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Received  
OCT 4 2012  
HNTB Corporation  
Round Rock

WILLIAMSON COUNTY, TEXAS  
CHANGE ORDER NUMBER: 3

1. CONTRACTOR: Chasco Constructors
2. Change Order Work Limits: Sta. 95+00 to Sta. 155+00
3. Type of Change(on federal-aid non-exempt projects): Minor (Major/Minor)
4. Reasons: 4B, 4C (3 Max. - In order of importance - Primary first)

Project: lowe 822 11WG822

Roadway: Chandler Ph. 3A

Purchase Order Number: \_\_\_\_\_

5. Describe the work being revised:

4B: Third Party Accommodation. Third party requested work. This Change Order adjusts quantities and adds new Contract items to revise the drainage and the profile grade of Chandler Road in the vicinity of CR 101 at the request of adjacent property owners. 4C: Third Party Accommodation. Compliance requirements of new laws and/or policies. This Change Order changes four (4) driveways on the project that are now in the Taylor City Limits from asphalt to concrete due to City requirements.

6. Work to be performed in accordance with Items: See Attached
7. New or revised plan sheet(s) are attached and numbered: 10-11, 47-48, 50- 51, 57-59, 65, 75A, 119A, 202-204, 236C, 236D and 236E
8. New Special Provisions 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).

|                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>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.</p> <p>THE CONTRACTOR Date <u>10/3/12</u></p> <p>By <u>[Signature]</u></p> <p>Typed/Printed Name <u>CHUCK G LACE</u></p> <p>Typed/Printed Title <u>PRESIDENT</u></p> | <p>The following information must be provided</p> <p>Time Ext. #: <u>1</u> Days added on this CO: <u>30</u></p> <p>Amount added by this change order: <u>\$111,703.50</u></p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

RECOMMENDED FOR EXECUTION:

[Signature] P.E. 10/17/12  
Project Manager Date

N/A  
Design Engineer Date

[Signature] 10/23/12  
Program Manager Date

Design Engineer's Seal:  
See Attached

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

[Signature] 11-1-12  
County Judge Date  
☒ APPROVED

Project # 10WC822

CHANGE ORDER NUMBER: 3

TABLE A: Force Account Work and Materials Placed into Stock

[illegible]

TABLE B: Contract Items

| ITEM     | DESCRIPTION                            | UNIT | UNIT PRICE | ORIGINAL + PREVIOUSLY REVISED |              | ADD or (DEDUCT) |              | NEW      |                      |
|----------|----------------------------------------|------|------------|-------------------------------|--------------|-----------------|--------------|----------|----------------------|
|          |                                        |      |            | QUANTITY                      | ITEM COST    | QUANTITY        | ITEM COST    | QUANTITY | ITEM COST            |
| 110-2001 | EXCAVATION [ROADWAY]                   | CY   | \$2.60     | 3,939.00                      | \$10,241.40  | 1,729.00        | \$14,738.80  |          | OVERRUN/<br>UNDERRUN |
| 432-2044 | RIPRAP [STONE COMMON] [DRY] [15 IN.]   | CY   | \$50.00    | 500.00                        | \$25,000.00  | 215.00          | \$5,760.00   |          | \$10,730.00          |
| 462-2004 | CONC BOX CULV [4FT X 3FT]              | LF   | \$163.00   | 0.00                          | \$0.00       | 189.00          | \$30,807.00  |          | \$30,807.00          |
| 464-2003 | RC PIPE [CL III] [18 IN.]              | LF   | \$35.00    | 2,152.30                      | \$75,330.50  | 48.00           | \$7,010.50   |          | \$1,680.00           |
| 485-2161 | INLET [COMPL.] [DROP] [TY H] [1 GRATE] | EA   | \$1,820.00 | 4.00                          | \$7,280.00   | 1.00            | \$9,100.00   |          | \$1,820.00           |
| 486-2049 | WINGWALL [PW] [HW=5 FT]                | EA   | \$7,985.00 | 0.00                          | \$0.00       | 3.00            | \$23,955.00  |          | \$23,955.00          |
| 487-2286 | SET [TY II] [18IN] [RCP] [6:1][P]      | EA   | \$625.00   | 66.00                         | \$41,250.00  | (1.00)          | \$40,625.00  |          | (\$526.00)           |
| 487-2351 | SET [TY I] [S=4 FT] [HW=2 FT] [6:1][P] | EA   | \$2,240.00 | 36.00                         | \$80,640.00  | (2.00)          | \$76,160.00  |          | (\$4,480.00)         |
| 496-2004 | REMOV CONC [SET]                       | EA   | \$750.00   | 0.00                          | \$0.00       | 1.00            | \$750.00     |          | \$750.00             |
| 496-2008 | REMOV CONC [BOX CULVERT]               | LF   | \$99.10    | 0.00                          | \$0.00       | 32.00           | \$2,851.20   |          | \$2,851.20           |
| 496-2007 | REMOV OLD STR [PIPE]                   | LF   | \$5.00     | 151.00                        | \$765.00     | 95.00           | \$1,230.00   |          | \$475.00             |
| 502-2001 | BARRICADES, SIGNS & TRAFFIC HANDLING   | MO   | \$1,600.00 | 18.00                         | \$28,800.00  | 1.00            | \$30,400.00  |          | \$1,600.00           |
| 530-2010 | DRIVEWAYS [CONC]                       | SY   | \$66.00    | 252.00                        | \$16,632.00  | 644.00          | \$59,136.00  |          | \$42,504.00          |
| 530-2011 | DRIVEWAYS [ACP]                        | SY   | \$17.00    | 11,107.00                     | \$188,819.00 | (598.00)        | \$178,653.00 |          | (\$10,166.00)        |
| 700T-XXX | GEOGRID FOR ENVIRONMENTAL CRACKING     | SY   | \$2.90     | 122,313.00                    | \$354,707.70 | 951.00          | \$357,494.60 |          | \$2,786.90           |
| 999-0001 | REMOVE/REPLACE FLEX BASE               | LS   | \$2,500.00 | 0.00                          | \$0.00       | 1.00            | \$2,500.00   |          | \$2,500.00           |
| TOTALS   |                                        |      |            |                               | \$829,455.60 |                 | \$941,159.10 |          | \$111,703.50         |

## 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**

**Chandler Road, Phase 3A  
Williamson County Project No. 10WC822**

**Change Order No. 3**

**Reason for Change**

This Change Order adjusts quantities and adds new Contract items to revise the drainage and the profile grade of Chandler Road in the vicinity of CR 101 at the request of adjacent property owners to more closely replicate pre-project conditions. These improvements include an additional box culvert crossing under Chandler Road and lowering of the vertical profile of the roadway.

This Change Order also changes the material of four (4) driveways on the project inside the Taylor City Limits from asphalt to concrete due to City requirements. The portion of the project near the CR 101 intersection was annexed by the City in November 2010 after the construction contract was awarded.

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

| Item     | Description               | Unit | Qty    |
|----------|---------------------------|------|--------|
| 462-2004 | CONC BOX CULV (4FT X 3FT) | LF   | 189.00 |
| 466-2049 | WINGWALL (PW) (HW=5 FT)   | EA   | 3.00   |
| 496-2004 | REMOV CONC (SET)          | EA   | 1.00   |
| 496-2008 | REMOV CONC (BOX CULVERT)  | LF   | 32.00  |
| 999-0001 | REMOVE/REPLACE FLEX BASE  | LS   | 1.00   |

This Change Order results in a net increase of \$111,703.50 to the Contract amount, for an adjusted Contract amount of \$7,054,866.61. The original Contract amount was \$6,654,874.15. As a result of this and all Change Orders to date, \$399,992.46 has been added to the Contract resulting in a 6.0% net increase in the Contract cost. Thirty (30) days will be added as a result of this Change Order.

**HNTB Corporation**

James Klotz, P.E.



