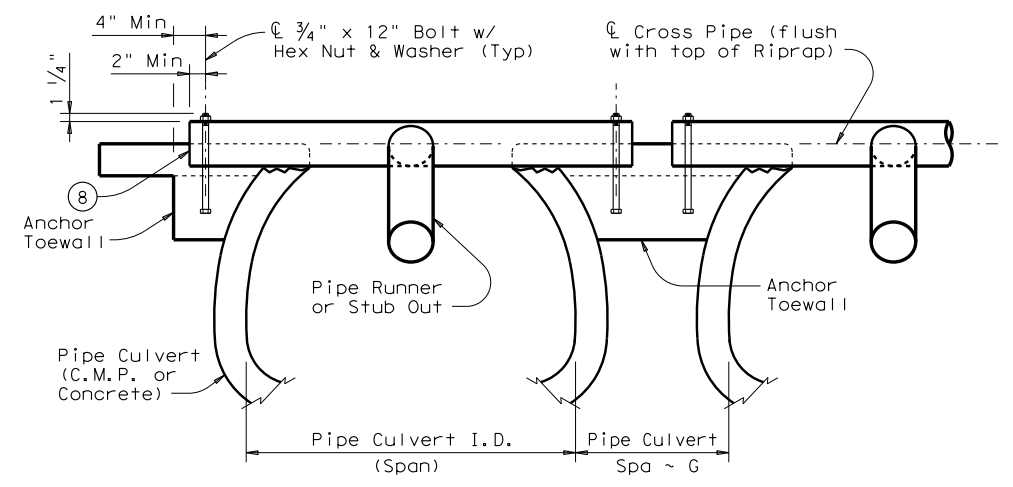


BOTTOM ANCHOR PIPE DETAILS

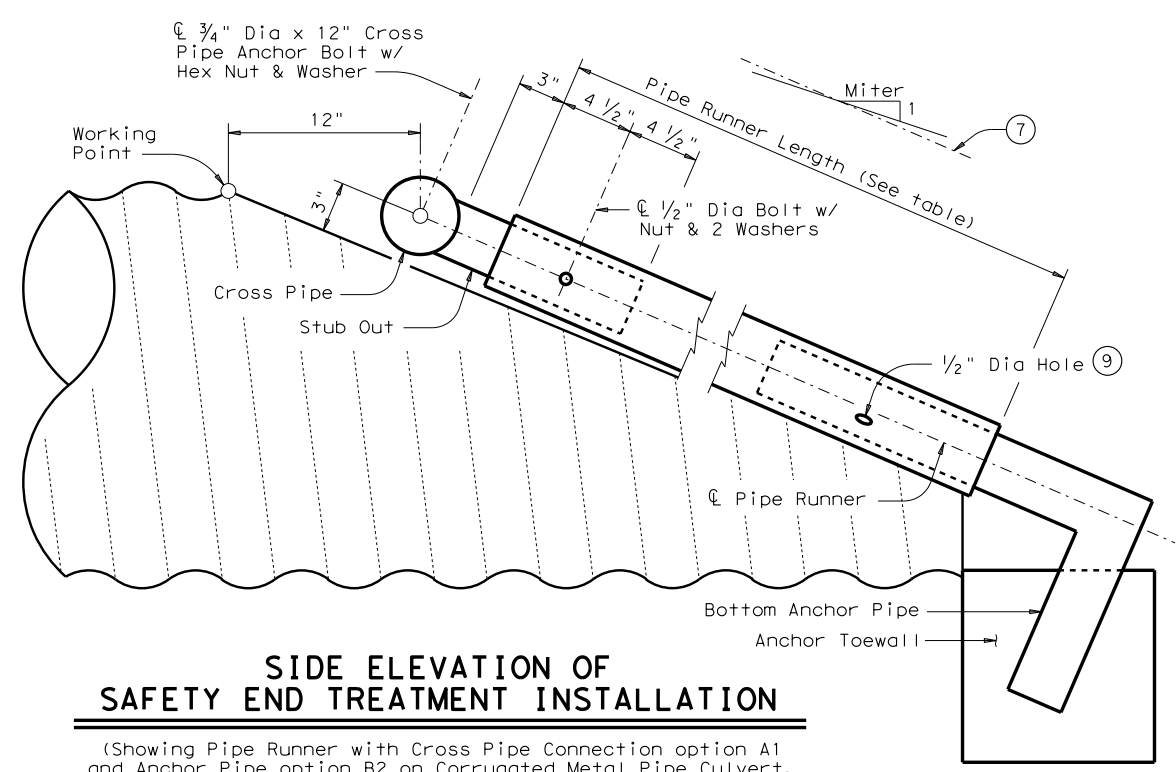


BOTTOM ANCHOR TOEWALL DETAILS

(Culvert & Riprap not shown for clarity)



SECTION A-A



SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

(Showing Pipe Runner with Cross Pipe Connection option A1 and Anchor Pipe option B2 on Corrugated Metal Pipe Culvert. Concrete Pipe Culvert details are similar. Riprap not shown for clarity)

- ⑦ Note that actual slope of Pipe Runner may vary slightly from Side Slope of Riprap and trimmed Culvert Pipe edge.
- ⑧ Care shall be taken to ensure that Riprap concrete does not flow into the Cross Pipe so as to permit disassembly of the bolted connection to allow cleanout access.
- ⑨ After installation, the 1/2 inch hole shall be inspected to ensure that the lap of the Pipe Runner with the Bottom Anchor Pipe is adequate.
- ⑩ At fabricator's option, a heat bend to a smooth 5 inch radius or a manufactured elbow (of the same material as the Runner) may be substituted for the mitered and welded joint in the Bottom Anchor Pipe.

SHEET 3 OF 3



SAFETY END TREATMENT FOR DESIGN 1 TO 7 ARCH PIPE CULVERTS TYPE II ~ CROSS DRAINAGE

SETP-CD-A

FILE: setpcase.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
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REVISIONS				
11-10: Add note for synthetic fibers.	DIST	COUNTY	SHEET NO.	

TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (4)

SLOPE DESIGN	SIZE OF PIPE ARCH		Values for one Pipe			Values to be added for each addtl Pipe			
	Span	Rise	W	Reinf (Lbs) (1)	Conc (CY) (2)	W	Reinf (Lbs) (1)	Conc (CY) (2)	
2:1	1	17"	13"	9'-9"	130	1.1	2'-5"	28	0.3
	2	21"	15"	10'-9"	139	1.3	2'-11"	33	0.3
	3	28"	20"	13'-0"	184	1.8	3'-9"	43	0.5
	4	35"	24"	14'-11"	249	2.2	4'-7"	50	0.6
	5	42"	29"	17'-2"	311	3.2	5'-5"	69	0.9
	6	49"	33"	19'-1"	342	3.8	6'-3"	77	1.1
	7	57"	38"	21'-5"	438	4.7	7'-2"	86	1.4
	8	64"	43"	23'-8"	508	5.6	8'-2"	110	1.6
	9	71"	47"	25'-7"	577	6.5	9'-1"	120	2.0
3:1	1	17"	13"	13'-11"	182	1.6	2'-5"	28	0.3
	2	21"	15"	15'-3"	196	1.8	2'-11"	33	0.3
	3	28"	20"	18'-4"	270	2.6	3'-9"	42	0.5
	4	35"	24"	20'-11"	356	3.2	4'-7"	50	0.6
	5	42"	29"	24'-0"	434	4.5	5'-5"	70	0.9
	6	49"	33"	26'-7"	499	5.4	6'-3"	77	1.1
	7	57"	38"	29'-9"	628	6.7	7'-2"	87	1.4
	8	64"	43"	32'-10"	715	7.9	8'-2"	111	1.6
	9	71"	47"	35'-5"	798	9.2	9'-1"	120	2.0
4:1	1	17"	13"	18'-1"	236	2.1	2'-5"	28	0.3
	2	21"	15"	19'-9"	268	2.4	2'-11"	33	0.3
	3	28"	20"	23'-8"	336	3.3	3'-9"	42	0.5
	4	35"	24"	26'-11"	460	4.2	4'-7"	50	0.6
	5	42"	29"	30'-10"	557	5.8	5'-5"	69	0.9
	6	49"	33"	34'-1"	653	6.9	6'-3"	78	1.1
	7	57"	38"	38'-1"	819	8.6	7'-2"	87	1.4
	8	64"	43"	42'-0"	950	10.2	8'-2"	111	1.7
	9	71"	47"	45'-3"	1053	11.9	9'-1"	120	2.0
6:1	1	17"	13"	26'-5"	343	3.1	2'-5"	29	0.3
	2	21"	15"	28'-9"	381	3.5	2'-11"	33	0.3
	3	28"	20"	34'-4"	504	4.9	3'-9"	42	0.5
	4	35"	24"	38'-11"	673	6.1	4'-7"	50	0.6
	5	42"	29"	44'-6"	823	8.5	5'-5"	70	0.9
	6	49"	33"	49'-1"	945	10.1	6'-3"	78	1.1
	7	57"	38"	54'-9"	1227	12.5	7'-2"	87	1.4
	8	64"	43"	60'-4"	1399	14.8	8'-2"	110	1.7
	9	71"	47"	64'-11"	1563	17.3	9'-1"	119	2.0

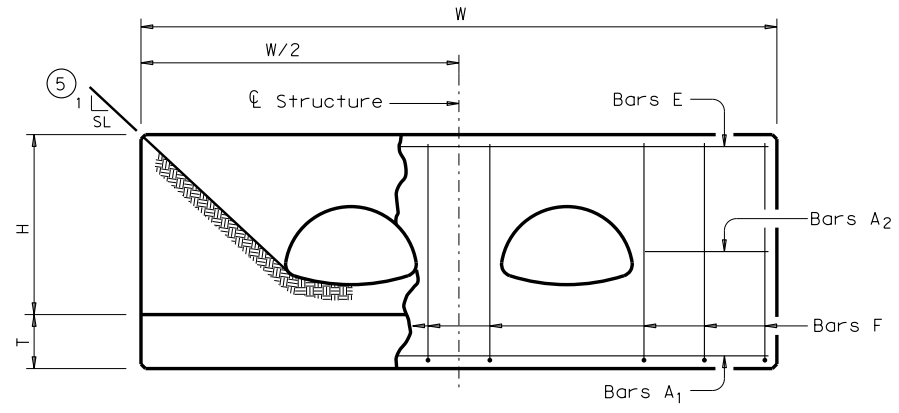
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TABLE OF DIMENSIONS NOT VARIED WITH SLOPE

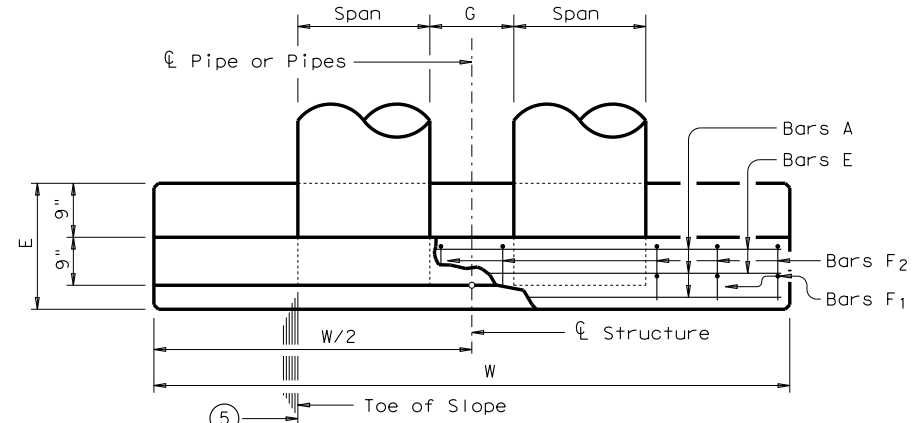
DESIGN	SIZE OF PIPE ARCH	G	K	H	T	E
1	17" 13"	1'-0"	1'-0"	2'-7"	10"	1'-6"
2	21" 15"	1'-2"	1'-0"	2'-9"	10"	1'-6"
3	28" 20"	1'-5"	1'-0"	3'-2"	10"	1'-10"
4	35" 24"	1'-8"	1'-0"	3'-6"	10"	2'-0"
5	42" 29"	1'-11"	1'-0"	3'-11"	1'-0"	2'-4"
6	49" 33"	2'-2"	1'-0"	4'-3"	1'-0"	2'-6"
7	57" 38"	2'-5"	1'-0"	4'-8"	1'-0"	2'-10"
8	64" 43"	2'-10"	1'-0"	5'-1"	1'-0"	3'-0"
9	71" 47"	3'-2"	1'-0"	5'-5"	1'-0"	3'-4"

TABLE OF REINFORCING STEEL (4)

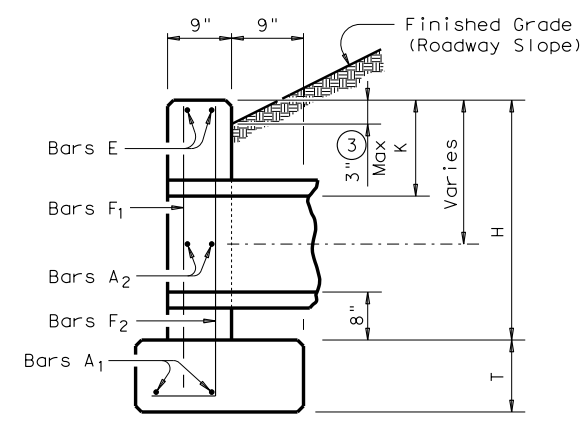
Bar	Size	Spa	No.
A1	# 5	~	2
A2	# 5	1'-6"	~
E	# 5	~	2
F	# 5	1'-0"	~



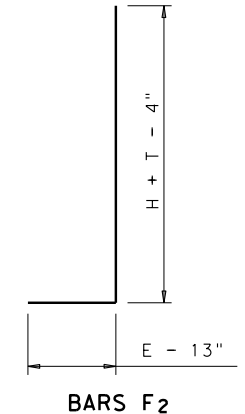
ELEVATION



PLAN



SECTION



BARS F2

- (1) Total quantities include one 15" lap for all bars over 60 ft in length.
- (2) Quantities shown are for metal pipe and will decrease slightly for concrete pipe installations.
- (3) For vehicle safety, curbs shall project no more than 3" above finished grade. Curb heights shall be reduced, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- (4) Quantities shown are for one structure end only (one headwall).
- (5) Indicated slope is perpendicular to centerline Pipe or Pipes.

GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 Reinforcing steel shall be placed with the center of the outside layer of bars 2" from the surface of the concrete.
 All reinforcing steel shall be Grade 60.
 All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.
 No bridge rails of any type may be mounted directly to these culvert headwalls.

		Bridge Division Standard	
<p>CONCRETE HEADWALLS WITH PARALLEL WINGS FOR NON-SKEWED ARCH PIPE CULVERTS</p> <p>CH-PW-A-0</p>			
FILE: chpa0ste.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
©TxDOT February 2010	CONT	SECT	JOB
REVISIONS		HIGHWAY	
11-10: Removed Bars T.	DIST	COUNTY	SHEET NO.

TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (4)

SLOPE	DESIGN	SIZE OF PIPE ARCH		Values for one Pipe						Values to be added for each add'l Pipe			
		Span	Rise	W	X	Y	L	Reinf (Lbs)	Conc (CY)	X and W	Reinf (Lbs)	Conc (CY)	
													Reinf (Lbs)
2:1	1	17"	13"	5'-0 1/2"	2'-8 3/4"	3'-0"	3'-5 1/2"	91	0.6	2'-5"	35	0.3	
	2	21"	15"	5'-9 1/4"	3'-0 3/4"	3'-4"	3'-10 1/4"	107	0.8	2'-11"	42	0.4	
	3	28"	20"	7'-3 3/4"	3'-7 3/4"	4'-2"	4'-9 3/4"	148	1.1	3'-9"	57	0.6	
	4	35"	24"	8'-8"	4'-2 3/4"	4'-10"	5'-7"	174	1.4	4'-7"	73	0.8	
	5	42"	29"	10'-2 1/2"	4'-9 3/4"	5'-8"	6'-6 1/2"	204	1.8	5'-5"	98	1.0	
	6	49"	33"	11'-6 3/4"	5'-4 3/4"	6'-4"	7'-3 3/4"	243	2.2	6'-3"	113	1.3	
	7	57"	38"	13'-2 1/4"	6'-0 3/4"	7'-2"	8'-3 1/4"	279	2.7	7'-2"	134	1.6	
	8	64"	43"	14'-8 3/4"	6'-7 3/4"	8'-0"	9'-2 3/4"	327	3.2	8'-2"	168	2.0	
	9	71"	47"	16'-1"	7'-2 3/4"	8'-8"	10'-0"	371	3.7	9'-1"	192	2.4	
3:1	1	17"	13"	6'-9 1/4"	2'-8 3/4"	4'-6"	5'-2 1/4"	127	0.9	2'-5"	38	0.4	
	2	21"	15"	7'-8 1/4"	3'-0 3/4"	5'-0"	5'-9 1/4"	142	1.1	2'-11"	48	0.5	
	3	28"	20"	9'-8 1/2"	3'-7 3/4"	6'-3"	7'-2 1/2"	201	1.6	3'-9"	64	0.7	
	4	35"	24"	11'-5 1/2"	4'-2 3/4"	7'-3"	8'-4 1/2"	237	2.1	4'-7"	83	1.0	
	5	42"	29"	13'-5 3/4"	4'-9 3/4"	8'-6"	9'-9 3/4"	295	2.7	5'-5"	113	1.3	
	6	49"	33"	15'-2 3/4"	5'-4 3/4"	9'-6"	10'-11 3/4"	339	3.3	6'-3"	130	1.7	
	7	57"	38"	17'-4"	6'-0 3/4"	10'-9"	12'-5"	394	4.2	7'-2"	159	2.1	
	8	64"	43"	19'-4 1/4"	6'-7 3/4"	12'-0"	13'-10 1/4"	471	5.1	8'-2"	199	2.6	
	9	71"	47"	21'-1 1/4"	7'-2 3/4"	13'-0"	15'-0 1/4"	523	5.9	9'-1"	226	3.1	
4:1	1	17"	13"	8'-6 1/4"	2'-8 3/4"	6'-0"	6'-11"	165	1.3	2'-5"	42	0.4	
	2	21"	15"	9'-7 1/4"	3'-0 3/4"	6'-8"	7'-8 1/2"	185	1.6	2'-11"	53	0.6	
	3	28"	20"	12'-1 1/2"	3'-7 3/4"	8'-4"	9'-7 1/2"	253	2.3	3'-9"	72	0.9	
	4	35"	24"	14'-3"	4'-2 3/4"	9'-8"	11'-2"	311	2.9	4'-7"	94	1.2	
	5	42"	29"	16'-9"	4'-9 3/4"	11'-4"	13'-1"	375	3.9	5'-5"	125	1.6	
	6	49"	33"	18'-10 1/2"	5'-4 3/4"	12'-8"	14'-7 1/2"	449	4.7	6'-3"	152	2.0	
	7	57"	38"	21'-5 1/2"	6'-0 3/4"	14'-4"	16'-6 3/4"	526	5.9	7'-2"	180	2.6	
	8	64"	43"	23'-11 3/4"	6'-7 3/4"	16'-0"	18'-5 3/4"	625	7.2	8'-2"	229	3.2	
	9	71"	47"	26'-1 1/4"	7'-2 3/4"	17'-4"	20'-0 1/4"	698	8.4	9'-1"	261	3.9	
6:1	1	17"	13"	11'-11 3/4"	2'-8 3/4"	9'-0"	10'-4 3/4"	239	2.1	2'-5"	49	0.6	
	2	21"	15"	13'-5 1/2"	3'-0 3/4"	10'-0"	11'-6 1/2"	272	2.6	2'-11"	61	0.8	
	3	28"	20"	16'-11 1/4"	3'-7 3/4"	12'-6"	14'-5 1/4"	388	3.8	3'-9"	87	1.2	
	4	35"	24"	19'-10"	4'-2 3/4"	14'-6"	16'-9"	464	5.0	4'-7"	112	1.6	
	5	42"	29"	23'-3 1/2"	4'-9 3/4"	17'-0"	19'-7 1/2"	581	6.6	5'-5"	154	2.2	
	6	49"	33"	26'-2 1/4"	5'-4 3/4"	19'-0"	21'-11 1/4"	705	8.2	6'-3"	187	2.8	
	7	57"	38"	29'-9"	6'-0 3/4"	21'-6"	24'-10"	846	10.3	7'-2"	233	3.5	
	8	64"	43"	33'-2 1/2"	6'-7 3/4"	24'-0"	27'-8 1/2"	990	12.6	8'-2"	289	4.4	
	9	71"	47"	36'-1 1/4"	7'-2 3/4"	26'-0"	30'-0 1/4"	1119	14.7	9'-1"	336	5.3	

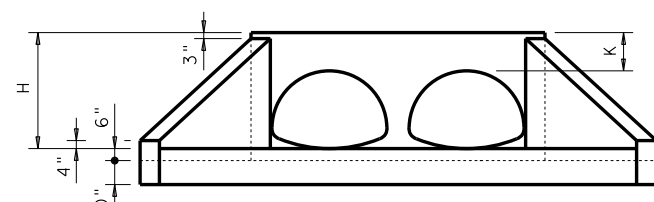
TABLE OF REINFORCING STEEL (4)

Bar	Size	Spa	No.
A	# 4	1'-0"	~
B	# 3	1'-6"	~
C	# 4	1'-0"	~
D	# 3	1'-0"	~
E	# 5	~	4
F	# 5	~	~
G	# 3	~	2
S	# 4	~	6
V	# 4	1'-0"	~
W	# 5	~	4

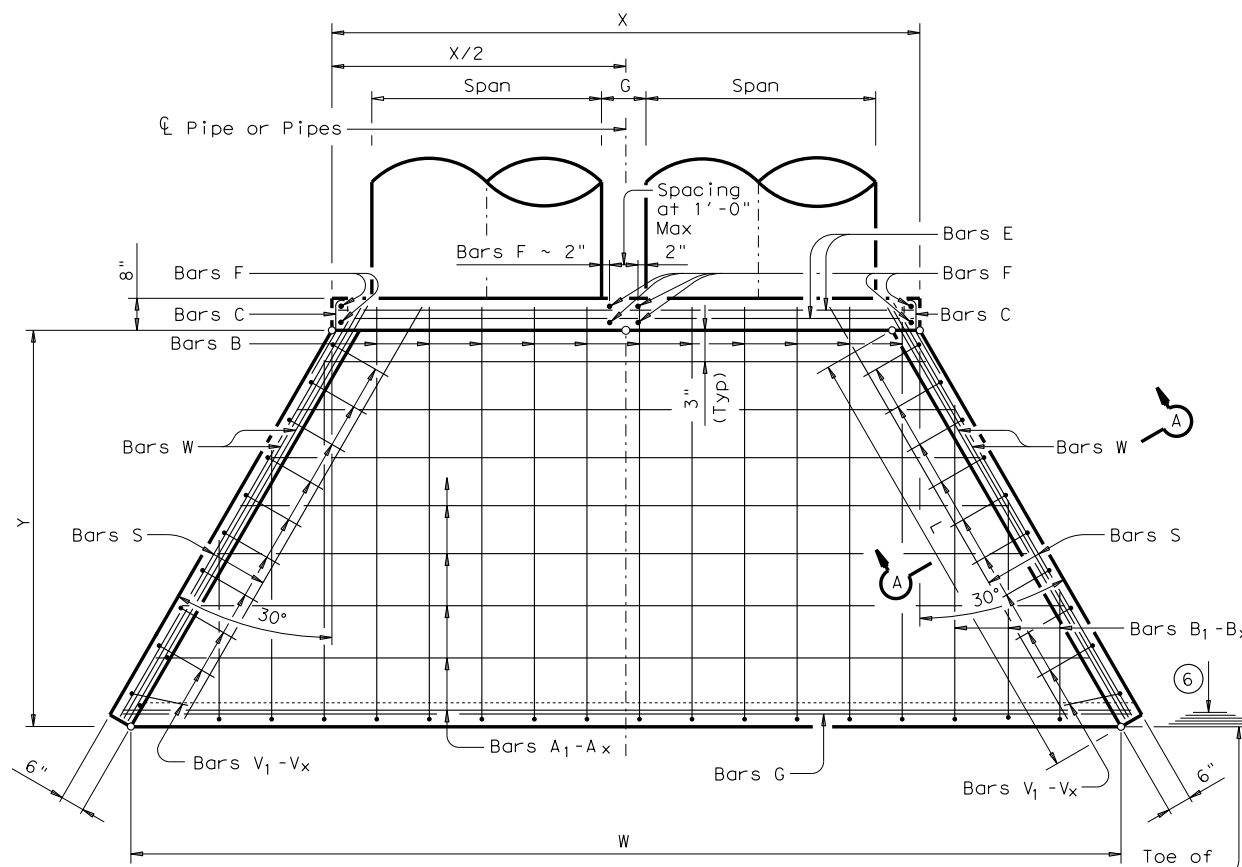
TABLE OF DIMENSIONS NOT VARIED WITH SLOPE

DESIGN	SIZE OF PIPE ARCH		G	K	H
	Span	Rise			
1	17"	13"	1'-0"	1'-0"	2'-1"
2	21"	15"	1'-2"	1'-0"	2'-3"
3	28"	20"	1'-5"	1'-0"	2'-8"
4	35"	24"	1'-8"	1'-0"	3'-0"
5	42"	29"	1'-11"	1'-0"	3'-5"
6	49"	33"	2'-2"	1'-0"	3'-9"
7	57"	38"	2'-5"	1'-0"	4'-2"
8	64"	43"	2'-10"	1'-0"	4'-7"
9	71"	47"	3'-2"	1'-0"	4'-11"

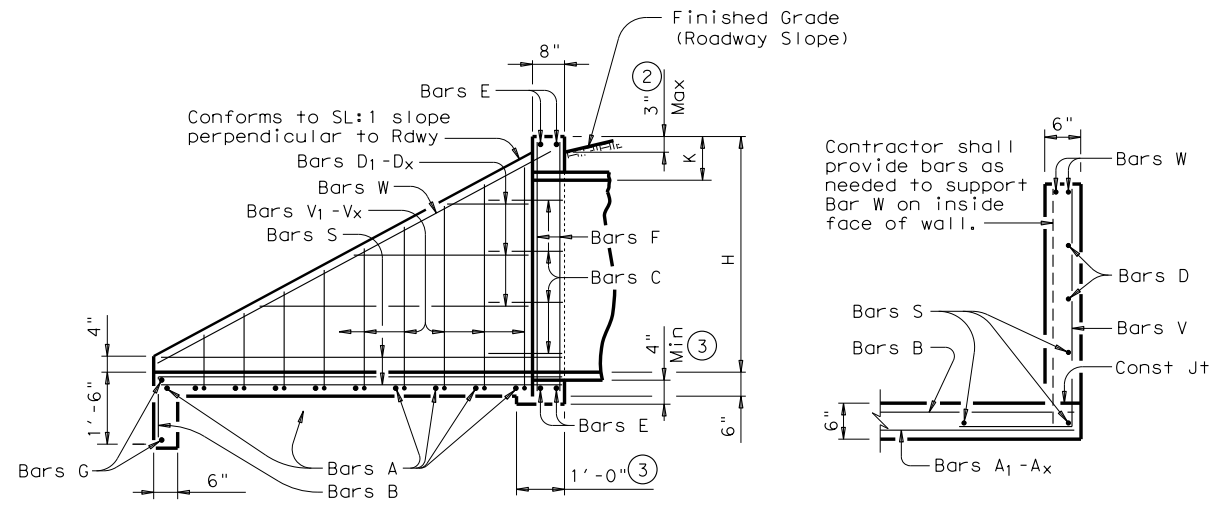
- Quantities shown are for metal pipe and will decrease slightly for concrete pipe installations.
- For vehicle safety, curbs shall project no more than 3" above finished grade. Curb heights shall be reduced, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- Provide a 1'-0" footing as shown where required to maintain 4" Min cover for pipes.
- Quantities shown are for one structure end only (one headwall).
- Min Length = $6" + 3" \times \left(\frac{12 \times H - 7}{12 \times L}\right)$
Max Length = $12 \times H - 3" \times \left(\frac{12 \times H - 7}{12 \times L}\right) - 1"$
- Lengths of wings based on SL:1 Slope along this line.



ELEVATION
Showing dimensions



PLAN



TYPICAL WING ELEVATION

SECTION A-A

GENERAL NOTES:
 Designed according to AASHTO LRFD Specifications.
 Reinforcing steel shall be placed with the center of the outside layer of bars 2" from the surface of the concrete.
 All reinforcing steel shall be Grade 60.
 All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.
 No bridge rails of any type may be mounted directly to these culvert headwalls.

Texas Department of Transportation Bridge Division Standard

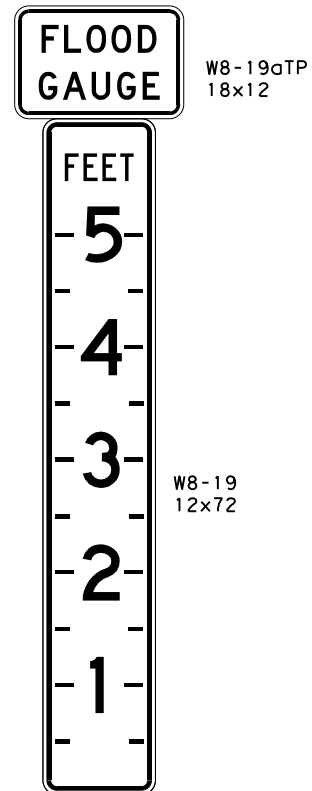
CONCRETE HEADWALLS WITH FLARED WINGS FOR 0° SKEW ARCH PIPE CULVERTS

CH-FW-A-0

FILE: chfa00se.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY	SHEET NO.

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DEPARTMENTAL MATERIAL SPECIFICATIONS	
ALUMINUM SIGN BLANKS	DMS-7110
SIGN FACE MATERIALS	DMS-8300

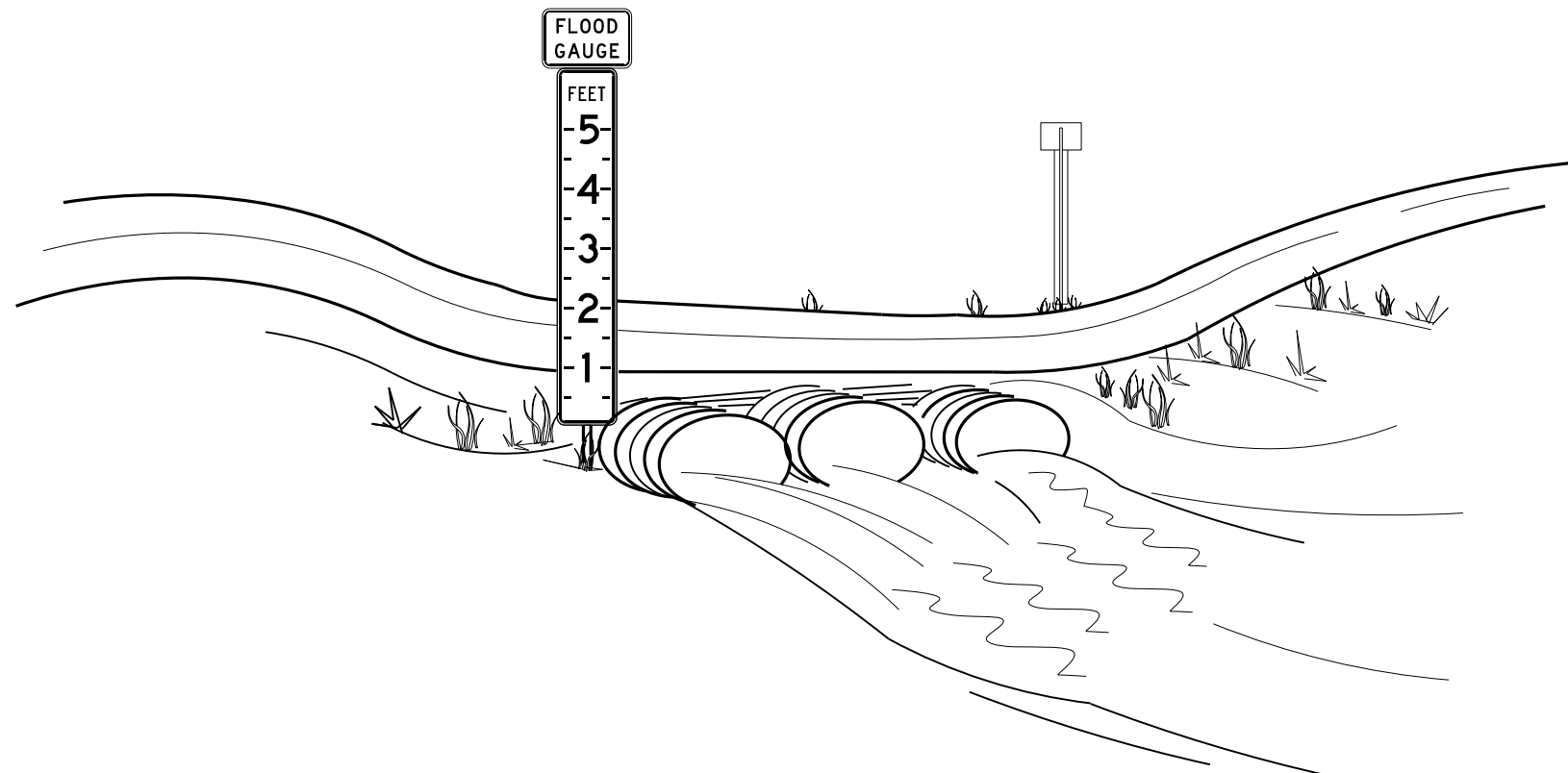
ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080
7.5 to 15	0.100
Greater than 15	0.125

SHEETING REQUIREMENTS		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	FLUORESCENT YELLOW	TYPE B _{FL} & C _{FL} SHEETING
LEGEND & BORDERS	BLACK	ACRYLIC NON-REFLECTIVE FILM

GENERAL NOTES

- Each flood gauge assembly shall consist of the FLOOD GAUGE sign (W8-19aTP) and DEPTH MARKER (W8-19). Two assemblies should be erected, one along each approach, at the low water crossing location on the right side of the roadway.
- The flood gauge assembly should be of sufficient height to register depth of water to a minimum of five (5) Feet above the lowest travel lane pavement surface. Actual height of depth marker required for each location is shown elsewhere in the plans, but should not be in excess of ten (10) feet.
- The flood gauge assembly should be located not more than ten (10) feet from the pavement edge. Consideration should be given to placement with regard to the following factors:
 - Accurate register of depth of water over roadway.
 - Daytime and nighttime visibility of the flood gauge assembly along roadway approaches.
 - Outside the main flow of water during both normal and flood conditions.
- In areas where flood conditions would likely obscure the flood gauge assembly, a second pair of gauges, one on each approach, registering depths greater than shown on the first flood gauge assembly, is recommended.
- The Engineer will approve all flood gauge assembly locations before installation.
- The alphabets and lateral spacing between letters and numerals shall conform with the Texas "Manual on Uniform Traffic Control Devices for Streets and Highways", latest edition, and any approved changes thereto. Lateral Spacing of text shall provide a balanced appearance. All materials shall conform to Department Specifications.
- FLOOD GAUGE signs and depth marker shall be mounted in accordance with Standard SMD (series). The recommended mounting is three (3) inch fiberglass reinforced pipe (FRP) pipe as shown on Standard SMD (GEN) and SMD (FRP). ROAD MAY FLOOD sign (W8-18) along the approach roadway may be required in areas where rainfall causes frequent roadway flooding.

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website:
<http://www.txdot.gov/>



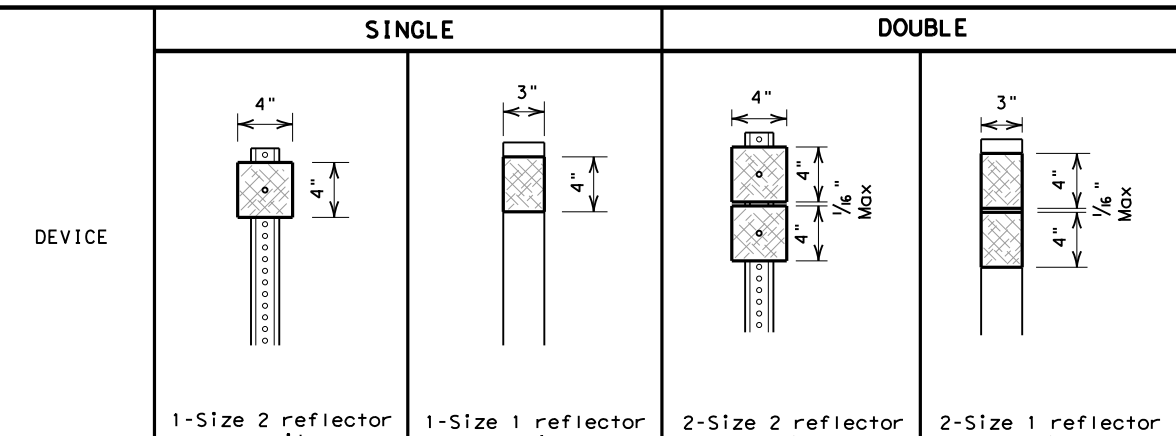
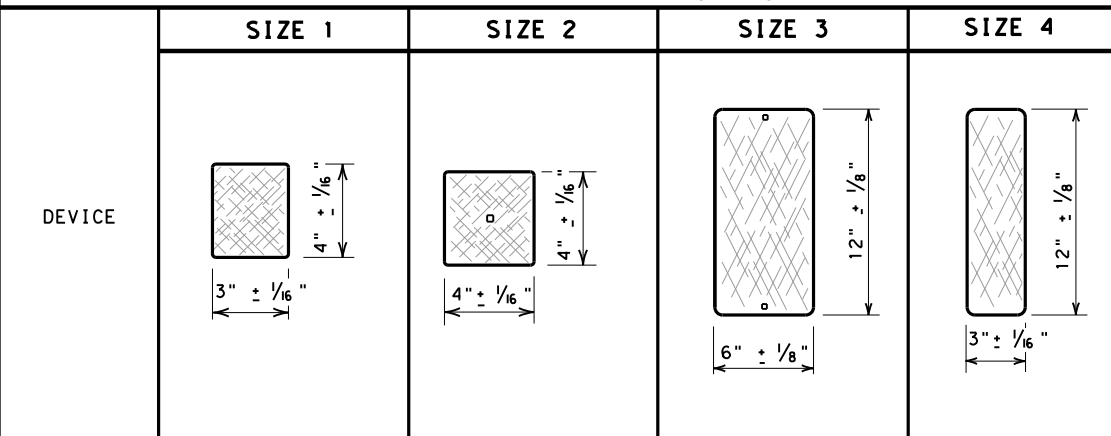
Texas Department of Transportation		Traffic Operations Division Standard	
<h2>FLOOD GAUGE ASSEMBLY</h2> <h3>FGA-15</h3>			
FILE: fga-15.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
© TxDOT January 1997	CONT	SECT	JOB
3-15	DIST	COUNTY	SHEET NO.

