# WILLIAMSON COUNTY, TEXAS
## CHANGE ORDER NUMBER: 7

1. CONTRACTOR: **Capital Excavation**

2. Change Order Work Limits: Sta. **54+93.6 RT** to Sta. **55+27.6 RT**

3. Type of Change(on federal-aid non-exempt projects): **Minor** (Major/Minor)

4. Reasons: **1B** (3 Max. - In order of importance - Primary first)

| | |
|---|---|
| *Project:* | *221FB39* |
| *Roadway:* | *FM 1460 - SH 130* |
| *CSJ Number:* | |

5. Describe the work being revised:

**1B. Design Error or Omission. Other:** This Change Order provides additional items to the Contract for adjusting an existing headwall, wingwalls and adding concrete rail along an existing culvert that is to remain in place. Due to the height of the existing culvert, the proposed roadway can not be built to the proposed width. Raising the headwall and constructing the rail will allow for the roadway portion to be constructed to the proposed width. This rail will mirror the existing rail along the upstream portion of the existing culvert.

6. Work to be performed in accordance with Items: **See Attached.**

7. New or revised plan sheet(s) are attached and numbered: **Revised Sheets: 2, 15, 17, 92, 113A-C**

8. New Special Provisions/Specifications to the contract are attached: ☐ Yes ☑ 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).

*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.*

THE CONTRACTOR Date 12.1.22

By _____

Typed/Printed Name JOE CHESNEY

Typed/Printed Title V.P.

***The following information must be provided***

Time Ext. #: _____ Days added on this CO: **0**

Amount added by this change order: **$28,440.00**

**RECOMMENDED FOR EXECUTION:**

_____ 12/2/2022
Project Manager Date

N/A
Design Engineer Date

_____ 12/2/2022
Program Manager Date

Design Engineer's Seal:

see attached plan sheets

County Commissioner Precinct 1 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 2 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 3 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 4 Date
☐ APPROVED ☐ REQUEST APPROVAL

County Judge Date
☐ APPROVED

# WILLIAMSON COUNTY, TEXAS

***CHANGE ORDER NUMBER: 7*** ***Project # 221FB39***

**TABLE A:** Force Account Work and Materials Placed into Stock

| | LABOR | HOURLY RATE | | | HOURLY RATE |
|---|---|---|---|---|---|
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**TABLE B:** Contract Items:

| | | | | ORIGINAL + PREVIOUSLY | | ADD or (DEDUCT) | NEW | | |
|---|---|---|---|---|---|---|---|---|---|
| ITEM | DESCRIPTION | UNIT | UNIT PRICE | QUANTITY | ITEM COST | QUANTITY | QUANTITY | ITEM COST | OVERRUN/ UNDERRUN |
| 0450-6006 | RAIL TYPE T223 | LF | $260.00 | 0.00 | $0.00 | 34.00 | 34.00 | $8,840.00 | $8,840.00 |
| 0540-6006 | MTL W- BEAM GD FEN TRANS (THRIE-BEAM) | EA | $2,800.00 | 0.00 | $0.00 | 2.00 | 2.00 | $5,600.00 | $5,600.00 |
| 999-WC05 | EXTEND EXISTING WINGWALLS AND HEADWALL | LS | $14,000.00 | 0.00 | $0.00 | 1.00 | 1.00 | $14,000.00 | $14,000.00 |
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| TOTALS | | | | | $0.00 | | | $28,440.00 | $28,440.00 |

# CHANGE ORDER REASON(S) CODE CHART

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

**Williamson County Road Bond Program**

**CR 111 Westinghouse Rd**
**Williamson County Project No. 22IFB39**
**Change Order No. 7**

## Reason for Change

This Change Order provides payment to the Contractor for additional work needed to adjust an existing headwall and wingwalls to allow for the roadway to be constructed to the proposed plan width. The existing Culvert 4 is to remain in place, but due to the location of the existing headwall it will not allow for the roadway to be built to plan width as there is no support for the roadway section at the culvert. RFI 27 addresses the issue and provides additional plan sheets to extend the headwall, wingwalls and adds traffic rail so that the roadway portion can be constructed to the proposed width.

The following is a list of new items required for this Change Order.

| ITEM | DESCRIPTION | QTY | UNIT |
|---|---|---|---|
| 0450-6006 | Rail TYPE T223 | 34 | LF |
| 0540-6006 | MTL BEAM GD FEN TRANS (THRIE-BEAM) | 2 | EA |
| 999-WC05 | Drill, Dowel, and Extend Existing Wingwalls and Headwall | 1 | LS |

This Change Order results in an increase of $28,440.00 to the Contract amount, for an adjusted Contract total of $21,833,559.18 The original Contract amount was $21,024,332.88. As a result of this and previous Change Orders, $809,226.30 has been added to the Contract, resulting in an 3.85% increase in the Contract cost. As a result of this Change Order, (0) days will be added to the Contract.

**HNTB Corporation**

Oscar Salazar-Bueno, P.E.

**PO Box 1301**
**Austin, TX 78767**
**Email: Estimating@CapitalExcavation.com**

# Change Request # 16

**Date: 9/28/2022**

**QuoteTo:** Chuck Evans
HNTB CORPORATION

**Project: CR 111 / 110 (1024)**
**Capital Project #: 1024**
**Description: Existing Culvert 4 Wall Extension & 223 Rail Addition**

| Item | Description | Quantity | Unit | Unit Price | Amount |
|---|---|---|---|---|---|
| ~~CO~~ 999-WC05 | Drill, Dowel, and Extend Existing Wingwall Height | 1.00 | LS | 14,000.00 | 14,000.00 |
| 450-6006 | Rail (TY T223) | 34.00 | LF | 260.00 | 8,840.00 |
| 540-6006 | MTL W-BEAM DG FEN TRANSITION THRIE BEAM | 2.00 | EA | 2,800.00 | 5,600.00 |
| GRAND TOTAL | | | | | 28,440.00 |

**Scope:** Price to extend the headwall and wingwall heights of existing culvert #4 to allow for proposed roadway construction. Price for the addition of T223 traffic rail, and changes to the proposed MBGF.

**Capital Excavation Requests an additional :** Yes-TBD day(s)

The Ty T223 Rail and MTL Beam Thrie Beam Transitions are in line with TxDOT Low Bid Averages and our current projects under construction. The lump sum price for the headwall and wingwall extensions are also a reasonable price for this work.

# CHANGE ORDER BREAKDOWN

## Capital Excavation Company

**PROJECT:** CR 111 **DATE:** 10/14/2022

**DESCRIPTION:** Extending Culv 4 Headwall & T223 Rail

| | REGULAR HRS | OVERTIME HRS | UNIT | | REG. UNIT PRICE | OT. UNIT PRICE | TOTALS |
|---|---|---|---|---|---|---|---|
| **LABOR** | | | | | | | |
| | | | | | | | |
| Concrete Foreman | 50 | 0 | HR | | $45.00 | $67.50 | $2,250.00 |
| Concrete Finisher | 100 | 0 | HR | | $21.00 | $31.50 | $2,100.00 |
| Concrete Formsetter | 150 | 0 | HR | | $20.00 | $30.00 | $3,000.00 |
| Survey Party Chief | 10 | 0 | HR | | $42.00 | $63.00 | $420.00 |
| Survey Laborer | 20 | 0 | HR | | $18.00 | $27.00 | $360.00 |
| | | | | | | Total: | $8,130.00 |
| | | | | | | Burden 30% | [redacted] |
| | | | | | | ***LABOR TOTAL*** | [redacted] |
| **EQUIPMENT** | | | | | | | |
| | | | | | | | |
| [redacted] | [redacted] | | [redacted] | | [redacted] | | [redacted] |
| Backhoe 420 | [redacted] | | HR | | $35.00 | | [redacted] |
| | 38.75 | | | | | | $1,356.25 |
| | | | | | | ***EQUIPMENT TOTAL*** | [redacted] |
| **MATERIALS** | | | | | | | |
| | | | | | | | |
| Cl C Concrete | 12.71 | | CY | | $135.00 | | $1,715.85 |
| Rebar | 2054 | | LB | | $0.85 | | $1,745.90 |
| Formwork | 526 | | SF | | $2.00 | | $1,052.00 |
| | | | | | | | |
| | | | | | | ***MATERIALS TOTAL*** | ***$4,513.75*** |
| **SUBS** | | | | | | | |
| | | | | | | | |
| [redacted] | [redacted] | | [redacted] | | [redacted] | | [redacted] |
| | | | | | | | |
| | | | | | | ***SUBS TOTAL*** | [redacted] |
| | | | | | | **TOTAL COST** | [redacted] |
| | | | | | | **MARKUP** | [redacted] |
| | | | | | | **TOTAL PRICE** | [redacted] |
| | | | | | | | $14,000.00 |

This is a reasonable price for extending the existing headwall and wingwalls.

HNTB

## *REQUEST FOR INFORMATION FORM*

**RFI NO.:** 27 **DATE:** 8/15/2022

**PROJECT:** 22IFB39 - CR 111 / Westinghouse **RESPONSE REQUESTED BY DATE:** 8/22/2022

**TO:** HNTB: Chuck Evans; Eddie Church, P.E.

**REFERENCE:** Existing Culvert 4 Conflict

**PROBLEM:**

The existing culvert 4 headwall at STA 55+44 on the southern side is in conflict with the proposed roadway, curb, and metal beam guard fence installation. The existing culvert needs to be addressed for safety and constructability. Please review and advise.