## SUMMARY OF EROSION CONTROL QUANTITIES

| LOCATION              | ITEM 160                            |                          | ITEM 164                 |                                           | ITEM 166            | ITEM 168            | ITEM 169               | ITEM 132                          | 4022                              |                                                   |
|-----------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------------|---------------------|---------------------|------------------------|-----------------------------------|-----------------------------------|---------------------------------------------------|
|                       | 2003                                | 2006                     | 2011                     | 2023                                      |                     |                     |                        |                                   |                                   |                                                   |
| EROSION CONTROL PLANS | FURNISHING AND PLACING TOPSOIL (4") | BROST SEED (TEMP) (WARM) | BROST SEED (TEMP) (COOL) | CELL FIB MILCH SEED (PERM) (RURAL) (CLAY) | PETLIZER (13-13-13) | VEGETATIVE WATERING | FLEXIBLE CHANNEL LINER | RRAP (STONE COMMON) (DRY) (15 IN) | RRAP (STONE COMMON) (DRY) (24 IN) | INTERLOCKING ARTICULATING CONCRETE BLOCKS (4 MIN) |
|                       | SY                                  | SY                       | SY                       | SY                                        | TON                 | MG                  | SY                     | CY                                | CY                                | SY                                                |
| 1 OF 11               | 33,185                              | 8,266                    | 6,796                    | 33,185                                    | 2                   | 850                 |                        |                                   |                                   |                                                   |
| 2 OF 11               | 34,748                              | 8,687                    | 6,837                    | 34,148                                    | 2                   | 859                 | 249                    |                                   |                                   |                                                   |
| 3 OF 11               | 37,187                              | 9,297                    | 7,287                    | 37,187                                    | 2                   | 850                 | 313                    | 36                                |                                   | 7,272                                             |
| 4 OF 11               | 41,951                              | 10,458                   | 10,458                   | 41,951                                    | 3                   | 1,049               | 690                    |                                   |                                   |                                                   |
| 5 OF 11               | 40,412                              | 10,103                   | 10,103                   | 40,412                                    | 3                   | 1,010               | 249                    |                                   |                                   |                                                   |
| 6 OF 11               | 40,008                              | 10,002                   | 10,002                   | 40,008                                    | 3                   | 1,000               | 1,125                  |                                   |                                   |                                                   |
| 7 OF 11               | 34,432                              | 8,566                    | 8,538                    | 35,432                                    | 2                   | 886                 |                        |                                   |                                   |                                                   |
| 8 OF 11               | 34,682                              | 9,671                    | 9,671                    | 38,682                                    | 2                   | 967                 | 484                    | 75                                |                                   |                                                   |
| 9 OF 11               | 38,461                              | 9,115                    | 9,115                    | 39,461                                    | 2                   | 912                 | 654                    | 11                                | 148                               |                                                   |
| 10 OF 11              | 35,134                              | 8,784                    | 8,784                    | 35,134                                    | 2                   | 878                 | 1,451                  | 67                                |                                   |                                                   |
| 11 OF 11              | 20,577                              | 8,138                    | 8,138                    | 20,577                                    | 1                   | 433                 |                        |                                   |                                   |                                                   |
| TOTAL                 | 354,128                             | 98,438                   | 98,438                   | 354,128                                   | 24                  | 9,783               | 5,255                  | 115                               | 148                               | 7,272                                             |

## SUMMARY OF EROSION CONTROL QUANTITIES (CONTINUED)

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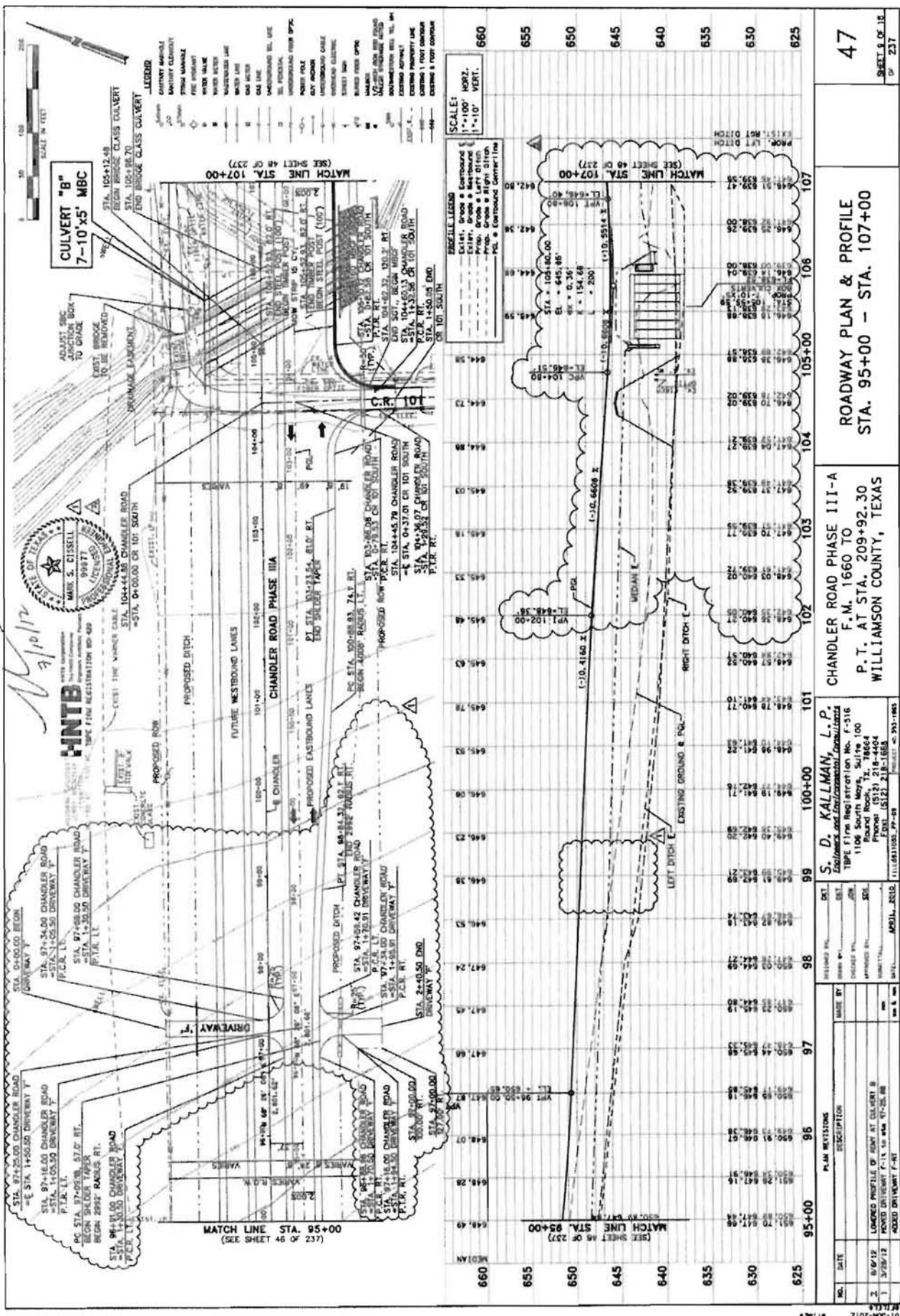
**S. D. KALLMAN, L.P.**  
ENGINEERS AND ENVIRONMENTAL CONSULTANTS  
TYPE F FIRM REGISTRATION NO. F-5116  
1185 SOUTH WAYS, SUITE 180  
ROUND ROCK, TX. 78664  
PHONE: (512) 218-4484  
FAX: (512) 218-1888  
CIRCLE 31 ON CARD