REFLECTOR UNIT SIZES FOR DELINEATORS AND OBJECT MARKERS

DELINEATORS

D & OM DESCRIPTIVE CODES

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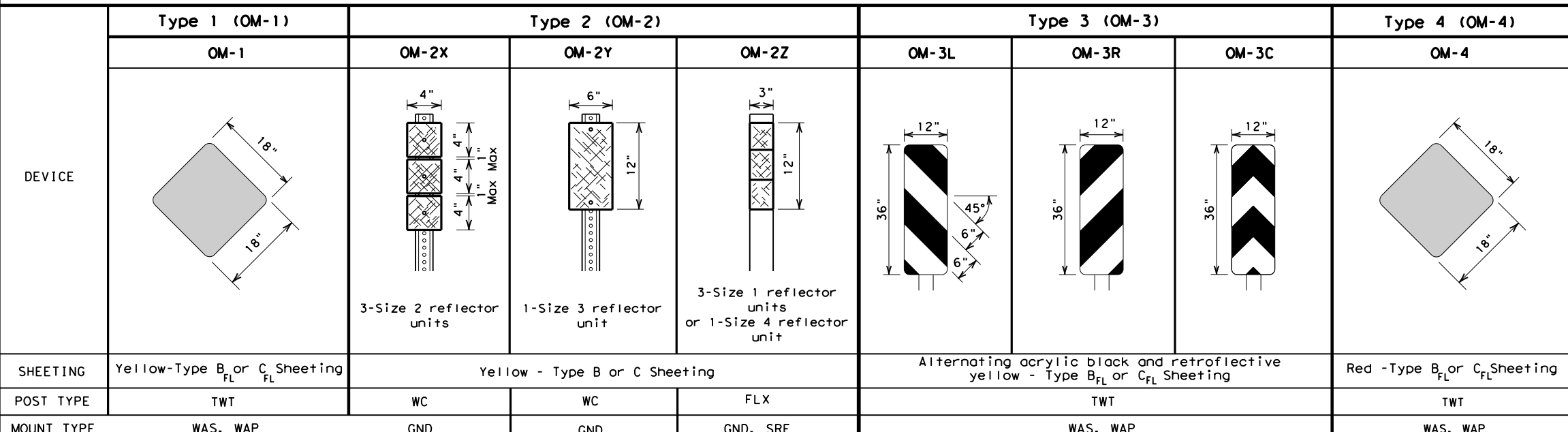
INSTR DEL ASSM (D-XX)SZ X (XXX)XXX(XX)
NUMBER OF REFLECTORS
S = Single
D = Double
COLOR OF REFLECTORS
W = White
Y = Yellow
R = Red
REFLECTOR UNIT SIZE
1 or 2
TYPE OF POST OR DELINEATOR
WC = Wing Channel Post
FLX = Flexible Post
BRF = Barrier Reflector
TYPE OF MOUNT
GND = Embedded (drivable or set in concrete)
CTB = Concrete Barrier Mount
GF1 or GF2 = Guard Fence Attachment
SRF = Surface Mount
DIRECTION
If Required
BI = Bi-Directional
BR = Bi-Directional with red on back

SHEETING Yellow, White or Red Type B or C reflective sheeting
NOTE
1. Size 1 and 4 - Direct applied reflective sheeting for use on flexible post (fix).
2. Size 2 and 3 - For use on wing channel (wc) post only. Use approved metal, plastic or fiberglass backplate with 17/64" mounting holes.

SHEETING Yellow, White or Red Type B or C Reflective Sheeting
POST TYPE WC FLX WC FLX
MOUNT TYPE GND GND, SRF GND GND, SRF

INSTR OM ASSM (OM-XX) (XXX)XXX(XX)
TYPE OF OBJECT MARKER
1, 2, 3, or 4
NUMBER OF REFLECTORS OR DIRECTION
X = 3-Size 2 reflector units (Type 2 only)
Y = 1-Size 3 reflector unit (Type 2 only)
Z = 3-Size 1 or 1-Size 4 reflector unit(s) (Type 2 only)
L = Left Side (Type 3 Object Marker only)
R = Right Side (Type 3 Object Marker only)
C = Center (Type 3 Object Marker only)
TYPE OF POST
WC = Wing Channel Post
FLX = Flexible Post
TWT = Thin Walled Tubing
TYPE OF MOUNT
GND = Embedded (drivable)
SRF = Surface Mount
WAS = Wedge Anchor Steel
WAP = Wedge Anchor Plastic
DIRECTION
If Required
BI = Bi-Directional

OBJECT MARKERS



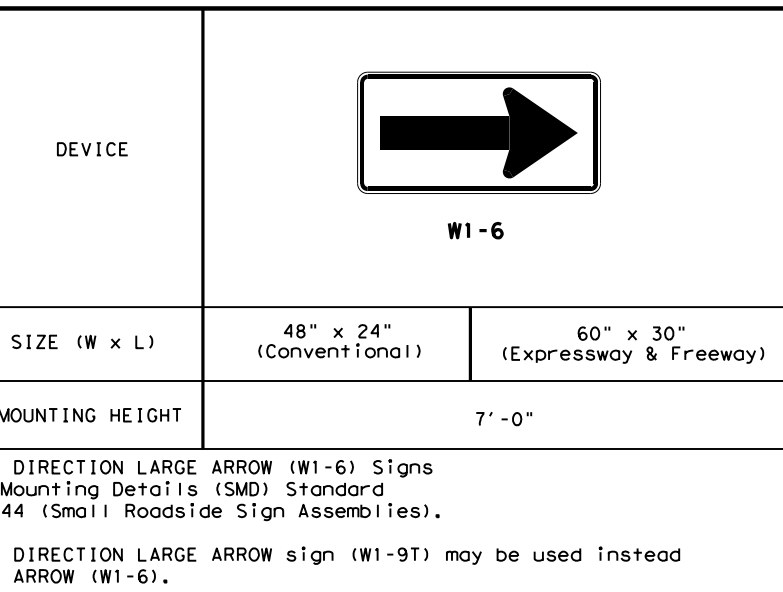
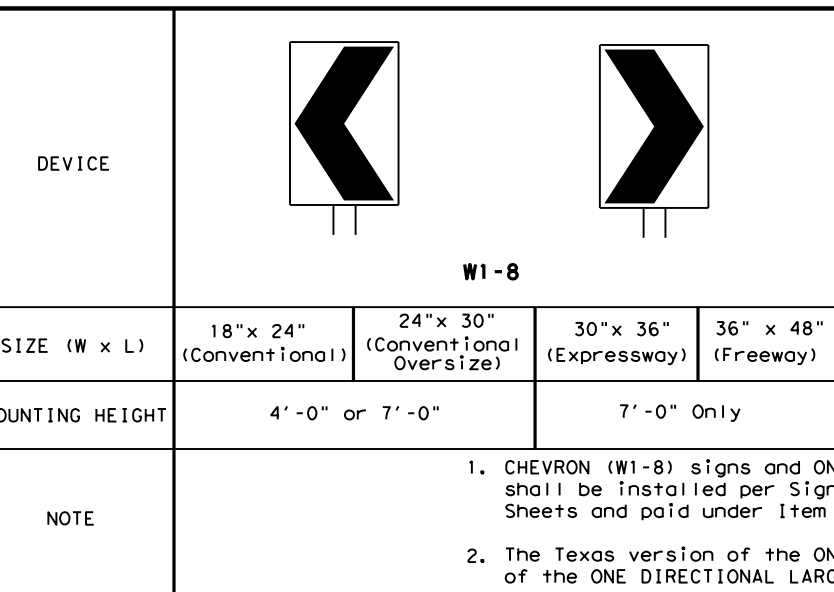
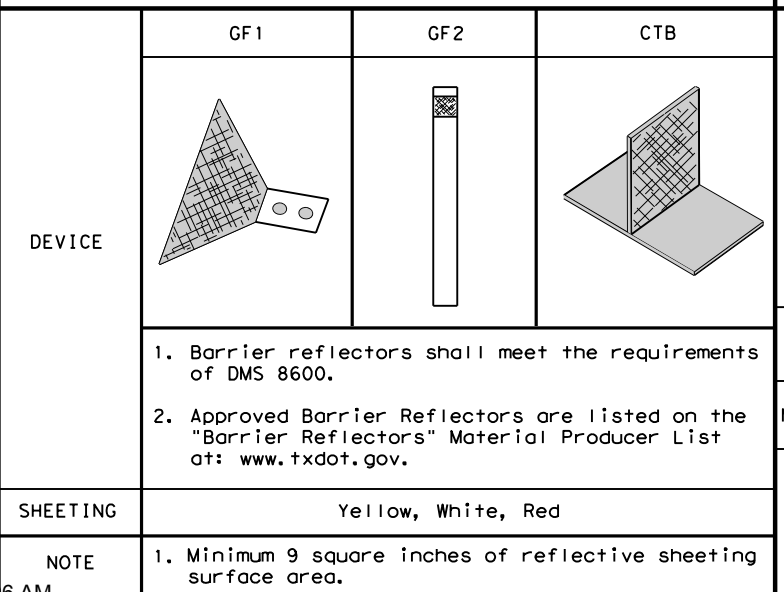
SHEETING Yellow-Type B or C Sheeting FL FL Yellow - Type B or C Sheeting Alternating acrylic black and retroreflective yellow - Type B FL or C FL Sheeting Red -Type B FL or C FL Sheeting
POST TYPE TWT WC WC FLX TWT TWT
MOUNT TYPE WAS, WAP GND GND GND, SRF WAS, WAP WAS, WAP

DEPARTMENTAL MATERIAL SPECIFICATIONS
FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES) DMS-4400
SIGN FACE MATERIALS DMS-8300
DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS DMS-8600

BARRIER REFLECTORS (BRF)

CHEVRONS

ONE DIRECTION LARGE ARROW



NOTE: Delineator and object marker backplates and sign substrates shall be 0.080" Aluminum sign blank to conform to ASTM B-209 Alloy 6061-T6 or approved alternative.



DELINEATOR & OBJECT MARKER MATERIAL DESCRIPTION
D & OM(1)-15
FILE: dom1-15.dgn DNE: TXDOT CK: TXDOT DW: TXDOT CR: TXDOT
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REVISIONS
10-09 3-15 DIST COUNTY SHEET NO.
4-10
20A p. 120

POST TYPE AND SUPPORT FOUNDATION DETAILS

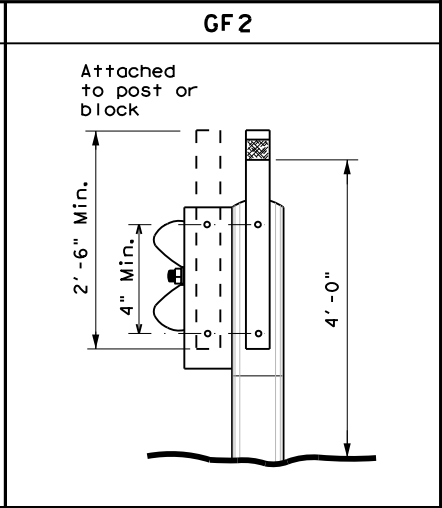
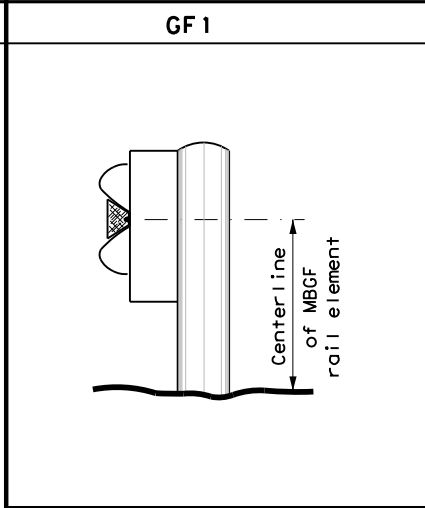
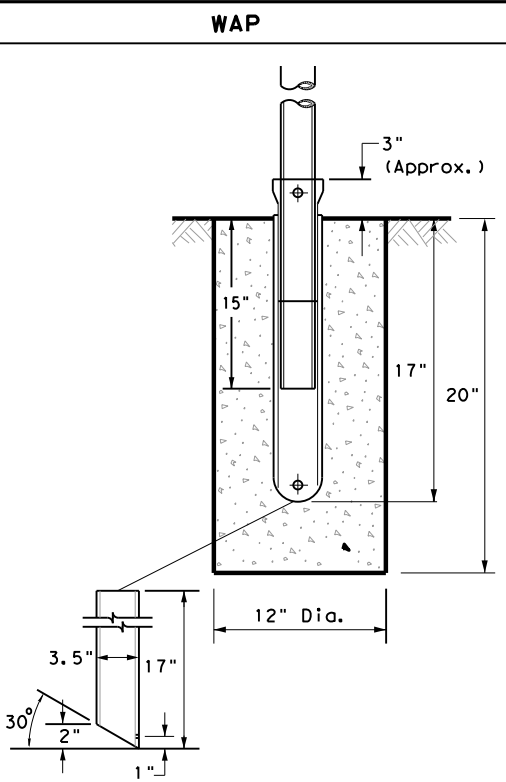
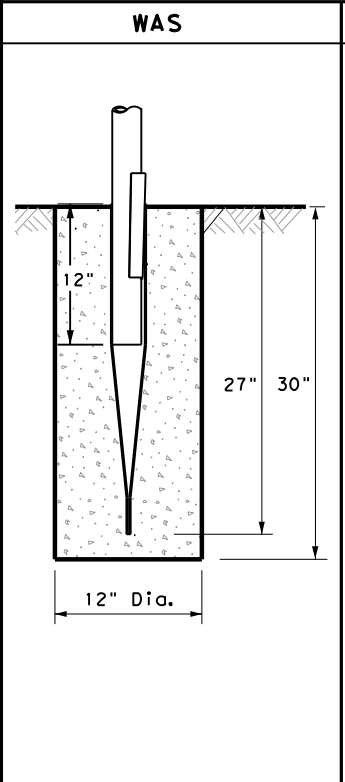
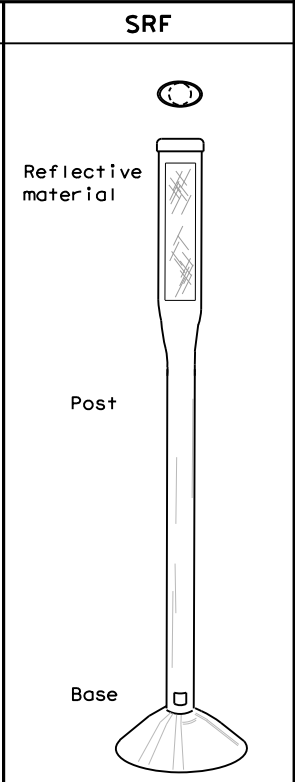
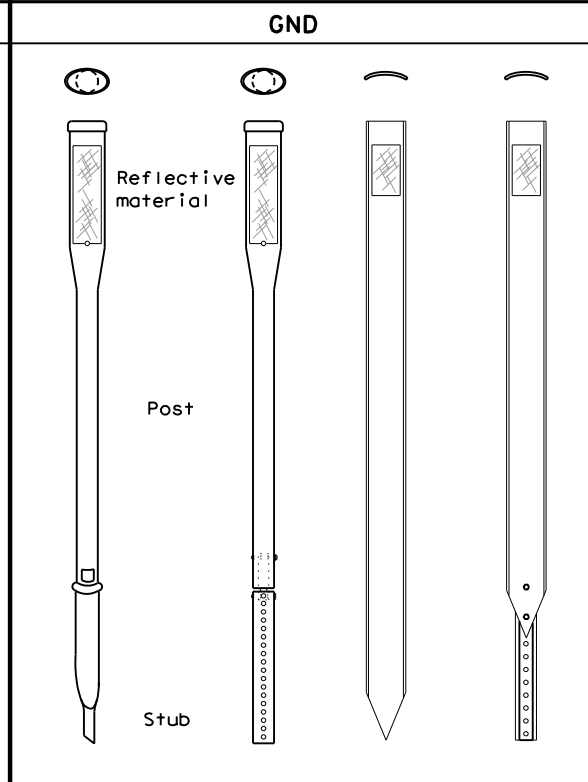
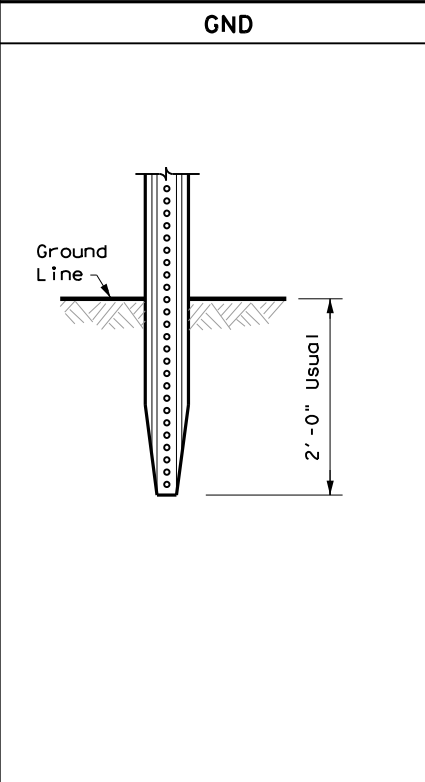
TYPE OF BARRIER MOUNTS

WING CHANNEL (WC)

FLEXIBLE POSTS (FLX)

WEDGE ANCHOR SYSTEMS

GUARD FENCE ATTACHMENT

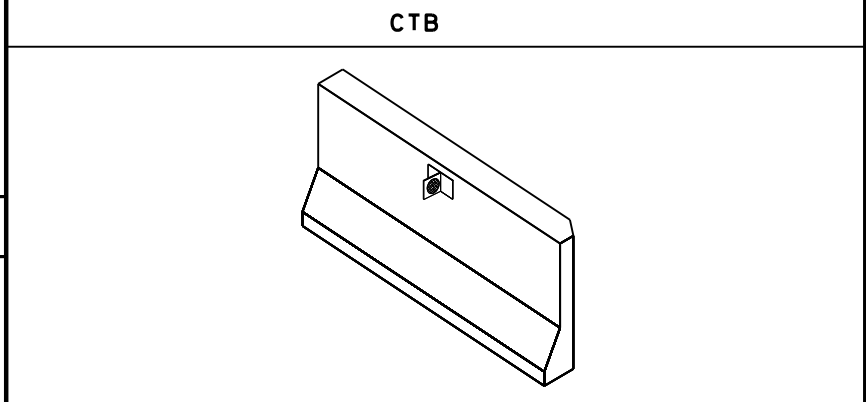


NOTES
 1. Embedded Wing Channel (WC) post option may be used for Type 2 Object Markers and Delineators only.
 2. 1.12 lbs/ft steel per ASTM A 1011 SS Gr. 50, or ASTM A499.

NOTES
 1. See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices.
 2. Install per manufacturer's recommendations.
 3. Post length may vary to meet field conditions.

NOTE
 1. Install per manufacturer's recommendations.

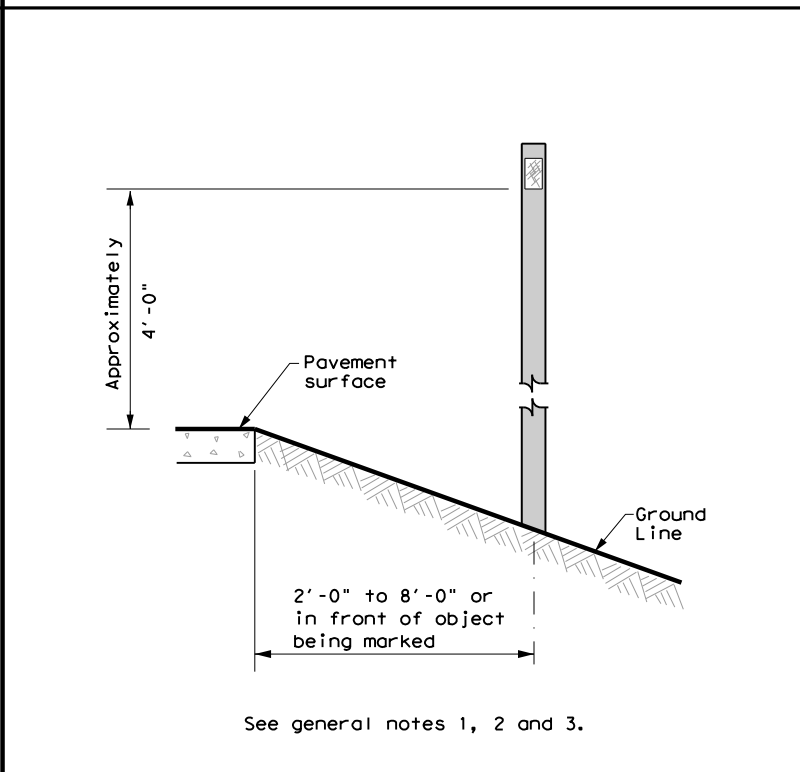
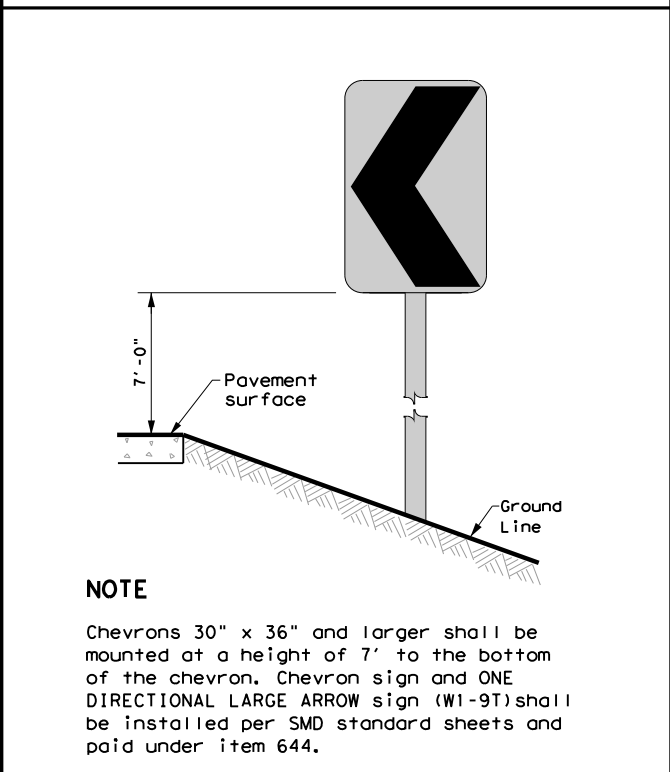
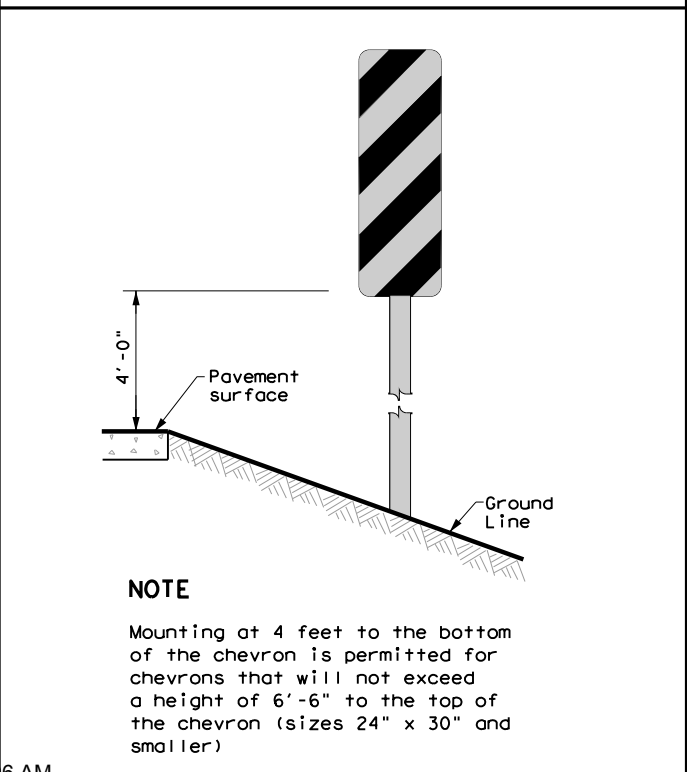
CONCRETE BARRIER / BRIDGE RAIL



TYPES 1,3, AND 4 OBJECT MARKERS AND CHEVRONS

CHEVRONS AND ONE DIRECTION LARGE ARROW SIGN

DELINEATORS AND TYPE 2 OBJECT MARKERS



GENERAL NOTES

- Place delineators on a section of roadway at a consistent distance from the edge of pavement.
- Where a restriction prevents consistent placement from the pavement edge, place the affected object markers in line with the innermost edge of the obstruction.
- When Type 2 object markers and delineators are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the object marker or delineator as close to the desired height as possible.
- Install all delineators, object markers and barrier reflectors in accordance with the manufacturer's recommendation.
- Barrier reflectors should be installed a minimum of 18 inches above the edge of the pavement surface.



DELINEATOR & OBJECT MARKER INSTALLATION

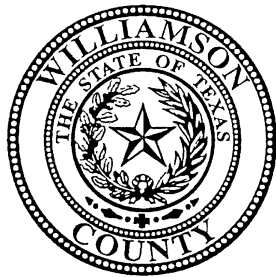
D & OM(2) - 15

FILE: dcm2-15.dgn	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
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10-09 3-15	REVISIONS		DIST	COUNTY
4-10				SHEET NO.

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**BID FORM
FY 17 CROSS CULVERT REPLACEMENTS**

TxDOT Bid Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
100 6001	PREPARING ROW	AC	2.77		
105 6037	REMOVING STAB BASE AND ASPH PAV(0"-16")	SY	413		
132 6001	EMBANKMENT (FINAL)(ORD COMP)(TY A)	CY	344		
247 6366	FL BS (CMP IN PLC)(TY A GR 5)(FNAL POS)	CY	123		
334 6088	HMCL ACP TY-D AES-300	TON	18		
340 6004	D-GR HMA(SQ) TY-A PG64-22	TON	196		
340 6106	D-GR HMA(SQ) TY-D PG64-22	TON	293		
360 6001	CONC PVMT (CONT REINF - CRCP) (7")	SY	164		
400 6001	STRUCT EXCAV	CY	1,950		
402 6001	TRENCH EXCAVATION PROTECTION	LF	418		
432 6002	RIPRAP (CONC)(5 IN)	CY	50		
432 6027	RIPRAP (STONE COMMON)(DRY)(24 IN)	CY	208		
460 6012	CMP AR (GAL STL DES 5)	LF	110		
460 6024	CMP AR (GAL STL DES 7)	LF	120		
462 6002	CONC BOX CULV (3 FT X 3 FT)	LF	26		
462 6003	CONC BOX CULV (4 FT X 2 FT)	LF	30		
462 6004	CONC BOX CULV (4 FT X 3 FT)	LF	26		
462 6008	CONC BOX CULV (5 FT X 4 FT)	LF	52		
462 6012	CONC BOX CULV (6 FT X 5 FT)	LF	56		
462 6016	CONC BOX CULV (7 FT X 5 FT)	LF	78		
462 6029	CONC BOX CULV (10 FT X 5 FT)	LF	52		
466 6064	HEADWALL (CH - FW - A - 0) (DES= 5)	EA	1		
466 6066	HEADWALL (CH - FW - A - 0) (DES= 7)	EA	4		
466 6112	HEADWALL (CH - PW - A - 0) (DES= 5)	EA	1		
466 6150	WINGWALL (FW - 0) (HW=3 FT)	EA	2		
466 6153	WINGWALL (FW - 0) (HW=6 FT)	EA	1		
466 6154	WINGWALL (FW - 0) (HW=7 FT)	EA	1		
466 6164	WINGWALL (FW - S) (HW=3 FT)	EA	1		
466 6178	WINGWALL (PW - 1) (HW=3 FT)	EA	1		
466 6179	WINGWALL (PW - 1) (HW=4 FT)	EA	2		
466 6181	WINGWALL (PW - 1) (HW=6 FT)	EA	1		
466 6182	WINGWALL (PW - 1) (HW=7 FT)	EA	2		
466 6182A	WINGWALL SPL.PW-1/FW-0 (3:1)	EA	1		
467 6556	SET (TY II) (DES 5) (CMP) (3: 1) (C)	EA	2		
496 6001	REMOV STR (BOX CULVERT)	EA	1		
496 6007	REMOV STR (PIPE)	LF	611		
500 6001	MOBILIZATION	LS	1		
502 6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	3		
506 6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	410		
506 6011	ROCK FILTER DAMS (REMOVE)	LF	410		
506 6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	3,396		
506 6039	TEMP SEDMT CONT FENCE (REMOVE)	LF	3,396		
628S-B INSTL	SEDIMENT CONTAINMENT DIKES WITH FILTER FABRIC (TRIANGULAR FILTER DIKE)	LF	275		
628S-C REMV	SEDIMENT CONTAINMENT DIKES WITH FILTER FABRIC (TRIANGULAR FILTER DIKE)(REMOVE)	LF	275		
658 6047	INSTL OM ASSM (OM-2Y)(WC)GND	EA	20		
Project Total					



Agreement for Construction Services

This Agreement (“Agreement”) between Williamson County, Texas, a political subdivision of the State of Texas (“Owner”) and _____ (“Contractor”) is entered into in accordance with the following terms and conditions:

ARTICLE 1 SCOPE OF WORK: The Owner desires to retain Contractor to provide the construction services described herein. The Contractor shall have the overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the following described construction services, or any phase of such services, in accordance with the Owner’s requirements and the terms of this Agreement (hereinafter collectively referred to as the “Work”):

As described in the IFB Solicitation # _____, _____; including the specifications set forth therein, which is incorporated herein as if copied in full.

ARTICLE 2 CONTRACT PRICE: Owner agrees to pay to the Contractor, for the satisfactory performance of the Work, the not-to-exceed amount of _____ (\$_____) in accordance with the terms and conditions of this Agreement.

ARTICLE 3 PLANS AND SPECIFICATIONS: The Work shall be performed pursuant to and in accordance with the following described plans and specifications, as well as any revisions made thereto:

As described in the IFB Solicitation # _____, including the specifications set forth therein, which is incorporated herein as if copied in full.

Additional Work: Should Owner choose to add additional work, such additional work shall be described in a separate written amendment to this Agreement wherein the additional work shall be described and the parties shall set forth the amount of compensation to be paid by Owner for the additional work. Contractor shall not begin any additional work and Owner shall not be obligated to pay for any additional work unless a written amendment to this Agreement has been signed by both parties.

ARTICLE 4 SUBSTANTIAL AND FINAL COMPLETION:

4.1 Commencement of Work. Contractor shall commence the Work upon instruction to do so from the Owner and Construction shall be deemed to have commenced on the date of such instruction.

4.2 Substantial Completion. “Substantial Completion” means the stage in the progress of the Work when the Work, or designated portions thereof, may still require minor modifications or adjustments but, in the Owner’s opinion, the Work has progressed to the point such that all parts of the Work under consideration are fully operational and usable for intended purposes, as evidenced by a Certificate of Substantial Completion approved by the Owner. If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify Owner’s Designated Representative (sometimes referred to as the “ODR”) and request a determination as to whether the Work or designated portion thereof is substantially complete. If the ODR does not consider the Work substantially complete, the ODR will notify the Contractor giving reasons therefore. Failure on the Owner’s part to list a reason does not alter the responsibility of the Contractor to complete all Work in accordance with the terms of this Agreement. After satisfactorily completing items identified by Owner’s Designated Representative, the Contractor shall then submit another request for the ODR to determine Substantial Completion. If The ODR considers the Work substantially complete, The ODR will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final completion and final payment, shall establish the time within which the Contractor shall finish the punch list, and shall establish responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the terms and conditions of this Agreement. The certificate of Substantial Completion shall be signed by the Owner and the Contractor to evidence acceptance of the responsibilities assigned to them in such certificate.

Substantial Completion (as defined in this agreement) for all stages of the Work shall be achieved on or before the following Substantial Completion date:

DATE FOR SUBSTANTIAL COMPLETION: TBD

Under no circumstances will the time for Substantial Completion exceed this date without a written amendment to this Agreement. **THE TIMES SET FORTH IN THE CONSTRUCTION DOCUMENTS ARE AN ESSENTIAL ELEMENT OF THE AGREEMENT. TIME LIMITS STATED IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT.**

4.3 Final Completion. The Work shall be fully and finally completed **on or before TBD**; provided, however, Owner may extend said time period in the event bad weather affects the progress of the Work. Owner shall, at its sole discretion, determine when the Work has been fully and finally completed to its satisfaction.

4.4 Liquidated Damages. For each consecutive calendar day after the date of Substantial Completion that the Work is not Substantially Complete, the Owner may deduct the amount of **Two Hundred Dollars per day (\$200/day)** from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion. The parties stipulate and agree that calculating Owner’s actual damages for late completion of the Work would be impractical, unduly burdensome, and cause unnecessary delay and that the amount of daily liquidated damages set forth is reasonable.

ARTICLE 5 PAYMENT:

Contractor shall have a duty to submit to the ODR by the end of each month a statement showing the total value of the Work performed during such month. The statement shall also include the value of all sound materials delivered on the Work site and to be included in the Work and all partially completed Work, whether bid as a lump sum or a unit item, which in the opinion of the ODR is acceptable. The ODR shall examine and approve or modify and approve such statement. The Owner shall then pay the Contractor pursuant to Chapter 2251 of the Texas Government Code ("Texas Prompt Payment Act"), as set forth in Article 11.1 of this Agreement, the total amount of the approved statement less all previous payments and all further sums that may be retained by the Owner under the terms of this Agreement or under the law. **Statements are not considered "received" until reviewed by the ODR and an approved statement is submitted to the Williamson County Auditor's Office; therefore, Contractor must ensure timely delivery of statements for review and processing.**

At any time following the completion of all Work, including all punch list items, cleanup, and the delivery of record documents, the Contractor shall submit a certified application for final payment, including all sums held as retainage if any, to the ODR for its review and approval. Contractor shall submit, prior to or with the application for final payment, final copies of all close out documents, including maintenance and operating instructions, guarantees and warranties, certificates, and all other items required by this Agreement. Contractor shall also submit consent of surety to final payment, an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness connected with the Work, except as specifically noted, have been paid or will be paid or otherwise satisfied within the period of time required by Chapter 2251, Texas Government Code. Contractor shall furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims arising out of the Agreement. Owner is entitled to rely upon this affidavit and the Contractor may not submit a claim on behalf of a subcontractor or vendor if that claim has not been noted as an exception in the affidavit.

Owner may deduct from the final payment all sums due from Contractor for any reason, Liquidated Damages and all other deductions authorized by this Agreement.

Final payment shall constitute a waiver of all claims by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for final payment. Provided, however, that the Work shall not be deemed fully performed by the Contractor and closed until the expiration of all warranty periods.

ARTICLE 6 CONTRACTOR'S GENERAL RESPONSIBILITIES AND COVENANTS:

6.1 Contractor shall perform all services specifically allocated to it hereunder, as well as those services reasonably inferable and necessary for completion of the Work. The Contractor shall keep the Owner informed of the progress and quality of the Work. Contractor agrees and acknowledges that Owner is entering into this Agreement in reliance on Contractor's represented expertise and ability to provide the Work described in this Agreement. Contractor agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of Owner in accordance with Owner's requirements and procedures.

6.2 Contractor's duties as set forth herein shall at no time be in any way diminished by reason of any approval by the Owner nor shall the Contractor be released from any liability by reason of such approval by the Owner, it being understood that the Owner at all times is ultimately relying upon the Contractor's skill and knowledge in performing the services required hereunder.

6.3 Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

6.4 Contractor shall be an independent contractor under this Agreement and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions in this agreement which may appear to give Owner the right to direct Contractor as to details of doing the Work herein covered or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the Work only. Owner shall not retain or have the right to control the Contractor's means, methods or details pertaining to the Contractor's performance of the Work described herein, nor shall Owner have the power to direct the order in which Contractor's Work is performed under this agreement. Owner and Contractor hereby agree and declare that Contractor is an Independent Contractor and as such meets the qualifications of an Independent Contractor under Texas Worker's Compensation Act, Texas Labor Code, Section 406.141, that the Contractor is not an employee of Owner for purposes of this Agreement, and that the Contractor and its employees, agents and sub-subcontractors shall not be entitled to worker's compensation coverage or any other type of insurance coverage held by Owner.