**RECOMMENDED SOLUTION:**

| Andy Wynes | |
|---|---|
| Originator | Supervisor |

**RESPONSE:**

We revised the design to be in line with the recommended solution provided by HNTB; extend the existing headwall and wingwall height and install a concrete traffic rail. Sheets showing the plan revisions, standard details, and updated quantities are attached.

| Bryan Moore | 9/16/2022 |
|---|---|
| Responder | Date |

Sign, Date & Return to HNTB via e-mail.

Mail original to: HNTB Corporation
101 E. Old Settlers Blvd.
Round Rock, Texas 78664

Attachments to RFI: Sheets 92, 292
Cc:

| SHEET NO. | DESCRIPTION |
|---|---|
| | **GENERAL** |
| 1 | TITLE SHEET |
| 2 | SUPPLEMENTAL INDEX OF SHEETS |
| 3 - 8 | PROJECT LAYOUT |
| 9 - 13 | TYPICAL SECTIONS |
| 2 14A - 14Z | GENERAL NOTES AND SPECIFICATIONS |
| 15 | ESTIMATE & QUANTITIES |
| 16 | SUMMARY OF TRAFFIC CONTROL QUANTITIES |
| 17 | SUMMARY OF ROADWAY QUANTITIES |
| 18 | SUMMARY OF DRAINAGE QUANTITIES |
| 19 | SUMMARY OF SIGNING, STRIPING AND DELINEATION QUANTITIES |
| 20 | SUMMARY OF TRAFFIC SIGNAL QUANTITIES |
| 21 | SUMMARY OF EROSION CONTROL QUANTITIES |
| 22 | SUMMARY OF DRIVEWAYS |
| 23 | SUMMARY OF CROSS STREETS |
| 24 - 25 | SUMMARY OF SMALL SIGNS |
| | **TRAFFIC CONTROL** |
| 26 | TRAFFIC CONTROL PLAN CONSTRUCTION SEQUENCING NOTES |
| 27 | TRAFFIC CONTROL PLAN SIGNAGE |
| 28 - 31 | TRAFFIC CONTROL PLAN TYPICAL SECTIONS |
| 32 - 36 | TRAFFIC CONTROL PLAN PHASE I |
| 37 - 46 | TRAFFIC CONTROL PLAN PHASE II |
| 47 - 56 | TRAFFIC CONTROL PLAN PHASE III |
| | ▪ **TRAFFIC CONTROL STANDARDS** |
| 57 - 68 | BC(1)-14 THRU BC(12)-14 |
| 69 | WZ(TD)-13 |
| 70 | WZ(STPM)-13 |
| 71 | WZ(UL)-13 |
| 72 | WZ(RCD)-13 |
| 73 - 74 | WZ(BTS-1)-13 THRU WZ(BTS-2)-13 |
| 75 - 77 | TCP(1-1)-12 THRU TCP(1-3)-12 |
| 78 - 80 | TCP(2-1)-12 THRU TCP(2-3)-12 |
| 81 - 82 | TCP(3-1)-13 THRU TCP(3-2)-13 |
| 83 | TCP(3-3)-14 |
| 84 | TCP(3-4)-13 |
| 85 | TCP(7-1)-13 |
| | **ROADWAY** |
| 86 - 87 | HORIZONTAL ALIGNMENT DATA |
| 88 - 105 | CR 111 PLAN & PROFILE |
| 106 - 107 | CR 110 PLAN & PROFILE |
| 108 | CR 105 SPUR PLAN & PROFILE |
| 109 | (OMITTED) |
| 110 | INTERSECTION LAYOUT - CR 110 |
| 111 | DETAILS OF DRIVEWAYS |
| | ▪ **ROADWAY STANDARDS** 2 |
| 112 | GF(31)-14 |
| 113 | GF(31)MS-11 |
| 8 113A - 113C | TRAFFIC RAIL (TYPE T223) |
| 114 | SGT(8)31-14 |
| 115 - 118 | PED-12A |
| 118A | COLORED TEXTURED CONCRETE AND LANDSCAPE PAVERS |
| 118B | CITY OF GEORGETOWN RIBBON CURB DETAILS |
| | **DRAINAGE** |
| 119 - 120 | DRAINAGE AREA MAP |
| 121 | HYDROLOGIC AND HYDRAULIC DESIGN DATA |
| 122 - 125 | HYDROLOGIC AND HYDRAULIC DESIGN DATA - PROPOSED CULVERTS |
| 126 - 129 | HYDROLOGIC AND HYDRAULIC DESIGN DATA - EXISTING CULVERTS |
| 130 - 131 | RIGHT DITCH DESIGN DATA |
| 132 - 133 | LEFT DITCH DESIGN DATA |
| 134 - 145 | CROSS-CULVERT LAYOUTS |
| 146 | ENERGY DISSIPATER DETAIL |
| 147 - 148 | STORM SEWER DRAINAGE AREAS |
| 149 - 154 | STORM SEWER PLAN & PROFILE |
| 155 | STORM SEWER DESIGN DATA |
| 156 | MISCELLANEOUS DRAINAGE DETAILS |
| | ▪ **DRAINAGE STANDARDS** 2 |
| 157 | SCC-MD |
| 158 - 159 | SCC-5&6 |
| 160 | SCP-MD |
| 161 | SCP-5 |
| 162 | SCP-6 |
| 163 | MC-MD |
| 164 | (OMITTED) |
| 165 - 166 | MC-5-20 |
| 167 | ECD |
| 168 | (OMITTED) |
| 169 | SW-O |
| 170 | FW-S |
| 171 | PW |
| 172 | CH-PW-S |
| 173 | CH-FW-O |
| 6 174A | CH-FW-15 |
| 6 174B | CH-FW-30 |
| 175 | CH-FW-45 |
| 176 - 178 | SETP-FW-O |
| 179 | SETP-PD |
| 180 - 181 | SETP-CD |
| 182 | PSET-SP |
| 183 | PSET-RP |
| 184 | PB |
| 185 | PJB |

| SHEET NO. | DESCRIPTION |
|---|---|
| | **DRAINAGE STANDARDS (CONT.)** |
| 186 | PDD |
| 187 - 188 | PCO |
| 189 | CGT-PCO |
| 190 - 191 | PSL |
| | **EROSION CONTROL** |
| 192 | STORM WATER POLLUTION PREVENTION PLAN (SW3P) |
| 193 - 202 | EROSION CONTROL PLAN |
| | ▪ **EROSION STANDARDS** 2 |
| 203 - 205 | EC(1)-16 THRU EC(3)-16 |
| 205 - A-C | EC(9)-16 |
| | **TRAFFIC** |
| 206 - 215 | SIGNING, STRIPING AND DELINEATION |
| 2 216 - 217 | SMALL SIGN DETAILS |
| 218 | EXISTING SIGNAL LAYOUT - CR 111 (WESTINGHOUSE RD) @ FM 1460 |
| 219 | PROPOSED SIGNAL LAYOUT - CR 111 (WESTINGHOUSE RD) @ FM 1460 |
| 220 | PROPOSED SIGNAL ELEVATION - CR 111 (WESTINGHOUSE RD) @ FM 1460 |
| | ▪ **TRAFFIC STANDARDS** |
| 221 - 223 | PM(1)-12 THRU PM(3)-12 |
| 224 - 228 | TSR(1)-13 THRU TSR(5)-13 |
| 229 - 232 | D&OM(1)-15 THRU D&OM(4)-15 |
| 233 | D&OM(VIA)-15 |
| 234 | SMD(GEN)-08 |
| 235 - 237 | SMD(SLIP-1)-08 THRU SMD(SLIP-3)-08 |
| 238 | SMD(TWT)-08 |
| 239 - 242 | MB-15(1) |
| 243 | ED(1)-14 |
| 244 - 249 | ED(3)-14 THRU ED(8)-14 |
| 250 | ED(11)-14 |
| | **UTILITIES** |
| 251 - 261 | EXISTING UTILITY LAYOUT |
| | **CROSS SECTIONS** 2 |
| 262 - 380 | PROPOSED CROSS SECTIONS |
| 381 - 387 | PROPOSED CROSS SECTIONS (CR 110) |
| 388 | ADDITIONAL CROSS STREET CROSS SECTIONS - CR 111 |
| | **BEGINNING OF CR 110 NORTH SHEETS** |
| | **GENERAL** 2 |
| 389 - 393 | GENERAL SHEETS (G1 - G5) |
| 394 - 398 | QUANTITY SHEETS (Q1 - Q5) |
| | **TRAFFIC CONTROL SHEETS** |
| 399 | TRAFFIC CONTROL PLAN SEQUENCE OF CONSTRUCTION |
| 400 - 402 | TRAFFIC CONTROL PHASE I (TCP1 - TCP3) |
| 403 - 411 | TRAFFIC CONTROL STANDARD DETAILS |
| | **BARRICADE & CONSTRUCTION STANDARDS** |
| 412 - 423 | BARRICADE & CONSTRUCTION SHEETS (BC(1)-14 - BC(12)-14) |
| | **REMOVAL PLAN** |
| 424 - 427 | DEMOLITION SHEETS (R1 - R4) |
| | **ROADWAY PLAN** |
| 428 - 434 | PLAN AND PROFILE SHEETS (P1 - P7) |
| | **DRIVEWAY DETAILS** |
| 435 - 448 | DRIVEWAY DETAIL SHEETS |
| | **DRAINAGE** |
| 449 | DRAINAGE AREA MAP (DR 2) |
| 450 | DITCH CAPACITY TABLE (DT 1) |
| | **SIGNAGE & PAVEMENT MARKING PLAN & DETAILS** |
| 451 - 454 | SIGNING & PAVEMENT MARKING PLAN (S1 - S4) |
| 454 - 464 | SIGNAGE & PAVEMENT MARKING DETAILS |
| | **EROSION CONTROL SHEETS & DETAILS** |
| 465 | STORMWATER POLLUTION PREVENTION PLAN (SW3P) |
| 466 - 469 | EROSION CONTROL PLAN (ES1 - ES4) |
| 470 - 472 | EROSION CONTROL DETAILS |
| | **CROSS SECTIONS** |
| 473 - 494 | CROSS SECTION SHEETS (X1 - X22) |
| | **MBC MANSIONS SHEETS** |
| 495 | OVERALL WATER PLAN |
| 496 | SANITARY SEWER LINE P PLAN & PROFILE STA. 1+00 - STA. 5+20 |
| 497 | CHANNEL PLAN & PROFILE STA. 13+80-STA. 16+23 |
| | **JONAH WATER PLANS** |
| 498 - 527 | |
| | **GATEWAY WW PLANS** |
| 528 - 538 | |