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

## SUMMARY OF EROSION CONTROL QUANTITIES

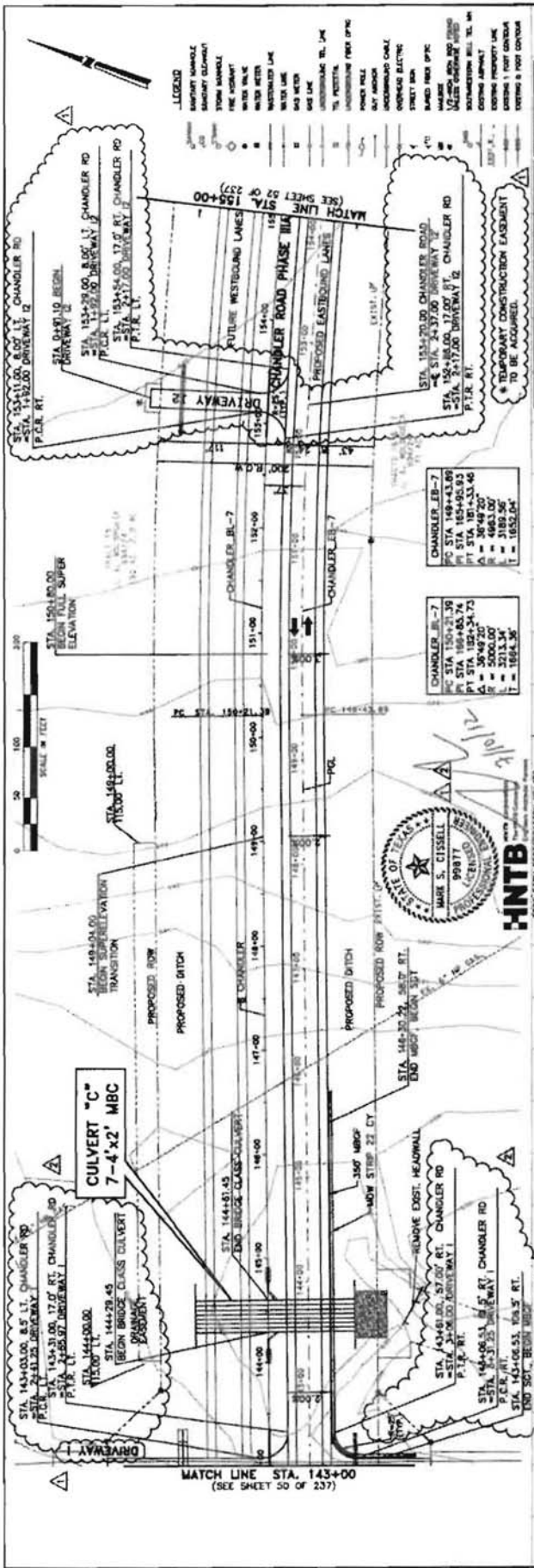
11

237









| NO. | DATE    | REVISIONS                                          | PLAN DESCRIPTION | DATE | BY | CHK | APP | DATE | BY | CHK | APP |
|-----|---------|----------------------------------------------------|------------------|------|----|-----|-----|------|----|-----|-----|
| 1   | 5/22/12 | MODIFIED DRIVEWAY 1 WIDTH, LENGTH & RETURN PROFILE |                  |      |    |     |     |      |    |     |     |
| 2   | 5/22/12 | MODIFIED NAME OF DRIVEWAY 1                        |                  |      |    |     |     |      |    |     |     |
| 3   | 5/22/12 | ADDED DRIVEWAY 12                                  |                  |      |    |     |     |      |    |     |     |

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

S. D. KALLMAN, L.P.  
Professional Engineer  
1105 South Main, Suite 100  
Round Rock, TX 78664  
Phone: (512) 218-4404  
Fax: (512) 218-4404  
Email: sd@sd-engineers.com

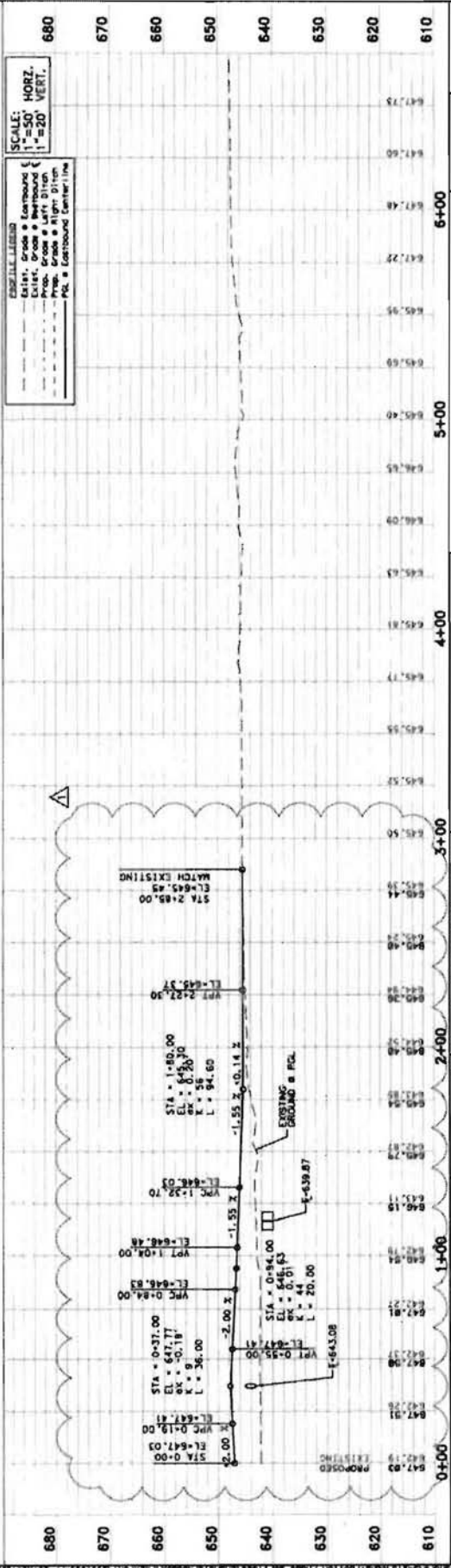
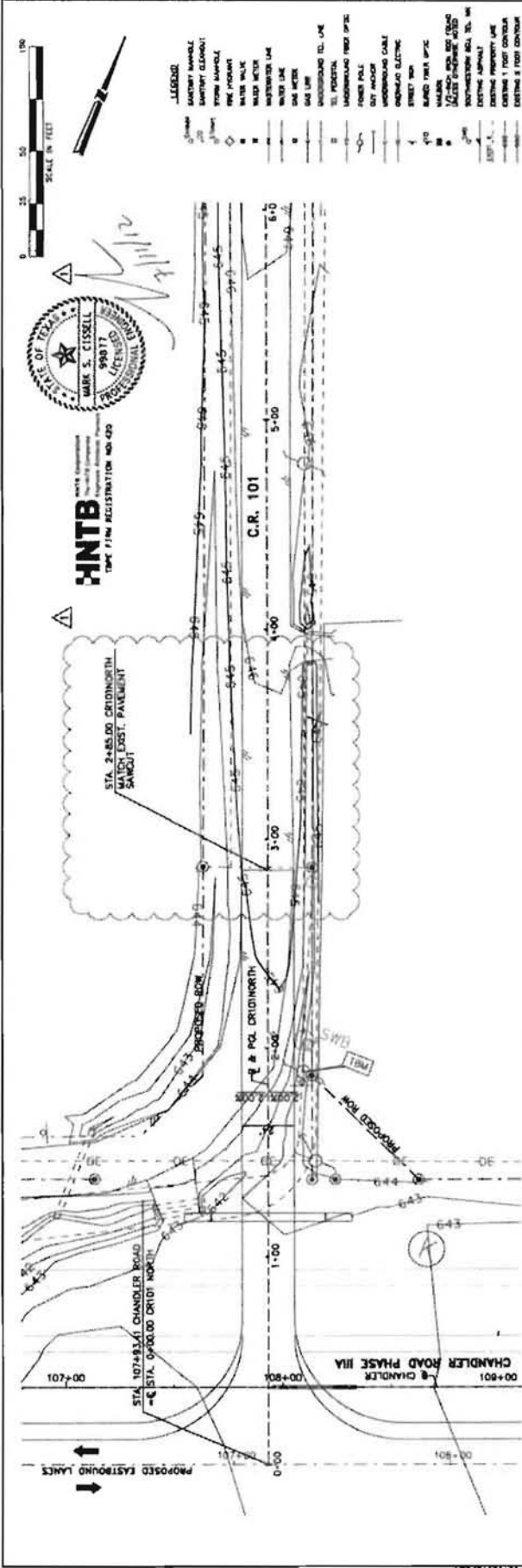
DATE: 5/22/12  
BY: [Signature]  
CHK: [Signature]  
APP: [Signature]

DATE: 5/22/12  
BY: [Signature]  
CHK: [Signature]  
APP: [Signature]

DATE: 5/22/12  
BY: [Signature]  
CHK: [Signature]  
APP: [Signature]

DATE: 5/22/12  
BY: [Signature]  
CHK: [Signature]  
APP: [Signature]





| PLAN REVISIONS |         | REVISIONS             |         | DATE |      | BY          |         | CHECKED BY |      | DATE        |         |
|----------------|---------|-----------------------|---------|------|------|-------------|---------|------------|------|-------------|---------|
| NO.            | DATE    | DESCRIPTION           | MADE BY | NO.  | DATE | DESCRIPTION | MADE BY | NO.        | DATE | DESCRIPTION | MADE BY |
| 1              | 7/11/12 | ROADWAY PLAN REVISION | ME      |      |      |             |         |            |      |             |         |