6.5 As part of Contractor obligation to coordinate the Work, Contract shall:

- a. cooperate with the ODR and endeavor to further the interests of the Owner and the Work;
- b. provide an on-site, full-time superintendent for the duration of the Work;
- c. visit the Work site and inspect the existing facilities, systems and conditions to insure an accurate understanding of the existing conditions as required;
- d. at Owner's request, attend public meetings and hearings concerning the development of the Work;
- e. review all drawings, specifications, and other plans as they are developed by the Owner and/or its architect and advise Owner of any error, inconsistency or omission discovered in the drawings, specifications, and other plans;
- f. review the drawings, specifications, and other plans for compliance with all applicable laws and code requirements;
- g. advise Owner of any tests that should be performed;
- h. organize and maintain a competent, full-time staff at the Work site with clearly defined lines of authority and communication as necessary to coordinate construction activities, monitor and direct progress of the Work;
- i. attend Owner's regularly scheduled Work progress meetings and fully advise the ODR of the Work status including schedule, costs, quality and changes;
- j. assist Owner in obtaining building permits and obtain special permits for permanent improvements as required by law; and
- k. shall coordinate, monitor and inspect the Work of subcontractors to ensure conformance with the drawings, specifications, other plans and with the terms of this Agreement.

6.6 Contractor shall identify every subcontractor it intends to use for the Work to the Owner in writing at least ten (10) days before entering into any subcontract. Contractor shall not use any subcontractor to which Owner has a reasonable objection. If Owner does not object to a particular subcontractor with said ten (10) days, such subcontract may be considered acceptable to Owner. Following Owner's acceptance of a subcontractor, that subcontractor shall not be changed without Owner's written consent, which shall not be unreasonably withheld.

6.7 Contractor's designated representative, which is set forth below Contractor's signature herein below, shall be responsible for the day-to-day management of the Work on behalf of Contractor. The designated representative shall be the Owner's primary contact during the Work and shall be available as required for the benefit of the Work and the Owner. The contractor's designated representative shall be authorized to act on behalf of and bind the Contractor in all matters related to the Work including, but not limited to, execution of Change Orders.

6.8 NO ALTERATIONS OR CHANGES SHALL BE MADE, HOWEVER, EXCEPT UPON THE WRITTEN ORDER OF THE OWNER, OR THE ODR.

6.9 Contractor shall promptly correct any defective Work at Contractor's sole expense, unless the Owner specifically agrees, in writing, to accept the Work.

6.10 Contractor shall maintain and deliver the close out documents that describe changes or deviations from the original drawings, specifications and plans that occurred during construction and that reflect the actual "As Built" conditions of the completed Work.

COMMISSIONING AND WARRANTY RESPONSIBILITIES

6.11 Contractor shall provide commissioning, starting and check-out services for the systems installed as a part of the Work prior to completion and acceptance. Operation manuals and instructions will be provided to the Owner, the systems will be demonstrated and training provided to Williamson County's operators upon completion and prior to acceptance.

6.12 Contractor hereby warrants that the materials and equipment provided for the Work will be of good quality and new unless otherwise required or permitted by the Owner; that the construction will be free from faults and defects; and that the construction will conform with the requirements of the plans, specifications, drawings and the terms of this Agreement.

6.13 Contractor shall provide warranty services for the Work for a full **12 months** (30 months for Work involving mechanical services, if any) following Final Completion and final payment. Just before the warranty period expires, Contractor shall attend an on-site meeting with the Owner to ensure that all warranty issues have been identified and properly remedied.

ARTICLE 7 OWNER'S RESPONSIBILITIES

7.1 The Owner shall:

- a. provide the general schedule for the Work provided Owner is of the opinion such schedule is necessary. The general schedule will set forth the Owner's plan for milestone dates and completion of the Work;
- b. identify a person as its ODR who is authorized to act in the Owner's behalf with respect to the Work. The ODR shall examine the documents submitted by the Contractor and shall render decisions on behalf of the Owner to the extent allowed by Texas law;

- c. at Owner's cost, will secure the services of surveyors, soils engineers, existing facility surveys, testing and balancing, environmental surveys or other special consultants to develop such additional information as may be necessary for the design or construction of the Work;
- d. furnish required information and services and shall render approvals and decisions as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Contractor's services and of the Work;
- e. shall have the right to reject any defective Work. Should Contractor refuse or neglect to correct any such Work within a reasonable time after notice, Owner may have the Work corrected and recover all expenses incurred from Contractor on demand; and
- f. Owner shall furnish to the Contractor a sufficient number of plans, drawings and specifications sets.

ARTICLE 8 INSURANCE AND INDEMNITY

8.1 Insurance. The Contractor shall carry insurance in the types and amounts indicated below for the duration of the Agreement, which shall include items owned by Owner in the care, custody and control of Contractor prior to and during construction. Contractor must also complete and file the declaration pages from the insurance policies with Owner whenever a previously identified policy period expires during the term of the Agreement, as proof of continuing coverage. Contractor shall update all expired policies prior to submission of any payment requests hereunder. Failure to update policies shall be reason for payment to be withheld until evidence for renewal is provided to the Owner.

8.1.1 The Contractor shall provide and maintain, until the Work covered in this Agreement is completed and accepted by the Owner, the minimum insurance coverage in the minimum amounts as described below. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company or otherwise acceptable to Owner.

Type of Coverage	Limits of Liability	
a. Worker's Compensation	Statutory	
b. Employer's Liability		
Bodily Injury by Accident	\$500,000 Ea. Accident	
Bodily Injury by Disease	\$500,000 Ea. Employee	
Bodily Injury by Disease	\$500,000 Policy Limit	
c. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:		
COVERAGE	PER PERSON	PER OCCURRENCE
Comprehensive General Liability (including premises, completed operations and contractual)	\$ 1,000,000	\$ 1,000,000
Aggregate policy limits:	\$1,000,000	

- d. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):

COVERAGE	PER PERSON	PER OCCURRENCE
Bodily injury (including death)	\$1,000,000	\$1,000,000
Property damage	\$1,000,000	\$1,000,000
Aggregate policy limits	No aggregate limit	

- e. Builder's Risk Insurance
(*all risks*)

An all risks policy shall be in the amount equal at all times to 100% of the Contract Sum. The policy shall include coverage for loss or damage caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act. The policy shall be issued in the name of the Contractor and shall name his Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

1. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.
2. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions., in this Agreement. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

- f. Umbrella coverage in the amount of not less than \$1,000,000.

8.1.2 The above insurance requirements are not intended to be compounded with the Contractor's standing insurance policies. If the Contractor already has in force insurance policies which provide the required coverage, there is no need to purchase duplicate coverage for this Work.

8.1.3 Policies must include the following clauses, as applicable.

- a. "This insurance shall not be canceled, limited in scope or coverage, or non-renewed until after thirty (30) days prior written notice, or ten (10) days for non-payment of premium, has been given to Williamson County."
- b. "It is agreed that the Contractor's insurance shall be deemed primary with respect to any insurance or self insurance carried by Williamson County for liability arising out of operations under the Agreement with Williamson County."
- c. "Williamson County, its officials, directors, employees, representatives, and volunteers are added as additional insured as respects operations and activities of, or on behalf of the named insured performed under Agreement with the Owner." This is not applicable to the workers' compensation policy.
- d. "The workers' compensation and employers' liability policy will provide a waiver of subrogation in favor of Williamson County."

8.1.4 Workers' Compensation Insurance Coverage:

In the event that Contractor employs any individual to perform any portion of the Work, Contractor shall comply with Texas Labor Code, §406.096, which requires workers' compensation insurance coverage for all employees providing services on a building or construction project for a governmental entity.

a. Definitions:

- (1) Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the Duration of the Work.
- (2) Duration of the Work - includes the time from the beginning of the Work until the Work has been completed and accepted by the Owner.
- (3) Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).
- (4) Persons providing services relating to the Work ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform the Work, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services in relation to the Work. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Work, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

b. The Contractor shall provide Coverage, based on proper reporting of classification codes and payroll amounts and filing of any Coverage agreements, which meets the statutory requirements of Texas labor Code, §401.011(44) for all employees of the Contractor providing services in relation to the Work, for the Duration of the Work.

c. The Contractor must provide a Certificate of Coverage to the Owner prior to or contemporaneously with the execution of this Agreement.

- d. If the Coverage period shown on the Contractor's current Certificate of Coverage ends during the Duration of the Work, the Contractor must, prior to the end of the Coverage period, file a new Certificate of Coverage with the Owner showing that Coverage has been extended.
- e. The Contractor shall obtain from each person providing services in relation to the Work, and provide to the Owner:
- (1) a Certificate of Coverage, prior to that person beginning any of the Work, so the Owner will have on file Certificates of Coverage showing Coverage for all persons providing services in relation to the Work; and
 - (2) no later than seven days after receipt by the Contractor, a new Certificate of Coverage showing extension of Coverage, if the Coverage period shown on the current Certificate of Coverage ends during the Duration of the Work.
- f. The Contractor shall retain all required Certificates of Coverage for the Duration of the Work and for one year thereafter.
- g. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of Coverage of any person providing services in relation to the Work.
- h. The Contractor shall post on the Work site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services in relation to the Work that they are required to be covered, and stating how a person may verify Coverage and report lack of Coverage.
- i. By signing this Agreement or providing or causing to be provided a Certificate of Coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services in relation to the Work and all persons providing services in relation to the Work will be covered by workers' compensation coverage for the Duration of the Work, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- j. The Contractor's failure to comply with any of these provisions is a breach of Agreement by the Contractor which entitles the Owner to declare the Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.5 The furnishing of the above listed insurance coverage must be tendered prior to execution of the Agreement, and in no event later than ten (10) calendar days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

8.1.6 The Contractor shall not cause or allow any of its required insurance to be canceled, nor permit any insurance to lapse during the term of the Agreement or as required in the Agreement. If the Contractor fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.7 The Owner reserves the right to review the insurance requirements set forth in this Article during the effective period of the Agreement and to make reasonable adjustments to the insurance coverage and their limits when deemed necessary and prudent by the Owner based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Contractor.

8.1.8 The Owner shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such policies. Damages caused by the Contractor and not covered by insurance shall be paid by the Contractor.

8.1.9 Contractor shall be responsible for payment of premiums for all of the insurance coverages required under this Agreement. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. **Any deductibles or self-insured retentions over \$50,000 in the Contractor's insurance must be declared and approved in writing by Owner in advance.**

8.1.10 The Contractor shall contractually require each person or entity with whom it contracts to provide services in relation to the Work, to comply with each and every insurance requirement that Contractor must comply with hereunder. More specifically, each person or entity with whom Contractor contracts to provide services on the in relation to the Work must comply with each insurance requirement under this Article 8 just as if such person or entity was the Contractor. Thus, every reference to Contractor under each insurance requirement of this Article 8 shall mean and include each person or entity with whom Contractor contracts to provide services in relation to the Work. If any such person or entity with whom Contractor contracts to provide services in relation to the Work fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.2 INDEMNITY.

8.2.1 INDEMNIFICATION - EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") AND SHALL ASSUME ENTIRE RESPONSIBILITY AND LIABILITY (OTHER THAN AS A RESULT OF INDEMNITEES' GROSS NEGLIGENCE) FOR ANY CLAIM OR ACTION BASED ON OR ARISING OUT OF THE PERSONAL INJURY, OR DEATH, OF ANY EMPLOYEE OF THE CONTRACTOR, OR OF ANY SUBCONTRACTOR, OR OF ANY OTHER ENTITY FOR WHOSE ACTS THEY MAY BE LIABLE, WHICH OCCURRED OR WAS ALLEGED TO HAVE OCCURRED ON THE WORK SITE OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK. CONTRACTOR HEREBY INDEMNIFIES THE INDEMNITEES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE SOLE, COMPARATIVE OR CONCURRENT NEGLIGENCE OF THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

8.2.2 INDEMNIFICATION - OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS AGREEMENT OR THE WORK DESCRIBED HEREIN, TO THE EXTENT CAUSED BY THE NEGLIGENCE, ACTS, ERRORS, OR OMISSIONS OF CONTRACTOR OR ITS SUBCONTRACTORS, ANYONE EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY A PARTY INDEMNIFIED HEREUNDER.

8.3 Except for the obligation of Owner to pay Contractor the Contract Price pursuant to the terms of this Agreement, and to perform certain other obligations pursuant to the terms and conditions explicitly set forth herein, Owner shall have no liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement. Notwithstanding any obligation or liability of Owner to Contractor, no present or future partner or affiliate of Owner or any agent, officer, director, or employee of Owner, Williamson County, or of the various departments comprising Williamson County, or anyone claiming under Owner has or shall have any personal liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement.

ARTICLE 9 BONDS

9.1 Performance Bond. Upon execution of this Agreement, Contractor shall provide a Performance Bond in the amount of 100% of the Contract Price. The surety for a Performance Bond shall meet the requirements of Texas law.

9.2 Payment Bond. Upon execution of this Agreement, Contractor shall provide a Payment Bond in the amount of 100% of the Contract Price, as security for the true and faithful payment in full of all subcontractors and persons performing labor, services, materials, machinery, and fixtures in connection with the Work. The surety for a Payment Bond shall meet the requirements of Texas law.

9.3 Warranty Bond. Upon execution of this Agreement, Contractor shall provide a Warranty Bond in the amount of 20% of the Contract Price, as security for the true and faithful performance of all warranties set forth in Bid Documents and this Agreement.

ARTICLE 10 TERMINATION

10.1 Termination for Cause. If either party commits an Event of Breach (a breach of any of the covenants, terms and/or conditions of this Agreement), the non-breaching party shall deliver written notice of such Event of Breach to the breaching party. Such notice must specify the nature of the Event of Breach and inform the breaching party that unless the Event of Breach is cured within three (3) business days of receipt of the notice, additional steps may be taken to terminate this Agreement. If the breaching party begins a good faith attempt to cure the Event of Breach within three (3) business days, then and in that instance, the three (3) business day period may be extended by the non-breaching party, so long as the breaching party continues to prosecute a cure diligently to completion and continues to make a good faith attempt to cure the Event of Breach. If, in the opinion of the non-breaching party, the breaching party does not cure the breach within three (3) business days or otherwise fails to make any diligent attempt to correct the Event of Breach, the breaching party shall be deemed to be in breach and the non-breaching party may, in addition to seeking the remedies available hereunder and under the law, terminate this Agreement.

10.2 Termination for Convenience. The Owner may terminate this Agreement for convenience and without cause or further liability upon thirty (30) days written notice to Contractor. In the event of such termination, it is understood and agreed that only the amounts due to Contractor for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for Owner's termination of this Agreement for convenience.

ARTICLE 11 MISCELLANEOUS PROVISIONS

11.1 Interest and Late Payments. Except as otherwise specifically set forth herein, Owner's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Interest charges for any overdue payments shall be paid by Owner in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Owner's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice/application for payment submitted by Contractor, Owner shall notify Contractor of the error not later than the twenty first (21st) day after the date Owner receives the invoice/application for payment. If the error is resolved in favor of Contractor, Contractor shall be entitled to receive interest on the unpaid balance of the invoice/application for payment submitted by Contractor beginning on the date that the payment for the invoice/application for payment became overdue. If the error is resolved in favor of the Owner, Contractor shall submit a corrected invoice/application for payment that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice/application for payment is not paid by the appropriate date.

11.2 Assignment; Successors and Assigns. This Agreement is a personal service contract for the services of Contractor, and Contractor's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party. This Agreement shall be binding upon and inure to the benefit of parties hereto and their respective successors and assigns.

11.3 Captions. The captions of paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

11.4 Governing Law and Venue. This Agreement and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. Williamson County where the Work site is located shall be the sole place of venue for any legal action arising from or related to this Agreement or the project in which the Owner is a party.

11.5 Waivers. No delay or omission by either party in exercising any right or power arising from non-compliance or failure of performance by the other party with any of the provisions of this Agreement shall impair or constitute a waiver of any such right or power. A waiver by either party of any covenant or condition of this Agreement shall not be construed as a waiver of any subsequent breach of that or of any other covenant or condition of the Agreement.

11.6 Interpretation. In the event of any dispute over the meaning or application of any provision of the Contract Documents, the Contract Documents shall be interpreted fairly and reasonably, and neither more strongly for or against any party, regardless of the actual drafter of the Contract Documents.

11.7 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

11.8 Appointment. Owner hereby expressly reserves the right from time to time to designate by notice to Contractor a representative(s) to act partially or wholly for Owner in connection with the performance of Owner's obligations. Contractor shall act only upon instructions from the designated representative(s) unless otherwise specifically notified to the contrary.

11.9 Audits. Contractor agrees that Owner or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Contractor which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Contractor agrees that Owner shall have access during normal working hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Owner shall give Contractor reasonable advance notice of intended audits.

11.10 Severability. Should any term or provision of this Agreement be held invalid or unenforceable in any respect, the remaining terms and provisions shall not be affected and this Agreement shall be construed as if the invalid or unenforceable term or provision had never been included.

11.11 No Waiver of Immunities. Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Owner, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Owner does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

11.12 Current Revenues. Under Texas law, a contract with a governmental entity that contains a claim against future revenues is void; therefore, each party paying for the performance of governmental functions or services must make those payments from current revenues available to the paying party.

11.13 Compliance with Laws. Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, Contractor shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

11.14 Sales and Use Tax Exemption. Owner is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code Ann. § 151.309, as amended.

11.15 Texas Public Information Act. To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 *et seq.*, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Owner, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any information or data furnished to Owner whether or not the same are available to the public. It is further understood that Owner, its officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Owner, its officers and employees shall have no liability or obligation to Contractor for the disclosure to the public, or to any person or persons, of any software or a part thereof, or other items or data furnished to Owner by Contractor in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

11.16 Force Majeure. If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance of this Agreement. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

11.17 Equal Opportunity in Employment. The parties to this Agreement agree that during the performance of the services under this Agreement they will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The parties to this Agreement will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship.

11.18 Reports of Accidents. Within 24 hours after Contractor becomes aware of the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Contractor), whether or not it results from or involves any action or failure to act by the Contractor or any employee or agent of the Contractor and which arises in any manner from the performance of this Agreement, the Contractor shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts pertaining thereto. The Contractor shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Contractor, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Contractor's performance of work under this Agreement.

11.19 Relationship of the Parties. Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

11.20 Appropriation of Funds by Owner. Owner believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Agreement. Contractor understands and agrees that the Owner's payment of amounts under this Agreement is contingent on the Owner receiving appropriations or other expenditure authority sufficient to allow the Owner, in the exercise of reasonable administrative discretion, to continue to make payments under this Agreement.

11.21 Execution in Counterparts. This Agreement may be executed in counterparts, each of which, when executed and delivered, shall be deemed to be an original and all of which together shall constitute one and the same document.

11.22 Entire Agreement. This Agreement represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either oral or written. This Agreement may be amended only by written instrument signed by each party to this Agreement. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE OWNER HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIED, TO AMEND THIS AGREEMENT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE WILLIAMSON COUNTY COMMISSIONERS COURT.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution hereof (Effective Date).

OWNER:

CONTRACTOR:

WILLIAMSON COUNTY, TEXAS,
a political subdivision of the state of Texas

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Party Representatives

Owner's Designated Representative ("ODR"):

Contractor's Designated Representative:

Phone _____

Phone _____

Fax _____

Fax _____

BID AFFIDAVIT

This form must be completed, signed, notarized and returned with Bid package

The undersigned certifies that the IFB and the Bidder's Bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all goods and/or services upon which prices are extended at the price Bid, and upon the conditions contained in the IFB.

I hereby certify that the foregoing Bid has not been prepared in collusion with any other Bidder or other person or persons engaged in the same line of business prior to the official opening of this Bid. Further, I certify that the Bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities Bid on, or to influence any person or persons to submit a Bid or not to submit a Bid thereon."

Name of Bidder:	<input style="width: 95%;" type="text"/>
Address of Bidder:	<input style="width: 95%;" type="text"/>
Email:	<input style="width: 95%;" type="text"/>
Telephone:	<input style="width: 95%;" type="text"/>
Printed Name of Person Submitting Affidavit:	<input style="width: 95%;" type="text"/>
Signature of Person Submitting Affidavit:	<input style="width: 95%;" type="text"/>

Cooperative Purchasing Program

Check one of the following options below. A non-affirmative Bid will in no way have a negative impact on the County's evaluation of the Bid.

<input type="checkbox"/>	I will offer the quoted prices to all authorized entities during the term of the County's Contract.
<input type="checkbox"/>	I will not offer the quoted prices to all authorized entities.

If no box is checked, the Bidder agrees to make best efforts in good faith to offer the quoted prices to all authorized entities.

BEFORE ME, the undersigned authority, a Notary Public, personally appeared
 (Name of Signer), who after being by me duly sworn, did depose and say: "I, ,
 (Name of Signer) am a duly authorized officer of/agent for (Name of Bidder) and
 have been duly authorized to execute the foregoing on behalf of the said (Name of Bidder).

SUBSCRIBED AND SWORN to before me by the above-named
 on this the day of , 20.

Notary Public in and for
 The State of
 The County of

SIGNATURE AND NOTARY NOT REQUIRED IF COMPLETING IN BIDSYNCH ELECTRONICALLY.

CONFLICT OF INTEREST QUESTIONNAIRE		Form CIQ
For vendor or other person doing business with local governmental entity		
<p>This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.</p> <p>By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>		<p>OFFICE USE ONLY</p> <p>Date Received</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>
1	<p>Name of person doing business with local governmental entity.</p> <div style="border: 1px solid black; width: 100%; height: 20px; margin-top: 5px;"></div>	
2	<p>Check this box if you are filing an update to a previously filed questionnaire.</p> <p><input type="checkbox"/></p> <p>(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)</p>	
3	<p>Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div> <div style="text-align: right; margin-top: 5px;"> <div style="border: 1px solid black; width: 15px; height: 15px; display: inline-block; text-align: center; line-height: 15px;">5</div> <div style="border: 1px solid black; width: 15px; height: 15px; display: inline-block; text-align: center; line-height: 15px;">6</div> </div>	
4	<p>Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.</p> <div style="border: 1px solid black; width: 100%; height: 60px; margin-top: 10px;"></div> <div style="text-align: right; margin-top: 5px;"> <div style="border: 1px solid black; width: 15px; height: 15px; display: inline-block; text-align: center; line-height: 15px;">5</div> <div style="border: 1px solid black; width: 15px; height: 15px; display: inline-block; text-align: center; line-height: 15px;">6</div> </div>	

CONFLICT OF INTEREST QUESTIONNAIRE For vendor or other person doing business with local governmental entity		Form CIQ Page 2
5	<p style="text-align: center;">Name of local government officer with whom filer has affiliation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)</p> <p>This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or other relationship. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>D. Describe each affiliation or business relationship.</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
	<p>6. Describe any other affiliation or business relationship that might cause conflict of interest:</p> <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
7	<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>
	Signature of person doing business with the governmental entity	Date
Signature not required if completing in BIDSYNC electronically.		

Bidder References

List the last (3) companies or governmental agencies, where the same or similar goods and/or services as contained in this IFB package, were recently provided by Bidder.

Reference 1

Client Name:	Location:
<input type="text"/>	<input type="text"/>

Contact Name:	Title:
<input type="text"/>	<input type="text"/>

Phone:	E-mail
<input type="text"/>	<input type="text"/>

Contract Date To:	Contract Date From:	Contract Value: \$
<input type="text"/>	<input type="text"/>	<input type="text"/>

Scope of Work:

Reference 2

Client Name:	Location:
<input type="text"/>	<input type="text"/>

Contact Name:	Title:
<input type="text"/>	<input type="text"/>

Phone:	E-mail
<input type="text"/>	<input type="text"/>

Contract Date To:	Contract Date From:	Contract Value: \$
<input type="text"/>	<input type="text"/>	<input type="text"/>

Scope of Work:

Reference 3

Client Name:

Location:

Contact Name:

Title:

Phone:

E-mail

Contract Date To:

Contract Date From:

Contract Value: \$

Scope of Work:

Question and Answers for Bid #1708-183 - FY 17 Cross Culvert Replacements

Overall Bid Questions

There are no questions associated with this bid.

Commissioners Court - Regular Session

53.

Meeting Date: 08/15/2017

Award of IFB 1706-169 Ronald Regan Blvd Milling and Overlay

Submitted For: Randy Barker

Submitted By: Will Hutchinson, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider, and take appropriate action on awarding IFB# 1706-169, for Ronald Regan BLVD Milling and Overlay to the lowest and best bidder, Lone Star Paving, and authorizing the execution of service agreement.

Background

6797 vendors were invited via BidSync notification, 35 vendors viewed the solicitation and 4 vendors submitted bids for this project. After thorough evaluation from Road and Bridge the department is recommending Lone Star Paving be awarded the contract with a budget of \$1,840,147.25.

Fiscal Impact

From/To	Acct No.	Description	Amount
---------	----------	-------------	--------

Attachments

[Award Recommendation Letter](#)

[Tabulation Report](#)

[Contract](#)

Form Review

Inbox

Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Will Hutchinson
Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
Wendy Coco

Date

08/10/2017 10:14 AM
08/10/2017 10:27 AM
Started On: 08/10/2017 09:23 AM



August 2, 2017

Mr. Randy Barker
Purchasing Agent
Williamson County Purchasing Department
901 S. Austin Ave.
Georgetown, Texas 78626

Subject: Recommendation for Ronald Reagan Blvd Overlay and Striping – IFB #1706-169

After reviewing all of the pertinent information, it appears that Lone Star Paving submitted the overall lowest and best offer for the 1706-169 project bid, Ronald Reagan Blvd Overlay and Striping.

I recommend to the Williamson County Commissioner's Court that they award Lone Star Paving the contract for the Ronald Reagan Blvd Overlay and Striping project.

Please feel free to contact me if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads 'J. Terron Evertson'. The signature is written in a cursive style with a large, looping initial 'J'.

J. Terron Evertson, P.E.
County Engineer

Bid #1706-169 - Ronald Reagan Blvd from RM 2338 to SH 195 - Milling and Overlay

Creation Date **Jun 28, 2017**

End Date **Jul 31, 2017 3:00:00 PM CDT**

Start Date **Jul 11, 2017 3:08:49 PM CDT**


Awarded Date **Not Yet Awarded**

1706-169-01-01 Total Bid Price					
Supplier	Unit Price	Qty/Unit	Total Price	Attch.	Docs
Lone Star Paving	First Offer - \$1,840,147.25	1 / each	\$1,840,147.25	Y	Y
Product Code: Agency Notes:		Supplier Product Code: Phase 1 \$848,767.40 Supplier Notes: Phase 1 - \$848,767.40 Phase 2 - \$991,379.85 Total - \$1,840,147.25			
Angel Brothers Enterprises, Ltd	First Offer - \$1,992,538.55	1 / each	\$1,992,538.55	Y	Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			
APAC Texas Inc./Wheeler	First Offer - \$2,110,788.63	1 / each	\$2,110,788.63	Y	Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			
Austin Materials	First Offer - \$2,221,615.18	1 / each	\$2,221,615.18		Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			

1706-169-01-02 Please attach all documents to this line					
Supplier	Unit Price	Qty/Unit	Total Price	Attch.	Docs
Angel Brothers Enterprises, Ltd	First Offer -	1 / each			Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			
APAC Texas Inc./Wheeler	First Offer -	1 / each			Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			
Lone Star Paving	First Offer -	1 / each		Y	Y
Product Code: Agency Notes:		Supplier Product Code: Phase 2 \$991,379.85 Supplier Notes: Phase 2 - \$991,379.85 Phase 1 - \$848,767.40 Total - \$1,840,147.25			
Austin Materials	First Offer -	1 / each		Y	Y
Product Code: Agency Notes:		Supplier Product Code: Supplier Notes:			

Supplier Totals

f Lone Star Paving		\$1,840,147.25	(2/2 items)
Bid Contact Ben Carroll ben@lspaving.com Ph 210-557-3676	Address 11675 jollyville rd austin, TX 78759		
Bid Bond (Status: The owner assigned contractor number from the bond does not match the supplier identifier.)			
Bid Notes Bid bond (STX17689866)does not upload from Surety 2000. Copy of the bid bond is attached with bid docs above.			
Agency Notes:	Supplier Notes:	Head Attch:	
	Bid bond (STX17689866)does not upload from Surety 2000.		

Copy of the bid bond is attached with bid docs above. 

f Angel Brothers Enterprises, Ltd			\$1,992,538.55	(2/2 items)
Bid Contact	Duane Gatlin duane@angelbrothers.com Ph 281-421-5721	Address	5210 West Road P.O. Box 570 Baytown, TX 77521	
Bid Bond	☐ (Status: Authorized on Jul 28, 2017)			
Agency Notes:		Supplier Notes:		Head Atch: 
f APAC Texas Inc./Wheeler			\$2,110,788.63	(2/2 items)
Bid Contact	David reese david.reese@apac.com Ph 512-633-5680	Address	1 Chisholm Trail Round Rock, TX 76513	
Bid Bond	☐ (Status: Authorized on Jul 30, 2017)			
Agency Notes:		Supplier Notes:		Head Atch: 
f Austin Materials			\$2,221,615.18	(2/2 items)
Bid Contact	Andrew Warner andrew.warner@austinmaterials.com Ph 512-251-3713 Fax 512-251-3709	Address	9020 N. Capital of Texas Hwy Bldg. II- Ste. 250 Austin, TX 78759	
Agency Notes:		Supplier Notes:		Head Atch: 

****** All bids/proposals submitted for the designated project are reflected on this tabulation sheet. However, the listing of the bid/proposal on this tabulation sheet shall not be construed as a comment on the responsiveness of such bid/proposal or as any indication that the agency accepts such bid/proposal as being responsive. The agency will make a determination as to the responsiveness of the vendor responses submitted based upon compliance with all applicable laws, purchasing guidelines and project documents, including but not limited to the project specifications and contract documents. The agency will notify the successful vendor upon award of the contract and, as according to the law, all bid/proposal responses received may be available for inspection at that time.



Agreement for Construction Services

This Agreement ("Agreement") between Williamson County, Texas, a political subdivision of the State of Texas ("Owner") Lone Star Paving ("Contractor") is entered into in accordance with the following terms and conditions:

ARTICLE 1 SCOPE OF WORK: The Owner desires to retain Contractor to provide the construction services described herein. The Contractor shall have the overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the following described construction services, or any phase of such services, in accordance with the Owner's requirements and the terms of this Agreement (hereinafter collectively referred to as the "Work"):

As described in the Solicitation IFB # 1706-169 RONALD REAGAN BLVD FROM RM 2338 TO SH 195 - MILLING AND OVERLAY; including the specifications set forth therein, which is incorporated herein as if copied in full.

ARTICLE 2 CONTRACT PRICE: Owner agrees to pay to the Contractor, for the satisfactory performance of the Work, the not-to-exceed amount of **One Million Eight Hundred Forty Thousand One Hundred Forty-Seven Dollars and Twenty-Five Cents (\$1,840,147.25)** in accordance with the terms and conditions of this Agreement.

ARTICLE 3 PLANS AND SPECIFICATIONS: The Work shall be performed pursuant to and in accordance with the following described plans and specifications, as well as any revisions made thereto:

As described in the Solicitation IFB # 1706-169, including the specifications set forth therein, which is incorporated herein as if copied in full.

Additional Work: Should Owner choose to add additional work, such additional work shall be described in a separate written amendment to this Agreement wherein the additional work shall be described and the parties shall set forth the amount of compensation to be paid by Owner for the additional work. Contractor shall not begin any additional work and Owner shall not be obligated to pay for any additional work unless a written amendment to this Agreement has been signed by both parties.

ARTICLE 4 SUBSTANTIAL AND FINAL COMPLETION:

4.1 Commencement of Work. Contractor shall commence the Work upon instruction to do so from the Owner and Construction shall be deemed to have commenced on the date of such instruction.

4.2 Substantial Completion. "Substantial Completion" means the stage in the progress of the Work when the Work, or designated portions thereof, may still require minor modifications or adjustments but, in the Owner's opinion, the Work has progressed to the point such that all parts of the Work under consideration are fully operational and usable for intended purposes, as evidenced by a Certificate of Substantial Completion approved by the Owner. If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify Owner's Designated Representative (sometimes referred to as the "ODR") and request a determination as to whether the Work or designated portion thereof is substantially complete. If the ODR does not consider the Work substantially complete, the ODR will notify the Contractor giving reasons therefore. Failure on the Owner's part to list a reason does not alter the responsibility of the Contractor to complete all Work in accordance with the terms of this Agreement. After satisfactorily completing items identified by Owner's Designated Representative, the Contractor shall then submit another request for the ODR to determine Substantial Completion. If The ODR considers the Work substantially complete, The ODR will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final completion and final payment, shall establish the time within which the Contractor shall finish the punch list, and shall establish responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the terms and conditions of this Agreement. The certificate of Substantial Completion shall be signed by the Owner and the Contractor to evidence acceptance of the responsibilities assigned to them in such certificate.

Substantial Completion (as defined in this agreement) for all stages of the Work shall be achieved on or before the following Substantial Completion date:

DATE FOR SUBSTANTIAL COMPLETION: TBD

Under no circumstances will the time for Substantial Completion exceed this date without a written amendment to this Agreement. **THE TIMES SET FORTH IN THE CONSTRUCTION DOCUMENTS ARE AN ESSENTIAL ELEMENT OF THE AGREEMENT. TIME LIMITS STATED IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT.**

4.3 Final Completion. The Work shall be fully and finally completed **on or before TBD**; provided, however, Owner may extend said time period in the event bad weather affects the progress of the Work. Owner shall, at its sole discretion, determine when the Work has been fully and finally completed to its satisfaction.

4.4 Liquidated Damages. For each consecutive calendar day after the date of Substantial Completion that the Work is not Substantially Complete, the Owner may deduct the amount of **Two Hundred Dollars per day (\$200/day)** from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion. The parties stipulate and agree that calculating Owner's actual damages for late completion of the Work would be impractical, unduly burdensome, and cause unnecessary delay and that the amount of daily liquidated damages set forth is reasonable.

ARTICLE 5 PAYMENT:

Contractor shall have a duty to submit to the ODR by the end of each month a statement showing the total value of the Work performed during such month. The statement shall also include the value of all sound materials delivered on the Work site and to be included in the Work and all partially completed Work, whether bid as a lump sum or a unit item, which in the opinion of the ODR is acceptable. The ODR shall examine and approve or modify and approve such statement. The Owner shall then pay the Contractor pursuant to Chapter 2251 of the Texas Government Code ("Texas Prompt Payment Act"), as set forth in Article 11.1 of this Agreement, the total amount of the approved statement less all previous payments and all further sums that may be retained by the Owner under the terms of this Agreement or under the law. **Statements are not considered "received" until reviewed by the ODR and an approved statement is submitted to the Williamson County Auditor's Office; therefore, Contractor must ensure timely delivery of statements for review and processing.**

At any time following the completion of all Work, including all punch list items, cleanup, and the delivery of record documents, the Contractor shall submit a certified application for final payment, including all sums held as retainage if any, to the ODR for its review and approval. Contractor shall submit, prior to or with the application for final payment, final copies of all close out documents, including maintenance and operating instructions, guarantees and warranties, certificates, and all other items required by this Agreement. Contractor shall also submit consent of surety to final payment, an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness connected with the Work, except as specifically noted, have been paid or will be paid or otherwise satisfied within the period of time required by Chapter 2251, Texas Government Code. Contractor shall furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims arising out of the Agreement. Owner is entitled to rely upon this affidavit and the Contractor may not submit a claim on behalf of a subcontractor or vendor if that claim has not been noted as an exception in the affidavit.

Owner may deduct from the final payment all sums due from Contractor for any reason, Liquidated Damages and all other deductions authorized by this Agreement.

Final payment shall constitute a waiver of all claims by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for final payment. Provided, however, that the Work shall not be deemed fully performed by the Contractor and closed until the expiration of all warranty periods.

ARTICLE 6 CONTRACTOR'S GENERAL RESPONSIBILITIES AND COVENANTS:

6.1 Contractor shall perform all services specifically allocated to it hereunder, as well as those services reasonably inferable and necessary for completion of the Work. The Contractor shall keep the Owner informed of the progress and quality of the Work. Contractor agrees and acknowledges that Owner is entering into this Agreement in reliance on Contractor's represented expertise and ability to provide the Work described in this Agreement. Contractor agrees to use its best efforts, skill, judgment, and abilities to perform its obligations in accordance with the highest standards used in the profession and to further the interests of Owner in accordance with Owner's requirements and procedures.

6.2 Contractor's duties as set forth herein shall at no time be in any way diminished by reason of any approval by the Owner nor shall the Contractor be released from any liability by reason of such approval by the Owner, it being understood that the Owner at all times is ultimately relying upon the Contractor's skill and knowledge in performing the services required hereunder.

6.3 Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.

6.4 Contractor shall be an independent contractor under this Agreement and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions in this agreement which may appear to give Owner the right to direct Contractor as to details of doing the Work herein covered or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the Work only. Owner shall not retain or have the right to control the Contractor's means, methods or details pertaining to the Contractor's performance of the Work described herein, nor shall Owner have the power to direct the order in which Contractor's Work is performed under this agreement. Owner and Contractor hereby agree and declare that Contractor is an Independent Contractor and as such meets the qualifications of an Independent Contractor under Texas Worker's Compensation Act, Texas Labor Code, Section 406.141, that the Contractor is not an employee of Owner for purposes of this Agreement, and that the Contractor and its employees, agents and sub-subcontractors shall not be entitled to worker's compensation coverage or any other type of insurance coverage held by Owner.