2 (12/22/20): CULV & CS REVS
6 (06/08/22): RFI #9
8 (08/26/22): RFI #27

REVISION 2, 6, & 8 ONLY

STATE OF TEXAS · BRYAN ERIC MOORE · 98920 · LICENSED PROFESSIONAL ENGINEER
09/16/2022

▪ THE STANDARDS AND SPECIFICATIONS IDENTIFIED HEREIN HAVE BEEN SELECTED BY ME OR UNDER MY SUPERVISION AND ARE APPLICABLE TO THIS PROJECT.

STATE OF TEXAS · BENJAMIN R. LAKE · 118699 · LICENSED PROFESSIONAL ENGINEER
10/12/16

WILLIAMSON COUNTY 1848



STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TBPE FIRM NO. 181 TBPLS FIRM NO. 10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

WILLIAMSON COUNTY
CR 111 IMPROVEMENTS

# SUPPLEMENTAL INDEX OF SHEETS

| | | | |
|---|---|---|---|
| DATE: 8/26/2022 | DN: | DW: | CK: AP: |
| FED.RD. DIV.NO. | FEDERAL AID PROJECT NO. | | SHEET NO. |
| 6 | ---- | | 2 |
| STATE | DIST. | COUNTY | |
| TEXAS | --- | WILLIAMSON | |
| CONT. | SECT. | JOB | HIGHWAY NO. |
| ---- | -- | --- | CR 111 |

| ITEM CODE | | | DESCRIPTION | UNIT | TOTAL | |
|---|---|---|---|---|---|---|
| ITEM NO. | DESC. CODE | SP NO. | | | EST. | FINAL |
| 100 | 6002 | | PREPARING ROW | STA | 217 | |
| 7 106 | 6002 | | OBLITERATING ABANDONED ROAD | SY | 40,673 | |
| 110 | 6001 | | EXCAVATION (ROADWAY) | CY | 107,513 | |
| 132 | 6003 | | EMBANKMENT (FINAL)(ORD COMP)(TY B) | CY | 42,149 | |
| 160 | WC02 | | FURNISHING AND PLACING TOPSOIL (4") | SY | 148,530 | |
| 161 | WC001 | | EROSION CONTROL COMPOST (3") | SY | 37,133 | |
| 162 | WC103 | | MULCH TOPDRESSING (5") | SY | 37,133 | |
| 164 | WC04 | | SEEDING FOR EROSION CONTROL (TEMP)(COOL)(TY 4) | SY | 74,271 | |
| 164 | WC11 | | SEEDING FOR EROSION CONTROL (TEMP & PERM)(TY 11) | SY | 222,801 | |
| 166 | 6002 | | FERTILIZER | TON | 9.28 | |
| 168 | WC01 | | VEGETATIVE WATERING | MG | 4,456 | |
| 169 | 6001 | | SOIL RETENTION BLANKETS (CL 1)(TY A) | SY | 40,000 | |
| 169 | 6006 | | SOIL RETENTION BLANKETS (CL 2)(TY F) | SY | 1,620 | |
| 247 | 6044 | | FL BS (CMP IN PLC)(TY A GR 4)(FNAL POS | CY | 38,060 | |
| 260 | 6002 | | LIME (HYDRATED LIME (SLURRY)) | TON | 2,075 | |
| 260 | 6073 | | LIME TRT (SUBGRADE) (8") | SY | 115,225 | |
| 310 | 6001 | | PRIME COAT (MULTI OPTION) | GAL | 20,391 | |
| 316 | 6193 | | AGGR(TY-D GR-5 SAC-B) | CY | 613 | |
| 316 | 6413 | | ASPH (AC-15P, HFRS-2P OR CRS-2P) | GAL | 25,305 | |
| 341 | 6008 | | D-GR HMA TY-B PG64-22 | TON | 25,840 | |
| 341 | 6042 | | D-GR HMA TY-D SAC-B PG70-22 | TON | 12,049 | |
| 351 | 6006 | | FLEXIBLE PAVEMENT STRUCTURE REPAIR(10") | SY | 500 | |
| 354 | 6041 | | PLANE ASPH CONC PAV (1.5") | SY | 2,273 | |
| 354 | 6044 | | PLANE ASPH CONC PAV (7") | SY | 386 | |
| 6 402 | 6001 | | TRENCH EXCAVATION PROTECTION | LF | 525 | |
| 6 432 | 6002 | | RIPRAP (CONC)(5 IN) | CY | 867 | |
| 432 | 6003 | | RIPRAP (CONC)(6 IN W/ 6 X 6 X #6 WELDED WIRE) | CY | 46 | |
| 6 432 | 6031 | | RIPRAP (STONE PROTECTION)(12 IN) | CY | 1,954 | |
| 432 | 6045 | | RIPRAP (MOW STRIP)(4 IN) | CY | 40 | |
| 8 450 | 6006 | | RAIL (TY T223) | LF | 34 | |
| 460 | 6002 | | CMP (GAL STL 18 IN) | LF | 367 | |
| 460 | 6003 | | CMP (GAL STL 24 IN) | LF | 673 | |
| 462 | 6004 | | CONC BOX CULV (4 FT X 3 FT) | LF | 180 | |
| 462 | 6007 | | CONC BOX CULV (5 FT X 3 FT) | LF | 600 | |
| 3 462 | 6010 | | CONC BOX CULV (6 FT X 3 FT) | LF | 2,373 | |
| 3 464 | 6003 | | RC PIPE (CL III)(18 IN) | LF | 4,453 | |
| 3 464 | 6005 | | RC PIPE (CL III)(24 IN) | LF | 2,332 | |
| 3 6 464 | 6007 | | RC PIPE (CL III)(30 IN) | LF | 3,078 | |
| 464 | 6008 | | RC PIPE (CL III)(36 IN) | LF | 1,439 | |
| 464 | 6009 | | RC PIPE (CL III)(42 IN) | LF | 174 | |
| 465 | 6005 | | JCTBOX(COMPL)(PJB)(3FTX3FT) | EA | 1 | |
| 6 465 | 6006 | | JCTBOX(COMPL)(PJB)(4FTX4FT) | EA | 3 | |
| 5 465 | 6009 | | JCTBOX(COMPL)(PJB)(5FTX5FT) | EA | 1 | |
| 465 | 6014 | | INLET (COMPL)(PCO)(3FT)(LEFT) | EA | 3 | |
| 3 465 | 6015 | | INLET (COMPL)(PCO)(3FT)(RIGHT) | EA | 4 | |
| 3 465 | 6016 | | INLET (COMPL)(PCO)(3FT)(BOTH) | EA | 20 | |
| 5 465 | 6020 | | INLET (COMPL)(PCO)(4FT)(BOTH) | EA | 6 | |
| 465 | 6126 | | INLET (COMPL)(PSL)(FG)(3FTX3FT-3FTX3FT | EA | 1 | |
| 466 | 6003 | | HEADWALL (CH-FW-0) (DIA=18 IN) | EA | 3 | |
| 466 | 6009 | | HEADWALL (CH-FW-0) (DIA=36 IN) | EA | 1 | |
| 466 | 6010 | | HEADWALL (CH-FW-0) (DIA=42 IN) | EA | 2 | |
| 466 | 6022 | | HEADWALL (CH-FW-15) (DIA=30 IN) | EA | 2 | |
| 6 466 | 6037 | | HEADWALL (CH-FW-30) (DIA=30 IN) | EA | 1 | |
| 466 | 6054 | | HEADWALL (CH-FW-45) (DIA=36 IN) | EA | 1 | |
| 466 | 6132 | | HEADWALL (CH-PW-S) (DIA=30 IN) | EA | 1 | |
| 466 | 6134 | | HEADWALL (CH-PW-S) (DIA=36 IN) | EA | 1 | |
| 466 | 6165 | | WINGWALL (FW-S) (HW=4FT) | EA | 3 | |
| 466 | 6179 | | WINGWALL (PW-1) (HW=4FT) | EA | 5 | |
| 466 | 6207 | | WINGWALL (SW-0) (HW=4FT) | EA | 3 | |
| 467 | 6014 | | SET (TY I)(36 IN)(3:1)(C) | EA | 1 | |
| 3 467 | 6356 | | SET (TY II)(18 IN)(RCP)(3:1)(C) | EA | 1 | |
| 3 467 | 6362 | | SET (TY II)(18 IN)(RCP)(6:1)(C) | EA | 1 | |
| 3 467 | 6363 | | SET (TY II)(18 IN)(RCP)(6:1)(P) | EA | 41 | |
| 3 467 | 6395 | | SET (TY II)(24 IN)(RCP)(6:1)(P) | EA | 41 | |
| 3 467 | 6422 | | SET (TY II)(30 IN)(RCP)(6:1)(C) | EA | 1 | |
| 3 6 467 | 6423 | | SET (TY II)(30 IN)(RCP)(6:1)(P) | EA | 17 | |
| 3 467 | 6454 | | SET (TY II)(36 IN)(RCP)(6:1)(P) | EA | 4 | |
| 496 | 6016 | | REMOV STR (PIPE) | EA | 17 | |
| 500 | 6001 | | MOBILIZATION | LS | 1 | |
| 502 | 6001 | | BARRICADES, SIGNS AND TRAFFIC HANDLING | MO | 18 | |
| 506 | 6002 | | ROCK FILTER DAMS (INSTALL) (TY 2) | LF | 1,040 | |