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

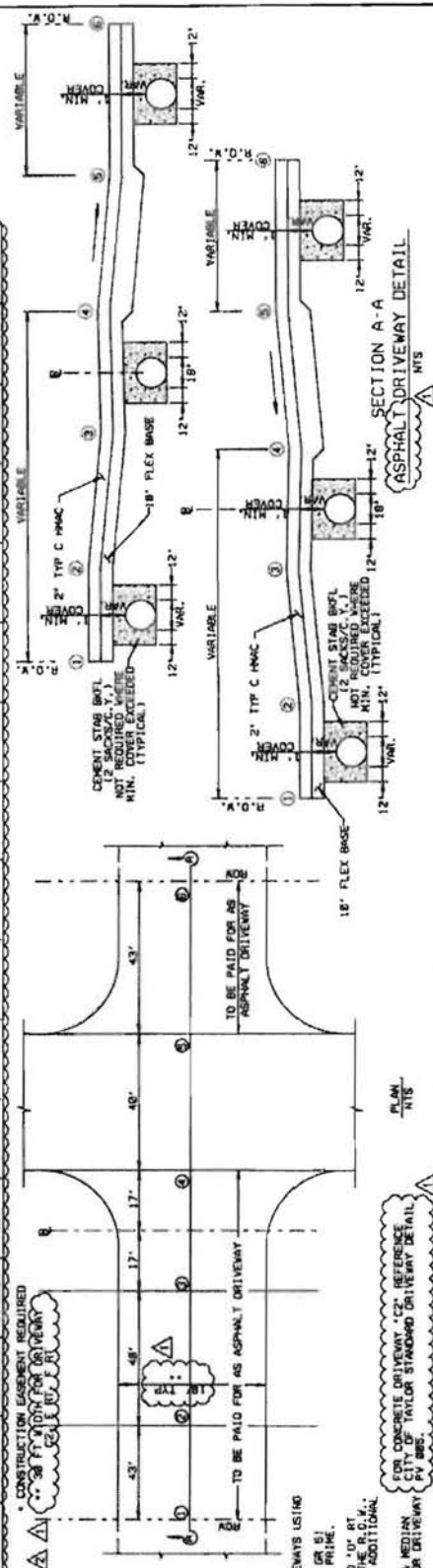
S. D. KALLMAN, L.P.  
1106 South Loop, Suite 100  
Round Rock, TX 78664  
Phone: (512) 218-4404  
Fax: (512) 218-1668  
TX-00010001-0001-0001

DATE: APRIL 2010  
PROJECT NO. 209-1001

58  
SHEET 2 OF 4



| DRIVEWAY   | L/T/RT | CENTERLINE STATION | PAVEMENT TYPE | AREA (SQ. YD.) | 1      |           |        | 2         |        |           | 3      |           |        | 4         |        |           | 5      |           |   | ELEVATION |
|------------|--------|--------------------|---------------|----------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---|-----------|
|            |        |                    |               |                | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION | OFFSET | ELEVATION |   |           |
| DRIVEWAY A | L/T    | 27+75.47           | ASPHALT       | 116            | 180    | 672.74    | 57     | 672.98    | 17     | 674.47    | 17     | 675.49    | -      | -         | -      | -         | -      | -         | - |           |
| DRIVEWAY B | R/T    | 27+75.47           | ASPHALT       | 116            | 180    | 672.74    | 57     | 672.98    | 17     | 674.47    | 17     | 675.49    | 57     | 676.88    | 180    | 677.37    | 180    | 677.72    |   |           |
| DRIVEWAY C | L/T    | 34+16.68           | ASPHALT       | 231            | 115.77 | 682.17    | 57     | 682.56    | 17     | 687.21    | 17     | 688.62    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY C | R/T    | 34+16.68           | ASPHALT       | 231            | 115.77 | 682.17    | 57     | 682.56    | 17     | 687.21    | 17     | 688.62    | 57     | 689.46    | 180    | 690.17    | 180    | 690.83    |   |           |
| DRIVEWAY D | L/T    | 40+00.00           | ASPHALT       | 305            | 108.59 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY D | R/T    | 40+00.00           | ASPHALT       | 305            | 108.59 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY E | L/T    | 40+00.00           | CONCRETE      | 292            | 108.59 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY E | R/T    | 40+00.00           | CONCRETE      | 292            | 108.59 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY F | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY F | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY G | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY G | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY H | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY H | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY I | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY I | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY J | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY J | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY K | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY K | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY L | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         | -      | -         |   |           |
| DRIVEWAY L | R/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | 57     | 677.15    | 180    | 677.83    | 180    | 678.52    |   |           |
| DRIVEWAY M | L/T    | 40+00.00           | CONCRETE      | 146            | 117.78 | 670.67    | 57     | 670.44    | 17     | 676.54    | 17     | 676.34    | -      | -         | -      | -         |        |           |   |           |



CONTRACTOR SHALL CONSTRUCT DRIVEWAYS USING  
2" MNC TYPE CIPB 54-2015 (S&P)  
18" F.B.S COMPANY (A OR S)  
PLACED IN 2 EQUAL LIFTS & MC-30 PRIME.  
FOR DRIVEWAYS 3' LT. 1" RT AND 10' RT  
WHERE THE V.I.E. IS OUTSIDE OF THE R.C.V.  
SEE PLAN AND PROFILE SHEETS FOR ADDITIONAL  
INFORMATION.

\*DRIVEWAY CULVERT & MEDIAN  
INLET/LATERAL HYDRAULIC DATA\* FOR DRIVEWAY  
CULVERT DATA.

FOR CONCRETE DRIVEWAY \*C2\* REFERENCE  
CITY OF TAYLOR STANDARD DRIVEWAY DETAIL  
PV 885.