6.5 As part of Contractor obligation to coordinate the Work, Contractor shall:

- a. cooperate with the ODR and endeavor to further the interests of the Owner and the Work;
- b. provide an on-site, full-time superintendent for the duration of the Work;
- c. visit the Work site and inspect the existing facilities, systems and conditions to insure an accurate understanding of the existing conditions as required;
- d. at Owner's request, attend public meetings and hearings concerning the development of the Work;
- e. review all drawings, specifications, and other plans as they are developed by the Owner and/or its architect and advise Owner of any error, inconsistency or omission discovered in the drawings, specifications, and other plans;
- f. review the drawings, specifications, and other plans for compliance with all applicable laws and code requirements;
- g. advise Owner of any tests that should be performed;
- h. organize and maintain a competent, full-time staff at the Work site with clearly defined lines of authority and communication as necessary to coordinate construction activities, monitor and direct progress of the Work;
- i. attend Owner's regularly scheduled Work progress meetings and fully advise the ODR of the Work status including schedule, costs, quality and changes;
- j. assist Owner in obtaining building permits and obtain special permits for permanent improvements as required by law; and
- k. shall coordinate, monitor and inspect the Work of subcontractors to ensure conformance with the drawings, specifications, other plans and with the terms of this Agreement.

6.6 Contractor shall identify every subcontractor it intends to use for the Work to the Owner in writing at least ten (10) days before entering into any subcontract. Contractor shall not use any subcontractor to which Owner has a reasonable objection. If Owner does not object to a particular subcontractor with said ten (10) days, such subcontract may be considered acceptable to Owner. Following Owner's acceptance of a subcontractor, that subcontractor shall not be changed without Owner's written consent, which shall not be unreasonably withheld.

6.7 Contractor's designated representative, which is set forth below Contractor's signature herein below, shall be responsible for the day-to-day management of the Work on behalf of Contractor. The designated representative shall be the Owner's primary contact during the Work and shall be available as required for the benefit of the Work and the Owner. The contractor's designated representative shall be authorized to act on behalf of and bind the Contractor in all matters related to the Work including, but not limited to, execution of Change Orders.

6.8 NO ALTERATIONS OR CHANGES SHALL BE MADE, HOWEVER, EXCEPT UPON THE WRITTEN ORDER OF THE OWNER, OR THE ODR.

6.9 Contractor shall promptly correct any defective Work at Contractor's sole expense, unless the Owner specifically agrees, in writing, to accept the Work.

6.10 Contractor shall maintain and deliver the close out documents that describe changes or deviations from the original drawings, specifications and plans that occurred during construction and that reflect the actual "As Built" conditions of the completed Work.

COMMISSIONING AND WARRANTY RESPONSIBILITIES

6.11 Contractor shall provide commissioning, starting and check-out services for the systems installed as a part of the Work prior to completion and acceptance. Operation manuals and instructions will be provided to the Owner, the systems will be demonstrated and training provided to Williamson County's operators upon completion and prior to acceptance.

6.12 Contractor hereby warrants that the materials and equipment provided for the Work will be of good quality and new unless otherwise required or permitted by the Owner; that the construction will be free from faults and defects; and that the construction will conform with the requirements of the plans, specifications, drawings and the terms of this Agreement.

6.13 Contractor shall provide warranty services for the Work for a full **12 months** (30 months for Work involving mechanical services, if any) following Final Completion and final payment. Just before the warranty period expires, Contractor shall attend an on-site meeting with the Owner to ensure that all warranty issues have been identified and properly remedied.

ARTICLE 7 OWNER'S RESPONSIBILITIES

7.1 The Owner shall:

- a. provide the general schedule for the Work provided Owner is of the opinion such schedule is necessary. The general schedule will set forth the Owner's plan for milestone dates and completion of the Work;
- b. identify a person as its ODR who is authorized to act in the Owner's behalf with respect to the Work. The ODR shall examine the documents submitted by the Contractor and shall render decisions on behalf of the Owner to the extent allowed by Texas law;

- c. at Owner's cost, will secure the services of surveyors, soils engineers, existing facility surveys, testing and balancing, environmental surveys or other special consultants to develop such additional information as may be necessary for the design or construction of the Work;
- d. furnish required information and services and shall render approvals and decisions as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Contractor's services and of the Work;
- e. shall have the right to reject any defective Work. Should Contractor refuse or neglect to correct any such Work within a reasonable time after notice, Owner may have the Work corrected and recover all expenses incurred from Contractor on demand; and
- f. Owner shall furnish to the Contractor a sufficient number of plans, drawings and specifications sets.

ARTICLE 8 INSURANCE AND INDEMNITY

8.1 Insurance. The Contractor shall carry insurance in the types and amounts indicated below for the duration of the Agreement, which shall include items owned by Owner in the care, custody and control of Contractor prior to and during construction. Contractor must also complete and file the declaration pages from the insurance policies with Owner whenever a previously identified policy period expires during the term of the Agreement, as proof of continuing coverage. Contractor shall update all expired policies prior to submission of any payment requests hereunder. Failure to update policies shall be reason for payment to be withheld until evidence for renewal is provided to the Owner.

8.1.1 The Contractor shall provide and maintain, until the Work covered in this Agreement is completed and accepted by the Owner, the minimum insurance coverage in the minimum amounts as described below. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company or otherwise acceptable to Owner.

Type of Coverage	Limits of Liability	
a. Worker's Compensation	Statutory	
b. Employer's Liability		
Bodily Injury by Accident	\$1,000,000 Ea. Accident	
Bodily Injury by Disease	\$1,000,000 Ea. Employee	
Bodily Injury by Disease	\$1,000,000 Policy Limit	
c. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:		
COVERAGE	PER PERSON	PER OCCURRENCE
Comprehensive General Liability <i>(including premises, completed operations and contractual)</i>	\$ 2,000,000	\$ 2,000,000
Aggregate policy limits:	\$2,000,000	

- d. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):

COVERAGE	PER PERSON	PER OCCURRENCE
Bodily injury (including death)	\$2,000,000	\$2,000,000
Property damage	\$2,000,000	\$2,000,000
Aggregate policy limits	No aggregate limit	

- e. Builder's Risk Insurance
(*all risks*)

An all risks policy shall be in the amount equal at all times to 100% of the Contract Sum. The policy shall include coverage for loss or damage caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act. The policy shall be issued in the name of the Contractor and shall name his Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

1. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.
2. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions., in this Agreement. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

- f. Umbrella coverage in the amount of not less than \$2,000,000.

8.1.2 The above insurance requirements are not intended to be compounded with the Contractor's standing insurance policies. If the Contractor already has in force insurance policies which provide the required coverage, there is no need to purchase duplicate coverage for this Work.

8.1.3 Policies must include the following clauses, as applicable.

- a. "This insurance shall not be canceled, limited in scope or coverage, or non-renewed until after thirty (30) days prior written notice, or ten (10) days for non-payment of premium, has been given to Williamson County."
- b. "It is agreed that the Contractor's insurance shall be deemed primary with respect to any insurance or self insurance carried by Williamson County for liability arising out of operations under the Agreement with Williamson County."
- c. "Williamson County, its officials, directors, employees, representatives, and volunteers are added as additional insured as respects operations and activities of, or on behalf of the named insured performed under Agreement with the Owner." This is not applicable to the workers' compensation policy.
- d. "The workers' compensation and employers' liability policy will provide a waiver of subrogation in favor of Williamson County."

8.1.4 Workers' Compensation Insurance Coverage:

In the event that Contractor employs any individual to perform any portion of the Work, Contractor shall comply with Texas Labor Code, §406.096, which requires workers' compensation insurance coverage for all employees providing services on a building or construction project for a governmental entity.

a. Definitions:

(1) Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the Duration of the Work.

(2) Duration of the Work - includes the time from the beginning of the Work until the Work has been completed and accepted by the Owner.

(3) Coverage - Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).

(4) Persons providing services relating to the Work ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform the Work, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services in relation to the Work. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Work, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

b. The Contractor shall provide Coverage, based on proper reporting of classification codes and payroll amounts and filing of any Coverage agreements, which meets the statutory requirements of Texas labor Code, §401.011(44) for all employees of the Contractor providing services in relation to the Work, for the Duration of the Work.

c. The Contractor must provide a Certificate of Coverage to the Owner prior to or contemporaneously with the execution of this Agreement.

- d. If the Coverage period shown on the Contractor's current Certificate of Coverage ends during the Duration of the Work, the Contractor must, prior to the end of the Coverage period, file a new Certificate of Coverage with the Owner showing that Coverage has been extended.
- e. The Contractor shall obtain from each person providing services in relation to the Work, and provide to the Owner:
 - (1) a Certificate of Coverage, prior to that person beginning any of the Work, so the Owner will have on file Certificates of Coverage showing Coverage for all persons providing services in relation to the Work; and
 - (2) no later than seven days after receipt by the Contractor, a new Certificate of Coverage showing extension of Coverage, if the Coverage period shown on the current Certificate of Coverage ends during the Duration of the Work.
- f. The Contractor shall retain all required Certificates of Coverage for the Duration of the Work and for one year thereafter.
- g. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of Coverage of any person providing services in relation to the Work.
- h. The Contractor shall post on the Work site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services in relation to the Work that they are required to be covered, and stating how a person may verify Coverage and report lack of Coverage.
- i. By signing this Agreement or providing or causing to be provided a Certificate of Coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services in relation to the Work and all persons providing services in relation to the Work will be covered by workers' compensation coverage for the Duration of the Work, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- j. The Contractor's failure to comply with any of these provisions is a breach of Agreement by the Contractor which entitles the Owner to declare the Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.5 The furnishing of the above listed insurance coverage must be tendered prior to execution of the Agreement, and in no event later than ten (10) calendar days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

8.1.6 The Contractor shall not cause or allow any of its required insurance to be canceled, nor permit any insurance to lapse during the term of the Agreement or as required in the Agreement. If the Contractor fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.1.7 The Owner reserves the right to review the insurance requirements set forth in this Article during the effective period of the Agreement and to make reasonable adjustments to the insurance coverage and their limits when deemed necessary and prudent by the Owner based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Contractor.

8.1.8 The Owner shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such policies. Damages caused by the Contractor and not covered by insurance shall be paid by the Contractor.

8.1.9 Contractor shall be responsible for payment of premiums for all of the insurance coverages required under this Agreement. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. **Any deductibles or self-insured retentions over \$50,000 in the Contractor's insurance must be declared and approved in writing by Owner in advance.**

8.1.10 The Contractor shall contractually require each person or entity with whom it contracts to provide services in relation to the Work, to comply with each and every insurance requirement that Contractor must comply with hereunder. More specifically, each person or entity with whom Contractor contracts to provide services on the in relation to the Work must comply with each insurance requirement under this Article 8 just as if such person or entity was the Contractor. Thus, every reference to Contractor under each insurance requirement of this Article 8 shall mean and include each person or entity with whom Contractor contracts to provide services in relation to the Work. If any such person or entity with whom Contractor contracts to provide services in relation to the Work fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

8.2 INDEMNITY.

8.2.1 INDEMNIFICATION - EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") AND SHALL ASSUME ENTIRE RESPONSIBILITY AND LIABILITY (OTHER THAN AS A RESULT OF INDEMNITEES' GROSS NEGLIGENCE) FOR ANY CLAIM OR ACTION BASED ON OR ARISING OUT OF THE PERSONAL INJURY, OR DEATH, OF ANY EMPLOYEE OF THE CONTRACTOR, OR OF ANY SUBCONTRACTOR, OR OF ANY OTHER ENTITY FOR WHOSE ACTS THEY MAY BE LIABLE, WHICH OCCURRED OR WAS ALLEGED TO HAVE OCCURRED ON THE WORK SITE OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK. CONTRACTOR HEREBY INDEMNIFIES THE INDEMNITEES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE SOLE, COMPARATIVE OR CONCURRENT NEGLIGENCE OF THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

8.2.2 INDEMNIFICATION - OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS AGREEMENT OR THE WORK DESCRIBED HEREIN, TO THE EXTENT CAUSED BY THE NEGLIGENCE, ACTS, ERRORS, OR OMISSIONS OF CONTRACTOR OR ITS SUBCONTRACTORS, ANYONE EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY A PARTY INDEMNIFIED HEREUNDER.

8.3 Except for the obligation of Owner to pay Contractor the Contract Price pursuant to the terms of this Agreement, and to perform certain other obligations pursuant to the terms and conditions explicitly set forth herein, Owner shall have no liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement. Notwithstanding any obligation or liability of Owner to Contractor, no present or future partner or affiliate of Owner or any agent, officer, director, or employee of Owner, Williamson County, or of the various departments comprising Williamson County, or anyone claiming under Owner has or shall have any personal liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement.

ARTICLE 9 BONDS

9.1 Performance Bond. Upon execution of this Agreement, Contractor shall provide a Performance Bond in the amount of 100% of the Contract Price. The surety for a Performance Bond shall meet the requirements of Texas law.

9.2 Payment Bond. Upon execution of this Agreement, Contractor shall provide a Payment Bond in the amount of 100% of the Contract Price, as security for the true and faithful payment in full of all subcontractors and persons performing labor, services, materials, machinery, and fixtures in connection with the Work. The surety for a Payment Bond shall meet the requirements of Texas law.

9.3 Warranty Bond. Upon execution of this Agreement, Contractor shall provide a Warranty Bond in the amount of 20% of the Contract Price, as security for the true and faithful performance of all warranties set forth in Bid Documents and this Agreement.

ARTICLE 10 TERMINATION

10.1 Termination for Cause. If either party commits an Event of Breach (a breach of any of the covenants, terms and/or conditions of this Agreement), the non-breaching party shall deliver written notice of such Event of Breach to the breaching party. Such notice must specify the nature of the Event of Breach and inform the breaching party that unless the Event of Breach is cured within three (3) business days of receipt of the notice, additional steps may be taken to terminate this Agreement. If the breaching party begins a good faith attempt to cure the Event of Breach within three (3) business days, then and in that instance, the three (3) business day period may be extended by the non-breaching party, so long as the breaching party continues to prosecute a cure diligently to completion and continues to make a good faith attempt to cure the Event of Breach. If, in the opinion of the non-breaching party, the breaching party does not cure the breach within three (3) business days or otherwise fails to make any diligent attempt to correct the Event of Breach, the breaching party shall be deemed to be in breach and the non-breaching party may, in addition to seeking the remedies available hereunder and under the law, terminate this Agreement.

10.2 Termination for Convenience. The Owner may terminate this Agreement for convenience and without cause or further liability upon thirty (30) days written notice to Contractor. In the event of such termination, it is understood and agreed that only the amounts due to Contractor for goods, commodities and/or services provided and expenses incurred to and including the date of termination, will be due and payable. No penalty will be assessed for Owner's termination of this Agreement for convenience.

ARTICLE 11 MISCELLANEOUS PROVISIONS

11.1 Interest and Late Payments. Except as otherwise specifically set forth herein, Owner's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Interest charges for any overdue payments shall be paid by Owner in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Owner's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice/application for payment submitted by Contractor, Owner shall notify Contractor of the error not later than the twenty first (21st) day after the date Owner receives the invoice/application for payment. If the error is resolved in favor of Contractor, Contractor shall be entitled to receive interest on the unpaid balance of the invoice/application for payment submitted by Contractor beginning on the date that the payment for the invoice/application for payment became overdue. If the error is resolved in favor of the Owner, Contractor shall submit a corrected invoice/application for payment that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice/application for payment is not paid by the appropriate date.

11.2 Assignment; Successors and Assigns. This Agreement is a personal service contract for the services of Contractor, and Contractor's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party. This Agreement shall be binding upon and inure to the benefit of parties hereto and their respective successors and assigns.

11.3 Captions. The captions of paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

11.4 Governing Law and Venue. This Agreement and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. Williamson County where the Work site is located shall be the sole place of venue for any legal action arising from or related to this Agreement or the project in which the Owner is a party.

11.5 Waivers. No delay or omission by either party in exercising any right or power arising from non-compliance or failure of performance by the other party with any of the provisions of this Agreement shall impair or constitute a waiver of any such right or power. A waiver by either party of any covenant or condition of this Agreement shall not be construed as a waiver of any subsequent breach of that or of any other covenant or condition of the Agreement.

11.6 Interpretation. In the event of any dispute over the meaning or application of any provision of the Contract Documents, the Contract Documents shall be interpreted fairly and reasonably, and neither more strongly for or against any party, regardless of the actual drafter of the Contract Documents.

11.7 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

11.8 Appointment. Owner hereby expressly reserves the right from time to time to designate by notice to Contractor a representative(s) to act partially or wholly for Owner in connection with the performance of Owner's obligations. Contractor shall act only upon instructions from the designated representative(s) unless otherwise specifically notified to the contrary.

11.9 Audits. Contractor agrees that Owner or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Contractor which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Contractor agrees that Owner shall have access during normal working hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Owner shall give Contractor reasonable advance notice of intended audits.

11.10 Severability. Should any term or provision of this Agreement be held invalid or unenforceable in any respect, the remaining terms and provisions shall not be affected and this Agreement shall be construed as if the invalid or unenforceable term or provision had never been included.

11.11 No Waiver of Immunities. Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Owner, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Owner does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

11.12 Current Revenues. Under Texas law, a contract with a governmental entity that contains a claim against future revenues is void; therefore, each party paying for the performance of governmental functions or services must make those payments from current revenues available to the paying party.

11.13 Compliance with Laws. Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, Contractor shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

11.14 Sales and Use Tax Exemption. Owner is a body corporate and politic under the laws of the State of Texas and claims exemption from sales and use taxes under Texas Tax Code Ann. § 151.309, as amended.

11.15 Texas Public Information Act. To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 *et seq.*, as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Owner, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any information or data furnished to Owner whether or not the same are available to the public. It is further understood that Owner, its officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Owner, its officers and employees shall have no liability or obligation to Contractor for the disclosure to the public, or to any person or persons, of any software or a part thereof, or other items or data furnished to Owner by Contractor in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

11.16 Force Majeure. If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance of this Agreement. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.

11.17 Equal Opportunity in Employment. The parties to this Agreement agree that during the performance of the services under this Agreement they will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The parties to this Agreement will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship.

11.18 Reports of Accidents. Within 24 hours after Contractor becomes aware of the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Contractor), whether or not it results from or involves any action or failure to act by the Contractor or any employee or agent of the Contractor and which arises in any manner from the performance of this Agreement, the Contractor shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts pertaining thereto. The Contractor shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Contractor, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Contractor's performance of work under this Agreement.

11.19 Relationship of the Parties. Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

11.20 Appropriation of Funds by Owner. Owner believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Agreement. Contractor understands and agrees that the Owner's payment of amounts under this Agreement is contingent on the Owner receiving appropriations or other expenditure authority sufficient to allow the Owner, in the exercise of reasonable administrative discretion, to continue to make payments under this Agreement.

11.21 Execution in Counterparts. This Agreement may be executed in counterparts, each of which, when executed and delivered, shall be deemed to be an original and all of which together shall constitute one and the same document.

11.22 Entire Agreement. This Agreement represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either oral or written. This Agreement may be amended only by written instrument signed by each party to this Agreement. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE OWNER HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIED, TO AMEND THIS AGREEMENT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE WILLIAMSON COUNTY COMMISSIONERS COURT.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution hereof (Effective Date).

OWNER:

WILLIAMSON COUNTY, TEXAS,
a political subdivision of the state of Texas

By: _____

Printed Name: _____

Title: _____

Date: _____

Party Representatives

Owner's Designated Representative ("ODR"):

Phone _____

Fax _____

CONTRACTOR:

By: B. Carroll

Printed Name: BEN CARROLL

Title: VICE PRESIDENT

Date: AUG 9, 2017

Contractor's Designated Representative:

BEN CARROLL
LONE STAR PAVING
11675 JOLLYVILLE RD, SUITE 150
AUSTIN, TX 78759

Phone _____
Fax 512-428-5778

Commissioners Court - Regular Session

54.

Meeting Date: 08/15/2017

First Southwest Asset Management, LLC

Submitted For: Randy Barker

Submitted By: Dianne West, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on authorizing the extension of Investment Advisory Services Contract, for the same pricing, terms and conditions as the existing Contract for a two year term covering 8 September 2017 - 7 September 2019, with First Southwest Asset Management, LLC.

Background

This contract has two year renewal period terms with First Southwest Asset Management, LLC for investment advisory services as defined in original agreement.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Renewal 2015 for First Southwest Asset Management, LLC

Renewal 2017 First Southwest Asset Management, LLC

First Southwest Agreement

Form Review

Inbox

Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Dianne West
Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
Wendy Coco

Date

08/10/2017 10:18 AM
08/10/2017 10:27 AM
Started On: 08/10/2017 09:43 AM

**RENEWAL AGREEMENT FOR
INVESTMENT ADVISORY SERVICES BY AND BETWEEN
WILLIAMSON COUNTY, TEXAS
AND
FIRST SOUTHWEST ASSET MANAGEMENT, LLC.**

This Renewal Investment Advisory Agreement (the "Agreement") is made by and between Williamson County (the "Investor") and First Southwest Asset Management, Inc. ("FSAM"). This agreement shall be effective as of the date of its acceptance by the Investor, as indicated below.

1. This Agreement renews and extend the current Investment Advisory Agreement ("IA Agreement"), executed by Investor and FSAM.
2. The term of the IA Agreement is hereby extended for a period of two (2) years from the date hereof. As consideration for the services provided by FSAM under this Agreement, FSAM will be entitled to a fee, which Investor agrees to pay, determined in accordance with Appendix A of this Renewal Agreement.
3. All written communication to the Investor shall be sent to the Investor's address set forth below or as directed in writing to FSAM by the Investor. Any written communication from the Investor to FSAM under this Agreement must be in written form and mailed or delivered to:

First Southwest Asset Management, LLC.
300 West Sixth Street, Suite 1940
Austin, Texas 78701
Attention: Mr. Scott McIntyre
Fax Number: (512) 481-2020

Any notice, statement, or other communication mailed to the other party to this Agreement in accordance with this section will be deemed to be given upon that party's actual receipt of such notice, statement, or other communication.

2. All other terms, provisions, conditions and obligations of the IA Agreement between Investor and FSAM shall remain in full force and effect. The IA Agreement, including any amendments and this Agreement shall be construed together as a single contractual agreement.

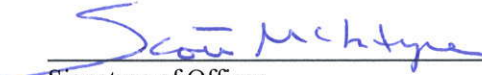
Executed this 8 day of September, 2015

WILLIAMSON COUNTY, TEXAS

FIRST SOUTHWEST ASSET MANAGEMENT, LLC



Signature of Investor



Signature of Officer

DAN A GATT

Print Name

SCOTT MCINTYRE

Print Name

County Judge

Capacity of Signatory

Senior Vice President

Capacity of Signatory

Address

Fax Number

APPENDIX A

FEE SCHEDULE AND EXPENSE ITEMS

In consideration for the services rendered by First Southwest Asset Management, LLC. ("FSAM") in connection with the investment of the Portfolio for the Investor, it is understood and agreed that its fee will be at fixed quarterly rate of \$10,000.

Approximately thirty (30) days following the conclusion of each calendar quarter, FSAM shall provide Investor with an invoice that adequately sets forth the fees claimed to be due to FSAM for the prior calendar quarter. Said fee includes all costs of services related to the investment services provided under this Agreement. Any other fees earned by FSAM relating to Investor transactions, shall be described in advance of any transaction and fully disclosed to the Investor. Investor's payment for services shall be governed by Chapter 2251 of the Texas Government Code.

Fee Calculation for Investment of Bond Proceeds into Flexible Repurchase Agreements ("Flex Repos") and Guaranteed Investment Contracts ("GIC's"): In the event that specific bond proceeds are invested by FSAM *as per Investor instruction* into either a Flex Repo or GIC, FSAM shall be entitled to the lesser of \$39,000 or 0.2 percent (0.002) of the aggregate amount reasonably expected as of the issue date to be deposited over the term of the contract. This *fully disclosed fee* would be paid to FSAM **by the winning bidder** and not the Investor.

**RENEWAL AGREEMENT FOR
INVESTMENT ADVISORY SERVICES BY AND BETWEEN
WILLIAMSON COUNTY, TEXAS
AND
FIRST SOUTHWEST ASSET MANAGEMENT, LLC**

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First Southwest Asset Management, LLC
300 West Sixth Street, Suite 1940
Austin, Texas 78701
Attention: Mr. Scott McIntyre
Fax Number: (512) 481-2020

Any notice, statement, or other communication mailed to the other party to this Agreement in accordance with this section will be deemed to be given upon that party's actual receipt of such notice, statement, or other communication.

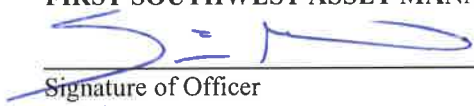
2. All other terms, provisions, conditions and obligations of the IA Agreement between Investor and FSAM shall remain in full force and effect. The IA Agreement, including any amendments and this Agreement shall be construed together as a single contractual agreement.

Executed this ____ day of _____, 2017

WILLIAMSON COUNTY, TEXAS

FIRST SOUTHWEST ASSET MANAGEMENT, LLC

Signature of Investor




Signature of Officer

Print Name



Print Name

Capacity of Signatory



Capacity of Signatory

Address

Fax Number

APPENDIX A

FEE SCHEDULE AND EXPENSE ITEMS

In consideration for the services rendered by First Southwest Asset Management, LLC ("FSAM") in connection with the investment of the Portfolio for the Investor, it is understood and agreed that its fee will be at fixed quarterly rate of \$10,000.

Approximately thirty (30) days following the conclusion of each calendar quarter, FSAM shall provide Investor with an invoice that adequately sets forth the fees claimed to be due to FSAM for the prior calendar quarter. Said fee includes all costs of services related to the investment services provided under this Agreement. Any other fees earned by FSAM relating to Investor transactions, shall be described in advance of any transaction and fully disclosed to the Investor. Investor's payment for services shall be governed by Chapter 2251 of the Texas Government Code.

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**AGREEMENT
FOR
INVESTMENT ADVISORY SERVICES
BY AND BETWEEN
WILLIAMSON COUNTY TEXAS
AND
FIRSTSOUTHWEST ASSET MANAGEMENT, INC.**

This Investment Advisory Agreement (the “**Agreement**”) is made by and between Williamson County, Texas (the “**Investor**”) and First Southwest Asset Management, Inc. (“**FSAM**”). This agreement shall be effective as of the date of the last party’s execution hereof as indicated on the signature page below.

I. Terms and Conditions

This Agreement sets forth the terms and conditions governing the relationship of the Investor to FSAM with respect to securities and money which the Investor holds, from time to time, and which are available for investment or reinvestment (the “**Portfolio**”). This Agreement shall apply to any and all investable funds and securities in the Investor’s Portfolio during the period in which this Agreement shall be in effect.

II. Investment Advisory Services

- A. **Services.** With respect to the Portfolio, FSAM will endeavor to provide investment advisory services and cause to be executed such trades as determined in accordance with Section II.B below. FSAM agrees to provide professional services and its facilities and to direct and coordinate all programs of investing as may be considered and authorized by the Investor and to assume and pay those expenses incurred by FSAM in connection with the execution of investment decisions. Specifically, FSAM agrees to perform the following duties:
1. Review the Investor’s cash flow projections;
 2. Recommend appropriate investment strategies based upon cash flow requirements;
 3. Advise the Investor on current market conditions and other general information;
 4. Analyze risk/return relationships between various investment alternatives;
 5. Attend meetings of the governing body of the Investor, its staff, representatives, or committees as requested by the Investor, when the subject of investments is to be discussed;
 6. Assist in the selection of investment securities and, as directed by the Investor, cause the transactions to be executed;
 7. Advise on the investment of the Portfolio in a manner consistent with the Investment Policy, the proceedings of the Investor authorizing the investment of the bond funds and applicable state and federal rules and regulations;
 8. Promptly send (or cause to be sent) trade confirmations to the Investor; and
 9. Assist the Investor in creating quarterly investment reports as required by written investment policy, stated procedures and/or state law.
- B. **Scope of Investment Decisions.** In performing the services listed in Section II.A above, FSAM shall not have discretionary authority and, accordingly, shall obtain approval from the Investor for the purchase or sale of securities prior to execution. The Investor hereby represents and acknowledges that its written investment policy and investment strategy includes its investment

objectives and all portfolio limitations and restrictions, including, without limitation, acceptable levels of investment risk. The Investor also agrees to notify FSAM in writing ten business days in advance of the implementation of any changes in the Investor's investment objectives, investment limitations, and/or financial condition. Furthermore, the Investor will give FSAM immediate verbal notice and written notice within five days of receipt of any trade confirmations should the Investor believe that any investment in the Portfolio violates the Investor's investment objectives or limitations.

- C. **Standard of Care.** In the administration of its duties, FSAM shall exercise the judgment and care, under prevailing circumstances, that a prudent person would exercise in the management of the person's own affairs, not for speculation, but for investment, considering, with regard to the entire Portfolio rather than any particular investment or security, the probable safety of capital and the probable income to be derived.
- D. **Settlement of Securities.** The purchase of individual securities shall be executed "delivery versus payment" (DVP) through the Investor's safekeeping agent. By so doing, Investor's funds will be released when and if the Investor has received, through the safekeeping agent, the designated securities purchased.
- E. **Return on the Portfolio.** The Investor expressly affirms and acknowledges that FSAM has not promised or guaranteed any stated or specified return on, or performance of, the Investor's investment portfolio.

III. Representations

- A. FSAM represents that it is registered as an investment advisor under the Investment Advisers Act of 1940 (the "**Advisers Act**") and is authorized and empowered to enter into this Agreement.
- B. The Investor represents and confirms that (1) the Investor has full power and authority to enter into this agreement; (2) the terms hereof do not violate any obligation by which the Investor is bound, whether arising by contract, operation of law, or otherwise; and (3) this Agreement has been duly authorized and will be binding on Investor according to its terms.
- C. The Investor agrees to:
 - 1. Provide FSAM with the schedule of estimated cash flow requirements related to the Portfolio, and promptly notify FSAM as to any changes in such estimated cash flow schedule;
 - 2. Provide FSAM, not less than monthly, with all relevant custodian, safekeeping and bank statements relating to all of the Portfolio; and
 - 3. Allow FSAM to rely upon all information regarding schedules or other information pertaining to the Portfolio as provided to it by the Investor as being true and accurate. FSAM shall have no responsibility to verify, through audit or investigation, the accuracy or completeness of such information and FSAM will not undertake to authenticate any such information.
- D. The Investor recognizes that there may be loss or depreciation of the current liquidation, immediate and ongoing value of any investment due to the fluctuation of market values. The Investor represents that no party to this Agreement has made any guarantee, either oral or written, that the Investor's investment objectives will be achieved. FSAM shall not be liable for any error in judgment and/or for any investment losses in the Portfolio in the absence of willful malfeasance, gross negligence, or violation of applicable law. Nothing in this Agreement shall constitute a waiver or limitation of any rights that the Investor may have under applicable state or federal law including without limitation, the state and federal securities laws.

- E. Investor represents and acknowledges that Investor has reviewed and understands the risk factors and fees associated with the Portfolio.

IV. Fees and Costs of FSAM

As consideration for the services provided by FSAM under this Agreement, FSAM will be entitled to a fee (the “**Advisor Fee**”) determined in accordance with the schedule set forth in the fee schedule (“**Schedule A**”), a copy of which is attached hereto, is incorporated herein for all purposes and is being delivered to the Investor simultaneously with the execution, and as an integral part, of this Agreement. The obligation of FSAM to pay or incur expenses shall not include any costs incident to litigation, mandamus action, regulatory investigation, test case or other similar legal actions.

V. Reporting and Account Statements

FSAM will deliver or cause to be delivered to the Investor confirmation of transactions and/or periodic statements for the Portfolio as set forth in this Agreement. FSAM will also provide the Investor with an annual valuation of the Investor’s Portfolio and any additional statements that may be required by applicable law, including the reporting provisions of the Public Funds Investment Act, or other applicable state law, with respect to transactions effected under this Agreement.

VI. Other Services

The investment advisory services provided hereunder by FSAM to the Investor are exclusive of any other services that FSAM may provide to the Investor.

VII. Execution of Investment Transactions

- A. **Affiliated Broker.** FSAM is affiliated through common ownership and control with First Southwest Company (“**FSC**”), a registered broker/dealer with the National Association of Securities Dealers, Inc. (“**NASD**”), the U.S. Securities and Exchange Commission (“**SEC**”), and various state and territorial regulatory authorities. Investor hereby authorizes FSAM to effect transactions for the Portfolio by execution through FSC. Where transactions are effected through FSC, FSC may act on an agency or principal basis to the extent permitted by law. Pursuant to Rule 206(3) of the Advisers Act, FSAM will obtain the Investor’s consent on each investment transaction to allow FSC to act as a principal in acquiring a security to facilitate a trade. Fees for advisory services will be billed separately in accordance with the terms of this Agreement.
- B. **Bundling of Investment Transactions.** Transactions for each Investor account generally will be effected independently unless FSAM decides to purchase or sell the same securities for several Investors at approximately the same time. FSAM may (but is not obligated to) combine or “batch” such orders to obtain best execution. Under this procedure, transactions will be averaged as to price and will be allocated among FSAM’s investors included in the “batch” group in proportion to the purchase and sale orders placed for each Investor in batch transactions.

VIII. Selection of Brokers

The Investor agrees that when FSAM effects or places orders for the execution of transactions for the Portfolio (other than situations where the Investor specifically instructs otherwise in writing), FSAM may allocate such transactions to such brokers and dealers for execution on such markets, at such prices as in the judgment of FSAM will be in the best interests of the Investor, taking into consideration, in the selection of such brokers and dealers, the available prices and rates of brokerage commissions and other relevant factors, without having to demonstrate that such factors are of a direct benefit to the Investor. Subject to the foregoing, FSAM will arrange for the execution of securities transactions for the Portfolio through brokers or dealers that FSAM reasonably believes will provide best execution.

IX. Non-Exclusive Relationship

- A. The Investor hereby acknowledges that FSAM's services under this Agreement are nonexclusive, and that FSAM shall be free to render the same or similar services to other Investors. The Investor further acknowledges that FSAM's advice is specific to each individual Investor's investment objectives, limitations and financial condition. Therefore FSAM, in the performance of its investment advisory duties, may give advice to, and take action on behalf of, other Investors that may differ from the advice given, or the timing and nature of the action taken, with respect to the Investor's Portfolio. Nothing in this Agreement shall be deemed to impose upon FSAM any obligation to purchase or sell, or to recommend for purchase or sale for the Investor's Portfolio, any security that FSAM or its affiliates may purchase or sell, for their own account or for the accounts of any other Investor if, at the sole discretion of FSAM, it is for any reason undesirable or impractical to take such action or make such recommendation for the Investor's Portfolio. The Investor also acknowledges that FSAM has varying fee structures and arrangements with other investors and may charge their investors different fees, which may be higher or lower than the fees charged with respect to the Investor's Portfolio for similar services.
- B. FSAM agrees and acknowledges that it shall not be considered a sole provider of the types of services described herein and that Investor may contract with other providers of such services if Investor deems, at its sole discretion, that multiple providers of the same services will serve the best interest of Investor.

X. Instructions from the Investor

FSAM may rely on all instructions (whether oral or written) given by the Investor or its agents that FSAM believes to be genuine. FSAM's records of such a transaction will be conclusive as to the content of any instruction. Instructions may be given to FSAM by any officer or agent authorized by (1) the investment policy; (2) a duly executed "Authorization to Trade Public Funds" form provided by FSAM; or (3) a resolution of the governing body of Investor. FSAM may rely on such authorization until written notice to the contrary is delivered to FSAM by the Investor; and if the Investor does not deliver appropriate authorizing documentation, FSAM may accept instructions from any person reasonably believed by FSAM to be an officer of the Investor. To the extent permitted by law, the Investor agrees to hold harmless, and to indemnify and defend, FSAM, as well as any of its officers, directors, shareholders, affiliates, general partners, employees, agents, and trustees, against any and all losses sustained by FSAM resulting from or by reason of any and all claims, liabilities, losses, damages, charges, costs, fees, and expenses (including, without limitation, attorneys fees and costs, including fees of attorneys who may be FSAM employees or employees of FSAM's affiliates) arising out of or in connection with any action taken in reliance upon any instruction or inquiry believed genuine.

XI. Transactions Subject to Industry Regulations and Standards

All transactions shall be subject to the regulations of all applicable government authorities and self-regulatory agencies including, but not limited to, the constitutions and rules of the clearing agent, exchange, or market where executed. The Investor understands that FSAM is registered as an investment advisor under the Advisers Act, and as such is obligated to comply with all applicable laws and regulations, including those of the SEC and other regulatory and self-regulatory agencies, and agrees that FSAM shall not be liable to the Investor as a result of any action taken by FSAM to comply with any ruling, interpretation, or directive of such organizations. Further, Investor understands and agrees that FSAM will not accept any instructions from Investor which would require a violation of any such rules or regulations.

XII. Assignment

Neither FSAM nor the Investor may assign any of its rights, authorizations, or obligations under this Agreement without the prior written consent of the other party.

XIII. Term and Investor's Right of Cancellation

This Agreement shall become effective as of the date hereof and continue for a two-year period after which time this contract may be renewed for additional two-year periods upon approval by both parties. Either party may terminate this Agreement upon delivering to the other party thirty (30) calendar days' prior written notice. In addition, the Investor may terminate this Agreement without penalty and for convenience after the date it is executed by the Investor. The Investor may exercise this right by giving written notice to FSAM within the required time period. In the event of termination, it is understood and agreed that only the amounts due to FSAM for services provided and expenses incurred to and including the date of termination, plus those costs and expenses incurred or sustained as a result of the termination, will be due and payable. No penalty will be assessed for termination of this Agreement. In addition, the parties hereto agree that upon termination of this Agreement FSAM shall have no continuing obligation to the Investor regarding the investment of funds or performing any other services contemplated herein.

