

|     |          |                              |  |          |
|-----|----------|------------------------------|--|----------|
| WAS | 05/04/09 | PER AS-BUILT                 |  | By       |
| WAS | 07/09/09 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 11/08/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 11/08/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 08/04/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 08/26/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 06/03/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 06/19/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 03/07/08 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 12/05/07 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 12/05/07 | PER CLIENT'S NEW SITE LAYOUT |  | Revision |
| WAS | 10/19/07 | NO CHANGES THIS SHEET        |  | Revision |
| WAS | 10/19/07 | NO CHANGES THIS SHEET        |  | Revision |

|             |            |             |             |            |          |
|-------------|------------|-------------|-------------|------------|----------|
| MMH         | H.M.H.     | WAS         | N.T.S.      | 10/19/2007 | S13217   |
| Desig'd by: | Draw'n by: | Ch'ck'd by: | App'r'd by: | Date:      | Job No.: |
|             |            |             |             |            |          |

**STORM DRAINAGE DETAILS**

**ROCKWALL CENTRE CORNERS**

INTERSTATE HIGHWAY 30 AND S.H. 205  
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

Sheet No. **G-20**

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY WILLIAM A. STUEBER, P.E. 90436 ON 05/04/2009. ALTERATION OF A SEALED DOCUMENT TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

**RECORD DRAWING**

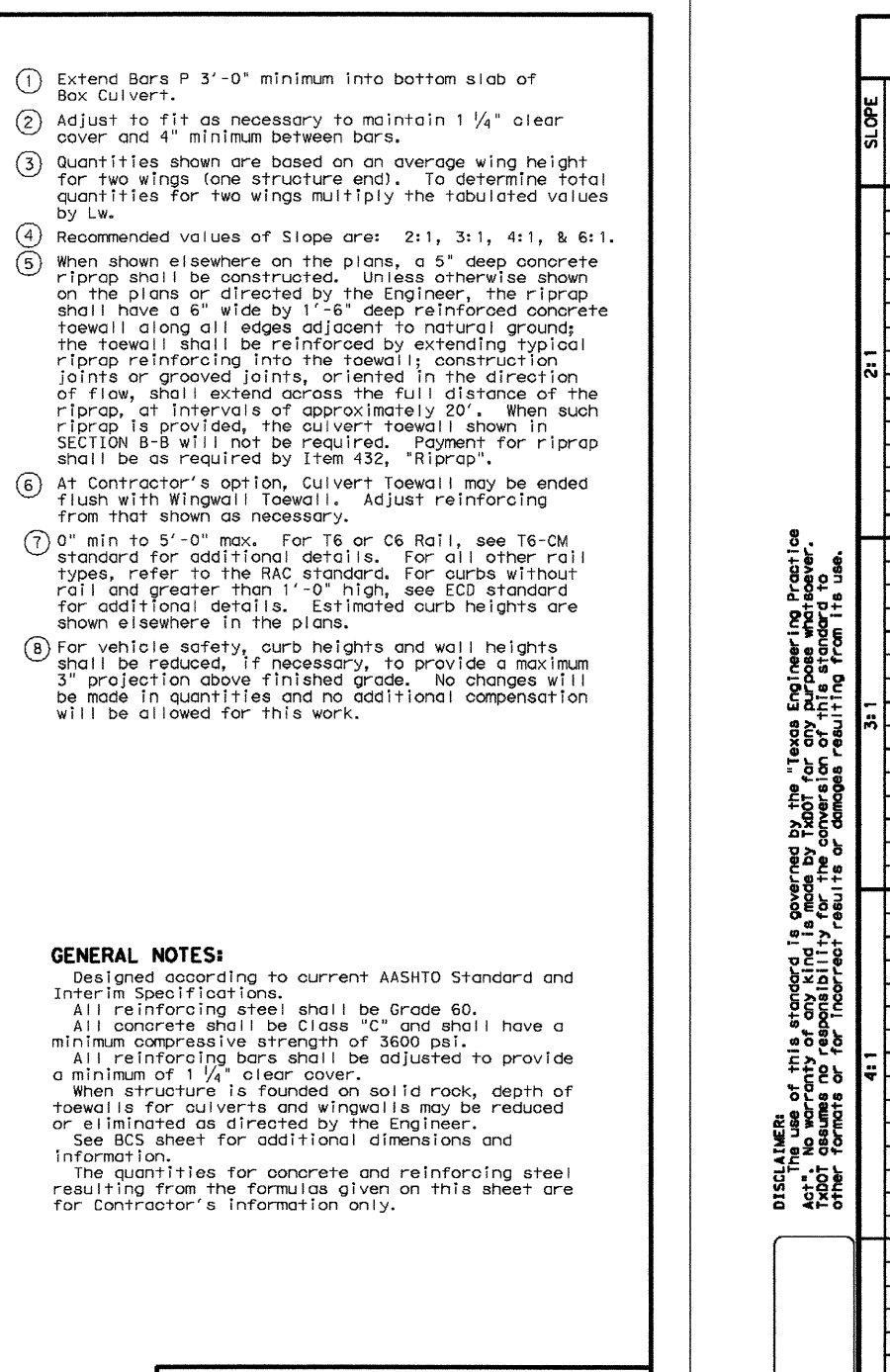
TO THE BEST OF OUR KNOWLEDGE OPH ENGINEERS, INC., HEREBY STATES THAT THIS PLAN IS A REPRESENTATION OF THE AS-BUILT CONDITIONS OF THE SUBJECT PROJECT. THE INFORMATION PRESENTED IS BASED ON INFORMATION PROVIDED BY THE CONTRACTOR ALONG WITH DATA PROVIDED BY THE PROJECT LAND SURVEYOR.