| ITEM CODE | | | DESCRIPTION | UNIT | TOTAL | |
|---|---|---|---|---|---|---|
| ITEM NO. | DESC. CODE | SP NO. | | | EST. | FINAL |
| 506 | 6011 | | ROCK FILTER DAMS (REMOVE) | LF | 1,040 | |
| 506 | 6020 | | CONSTRUCTION EXITS (INSTALL) (TY 1) | SY | 240 | |
| 506 | 6024 | | CONSTRUCTION EXITS (REMOVE) | SY | 240 | |
| 506 | 6038 | | TEMP SEDMT CONT FENCE (INSTALL) | LF | 195 | |
| 506 | 6039 | | TEMP SEDMT CONT FENCE (REMOVE) | LF | 195 | |
| 506 | 6040 | | BIODEG EROSN CONT LOGS (INSTL) (8") | LF | 23,660 | |
| 506 | 6043 | | BIODEG EROSN CONT LOGS (REMOVE) | LF | 23,660 | |
| 508 | 6001 | | CONSTRUCTING DETOURS | SY | 3,775 | |
| 512 | 6009 | | PORT CTB (FUR & INST)(LOW PROF)(TY 1) | LF | 1,240 | |
| 512 | 6010 | | PORT CTB (FUR & INST)(LOW PROF)(TY 2) | LF | 120 | |
| 512 | 6057 | | PORT CTB (REMOVE)(LOW PROF)(TY 1) | LF | 1,240 | |
| 512 | 6058 | | PORT CTB (REMOVE)(LOW PROF)(TY 2) | LF | 120 | |
| 528 | 6001 | | COLORED TEXTURED CONC (4") | SY | 954 | |
| 529 | 6008 | | CONC CURB & GUTTER (TY II) | LF | 24,461 | |
| 6 529 | 6038 | | CONC CURB (RIBBON) | LF | 755 | |
| 530 | 6004 | | DRIVEWAYS (CONC) | SY | 975 | |
| 6 530 | 6005 | | DRIVEWAYS (ACP) | SY | 4,523 | |
| 531 | 6001 | | CONC SIDEWALK (4") | SY | 87 | |
| 531 | 6010 | | CURB RAMPS (TY 7) | EA | 5 | |
| 8 540 | 6001 | | MTL W-BEAM GD FEN (TIM POST) | LF | 643 | |
| 544 | 6001 | | GUARDRAIL END TREATMENT (INSTALL) | EA | 3 | |
| 560 | 6004 | | MAILBOX INSTALL-S (TWG-POST) TY 2 | EA | 18 | |
| 560 | 6005 | | MAILBOX INSTALL-D (TWG-POST) TY 2 | EA | 2 | |
| 560 | 6006 | | MAILBOX INSTALL-M (TWG-POST) TY 2 | EA | 2 | |
| 618 | 6023 | | CONDT (PVC)(SCH 40)(2") | LF | 25 | |
| 620 | 6007 | | ELEC CONDR (NO.8) BARE | LF | 25 | |
| 628 | 6001 | | RELOCATE ELECTRICAL SERVICES | EA | 1 | |
| 644 | 6001 | | INS SM RD SN SUP & AM TY 10BWG (1) SA (P) | EA | 16 | |
| 644 | 6004 | | INS SM RD SN SUP&AM TY 10BWG(1) SA(T) | EA | 2 | |
| 644 | 6007 | | IN SM RD SN SUP&AM TY 10BWG (1) SA (U) | EA | 14 | |
| 644 | 6061 | | INS SM RD SN SUP&AM TY TWT(1) WS(T) | EA | 61 | |
| 658 | 6046 | | INSTL OM ASSM (OM-2X)(WC)GND | EA | 23 | |
| 662 | 6004 | | WK ZN PAV MRK NON-REMOV (W) 4" (SLD) | LF | 33,412 | |
| 662 | 6012 | | WK ZN PAV MRK NON-REMOV (W) 8" (SLD) | LF | 3,389 | |
| 662 | 6016 | | WK ZN PAV MRK NON-REMOV (W) 24" (SLD) | LF | 333 | |
| 662 | 6017 | | WK ZN PAV MRK NON-REMOV (W) (ARROW) | EA | 11 | |
| 662 | 6029 | | WK ZN PAV MRK NON-REMOV (W) (WORD) | EA | 11 | |
| 662 | 6032 | | WK ZN PAV MRK NON-REMOV (Y) 4" (BRK) | LF | 2,010 | |
| 662 | 6034 | | WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) | LF | 53,873 | |
| 662 | 6041 | | WK ZN PAV MRK NON-REMOV (Y) 24" (SLD) | LF | 1,831 | |
| 666 | 6035 | | REFL PAV MRK TY I (W) 8"(SLD)(090MIL) | LF | 5,347 | |
| 666 | 6041 | | REFL PAV MRK TY I (W) 12"(SLD)(090MIL) | LF | 370 | |
| 666 | 6047 | | REFL PAV MRK TY I (W) 24"(SLD)(090MIL) | LF | 606 | |
| 666 | 6053 | | REFL PAV MRK TY I (W) (ARROW) (090MIL) | EA | 27 | |
| 666 | 6077 | | REFL PAV MRK TY I (W) (WORD) (090MIL) | EA | 19 | |
| 666 | 6146 | | REFL PAV MRK TY I (Y) 24"(SLD)(090MIL) | LF | 1,359 | |
| 666 | 6299 | | RE PM W/RET REQ TY I (W)4"(BRK)(090MIL) | LF | 800 | |
| 666 | 6302 | | RE PM W/RET REQ TY I (W)4"(SLD)(090MIL) | LF | 23,127 | |
| 666 | 6311 | | RE PM W/RET REQ TY I (Y)4"(BRK)(090MIL) | LF | 2,747 | |
| 666 | 6314 | | RE PM W/RET REQ TY I (Y)4"(SLD)(090MIL) | LF | 47,414 | |
| 672 | 6007 | | REFL PAV MRKR TY I-C | EA | 146 | |
| 672 | 6009 | | REFL PAV MRKR TY II-A-A | EA | 623 | |
| 672 | 6010 | | REFL PAV MRKR TY II-C-R | EA | 116 | |
| 682 | 6001 | | VEH SIG SEC (12")LED(GRN) | EA | 1 | |
| 682 | 6002 | | VEH SIG SEC (12")LED(GRN ARW) | EA | 1 | |
| 682 | 6003 | | VEH SIG SEC (12")LED(YEL) | EA | 1 | |
| 682 | 6004 | | VEH SIG SEC (12")LED(YEL ARW) | EA | 1 | |
| 682 | 6005 | | VEH SIG SEC (12")LED(RED) | EA | 1 | |
| 682 | 6025 | | BACK PLATE (12") (5 SEC) | EA | 1 | |
| 684 | 6033 | | TRF SIG CBL (TY A)(14 AWG)(7 CONDR) | LF | 225 | |
| 684 | 6080 | | TRF SIG CBL (TY C)(14 AWG)(2 CONDR) | LF | 25 | |
| 687 | 6001 | | PED POLE ASSEMBLY | EA | 3 | |
| 690 | 6007 | | REPLACE OF GROUND BOX | EA | 2 | |
| 690 | 6057 | | REMOVAL OF PEDESTRIAN RAMPS | EA | 3 | |
| 730 | 6003 | | SPOT MOWING | AC | 15.3 | |
| 730 | 6107 | | FULL - WIDTH MOWING | CYC | 3 | |
| 3076 | 6066 | | TACK COAT | GAL | 8,156 | |
| 6001 | 6001 | | PORTABLE CHANGEABLE MESSAGE SIGN | DAY | 300 | |
| 6120 | 6001 | | DEAD END ROAD BARRICADE | LF | 112 | |
| 7056 | 6057 | | PIPE ENCASEMNET (24") STEEL | LF | 129 | |

3 (01/05/22): RFI #1

5 (03/23/22): RFI #12 & RFI #13

6 (07/15/22): RFI #9

7 (06/14/22): RFI #22

8 (08/26/22): RFI #27

WILLIAMSON COUNTY 1848



STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TBPE FIRM NO. 181 TBPLS FIRM NO. 100637700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