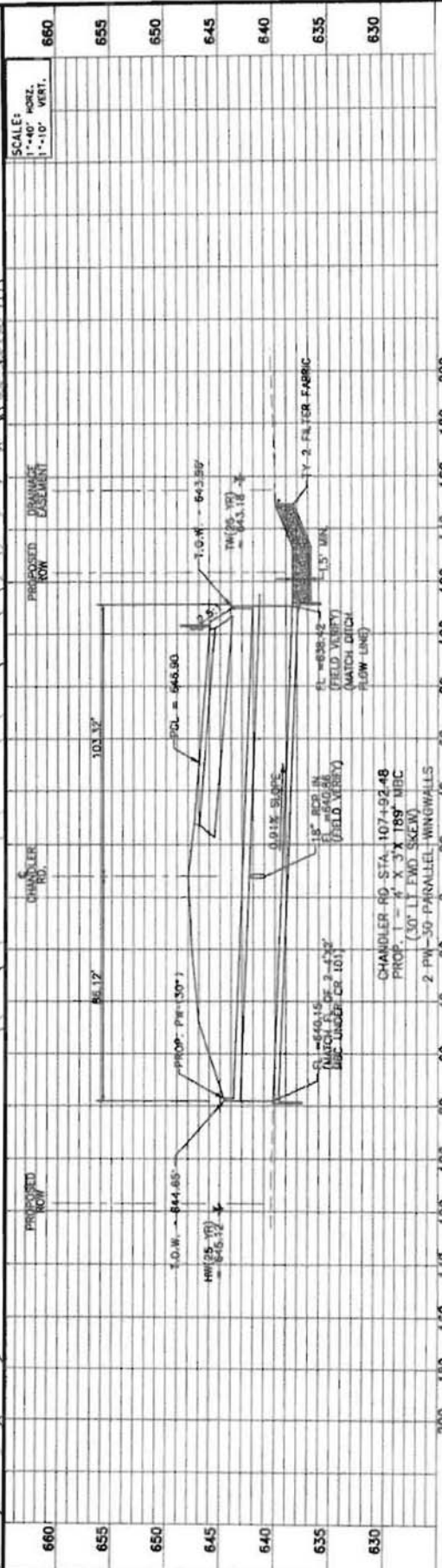
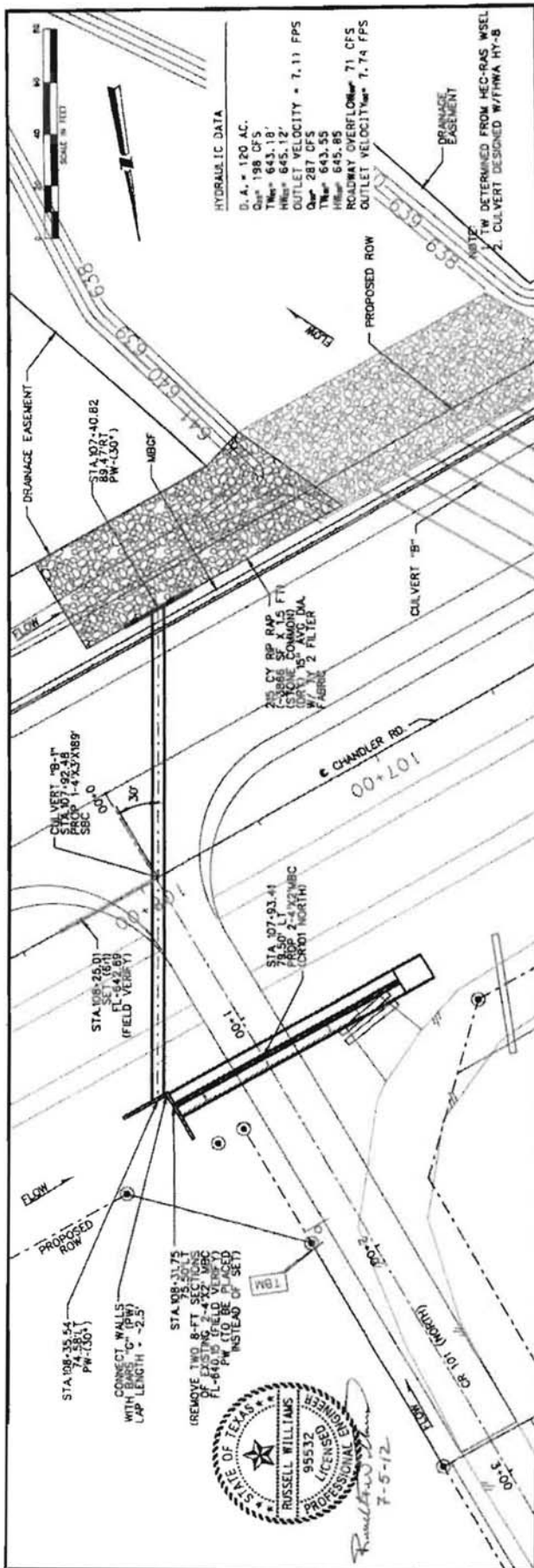
| Q. | DATE    | DESCRIPTION                                    | PRICE |
|----|---------|------------------------------------------------|-------|
| 1  | 9/18/72 | ACQ'D DELIVERY TYPE AND AREA                   | AS    |
| 2  | 9/18/72 | ACQ'D DELIVERY 1 (TOTAL LENGTH, & RETURN MAGN) | AS    |
| 3  | 9/20/72 | ACQ'D DELIVERIES C1, B, F, H, AND IZ.          | HM    |
| 4  | 9/28/72 | ACQ'D NAME OF DELIVERY, "CUSTOM REQS." TO "I"  | HM    |
| 5  |         | ACQ'D DELIVERIES C1, ACQ'D DELIVERIES 6, 6-P   | HM    |
| 6  |         | ACQ'D DELIVERIES C1, ACQ'D DELIVERIES 6, 6-P   | HM    |

[illegible]

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

#### DRIVEWAY DETAILS

|    |  |  |     |
|----|--|--|-----|
| 65 |  |  | 237 |
|----|--|--|-----|



| Culvert Station and/or Creek name followed by applicable and (L, R, or both) | Description of Box Culvert | Max. Fill Height | Applicable Box Culvert Standard | Applicable Wingwall Treatment Standard | Skew Angle (0°-15° = 0, 15°-30° = 1, 30°-45° = 2, 45°-60° = 3, 60°-75° = 4, 75°-90° = 5) | Slope or Channel Slope Ratio (S:L:1) | T Culvert Top Slab Thickness (in) | U Culvert Wall Thickness (in) | C Estimated Curb Height (ft) | H Culvert Height (ft) | A Culvert End of Wingwall (ft) | B Offset of End of Wingwall (ft) | Lw Length of Wingwall (ft) | Lw Culvert Length (ft) | Atw Anchor Toward Length (ft) | Standard Apron (ft) | Class 2 Conc. (C.Y.) | Class 3 Conc. (C.Y.) | Total Wingwall Area (sq. ft.) |
|------------------------------------------------------------------------------|----------------------------|------------------|---------------------------------|----------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------|-------------------------------|------------------------------|-----------------------|--------------------------------|----------------------------------|----------------------------|------------------------|-------------------------------|---------------------|----------------------|----------------------|-------------------------------|
| Culvert 'A' (Both)                                                           | 1-8' X 8'                  | 5'               | MC-8                            | PM                                     | 15                                                                                       | 4:1                                  | 7"                                | 7"                            | 0.250                        | 6.833                 | N/A                            | N/A                              | 28.298                     | 9.490                  | N/A                           | 0                   | 0.2                  | 50.6                 | 714                           |
| Culvert 'B' (Both)                                                           | 1-10' X 8'                 | 4'               | MC-10-2                         | PM                                     | 30                                                                                       | 3:1                                  | 8"                                | 7"                            | 0.348                        | 8.062                 | N/A                            | N/A                              | 29.320                     | 10.218                 | N/A                           | 0                   | 2.4                  | 45.6                 | 526                           |
| Culvert 'B-1' (Rt)                                                           | 1-6' X 3'                  | 4'               | SCP-4                           | PM                                     | 30                                                                                       | 3:1                                  | 5"                                | 5"                            | 0.885                        | 4.292                 | N/A                            | N/A                              | 14.867                     | 5.581                  | N/A                           | 0                   | 0.2                  | 8.8                  | 128                           |
| Culvert 'B-2' (Both)                                                         | 1-4' X 3'                  | 4'               | SCP-4                           | PM                                     | 30                                                                                       | 3:1                                  | 5"                                | 5"                            | 1.9                          | 5.313                 | N/A                            | N/A                              | 18.403                     | 5.581                  | N/A                           | 0                   | 0.4                  | 12.7                 | 196                           |
| Culvert 'C' (Both)                                                           | 2-5' X 2'                  | 5'               | MC-5-20                         | PM                                     | 30                                                                                       | 3:1                                  | 7"                                | 7"                            | 0.250                        | 2.833                 | N/A                            | N/A                              | 13.423                     | 13.568                 | N/A                           | 0                   | 1.4                  | 16.2                 | 208                           |
| Culvert 'D' (Both)                                                           | 2-6' X 2'                  | 5'               | MC-6-20                         | PM                                     | 30                                                                                       | 3:1                                  | 7"                                | 7"                            | 0.250                        | 2.833                 | N/A                            | N/A                              | 13.423                     | 13.568                 | N/A                           | 0                   | 1.4                  | 16.2                 | 208                           |
| Culvert 'E' (Both)                                                           | 2-6' X 2'                  | 5'               | MC-6-20                         | PM                                     | 30                                                                                       | 3:1                                  | 7"                                | 7"                            | 0.250                        | 2.833                 | N/A                            | N/A                              | 13.423                     | 13.568                 | N/A                           | 0                   | 1.4                  | 16.2                 | 208                           |
| Culvert 'G' (Both)                                                           | 2-4' X 2'                  | 4'               | SCP-4                           | PM                                     | 0                                                                                        | 3:1                                  | 5"                                | 5"                            | 1.885                        | 4.292                 | N/A                            | N/A                              | 12.815                     | 10.167                 | N/A                           | 0                   | 0.7                  | 8.0                  | 111                           |

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. The concrete volume for the wingwall and apron must be increased by a factor of 2. If Class "C" concrete is required for the top slab of the culvert, the curb concrete shall also be Class "C". Curb concrete is considered part of the box culvert for payment.

3 Concrete volume shown is total of wing, footing, culvert top slab (if any), anchor toward (if any) and wingwall toward (if any) for 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 apron and wingwall reinforcement. The Contractor shall show evidence 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.

