

|          |         |                |    |      |          |     |           |           |
|----------|---------|----------------|----|------|----------|-----|-----------|-----------|
| 5        | 6-9-25  | PER SDF REVIEW | DJ | DWJ  | DESIGN   | MCI | SCALE     | N.T.S.    |
| 4        | 2-13-25 | PER SDF REVIEW | DJ | DWJ  | DRAWN    | JLP | DATE      | 10/21/19  |
| 3        | 5-10-24 | PER SDF REVIEW | DJ | DWJ  | CHECK    |     | FILE NO.  | 18101-24C |
| 2        | 7-10-23 | PER SDF REVIEW | DJ | DWJ  | APPROVED | DWJ | SHEET NO. | 1.0       |
| REV. NO. | DATE    | DESCRIPTION    | BY | APPD | DWJ      |     |           |           |



TOWN-  
OF  
TYRONE

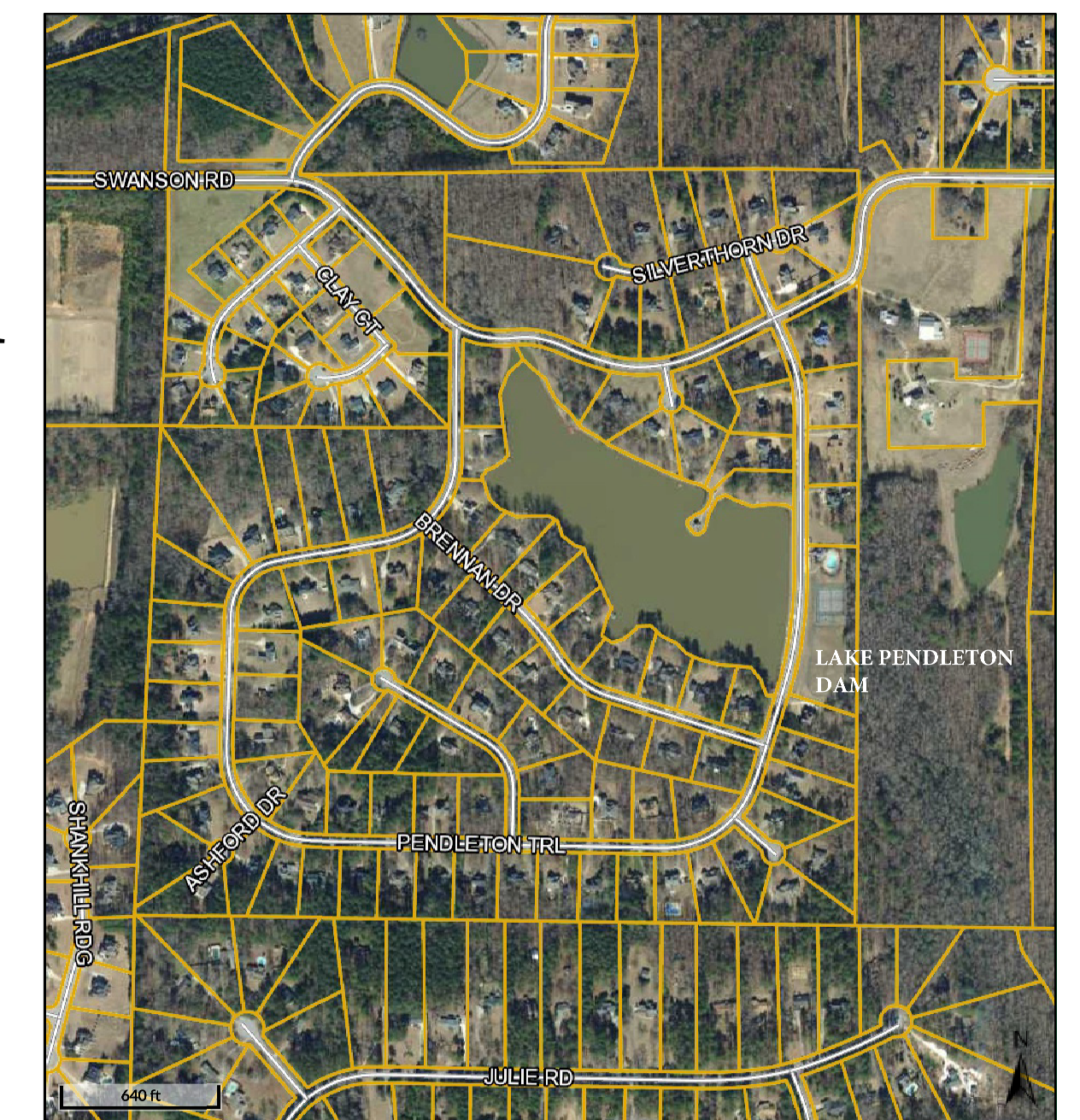
## LOCATION MAP

### FAYETTE COUNTY

881 Senoia Road  
Tyrone, Georgia 30290  
P: 770-487-4038

Eric Dial - Mayor  
Gloria Furr - Council Member (Mayor Pro Tem)  
Jessica Whelan - Council Member  
Dia Hunter - Council Member  
Billy Campbell - Council Member

NAME: Scott Langford  
ADDRESS: 881 Senoia Road  
Tyrone, GA 30292  
PHONE: 803-807-7658




## PROJECT LOCATION MAP

*Enlarged View*

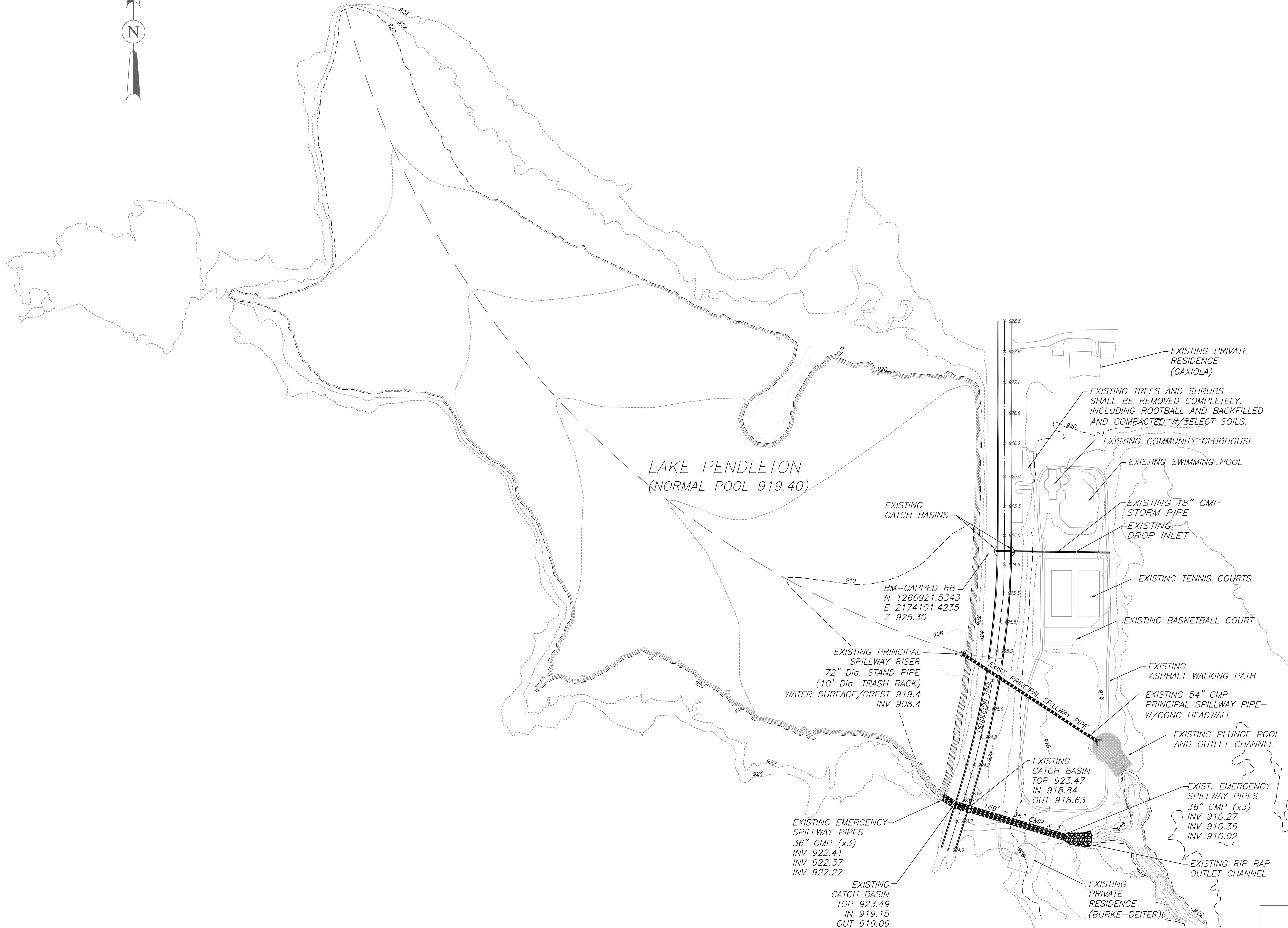
| SHEET NO.      | DESCRIPTION                                      |
|----------------|--|
| 1.0            | COVER, LOCATION MAPS AND INDEX                   |
| 2.0            | EXISTING CONDITIONS                              |
| 3.0            | SITE PLAN  |
| 4.0            | SECTIONS AT BOX CULVERT & INTERNAL DRAINS        |
| 4.1            | DETAILS  |
| 5.0            | INTAKE STRUCTURE                                 |
| 6.0-11.0       | BOX CULVERT DETAILS                              |
| 12.0-12.3      | STORM LINE "A" DETAILS & PROFILE                 |
| 13.0           | STORM LINE "B" PROFILE                           |
| 14.0           | DROP INLET DETAILS                               |
| 15.0           | UTILITY PLAN, PAVING PLAN & CONSTRUCTION DETAILS |
| 16.0           | ASPHALT PATH MODIFICATIONS                       |
| EC1.0 - EC11.0 | EROSION, SEDIMENT & POLLUTION CONTROL PLANS      |

**CATEGORY I LAKE PENDLETON DAM UPGRADES**  
**for TOWN OF TYRONE, GEORGIA**



**Mallett Consulting, Inc.**  
 101 DEVANT ST., SUITE 804 FAYETTEVILLE, GEORGIA 30214  
 PHONE: 770-719-3333  
 FAX: 770-719-3377