WILLIAMSON COUNTY
CR 111 IMPROVEMENTS

# ESTIMATE & QUANTITIES

| DATE: 8/26/2022 | 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 111 |

| SHEET NO. | STREET | STATION RANGE | 100-6002 PREPARING ROW (STA) | 106-6002 OBLITERATING ABANDONED ROAD (SY) | 110-6001 EXCAVATION (ROADWAY) (CY) | 132-6003 EMBANKMENT (FINAL)(ORD COMP)(TY B) (CY) | 247-6044 FL BS (CMP IN PLC) (TY A GR 4) (FNAL POS (CY) | 260-6002 LIME (HYDRATED LIME (SLURRY)) (TON) | 260-6073 LIME TRT (SUBGRADE) (8") (SY) | 310-6001 PRIME COAT (MULTI OPTION) (GAL) | 316-6193 AGGR (TY-D GR-5 SAC-B) (CY) | 316-6413 ASPH (AC-15P, HFRS-2P OR CRS-2P) (GAL) | 3076-6001 D-GR HMA TY-B PG64-22 (TON) | 3076-6042 D-GR HMA TY-D SAC-B PG70-22 (TON) | 351-6006 FLEXIBLE PAVEMENT STRUCTURE REPAIR (10") (SY) | 354-6041 PLANE ASPH CONC PAV (1.5") (SY) | 354-6044 PLANE ASPH CONC PAV (7") (SY) | 432-6045 RIPRAP (MOW STRIP)(4 IN) (CY) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CR 111 | BEGIN TO 21+00 | 10 | 468 | 7,139 | 4,324 | 3,692 | 174 | 9,659 | 1,818 | 55 | 2,273 | 2,614 | 1,335 | | 2,273 | 386 | 29 |
| 2 | CR 111 | 21+00 TO 32+00 | 11 | 1,679 | 14,674 | 630 | 3,409 | 185 | 10,277 | 1,799 | 55 | 2,249 | 2,069 | 1,034 | | | | |
| 3 | CR 111 | 32+00 TO 43+00 | 11 | 2,474 | 6,205 | 4,773 | 1,946 | 108 | 5,988 | 942 | 26 | 1,092 | 1,081 | 538 | | | | |
| 4 | CR 111 | 43+00 TO 54+00 | 11 | 2,721 | 2,666 | 4,341 | 1,939 | 53 | 2,968 | 938 | 26 | 1,092 | 1,076 | 535 | | | | 3 |
| 5 | CR 111 | 54+00 TO 65+00 | 11 | 2,551 | 5,398 | 4,084 | 1,584 | 88 | 4,886 | 791 | 23 | 950 | 908 | 454 | | | | 8 |
| 6 | CR 111 | 65+00 TO 76+00 | 11 | 3,367 | 8,497 | 445 | 2,300 | 126 | 7,004 | 1,161 | 33 | 1,368 | 1,333 | 665 | | | | |
| 7 | CR 111 | 76+00 TO 87+00 | 11 | 510 | 4,379 | 1,433 | 1,697 | 102 | 5,693 | 896 | 27 | 1,121 | 1,192 | 517 | | | | |
| 8 | CR 111 | 87+00 TO 98+00 | 11 | | 7,697 | 255 | 1,534 | 88 | 4,905 | 812 | 22 | 905 | 932 | 466 | | | | |
| 9 | CR 111 | 98+00 TO 109+00 | 11 | 3,875 | 3,860 | 1,052 | 1,893 | 103 | 5,695 | 1,103 | 33 | 1,379 | 1,359 | 633 | | | | |
| 10 | CR 111 | 109+00 TO 120+00 | 11 | 2,584 | 1,158 | 1,815 | 1,410 | 78 | 4,339 | 722 | 22 | 903 | 831 | 415 | | | | |
| 11 | CR 111 | 120+00 TO 131+00 | 11 | 3,047 | 4,755 | 538 | 1,759 | 97 | 5,388 | 926 | 28 | 1,158 | 1,065 | 533 | | | | |
| 12 | CR 111 | 131+00 TO 142+00 | 11 | 3,165 | 1,661 | 8,781 | 2,031 | 125 | 6,921 | 1,156 | 35 | 1,445 | 1,263 | 631 | | | | |
| 13 | CR 111 | 142+00 TO 153+00 | 11 | 1,066 | 969 | 3,661 | 1,708 | 104 | 5,758 | 1,056 | 32 | 1,320 | 1,727 | 732 | | | | |
| 14 | CR 111 | 153+00 TO 164+00 | 11 | 2,710 | 4,768 | 579 | 1,411 | 89 | 4,956 | 740 | 22 | 926 | 851 | 426 | | | | |
| 15 | CR 111 | 164+00 TO 175+00 | 11 | 4,163 | 9,306 | 568 | 1,406 | 82 | 4,532 | 713 | 22 | 891 | 820 | 410 | | | | |
| 16 | CR 111 | 175+00 TO 186+00 | 11 | 1,787 | 8,141 | 206 | 1,994 | 111 | 6,180 | 1,224 | 37 | 1,530 | 1,575 | 704 | | | | |
| 17 | CR 111 | 186+00 TO 197+00 | 11 | 2,739 | 4,829 | 740 | 1,470 | 95 | 5,273 | 794 | 24 | 993 | 914 | 457 | | | | |
| 18 | CR 111 | 197+00 TO END | 12 | 1,768 | 8,391 | 325 | 1,226 | 75 | 4,176 | 834 | 25 | 1,043 | 1,288 | 480 | | | | |
| 1 | CR 110 | BEGIN TO 365+00 | 9 | | 1,994 | 1,369 | 860 | 13 | 706 | 402 | 17 | 714 | 1,296 | 359 | | | | |
| 2 | CR 110 | 365+00 TO END | 8 | | 737 | 702 | 1,058 | 85 | 4,721 | 916 | 28 | 1,145 | 977 | 389 | | | | |
| 1 | CR 105 | | 2 | | 289 | 1,528 | 401 | 22 | 1,204 | 184 | 6 | 230 | 211 | 106 | | | | |
| | OTHERS | | | | | | 1,332 | 72 | 3,996 | 464 | 15 | 578 | 459 | 230 | 500 | | | |
| | | **TOTAL** | **217** | **40,673** | **107,513** | **42,149** | **38,060** | **2,075** | **115,225** | **20,391** | **613** | **25,305** | **25,840** | **12,049** | **500** | **2,273** | **386** | **40** |

| SHEET NO. | STREET | STATION RANGE | 450-6006 RAIL (TY T223) (LF) | 496-6016 REMOV STR (PIPE) (EA) | 528-6001 COLORED TEXTURED CONC (4") (SY) | 529-6008 CONC CURB & GUTTER (TY II) (LF) | 529-6038 CONC CURB (RIBBON) (LF) | 530-6004 DRIVEWAYS (CONC) (SY) | 530-6005 DRIVEWAYS (ACP) (SY) | 531-6001 CONC SIDEWALK (4") (SY) | 531-6010 CURB RAMPS (TY 7) (EA) | 540-6001 MTL W-BEAM GD FEN (TIM POST) (LF) | 544-6001 GUARDRAIL END TREATMENT (INSTALL) (EA) | 3076-6066 TACK COAT (GAL) | 7056-6057 PIPE ENCASEMENT (24")STEEL (LF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CR 111 | BEGIN TO 21+00 | | 1 | 874 | 4,118 | | 174 | | | 3 | 500 | 1 | 727 | |
| 2 | CR 111 | 21+00 TO 32+00 | | | 80 | 2,411 | | 490 | | | | | | 720 | |
| 3 | CR 111 | 32+00 TO 43+00 | | | | 2,200 | 231 | | 506 | | | | | 377 | |
| 4 | CR 111 | 43+00 TO 54+00 | | 2 | | 2,200 | 356 | 120 | 652 | | | | 1 | 375 | |
| 5 | CR 111 | 54+00 TO 65+00 | 34 | | | 1,425 | 79 | 101 | 349 | | | 143 | 1 | 316 | |
| 6 | CR 111 | 65+00 TO 76+00 | | | | 2,178 | 89 | 90 | 247 | 87 | 2 | | | 464 | |
| 7 | CR 111 | 76+00 TO 87+00 | | | | 2,039 | | | 180 | | | | | 358 | |
| 8 | CR 111 | 87+00 TO 98+00 | | | | 1,382 | | | | | | | | 325 | 129 |
| 9 | CR 111 | 98+00 TO 109+00 | | 1 | | 426 | | | | | | | | 441 | |
| 10 | CR 111 | 109+00 TO 120+00 | | | | 871 | | | 401 | | | | | 289 | |
| 11 | CR 111 | 120+00 TO 131+00 | | | | 948 | | | 466 | | | | | 370 | |
| 12 | CR 111 | 131+00 TO 142+00 | | 7 | | | | | | | | | | 462 | |
| 13 | CR 111 | 142+00 TO 153+00 | | 1 | | | | | 225 | | | | | 422 | |
| 14 | CR 111 | 153+00 TO 164+00 | | 1 | | 699 | | | 259 | | | | | 296 | |
| 15 | CR 111 | 164+00 TO 175+00 | | | | 1,072 | | | 82 | | | | | 285 | |
| 16 | CR 111 | 175+00 TO 186+00 | | | | 110 | | | 354 | | | | | 490 | |
| 17 | CR 111 | 186+00 TO 197+00 | | 4 | | 408 | | | 329 | | | | | 318 | |
| 18 | CR 111 | 197+00 TO END | | | | 406 | | | 416 | | | | | 334 | |
| 1 | CR 110 | BEGIN TO 365+00 | | | | | | | | | | | | 161 | |
| 2 | CR 110 | 365+00 TO END | | | | 657 | | | | | | | | 366 | |
| 1 | CR 105 | | | | | | | | 57 | | | | | 74 | |
| | OTHERS | | | | | 911 | | | | | | | | 186 | |
| | | **TOTAL** | **34** | **17** | **954** | **24,461** | **755** | **975** | **4,523** | **87** | **5** | **643** | **3** | **8,156** | **129** |