**NOTE:**

1. REFER TO CITY OF ROCKWALL STANDARD DETAILS AND NCTCOG 3RD EDITION FOR ALL UTILITY AND STORM DRAINAGE DETAILS AND SPECIFICATIONS

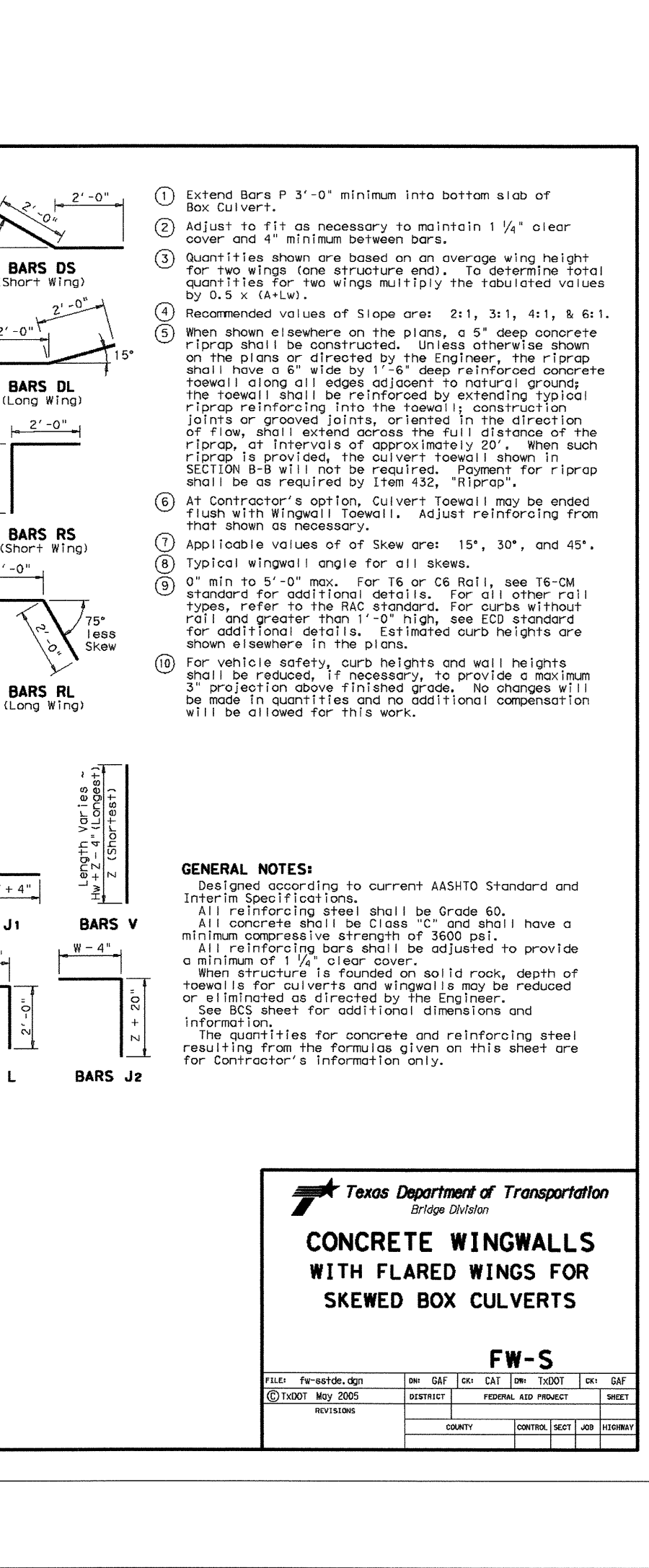
| Dimensions                  | Reinforcing | Estimated Quantities (per ft. of wing length) |
|-----------------------------|-------------|---|
| Max. Wing Height            | W, X, Y, Z  | Bars Ji, Bars Jz                              |
| 3'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 33.07 (0.261)                                 |
| 3'-0" x 2'-0" x 1'-0" x 9"  | 7#4         | 33.74 (0.273)                                 |
| 4'-0" x 2'-0" x 1'-0" x 9"  | 7#4         | 38.41 (0.285)                                 |
| 4'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 41.95 (0.330)                                 |
| 5'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 45.99 (0.343)                                 |
| 6'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 48.42 (0.367)                                 |
| 7'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 52.77 (0.414)                                 |
| 8'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 60.19 (0.486)                                 |
| 9'-0" x 3'-0" x 1'-0" x 9"  | 7#4         | 61.49 (0.535)                                 |
| 10'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.23 (0.584)                                 |
| 11'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.33 (0.634)                                 |
| 12'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.76 (0.678)                                 |
| 13'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.76 (0.726)                                 |
| 14'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.26 (0.781)                                 |
| 15'-0" x 3'-0" x 1'-0" x 9" | 7#4         | 61.26 (0.836)                                 |