NOTES:  
Skew Angle = 0° for SR-0, SR-0, SETB-CD, SETB-SR-0, and SETB-FW-0 standards.  
S11 - Horizontal Vertical Slope of culvert 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, 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 Culvert Toward (not applicable when using Standard Apron).  
Atw - Length of Anchor Toward (not applicable to Safety End Treatment only).  
Total Wingwall Area = Wingwall area in S.F. for two wingwalls (one structure end if L or R). Area for four wingwalls (two structure end if Both).

Added Culverts: B-1  
Modified Culverts: CR12: North

# SPECIAL NOTE:

This sheet is a supplement to the Box Culvert Standard. It is to be filled out by the contractor for the construction of the Box Culvert Wingwall and Safety End Treatments.

An Excal 97 spreadsheet to assist in calculating the concrete volume shown on the page on the 1000' wide site. The completed sheet shall be signed, sealed, and dated by a licensed Professional Engineer.

Texas Department of Transportation  
Bridge Division

## BOX CULVERT SUPPLEMENT WINGS AND END TREATMENTS



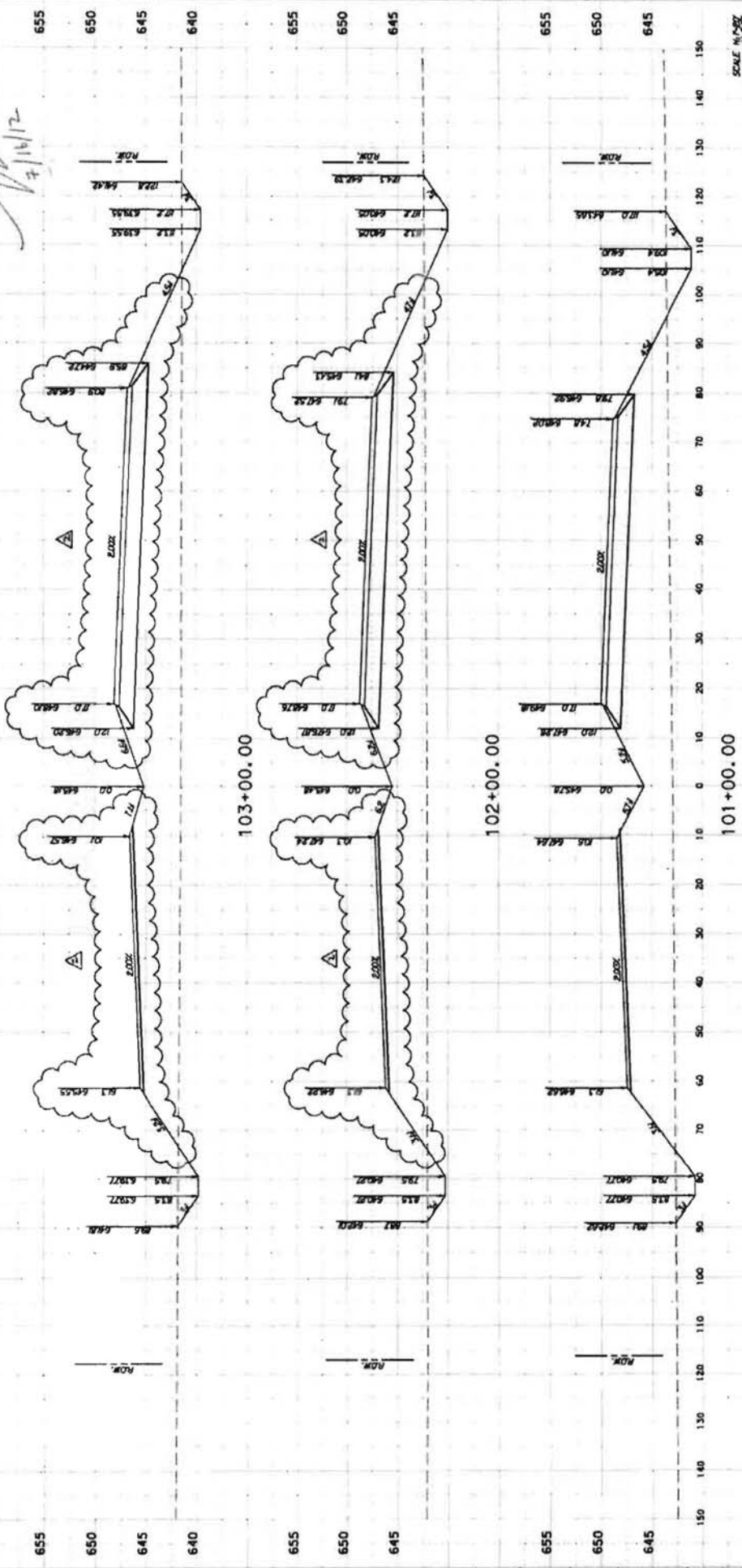
BCS

|                          |                           |                  |              |
|--------------------------|---------------------------|------------------|--------------|
| DATE: 10/20/2011         | BY: J. L. W.              | DATE: 10/20/2011 | BY: J. L. W. |
| PROJECT: 1000' Wide Site | LOCATION: 1000' Wide Site | DATE: 10/20/2011 | BY: J. L. W. |
| REVISIONS                |                           | DATE: 10/20/2011 | BY: J. L. W. |



**INTB** NORTH TEXAS  
 ENGINEERING & ARCHITECTURE  
 1900 FIRM REGISTRATION NO. 000

7/11/12



| NO. | DATE    | DESCRIPTION                      |
|-----|---------|----------------------------------|
| 1   | 7/15/12 | LOWER PROFILE OF ROW & CULVERT B |
| 2   | 7/15/12 | LOWER PROFILE OF ROW & CULVERT B |

**S. D. KALLMAN, L.P.**  
 Engineers and Environmental Consultants  
 TYPE FIRM REGISTRATION NO. T-518  
 1108 South Main, Suite 100  
 Dallas, Texas 75202  
 Phone: (214) 218-4404  
 Fax: (214) 218-1666  
 ALL DESIGNS ARE  
 PROJECT NO. 303-1005

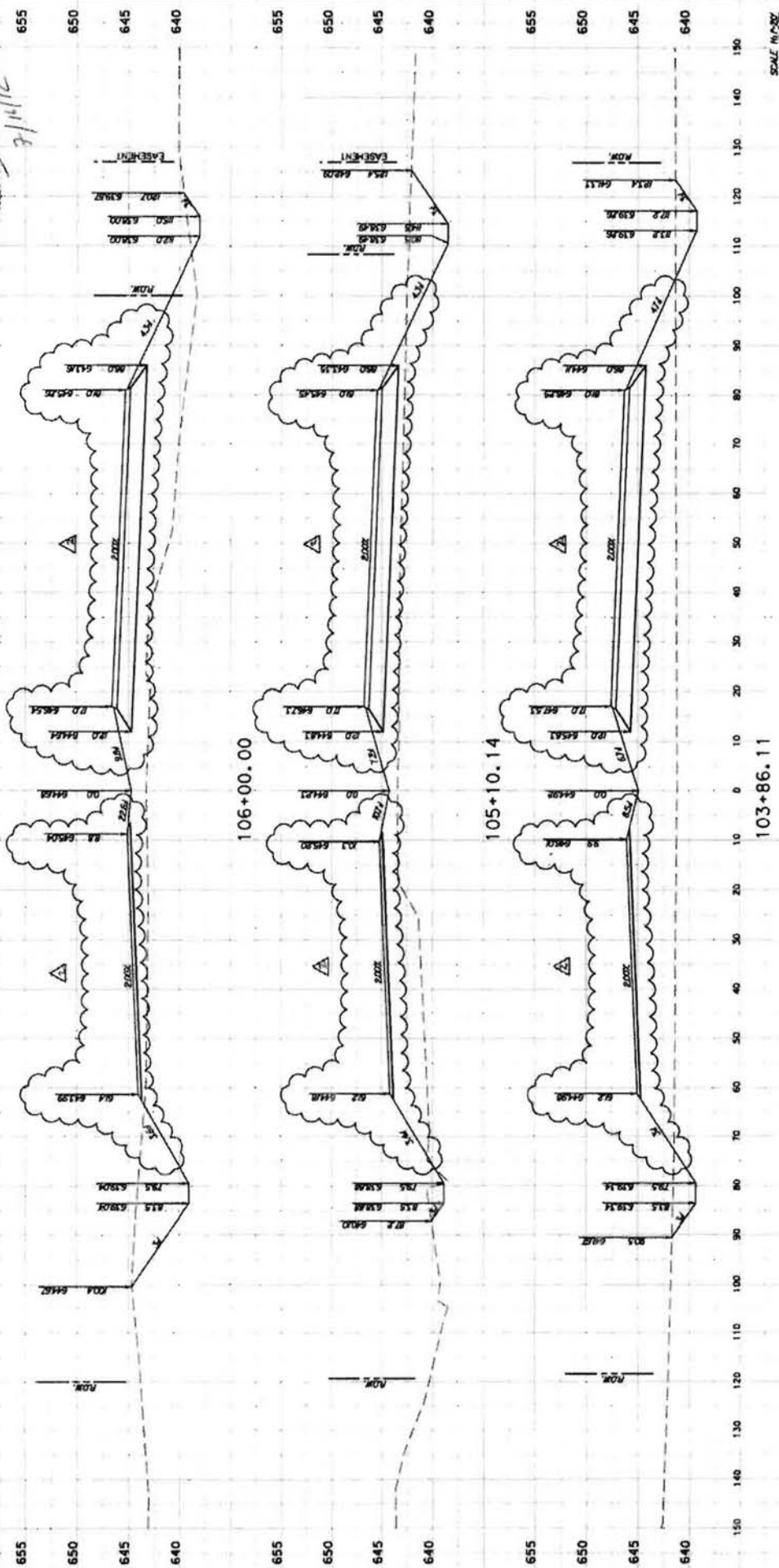
**CHANDLER ROAD PHASE III-A**  
 F.M. 1660 TO  
 P.T. AT STA. 209+92.30  
 WILLIAMSON COUNTY, TEXAS