SEE NOTE REGARDING  
REMOVAL OF EXISTING TREES & SHRUBS

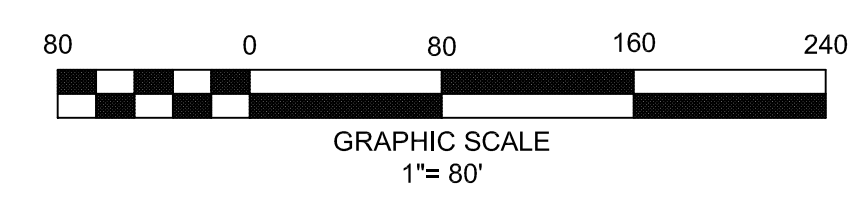
FIELD WORK FOR EXISTING CONDITIONS SURVEY DATED 5-15-2018



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FAX: 770-719-3377

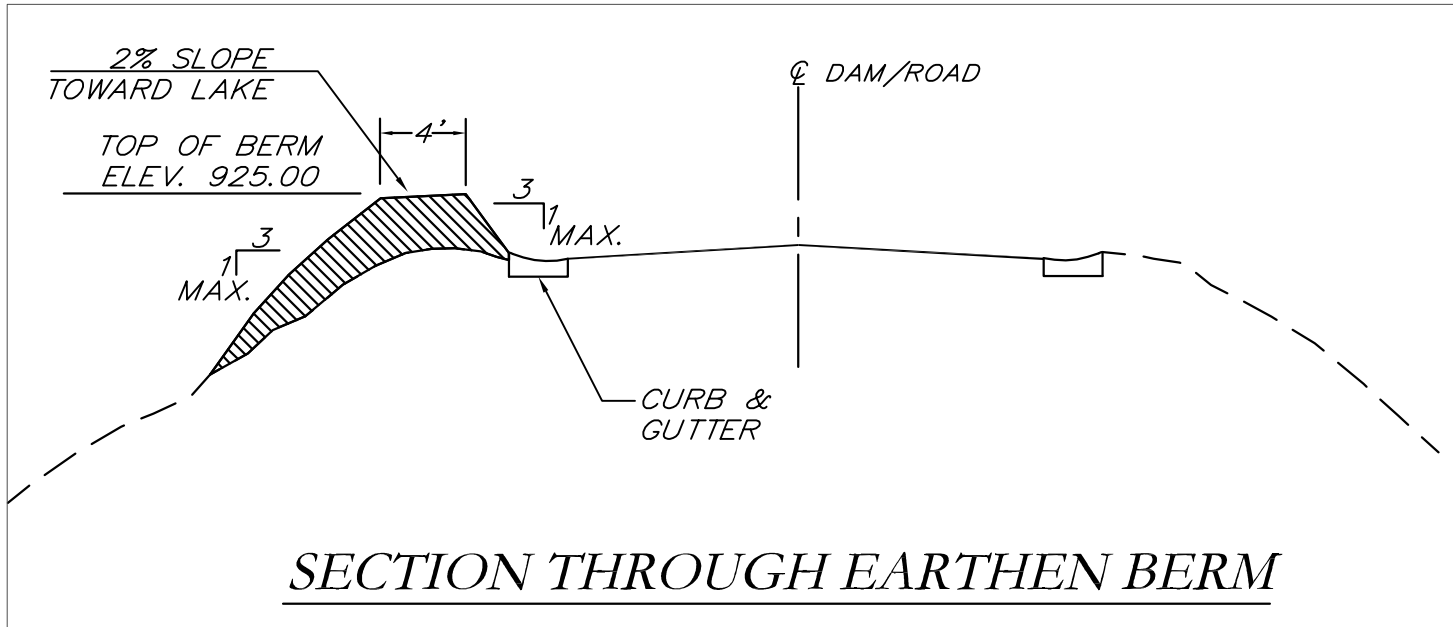
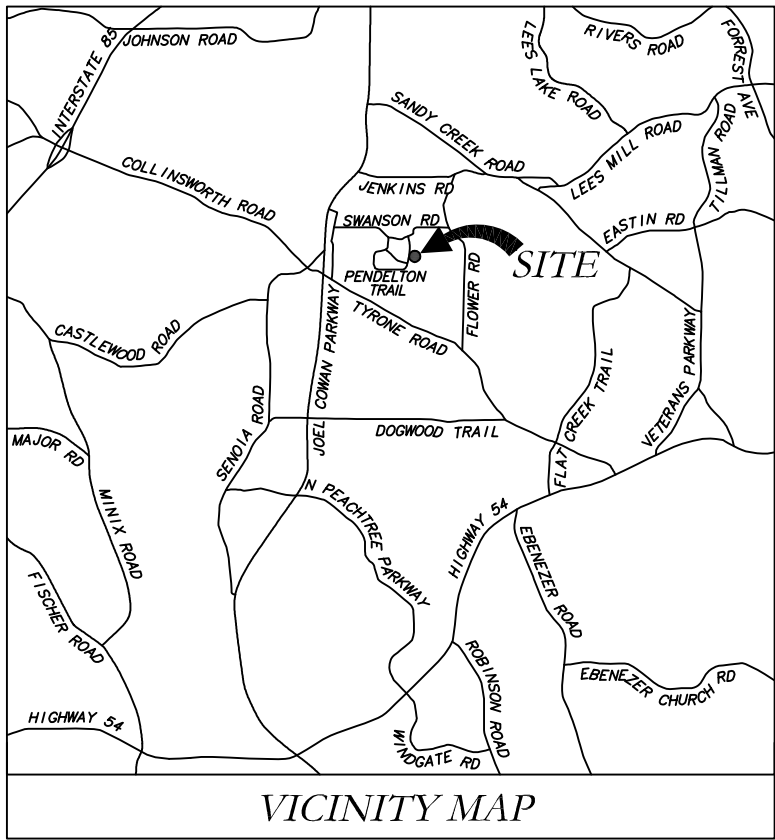
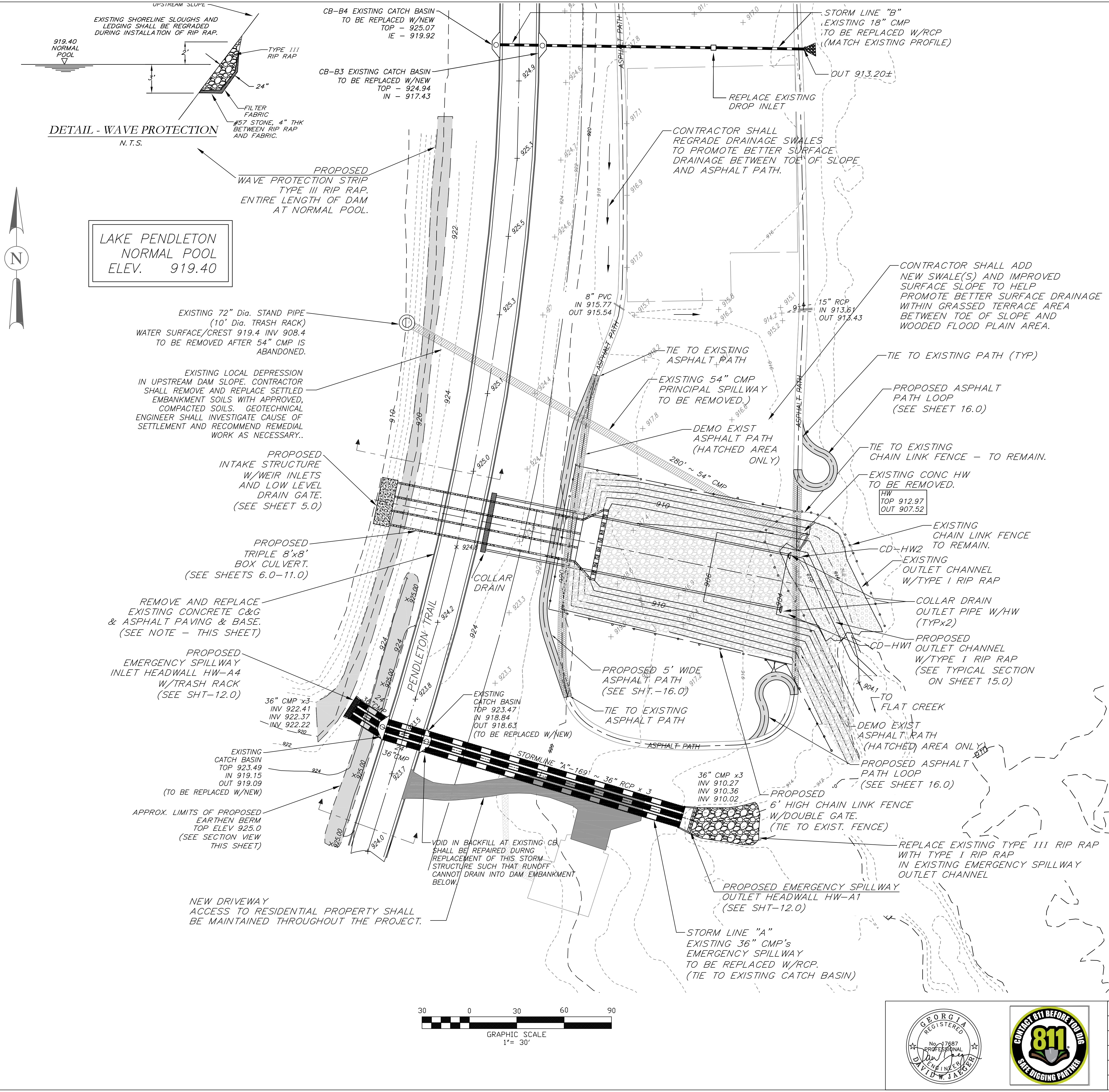
**PENDLETON LAKE DAM**

**EXISTING CONDITIONS**



|          |         |                |     |       |                  |          |           |           |          |
|----------|---------|----------------|-----|-------|------------------|----------|-----------|-----------|----------|
|          |         |                |     |       | LAND LOT -       | DESIGN   | MCI       | SCALE     | 1"=80'   |
|          |         |                |     |       | DISTRICT -       | DRAWN    | JLP & DWJ | DATE      | 10/21/19 |
| 3        | 5-10-24 | PER SDP REVIEW | DWJ | DWJ   | SECTION -        | CHECK    | DWJ       | FILE NO.  | 18101-24 |
| 2        | 7-10-23 | PER SDP REVIEW | DWJ | DWJ   | CITY -           | APPROVED | DWJ       | SHEET NO. | 2.0      |
| 1        | 1/15/21 | PER SDP REVIEW | JLP | DWJ   | COUNTY - FAYETTE |          |           |           |          |
| REV. No. | DATE    | DESCRIPTION    | BY  | APP'D | STATE - GEORGIA  |          |           |           |          |





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CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

SITE PLAN

|          |   |         |                |     |     |                  |          |          |           |           |
|----------|---|---------|----------------|-----|-----|------------------|----------|----------|-----------|-----------|
| REV. No. | 1 | 2/13/25 | PER SDP REVIEW | DWJ | DWJ | LAND LOT- 108    | DESIGN   | MCI      | SCALE     | 1" = 30'  |
|          | 2 | 5/10/24 | PER SDP REVIEW | DWJ | DWJ | DISTRICT - 7th   | DRAWN    | JTB, DWJ | DATE      | 10/21/19  |
|          | 3 | 7/10/23 | PER SDP REVIEW | DWJ | DWJ | CITY - TYRONE    | CHECK    | DWJ      | FILE NO.  | 18101-24C |
|          | 4 | 1/15/21 | PER SDP REVIEW | JLP | DWJ | COUNTY - FAYETTE | APPROVED | DWJ      | SHEET NO. | 3.0       |
|          |   |         |                |     |     | STATE - GEORGIA  |          |          |           |           |