6 (04/05/22): RFI #9

7 (06/14/22): RFI #22

8 (08/26/22): RFI #27

WILLIAMSON COUNTY 1848



STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TBPE FIRM NO. 181 TBPLS FIRM NO. 10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

WILLIAMSON COUNTY
CR 111 IMPROVEMENTS

# SUMMARY OF ROADWAY QUANTITIES

| DATE: 8/26/2022 | DN: | DW: | CK: | AP: | |
|---|---|---|---|---|---|
| FED.RD. DIV.NO. | FEDERAL AID PROJECT NO. | | | | SHEET NO. |
| 6 | ---- | | | | 17 |
| STATE | DIST. | COUNTY | | | |
| TEXAS | --- | WILLIAMSON | | | |
| CONT. | SECT. | JOB | HIGHWAY NO. | | |
| ---- | -- | --- | CR 111 | | |

89.64 AC
LOUIS MILTON & JOSEPHINE MARIE COCKRUM
376/334

McNutt Creek

BEGIN 15' WIDE CONC. LINED DITCH STA. 57+64, 40 CY

END DITCH STA. 55+44.60 O/S 71' LT

CULVERT 4 @ STA. 55+44.60 EXISTING 3-8x8 MBC TO REMAIN

APPROXIMATE GEORGETOWN CITY LIMITS

CONTRACTOR TO EXERCISE CAUTION: EXISTING FIRE HYDRANT

PROPOSED CR111 STA. 60+17.22 PIETRA STA. 00+00.00

TRANSITION TO EXISTING DITCH STA. 63+30, O/S 69'

DW=15

DW=53

PC 61+57.37

N 67° 57' 03.83" E 620.23'

MATCH LINE STA. 54+00

MATCH LINE STA. 65+00

55+00

60+00

65

2.0%

36' PVMT

28' PVMT

2.0%

PROP. R.O.W.

SGT

DW=16

BEGIN 15' WIDE CONC. LINED DITCH STA. 58+22, 55 CY

RIBBON CURB

PROPOSED ℄

MATCH EXISTING

END DITCH STA. 56+00.00 O/S 90.00' RT

END CURB & GUTTER STA. 57+25.00 O/S 49.50' RT (BOC)

MBGF 143 LF

MOW STRIP 11 CY

EXISTING DRAINAGE EASEMENT (~75'X150')

EXTEND WING WALL HEIGHT & INSTALL TRAFFIC RAIL (TY T223) 34 LF

8

144.41 AC
JOHN S AVERY EXEMPT TRUST
2006112407

2

## LEGEND

- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPERTY LINE
- PROPOSED CENTERLINE
- PROPOSED DITCH FLOWLINE AND DIRECTION
- PROPOSED PROFILE
- EXISTING GROUND AT PROPOSED CENTERLINE
- LEFT DITCH PROFILE
- RIGHT DITCH PROFILE
- OBLITERATE & ABANDON EXISTING PAVEMENT

NOTES:
1. UNLESS OTHERWISE NOTED, DIMENSIONS AND RADIUS CALLOUTS ARE FROM LIP OF GUTTER.

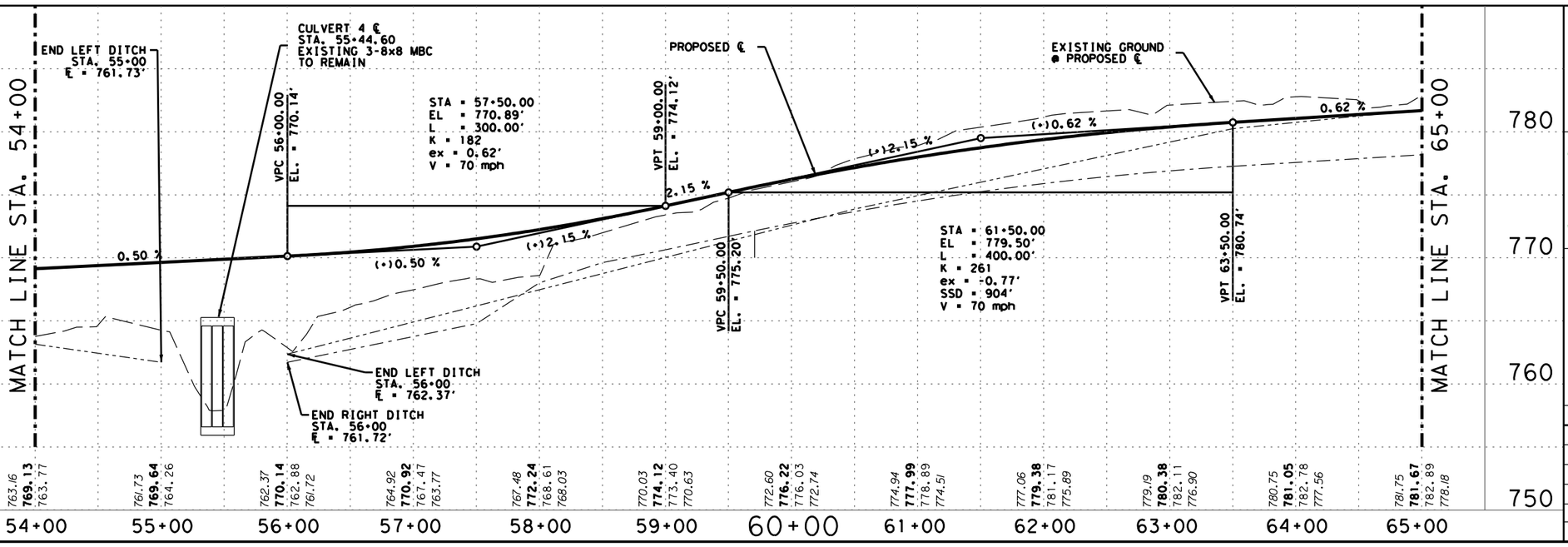
REVISION 2 & 8 ONLY

STATE OF TEXAS · BRYAN ERIC MOORE · 98920 · LICENSED PROFESSIONAL ENGINEER
09/16/2022

0 25 50 75 100
SCALE IN FEET

STATE OF TEXAS · BENJAMIN R. LAKE · 118699 · LICENSED PROFESSIONAL ENGINEER
11/15/16

2 (10/22/20): HNTB REVISIONS
8 (8/26/22): RFI #27




WILLIAMSON COUNTY
1848



STEGER BIZZELL
ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626
METRO 512.930.9412 TBPE FIRM NO. 181 TBPLS FIRM NO. 10003700 WEB STEGERBIZZELL.COM
SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

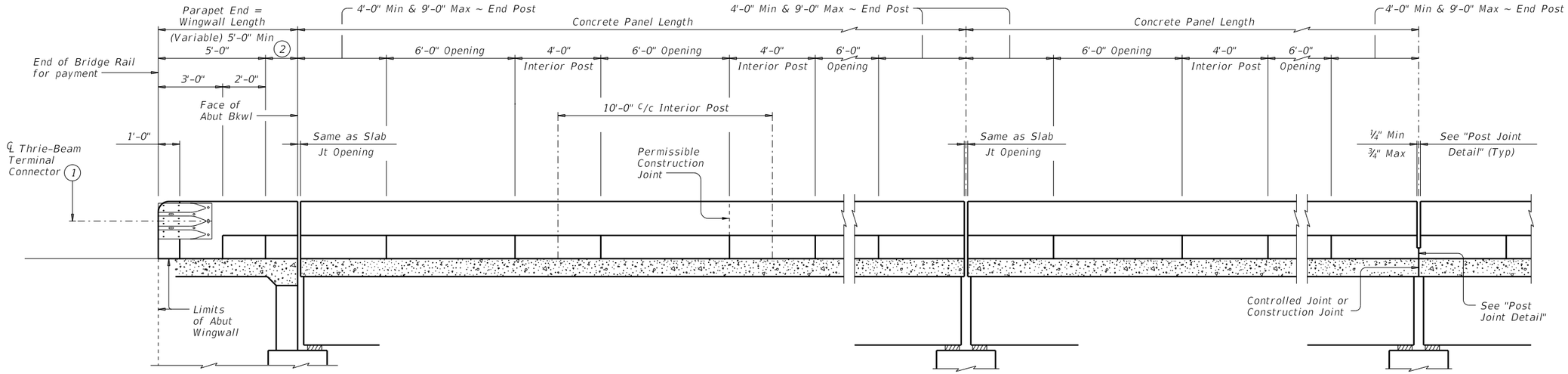
WILLIAMSON COUNTY
CR 111 IMPROVEMENTS

# CR 111
# PLAN & PROFILE

SHEET 5 OF 18

| DATE: 8/26/2022 | DN: | DW: | CK: | AP: | |
|---|---|---|---|---|---|
| FED.RD. DIV.NO. | FEDERAL AID PROJECT NO. | | | | SHEET NO. |
| 6 | ---- | | | | 92 |
| STATE | DIST. | COUNTY | | | |
| TEXAS | --- | WILLIAMSON | | | |
| CONT. | SECT. | JOB | | HIGHWAY NO. | |
| ---- | -- | --- | | CR 111 | |