**DESIGN CROSS SECTIONS**

SCALE: 1"=20'  
 202  
 237



**HNTB**  
HNTB Associates  
1800 South Loop West, Suite 100  
Houston, Texas 77058  
Phone: (713) 218-4404  
Fax: (713) 218-1666  
TYPE FIRM REGISTRATION NO. 420



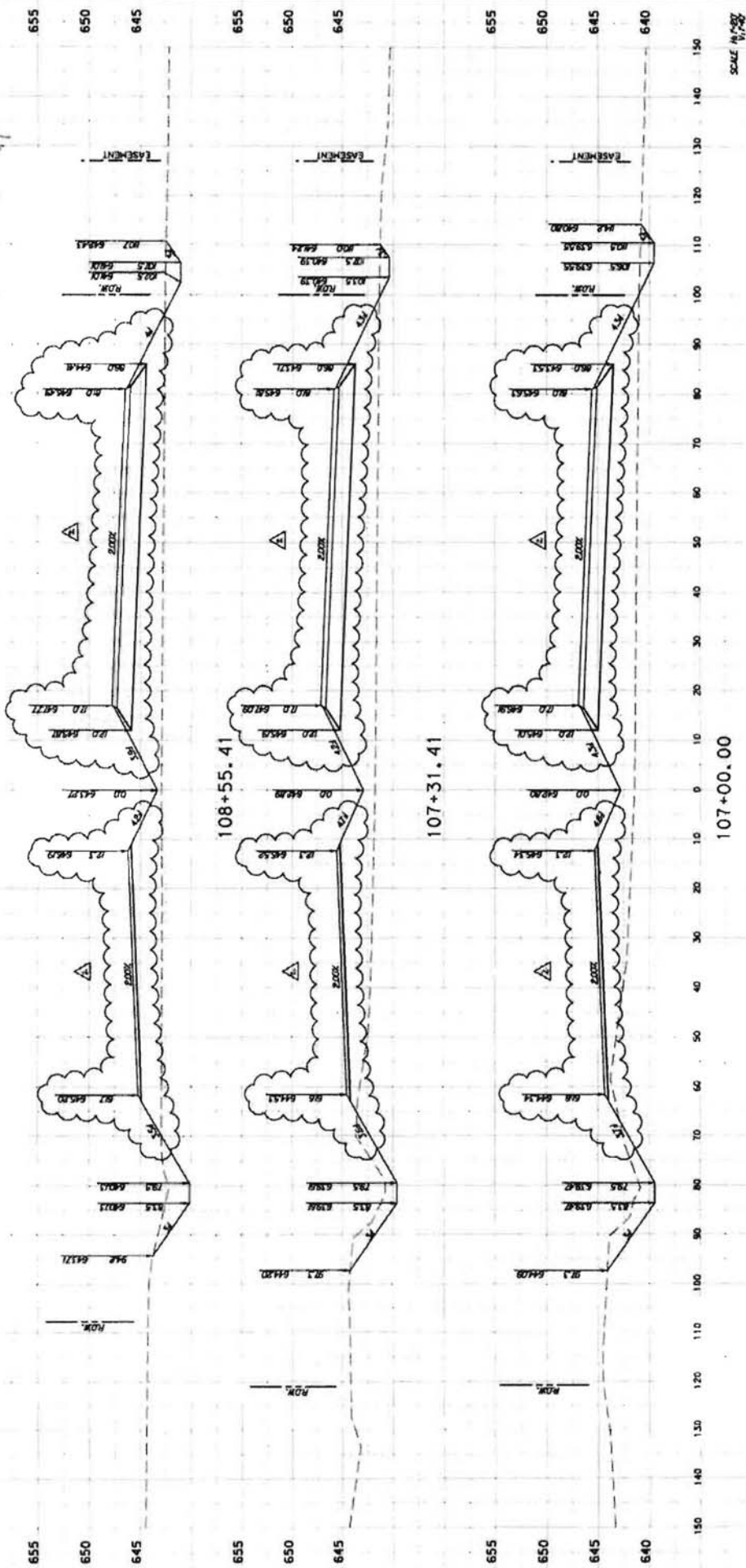
**S. D. KALLMAN, L.P.**  
Engineers and Environmental Consultants  
TYPE FIRM REGISTRATION NO. T-516  
1100 South Loop West, Suite 100  
Houston, Texas 77058  
Phone: (713) 218-4404  
Fax: (713) 218-1666  
ALL DESIGNS ARE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TEXAS STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2009 EDITION.

|             |              |
|-------------|--------------|
| DESIGNED BY | CHK'D BY     |
| DRAWN BY    | INCH'D BY    |
| APPROVED BY | SUBMITTED BY |
| DATE        | DATE         |

| NO. | DATE    | DESCRIPTION                      |
|-----|---------|----------------------------------|
| 1   | 7/13/12 | LOWER PROFILE OF R/W & CULVERT B |