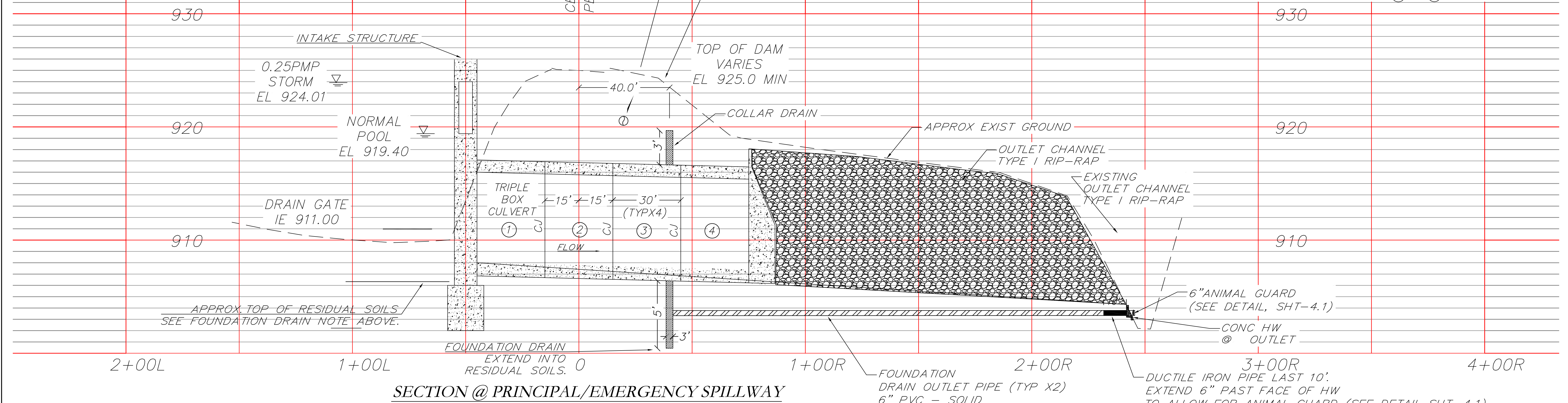


SEE SHEET 16.0  
FOR ASPHALT PATH  
MODIFICATIONS

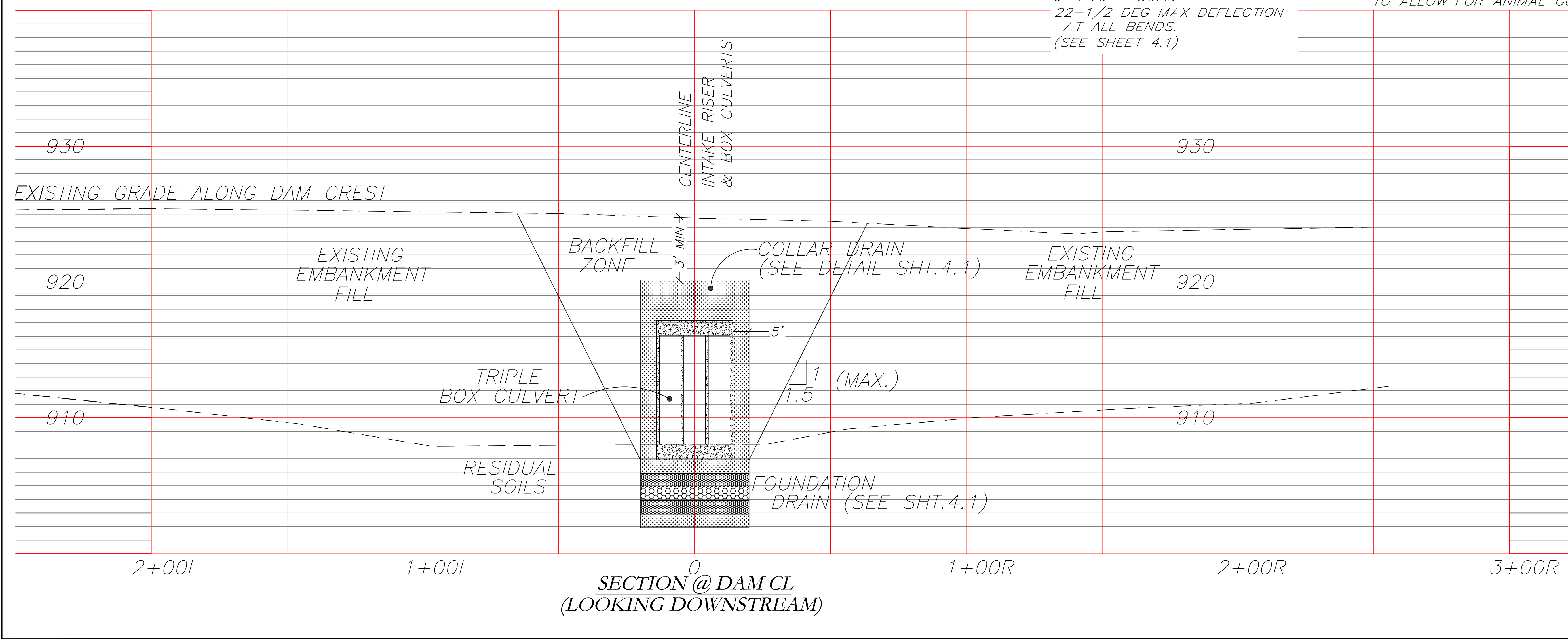


FOUNDATION DRAIN NOTE:  
TOP OF RESIDUAL SOILS IS SHOWN AS APPROXIMATE.  
DEPTH OF FOUNDATION DRAIN SHALL BE EXTENDED  
AS NEEDED TO PENETRATE 5' MIN. INTO RESIDUAL SOILS.  
AS DIRECTED BY THE GEOTECHNICAL ENGINEER.



INTAKE STRUCTURE SHALL BE CONSTRUCTED AND  
BOX CULVERT SECTIONS ② & ③ SHALL  
BE CONSTRUCTED AND SURCHARGED WITH  
BACKFILL TO PROMOTE SETTLEMENT BEFORE  
CONSTRUCTION OF AND CONNECTION TO  
BOX CULVERT SECTIONS ① & ④



SECTION @ PRINCIPAL/EMERGENCY SPILLWAY



SECTION @ DAM CL  
(LOOKING DOWNSTREAM)



|          |                |             |     |       |
|----------|----------------|-------------|-----|-------|
| 6-09-25  | PER SDP REVIEW | DWJ         | DWJ |       |
| 2-13-25  | PER SDP REVIEW | DWJ         | DWJ |       |
| 5/10/24  | PER SDP REVIEW | DWJ         | DWJ |       |
| 7/10/23  | PER SDP REVIEW | DWJ         | DWJ |       |
| 1/15/21  | PER SDP REVIEW | JLP         | DWJ |       |
| REV. No. | DATE           | DESCRIPTION | BY  | APP'D |



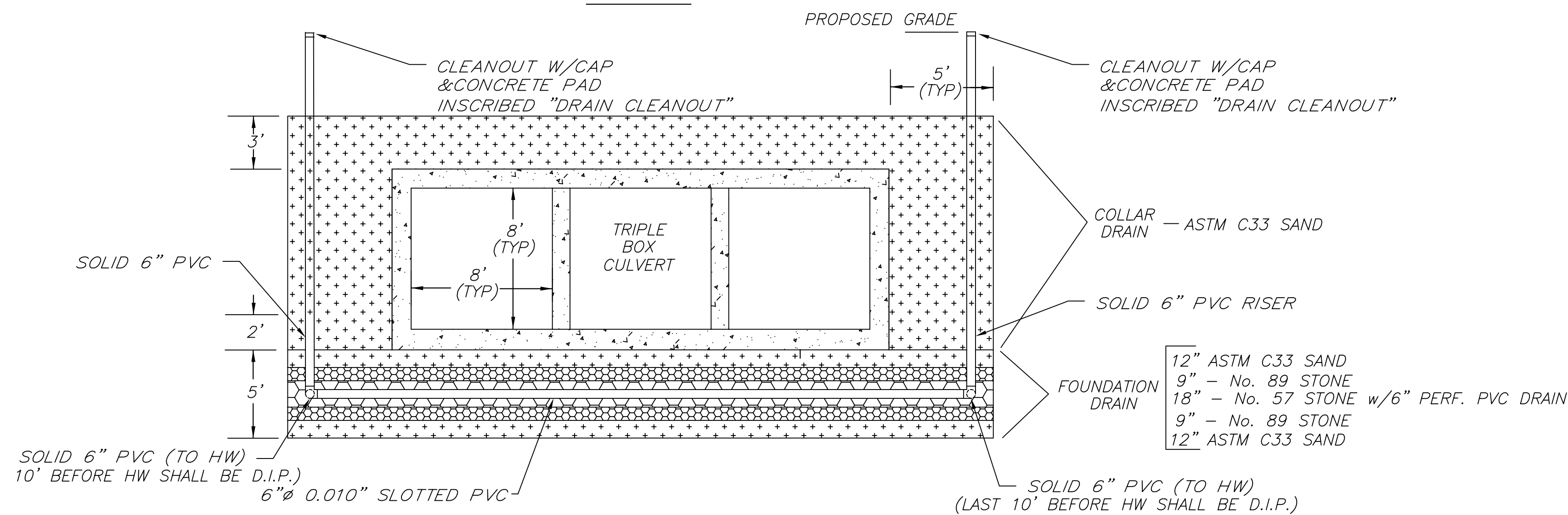
**Mallett Consulting, Inc.**  
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PHONE: 770-719-3333  
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CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

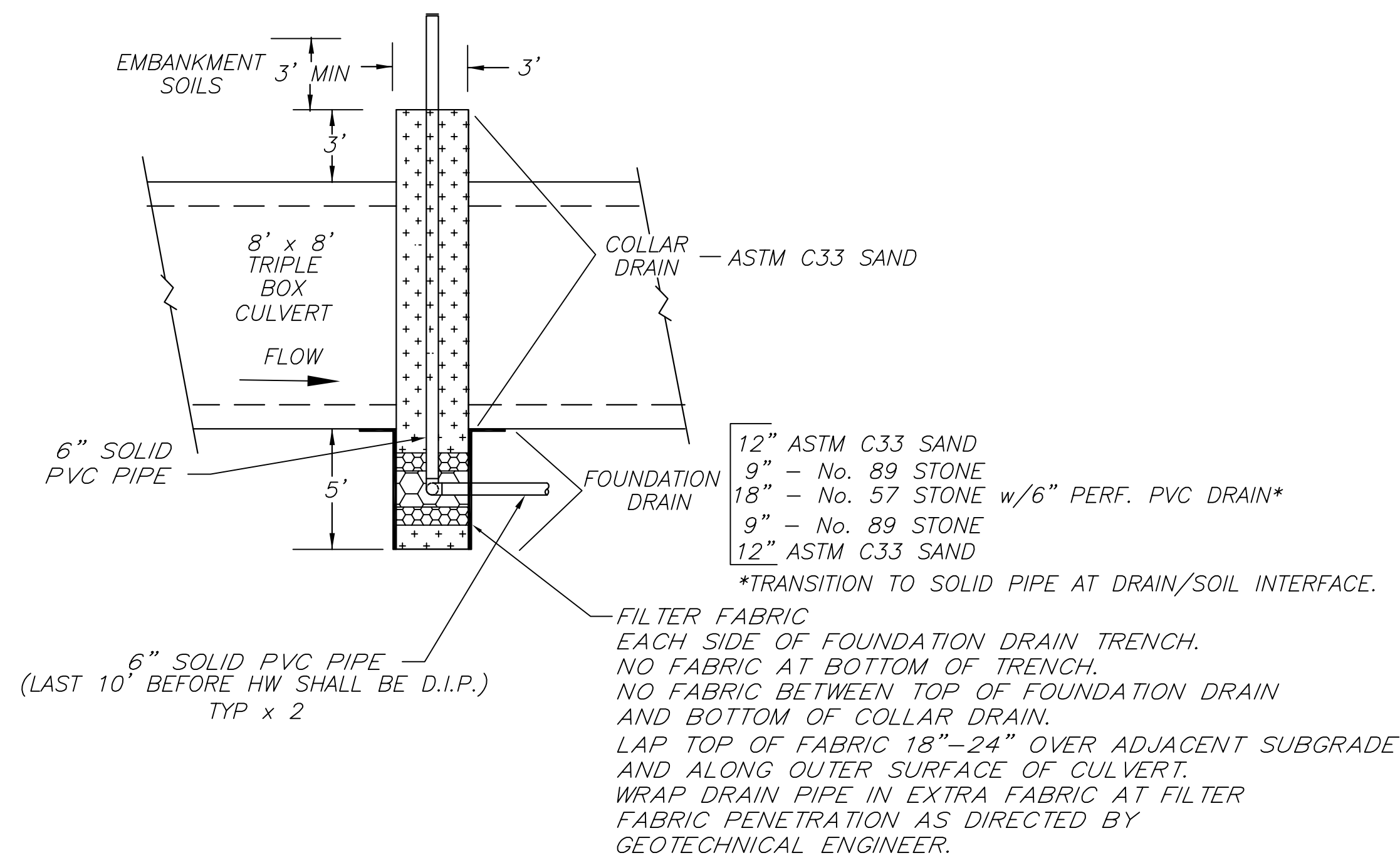
SECTIONS AT BOX CULVERT & INTERNAL DRAINS

|                  |                |                    |
|------------------|----------------|--------------------|
| LAND LOT - 108   | DESIGN MCI     | SCALE 1" = 50'     |
| DISTRICT - 7th   | DRAWN JTB, JBD | DATE 10/21/19      |
| SECTION -        | CHECK DWJ      | FILE NO. 18101-24C |
| CITY - TYRONE    | APPROVED DWJ   | SHEET NO. 4.0      |
| COUNTY - FAYETTE |                |                    |
| STATE - GEORGIA  |                |                    |