XIV. Custodial Arrangements

Custody of Portfolio assets will be maintained with a custodian selected by Investor and identified to FSAM (the "Custodian"). FSAM will not have custody of any assets in the Portfolio. Investor will be solely responsible for paying all fees or charges of the Custodian. Investor authorizes FSAM to give Custodian instructions for the purchase, sale, conversion, redemption, exchange or retention of any security, cash or cash equivalent or other investment for the Portfolio.

XV. Miscellaneous

A. **Notices to the Investor.** All written communication to the Investor shall be sent to the Investor's address set forth on the signature page hereof or as directed in writing to FSAM by the Investor. Any notice, statement, or other communication mailed to the Investor by FSAM in accordance with this section will be deemed to be given to the Investor personally on the date it is so mailed, whether or not it is actually received by the Investor.

B. **Notices to FSAM.** Any notice, statement, or other communication from the Investor to FSAM under this Agreement must be in written form and will be deemed to be given to FSAM upon actual receipt thereof by FSAM, whether such notice was mailed, personally delivered, or telecopied to:

FirstSouthwest Asset Management, Inc.
300 West 6th Street, Suite 1940
Austin, TX 78701
Attention: Scott McIntyre
Fax Number: (512) 481-2020

C. **Confidential Relationship.** All of the information and advice furnished by either party to the other under this Agreement, including their respective agents and employees, will be treated as strictly confidential by each party and will not be disclosed to third parties under any circumstances except as required by law.

D. **Texas Public Information Act.** To the extent, if any, that any provision in this Agreement is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that Investor, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to Investor as to whether or not the same are available to the public. It is further understood that Investor's officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and that Investor, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to Investor by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

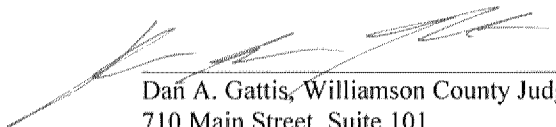
D. **Limitations of Liability.** Federal and state securities laws impose liabilities under certain circumstances on persons who do not act in good faith and, therefore, nothing in this Agreement shall in any way

constitute a waiver or limitation of any rights that the Investor may have under federal and state securities laws.

- E. **Indemnity.** To the extent permitted by law, the Investor will indemnify FSAM for any loss, liability, or expense (including attorney's fees) which FSAM may incur as a result of, or arising from, any claims asserted by any third party with respect to the Portfolio or the services rendered by FSAM under this Agreement, except in cases of gross negligence or willful misconduct by FSAM in managing the Investor's Portfolio.
- F. **Inconsistent Provisions; Agreements.** If any provisions of this Agreement should become or be found to be inconsistent with laws, rules, or regulations of any government or regulatory body having jurisdiction over the subject matter herein, such provisions shall be deemed modified or rescinded in accordance with any such laws, rules, or regulations. To the extent that the provisions of this Agreement are inconsistent with the provisions of any account agreement or clearing agreement with FSAM or its clearing agent, as the case may be, then the terms of such account agreement or clearing agreement shall govern and such terms shall supersede the inconsistent terms herein.
- G. **Invalid Provisions.** If any provision or condition of this Agreement shall be held to be invalid or unenforceable by any Court, or regulatory or self-regulatory agency or body, such invalidity or unenforceability shall attach only to such provision or condition. The validity of the remaining provisions and conditions shall not be affected, and this Agreement shall be carried out as if any such invalid or unenforceable provision or condition were not contained herein.
- H. **Waiver of Terms.** FSAM's failure to insist at any time upon strict compliance with any terms of this Agreement shall not constitute a waiver of any of FSAM's rights as described herein.
- I. **Venue and Governing Law.** Each party to this Agreement hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this Agreement shall lie exclusively in either Williamson County, Texas or in the Austin Division of the Western Federal District of Texas, and the parties hereto expressly consent and submit to such jurisdiction. Furthermore, except to the extent that this Agreement is governed by the laws of the United States, this Agreement shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however, its choice of law rules.
- J. **Extraordinary Events.** Neither FSAM nor any of its officers, directors, shareholders, affiliates, general partners, employees, agents, or trustees shall be liable for losses caused directly or indirectly by government restrictions, exchange or market actions, suspensions of trading, wars, strikes, delays in the transmission of orders due to breakdown or failure of transmission or communication facilities, or any other causes beyond FSAM's reasonable control or anticipation.
- K. **Written Disclosure Statement.** Simultaneously with the execution of this Agreement, FSAM has delivered to the Investor Part II of its Form ADV as filed with the SEC, or a similar disclosure document, as its brochure pursuant to Rule 204.3 of the Advisers Act. The Investor's execution of this Agreement shall be deemed acknowledgment of receipt thereof.
- L. **Verification of Information.** The Investor represents and warrants to FSAM that all information furnished to FSAM in connection with the opening of the Portfolio (and all documents supplied by the Investor in this regard, including financial statements) are true, complete, and correct. FSAM is entitled to rely on this information until FSAM receives written notice of any change, which the Investor agrees to furnish promptly should any material changes occur.
- M. **Relationship of the Parties.** Each party to this Agreement, in the performance of this Agreement, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

By signing this Agreement, the undersigned Investor acknowledges receipt of a copy of this Agreement, including Schedule A.

WILLIAMSON COUNTY, TEXAS



Dan A. Gattis, Williamson County Judge
710 Main Street, Suite 101
Georgetown, Texas 78626

03-25-2013
Date

FIRSTSOUTHWEST ASSET MANAGEMENT, INC.



Signature of Officer

2/20/13
Date

Scott McIntyre
Print Name

Senior Vice President
Capacity of Signatory

- N. **Non-Appropriation and Fiscal Funding.** The obligations of the parties under this Agreement do not constitute a general obligation or indebtedness of either party for which such party is obligated to levy, pledge, or collect any form of taxation. It is understood and agreed that Investor shall have the right to terminate this Agreement at the end of any Investor fiscal year if the governing body of Investor does not appropriate sufficient funds as determined by Investor's budget for the fiscal year in question. Investor may effect such termination by giving written notice of termination at the end of its then-current fiscal year.
- O. **No Waiver of Immunities.** Nothing in this Agreement shall be deemed to waive, modify or amend any legal defense available at law or in equity to Investor, its past or present officers, employees, or agents, nor to create any legal rights or claim on behalf of any third party. Investor does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.
- P. **Investor's Right to Audit.** FSAM agrees that Investor or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of FSAM which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. FSAM agrees that Investor shall have access during normal working hours to all necessary FSAM facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Investor shall give FSAM reasonable advance notice of intended audits.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK. THE NEXT PAGE IS A SIGNATURE PAGE.]

SCHEDULE A

FEE SCHEDULE AND EXPENSE ITEMS

In consideration for the services rendered by First Southwest Asset Management, Inc. ("FSAM") in connection with the investment of the Portfolio for the Investor, it is understood and agreed that its fee will be at fixed quarterly rate of \$10,000.

Approximately thirty (30) days following the conclusion of each calendar quarter, FSAM shall provide Investor with an invoice that adequately sets forth the fees claimed to be due to FSAM for the prior calendar quarter. Said fee includes all costs of services related to the investment services provided under this Agreement. Any other fees earned by FSAM relating to Investor transactions, shall be described in advance of any transaction and fully disclosed to the Investor. Investor's payment for services shall be governed by Chapter 2251 of the Texas Government Code. An invoice shall be deemed overdue the 31st day after the later of (1) the date the performance of the service under the contract is completed; or (2) the date the Williamson County Auditor receives an invoice for the services. Interest charges for any overdue payments shall be paid by Investor in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Investor's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice submitted by FSAM, Investor shall notify FSAM of the error not later than the twenty first (21st) day after the date Investor receives the invoice. If the error is resolved in favor of FSAM, FSAM shall be entitled to receive interest on the unpaid balance of the invoice submitted by FSAM beginning on the date that the payment for the invoice became overdue. If the error is resolved in favor of the Investor, FSAM shall submit a corrected invoice that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice is not paid by the appropriate date.

Fee Calculation for Investment of Bond Proceeds into Flexible Repurchase Agreements ("Flex Repos") and Guaranteed Investment Contracts ("GIC's"): In the event that specific bond proceeds are invested by FSAM *as per Investor instruction* into either a Flex Repo or GIC, FSAM shall be entitled to the lesser of \$35,000 or 0.2 percent (0.002) of the aggregate amount reasonably expected as of the issue date to be deposited over the term of the contract. This *fully disclosed fee* would be paid to FSAM by the winning bidder and not the Investor.

Commissioners Court - Regular Session

55.

Meeting Date: 08/15/2017

Awarding RFP Jail Kitchen and Plumbing Remodel

Submitted For: Randy Barker

Submitted By: Thomas Skiles, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on awarding RFP # 1705-166, Jail Kitchen & Plumbing Remodel, to the best proposer STR Constructors, LTD and authorizing execution of the agreement.

Background

After thorough evaluation of the 5 proposals received it was determined by the evaluation committee that STR Constructors submitted the best value proposal. 2 proposals were disqualified due to not meeting mandatory requirements per the specifications. This contract has a total value of \$1,781,645.00 with an owner's contingency of \$250,000.00. The solicitation was distributed to 22,077 suppliers; 74 suppliers viewed this solicitation; 5 suppliers responded.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

[Agreement](#)

[Criteria](#)

[Eval Sheet](#)

Form Review

Inbox

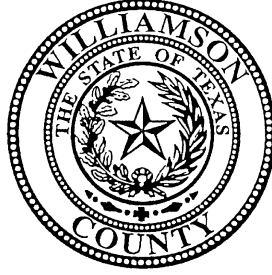
Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Thomas Skiles
Final Approval Date: 08/10/2017

Reviewed By

Kerstin Hancock
Wendy Coco

Date

08/10/2017 11:47 AM
08/10/2017 12:24 PM
Started On: 08/10/2017 10:46 AM



AGREEMENT BETWEEN OWNER AND CONTRACTOR

The **Owner:** Williamson County, Texas
710 Main Street, Ste. 101
Georgetown, Texas 78626

and **Contractor** STR Constructors, LTD
15500 Highway 29 West
Liberty Hill, Texas

for the **Project:** Williamson County Jail Kitchen and Plumbing Remodel
508 S. Rock Street
Georgetown, Texas 78628

Engineer/Architect: Talex, Inc.
6300 La Calma
Suite 100
Austin TX 78752

AGREEMENT, this Agreement Between Owner and Contractor (hereinafter called "Agreement") is entered into effective as of the date indicated herein below and all attachments (the "Effective Date"), by and between Williamson County a political subdivision of the State of Texas (hereinafter called the "Owner") and STR Constructors, LTD, acting by and through its General Partner, R K Company, LLC, (hereinafter called "Contractor").

WHEREAS, the Owner desires to retain a Contractor for the Williamson County Jail Kitchen and Plumbing Remodel (hereinafter called the "Project"),

WHEREAS, the Owner desires a Contractor who will render, diligently and competently in accordance with the highest standards used in the profession, all Contractor services which shall be necessary or advisable for the expeditious, economical and satisfactory completion of the Project, and

NOW, THEREFORE, in consideration of the mutual undertakings herein contained, the parties hereto agree as follows:

ARTICLE 1 SCOPE OF WORK

The Contractor has overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the Work, or any phase of the Work, in accordance with the Specifications and Drawings for the Project and the Owner's requirements. The Specifications and Drawings were prepared for Williamson County by the Engineer. The Contractor shall do everything required by the Contract Documents.

ARTICLE 2 CONTRACT DOCUMENTS

2.1 The Contract Documents consist of the following, which are incorporated by reference for all purposes:

- a. This Agreement and all exhibits and attachments listed, contained or referenced in this Agreement;
- b. The Uniform General Conditions for Williamson County ("General Conditions");
- c. The Supplementary or Special Conditions, if any;
- d. All Addenda issued prior to the Effective Date of this Agreement;
- e. The Bid/Proposal Documents as defined by the Invitation for Bidders/Request for Proposals;
- f. All Change Orders issued after the Effective Date of this Agreement;
- g. Minimum Insurance Coverages and Minimum Coverage Amounts, which is attached here to as **Exhibit 1**; and
- h. The Drawings, Specifications, details and other documents developed by Engineer to describe the Project and accepted by Owner, which are attached hereto **Exhibit 2**.

2.2 The Contract Documents form the entire and integrated Contract and Agreement between Owner and Contractor and supersede all prior negotiations, representations or agreements, written or oral. Contractor acknowledges receipt of all Contract Documents as of the date of its execution hereof.

2.3 The term "Contractor" shall be interchangeable with the terms "Proposer," "Bidder," "Respondent" and "General Contractor" or other similar terms as appropriate in the Contract Documents.

ARTICLE 3 CONTRACT TIME

Contractor acknowledges this Project includes very unique circumstances and factors due to the fact the Work being performed is on a jail facility which contains a jail kitchen that services the Williamson County Jail inmate population. Owner has contracted with a third party to provide off-site meal preparation and delivery

services to inmates of the Williamson County Jail during complete shut-down and construction of the jail kitchen remodel portion of the Project (construction of the jail kitchen remodel portion of the Project shall be referred to as the “Jail Kitchen Remodel Work” for purposes of Articles 3 & 6).

The rate for the above referenced offsite meal preparation and delivery services is substantially higher than the rate currently charged for food preparation at the Williamson County jail kitchen facility. The Owner cannot determine the total increased offsite meal costs at the time of contracting hereunder due to the daily change in jail inmate population. The Owner agrees to bear the additional costs associated with the offsite meal preparation and delivery for up to one hundred twenty (120) calendar days in order to allow for the Jail Kitchen Remodel Work to be substantially completed and operational for preparation of all meals for the jail inmates. Following the said one hundred twenty (120) calendar day time period, liquidated damages will be assessed against Contractor and deducted from any money due or that becomes due the Contractor in accordance with Article 6 below.

In addition to the Jail Kitchen Remodel Work, Contractor will perform other Work on the Project that is unrelated, separate and apart from the Jail Kitchen Remodel Work (such other Work is referred to collectively as “Other Jail Work” for purposes of Articles 3 & 6). Portions of the Other Jail Work may be performed prior to, during and after the one hundred twenty (120) calendar day time frame allowed for the Jail Kitchen Remodel Work. The Other Jail Work is fully described in the Drawings, Specifications, details and other documents attached hereto as Exhibit 2. The Other Jail Work includes, but is not be limited to the following:

1. procurement of necessary equipment and materials;
2. epoxy pipe system rehabilitation;
3. HVAC system in the south basement area
4. fire stopping installation;
5. HVAC equipment pads; and
6. new equipment installation that is not associated with the jail kitchen.

The Owner will issue two (2) separate Notices to Proceed. One Notice to Proceed will be issued for only the Work relating to the Jail Kitchen Remodel Work portion of the Project. The other Notice to Proceed will be issued by the Owner for the Other Jail Work portion of the Project.

As set out in this article and under Article 6 below, the Contractor must substantially complete the Jail Kitchen Remodel Work referenced above within one hundred twenty (120) calendar days of Owner’s Notice to Proceed so that the jail kitchen is in a fully operable condition and able to serve the inmate population at the conclusion of the one hundred twenty (120) calendar day time period. A separate substantial completion date or time period will be applicable to the Other Jail Work, as set out herein below.

3.1 Contract Time for Jail Kitchen Remodel Work. The Owner shall provide a separate Notice to Proceed in which a date for commencement of the work for the Jail Kitchen Remodel Work shall be started. The Contractor shall achieve Substantial Completion of the Jail Kitchen Remodel Work within **one hundred twenty (120) calendar days from the commencement date set out in Owner's Notice to Proceed with the Jail Kitchen Remodel Work**, as such completion date may be extended by approved Change Orders. Unless otherwise specified in writing, Contractor shall achieve Final Completion for the Jail Kitchen Remodel Work within **thirty (30) calendar days of the date for Substantial Completion of the Jail Kitchen Remodel Work**. The time set forth for completion of the Jail Kitchen Remodel Work is an essential element of the Contract.

3.2 Contract Time for Other Jail Work. The Owner shall provide a separate Notice to Proceed in which a date for commencement of the Other Jail Work shall be started. The Contractor shall achieve Substantial Completion of the Other Jail Work within **one hundred eighty (180) calendar days from the commencement date set out in Owner's Notice to Proceed with the Other Jail Work**, as such completion date may be extended by approved Change Orders. Unless otherwise specified in writing, Contractor shall achieve Final Completion for the Other Jail Work within **thirty (30) calendar days of the date for Substantial Completion of the Other Jail Work**. The time set forth for completion of the Other Jail Work is an essential element of the Contract.

ARTICLE 4 CONTRACTOR REPRESENTATIONS

- 4.1** In order to induce Owner to enter into this Agreement, Contractor has made representations throughout this Agreement and hereby further makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bid/Proposal Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work. Furthermore, Contractor acknowledges this Project includes very unique circumstances and factors due to the fact the Work being performed is on a jail facility that contains a jail kitchen that services the Williamson County Jail inmate population, that must remain operable, and that security measures must be taken and followed during all Work on the Project.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, and performance of the Work.

- D. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- E. Based on the information and observations referred to in Paragraph 4.1.D above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- F. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- G. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 5 THE CONTRACT PRICE; OWNER'S CONSTRUCTION CONTINGENCY; AND MARKUP ON CHANGES IN THE WORK

5.1 Contract Price. Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amount of **\$1,781,645.00**.

5.2 Contract Payments. Method and terms of payment of the Contract Price shall be in accordance with the Contract Documents.

5.3 Owner's Construction Contingency. The following lump sum amount shall serve as the Owner's Construction Contingency from which changes in the Work are to be paid in accordance with the General Conditions:

\$250,000.00

The Owner's Construction Contingency is controlled solely by the Owner. Expenditures from the Owner's Construction Contingency must be made by Change Order issued by the Architect and approved by the Owner in accordance with the General Conditions. Contractor shall not be entitled to any compensation from the any unused amounts of the Owner's Construction Contingency.

5.4 Allowable Overhead and Profit Markup on Changes in the Work. In case of an increase in the Contract Price due to a change in the Work and in accordance with § 7.3.7 of the General Conditions, the amounts Contractor may add to the pricing of a change for overhead and profit are as follows:

- a. For Work performed directly by Contractor with its Own Employees: Contractor may add up to 15% for Work performed directly by Contractor for any specific change.
- b. For Managing Subcontracted Work: Contractor may add up to 10% for managing subcontracted Work for any specific change.

Only one percentage, referenced above, shall be used for the purpose of calculating the markup for a specific change amount. On changes involving both additions and deletions, the allowed markup will be allowed only on the net addition. The allowed markup shall cover all overhead expenses and profit of any kind relating to the specific change.

ARTICLE 6 TIME

6.1 TIME LIMITS STATED IN THE CONTRACT DOCUMENTS ARE OF THE ESSENCE OF THIS AGREEMENT.

6.2 Unless otherwise approved in writing, the Owner and the Contractor shall perform their respective obligations under the Contract Documents as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Work.

6.3 Liquidated Damages for Jail Kitchen Remodel Work. As set out herein above, this Project includes very unique circumstances and factors due to the fact that the Work being performed is on a jail facility which contains a jail kitchen that services the Williamson County Jail inmate population. Contractor and Owner recognize that time is of the essence and that Owner will suffer additional financial loss **if the Jail Kitchen Remodel Work is not completed within one hundred twenty (120) calendar days from the commencement date set out in Owner's Notice to Proceed with the Jail Kitchen Remodel Work, plus any extensions thereof allowed by Owner.** The parties also recognize the uniqueness of the facility being a jail that houses an inmate population that changes daily and the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Jail Kitchen Remodel Work portion of

the Project is not completed within the said one hundred twenty (120) calendar day time period. Accordingly, instead of requiring any such proof, for each consecutive calendar day after the said one hundred twenty (120) calendar day time period that the Jail Kitchen Remodel Work portion of the Project is not substantially completed, the Owner may deduct for each consecutive calendar day after the date of Substantial Completion that the Work on the Jail Kitchen Remodel Work portion of the Project is not substantially completed, the Owner may deduct the amount of:

One Thousand Seven Hundred Fifty Dollars per calendar day
(\$1,750.00/calendar day)

from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion of the Jail Kitchen Remodel Work portion of the Project. The parties stipulate and agree that calculating Owner's actual damages for late completion of the Jail Kitchen Remodel Work portion of the Project would be impractical, unduly burdensome, and cause unnecessary delay and that the amounts of daily liquidated damages set forth are reasonable due to the unique circumstances of the jail facility. Contractor expressly agrees that the amounts of daily liquidated damages for the Jail Kitchen Remodel Work portion of the Project are a reasonable forecast of the actual damages Owner will incur due to any such delay.

6.4 Liquidated Damages for Other Jail Work. Contractor and Owner recognize that time is of the essence and that Owner will suffer financial loss if the Other Jail Work portion of the Project is not completed within the times specified in Article 3 above, plus any extensions thereof allowed by the Owner. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by Owner if the Other Jail Work portion of the Project is not completed on time. Accordingly, instead of requiring any such proof, for each consecutive calendar day after the date of Substantial Completion that the Other Jail Work portion of the Project is not substantially completed, the Owner may deduct the amount of:

Five Hundred Dollars per calendar day (\$500.00/calendar day)

from any money due or that becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that the Owner will sustain for late completion of the Other Jail Work portion of the Project. The parties stipulate and agree that calculating Owner's actual damages for late completion of the Other Jail Work portion of the Project would be impractical, unduly burdensome, and cause unnecessary delay and that the amounts of daily liquidated damages set forth are reasonable. Contractor expressly agrees that the amounts of daily liquidated damages for the Other Jail Work portion of the Project are a reasonable forecast of the actual damages Owner will incur due to any such delay.

Notices of claims, disputes or other legal notices shall be in writing and shall be deemed to have been given when delivered in person to the representative of the Contractor or Owner for whom it is intended, as set out below or sent by U. S. Mail to the representative of the Contractor or Owner for whom it is intended, as set out below. Mail notices are deemed effective upon receipt or on the third business day after the date of mailing, whichever is sooner.

If to Owner: Williamson County Judge
710 Main Street, Ste. 101
Georgetown, Texas 78626

with copy to: Hal C. Hawes
General Counsel to the
Williamson County Commissioners Court
710 Main Street, Suite 102
Georgetown, Texas 78626

If to Contractor: STR Constructors, LTD
Attn: T R Kennedy, President
15500 Hwy 29 West
Liberty Hill, TX 78642

The parties may make reasonable changes in the person or place designated for receipt of notices upon advance written notice to the other party.

ARTICLE 8 PARTY REPRESENTATIVES

The Owner's Designated Representative (sometimes referred to as the "ODR") authorized to act in the Owner's behalf with respect to the Project is:

Dale Butler
Assistant Director, Projects
Williamson County Facilities
3101 SE Inner Loop
Georgetown, TX 78626
Phone: 512-943-1609

The Contractor's designated representative authorized to act on the Contractor's behalf and bind the Contractor with respect to the Project is:

Tom Stanfield
Project Manager
STR Constructors, Ltd.
15500 Hwy 29 West
Liberty Hill, TX 78642

Phone: (512) 515-0254, Ext. 223
Cell: (512) 818-4180
Email: toms@strconstructors.com

The parties may make reasonable changes in their designated representatives upon advance written notice to the other party.

ARTICLE 9 ENTIRE AGREEMENT

This Agreement supersedes all prior agreements, written or oral, between Contractor and Owner and shall constitute the entire agreement and understanding between the parties with respect to the Project. This Agreement and the terms of the Contact Documents shall be binding upon the parties and may not be waived, modified, amended or altered except by a writing signed by Contractor and Owner.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution below (the "Effective Date").

Williamson County, Texas:

STR Constructors, LTD, acting by and through its General Partner, R K Company, LLC:

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Date: _____, 20____

Date: _____, 20____

EXHIBIT 1

Minimum Insurance Coverages

Minimum Coverage Amounts

- A. All policies of insurance provided by the Contractor must comply with the requirements of this Exhibit, the Contract Documents and the laws of the State of Texas.
- B. The Contractor shall provide and maintain, until the Work covered in the Agreement Between Owner and Contractor is completed and accepted by the Owner, the minimum insurance coverages in the minimum amounts as described below. Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company, or otherwise acceptable to Owner.

Type of Coverage	Limits of Liability		
1. Worker's Compensation	Statutory		
2. Employer's Liability			
Bodily Injury by Accident	\$500,000 Ea. Accident		
Bodily Injury by Disease	\$500,000 Ea. Employee		
Bodily Injury by Disease	\$500,000 Policy Limit		
3. Comprehensive general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:			
	COVERAGES	PER OCCURRENCE	
	Comprehensive General Liability (including premises, completed operations and contractual)	\$1,000,000	
	Aggregate policy limits:	\$2,000,000	
4. Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):			
	COVERAGES	PER PERSON	PER OCCURRENCE
	Bodily injury (including death)	\$1,000,000	\$1,000,000

Property damage \$1,000,000 \$1,000,000

Aggregate policy limits No aggregate limit

5. Builder's Risk Insurance (all risks)

An all risk policy, in the amount equal at all times to 100% of the Contract Price or Contract Sum. The policy shall be issued in the name of the Contractor and shall name its Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

a. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.

b. This insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss as well as coverage for building materials while in transit or building materials suitably stored at a temporary location. Property insurance provided by the Contractor shall not cover any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, and other similar items commonly referred to as construction equipment that may be on the site and the capital value of which is not included in the Work. The Contractor shall make its own arrangements for any insurance it may require on such construction equipment. Any such policy obtained by the Contractor under this section shall include a waiver of subrogation in accordance with the requirements of Section 11.3.4 of the General Conditions.

C. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the

Special Conditions in the Contract Documents. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.

6. Flood insurance when specified in Supplementary General Conditions or Special Conditions.
7. Umbrella coverage in the amount of not less than \$5,000,000.

C. Workers' Compensation Insurance Coverage:

a. Definitions:

(1) Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the Project.

(2) Duration of the Project - includes the time from the beginning of the work on the Project until the Contractor's/person's work on the Project has been completed and accepted by the Owner.

(3) Coverage – Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).

(4) Persons providing services on the Project ("subcontractor") - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- b. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, §401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.
- c. The Contractor must provide a certificate of coverage prior to execution of the Agreement Between Owner and Contractor, and in no event later than ten (10)

days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

- d. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner showing that coverage has been extended.
- e. The Contractor shall obtain from each person providing services on a project, and provide to the Owner:
 - (1) a certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
 - (2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
- f. The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
- g. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- h. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- i. The Contractor shall contractually require each person with who it contracts to provide services on a project, to:
 - (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;
 - (2) provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
 - (3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

(4) obtain from each other person with whom it contracts, and provide to the Contractor:

- a. a certificate of coverage, prior to the other person beginning work on the Project; and
- b. a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

(5) retain all required certificate of coverage on file for the duration of the Project and for one year thereafter;

(6) notify the Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and

(7) contractually require each person with whom it contracts, to perform as required by paragraphs (1)-(7), with the certificates of coverage to be provided to the person for whom they are providing services.

- j. By signing the Agreement Between Owner and Contractor or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
 - k. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Owner to declare the Agreement Between Owner and Contractor void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Owner.
- D. If insurance policies are not written for the amounts specified in this Exhibit, Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of primary coverage.
- E. The furnishing of the above listed insurance coverage, as may be modified by the Contract Documents, must be tendered prior to execution of the Agreement Between Owner and Contractor, and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.

- F. Owner shall be entitled, upon request and without expense, to receive copies of the policies and all endorsements as they apply to the limits set out in this Exhibit.

- G. Contractor shall be responsible for payment of premiums for all of the insurance coverages required under this Exhibit. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. Any deductibles or self-insured retentions over **\$75,000** in the Contractor's insurance must be declared and approved in writing by Owner in advance.

EXHIBIT 2 –DRAWINGS AND SPECIFICATIONS
FOR
WILLIAMSON COUNTY JAIL KITCHEN AND PLUMBING REMODEL

Evaluation Criteria for Williamson County Jail Kitchen & Plumbing Remodel

A. In order to qualify for this project the respondent must fully satisfy the following criteria:

1. Respondent shall have a physical office located within a reasonable proximity of the project location. Respondent must provide physical business address and how long at that location, as well as the extent of the business completed from this location;
2. Respondent shall provide a list of the proposed management team for the project, to include at least the Company owner, Project Manager, Superintendent, and other support team members. Please provide the resume of each team member;
3. Respondent shall provide documentation verifying, they have been conducting business as a General Contractor in Texas for a minimum of 5 (five) years.
4. Respondent shall supply a list of 3 (three) verifiable references from projects completed of similar or larger size, scope and dollar amount performed in Texas, within the last 5 years. The list must include at a minimum the project name, contact information (name, telephone and email), brief project description, size /square footage, project location, and project dollar amount. Respondent to provide the timeframe for completion, and if project was completed ahead of or on schedule, and if not explain why.
5. Respondent shall submit a Proposed Project Schedule to include the 120 Day period for the Kitchen portion of the remodel. All other scopes of the project can be performed during or outside of the 120 Day Kitchen Remodel time period.
6. Respondent shall submit with its proposal a letter from Respondent's bond company, registered to issue bonds in the state of Texas, stating the ability of the respondent to obtain a Performance and Payment Bond for the project.
7. Respondent shall submit the name and required qualifications for the Proposed Subcontractor that will be performing the NuFlow Barrier Coating portion of the project.

B. Respondents that fully comply with all the above requirements will then be considered and evaluated as follow:

1. An evaluation committee of at least three County representatives will evaluate the qualified respondents and make the determination regarding the successful company to proceed with negotiations and award.

2. The evaluation committee will review the following:

- Qualifications (40 Points)

- *Respondents will be scored on their qualifications in relation to this project. The following factors will be considered to determine respondents qualifications and appropriate score:*
 - *Proposed management team's experience with similar projects.*
 - *Respondents years of experience conducting business in the State of Texas as a general contractor.*
 - *Proposed project schedule.*

- Pricing (25 Points)

- *Points for pricing shall be determined by the following formula. 25 maximum points for pricing x (lowest respondents price proposal amount/respondents price proposal amount). Lowest respondent will receive the maximum 25 points.*

- Location of office (10 Points)

- *10 maximum points for location of office. Points will be awarded in the following manner. 10 points for respondents with office location in Williamson County or an adjacent county. 5 points for respondents with an office in the State of Texas but outside of Williamson County or an adjacent county. 0 points for respondents with no office location in the State of Texas.*

- Reputation (25 Points)

- *Respondents will be scored a maximum of 25 points on their reputation. Reputation of the respondents will be determined by the following factors:*
 - *References*
 - *Respondents safety record*
 - *Prior experience with Williamson County*

3. Contract negotiations, interviews and reference verification may also be a part of the selection process. Additional criteria if necessary for interviews will be provided to those selected respondents.

NOTE: The successful respondent will be required to execute a formal contract at Williamson County's offices in Georgetown, Texas within ten (10) days after the award. Said contract shall be in the same form as the Agreement Between Owner and Contractor that has been made a part of this RFP package. The only anticipated changes in the contract will be to include additional exhibits, to fill in blanks to identify the contractor, and terms relating to the contract price, or to revise the contract to accommodate corrections, changes in the scope of services, or changes pursuant to addenda issued. **Respondents should raise any questions regarding the terms of the contract, or submit requested changes in said terms, in the form of written questions or submittals.** Because the signed contract will be substantively and substantially derived from the Agreement Between Owner and Contractor that has been made a part of this RFP package, each respondent is urged to seek independent legal counsel as to any questions about the terms, conditions or provisions contained in the Agreement Between Owner and Contractor ***before*** submitting a proposal.

Again, the Agreement Between Owner and Contractor that has been made a part of this RFP package contains important legal provisions and is considered part and parcel of this Request for Proposals. Failure or refusal to sign aforesaid contract shall be grounds for Williamson County to revoke any award which has been issued, forfeit bid security, if applicable, and select another respondent.

**EVALUATION - Jail Kitchen & Plumbing Remodel
RFP 1705-166**

Evaluation Criteria	Maximum Score Points	S&G Contracting	STR Constructors	FTWOODS Construction	AGCM	Falkenburg
Qualifications	40	Did Not Qualify For Scoring Per Mandatory Criteria # 5 & # 7 (See Criteria Attachment)	35	Did Not Qualify For Scoring Per Mandatory Criteria # 5 & # 7 (See Criteria Attachment)	35	35
Location of Office <i>10 Points for Office Location in Williamson County or Adjacent County, 5 points for Office Location Outside of the Acceptable Radius, 1 point for Office Location Outside of Texas</i>	10	-	10	-	10	5
Reputation	25	-	25	-	25	25
Price <i>35 Maximim Points for Pricing X (Lowest Respondent's Price Proposal Amount /Respondent No. X's Price Proposal Amount)</i>	25	-	25	-	22.3	21.19
TOTAL	100	-	95	-	92.3	86.19

			Voting Member Yes or No	Signature

Commissioners Court - Regular Session

56.

Meeting Date: 08/15/2017

OSSF Permitting Software Service Contract Approval

Submitted For: Randy Barker

Submitted By: Thomas Skiles, Purchasing

Department: Purchasing

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on approving service contract with Carahsoft Technology Corporation for the purchase of permitting software in the amount of \$420,203.21 under DIR Contract # DIR-TSO-3149 to support the operations of the Williamson County On-Site Sewage Facilities Department and the Williamson County Central Health District and authorizing the execution of the agreement.

Background

This contract is for the purchase, implementation and maintenance of Accela Permitting Software which will be utilized by the new On-Site Sewage Facilities Department effective October 1, 2017. Total cost of this contract is \$420,203.21 which covers the first 3 years. This cost will be split between Wilco and the Health District. Quotes were solicited from multiple vendors and a team was formed to review the submissions. Carahsoft was determined to provide the best value and best software to suit the County's needs while also utilizing their existing DIR contract.

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

Agreement

Exhibits A & B

Vendor Reimbursement

Form Review

Inbox

Purchasing (Originator)
County Judge Exec Asst.
Form Started By: Thomas Skiles
Final Approval Date: 08/10/2017

Reviewed By

Randy Barker
Wendy Coco

Date

08/10/2017 09:04 AM
08/10/2017 09:12 AM
Started On: 08/09/2017 08:56 AM

under or related to this Contract and Service Provider's liability for damages of any kind shall be in accordance with the terms of DIR-TSO-3149.

II.

No Waiver of Sovereign Immunity or Powers: Nothing in this agreement will be deemed to constitute a waiver of sovereign immunity or powers of The County, the Williamson County Commissioners Court, or the Williamson County Judge.

III.

Assignment: In accordance with the terms of DIR-TSO-3149, Service Provider's assignment of this Contract shall require a mutually agreed written Contract amendment

IV.

Compliance with All Laws: Service Provider agrees and will comply with any and all local, state or federal requirements with respect to the services rendered.

V.

Consideration and Compensation: Service Provider will be compensated based on the attached Quote, dated July 19, which is designated as Exhibit "A" and incorporated herein as if copied in full. **The not-to-exceed amount under this agreement is \$420,203.21, unless amended by a change order and approved by the Williamson County Commissioners Court.**

Payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. An invoice shall be deemed overdue the 31st day after the later of (1) the date The County receives the goods under the contract; (2) the date the performance of the service under the contract is completed; or (3) the date the Williamson County Auditor receives an invoice for the goods or services. Interest charges for any overdue payments shall be paid by The County in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of The County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

VI.

Entire Contract & Incorporated Documents: This Contract constitutes the entire Contract between the parties and may not be modified or amended other than by a

written instrument executed by both parties. Documents expressly incorporated (as if copied in full) into this Contract include the following:

1. **As described in the attached Quote, dated July 19, 2017, which is designated as Exhibit “A” and incorporated herein as if copied in full;**
2. **As described in the attached Proposal, dated July 19, 2017, which is designated as Exhibit “B” and incorporated herein as if copied in full;**
3. **DIR-TSO-3149 and related documents, including addenda, Standard Terms and Conditions, incorporated herein as if copied in full; and**
4. **The Williamson County Vendor Reimbursement Policy, incorporated herein as if copied in full.**

VII.

Services: Service Provider shall provide services *as an independent contractor* pursuant to terms and policies of the Williamson County Commissioners Court. Service Provider expressly acknowledges that he or she is not an employee of The County. The services include, the following items in order to complete the project:

As described in Service Provider’s Quote/Proposal which is the Statement of Work, both dated July 19, 2017 and is incorporated herein as if copied in full.

VIII.

Good Faith Clause: Service Provider agrees to act in good faith in the performance of this agreement.

IX.

Confidentiality: Service Provider expressly agrees that he or she will not use any incidental confidential information that may be obtained while working in a governmental setting for his or her own benefit, and agrees that he or she will not enter any unauthorized areas or access confidential information and he or she will not disclose any information to unauthorized third parties, and will take care to guard the security of the information at all times.

X.

Termination: This agreement may be terminated at any time at the option of either party, without *future or prospective* liability for performance upon giving ninety (90) days written notice thereof. **In the event of termination, The County will only be liable for its pro rata share of services rendered and goods actually received.**

XI.

Mediation: The parties agree to use mediation for dispute resolution prior to and formal legal action being taken on this Contract.

XII.

Venue and Applicable Law: Venue of this contract shall be Williamson County, Texas, and the laws of the State of Texas shall govern all terms and conditions.

XIII.

Effective Date and Term: This contract shall be in full force and effect when signed by all parties and shall continue for a reasonable time period for the specific project and shall terminate upon project completion or when terminated pursuant to paragraph X above.

XIV.

Severability: In case any one or more of the provisions contained in this agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision in this agreement and this agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained in it.

XV.