| Bar Size      | No.   | Spa.   |
|---------------|-------|--------|
| DL #5         | 1     | 11'-0" |
| ES #4         | 1     | 11'-0" |
| F #4          | 1     | 11'-0" |
| G #5          | 4     | 11'-0" |
| H #4          | 4     | 11'-0" |
| I #4          | 1     | 11'-0" |
| J #4          | 1     | 11'-0" |
| K #4          | 1     | 11'-0" |
| L #4          | 1     | 11'-0" |
| M #4          | 1     | 11'-0" |
| N #4          | 1     | 11'-0" |
| O #4          | 1     | 11'-0" |
| P #4          | 1     | 11'-0" |
| Q #4          | 1     | 11'-0" |
| R #4          | 1     | 11'-0" |
| S #4          | 1     | 11'-0" |
| T #4          | 1     | 11'-0" |
| U #4          | 1     | 11'-0" |
| V #4          | 1     | 11'-0" |
| W #4          | 1     | 11'-0" |
| X #4          | 1     | 11'-0" |
| Y #4          | 1     | 11'-0" |
| Z #4          | 1     | 11'-0" |
| Rein (Lb/Ft)  | 2,45  |        |
| Conc. (CY/ft) | 0.037 |        |

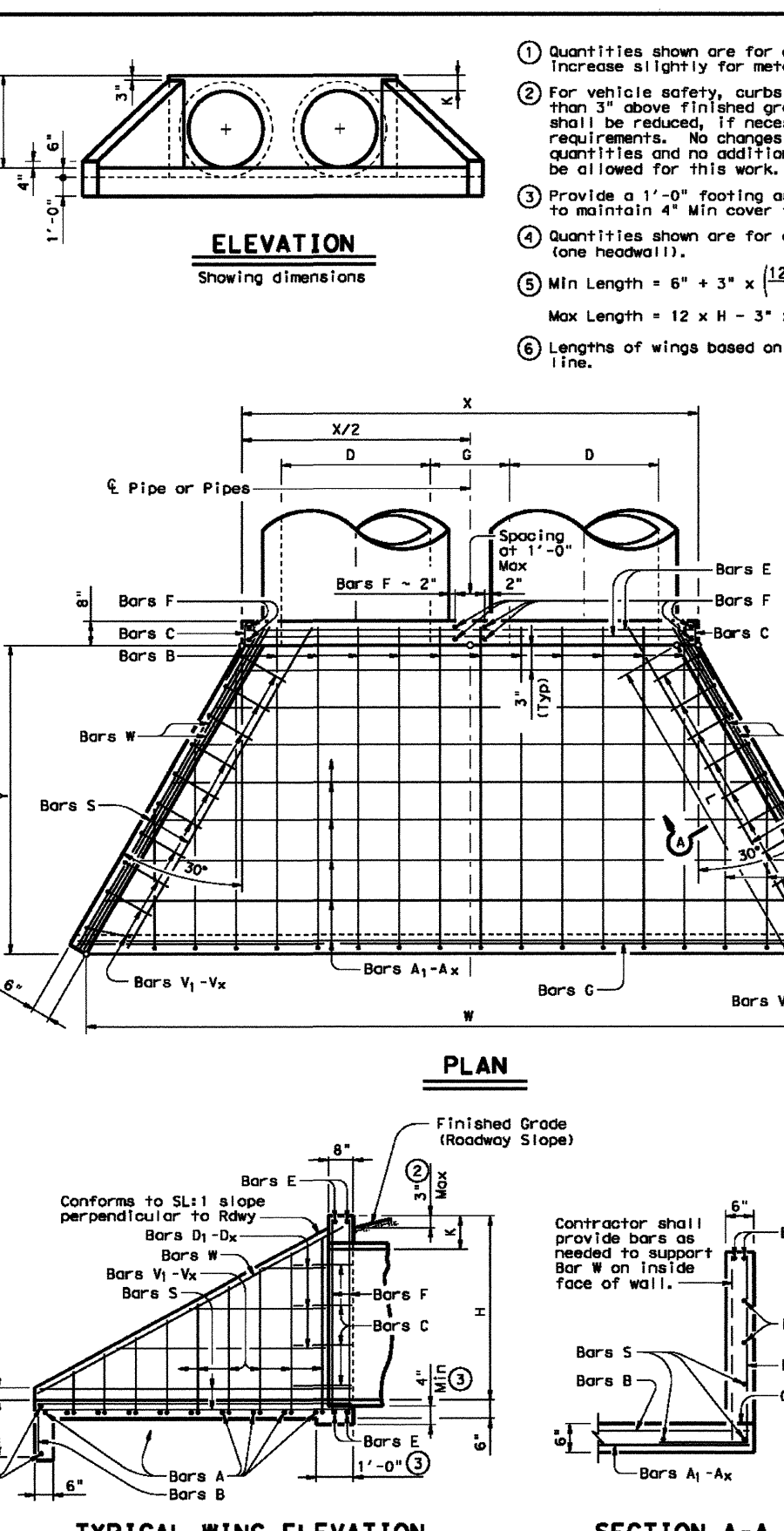


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|-----------------------------|-------------|---|
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| Bar Size      | No.   | Spa.   |
|---------------|-------|--------|
| DL #5         | 1     | 11'-0" |
| ES #4         | 1     | 11'-0" |
| F #4          | 1     | 11'-0" |
| G #5          | 4     | 11'-0" |
| H #4          | 4     | 11'-0" |
| I #4          | 1     | 11'-0" |
| J #4          | 1     | 11'-0" |
| K #4          | 1     | 11'-0" |
| L #4          | 1     | 11'-0" |
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| S #4          | 1     | 11'-0" |
| T #4          | 1     | 11'-0" |
| U #4          | 1     | 11'-0" |
| V #4          | 1     | 11'-0" |
| W #4          | 1     | 11'-0" |
| X #4          | 1     | 11'-0" |
| Y #4          | 1     | 11'-0" |
| Z #4          | 1     | 11'-0" |