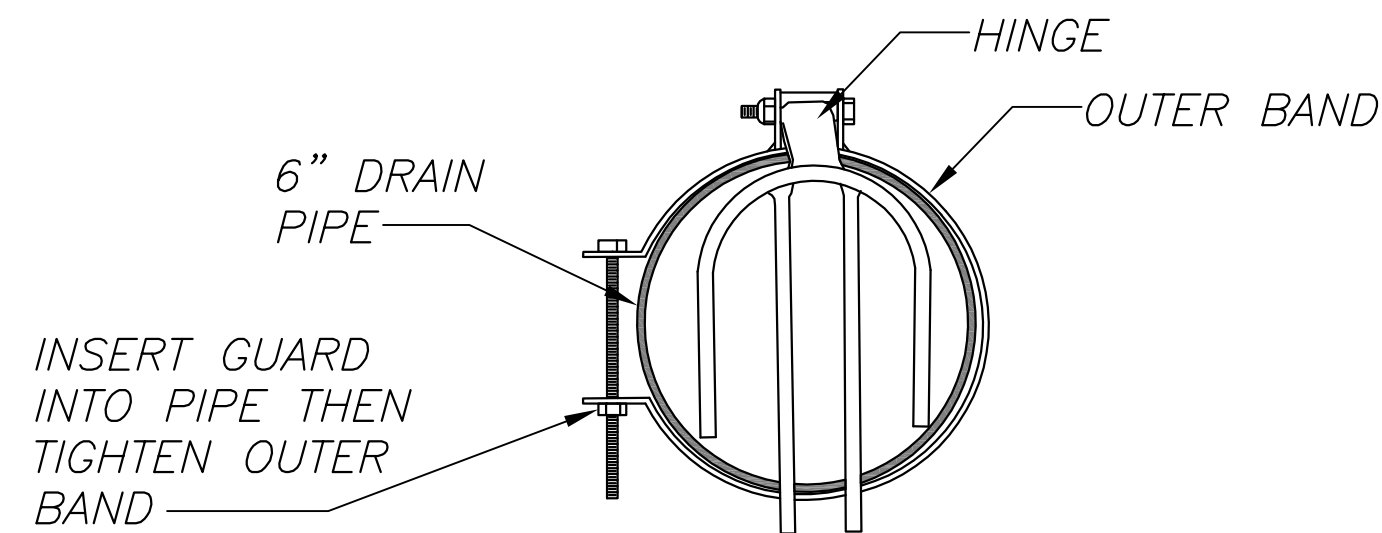




TRANSVERSE SECTION @ FOUNDATION/COLLAR DRAIN

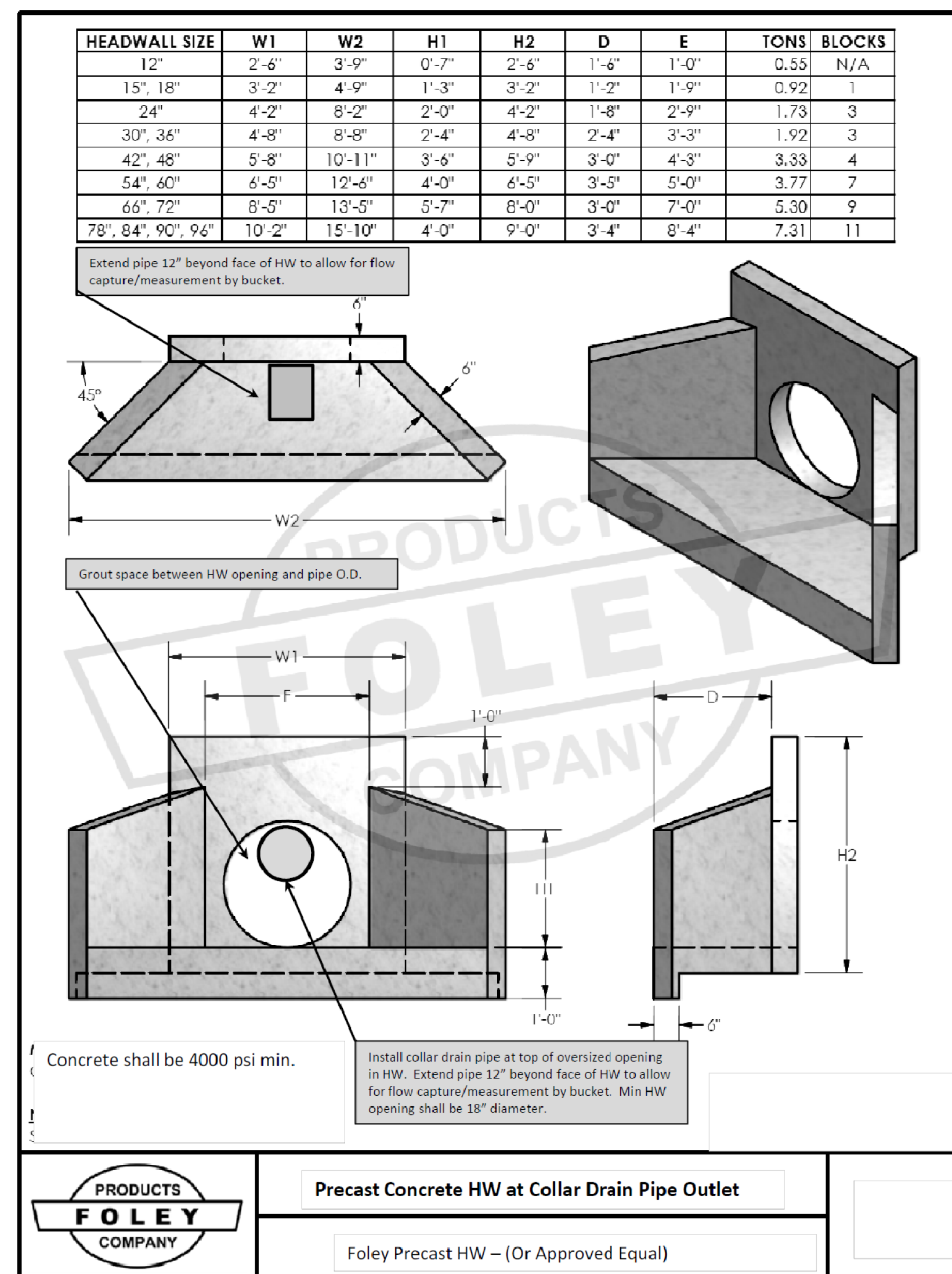


LONGITUDINAL SECTION @ FOUNDATION/COLLAR DRAIN

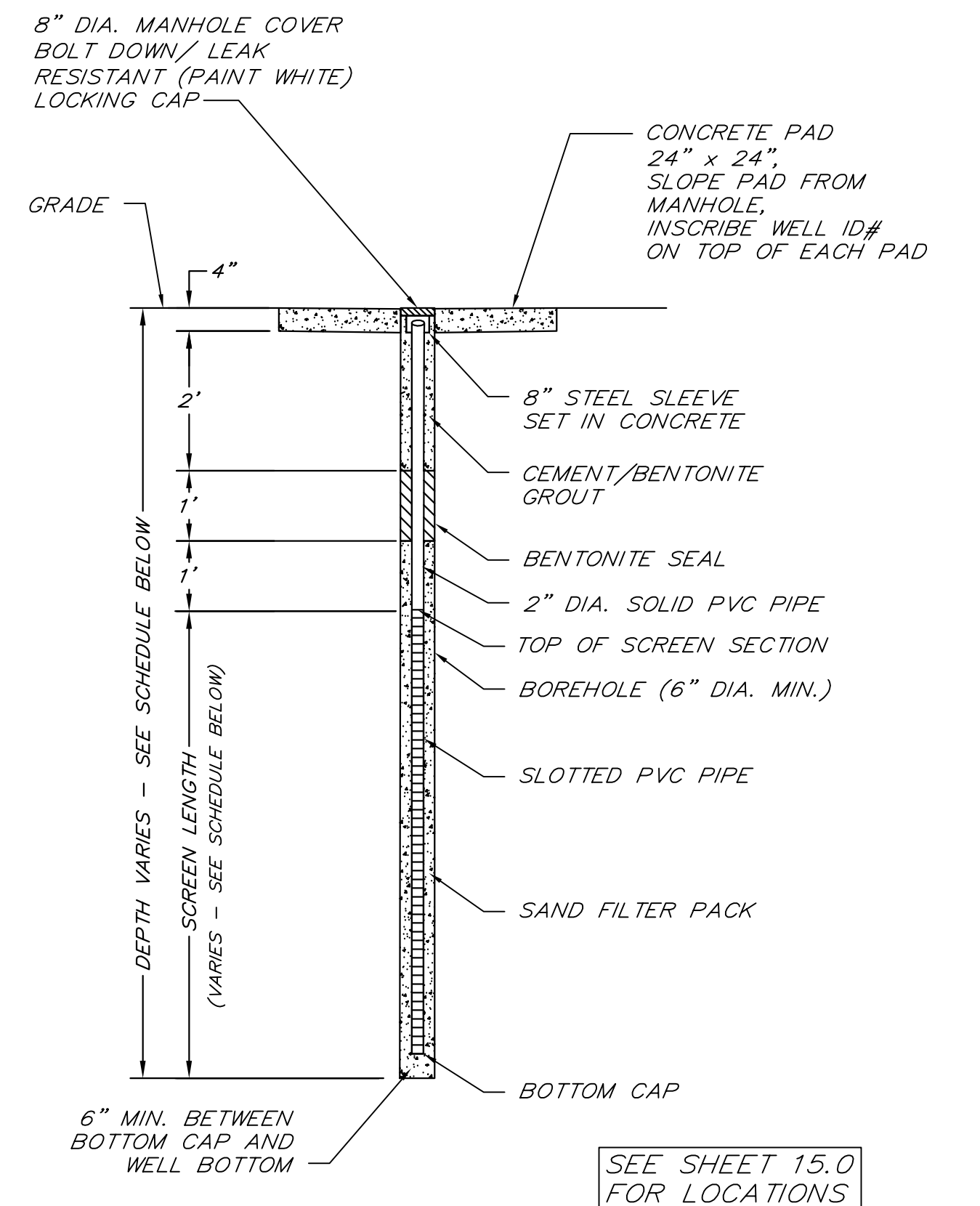


6" ANIMAL GUARD  
(BAND TYPE)

AgriDrain MODEL #AGB06 OR APPROVED EQUAL



NOTE - INSCRIBE "CD-HW1" AND "CD-HW2" ON EA. COLLAR DRAIN OUTLET HW.  
SEE SHEET 3.0 FOR LOCATION OF COLLAR DRAIN HEADWALLS.