Right to Audit: Service Provider agrees that The County or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Service Provider which are directly pertinent to the parties' financial obligations for the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Service Provider agrees that The County shall have access during normal working hours to all necessary Service Provider facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. The

County shall give Service Provider reasonable advance notice of intended audits.

XVI.

County Judge or Presiding Officer Authorized to Sign Contract: The presiding officer of The County's governing body who is authorized to execute this instrument by order duly recorded may execute this contract on behalf of The County.

WITNESS the signatures of all parties in duplicate originals this the ____ day of _____, 2017.

WILLIAMSON COUNTY:

SERVICE PROVIDER:

Authorized Signature

Authorized Signature

Exhibits “A” Quote & “B” Proposal, dated July 19, 2017

GOVERNMENT - PRICE QUOTATION



ACCELA GOVERNMENT AT CARAHSOFT



1860 MICHAEL FARADAY DRIVE | SUITE 100 | RESTON, VIRGINIA 20190
 PHONE (703) 871-8500 | FAX (703) 871-8505 | TOLL FREE (888) 66CARAH
 WWW.CARAHSOFT.COM

TO: Doug Woodall
 Acting Dir, Road & Bridge
 Williamson County
 Georgetown, TX 78626

FROM: Alex Stanton
 Carahsoft Technology Corp.
 1860 Michael Faraday Drive
 Reston, Virginia 20190

EMAIL: Doug.woodall@wilco.org

EMAIL: Alex.Stanton@carahsoft.com

PHONE: (512) 943-3336 **FAX:**

PHONE: (703) 871-8522 **FAX:** (703) 871-8505

TERMS: DIR Contract No. DIR-TSO-3149
 Expiration Date: June 22, 2018
 FTIN: 52-2189693
 Shipping Point: FOB Destination
 Credit Cards: VISA/MasterCard/AMEX
 Remit To: Same as Above
 Payment Terms: Net 30 (On Approved Credit)
 Texas VID#: 1522189693700
 Sales Tax May Apply

QUOTE NO: 9738769
QUOTE DATE: 07/19/2017
QUOTE EXPIRES: 10/31/2017
RFQ NO:
SHIPPING: ESD
TOTAL PRICE: \$420,203.21

TOTAL QUOTE: \$420,203.21

LINE NO.	PART NO.	DESCRIPTION	-	QUOTE PRICE	QTY	EXTENDED PRICE
COMBINED QUOTE- OSSF & WCCHD						
1	SS10APFMSLVR001	Accela Civic Platform Silver - Subscription User Accela Inc		\$2,575.44 TX DIR	37	\$95,291.28
2	SS10ACAPOP0001	Accela Citizen Access - Subscription population Accela Inc		\$0.0294 TX DIR	508514	\$14,950.31
COMBINED QUOTE- OSSF & WCCHD SUBTOTAL:						\$110,241.59
COMBINED QUOTE- OSSF & WCCHD- YEAR 2 PRICING						
3	SS10APFMSLVR001- R1	Accela Civic Platform Silver - Subscription User Renewal - 12 Months (1st Renewal Term) Accela Inc		\$2,652.70 TX DIR	37	\$98,149.90
4	SS10ACAPOP0001- R1	Accela Citizen Access - Subscription population Renewal - 12 Months (1st Renewal Term) Accela Inc		\$0.0300 TX DIR	508514	\$15,255.42
COMBINED QUOTE- OSSF & WCCHD- YEAR 2 PRICING SUBTOTAL:						\$113,405.32
COMBINED QUOTE- OSSF & WCCHD- YEAR 3 PRICING						
5	SS10APFMSLVR001- R2	Accela Civic Platform Silver - Subscription User Renewal - 12 Months (2nd Renewal Term) Accela Inc		\$2,732.28 TX DIR	37	\$101,094.36
6	SS10ACAPOP0001- R2	Accela Citizen Access - Subscription population Renewal - 12 Months (2nd Renewal Term) Accela Inc		\$0.0300 TX DIR	508514	\$15,255.42

ACCELA GOVERNMENT AT CARAHSOFT

1860 MICHAEL FARADAY DRIVE | SUITE 100 | RESTON, VIRGINIA 20190
 PHONE (703) 871-8500 | FAX (703) 871-8505 | TOLL FREE (888) 66CARAH
 WWW.CARAHSOFT.COM

LINE NO.	PART NO.	DESCRIPTION	-	QUOTE PRICE	QTY	EXTENDED PRICE
COMBINED QUOTE- OSSF & WCCHD- YEAR 3 PRICING SUBTOTAL:						\$116,349.78
COMBINED QUOTE- OSSF & WCCHD						
7	FNG-PS-PHSE1	FutureNet Group Professional Services Hours-Phase An Estimated 449 Hours Carahsoft Technology Corporation - FNG-PS-PHSE1		\$73,206.52 TX DIR	1	\$73,206.52
8	T&E	Travel and Expenses FutureNet Group Travel not to Exceed amount Carahsoft Technology Corporation		\$7,000.00 OM	1	\$7,000.00
COMBINED QUOTE- OSSF & WCCHD SUBTOTAL:						\$190,448.11
SUBTOTAL:						\$420,203.21
TOTAL PRICE:						\$420,203.21
TOTAL QUOTE:						\$420,203.21

Purchase order must reference the Carahsoft Texas DIR Contract Number
Purchase order must reference the attached Accela Terms & Conditions
Subscription Fees will be billed and due upon signing
Start Date: Start upon delivery
End Date: One year after delivery

Accela End User Subscription Terms and Conditions (Accela Civic Platform, Accela Citizen Access Subscription)

As used herein, "Accela" refers to Accela, Inc., the owner of the Subscriptions Services. "Customer" or "End User" refers to the entity that executes a sales order with Reseller, Carahsoft Technology Group, for Accela Subscription Services. By installing or using the licensed software from Accela, Inc., the End User ("Customer") is agreeing to be bound by the Accela End User Subscription Terms and Conditions. The Accela software products ("Software") are protected under the laws of the United States and the individual states and by international treaty provisions. Accela retains full ownership in the Software and grants to Customer a limited, nonexclusive, nontransferable license to use the Software, up to the limitations determined by the license purchased, subject to the following terms and conditions:

1. Customer's subscription term commences on the date Accela provides appropriate access credentials to Customer's designated technical contact, indicating that the application services identified in the Order ("Subscribed Services") are available for Customer's subscription use. Said date is Customer's "Service Date" for purposes of designating the start of any subscription term. Subscription terms are twelve (12) calendar months in duration. The Subscribed Services are non-refundable, except as otherwise specifically-provided herein.

2. Accela retains full ownership in the Subscribed Services and grants to Customer a limited, nonexclusive, nontransferable right to use the Subscribed Services, subject to the following terms and conditions: a) The Subscribed Services are provided for use only by Customer employees and to the extent of their duties for Customer, Customer's agents, contractors and officials; b) Customer shall issue each authorized user a unique user identification code to enable such authorized user to access the Service as permitted hereunder and user identification codes shall not be shared, rotated, or issued on a concurrent-usage basis; c) Customer may not make any form of derivative work from the Subscribed Services; d) Customer may not obscure, alter, or remove any confidentiality or remove or modify any copyright, trademark, or other proprietary notices; e) Customer may use the Subscribed Services only to process transactions relating to properties within both its own geographical and political boundaries and may not sell, rent, assign, lend, or share any of its rights hereunder or duplicate, copy, reproduce or publish the Map Images other than for Customer's internal business purposes; f) Customer is responsible for all activities conducted using its user credentials and for its users' compliance with the provisions of these Terms and shall report to Accela any actual or suspected violations of these Terms; g) use the Map Images for other than through the Website and Service; and h) All rights not expressly granted to Customer are retained by Accela. Accela will make the Subscribed Services available to Customer pursuant to these Terms during a subscription term. Customer agrees that its purchases hereunder are neither contingent on the delivery of any future functionality or features nor dependent on any oral or written public comments made by Accela regarding future functionality or features. Accela has no obligation for any claim based upon a modified version of the Subscribed Services, where such modifications were not made or authorized by Accela, or the combination or operation of the Subscribed Services with any product, data, or apparatus not provided by Accela.

3. The Subscribed Services will be hosted by Accela on Accela-owned equipment at a physically-secure commercial third-party hosting facility. Accela will perform system administration duties as required to maintain the service levels described below and to facilitate timely restoration of Customer's data and operations, if necessary, following unanticipated interruptions of the Subscribed Services. Accela will implement suitable network security measures to minimize the likelihood of unanticipated interruptions of the Subscribed Services. Accela will endeavor to provide Customer with no less than twenty-four (24) hours' notice prior to Subscribed Services unavailability due to planned maintenance (other than during Accela's standard maintenance window between the hours of 9:00 PM [21:00] Thursday and 1:00 AM [1:00] Friday Pacific time); Accela will endeavor to provide as much notice as is practicable under the circumstances for updates and fixes which may be applied on a more urgent basis. Accela will provide five (5) business days' notice prior to any planned network, server hardware, operating environment, or database modifications of a material nature.

4. Excluding the foregoing events, Accela warrants that the Subscribed Services will be available no less than ninety-nine point nine percent (99.9%) of each calendar month during live production. For each month during which the availability of the Subscribed Services does not achieve the established standard, Accela will provide a credit to Customer's account as calculated pursuant to Section 12 below, provided that the substandard availability is timely identified by Customer in writing and can be objectively verified. Credits accumulated pursuant to this Section may be applied to additional Accela products and/or services, but will not be refunded to Customer.

5. The performance requirements for the Subscribed Services, excluding planned maintenance downtime, are below and apply to live-production environments. Uptime is calculated on a calendar month basis as $U=O/(M-P)*100$, where U is Uptime, O is the amount of operational uptime for the Subscribed Services during a given month, M is the number of minutes in the month, and P is the number of minutes of planned downtime during the month. Credits are calculated on pro-rated monthly fees.

Uptime	Credit
≥99.9%	None
<99.9% but ≥99.0%	15%
<99.0% but ≥95.0%	35%
<95.0%	100%

6. In support of the Subscribed Services, Accela will provide Customer with a) a telephone number to contact the Customer Resource Center (CRC), Accela's live technical support facility, which is available from 4:00 a.m. until 6:00 p.m. Pacific time Monday through Friday, excluding Accela's observed holidays; b) one or more electronic mail addresses to which Customer may submit routine or non-critical support requests, which Accela will address during its regular business hours; and c) access to archived software updates and other technical information in Accela's online support databases, which are continuously available. Where support is needed to address non-functioning or seriously impaired Services and there is no reasonable workaround available, Accela will promptly respond to the support request and use commercially reasonable efforts to provide updates toward resolution of the issue.

7. The following are not covered by these Terms and Conditions, but may be separately available at rates and on terms which may vary from those described herein: a) Services required due to misuse of the Subscribed Services; b) Services required by Customer to be performed by Accela outside of Accela's usual working hours; c) Services required due to external factors including, but not necessarily limited to, Customer's use of software or hardware not authorized by Accela; or d) Services required to resolve or work-around conditions which cannot be reproduced in Accela's support environment.

8. Customer warrants that it owns or has been authorized to provide the data to Accela. Customer retains full ownership of said data and grants to Accela a limited, nonexclusive, nontransferable license to use said data only to perform Accela's obligations in accordance with these Terms. Throughout the term of the agreement, upon the request of Customer, Accela will provide Customer with: (i) a copy of its data in a database dump file not more than once per calendar quarter, (ii) an APO property conversion upload, not more than twice per annual term, and (iii) a Crystal Report placement not more than ten (10) times per annual term. Within thirty (30) calendar days following the end of its final Subscribed Services term ("End of Term"), Customer may request that Accela provide a complete copy of Customer's data and associated documents, as updated or modified by Customer's use of the Subscribed Services, in a database dump file format. Accela will comply in a timely manner with such request, provided that Customer a) pays all costs of and associated with such copying, as calculated at Accela's then-current time-and-materials rates; and b) pays any and all unpaid amounts due to Accela. Subject to the limitations above, Customer may authorize access to the Subscribed Services by creating unique user names and passwords ("Logins") up to the number of users indicated in the Order. Each Login must be assigned to a single individual and may not be shared or used by more than one such user. Customer may reassign any Login to another individual, provided that such reassignments do not circumvent the "single individual" requirement described in this Section. Customer acknowledges that transmissions and processing of Customer's electronic communications are fundamental to Customer's use of the Subscribed Services. Customer further acknowledges that portions of such transmissions and processing may occur within various computer networks not owned or operated by Accela. Customer agrees that

Accela is not responsible for any delays, losses, alterations, interceptions, or storage of its electronic communications which occur in computer networks not owned or operated by Accela.

9. Accela warrants that it has full power and authority to grant this license and that, as of the effective date, the Software does not infringe on any existing intellectual property rights of any third party. If a third party claims that the Software or Subscription Services do infringe, Accela may, at its sole option, secure for Customer the right to continue using the Software or Subscription Services or modify same so that it does not infringe. Accela will have the sole right to conduct the defense of any legal action and all negotiations for its settlement or compromise.

10. Accela has no obligation for any claim based upon a modified version of the Software or the combination or operation of the Software with any product, data, or apparatus not provided by Accela. Accela provides no warranty whatsoever for any third-party hardware or software products. Except as expressly set forth herein, Accela disclaims any and all express and implied warranties, including but not necessarily limited to warranties of merchantability and fitness for a particular purpose. Third-party applications which utilize or rely upon the Services may be adversely affected by remedial or other actions performed pursuant to these Terms and Conditions; Accela bears no liability for and has no obligation to remedy such effects. Except as set forth herein, Accela provides all Subscribed Services "as is" without express or implied warranty of any kind regarding the character, function, capabilities, or appropriateness of such services or deliverables.

11. LIMIT OF LIABILITY: ACCELA WILL, AT ALL TIMES DURING THE AGREEMENT, MAINTAIN APPROPRIATE INSURANCE COVERAGE. TO THE EXTENT NOT OFFSET BY ITS INSURANCE COVERAGE AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAWS, IN NO EVENT WILL ACCELA'S CUMULATIVE LIABILITY FOR ANY GENERAL, INCIDENTAL, SPECIAL, COMPENSATORY, OR PUNITIVE DAMAGES WHATSOEVER SUFFERED BY CUSTOMER OR ANY OTHER PERSON OR ENTITY EXCEED THE FEES PAID TO ACCELA BY CUSTOMER DURING THE TWELVE (12) CALENDAR MONTHS IMMEDIATELY PRECEDING THE CIRCUMSTANCES WHICH GIVE RISE TO SUCH CLAIM(S) OF LIABILITY, EVEN IF ACCELA OR ITS AGENTS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

12. Either Accela or Customer may terminate if the other party materially breaches these Terms and Conditions and, after receiving a written notice describing the circumstances of the default, fails to correct the breach within thirty (30) calendar days. Upon any termination or expiration, all rights granted to Customer are cancelled and revert to Accela.

13. The limitations and waivers described in Sections 10, 11, and 13 will survive the End of Term. Section 8 will survive the End of Term for a period of thirty (30) calendar days or for so long as is required for Accela to complete its response to a Customer request made during said thirty-days period.

Implementation of Accela Environmental Health

*Proposal prepared for:
Williamson County, Texas*



July 19, 2017

Submitted By: Carahsoft Technology Corp.

carahsoft



COVER LETTER

July 19, 2017

Mr. Doug Woodall, P.E.
Williamson County Road & Bridge
3151 S.E. Inner Loop, Suite B
Georgetown, TX 78626

Dear Mr. Woodall,

Thank you for the opportunity to support your goal to improve the management of your Environmental Health programs.

Carahsoft, FutureNet and Accela believe the public interface to government can be transformed through the intelligent application of technology. Together we provide solutions to help you improve the user experience for your citizens and businesses, to make processes clear and easy to understand, and to help foster a healthier environment.

As an Accela Services Partner we have seen the benefits to Agencies and their Constituents of Accela's powerful software capabilities and are excited to help Williamson County realize those same benefits.

**FutureNet is an Accela Value-Added Reseller and Top-Tier Certified Services Partner
with Accela Certified Implementation Professionals on staff.**

In the following proposed Implementation Plan, we outline the tasks to be performed to implement Accela's Environmental Health system. We understand it is Williamson County's goal to have a functioning system for OSSF by September 1, 2017. Currently the total elapsed project schedule for OSSF, assuming availability of Agency staff, is 5 weeks. In order to meet the September 1 requirement an agile approach statement of work (SOW) can be drafted to compress specific activities or move them to post Go-Live, to provide a functioning system as of 9/1. Once a contract is signed, Williamson County, Carahsoft and FutureNet can determine a workable schedule based on prioritizing the specific needs for the OSSF team.

Thank you for your consideration.

Julie Endres
Business Development Manager
FutureNet Group, Inc.
12801 Auburn Street
Detroit, MI 48223
O: 313-544-7117 ext. 337
M: 248-302-3027
JulieE@futurenetgroup.com

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IMPLEMENTATION

While Accela Environmental Health can be configured as a completely custom solution, this proposal specifies the implementation of Accela's Best Practice Templates as a base configuration, with minimal customizations. This will ensure a faster and more cost-effective implementation.

Implementation Activities and Customizations included in this proposal:

- Agency branding – to give your Citizen Access web portal the look and feel of your agency website, and include such items as your logos and pictures.
- Merchant Account Integration – the system currently supports the following out-of-the-box: Official Payments, PayFlow Pro 4.3 (PayPal) or Virtual Merchants. If the Agency is working with another payment vendor, we can scope the level of effort as a separate deliverable.
- Fee Schedule Configuration – this proposal includes up to 10 fee item customizations
- Record Type configuration – this proposal includes the pre-configured record types in the Best Practices Templates.
- Batch reporting to your Financial System.
- Address/Parcel/Owner information upload.
- Security Set-up of Users, User Types and Security levels.
- Accela Citizen Access Set-up
- Accela GIS Set-up
- Accela Mobile Set-up
- Workflow customizations of up to 10 processes (e.g. changing labels, adding or removing inspection types, customizing lists of possible status results or checklist items, automatic notifications, preventing status changes until all tasks are completed, etc.)

Not included in this proposal, but can be offered for an additional fee:

- Additional Customizations beyond what is specified.
- Interfaces to other applications.
- Development of GIS systems and layers to be accessed by Accela's GIS Manager.
- Data Migration from other systems.

Williamson County – OSSF and WCCHD Environmental Health Implementation Package

Overview: The Environmental Health package proposed is based on Accela's Environmental Health Best Practices Templates and the 'out of the box' features available in the Civic Platform (i.e. Accela Citizen Access (ACA), Accela GIS, Mobile Inspector App, etc.) along with preconfigured workflows and additional configuration tailoring services. The following Best Practice update allotments would apply to the **full** project implementation for the **combined OSSF and WCCHD** implementation, listed as Option 2 in the Implementation Plan.

Timing: It is Williamson County's requirement to have a functioning platform for OSSF by September 1, 2017. Currently the total elapsed project schedule for Phase I, assuming availability of Agency staff, is 5 weeks. In order to meet the September 1 requirement an agile approach statement of work (SOW) can be drafted to compress specific activities or move them to post Go-Live, to provide a functioning system as of 9/1. Once a contract is signed, Williamson County and FutureNet can determine a workable schedule based on prioritizing the specific needs for the OSSF team.

Area	Item	Details	Included?	Allotted # of changes
Set up	Set up new Agency with Environmental Health Best Practice Templates	As part of the implementation package, Williamson County will get to take full advantage of Accela's Best Practice Environmental Health template configurations which are complete, preconfigured elements ready to deploy based on common Environmental Health set ups. Each represented program will have unique templates implemented, such as septic permits, retail food, planning applications, citizen service requests and complaints.	Y	n/a
	Set up staff user logins	Staff logins will be set up based on the number of software licenses purchased. For example, for the 12 OSSF licenses, 12 named staff user accounts will be set up.	Y	n/a
	Set up Agency map integration	The platform will be set up to integrate with Agency maps when an ArcGIS Server or Online map service is provided by the Agency. FutureNet Group will set up AGIS admin functions to integrate with the Agency's ArcGIS Server. Note: It is the Agency's responsibility to have their ArcGIS server set up for external access by Accela GIS.	Y	n/a
	Set up of Citizen Access branding	Agency to provide the municipal website branding for FutureNet to set up in the Accela Citizen Access portal.	Y	n/a
	Set up mobile apps gateway	The Civic Platform comes with a complete set of mobile applications the field staff can use on a mobile device, such as a smartphone or tablet. Agency can shop the app store and download the Accela developed mobile apps for free and preview them today. Apps developed by other	Y	n/a

		Companies can be downloaded for an additional charge.		
	Set up payment gateway for Accela supported	Supported payment vendors include Official Payments, PayFlow Pro 4.3 (PayPal) and Virtual Merchant and is part of the set up. Other payment gateways can be configured for an additional fee.	Y	n/a
Configuration set up	Record Type Enablement	As part of the implementation package, FutureNet will implement the specific Best Practice Template configurations for each group. During implementation, the FutureNet team will disable any existing record types (permits, licenses etc.) that the Agency will not use for the implementation. FutureNet will also work with the Agency to identify the record types they want to make available to the public in Citizen Access.	Y	n/a
	Workflow Process changes - a workflow tracks the Agency's major milestones or business protocols for a specific service they track and process, to ensure all steps are being followed based on regulations and ordinances.	Using the defined Workflow Processes configured in the BPTs, you can rename, add, and remove workflow tasks and workflow task status results. For example, if you require an Environmental Review for a specific service and the review is not already set up in the best practice template, you can ask to rename an existing task or ask to add the new task with new task status results. Each edit, update or removal of a workflow task or workflow status result is considered a single action change.	10	Allotted number of changes 10
	Inspection Group changes - an inspection group is a collection of inspection types and checklists designed for field staff when performing work out in the community.	Using the defined Inspection Groups and Checklist Groups configured in the best practice templates, you can rename, add or remove inspection types, inspection status results, checklist items, and checklist status results. For example, if you require different inspection status results, such as Rejected or In Compliance set up for a defined inspection type, you can request the creation of a new status result, so the inspection results match existing Agency language. Each edit, update or removal of an inspection type, inspection status result, checklist item or checklist status result is considered a single action change.	5	Allotted number of changes 5

	<p>Setting up new fee items</p>	<p>Accela's BPT configurations contain existing fee items for each record type defined. During implementation, the FutureNet team will set up flat/constant fees using the unique fee names, such as a Septic Application fee is \$200 up to a maximum of 5 new fee items. Advanced fee item set up is an additional cost, examples include automatically calculating a fee item based on an inspection result, permit expiration date or using the advance business logic event manager scripting engine.</p>	<p>10</p>	<p>Allotted number of flat fee items set up 10</p>
	<p>Creating new Agency defined data fields, based on Agency processes, on the available record types.</p>	<p>The BPTs contain preconfigured data fields for each record type defined. During the gap analysis if the Agency determines they want to track other Agency data, the team will create new data elements to ensure information is tracked according to the Agency's business processes up to a maximum of 30 new data fields.</p>	<p>30</p>	<p>Allotted number of new data fields 30</p>
	<p>Update existing user group permission access</p>	<p>The BPTs contain predefined user roles, like inspector, daily user and Agency administrator, with specific access to items such as invoicing fees, voiding payments, canceling inspections, creating new record types, etc. If you create or update a defined user role with additional or reduced access, the team will edit the role. Each edit to the existing user group role is considered a single action change.</p>	<p>5</p>	<p>Allotted number of user role updates 5</p>
	<p>Citizen access updates on webpages, such as text instructions or intake processing components or field specific help language</p>	<p>The citizen portal is included with Accela's Best Practice Implementation package. It contains predefined page flows, section instructions, available record (application) types, etc. During implementation Agencies can request updates to the citizen portal pages and make them more tailored to their Agency processes. Examples of available updates include, adding a page flow component, like attachments, updating the section instructions with Agency language, include descriptive help instructions for specific Agency defined data fields. Each update to the citizen portal pages and sections are considered a single action change.</p>	<p>10</p>	<p>Allotted number of Citizen Access updates 10</p>

<p>Accela Property (APO) Data loads</p>	<p>Loading property information - address, parcel and owner data</p>	<p>During implementation, Agencies can have their property data (address, parcel and owner) loaded into the Accela software. Both citizens and staff can use the data for incoming permits, applications, complaints etc. and validate against the property dataset, to ensure work requests are within the Agency's jurisdiction. The <u>Agency</u> must provide the validated property data <u>from their defined master address database</u> in the specified pipe delimited text file format (see sample for reference), so that FutureNet can load the information into the Civic Platform. The Agency staff is required to view the converted property data and is required to verify the information converted is correct. The conversion effort will occur a maximum of 2 times.</p>	<p>Y</p>	<p>n/a</p>
<p>Implementation Support</p>	<p>User Acceptance Testing Support</p>	<p>FutureNet will provide User Acceptance Testing support and issue resolution. FutureNet will provide sample user acceptance test scripts that can be used by Agency staff to test the software configuration to ensure it is ready for daily use. Any issues or defects discovered during user testing will be submitted to FutureNet for resolution.</p>	<p>Y</p>	<p>n/a</p>
	<p>Project Management</p>	<p>FutureNet will provide Project Management over a maximum 3 month implementation period in order to coordinate project deliverables, FutureNet and Accela project team resources and provide status updates to the Agency's stakeholders.</p>	<p>Y</p>	<p>n/a</p>
	<p>Go-Live Support</p>	<p>FutureNet will provide 2 days of remote support for the Go-Live launch. Go-Live is defined as the official date in which the Accela Automation software moves from the test environment to production for daily Agency and Citizen usage. At the time of launch, FutureNet will assist the Agency in system validation and assist with staff preparation and transition. On-Site support for the Go-live launch can be provided at an additional cost.</p>	<p>Y</p>	<p>n/a</p>

<p>Training</p>	<p>End User and Administrative Training for staff</p>	<p>FutureNet to provide 1 day of End User training for OSSF staff, and 3 days of End User training for WCCHD staff. FutureNet to provide 3 days of administrative training to ensure staff is educated on how to configure additional record types for follow on programs. In addition, "Accela Community" is an online support site for Accela Software users, providing 24/7 access to user guides, reference materials and online training courses. Each staff member with a named user license can access these training courses when convenient. This online training focuses on the administration, maintenance, and augmentation of its Accela Civic Platform configuration.</p>	<p>Y</p>	<p>n/a</p>
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July 19, 2017

Doug Woodall, P.E.
Williamson County Road & Bridge
3151 S.E. Inner Loop, Suite B
Georgetown, Texas 78626

Re: Request for Quote Environmental Health Services System

Dear Mr. Woodall and members of the Evaluation Committee:

Accela stands ready to help the County achieve its business objective of obtaining a comprehensive, flexible environmental health services system in addition to satisfying the County departments using the new system. Our response details how Accela's Civic Platform will help Williamson County further engage with its citizens, and satisfy the needs that are most important to stakeholders.

I am authorized to bind the company contractually. Greg Walls, Business Development Executive, will act as Accela's primary contact for all matters regarding this response and any subsequent phases and can be reached at 713.480.9861 or via email at gwalls@accela.com.

Thank you for your consideration.



Jay Colfer
Chief Revenue Officer

Enclosures

About Accela

Accela provides a platform of cloud-based productivity and civic engagement software to governments of all sizes. The Accela Civic Platform includes solutions to cost-effectively manage critical enterprise functions and mobile apps to foster greater citizen engagement. From asset, land and legislative management to licensing, finance, environmental health and more, Accela's software drives efficiency for over 2,200 governments and is accessible to more than 160 million citizens worldwide. More than 80% of America's 50 largest cities have implemented at least one of Accela's many solutions. In 2017, the Company was named to Government Technology's GovTech100 for the second straight year. In 2016, it was ranked as one of Inc. Magazine's Fastest-Growing Private Companies in America, listed as a Top 50 Private Company in the East Bay by SF Business Times, named one of the 50 Highest Rated Private Cloud Companies to Work For, and designated a Certified Great Workplace by independent analysts at Great Place to Work. Accela is headquartered in San Ramon, California, with offices in, New York, Portland, Melbourne and Dubai. For more information, visit www.accela.com.



Environmental Health Services System

Williamson County, TX

COTS Software Solution Request for Quotes

July 19, 2017

Electronic Submission



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About Accela

Accela provides cloud-based civic engagement solutions for government. Accela's Civic Platform, which includes open APIs and mobile apps, enables and improves core processes for city, county, state and federal governments. Accela's solutions uniquely address the diverse needs of their constituents by making publicly available information more accessible. The Accela Civic Platform includes solutions for land management, asset management, licensing and case management, legislative management and more. With more than 2,000 customers worldwide, Accela is headquartered in San Ramon, California, with offices in San Francisco, New York, Portland, Melbourne and Dubai. For more information, visit www.accela.com.

Disclosure

In relation to future versions of planned system enhancements or future product direction, the information contained in this material is not a commitment or legal obligation to deliver any of the features or functionality described herein.

1 Vendor Experience

The Proposer has been in business for more than 5 years



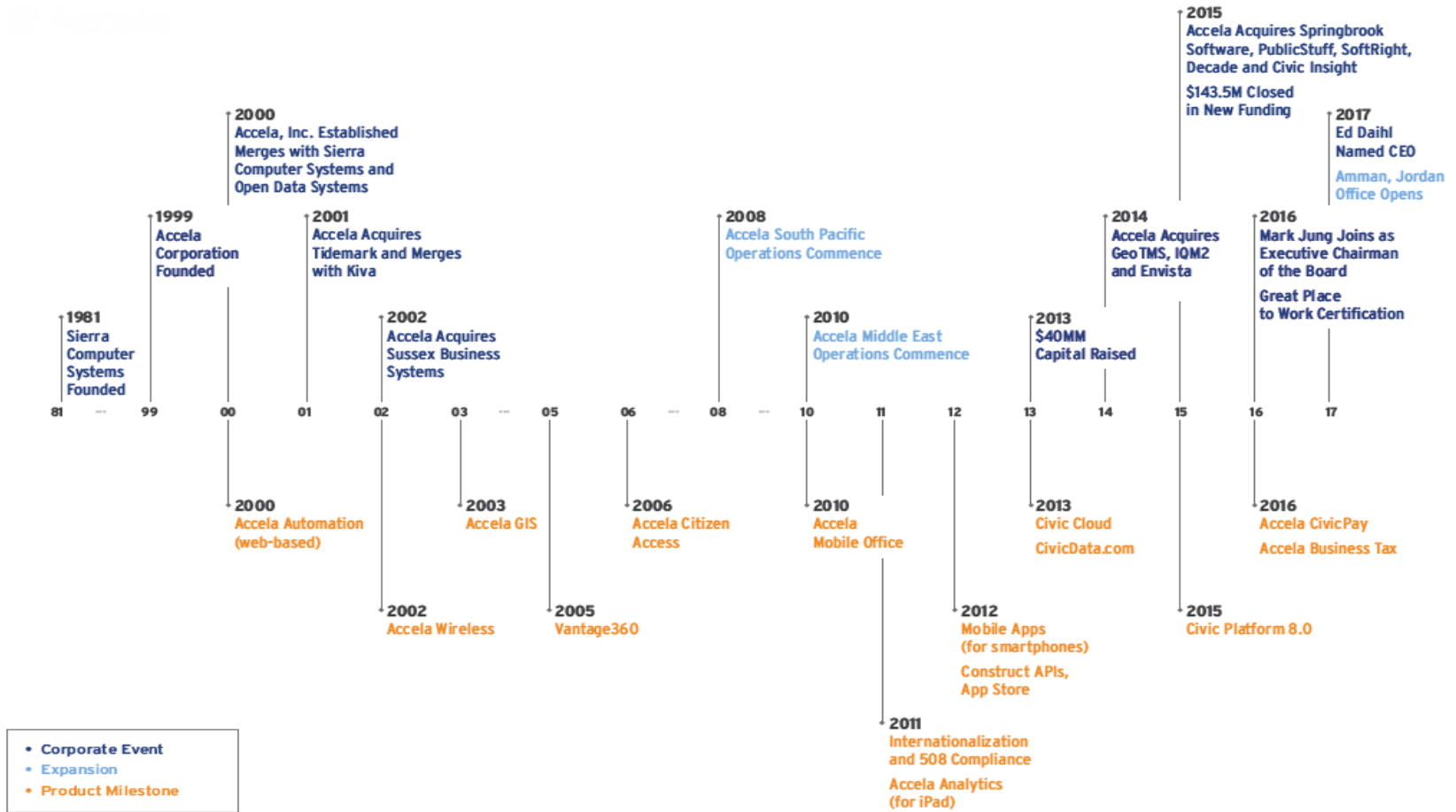
Accela was formed in 1981 and incorporated in California in 1999. We are a privately held corporation with headquarters in San Ramon, California. To meet growing global demand, we employ 450 technology professionals and maintain business offices in the United States, United Arab Emirates, and Australia. Our Civic Platform is implemented in virtually all 50 states, as well as in Canada, Puerto Rico, Australia, New Zealand, and the United Arab Emirates.

Throughout our history, Accela has served over 2,200 separate agencies and thousands of their departments with our Civic Platform.

In 1999, Accela launched the Accela Civic Platform — a web-enabled enterprise platform. For the last 18 years, our focus has been delivering advanced web-based solutions to back-office and field-based government workers:

- ➔ Strong mapping integration (Esri GIS), mobility apps, online citizen services, and integrated voice response (IVR)
- ➔ On premise or cloud deployments
- ➔ Perpetual License or Subscription-based pricing models
- ➔ Multitenant and regional solutions
- ➔ Multilingual and internationalized solutions
- ➔ Established strategic partnerships with industry leaders including Accenture, Adobe, Apple, Bluefin, DocuSign, e-PlanSoft, Esri, Hewlett Packard, Microsoft, Oracle, Panasonic and Selectron.

In 2015, Accela further strengthened our commitment to public health through the acquisition of Decade Software Company, a leader in Environmental Health informatics and a strong partner to the National Environmental Health Association (NEHA). In so doing, Accela acquired a solution and staff with experience in implementing over 100 public health agencies with industry leading regulatory software.



- Corporate Event
- Expansion
- Product Milestone

Exhibit 1: Accela's Corporate Timeline

Environmental Health Software Systems (System) have/has been in use for at least 5 years by another governmental entity

Accela's Environmental Health practice has been in use at government agencies since 2003. The Accela Environmental Health team is responsible for implementing over 100 similarly organized environmental health data management systems. Through this experience, the team brings decades of experience to include best practices, opportunities for optimization, and a rich understanding of local health department delegated and native responsibilities.

The System is preferred to be a proposer hosted solution

Yes. Accela Environmental Health can be hosted with Accela within the Accela Cloud.

Proposer is involved in the environmental health industry in a capacity beyond providing the software product.

Our SVP of Environmental Health, Darryl Booth is a long-time specialist in technology and environmental health. Darryl is affiliated with the Conference for Food Protection, National Environmental Health Association (Technical Advisor), California Retail Food Safety, and writes a column for the Journal of Environmental Health.

Accela Environmental Health is partnered with the National Environmental Health Association (NEHA) to advance Environmental Health through a technology initiative called Building Capacity. NEHA's vision for this partnership is to employ an industry leading environmental health technology firm to raise the technical aptitude and practices of the environmental health community.

“NEHA and Accela share the goal of supporting environmental health professionals to be more effective and efficient in the local communities they serve. Whether monitoring our food safety, our drinking water quality, or air pollution, use of current technology is a vital tool in recording and tracking data saving countless hours of manual documentation.”

- Dr. David T. Dyjack, Executive Director/CEO

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2 System Requirements

The System must be a web-enabled application

Yes. Accela Environmental Health is a web-based and web-accessed solution.

The System must not rely on web connectivity for full functionality and historical information

Yes, inspectors may work in the field (including inspection history) without internet connectivity. This can be achieved within the proposed mobile applications' "Download Work Offline" mode; whereby an inspection and its related record, documents and data attributes are stored offline on the Inspector's device for review and maintenance in the field without connectivity. Configuration can be put in place the locks the related record when an inspection is being conducted against a record; thus, ensuring no back-office changes are permitted until the Inspector has completed the inspection and successfully synced the resulted/dispositioned inspection to the back-office. Naturally, back-office functions in the browser require a network connection.

The system must have a mobile component

Yes. Accela Mobile, the field component of the Civic Platform, has received considerable design and investment to make it an intuitive and easy-to-use application for field and inspection staff. All the noted elements of this requirement can be performed by the product.

Our proven solutions for operational efficiency and civic engagement through mobile apps combine to provide extensibility by employing a dynamic cloud-based platform to support the needs of both agency employees and their user community.

Accela Mobile is more than an application - it is a complete strategy central to our government-centric development efforts. Our mobile strategy is to develop role-specific productivity and engagement solutions for every role in government, on every platform, while allowing public agencies to leverage our Software Development Kit.

Accela is the only vendor in our market with a published mobile application development kit allowing third party developers, including current clients, to develop custom mobile applications to work with our Civic Platform. We understand mobile applications are an environment supporting evolving creativity and innovation. Accela makes it easy for third party developers to build custom mobile apps that work against our Civic Platform.

The System must be Windows based

Yes. As a web-based and web-enabled solution, Accela Environmental Health is designed to function across multiple operating systems, including Windows.

Provide real-time integration between application and payment processor.

Yes. All payments are received and reflected in a real-time manner.

Prefer integration with our Identity Store (AD).

Accela's Civic Platform includes support for Active Directory repositories through LDAP as the authentication source for users. When the Civic Platform is configured to use an external directory server users are prompted by the application for their username and password which are then authenticated against the directory server providing a single point of administration for users. The implementing agency must accommodate certain network traffic (e.g., firewall rules) to accomplish this.

Data should be cloud based and retrievable for the duration of this contract, plus any extensions.