DATE:
FILE:

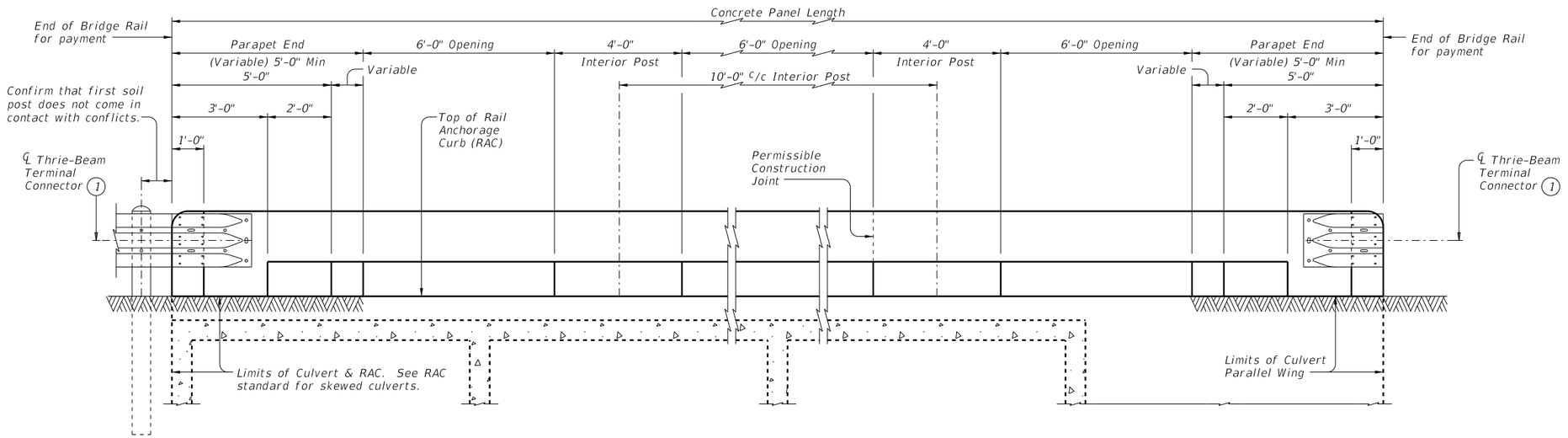



AT ABUTMENTS

AT BENTS WITH SLAB EXP JOINTS

AT BENTS WITHOUT SLAB EXP JOINTS

## ROADWAY ELEVATION OF RAIL ON BRIDGE




AT STRAIGHT OR FLARED WINGS

AT PARALLEL WINGS

## ROADWAY ELEVATION OF RAIL ON BOX CULVERTS

*Showing 0° skew culvert. Skewed culverts similar. See RAC standard for details not shown. Vertical joints in concrete rail are not required, unless shown elsewhere.*

(1) Terminal Connectors and associated hardware are to be paid for under the Item "Metal Beam Guard Fence". Attach Metal Beam Guard Fence Transitions to the bridge rail and extend along the embankment unless otherwise shown in the plans.

(2) Wingwall Length minus 5'-0" (Varies)



Texas Department of Transportation

Bridge Division Standard

# TRAFFIC RAIL

## TYPE T223

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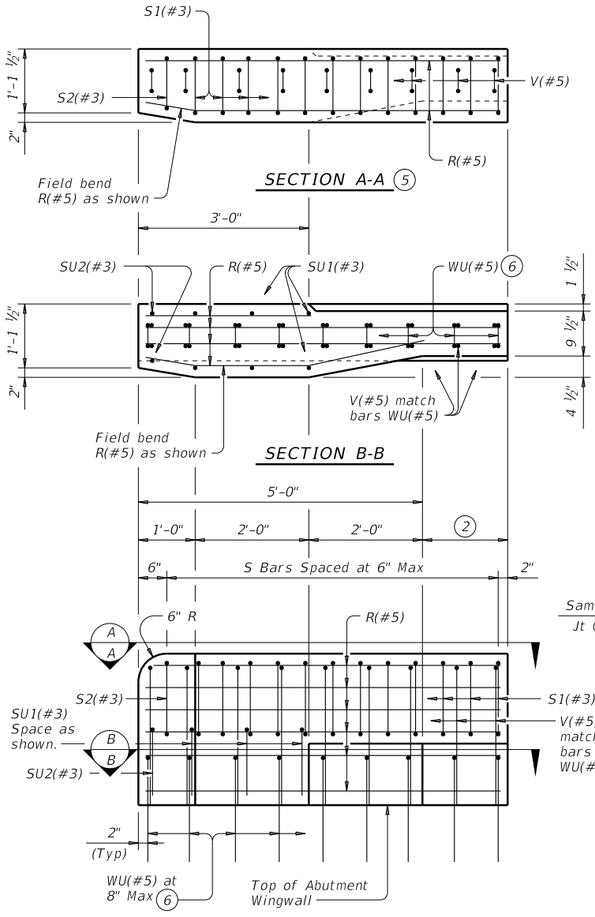
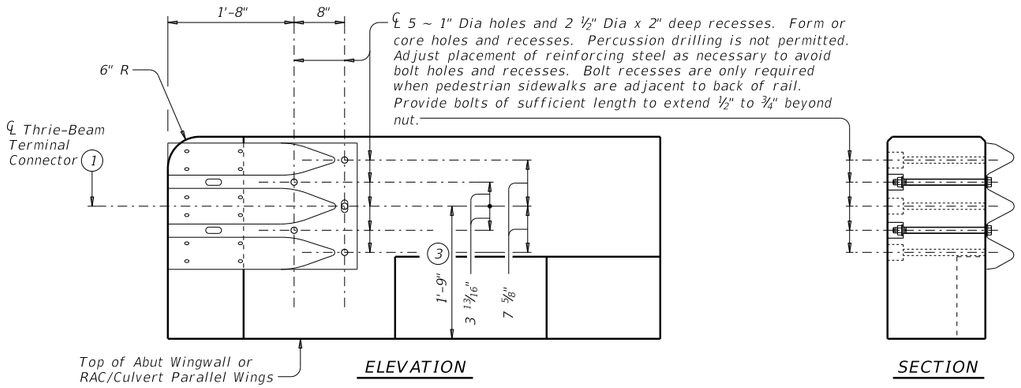
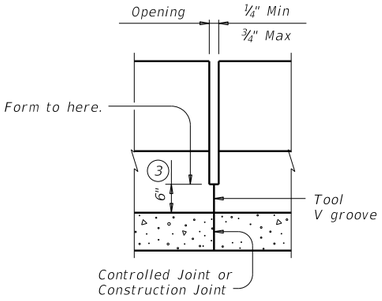



PARAPET END AT ABUT WINGWALL (6)

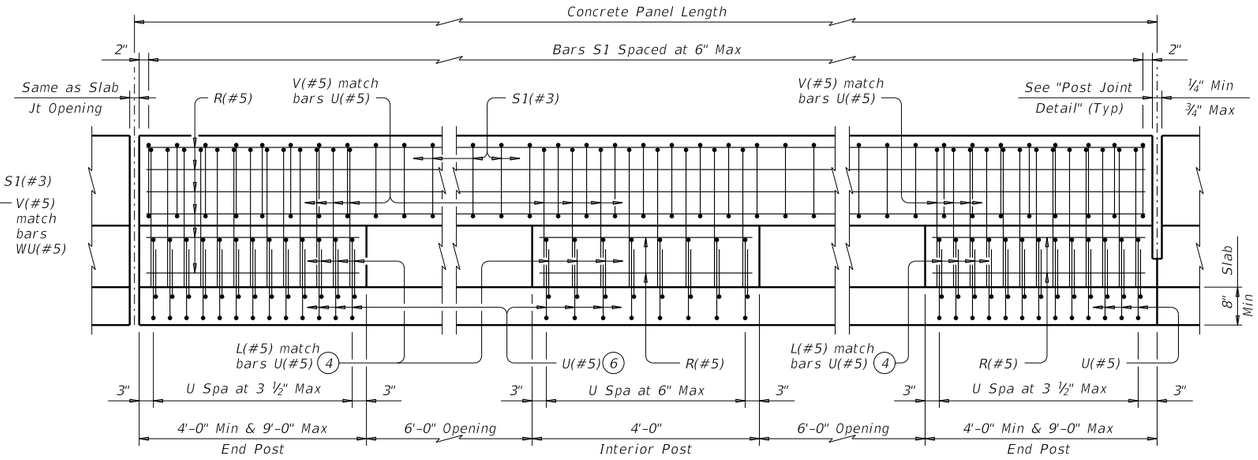



## TERMINAL CONNECTION DETAILS




## POST JOINT DETAIL

Provide at all interior bents without slab expansion joints.




AT SLAB EXPANSION JOINTS

AT 4' INTERIOR POST

AT BENTS WITHOUT SLAB EXPANSION JOINTS

## ELEVATION SHOWING TYPICAL REINFORCING PLACEMENT

Showing rail on slab. Rail on box culvert similar.