**DESIGN CROSS SECTIONS**

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

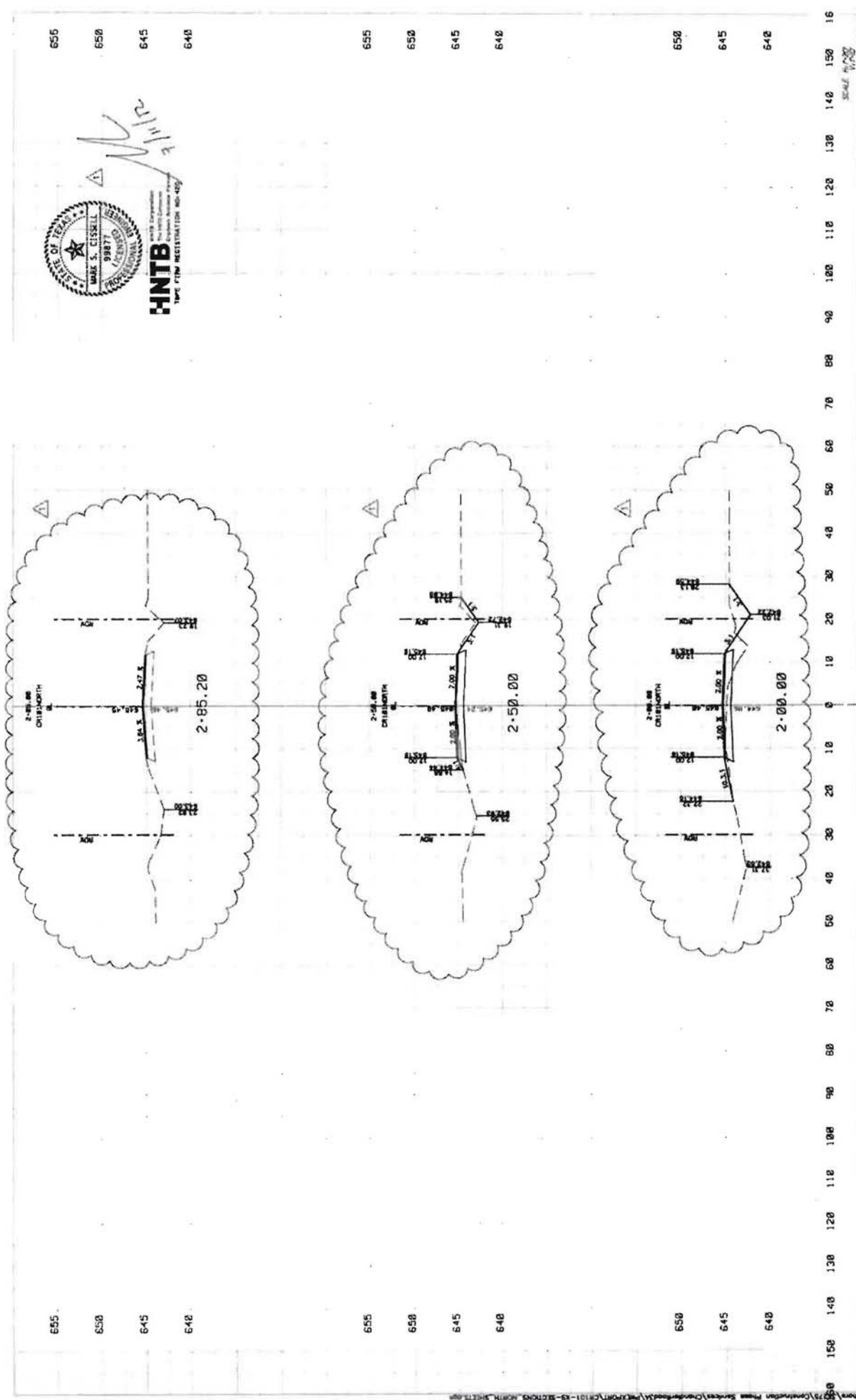


|                |  |                                         |  |
|----------------|--|-----------------------------------------|--|
| DATE           |  | NOVEMBER, 2009                          |  |
| MADE BY        |  | S. D. KALLMAN, L.P.                     |  |
| CHECKED BY     |  | Engineers and Environmental Consultants |  |
| APPROVED BY    |  | TREC Firm Registration No. F-516        |  |
| SUBMITTED      |  | 1100 South Main, Suite 100              |  |
|                |  | Houston, Texas 77002                    |  |
|                |  | Phone (512) 218-4404                    |  |
|                |  | Fax (512) 218-1666                      |  |
|                |  | E-mail: skallman@cts.com                |  |
| PLAN REVISIONS |  | CHANDLER ROAD PHASE III-A               |  |
| DESCRIPTION    |  | F.M. 1660 TO                            |  |
|                |  | P.T. AT STA. 209+92.30                  |  |
|                |  | WILLIAMSON COUNTY, TEXAS                |  |
| NO. DATE       |  | 204                                     |  |
|                |  | OF 237                                  |  |

SCALE 1"=20'







655 650 645 640

2/11/E

STATE OF TEXAS  
MARK S. CISELL  
19877  
PROFESSIONAL  
REGISTERED  
NATIONAL

WNTB  
WNTB Corporation  
10000 West Loop  
Suite 1000  
Houston, Texas 77040  
713/666-1111  
FAX 713/666-1112  
TELETYPE 713/666-1113  
CABLE WNTB  
TELETYPE REGISTRATION NO. 405

CHANDLER ROAD PHASE III-A  
F.M. 1660 TO  
P.T. AT STA. 209+92.30  
WILLIAMSON COUNTY, TEXAS

**S. D. KALLMAN, L.P.**  
Engineers and Environmental Consultants  
TSPCE Firm Registration No. F-5316  
1106 South Meyers, Suite 100  
Round Rock, TX 78664  
Phone: (512) 218-4404  
Fax: (512) 218-1668

|             |                |
|-------------|----------------|
| TELEPHONE # | 547            |
| DRAWN BY    | BT             |
| CHECKED BY  | JTB            |
| APPROVED BY | BOE            |
| SUBMITTA    |                |
| DATE        | NOVEMBER, 2009 |

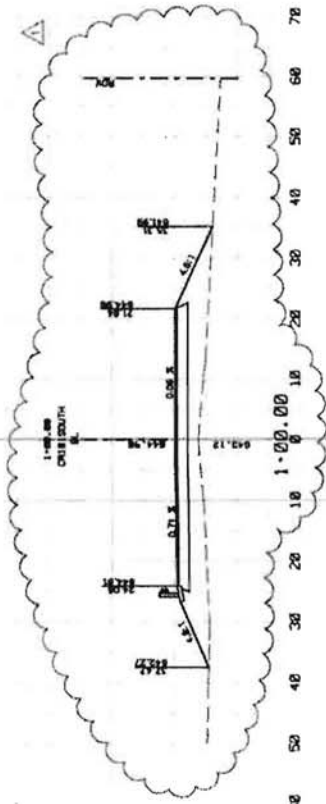
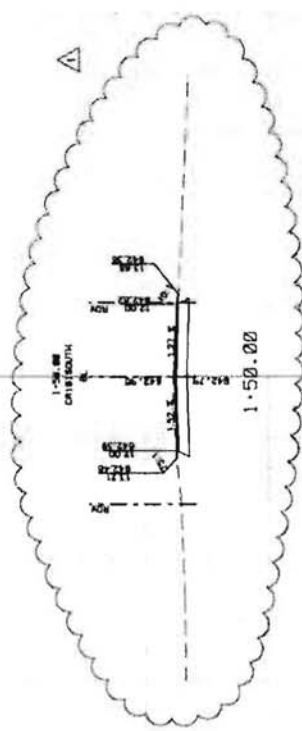
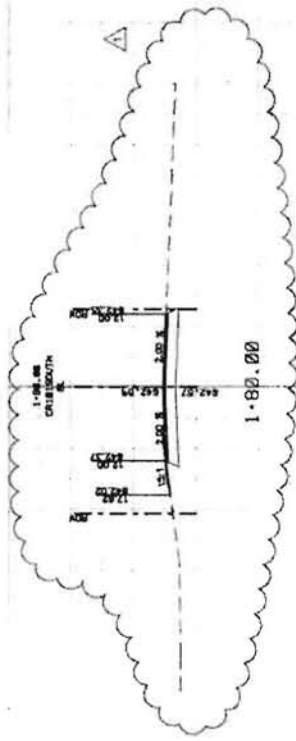
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| NO. | DATE    | ROADWAY POL. NO. |
|-----|---------|------------------|
| 1   | 7/11/12 |                  |

652  
645  
640  
635



**INTB**  
TIME FILM REGISTRATION AND 450



652  
645  
640  
635

652  
645  
640

655  
650  
645  
640

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 16

SCALE 1/2"=10'

| PLAN REVISIONS |         | DESIGN CROSS SECTIONS |         | CHANDLER ROAD PHASE III-A           |                          |
|----------------|---------|-----------------------|---------|-------------------------------------|--------------------------|
| NO.            | DATE    | DESCRIPTION           | MADE BY | F.M. 1660 TO P.T. AT STA. 209+92.30 | WILLIAMSON COUNTY, TEXAS |
| 1              | 7/11/12 | ROADWAY P.S. REVISION | AS      |                                     |                          |

|                           |                      |
|---------------------------|----------------------|
| DESIGNED BY: GCL          | DATE: 11/11/12       |
| DRAWN BY: DMT             | PROJECT NO: 203-1085 |
| CHECKED BY: JDB           |                      |
| APPROVED BY: SDC          |                      |
| SUBMITTER: NOVEMBER, 2008 |                      |

|                                                                                                                                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>S. D. KALLMAN, L.P.</b><br>Professional Engineer<br>1100 Highway 100<br>Round Rock, TX 78664<br>Phone: (512) 218-4404<br>Fax: (512) 218-1668 |  |
| PROJECT NO: 203-1085                                                                                                                            |  |

|      |    |
|------|----|
| 236E | OF |
|------|----|