DETAIL - PIEZOMETER

| Piezometer Installation Schedule |                               |                  |                  |                     |
|----------------------------------|-------------------------------|------------------|------------------|---------------------|
| Lake Pendleton Dam               |                               |                  |                  |                     |
| For Town of Tyrone, Georgia      |                               |                  |                  |                     |
| Piezometer ID #                  | ITEM DESCRIPTION              | TOTAL DEPTH (FT) | APPROX TOP ELEV. | APPROX BOTTOM ELEV. |
| P-A1                             | UPSTREAM CREST                | 30               | 925              | 895                 |
| P-A2                             | DOWNSTREAM CREST              | 30               | 925              | 895                 |
| P-A3                             | DOWNSTREAM TOE                | 25               | 921              | 896                 |
| P-A4                             | DOWNSTREAM TERRACE BEYOND TOE | 15               | 918              | 903                 |
| P-B1                             | UPSTREAM CREST                | 30               | 925              | 895                 |
| P-B2                             | DOWNSTREAM CREST              | 30               | 925              | 895                 |
| P-B3                             | DOWNSTREAM TOE                | 25               | 922              | 897                 |
| P-B4                             | DOWNSTREAM TERRACE BEYOND TOE | 15               | 919              | 904                 |
|                                  |                               |                  |                  |                     |
|                                  |                               |                  |                  |                     |
|                                  |                               |                  |                  |                     |

Note: Contractor shall field verify location and final elevations of each piezometer prior to beginning installation. Final locations and elevations shall be confirmed by Geotechnical Engineer.



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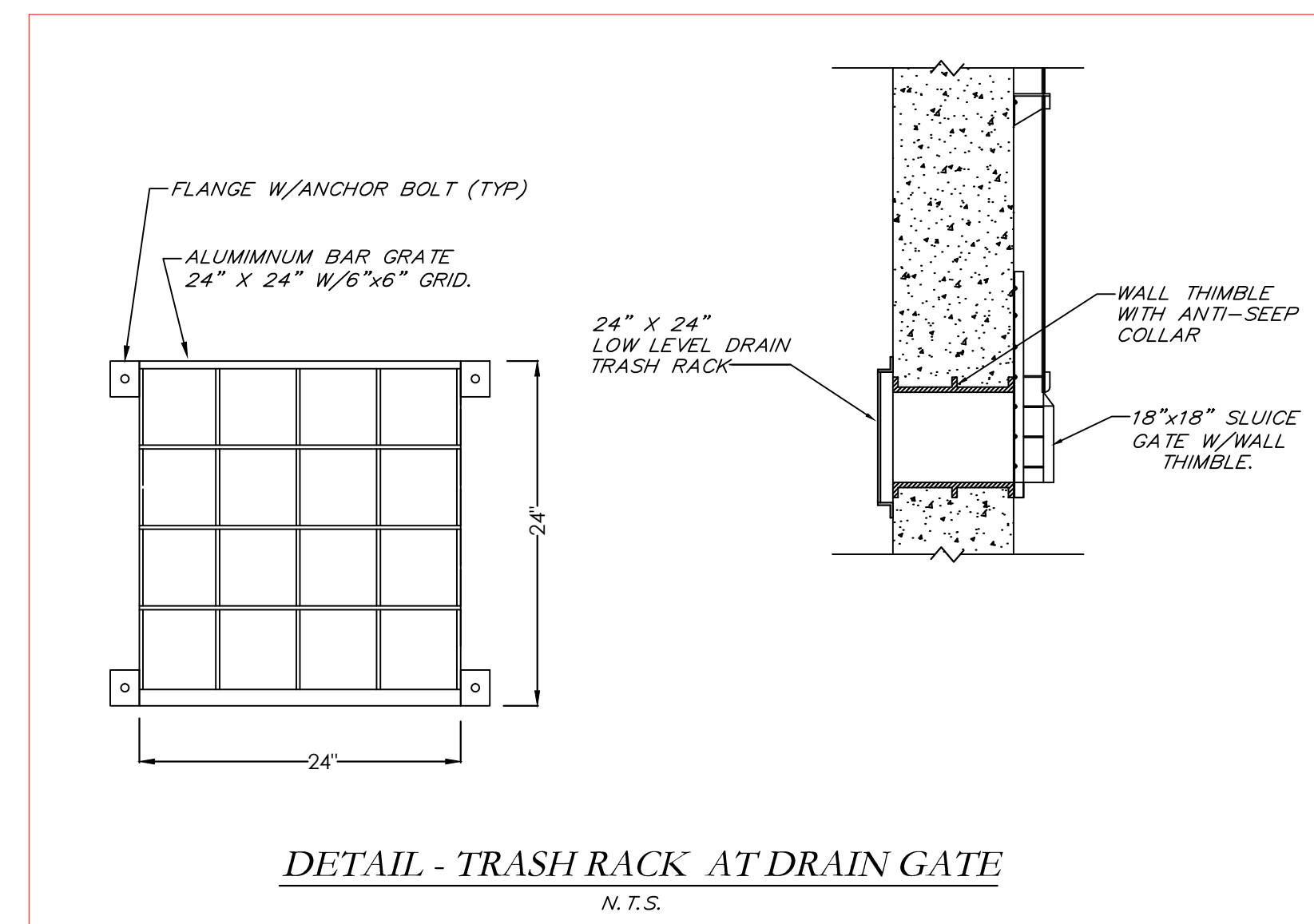
CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA





DETAILS

|          |         |                |     |       |                  |                     |                    |
|----------|---------|----------------|-----|-------|------------------|---------------------|--------------------|
|          | 2-13-25 | PER SDP REVIEW | DWJ | DWJ   | LAND LOT - 108   | DESIGN MCI          | SCALE AS NOTED     |
|          | 5-10-24 | PER SDP REVIEW | DWJ | DWJ   | DISTRICT - 7th   | DRAWN JTB, JBD, JLP | DATE 10/21/19      |
|          | 7-10-23 | PER SDP REVIEW | DWJ | DWJ   | SECTION -        | CHECK DWJ           | FILE NO. 18101-24C |
|          | 1/15/21 | PER SDP REVIEW | JLP | DWJ   | CITY - TYRONE    | APPROVED DWJ        | SHEET NO. 4.1      |
| REV. No. | DATE    | DESCRIPTION    | BY  | APP'D | COUNTY - FAYETTE | STATE - GEORGIA     |                    |





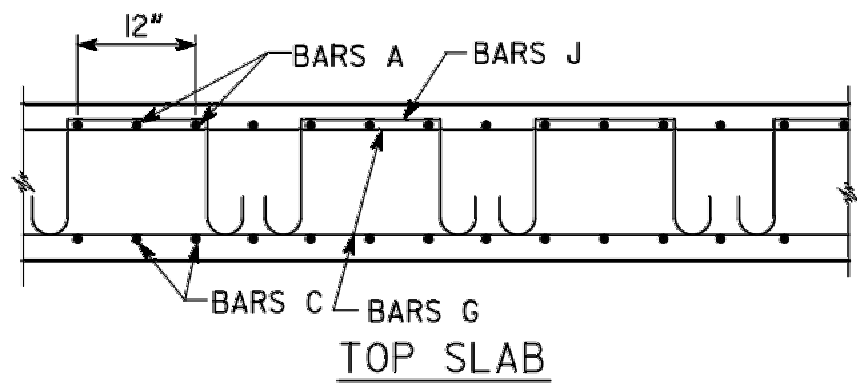


|   |         |                |     |       |                  |                        |                         |
|---|---------|----------------|-----|-------|------------------|------------------------|-------------------------|
|   |         |                |     |       | LAND LOT - 108   | DESIGN                 | SCALE                   |
|  | 6/09/25 | PER SDP REVIEW | DWJ | DWJ   | DISTRICT - 7th   | <i>MCI</i>             | <i>AS NOTED</i>         |
|  | 5/10/24 | PER SDP REVIEW | DWJ | DWJ   | SECTION -        | <i>JTB, JBD</i>        | DATE<br><i>10/21/19</i> |
|  | 7/10/23 | PER SDP REVIEW | DWJ | DWJ   | CITY - TYRONE    | CHECK                  | FILE NO.                |
|  | 1/15/21 | PER SDP REVIEW | JLP | DWJ   | COUNTY - FAYETTE | <i>DWJ</i>             | <i>18101-24C</i>        |
| REV. No.  | DATE    | DESCRIPTION    | BY  | APP'D | STATE - GEORGIA  | APPROVED<br><i>DWJ</i> | SHEET NO. <i>5.0</i>    |

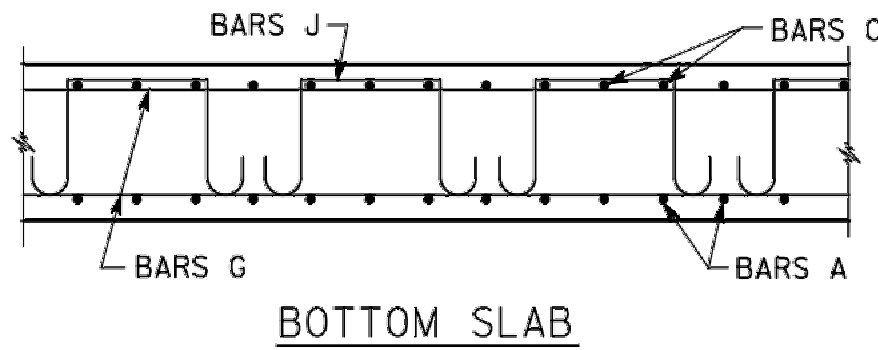




| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA.   |                |           |              |