Yes. Your agency's data within Accela Environmental Health will remain the County's property and retrievable at your convenience. As per our standard Subscription Agreement, throughout the term of the agreement, upon the request of Customer, Accela will provide Customer with a copy of its data in a database dump file not more than once per calendar quarter.

The System includes built-in intuitive help functionality

Yes. Help is accessible across all Accela Environmental Health screens and is contextual based on the user's navigation; clicking help while reviewing a record details will display help topics related to record details and clicking help while reviewing inspection details will display help topics related to management of inspections.

The Provider will furnish written and on-line user and administrator manuals

Yes. Accela Environmental Health has extensive manuals for users and administrators in print and online through Accela's Success Community site for clients.

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3 System Scope

The System includes modules for On-Site Sewer Facilities, Retail Food Establishments, Public Health Nuisance Complaints, and Integrated Mosquito Management

Yes. The Accela Civic Platform manages Onsite Wastewater Treatment, Retail Food, Nuisance, and Mosquito (Vector) Control. The EH Best Practice Template features forms, reports, and workflow which are specific to these and other health programs.

Each License/Permit linked to a single facility carries its own inspection frequency, fee schedule, valid from/to dates, etc. For example, a Marriott with a Housing, Food, and Pool permit shall be managed tracked independently.

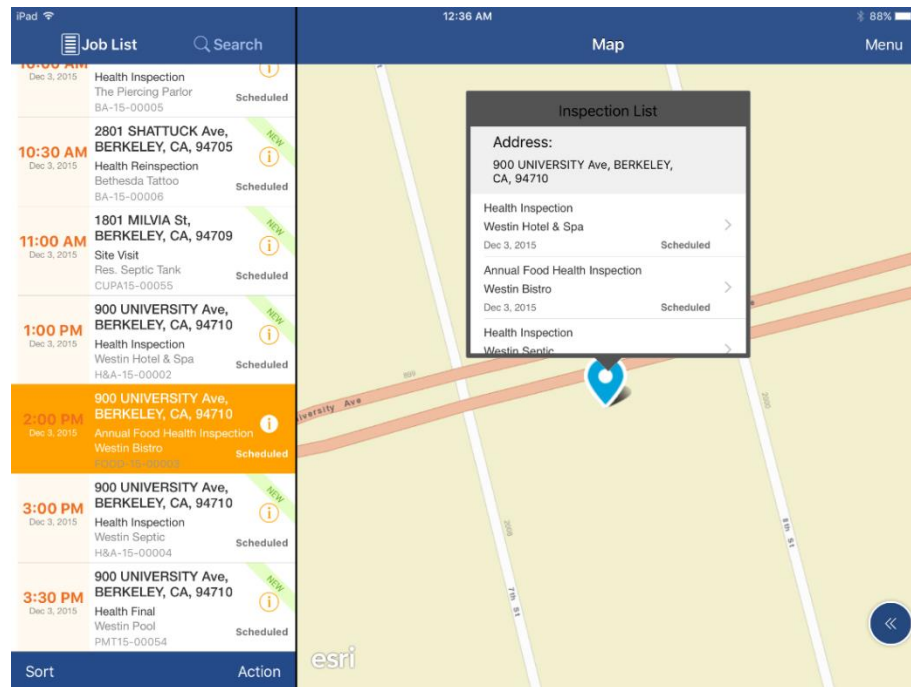


Exhibit 2: My Inspection List - Multiple Inspections Due at the Same Location

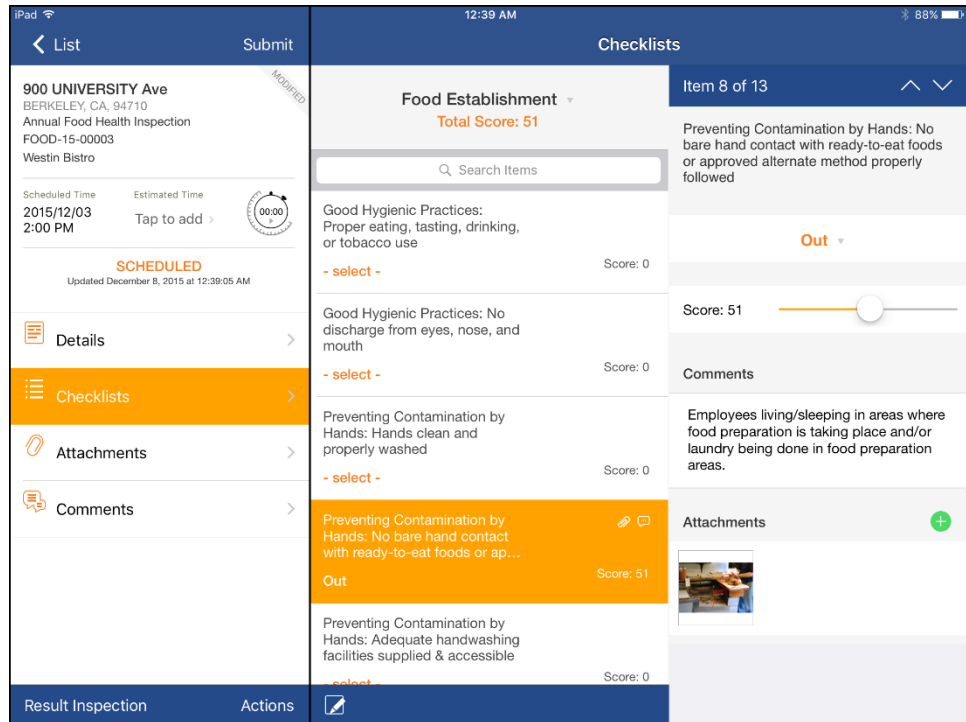


Exhibit 3: Populated Checklist Item with Attachment



Exhibit 4: Taking Photo and Redlining Violation

The System supports 12 OSSF users, for approximately 1,400 annual permits, 3 site visits per permit, 700 critical violations and other follow up inspections, and approximately 2,100 service requests

The System supports 25 users in Retail Food Establishments, General Sanitation, Public Health Nuisance Complaints, and Integrated Mosquito Management, for approximately 3000 retail food permits, 4000 retail food inspections, 300 retail food plan reviews, 200 general sanitation inspections, 100 public health nuisance complaints, and manage information and vector control response for 800 surveillance traps per year for mosquitoes.

The requirements cited above are easily met by the Accela Civic Platform Cloud.

Business Requirements Scalability

The ability to incorporate unplanned changes in business requirements and, in turn, how the solution can be reconfigured to adhere to these changes, is at the forefront of why the Accela Civic Platform was designed and continues to be upgraded to maximize its flexibility for public agencies.

Furthermore, agencies can define their own modules within the Civic Platform solution stacks; not limiting them to only the “out of the box” modules that are rigidly defined by other competitors. This offers endless possibilities for business-unit segmentation (i.e. the definition of a Body Art module) while still leveraging the enterprise capabilities of the Civic Platform through GIS, Global Contacts, Projects, Workflows, Fee Assessment and other relevant elements that ensure all Departments are working towards the same goal of better serving their customers.

Performance Scalability

Changing business requirements no longer present an obstacle and risk is diminished if in fact not eliminated. The n-tier scalability of the Civic Platform can accommodate the growth and changes that occur within the County as needed. The solution may be scaled both vertically (by adding additional processors) and horizontally (by adding additional server hardware) as needed. Recent performance test results show the Civic Platform running with thousands of simulated users while running against a huge data set (up to 10 million records and one table for agency-defined fields with 90 million records).

Accela typically scales by adding more services at each tier. For instance, additional web services can be created and load balanced to offset increasing demand at the web layer. This can be accomplished by adding an additional server with a new set of Accela services. At the application tier, additional the Civic Platform servers can be added into the application pool cluster. At the

database level, typically performance is improved by adding more memory, more disks, and better CPU power.

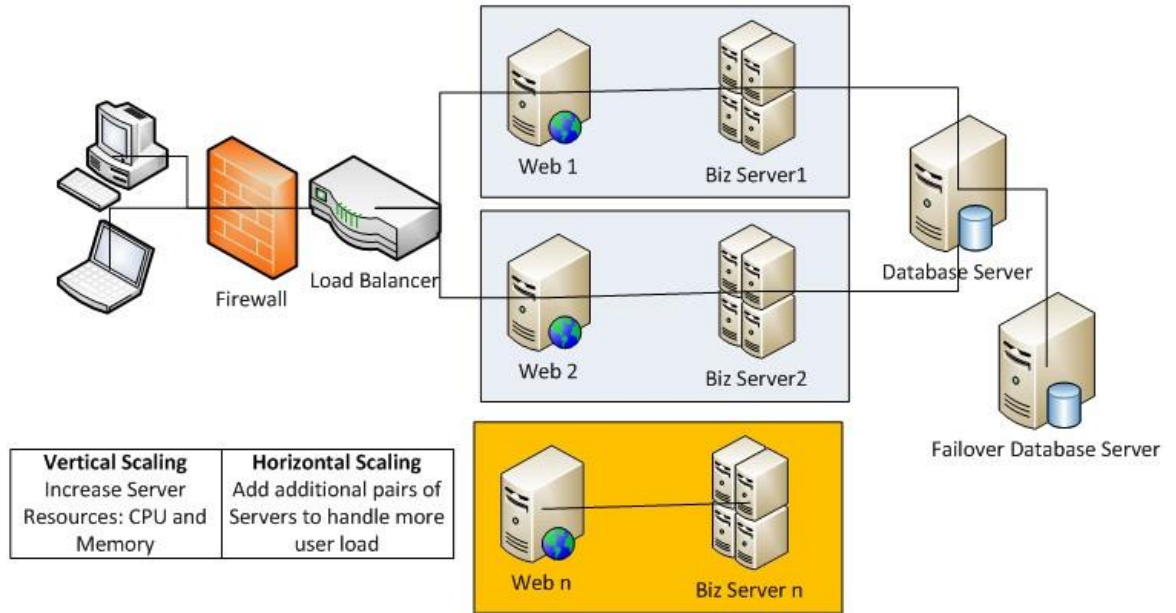


Exhibit 5: Civic Platform Scalability

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4 Customization

The System generates and prints standards and custom permits, forms, certifications, inspections reports and address label information

Yes. Accela Environmental Health will generate, save and attach, display and print any document generated on-screen or automated based on your agency's requirements, ordinances and business rules. The agency may configure its own reports, letters, certifications and forms at any time.

The System has unlimited user-defined letter and email templates for communications with customers/applicants and can be populated from the System data.

Yes. Templates for letters, labels and other documents are inherent capabilities of the Ad Hoc Report Writer or the Reporting Engines. The agency may configure its own letter and email templates at any time.

The System allows Administrators to add additional information, notes, instructions and data elements to page layouts.

Yes. Accela Environmental Health supports adding additional information and/or instructions to forms and screens.

The System allows customizations of labels and headers to match Williamson County and Williamson County and Cities Health District terminology and department naming conventions.

Yes. All the listed fields are representative of out of the box data elements that are configurable within the proposed solution.

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5 Security / Access

The System must provide for the additions, deletion and modifications of users by the administrators.

Yes. System administrators can add, modify or deactivate users, as well as establish the roles for each user. User maintenance can be done without relying on the Accela team. The solution provides sufficient controls at various levels/tiers that only authorized users can access data based on their User groups and role(s).

Note: With Active Directory (AD) integration, users are created in the Active Directory, then linked to the Civic Platform.

The System must provide for role based security for allowing/disallowing access to functional areas as set by the administrators.

Yes. The Accela Civic Platform is entirely governed by role and function-based security applicable to every user, both internal and external. These permissions to the system and to what users can access, view or complete are governed by the assignment of such roles/privileges by your System Administrators.

The System has the ability to interface with third party applications for financial applications, GIS and payment processing.

Yes. Over 100 API's have been developed by Accela to aid in integration of the solution to third party document management, financial and other systems agencies have deployed. Accela GIS includes an administrative tool for setting up and configuring features and integration with GIS map services. Accela GIS diagnostic tools are included for troubleshooting and checking for any issues with configuration items as well as Esri service issues that may impact integration.

The System has the ability to link address information from GIS and provide mapping applications or links to mapping

Yes. Employing Accela GIS, any record can be displayed and linked by GIS with respect to location and details, including those related to complaints. Geo-spatial mapping can be performed in the system in conjunction with its GIS component and the County's Esri GIS system.

The Civic Platform's utilization of Esri's JavaScript map viewer allows it to leverage several powerful Esri tools, including its predictive geocoding service published via ArcGIS Online. This service allows a back-office Accela user to

simply begin typing the desired work location and the predictive recommended results begin to auto-populate. Whether a user is looking for a specific address, an intersection or a place of interest, such as an airport, the map will identify the desired location and zoom the user to it on the map.

The System can link to websites directly from software (such as to statutory regulations sites)

Yes. Configuration supports the ability to embed links in the solution to allow users to access external sites and sources of information from within Accela Environmental Health.

The System must allow for the auditing of user activity (adds, changes, deletes & system logins).

Yes. User Activity Reports are common across our Accela customer base and as such we have pre-built a base user activity report within the solution. However, the County is welcome to modify reports and/or create entirely new user activity reports through Accela's Ad Hoc Reporting tool and/or through any of our supported third-party reporting engines. All System Audit Trail and transactional activity within the Accela Civic Platform is accessible for reporting.

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6 Data Management

The System generates unique record ID numbers matching Williamson County protocols.

Yes. Record numbers are issued sequentially and can be defined to correspond to an agency's desired format. In all cases, such identification numbers are unique.

The System allows users to view and link to all related records from one record or location.

Yes. The hierarchy of a record's relationship can be viewed by users, as well as the ability to search for records within Accela Environmental Health and relate as parent or child. Example: Complaints may be linked to a License or Permit.

Complete permit histories must be accessible by address, parcel number, permit number or GIS coordinate. Must include statement, based on history data within Accela.

Yes. Users can search for records by location including address, parcel or other geographic location information, as well as permit number or other record attributes. *Note: Based on proposed implementation there would be no permit history converted into Accela.*

The System must allow for hyperlink documents and other data sources (PDF, MS Office documents, pictures, legacy system MS SQL databases, video).

Yes. Authorized users can create, modify and delete hyperlinks to internal and external documents, records, files or sites. The definition and inclusion of hyperlinks in the solution is entirely determinable by system administrators and can be modified at any time.

The System must provide comprehensive records searching and sorting capabilities by name, address, parcel information, permit number, unique words and program identifiers.

Yes. All data fields in the solution are available as a search parameter including those shown in this requirement.

The System provides for multiple addresses for one property (i.e., street address, P.O. Box, etc.)

Yes. Each facility can have multiple associated addresses each with a different address type, definable by the County

The System provides for transfer of ownership of permitted items

Yes. Facility ownership can easily be transferred between owners; Accela Environmental Health can transfer details related to those records as well.

The System provides for linking or attaching digital files (.pdf, .jpg, etc.)

Yes. The Accela Civic Platform provides for attaching or limiting digital files (.doc, .xls, .dwg, .shp, .jpg, .pdf, etc.). The solution has both on-board document management as well as the capability of interfacing with enterprise document management systems to manage the attachment of digital files.

The System provides for identifying contractor, installer, agent and third party relevant information.

Yes. The Accela Civic Platform features the capacity to maintain an inventory of contractors and their certification information. Using system configuration, specific functionality may be defined and enforced for different categories of external users like licensees, employers, food handlers, third-party administrators, etc.

The System provides for partial applications that have not been completed or do not meet requirements to be placed in a hold status until the application(s) can be completed or requirements have been met.

Yes. The Accela Citizen Access portal provides a "Save and Resume" feature that allows applicants to save a partially completed application and return to complete it later and time. Payment will be required for the application to be formally submitted for processing by County staff. The County can define how long incomplete applications remain active and can automatically or manually purge applications that exceed that time.

The Civic Platform allows the County to place conditions (such as hold and stop work) on permits that restrict them from progressing in workflow, associate conditions with reviews and specific employees, set due dates for resolution of conditions and require the user entering conditions to supply a reason. Conditions may be placed to stop work or otherwise affect processes, as well as to inform

staff of important items for resolution or informational purposes. The system can be configured to require that every staff member setting a condition supply a reason for the condition. Conditions may be released automatically (e.g. upon satisfaction of requirement) or released by authorized users.

The System provides for tracking of all customer contacts by phone, email, written correspondence, to include dates, times and comments fields.

Yes. Accela Environmental Health includes a Communication Manager that can be linked to the County's exchange server to help track email communications related to cases and automate the delivery of email to related record, permit or facility contacts based on workflow or other configured business rules.

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7 Reporting / Queries

The System comes with standard reporting capabilities and ad-hoc reporting to create customized reports or queries.

Yes. The solution provides standard reports as well as a built-in Ad Hoc Report Writer that allows non-technical agency staff to create, modify and deploy reports (standard or custom) throughout the system over time. Reports may be exported into formats such as PDF, MS Word, MS Excel and XML.

The System provides dash-board reporting.

Yes. End users can use the Dashboard functionality provided inherently by the solution to post key data to a wide variety of graphical formats (bar/line graphs, odometers, pie charts, etc.), including the elements outlined by this requirement.

The System provides for report preview functions

Yes. Accela Environmental Health can provide a preview of the report, then allow the user executing to determine export, delivery or saving options.

The System has the ability to convert and save ad-hoc and standard reports in Word, Excel and/or PDF formats.

Yes. The solution allows search or report data to be exported to Word (.docx), PDF Format (.pdf), Comma Separated Values format (.csv), and Excel format (.xlsx).

The System provides for trend analyses by user defines data fields

Yes. Ad hoc reports can display trend analysis by data fields (e.g. by dates) showing data over time.

The System provides for standard and ad-hoc reporting if financial data and information sorted and linked to various data fields.

Yes. All data fields, including those created as user-defined fields, can be used as report parameters.

The System provides for status and action reports and provides selected users with notifications and/or alerts.

Yes. Alerts of this type can be created and generated by system administrators using the Announcements feature in Communication Manager.

The System provides for public access to selected data as part of typical open records searches or inquiries

Yes. Governed by business rules, system administrators may grant the public access to view a public record report regarding information maintained in the solution.

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8 Inspections

The System provides for scheduled and ad-hoc inspections.

Accela's Civic Platform allows for both scheduled and unscheduled (ad hoc) inspections. Ad hoc inspections may be completed at any time by authorized users.

The System allows for mobile devices to have full access to the database remotely

Yes. Accela Mobile fully supports offline data reporting and can download required inspection data and documents to the device when lack of connectivity is anticipated.

Offline capabilities.

Yes. The Accela Civic Platform natively supports offline capability and will automatically synchronize when connected to a Wi-Fi or cellular data connection.

The mobile devices will have full access to standard reporting features while in the field

Yes. Accela Mobile fully supports offline data reporting and can download required inspection data and documents to the device when lack of connectivity is anticipated.

The System must provide for the ability to sync inspection schedules with Microsoft Outlook

With additional configuration, Accela leverages MS Outlook integration and with configuration of the Business Rules Engine, the solution can push each inspection request to an inspector's Outlook calendar.

Administrators must have the ability to manually assign and reassign inspections and modify work schedules

Yes. Administrators can manually assign and reassign programs/inspections to inspectors.

The System provides for automatic scheduling of inspections and groups by location per day.

Yes. The solution provides for automatic assignment of inspections based on location or other business rules. The proposed solution includes robust inspection scheduling and management capabilities including the definition of agency and customer initiated inspections, recurring inspections and automated, event-triggered inspections. Each inspection type can possess its own unique statuses/dispositions, checklists, printable documents, standardized comment/code libraries and much more. Inspection assignment logic can factor in a multitude of factors including geographic location, trade qualifications, inspection type, inspector bandwidth and/or history with the product/business/location. Once assigned, Inspectors can optimize their inspection routes based on optimal distance (i.e., sequence by proximity), optimal time (i.e., fastest route) or by manually organizing their route. Each inspection type can be defined with an "average time to complete" which will factor into the calculation of the approximate end time from the time the inspection is scheduled to start. These estimates can then be cross-referenced against the actual start and end time of each inspection to help populate key performance indicator (KPI) reports and dashboards. Each inspection captures requested date, scheduled date, inspection date, start time and end time.

The System provides for ad-hoc / additional inspection forms that may only require permitting fee payment, inspections reporting, follow-up inspections and maintenance reporting in any combination depending on the type of permit requested/required.

Yes. The elements of this requirement are supported by the solution.

The System provides the ability to link photos from the field to the inspection report.

Yes. Photos taken during inspections can be included in inspection reports.

The System provides for the review and access to previous inspection report for the purpose of establishing an inspection history for a specific location, permit or facility.

Yes. The elements of this requirement are supported by the solution. The Civic Platform will maintain a permanent history of all inspections and related activity occurring on a specific site or location. While changes to this saved information are permissible by authorized users, the System Audit Trail will record all such changes, deletions or additions and provide the user login, date and time of such modifications.

The System provide for electronic signatures or similar.

Yes. Signature collection is a central feature of the proposed solution. The inspectors signature (on file) may be injected into the generated report. The Accela Civic Platform can be interfaced to signature pads at the front counter so an agency can capture electronic signatures in the office and apply them to permit types and for other business purposes. The Accela Civic Platform also allows users to store electronic signature images including preprinting a signature on a form letter, notice, etc.

In addition, Accela Mobile, the system's mobile government application, can collect electronic signatures on field devices which are automatically linked to a specific inspection record.

The System provides for inspections results to be emailed from the field to a contractor, owner, or installer.

Yes. Inspection results can be delivered to facility operators or other contacts by email. Results can also be viewed by facility operators through Accela Citizen Access.

The System will provide for real-time syncing from the field mobile devices to the database and the capability to store and then sync with the system when back in the office if service cannot be established at a particular field location.

Yes. The proposed mobile applications are designed to capture data in the field and can operate in environments not supported by wireless connectivity or in those in which such connectivity may be temporary lost.

The System tracks time for inspections and time spent on tasks and assignments outside of inspections

Yes. Inspection timeframe rules based on inspection type for automatic inspection scheduling may be configured for support by the solution.

Administrators/Supervisors can track and monitor employee time and activity, including activities outside of inspections (e.g. plan reviews, meetings, training, sick time, vacation, etc.). All system users can be set up to allow time entries to track work activities outside inspections. Time spent completing workflow tasks can be required and used for reporting purposes. All employee time activities can be delivered to the County's payroll system via API integration.

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9 Financial Reporting

The System will generate and print batch financial reports segregated by module and user-defined access to modules

Yes. Reporting across modules on all standard and user-defined fields is supported through Ad Hoc Report Writer and the seamlessly integrated Reporting Engines (Crystal Reports, MS Reporting Services, and Oracle Reports).

The System generates invoices and fee requirements based on established fee schedules, formulas, or other information entered by the user

Yes. The solution can calculate license fees, late fees, and penalties based on user-defined fee schedules and business rules.

Fee/discount/penalty transaction codes can be added and edited by administrators

Fees can be edited or added to records based on user configuration limiting access to administrators.

Administrators have the ability to over-ride fees, add fees or modify fees

Users with administrator role can add fee calculation rules for assigning specific fees. Authorized users have the inherent ability to make any additions or changes to fee calculation rules. If such changes are made to an existing case type, those changes will be subject to provisions of the System Audit Trail. Additionally, fees not preconfigured for any record type can be added based on user configuration.

The System has the ability to accept cash, checks, money order, ACH and credit/debit card payments

In-person or mail-in transactions will still make cash or check payments possible. Credit card transactions are accepted using the agency's web portal, which provides the capability to make online credit/debit card payments 24/7 via any standard web browser.

The System must have the ability to submit payments to, debit payments from, track, and report payments across multiple accounts or multiple account types as defined by the user for segregating monies based on modules, reporting on the back-end, and providing detailed invoices

The Accela Civic Platform can manage customized financial information, accounting for all monies collected, including accounts receivable and invoicing.

The System allows for authorized users to make refunds

An authorized user can un-assign a payment that has been assigned to satisfy a fee and either reassign or refund the payment. Authorized users can make these types of modifications in the fee and cashiering element and all such changes subject to provisions of the audit trail.

The System includes auditing functions

All fees and cashiering operations fall under the solution audit trail providing users with trusted accounting for all financial transactions. The same is also true where system administrators have adjusted/changed fees for business purposes.

*The System can export all transaction data in *.csv format defined by user*

Supported output file formats are: CSV, PDF, Microsoft Excel, XML, Microsoft Word and RTF.

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10 Public Access / Communications

All communications records must be maintained

Yes. Activities related to facilities or permits will track phone calls, letters and other actions. All electronic communication will be maintained in the Communications Manager element of the record, providing a full history of outbound and inbound communications related to the permit or facility.

The System provides for individual, selected and mass communications distribution to customers by authorized users

Yes. The solution supports this requirement as described.

The System must provide for a public web portal for customer s to apply for permits, renewals, inspections as applicable

Yes. Accela Citizen Access will provide the public and facility-related contacts the ability to complete searches, apply for new permits, pay fees, see inspection results, submit and track complaints.

The System provides for the collection of demographic information as may be required for various programs within the County

Any demographic data defined by business rules can be setup for capture for external users, including those which the County sets as "required".

The System must provide for payment acceptance via the Web

Yes. The proposed solution fully supports online payment for services across all County records and programs. Fees assessed through the online portal are automatically consolidated into an invoice prior to payment.

The public web portal can upload photos or files

Yes. Any type of document or file that exists in an electronic format can be uploaded via Citizen Access online, through the back-office as well as through all applicable mobile applications. These documents, once uploaded, can be viewed in their native formats by authorized staff and online users. The County can configure limits regarding the acceptable file types that can be uploaded, their maximum size, when such documents can be uploaded, any supporting data

attributes that need to be collected alongside an applicable document type and to whom those documents are visible.

Data shown and used on the public web portal must be automatic with predefined parameters

Yes. Virtually every field in the system is available as a search parameter and customers who access the solution through its online web portal can search data that your agency makes available to them.

The System must provide for Secure Portal Users and require a unique user ID and password.

Yes. Usernames will be unique for both staff users as well as public users on Accela Citizen Access. Password creation and updates are of the end user's determination and can be controlled by password restrictions/requirements as set forth by the County.

The System must provide for unique user ID and password for staff users that can be maintained by the Administrator

Yes. Usernames will be unique for both staff users as well as public users on Accela Citizen Access. Password creation and updates are of the end user's determination and can be controlled by password restrictions/requirements as set forth by the County.

The public web portal must be accessible to the public by mobile devices and meet the requirements of the ADA.

The public-facing Accela Citizen Access portal offers unprecedented features and functionality that empower agencies to conduct business with the citizens they serve in a 24/7/365 including application/request submission, research, GIS mapping, fee payment, license renewal, project management and much more. Citizen Access supports non-registered (i.e. public), registered and third party contributors to work collaboratively with the city. Those with a registered account are welcomed with a personalized dashboard highlighting items that require the user's immediate attention, open invoices, active projects and recent work activity with the municipality. Citizen Access is also mobile-browser adaptive, ensuring that those customers that access the site from a smartphone or other mobile device are provide with a powerful and intuitive user experience uniquely suited to their device. Citizen Access is also 508 Compliant, making the software accessible for individuals with physical, sensory or cognitive disabilities.

The System must provide for securing applications once submitted and not allow any changes or edits by the external user or public after submission, but provide for staff users to edit as needed to meet minimum requirements.

Yes. The solution allows an authorized user to setup prerequisites of any kind (e.g. licenses, certifications, education, etc.) All these prerequisites will be validated during the submission process using configuration and the Accela business rules engine. The system will alert the Applicant if they do not meet any of the prerequisites configured by the authorized user.

The System must provide for permit application fields that can be set by the Administrator for the specific permit type or form required

Yes. Accela Environmental Health provides each agency with the ability to configure as many fields as needed and required specific to each case type.

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11 Appendix - The Accela Difference

To further support our proposed solution for the County’s needs, we have provided additional, relevant information in this appendix that we believe adds value to the County’s overall understanding of Accela’s offering.

11.1 Your Platform, Your Modules

The County defines your own modules within the Accela Civic Platform solution stacks. You are not limited to only the out-of-the-box modules that are rigidly defined by other competitors. This offers the County endless possibilities for business-unit segmentation while still leveraging the enterprise capabilities of the Civic Platform through GIS, Global Contacts, Projects and other relevant elements. This ensures that all departments are working towards the same goal of better serving your customers.



- Mobile App
- CRM
- Knowledge Base

CITIZEN RELATIONSHIP MANAGEMENT

A digital communications system to facilitate service requests and access to city services. A mobile app, backend CRM, and web tools help create more connected, engaged communities.

accela.com/citizen



- Planning
- Inspections
- Permitting

LAND MANAGEMENT

Planning, permitting, inspections, and code enforcement allow for 24 hour access, internal collaboration, and mobile access resulting in improved customer service & revenue.

accela.com/land



- Agenda & Minutes
- Civic Streaming
- Digital Boardroom

LEGISLATIVE MANAGEMENT

Increase transparency and trust by managing your public meetings online. With streaming & automation capabilities, you can make increased efficiency look easy.

accela.com/legislative



- Finance & Budgeting
- Utility Billing
- Payroll & HR

FINANCE & ADMINISTRATION

A comprehensive financial suite for local governments and special districts that spans budgeting, payroll & HR, and utility billing.

accela.com/finance



- Endorsed by NEHA
- Flexible Configuration
- Extensive Reporting

ENVIRONMENTAL HEALTH

Make data-driven decisions about your environmental health operation using a single, consolidated database to boost efficiency, compliance, and fee-collection.

accela.com/environmental



- Business Licensing
- Alcohol & Tobacco
- Recreation

LICENSING & CASE MANAGEMENT

Manage and regulate licensing while streamlining revenue collections, enhancing enforcement actions, and improving customer service.

accela.com/licensing



- Utility Coordination
- Events & Incidents
- Citizen's View



- Water Systems
- Streets & Traffic Devices
- Facilities & Fleets

RIGHT OF WAY MANAGEMENT

Map-based coordination provides visibility into street activities, reduces the impact of infrastructure projects on residents & businesses, and saves money.

accela.com/rightofway

ASSET MANAGEMENT

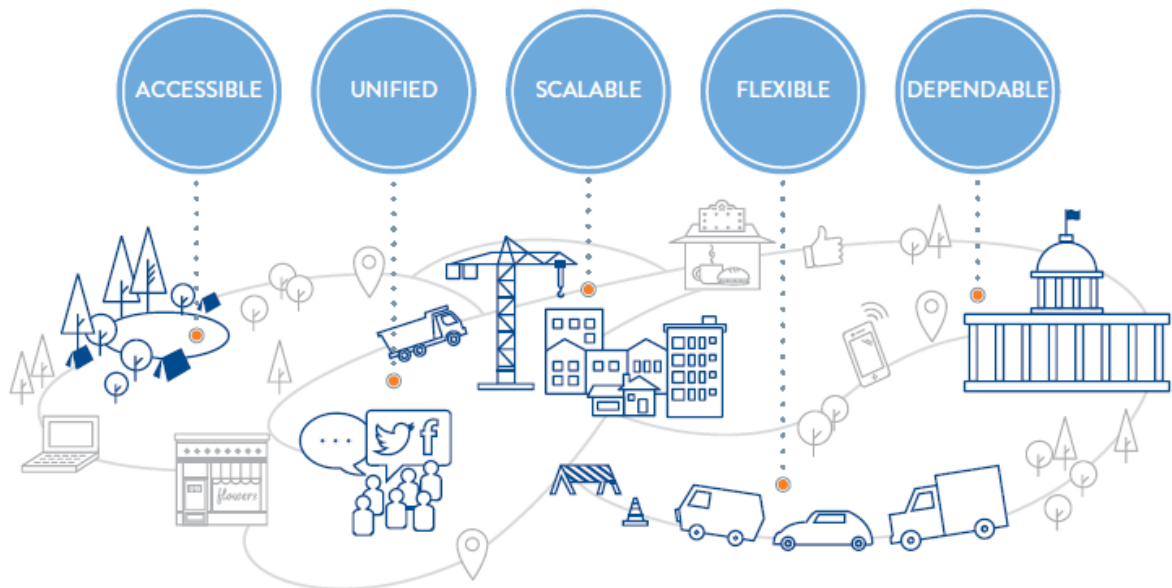
Ensure your agency's infrastructure assets are managed effectively while providing critical data to fulfill all legislative, regulatory, audit, and reporting requirements.

accela.com/asset

Exhibit 6: Embrace the Power of the Civic Platform

11.2 An Enterprise Solution

Yes. The Accela Civic Platform was designed to function across an enterprise level at a given agency serving a myriad of departments with specific applications to suit their individual business needs.



11.3 Unified Service Delivery

Cities, counties and other local government entities can no longer afford to have silos of information and separate systems. Many citizen services require the involvement of multiple departments within an agency or even outside local or state agencies. An increasing number of local development agencies are creating a united service delivery option whereby all involved parties work together in a team fashion to process a development application and subsequent building permits. Such united delivery mechanisms provide the customer with a single place to file their application and a main point of contact rather than shuffling around town from department to department juggling several applications and contacts.

UNIFIED

When software works together, people can do the same



PASS & RECEIVE DATA

Seamless data flow between your departments, users, and products speeds productivity and eliminates duplicate entries.

A COMMON USER INTERFACE

As we integrate our product suite into the Accela family, we're unifying our designs so that your experience will be consistent across all products.

MANAGEMENT DASHBOARDS

Integrated dataflow will also benefit cross-departmental reporting and activity tracking.

While many software providers may claim that any web-based system can be shared amongst internal and external users to achieve this goal, best practices dictate that these external users have limited access rights. Accela long ago recognized the need for development agencies to collaborate with each other in a secure fashion in order to deliver a unified service to their citizens. At the foundation of our Civic Platform is the ability to define internal and outside departments that are associated to a user account and then leverage those

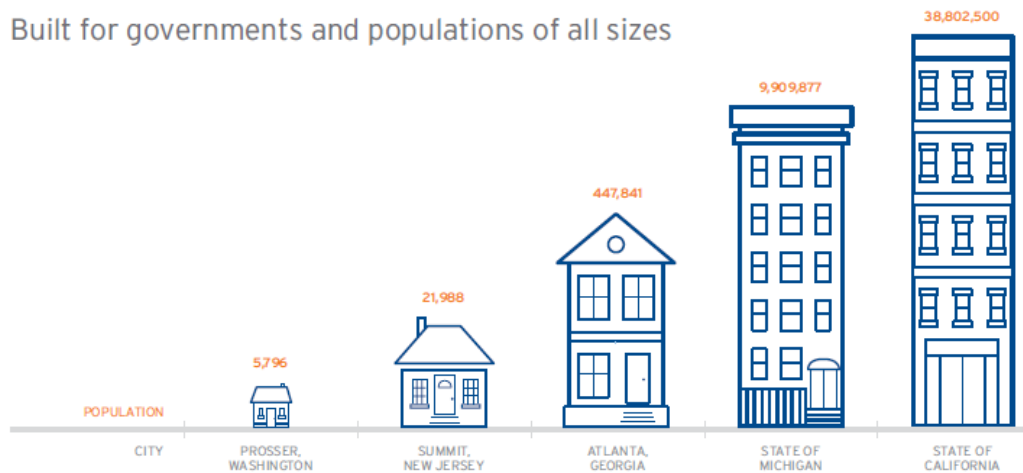
departments for limiting access to what external users can see and modify. In other permitting applications, if a user has rights to update workflow, then that user can update any workflow task for any permit. In addition to workflow security for external users, restrictions can be placed on certain record types in specific statuses, inspections, conditions/holds and attachments for broad security controls throughout the entire system.

11.4 Scalable

The Civic Platform solution is based on open architecture, common best practices and utilizes publicly available technologies. The application layer can scale both vertically (by adding additional processors) and horizontally (by adding additional server hardware) allowing deployment infrastructure that grows to accommodate an agency’s requirements. There are no proprietary technologies in the product. This architecture ensures that the complete Accela Civic Platform ecosystem is scalable for easy deployment.

SCALABLE

Built for governments and populations of all sizes



<p>POPULATIONS FROM 1K - 10M+</p> <p>From small towns to states, Accela solutions are built to meet the needs of communities of all sizes.</p>	<p>STAFFS OF 1 TO 2,000</p> <p>With an emphasis on usability & templating, workflows are easy to learn yet also feature enhanced routing and collaboration features for large workforces.</p>	<p>FUTUREPROOFED INVESTMENT</p> <p>Cloud software means frequent, immediate upgrades and has the flexibility to be customized as your needs evolve.</p>
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The application server hosts the business logic with a set of reusable business components. This construction offers **multiple integration options** to provide

flexibility and standards-compliant access with a well-defined interface to lower integration costs.

Additionally, the Civic Platform uses an ActiveX control for interfacing with specific cash drawers when a cash drawer is actually used and where it is only required that the PC connected to the cash drawer have the ActiveX control installed.

11.5 Flexible - Complete Configurability of the End User Experience

Adjust the look and feel of any form or list within the product by adding, removing, requiring, resizing and/or renaming any field, whether out of the box or defined by the agency. This can be done by any user with the appropriate role rights and can furthermore be deployed using the “Effective Scope” definition to the appropriate Solution, User Group or individual User. This ensures that users are working in an environment optimized for their daily tasks, showing them the most important information where they need it most.