(1) Terminal Connectors and associated hardware are to be paid for under the Item "Metal Beam Guard Fence". Attach Metal Beam Guard Fence Transitions to the bridge rail and extend along the embankment unless otherwise shown in the plans.

(2) Wingwall Length minus 5'-0" (Varies)

(3) Increase 2" for structures with overlay.

(4) Bars L(#5) are part of rail reinforcing and are included in unit price bid for railing. Space with Bars U. Bars L match slab bar cover. Bars L may be bundled with top slab reinforcing if spacing is equivalent.

(5) Bars SU1(#3), SU2(#3) and WU(#5) not shown for clarity.

(6) Substitute Bars U(#5) for Bars WU(#5) when parapet end is located on achorage curb over culvert top slab. Use Bars WU(#5) in culvert parallel wings.



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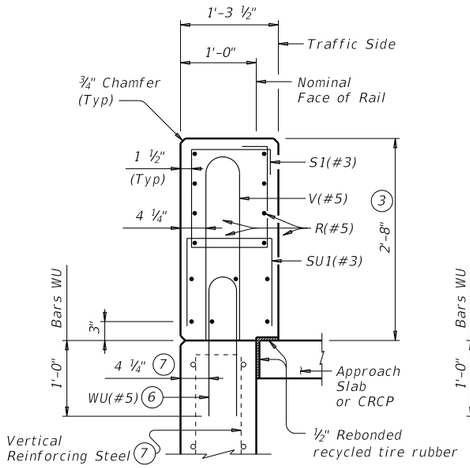
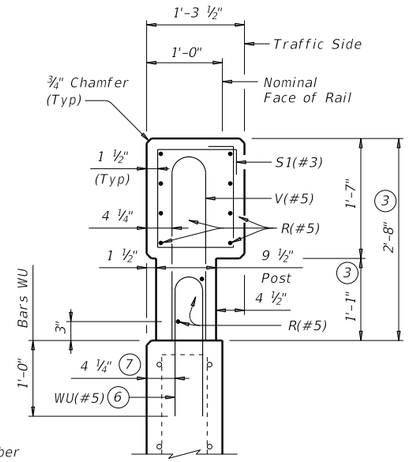
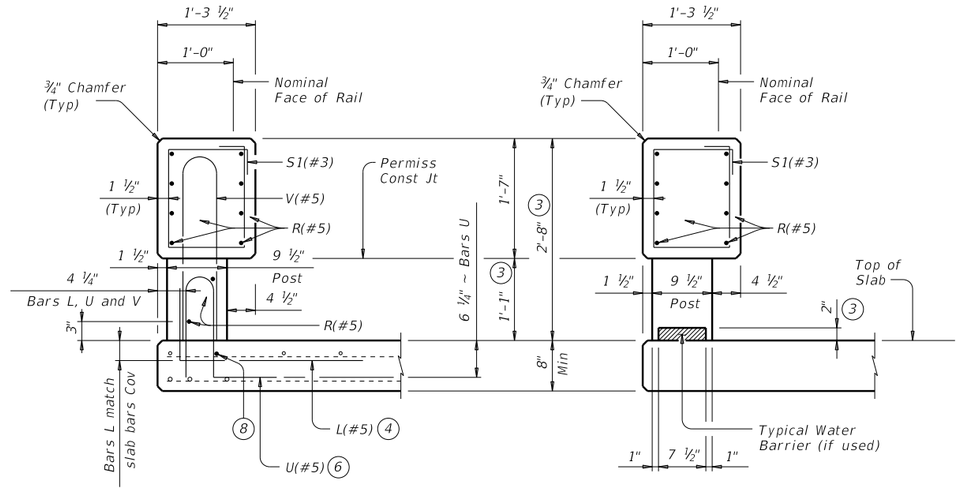



SECTION C-C
ON ABUTMENT WINGWALLS
OR CIP RETAINING WALLS




SECTION D-D
ON ABUTMENT WINGWALLS
OR CIP RETAINING WALLS

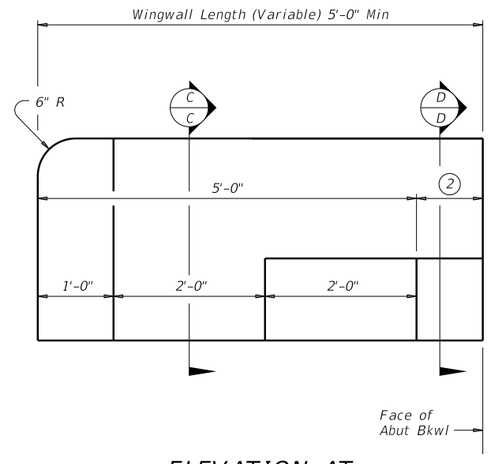



AT POST
ON BRIDGE SLAB

AT OPENING
ON BRIDGE SLAB

## SECTIONS THRU RAIL

*Sections on box culverts similar.*




## ELEVATION AT ABUTMENT WINGWALL

*Box culvert parallel wings or rail anchorage curb similar.*

(2) *Wingwall Length minus 5'-0" (Varies)*

(3) *Increase 2" for structures with overlay.*

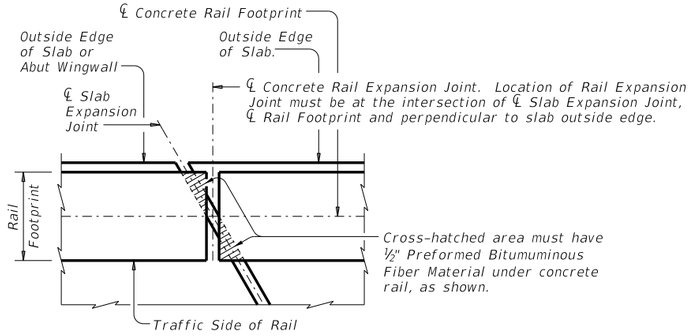
(4) *Bars L(#5) are part of rail reinforcing and are included in unit price bid for railing. Space with Bars U. Bars L match slab bar cover. Bars L may be bundled with top slab reinforcing if spacing is equivalent.*

(6) *Substitute Bars U(#5) for Bars WU(#5) when parapet end is located on anchorage curb over culvert top slab. Use Bars WU(#5) in culvert parallel wings.*

(7) *When vertical reinforcing has closer clear cover over horizontal reinforcing in abutment wingwalls on traffic side of wall, move the horizontal wingwall/retaining wall reinforcing to the inside of Bars WU where bars conflict.*

(8) *Top longitudinal slab bar may be adjusted laterally 3" plus or minus to tie reinforcing.*

(9) *At the Contractor's option, Bars V may be replaced by extending Bars U to 2'-5 ¼" above the roadway surface without overlay.*




## PLAN OF RAIL AT EXPANSION JOINTS

*Example showing Slab Expansion Joints without breakbacks.*

### CONSTRUCTION NOTES:

*Face of rail and parapet must be vertical transversely unless otherwise shown in the plans or approved by the Engineer.*

*Provide water barriers at openings draining onto undercrossing roadways and sidewalks. They may be cast-in-place or precast in convenient lengths and bonded to the bridge deck with an approved epoxy cement.*

*Chamfer all exposed corners.*

### MATERIAL NOTES:

*Provide Class "C" concrete. Provide Class "C" (HPC) if required elsewhere.*

*Provide Grade 60 reinforcing steel.*

*Epoxy coat or galvanize all reinforcing steel if slab bars are epoxy coated or galvanized.*

*Deformed Welded Wire Reinforcing (WWR) (ASTM A1064) of equal size and spacing may be substituted for Bars U, V, and WU unless noted otherwise. Provide the same laps as required for reinforcing bars.*

*Provide bar laps, where required, as follows:*

*Uncoated or galvanized ~ #5 = 2'-0"*
*Epoxy coated ~ #5 = 3'-0"*

### GENERAL NOTES:

*This rail has been evaluated by full-scale crash test to meet MASH TL-3 criteria. This rail can be used for speeds of 50 mph and greater when a TL-3 rated guard fence transition is used. When a TL-2 rated guard fence transition is used, this rail can only be used for speeds of 45 mph and less.*

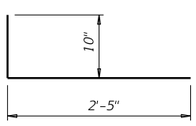
*Do not use this railing on bridges with expansion joints providing more than 5" movement.*

*Rail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.*

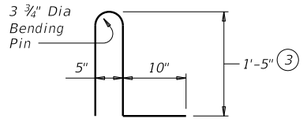
*Shop drawings are not required for this rail.*

*Average weight of railing with no overlay is 358 plf.*

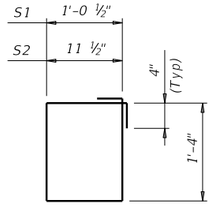
*Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing bar dimensions shown are out-to-out of bar.*



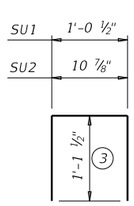

BARS L (#5)



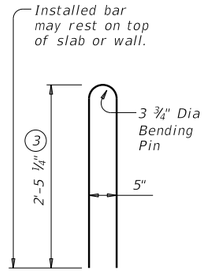

BARS U (#5) (9)



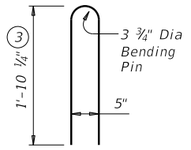

BARS S (#3)




BARS SU (#3)




BARS V (#5) (9)




BARS WU (#5)

SHEET 3 OF 3

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