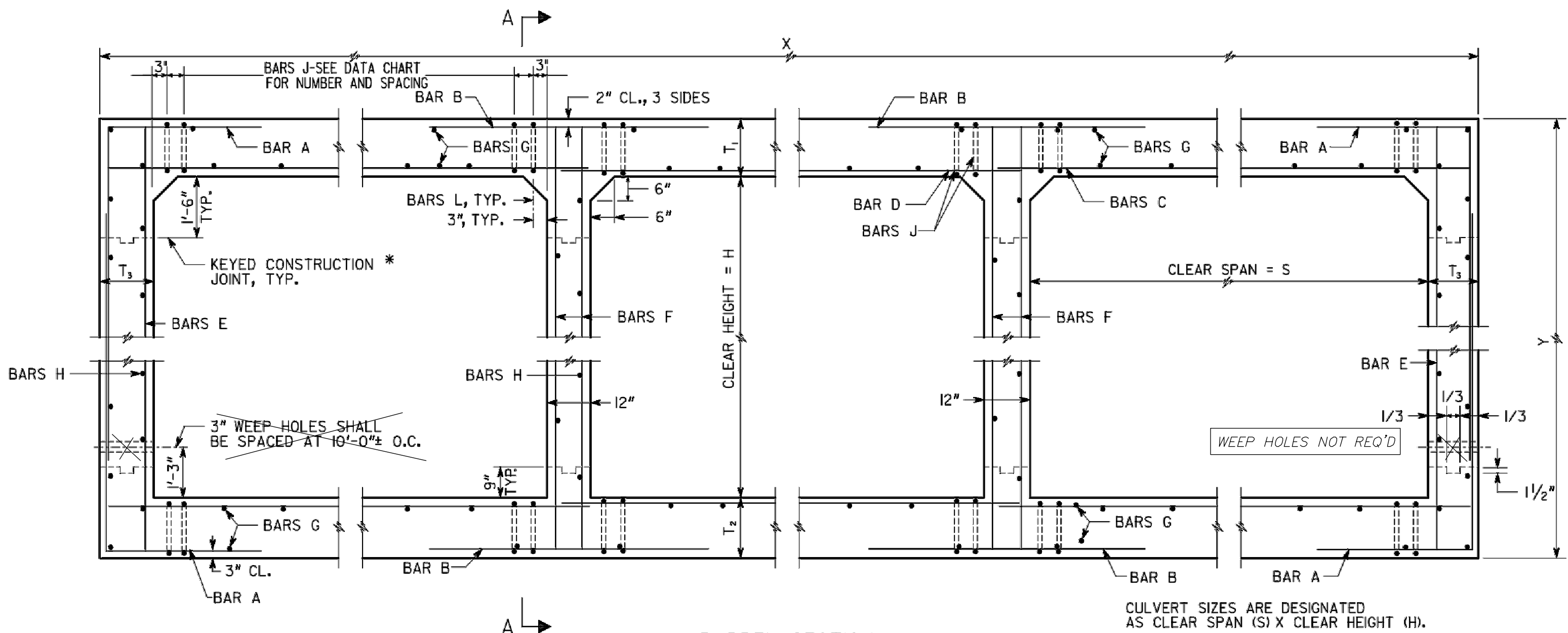


NOTE: SPACING OF BARS A AND C IS 6" OR 12", SEE BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS.



NOTE: LONGITUDINAL WINGWALL AND PARAPET BARS EXTEND INTO BARREL. SEE WINGWALL AND PARAPET STANDARDS.

SECTION A-A



\* AT CONTRACTORS OPTION, THE LOWER CONSTRUCTION JOINT IN THE BARREL WALL MAY BE SHIFTED TO 6" ABOVE THE TOP OF THE BOTTOM SLAB.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE AT 30' MAX SPACING SEE SECTION THROUGH DAM AT BOX CULVERT FOR MORE INFORMATION AND FOR SEQUENCING AND SURCHARGE REQUIREMENTS.

6" PVC DUMBBELL WATERSTOP SHALL BE USED AT ALL CONSTRUCTION JOINTS EXCEPT THOSE LOCATED WITHIN THE INTERIOR WALLS.

FOR BAR DIMENSIONS SEE BAR REINFORCEMENT DETAILS. NUMBER OF J BARS SHOWN IN DATA CHART IS THE NUMBER PER CORNER IN ANY ONE TRANSVERSE PLANE. THE TOTAL NUMBER OF J BARS REQUIRED DEPENDS UPON THE LENGTH OF THE SECTION.

USE DESIGN CONDITION #2

| DESIGN              | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| MAXIMUM FILL HEIGHT | 10' | 20' | 30' | 40' | 50' | 60' | 70' | 80' |

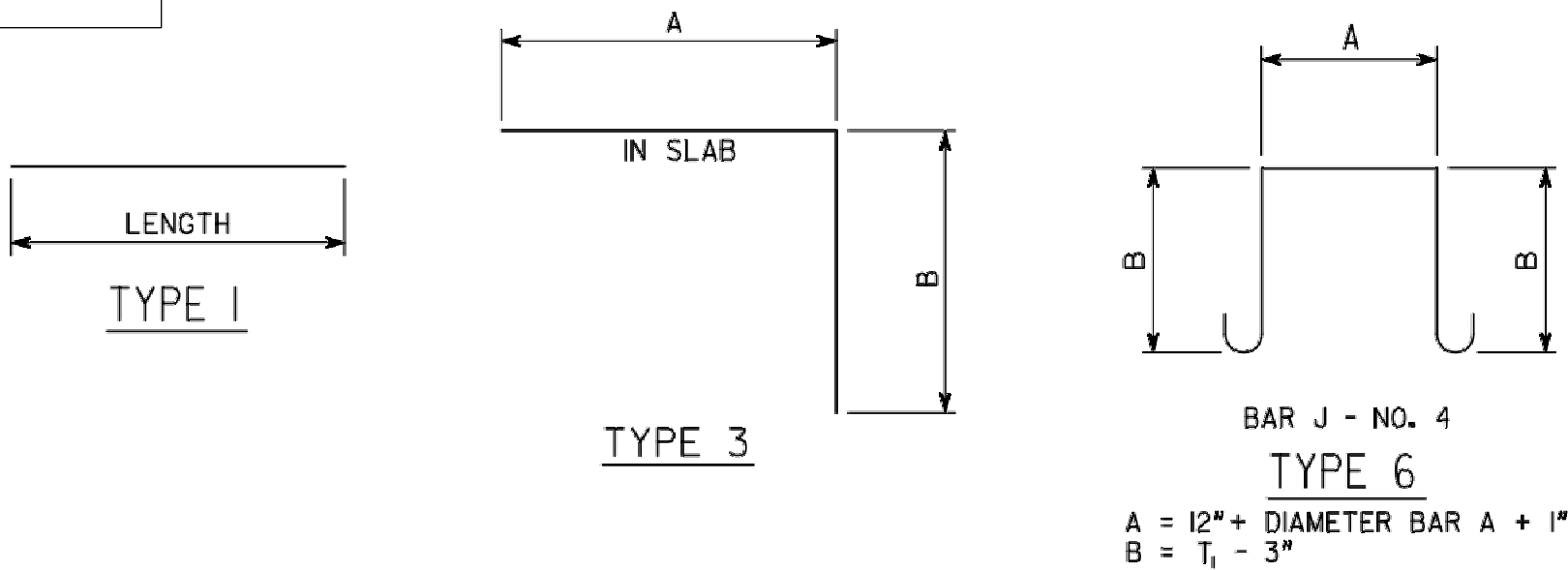
- 1) MINIMUM HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 1'-0".
- 2) DESIGN OF THE CULVERT SHALL BE DETERMINED BY THE MAXIMUM HEIGHT OF FILL WITH ONLY A SINGLE DESIGN BEING USED FOR THE ENTIRE INSTALLATION.
- 3) TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED NORMAL TO THE CENTERLINE OF THE CULVERT AT THE OUTSIDE SHOULDER BREAK POINTS. THE MAXIMUM FOUR LENGTH ALONG THE LENGTH OF THE CULVERT SHALL NOT EXCEED 40'-0" FOR DESIGNS 1 TO 3 AND 30'-0" FOR DESIGNS 4 AND ABOVE.
- 4) LONGITUDINAL BARREL REINFORCEMENT STEEL IN THE TRANSVERSE CONSTRUCTION JOINTS SHALL EXTEND THROUGH JOINTS.
- 5) CONSTRUCTION JOINTS SHALL BE WATERPROOFED ON THE EXTERIOR TOP AND SIDES OF BARREL IN ACCORDANCE WITH SECTION 530 OF GEORGIA STANDARD SPECIFICATIONS. WATERPROOFING SHALL BE APPLIED WHEN CONCRETE IS AT LEAST 7 DAYS OLD. ALL COSTS ASSOCIATED WITH WATERPROOFING SHALL BE INCLUDED IN OTHER ITEMS AND WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.
- 6) MINIMUM LENGTH OF LAP SPLICE FOR LONGITUDINAL BARREL REINFORCING STEEL SHALL BE 2'-0".

#### GENERAL NOTES

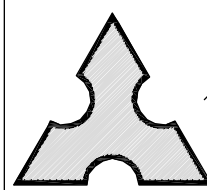
- 1) SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
- 2) ALL CONCRETE SHALL BE CLASS "AA".
- 3) CHAMFER ALL EXPOSED EDGES  $\frac{3}{4}$ ".
- 4) COST OF DRAIN PIPES, WEEP HOLES, COARSE AGGREGATE, AND ANY OTHER INCIDENTAL ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR CONTRACT ITEMS.
- 5) CONSTRUCTION JOINTS IN BARREL WALLS ARE REQUIRED.
- 6) FOR DETAILS OF WINGWALLS AND PARAPETS SEE "REINFORCED CONCRETE WINGWALLS, TOEWALLS AND PARAPETS FOR CONCRETE BOX CULVERTS" SHEETS.

#### DESIGN DATA

SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014. TYPICAL HL-93 LOADING.



| DATE  | SEPTEMBER 2017                 |
|---|--------------------------------|
| REVISION  |                                |
| DEPT. OF TRANSPORTATION<br>STATE OF GEORGIA   |                                |
| STANDARD<br>REINFORCED CONCRETE<br>TRIPLE BOX CULVERT   |                                |
| NO SCALE  | SEPTEMBER 2017                 |
| BY DES. YSK. (SUBMITTED) <i>[Signature]</i><br>DRW. FGS. STATE DESIGN POLICY ENGINEER<br>TRA. (APPROVED) <i>[Signature]</i><br>CHK. JWB. CHIEF ENGINEER | NUMBER<br>2403<br>SHEET 1 OF 3 |



Mallett Consulting, Inc.

101 DEVANT ST., SUITE 804 - FAYETTEVILLE, GEORGIA 30214  
PHONE: 770-719-3333  
FAX: 770-719-3377

CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

DETAILS - TRIPLE 8X8 CONCRETE BOX CULVERT



|                  |                |                    |
|------------------|----------------|--------------------|
| LAND LOT - 108   | DESIGN MCI     | SCALE AS NOTED     |
| DISTRICT - 7th   | DRAWN JTB, DWJ | DATE 10/21/19      |
| SECTION -        | CHECK DWJ      | FILE NO. 18101-24C |
| CITY - TYRONE    | APPROVED DWJ   | SHEET NO. 6.0      |
| COUNTY - FAYETTE |                |                    |
| STATE - GEORGIA  |                |                    |
| REV. No.         | DATE           | DESCRIPTION        |
| 1/15/21          | PER SDP REVIEW | JLP DWJ            |
|                  | BY             | APP'D              |



|       |                |           |              |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA.   |                |           |              |