| Rein (Lb/Ft)  | 2,45  |        |
| Conc. (CY/ft) | 0.037 |        |



| Bar Size      | No.   | Spa.   | Rein. (Lb/Ft) | Conc. (CY/ft) |
|---------------|-------|--------|---------------|---------------|
| DL #5         | 1     | 11'-0" | 2.45          | 0.037         |
| ES #4         | 1     | 11'-0" | 2.45          | 0.037         |
| F #4          | 1     | 11'-0" | 2.45          | 0.037         |
| G #5          | 4     | 11'-0" | 9.8           | 0.148         |
| H #4          | 4     | 11'-0" | 9.8           | 0.148         |
| I #4          | 1     | 11'-0" | 2.45          | 0.037         |
| J #4          | 1     | 11'-0" | 2.45          | 0.037         |
| K #4          | 1     | 11'-0" | 2.45          | 0.037         |
| L #4          | 1     | 11'-0" | 2.45          | 0.037         |
| M #4          | 1     | 11'-0" | 2.45          | 0.037         |
| N #4          | 1     | 11'-0" | 2.45          | 0.037         |
| O #4          | 1     | 11'-0" | 2.45          | 0.037         |
| P #4          | 1     | 11'-0" | 2.45          | 0.037         |
| Q #4          | 1     | 11'-0" | 2.45          | 0.037         |
| R #4          | 1     | 11'-0" | 2.45          | 0.037         |
| S #4          | 1     | 11'-0" | 2.45          | 0.037         |
| T #4          | 1     | 11'-0" | 2.45          | 0.037         |
| U #4          | 1     | 11'-0" | 2.45          | 0.037         |
| V #4          | 1     | 11'-0" | 2.45          | 0.037         |
| W #4          | 1     | 11'-0" | 2.45          | 0.037         |
| X #4          | 1     | 11'-0" | 2.45          | 0.037         |
| Y #4          | 1     | 11'-0" | 2.45          | 0.037         |
| Z #4          | 1     | 11'-0" | 2.45          | 0.037         |
| Rein (Lb/Ft)  | 2,45  |        |               |               |
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