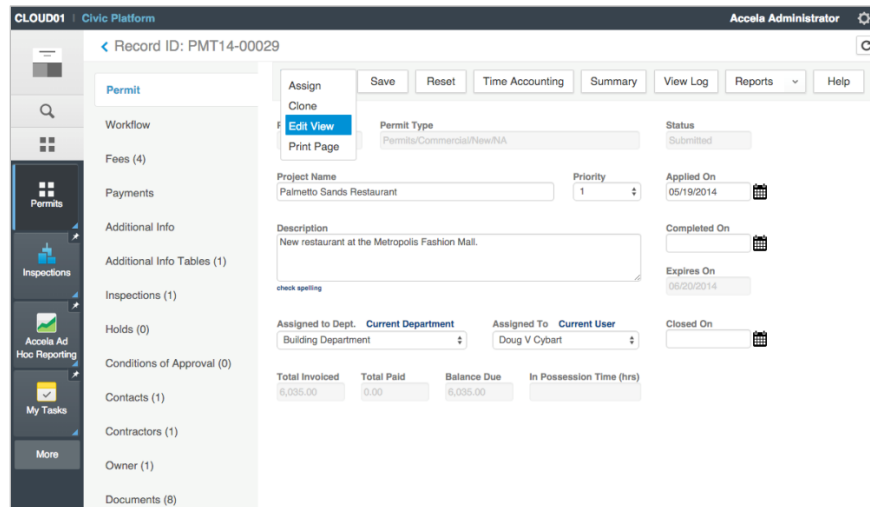


Exhibit 7: Example of the base permit form with the menu option highlighted to enter into edit mode

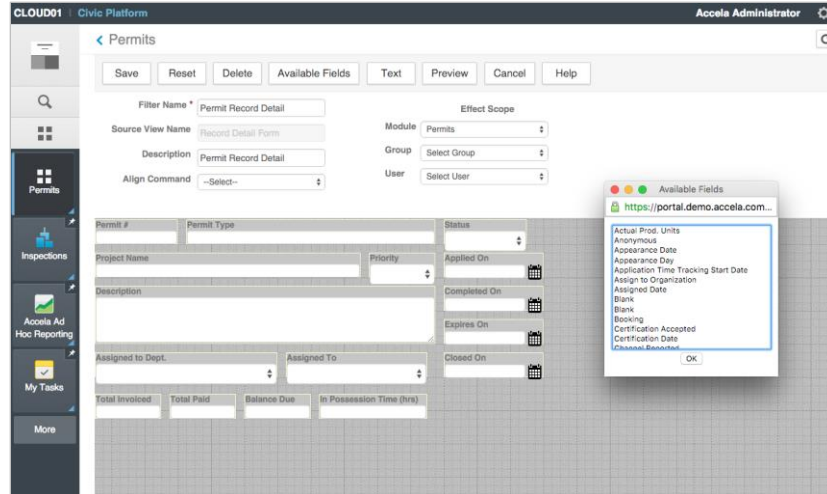


Exhibit 8: Example of the permit form in edit mode

11.6 Mobile Applications on all Major Devices and Platforms

A Mobile Strategy should be a Priority

“The average cost per transaction to provide a service online is \$3.91 compared to \$17.11 to provide the service offline – a difference of \$13.20 per transaction.”

*Center for Public Policy & Administration
University of Utah*

We understand that Agency IT Departments have a wide variety of choices when it comes to mobilizing their workforces including devices ranging from laptops to tablets and smartphones as well as operating systems such as iOS, Android and Windows. As such, we are committed to providing industry leading applications on the big three platforms: Apple (iOS), Google (Android) and Windows (Mobile and Windows OS). Furthermore, our applications are designed to work natively on tablets, smartphones and laptop operating systems leveraging those operating systems. We welcome agencies to try these applications on their chosen mobile devices as all **our mobile applications include a complimentary Preview Mode** that allows users to experience the features and functionality that can help empower their field personnel to deliver a higher level of service to your constituents.

11.7 Powerful Mobile Capabilities

Accela has developed and published mission critical mobile applications including Inspector, and Contractor Central. Agencies will find that there are distinct functionality capabilities unique to Accela when compared to the competition including:

- ➔ Turn-by-turn, voice-navigations utilizing the Inspector's preferred mapping application
- ➔ Support for multiple checklist items and groups of checklist items per Inspection type
- ➔ Ability to associate photos, ad-hoc comments and standard comments directly against the specific checklist item(s) in violation
- ➔ Access to standard comment libraries, favorite comment libraries and a reference to the Inspector's most recently used comments
- ➔ Ability to capture Latitude and Longitude coordinates in the field to update job site locations with greater accuracy while in the field
- ➔ Ability to expose any report from the back-office system to users in the field
- ➔ Full mapping capabilities including the ability to turn on/off GIS layers, select and identify GIS features and create cases against GIS elements outside of just parcels and addresses
- ➔ Native store-and-forward capabilities for intermittent connectivity as well as the ability to download all jobs and related data offline in instances when an Inspector knows they will be working disconnected for longer stretches at a time
- ➔ Ability to capture photos, videos and/or voice memos and relate to the record in the field
- ➔ Ability to update workflow progress and case-attribute data in the field including but not limited to contacts, licensed professionals, property information, custom field information (such as square feet, valuation, the number of rooms, etc.) and the ability to add/remove Locks, Holds, Notices and/or Requirements.

11.8 Customer Friendly Citizen Access with Mobile Browser Support

Accela’s Citizen Access offers unprecedented features and functionality that empower agencies to conduct business with the citizens they serve in a 24/7/365 including application submission, research, GIS mapping, fee payment, license renewal, project management and much more. The Citizen Access portal supports non-registered (i.e. public), registered and third-party contributors to work collaboratively with the County. Those with a registered account are welcomed with a personalized dashboard highlighting items that require the user’s immediate attention, open invoices, active projects and recent work activity with the County. Citizen Access is also mobile-browser adaptive, ensuring that those customers that access the site from a smartphone or other mobile device are provided with a powerful and intuitive user experience uniquely suited to their device. Citizen Access is also the only permitting and licensing solution that is 508 Compliant, making the software accessible for individuals with physical, sensory or cognitive disabilities. *For more information about 508 compliance and why it is important, visit <http://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-section-508-standards>.*

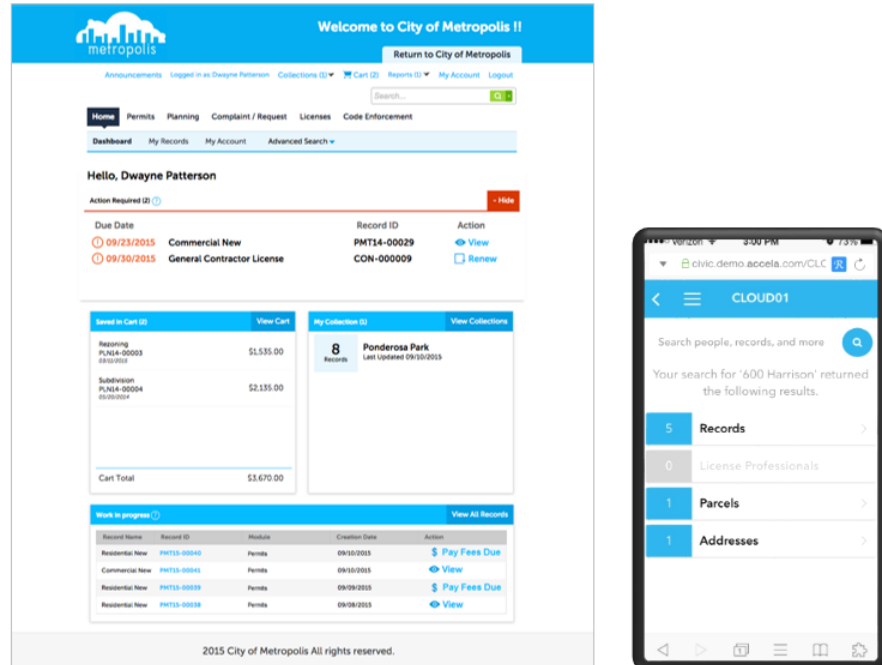


Exhibit 9: Accela Citizen Access and Mobile Browser

11.9 Robust Citizen Access Administration Tools

No longer will agency departments have to rely on IT personnel to change content, capabilities or the look and feel of their business vertical's online presence with the Civic Platform. Accela has built an intuitive set of admin tools for managing these elements, empowering subject matter experts within departments to evolve and keep relevant the content that is made available to the public online. Competitors in the marketplace cannot offer this level of capability and often require that users edit HTML, XML or ASPX pages on the web server to achieve the same behavior that is available in the intuitive Citizen Access Admin tool. Furthermore, Accela supports internationalization with out-of-the-box language packs including Spanish: <https://aca.accela.com/alameda/>.

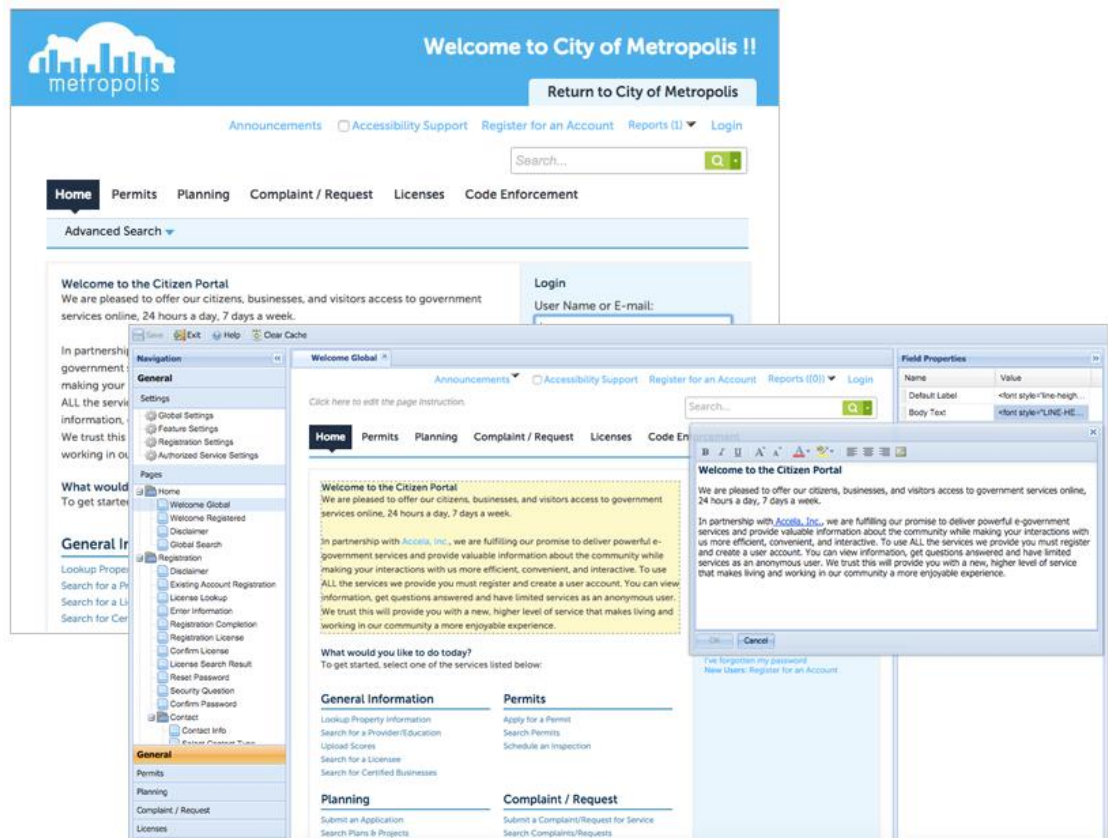


Exhibit 10: Example of the Citizen Access Home Page and the corresponding Portal Administration View

11.10 Reports Where and When You Need Them

Ability to deploy reports virtually anywhere within the system, make them available for execution manually, automatically or only when specific milestones have been met. Restrict who can execute reports based on role level security and/or application status.

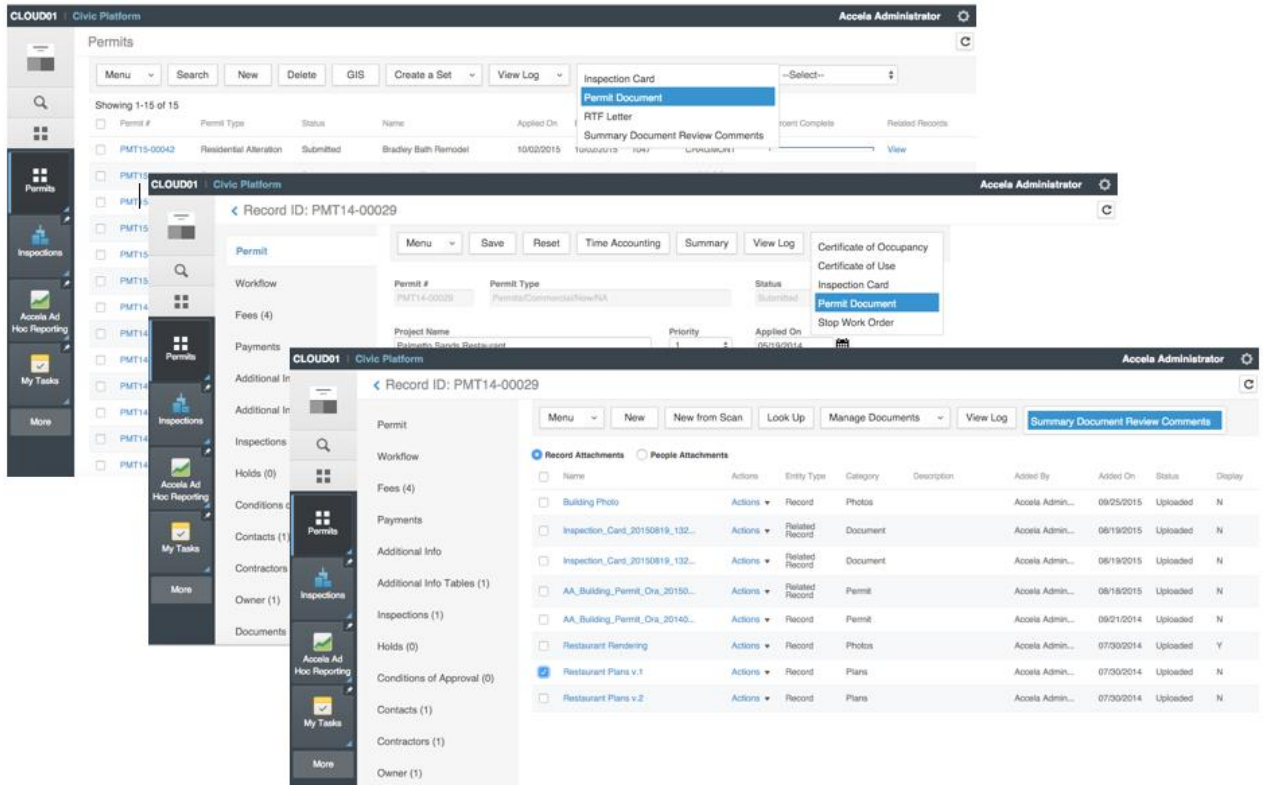


Exhibit 11: Examples of Reports deployed within a Record List, Permit Form and Permit Documents List

11.11 Support for All Major Report Authoring Tools



In addition to Accela’s built in Ad Hoc Report Writer tool, the Civic Platform also supports reports developed in the major report authoring tools on the market including Crystal Reports, Oracle Reports and Sequel Server Reporting Services (SSRS – for on-premise deployments) as well as deploying MS Word documents for mail-merge reporting against data within Accela. These reports can be deployed throughout the application seamlessly and do not require any additional software or services deployment onto client/end user machines.

11.12 Intuitive Workflow Designer

Our Civic Platform includes a robust workflow design tool for milestones, status connectors that allow for linear, concurrent, skip and loopback functions and powerful automation capabilities including calls to GIS, nested workflows, automated status changes and automated email communication. Clean lines, color-coded and icon-based status indicators and an HTML5 responsive design allows your agency to quickly move applications through the unique business processes to take them from intake to approval.

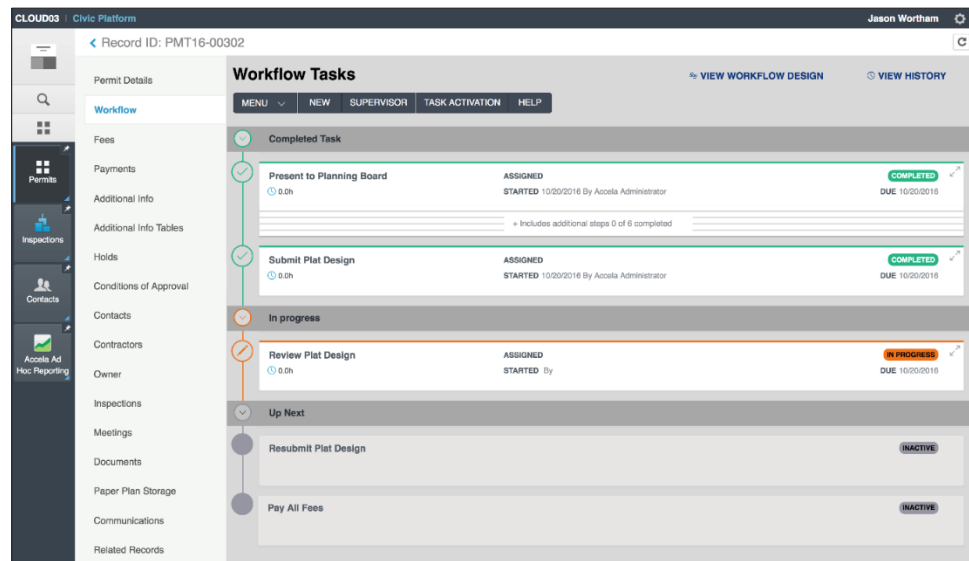


Exhibit 12: Workflow Tasks

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Williamson County

Vendor Reimbursement Policy

The purpose of this Williamson County Vendor Reimbursement Policy (“Policy”) is to provide clear guidelines to vendors on Williamson County’s expectations and requirements regarding allowable reimbursable expenditures and required backup. The Policy will also minimize conflicts related to invoice payments and define non-reimbursable items. This Policy is considered a guideline and is not a contract.

This Policy may be altered, deleted or amended, at any time and without prior notice to vendors, by action of the Williamson County Commissioners Court. Unenforceable provisions of this Policy, as imposed by applicable law, regulations, or judicial decisions, shall be deemed to be deleted. Any revisions to this Policy will be distributed to all current vendors doing business with the County.

1. Invoices and Affidavits

- 1.1 Invoices must adequately describe the goods or services provided to County and include all required backup (i.e. reimbursable expenses, mileage log, timesheets, receipts detailing expenses incurred etc.) that is in a form acceptable to the Williamson County Auditor. Invoices that do not adequately describe the goods or services provided to County or contain backup that is satisfactory to the Williamson County Auditor will be returned to vendor for revisions and the provision above relating to invoice errors resolved in favor of the County shall control as to the required actions of vendor and when such invoice must be paid by the County.
- 1.2 In the event an invoice includes charges based upon hourly billing rates for services or any other rates based upon the amount of time worked by an individual or individuals in performing services, whether the charges are being billed directly to the County or whether they are the basis of invoices from subcontractors for which the vendor seeks reimbursement from the County, the charges shall be accompanied by an affidavit signed by an officer or principal of the vendor certifying that the work was performed, it was authorized by the County and that all information contained in the invoice that is being submitted is true and correct.
- 1.3 Upon County’s request, vendor must submit all bills paid affidavits wherein vendor must swear and affirm that vendor has paid each of its subcontractors, laborers, suppliers and material in full for all labor and materials provided to vendor for or in connection with services and work performed for County and, further, vendor must swear and affirm that vendor is not aware of any unpaid bills, claims, demands, or causes of action by any of its subcontractors, laborers, suppliers, or material for or in connection with the furnishing of labor or materials, or both, for services and work performed for County.

2. Travel Reimbursement

- 2.1 The County will only cover costs associated with travel on vendors outside a 50 mile radius from Williamson County, Texas.
- 2.2 The County will only cover costs associated with travel as documented work for County. If a vendor is also doing business for another client, the travel costs must be split in proportion to the amount of work actually performed for County and the other client. The only allowable travel expense will be for the specific days worked for Williamson County.
- 2.3 No advance payments will be made to vendor for travel expenditures. The travel expenditure may only be reimbursed after the expenditure/trip has already occurred and

- vendor has provided the Williamson County Auditor with all necessary and required backup.
- 2.4 Vendors must submit all travel reimbursement requests on each employee in full. Specifically, a travel reimbursement request must include all related travel reimbursement expenses relating to a particular trip for which vendor seeks reimbursement. Partial travel reimbursement requests will not be accepted (i.e. vendor should not submit hotel and mileage one month then the next month submit rental car and airfare). If the travel reimbursement appears incomplete, the invoice will be sent back to the vendor to be submitted when all information is ready to submit in full.
 - 2.5 Reimbursement for transportation costs will be at the most reasonable means of transportation (i.e.: airline costs will be reimbursed for coach rate, rental car costs will only be reimbursed if rental car travel was most reasonable means of travel as compared to travel by air).
 - 2.6 The County will not be responsible for, nor will the County reimburse additional charges due to personal preference or personal convenience of individual traveling.
 - 2.7 The County will not reimburse airfare costs if airfare costs were higher than costs of mileage reimbursement.
 - 2.8 Additional expenses associated with travel that is extended to save costs (i.e. Saturday night stay) may be reimbursed if costs of airfare would be less than the cost of additional expenses (lodging, meals, car rental, mileage) if the trip had not been extended. Documentation satisfactory to the Williamson County Auditor will be required to justify expenditure.
 - 2.9 County will only reimburse travel expense to necessary personnel of the vendor (i.e. no spouse, friends or family members).
 - 2.10 Except as otherwise set forth herein, a vendor must provide a paid receipt for all expenses. If a receipt cannot be obtained, a written sworn statement of the expense from the vendor may be substituted for the receipt.
 - 2.11 Sales tax for meals and hotel stays are the only sales taxes that will be reimbursed. Sales tax on goods purchased will not be reimbursed. A sales tax exemption form is available from the Williamson County Auditor's Office upon request.
 - 2.12 The County will not pay for any late charges on reimbursable items. It is the responsibility of the vendor to pay the invoice first and seek reimbursement from the County.

3. Meals

- 3.1 Meal reimbursements are limited to a maximum of \$40.00 per day on overnight travel. On day travel (travel that does not require an overnight stay), meal reimbursements are limited to a maximum of \$20.00 per day. The travel must be outside the Williamson County, Texas line by a 50 mile radius.
- 3.2 Receipts are required on meal reimbursement amounts up to the maximum per day amount stated for overnight or day travel. If receipts are not presented, the vendor can request per diem (per diem limits refer to 3.2). However, a vendor cannot combine per diem and meal receipts. Only one method shall be allowed.
- 3.3 Meals are reimbursable only for vendors who do not have the necessary personnel located within a 50 mile radius of Williamson County, Texas that are capable of carrying the vendor's obligations to County. Meals will not be reimbursed to vendors who are located within a 50 mile radius of Williamson County, Texas.
- 3.4 County will not reimburse for alcoholic beverages.
- 3.5 Tips are reimbursable but must be reasonable to limitation of meal allowance.
- 3.6 No meals purchased for entertainment purposes will be allowed.
- 3.7 Meal reimbursement must be substantiated with a hotel receipt.

4. Lodging

- 4.1 Hotel accommodations require an itemized hotel folio as a receipt. The lodging receipt should include name of the motel/hotel, number of occupant(s), goods or services for each individual charge (room rental, food, tax, etc.) and the name of the occupant(s). Credit card receipts or any other form of receipt are not acceptable.
- 4.2 Vendors will be reimbursed for a single room rate charge plus any applicable tax. If a single room is not available, the vendor must provide documentation to prove that a single room was not available in order to justify the expense over and above the single room rate. A vendor may also be required to provide additional documentation if a particular room rate appears to be excessive.
- 4.3 Personal telephone charges, whether local or long distance, will not be reimbursed.

5. Airfare

- 5.1 The County will only reimburse up to a coach price fare for air travel.
- 5.2 The County will exclude any additional charges due to personal preference or personal convenience of the individual traveling (i.e. early bird check in, seat preference charges, airline upgrades, etc. will not be an allowable reimbursement)
- 5.3 Air travel expenses must be supported with receipt copy of an airline ticket or an itinerary with actual ticket price paid. If tickets are purchased through a website, vendor must submit a copy of the webpage showing the ticket price if no paper ticket was issued.
- 5.4 Cancellation and/or change flight fees may be reimbursed by the County but vendor must provide the Williamson County Auditor with documentation in writing from a County department head providing authorization for the change.
- 5.5 The County will not reimburse vendor for tickets purchased with frequent flyer miles.

6. Car Rental

- 6.1 Vendors that must travel may rent a car at their destination when it is less expensive than other transportation such as taxis, airport shuttles or public transportation such as buses or subways.
- 6.2 Cars rented must be economy or mid-size. Luxury vehicle rentals will not be reimbursed. Any rental costs over and above the cost of a mid-size rental will be adjusted.
- 6.3 Vendors will be reimbursed for rental cars if the rental car cost would have been less than the mileage reimbursement cost (based on the distance from vendor's point of origin to Williamson County, Texas) had the vendor driven vendor's car.
- 6.4 Vendors must return a car rental with appropriate fuel levels as required by rental agreement to avoid the car rental company from adding fuel charges.
- 6.5 Rental agreement and credit card receipt must be provided to County as back up for the request for reimbursement.
- 6.6 Insurance purchased when renting vehicle may also be reimbursed.
- 6.7 Car Rental optional extras such as GPS, roadside assistance, and administrative fees on Tolls will not be reimbursed.

7. Personal Car Usage

- 7.1 Personal vehicle usage will be reimbursed in an amount equal to the standard mileage rate allowed by the IRS.
- 7.2 Per code of Federal Regulations, Title 26, Subtitle A, Chapter 1, Subchapter B, Part IX, Section 274(d), all expense reimbursement requests must include the following:
 - 7.2.1.1 Date

- 7.2.1.2 Destination
- 7.2.1.3 Purpose
- 7.2.1.4 Name of traveler(s)
- 7.2.1.5 Correspondence that verifies business purpose of the expense
- 7.3 The mileage for a personal vehicle must document the date, location of travel to/from, number of miles traveled and purpose of trip.
- 7.4 Mileage will be reimbursed on the basis of the most commonly used route.
- 7.5 Reimbursement for mileage shall not exceed the cost of a round trip coach airfare.
- 7.6 Reimbursement for mileage shall be prohibited between place of residence and usual place of work.
- 7.7 Mileage should be calculated from vendor's employee's regular place of work or their residence, whichever is the shorter distance when traveling to a meeting or traveling to Williamson County, Texas for vendors who are located outside of Williamson County, Texas by at least a 50 mile radius.
- 7.8 When more than one person travels in same vehicle, only one person may claim mileage reimbursement.
- 7.9 Tolls, if reasonable, are reimbursable. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement (administrative fees on Tolls will not be reimbursed).
- 7.10 Parking fees, if reasonable, are reimbursable for meetings and hotel stays. For vendors who contract with a third party for visitor parking at vendor's place of business, Williamson County will not reimburse a vendor based on a percentage of its contracted visitor parking fees. Rather, Williamson County will reimburse Vendor for visitor parking on an individual basis for each time a visitor uses Vendor's visitor parking. Receipts are required for reimbursement. If a receipt is not obtainable, then written documentation of expense must be submitted for reimbursement.
- 7.11 Operating and maintenance expenses, as well as other personal expenses, such as parking tickets, traffic violations, and car repairs and collision damage are not reimbursable.

8. Other Expenses

- 8.1 Taxi fare, bus tickets, conference registrations, parking, etc. must have a proper original receipt.

9. Repayment of Nonreimbursable Expense.

Vendors must, upon demand, immediately repay County for all inappropriately reimbursed expenses whenever an audit or subsequent review of any expense reimbursement documentation finds that such expense was reimbursed contrary to these guidelines and this Policy. Williamson County reserves the right to retain any amounts that are due or that become due to a vendor in order to collect any inappropriately reimbursed expenses that a vendor was paid.

10. Non-Reimbursable Expenses

In addition to the non-reimbursable items set forth above in this Policy, the following is a non-exhaustive list of expenses that will not be reimbursed by Williamson County:

- 10.1 Alcoholic beverages/tobacco products
- 10.2 Personal phone calls
- 10.3 Laundry service
- 10.4 Valet service
- 10.5 Movie rentals
- 10.6 Damage to personal clothing
- 10.7 Flowers/plants

- 10.8 Greeting cards
- 10.9 Fines and/or penalties
- 10.10 Entertainment, personal clothing, personal sundries and services
- 10.11 Transportation/mileage to places of entertainment or similar personal activities
- 10.12 Upgrades to air, hotel and/or car rental
- 10.13 Auto repairs
- 10.14 Baby sitter fees, kennel costs, pet or house-sitting fees
- 10.15 Saunas, massages or exercise facilities
- 10.16 Credit card delinquency fees
- 10.17 Doctor bills, prescription and other medical services
- 10.18 Hand tools
- 10.19 Safety Equipment (hard hats, safety vests, etc.)
- 10.20 Office supplies
- 10.21 Any other expenses which Williamson County deems, in its sole discretion, to be inappropriate or unnecessary expenditures.

Commissioners Court - Regular Session

57.

Meeting Date: 08/15/2017

Line Item Transfer for Non Departmental

Submitted For: Julie Kiley

Submitted By: Julie Kiley, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on a line item transfer for Non Departmental.

Background

This line item transfer facilitates the purchase of the software for the Onsite Septic and Sewage Facility Division. The software needs to be live October 1st as this function is transferring to the County from the Health District on that date.

Fiscal Impact

From/To	Acct No.	Description	Amount
From	0100-0409-004100	Professional Services	\$95,224.06
To	0100-0409-004208	Internet Cloud Solutions	\$95,224.06

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Julie Kiley

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:30 AM

Started On: 08/10/2017 09:08 AM

Commissioners Court - Regular Session

58.

Meeting Date: 08/15/2017

Budget Amendment for Non-Departmental

Submitted For: Julie Kiley

Submitted By: Julie Kiley, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenue for the General Fund.

Background

The new Software for the Offsite Septic and Sewer Facilities Division also includes handling the Food Inspection/Permitting process for the Health District. The Health District will reimburse the County for 50% of the cost of the system to include ongoing maintenance in future fiscal years.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100-0000-333220	Payments from Other Entities	\$95,224.05

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Julie Kiley

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM

Started On: 08/10/2017 09:53 AM

Commissioners Court - Regular Session

59.

Meeting Date: 08/15/2017

Budget Amendment for Non-Departmental

Submitted For: Julie Kiley

Submitted By: Julie Kiley, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge addition expenditures for the General Fund in Non Departmental.

Background

The new Software for the Offsite Septic and Sewer Facilities Division also includes handling the Food Inspection/Permitting process for the Health District. The Health District will reimburse the County for 50% of the cost of the system to include ongoing maintenance in future fiscal years.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100-0409-004208	Internet Cloud Solutions	\$95,224.05

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Julie Kiley

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM

Started On: 08/10/2017 10:03 AM

Commissioners Court - Regular Session

60.

Meeting Date: 08/15/2017

SO Donations BA 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional revenues for Sheriff's Office Donations:

Background

Richard Morris donated \$100.00 to the Williamson County Sheriff's Office for the purchase of gym equipment for the Sheriff's Office employees.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367400	Donations	\$100.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Angela Schmidt
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:38 AM
Started On: 08/10/2017 10:33 AM

Commissioners Court - Regular Session

61.

Meeting Date: 08/15/2017

SO Donations BA 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Sheriff's Office Donations:

Background

Richard Morris donated \$100.00 to the Williamson County Sheriff's Office for the purchase of gym equipment for the Sheriff's Office employees.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0560.003670	Use of Donations	\$100.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Angela Schmidt
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM
Started On: 08/10/2017 09:55 AM

Commissioners Court - Regular Session

62.

Meeting Date: 08/15/2017

Park Donations BA 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenues for Park Donations:

Background

Donations total \$99.00 for firewood from various patrons.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367403	Park Donations	\$99.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Angela Schmidt

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:38 AM

Started On: 08/10/2017 09:23 AM

Commissioners Court - Regular Session

63.

Meeting Date: 08/15/2017

Park Donations BA 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Park Donations:

Background

Donations total \$99.00 for firewood from various patrons.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0510.003670	Use of Donations	\$99.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Angela Schmidt

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:38 AM

Started On: 08/10/2017 09:26 AM

Commissioners Court - Regular Session

64.

Meeting Date: 08/15/2017

BA Juvenile Services Donations 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve budget amendment to acknowledge additional revenues for Juvenile Services:

Background

Hill Country Bible Church donated \$600.00, Fast Lawn Care, LLC. donated \$50.00 and Industrial Rigging Service of Austin, Inc. donated \$200.00 to Juvenile Services for the purchase of school supplies for youth.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0000.367400	Donations	\$850.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Angela Schmidt

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM

Started On: 08/10/2017 09:42 AM

Commissioners Court - Regular Session

65.

Meeting Date: 08/15/2017

BA Juvenile Services Donations 08-15-2017

Submitted For: Melanie Denny

Submitted By: Angela Schmidt, County Auditor

Department: County Auditor

Agenda Category: Regular Agenda Items

Information

Agenda Item

Discuss, consider and take appropriate action on an order declaring an emergency and a grave necessity due to unforeseeable circumstances and approve a budget amendment to acknowledge additional expenditures for Juvenile Services:

Background

Hill Country Bible Church donated \$600.00, Fast Lawn Care, LLC. donated \$50.00 and Industrial Rigging Service of Austin, Inc. donated \$200.00 to Juvenile Services for the purchase of school supplies for youth.

Fiscal Impact

From/To	Acct No.	Description	Amount
	0100.0576.003670	Use of Donations	\$850.00

Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.
Form Started By: Angela Schmidt
Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:33 AM
Started On: 08/10/2017 09:48 AM

Commissioners Court - Regular Session

66.

Meeting Date: 08/15/2017

Economic Development

Submitted For: Charlie Crossfield

Submitted By: Charlie Crossfield, Road Bond

Department: Road Bond

Agenda Category: Executive Session

Information

Agenda Item

Discussion regarding economic development negotiations pursuant to Texas Government Code, Section 551.087:

- a) Business prospect(s) that may locate or expand within Williamson County.
- b) Discuss Pearson Road District.
- c) Discuss North Woods Road District.
- d) Project Columbus Balbo
- e) Mega Site
- f) Texas State Gold Depository

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Charlie Crossfield

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:27 AM

Started On: 08/10/2017 09:19 AM

Commissioners Court - Regular Session

67.

Meeting Date: 08/15/2017

Executive Session

Submitted For: Charlie Crossfield

Submitted By: Charlie Crossfield, Road Bond

Department: Road Bond

Agenda Category: Executive Session

Information

Agenda Item

Discuss real estate matters (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.072 Deliberation Regarding Real Estate Property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with third person.)

A. Real Estate Owned by Third Parties

1. Preliminary discussions relating to proposed or potential purchase or lease of property owned by third parties

- a) Discuss the acquisition of real property for right-of-way for N. Mays St. Extension
- b) Discuss the acquisition of real property for SW 183 and SH 29 Loop.
- c) Discuss the acquisition of real property for CR 176 at RM 2243
- d) Discuss the acquisition of real property with endangered species for mitigation purposes.
- e) Discuss the acquisition of real property: CR 101
- f) Discuss the acquisition of real property: CR 111
- g) Discuss the acquisition of real property for CR 278 at Bagdad Rd.
- h) Discuss the acquisition of real property for proposed CR 110 project. (All sections)
- i) Discuss the acquisition of real property for County Facilities.
- j) Discuss the acquisition of Easement interests for the Brushy Creek Trail Project.
- k) Discuss acquisition of property located at NEC of Toll 130 and Gattis School Rd.
- l) Discuss the acquisition of a drainage easement for CR 108.
- m) Discuss easement acquisitions from San Gabriel River Ranch Subdivision.
- n) Discuss the acquisition of real property for CR 258.
- o) Discuss the acquisition of real property for Seward Junction SE Loop.
- p) Discuss the acquisition of real property for US 183.
- q) Discuss the acquisition of real property for Hairy Man Rd.
- r) Discuss the acquisition of real property for SW Bypass.
- s) Discuss the acquisition of real property for Crossroad Acres.
- t) Discuss proposed acquisition of real property on CR 138.
- u) Discuss proposed acquisition of real property at Highland Springs Lane.
- v) Discuss Somerset Road Districts No. 3 & 4 reimbursements for acquisition & construction of Reagan Blvd.
- x) Discuss the acquisition of real property- Condra Funeral Home- Taylor, Texas
- y) Discuss the acquisition of real property- S&D Plumbing- Taylor, Texas
- z) Discuss the acquisition of Real Estate for Tower Site.

B. Property or Real Estate owned by Williamson County

1). Preliminary discussions relating to proposed or potential sale or lease of property owned by the County

- a) Discuss County owned real estate containing underground water rights and interests.
- b) Discuss possible sale of 183 A excess right of way
- c) Discuss proposed sale of real estate of Blue Springs Blvd
- d) Discuss transfer of right of way for Westinghouse Rd. to the City of Georgetown.
- e) Discuss wastewater easements in Berry Springs Park
- f) Discuss Development Agreement with Ashby Capital Investments, LLC
- g) Discuss sale of County property on Ronald Reagan Blvd.
- h) Discuss abandonment of County property on CR 123.
- i) Discuss possible sale or exchange of property at 350 Exchange Boulevard, Hutto, Texas
- j) Discuss possible sale of +/- 10 acres located on Chandler Road near the County Sheriff's Office Training Facility
- k) Discuss possible sale/disposition of a portion of CR 117.

C. Consider intervention in lawsuit regarding de-listing of Bone Cave harvestman.

Background

Fiscal Impact

From/To	Acct No.	Description	Amount
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Attachments

No file(s) attached.

Form Review

Inbox

County Judge Exec Asst.

Form Started By: Charlie Crossfield

Final Approval Date: 08/10/2017

Reviewed By

Wendy Coco

Date

08/10/2017 10:27 AM

Started On: 08/10/2017 09:18 AM