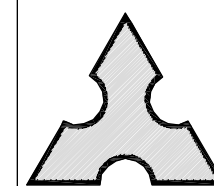
| TRIPLE 8'-0" X 7'-0" BOX CULVERT                               |            |           |                |                |             |   |   |   |
|--|------------|-----------|----------------|----------------|-------------|---|---|---|
| BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS                 |            |           |                |                |             |   |   |   |
| DESIGN   | 1          | 2         | 3              | 4              | 5           | 6 | 7 | 8 |
| BAR A  | 549A @ 12" | 462A @ 6" | 464A @ 6"      | 548A @ 6"      | 552A @ 6"   |   |   |   |
| BAR B  | 484 @ 6"   | 582 @ 6"  | 633 @ 6"       | 631 @ 6"       | 721 @ 6"    |   |   |   |
| BAR C  | 705 @ 12"  | 532 @ 6"  | 533 @ 6"       | 605 @ 6"       | 606 @ 6"    |   |   |   |
| BAR D  | 531 @ 12"  | 442 @ 6"  | 442 @ 12"      | 705 @ 12"      | 531 @ 6"    |   |   |   |
| BAR E  | 433 @ 12"  | 435 @ 12" | 437 @ 12"      | 439 @ 12"      | 440 @ 12"   |   |   |   |
| BAR F  | 433 @ 12"  | 435 @ 12" | 437 @ 12"      | 439 @ 12"      | 440 @ 12"   |   |   |   |
| BAR G IN 2 SLABS   | 84 - 401   | 84 - 401  | 84 - 401       | 84 - 401       | 84 - 401    |   |   |   |
| BAR H IN 4 WALLS   | 40 - 402   | 40 - 402  | 40 - 402       | 40 - 402       | 40 - 402    |   |   |   |
| BAR J IN EXT. CORNER   | 0          | 0         | 0              | 3-418 @ 9 1/2" | 3-428 @ 10" |   |   |   |
| BAR J IN INT. CORNER   | 0          | 0         | 3-418 @ 8 1/2" | 4-420 @ 9 1/2" | 4-423 @ 10" |   |   |   |
| T <sub>1</sub>   | 12"        | 13"       | 14"            | 15"            | 16"         |   |   |   |
| T <sub>2</sub>   | 13"        | 14"       | 15"            | 16"            | 17"         |   |   |   |
| T <sub>3</sub>   | 12"        | 13"       | 14"            | 15"            | 16"         |   |   |   |
| X  | 28'-0"     | 28'-2"    | 28'-4"         | 28'-6"         | 28'-8"      |   |   |   |
| Y  | 9'-1"      | 9'-3"     | 9'-5"          | 9'-7"          | 9'-9"       |   |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE/FT                           | 3.225      | 3.455     | 3.687          | 3.921          | 4.157       |   |   |   |
| LB BAR REINF STEEL/FT  | 311.1      | 359.0     | 429.1          | 542.0          | 589.6       |   |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL |            |           |                |                |             |   |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 12.3       | 12.5      | 12.7           | 12.9           | 13.1        |   |   |   |
| LB BAR REINF STEEL   | 1673       | 1671      | 1669           | 1667           | 1665        |   |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL |            |           |                |                |             |   |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 12.7       | 12.9      | 13.2           | 13.4           | 13.6        |   |   |   |
| LB BAR REINF STEEL   | 2071       | 2071      | 2072           | 2072           | 2072        |   |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL |            |           |                |                |             |   |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 14.2       | 14.4      | 14.7           | 14.9           | 15.2        |   |   |   |
| LB BAR REINF STEEL   | 2193       | 2194      | 2195           | 2196           | 2197        |   |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL |            |           |                |                |             |   |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 17.5       | 17.7      | 18.0           | 18.3           | 18.6        |   |   |   |
| LB BAR REINF STEEL   | 2480       | 2483      | 2485           | 2488           | 2490        |   |   |   |

| TRIPLE 8'-0" X 8'-0" BOX CULVERT                               |            |           |                 |                 |              | *USE DESIGN CONDITION #2. |   |   |
|--|------------|-----------|-----------------|-----------------|--------------|---------------------------|---|---|
| BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS                 |            |           |                 |                 |              |                           |   |   |
| DESIGN   | 1          | 2 *       | 3               | 4               | 5            | 6                         | 7 | 8 |
| BAR A  | 568A @ 12" | 470A @ 6" | 706A @ 12"      | 566A @ 6"       | 567A @ 6"    |                           |   |   |
| BAR B  | 483 @ 6"   | 581 @ 6"  | 630 @ 6"        | 630 @ 6"        | 720 @ 6"     |                           |   |   |
| BAR C  | 705 @ 12"  | 532 @ 6"  | 533 @ 6"        | 605 @ 6"        | 606 @ 6"     |                           |   |   |
| BAR D  | 442 @ 6"   | 442 @ 6"  | 442 @ 6"        | 705 @ 12"       | 531 @ 6"     |                           |   |   |
| BAR E  | 442 @ 12"  | 443 @ 12" | 534 @ 12"       | 535 @ 12"       | 537 @ 12"    |                           |   |   |
| BAR F  | 442 @ 12"  | 443 @ 12" | 444 @ 12"       | 445 @ 12"       | 447 @ 12"    |                           |   |   |
| BAR G IN 2 SLABS   | 84 - 401   | 84 - 401  | 84 - 401        | 84 - 401        | 84 - 401     |                           |   |   |
| BAR H IN 4 WALLS   | 42 - 402   | 42 - 402  | 42 - 402        | 42 - 402        | 42 - 402     |                           |   |   |
| BAR J IN EXT. CORNER   | 0          | 0         | 0               | 3-4198 @ 9 1/2" | 3-4218 @ 10" |                           |   |   |
| BAR J IN INT. CORNER   | 0          | 0         | 3-4188 @ 8 1/2" | 4-4208 @ 9 1/2" | 4-4238 @ 10" |                           |   |   |
| T <sub>1</sub>   | 12"        | 13"       | 14"             | 15"             | 16"          |                           |   |   |
| T <sub>2</sub>   | 13"        | 14"       | 15"             | 16"             | 17"          |                           |   |   |
| T <sub>3</sub>   | 12"        | 13"       | 14"             | 15"             | 16"          |                           |   |   |
| X  | 28'-0"     | 28'-2"    | 28'-4"          | 28'-6"          | 28'-8"       |                           |   |   |
| Y  | 10'-1"     | 10'-3"    | 10'-5"          | 10'-7"          | 10'-9"       |                           |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE/FT                           | 3.373      | 3.610     | 3.848           | 4.098           | 4.330        |                           |   |   |
| LB BAR REINF STEEL/FT  | 326.6      | 368.9     | 477.4           | 562.4           | 609.0        |                           |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL |            |           |                 |                 |              |                           |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 12.7       | 12.9      | 13.2            | 13.4            | 13.6         |                           |   |   |
| LB BAR REINF STEEL   | 1701       | 1699      | 1698            | 1696            | 1694         |                           |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL |            |           |                 |                 |              |                           |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 13.2       | 13.4      | 13.7            | 13.9            | 14.1         |                           |   |   |
| LB BAR REINF STEEL   | 2100       | 2101      | 2101            | 2101            | 2102         |                           |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL |            |           |                 |                 |              |                           |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 14.7       | 15.0      | 15.2            | 15.5            | 15.8         |                           |   |   |
| LB BAR REINF STEEL   | 2223       | 2224      | 2225            | 2226            | 2227         |                           |   |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL |            |           |                 |                 |              |                           |   |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 18.1       | 18.4      | 18.7            | 19.0            | 19.4         |                           |   |   |
| LB BAR REINF STEEL   | 2511       | 2513      | 2516            | 2518            | 2520         |                           |   |   |

| TRIPLE 8'-0" X 9'-0" BOX CULVERT                               |            |           |                 |                 |              |  |
|--|------------|-----------|-----------------|-----------------|--------------|--|
| BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS                 |            |           |                 |                 |              |  |
| DESIGN   | 1          | 2         | 3               | 4               | 5            |  |
| BAR A  | 585A @ 12" | 474A @ 6" | 573A @ 6"       | 575A @ 6"       | 607A @ 6"    |  |
| BAR B  | 482 @ 6"   | 580 @ 6"  | 629 @ 6"        | 628 @ 6"        | 719 @ 6"     |  |
| BAR C  | 705 @ 12"  | 532 @ 6"  | 533 @ 6"        | 605 @ 6"        | 606 @ 6"     |  |
| BAR D  | 442 @ 6"   | 442 @ 6"  | 442 @ 6"        | 705 @ 12"       | 531 @ 6"     |  |
| BAR E  | 539 @ 12"  | 541 @ 12" | 543 @ 12"       | 452 @ 6"        | 453 @ 6"     |  |
| BAR F  | 449 @ 12"  | 450 @ 12" | 451 @ 12"       | 452 @ 12"       | 453 @ 12"    |  |
| BAR G IN 2 SLABS   | 84 - 401   | 84 - 401  | 84 - 401        | 84 - 401        | 84 - 401     |  |
| BAR H IN 4 WALLS   | 50 - 402   | 50 - 402  | 50 - 402        | 50 - 402        | 50 - 402     |  |
| BAR J IN EXT. CORNER   | 0          | 0         | 0               | 3-419B @ 9 1/2" | 3-422B @ 10" |  |
| BAR J IN INT. CORNER   | 0          | 0         | 3-418B @ 8 1/2" | 4-420B @ 9 1/2" | 4-423B @ 10" |  |
| T <sub>1</sub>   | 12"        | 13"       | 14"             | 15"             | 16"          |  |
| T <sub>2</sub>   | 13"        | 14"       | 15"             | 16"             | 17"          |  |
| T <sub>3</sub>   | 12"        | 13"       | 14"             | 15"             | 16"          |  |
| X  | 28'-0"     | 28'-2"    | 28'-4"          | 28'-6"          | 28'-8"       |  |
| Y  | 11'-1"     | 11'-3"    | 11'-5"          | 11'-7"          | 11'-9"       |  |
| YD <sup>3</sup> CLASS AA CONCRETE/FT                           | 3.522      | 3.764     | 4.008           | 4.255           | 4.503        |  |
| LB BAR REINF STEEL/FT  | 354.0      | 391.0     | 497.9           | 585.8           | 679.9        |  |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL |            |           |                 |                 |              |  |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 13.1       | 13.3      | 13.6            | 13.8            | 14.0         |  |
| LB BAR REINF STEEL   | 1755       | 1753      | 1752            | 1750            | 1748         |  |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL |            |           |                 |                 |              |  |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 13.6       | 13.8      | 14.1            | 14.3            | 14.6         |  |
| LB BAR REINF STEEL   | 2156       | 2157      | 2157            | 2157            | 2158         |  |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL |            |           |                 |                 |              |  |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 15.2       | 15.4      | 15.7            | 16.0            | 16.3         |  |
| LB BAR REINF STEEL   | 2280       | 2281      | 2282            | 2283            | 2284         |  |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL |            |           |                 |                 |              |  |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 18.7       | 19.0      | 19.3            | 19.6            | 20.0         |  |
| LB BAR REINF STEEL   | 2571       | 2573      | 2576            | 2578            | 2581         |  |

| TRIPLE 8'-0" X 10'-0" BOX CULVERT                              |           |            |                 |                 |                 |   |
|--|-----------|------------|-----------------|-----------------|-----------------|---|
| BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS                 |           |            |                 |                 |                 |   |
| DESIGN   | 1         | 2          | 3               | 4               | 5               | 6 |
| BAR A  | 478A @ 6" | 711A @ 12" | 579A @ 6"       | 609A @ 6"       | 610A @ 6"       |   |
| BAR B  | 480 @ 6"  | 577 @ 6"   | 628 @ 6"        | 627 @ 6"        | 718 @ 6"        |   |
| BAR C  | 705 @ 12" | 532 @ 6"   | 533 @ 6"        | 605 @ 6"        | 606 @ 6"        |   |
| BAR D  | 442 @ 6"  | 442 @ 6"   | 442 @ 6"        | 705 @ 12"       | 531 @ 6"        |   |
| BAR E  | 550 @ 12" | 551 @ 12"  | 457 @ 6"        | 611 @ 12"       | 713 @ 12"       |   |
| BAR F  | 455 @ 12" | 456 @ 12"  | 457 @ 12"       | 459 @ 12"       | 460 @ 12"       |   |
| BAR G IN 2 SLABS   | 84 - 401  | 84 - 401   | 84 - 401        | 84 - 401        | 84 - 401        |   |
| BAR H IN 4 WALLS   | 56 - 402  | 56 - 402   | 56 - 402        | 56 - 402        | 56 - 402        |   |
| BAR J IN EXT. CORNER   | 0         | 0          | 2-417B @ 8 1/2" | 3-420B @ 9 1/2" | 3-422B @ 10"    |   |
| BAR J IN INT. CORNER   | 0         | 0          | 3-418B @ 8 1/2" | 4-420B @ 9 1/2" | 4-423B @ 9 3/4" |   |
| T <sub>1</sub>   | 12"       | 13"        | 14"             | 15"             | 16"             |   |
| T <sub>2</sub>   | 13"       | 14"        | 15"             | 16"             | 17"             |   |
| T <sub>3</sub>   | 12"       | 13"        | 14"             | 15"             | 16"             |   |
| X  | 28'-0"    | 28'-2"     | 28'-4"          | 28'-6"          | 28'-8"          |   |
| Y  | 12'-1"    | 12'-3"     | 12'-5"          | 12'-7"          | 12'-9"          |   |
| YD <sup>3</sup> CLASS AA CONCRETE/FT                           | 3.670     | 3.918      | 4.169           | 4.421           | 4.676           |   |
| LB BAR REINF STEEL/FT  | 373.2     | 442.4      | 531.4           | 659.5           | 716.9           |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL |           |            |                 |                 |                 |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 13.4      | 13.6       | 13.9            | 14.1            | 14.4            |   |
| LB BAR REINF STEEL   | 1783      | 1781       | 1779            | 1777            | 1776            |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL |           |            |                 |                 |                 |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 13.9      | 14.2       | 14.4            | 14.7            | 14.9            |   |
| LB BAR REINF STEEL   | 2186      | 2186       | 2186            | 2187            | 2187            |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL |           |            |                 |                 |                 |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 15.5      | 15.8       | 16.1            | 16.4            | 16.7            |   |
| LB BAR REINF STEEL   | 2311      | 2312       | 2313            | 2314            | 2315            |   |
| PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL |           |            |                 |                 |                 |   |
| YD <sup>3</sup> CLASS AA CONCRETE                              | 19.1      | 19.4       | 19.8            | 20.1            | 20.5            |   |
| LB BAR REINF STEEL   | 2603      | 2606       | 2608            | 2610            | 2613            |   |

|  |  |  |          |   |   |
|--|--|--|----------|---|---|
|  |  |  | DATE     | DEPARTMENT OF TRANSPORTATION<br>STATE OF GEORGIA  |   |
|  |  |  | REVISION | STANDARD<br>REINFORCED CONCRETE<br>TRIPLE BOX CULVERT<br>8'X7', 8'X8', 8'X9' AND 8'X10'<br>NO SCALE |   |
|  |  |  | BY       | DES. YSK.<br>DRW. FGS.<br>TRA.<br>CHK. JWB  | (SUBMITTED) <i>[Signature]</i><br>STATE DESIGN POLICY ENGINEER<br>(APPROVED) <i>[Signature]</i><br>CHIEF ENGINEER |
|  |  |  |          |   | NUMBER<br>2403<br>SHEET 2-1 OF 2  |



**Mallett Consulting, Inc.**  
11 DEVANT ST., SUITE 804 FAYETTEVILLE, GEORGIA 30214  
PHONE: 770-719-3333  
FAX: 770-719-3377

CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

DETAILS - TRIPLE 8X8 CONCRETE BOX CULVERT

|          |         |                |     |       |                  |              |                    |
|----------|---------|----------------|-----|-------|------------------|--------------|--------------------|
|          |         |                |     |       | LAND LOT - 108   | DESIGN MCI   | SCALE AS NOTED     |
|          |         |                |     |       | DISTRICT - 7th   | DRAWN        | DATE 10/21/19      |
|          |         |                |     |       | SECTION -        | JTB, DWJ     |                    |
|          |         |                |     |       | CITY - TYRONE    | CHECK DWJ    | FILE NO. 18101-24C |
|          | 1/15/21 | PER SDP REVIEW | JLP | DWJ   | COUNTY - FAYETTE | APPROVED DWJ | SHEET NO. 7.0      |
| REV. No. | DATE    | DESCRIPTION    | BY  | APP'D | STATE - GEORGIA  |              |                    |





| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA.   |                |           |              |

| MARK | LENGTH   | TYPE |
|------|----------|------|
| 401  | L* - 4"  | I    |
| 402  | L* + 20" | I    |
| 403  | 4'-0"    | I    |
| 404  | 4'-2"    | I    |
| 405  | 4'-4"    | I    |
| 406  | 4'-6"    | I    |
| 407  | 4'-8"    | I    |
| 408  | 5'-0"    | I    |
| 409  | 5'-2"    | I    |
| 410  | 5'-4"    | I    |
| 411  | 5'-6"    | I    |
| 412  | 5'-8"    | I    |
| 413  | 5'-10"   | I    |
| 414  | 6'-0"    | I    |
| 415  | 6'-2"    | I    |
| 416  | 6'-4"    | I    |
| 417  | 6'-5"    | I    |
| 418  | 6'-6"    | I    |
| 419  | 6'-8"    | I    |
| 420  | 6'-10"   | I    |
| 421  | 7'-0"    | I    |
| 422  | 7'-2"    | I    |
| 423  | 7'-4"    | I    |
| 424  | 7'-5"    | I    |
| 425  | 7'-6"    | I    |
| 426  | 7'-8"    | I    |
| 427  | 7'-10"   | I    |
| 428  | 8'-0"    | I    |
| 429  | 8'-2"    | I    |
| 430  | 8'-4"    | I    |
| 431  | 8'-6"    | I    |
| 432  | 8'-7"    | I    |
| 433  | 8'-8"    | I    |
| 434  | 8'-9"    | I    |
| 435  | 8'-10"   | I    |
| 436  | 8'-11"   | I    |
| 437  | 9'-0"    | I    |
| 438  | 9'-1"    | I    |
| 439  | 9'-2"    | I    |
| 440  | 9'-4"    | I    |
| 441  | 9'-6"    | I    |
| 442  | 9'-8"    | I    |
| 443  | 9'-10"   | I    |
| 444  | 10'-0"   | I    |
| 445  | 10'-2"   | I    |
| 446  | 10'-3"   | I    |
| 447  | 10'-4"   | I    |
| 448  | 10'-6"   | I    |
| 449  | 10'-8"   | I    |
| 450  | 10'-10"  | I    |
| 451  | 11'-0"   | I    |
| 452  | 11'-2"   | I    |
| 453  | 11'-4"   | I    |
| 454  | 11'-6"   | I    |
| 455  | 11'-8"   | I    |
| 456  | 11'-10"  | I    |
| 457  | 12'-0"   | I    |
| 458  | 12'-1"   | I    |
| 459  | 12'-2"   | I    |
| 460  | 12'-4"   | I    |
| 461  | 12'-6"   | I    |
| 462  | 12'-7"   | I    |
| 463  | 12'-8"   | I    |
| 464  | 13'-0"   | I    |
| 465  | 13'-3"   | I    |
| 466  | 13'-4"   | I    |
| 467  | 13'-8"   | I    |
| 468  | 13'-10"  | I    |
| 469  | 13'-11"  | I    |
| 470  | 14'-0"   | I    |
| 471  | 14'-4"   | I    |
| 472  | 14'-5"   | I    |
| 473  | 14'-8"   | I    |
| 474  | 15'-0"   | I    |
| 475  | 15'-1"   | I    |
| 476  | 15'-4"   | I    |

| MARK | LENGTH  | TYPE |
|------|---------|------|
| 477  | 15'-5"  | I    |
| 478  | 16'-2"  | I    |
| 479  | 16'-8"  | I    |
| 480  | 17'-2"  | I    |
| 481  | 17'-8"  | I    |
| 482  | 17'-10" | I    |
| 483  | 18'-6"  | I    |
| 484  | 19'-2"  | I    |
| 485  | 19'-6"  | I    |
| 486  | 19'-10" | I    |
| 487  | 20'-0"  | I    |
| 488  | 20'-2"  | I    |
| 489  | 20'-10" | I    |
| 490  | 21'-4"  | I    |
| 491  | 21'-11" | I    |
| 492  | 22'-2"  | I    |
| 493  | 22'-4"  | I    |
| 494  | 22'-6"  | I    |
| 495  | 25'-0"  | I    |
| 496  | 25'-2"  | I    |
| 501  | 4'-0"   | I    |
| 502  | 5'-0"   | I    |
| 503  | 5'-2"   | I    |
| 504  | 5'-4"   | I    |
| 505  | 5'-5"   | I    |
| 506  | 5'-8"   | I    |
| 507  | 6'-0"   | I    |
| 508  | 6'-2"   | I    |
| 509  | 6'-5"   | I    |
| 510  | 6'-6"   | I    |
| 511  | 6'-8"   | I    |
| 512  | 7'-0"   | I    |
| 513  | 7'-2"   | I    |
| 514  | 7'-4"   | I    |
| 515  | 7'-6"   | I    |
| 516  | 7'-7"   | I    |
| 517  | 7'-8"   | I    |
| 518  | 8'-0"   | I    |
| 519  | 8'-2"   | I    |
| 520  | 8'-4"   | I    |
| 521  | 8'-5"   | I    |
| 522  | 8'-6"   | I    |
| 523  | 8'-7"   | I    |
| 524  | 8'-8"   | I    |
| 525  | 8'-10"  | I    |
| 526  | 8'-11"  | I    |
| 527  | 9'-0"   | I    |
| 528  | 9'-2"   | I    |
| 529  | 9'-4"   | I    |
| 530  | 9'-6"   | I    |
| 531  | 9'-8"   | I    |
| 532  | 9'-9"   | I    |
| 533  | 9'-10"  | I    |
| 534  | 10'-0"  | I    |
| 535  | 10'-2"  | I    |
| 536  | 10'-3"  | I    |
| 537  | 10'-4"  | I    |
| 538  | 10'-7"  | I    |
| 539  | 10'-8"  | I    |
| 540  | 10'-9"  | I    |
| 541  | 10'-10" | I    |
| 542  | 10'-11" | I    |
| 543  | 11'-0"  | I    |
| 544  | 11'-1"  | I    |
| 545  | 11'-2"  | I    |
| 546  | 11'-3"  | I    |
| 547  | 11'-4"  | I    |
| 548  | 11'-6"  | I    |
| 549  | 11'-7"  | I    |
| 550  | 11'-8"  | I    |
| 551  | 11'-10" | I    |
| 552  | 11'-11" | I    |
| 553  | 12'-0"  | I    |
| 554  | 12'-1"  | I    |
| 555  | 12'-2"  | I    |

| MARK | LENGTH  | TYPE |
|------|---------|------|
| 556  | 12'-4"  | I    |
| 557  | 12'-6"  | I    |
| 558  | 12'-8"  | I    |
| 559  | 13'-0"  | I    |
| 560  | 13'-2"  | I    |
| 561  | 13'-4"  | I    |
| 562  | 13'-5"  | I    |
| 563  | 13'-6"  | I    |
| 564  | 13'-11" | I    |
| 565  | 14'-0"  | I    |
| 566  | 14'-1"  | I    |
| 567  | 14'-2"  | I    |
| 568  | 14'-4"  | I    |
| 569  | 14'-5"  | I    |
| 570  | 14'-7"  | I    |
| 571  | 14'-8"  | I    |
| 572  | 14'-9"  | I    |
| 573  | 14'-10" | I    |
| 574  | 15'-10" | I    |
| 575  | 16'-6"  | I    |
| 576  | 17'-0"  | I    |
| 577  | 17'-2"  | I    |
| 578  | 17'-4"  | I    |
| 579  | 17'-6"  | I    |
| 580  | 18'-5"  | I    |
| 581  | 18'-11" | I    |
| 582  | 19'-5"  | I    |
| 583  | 19'-6"  | I    |
| 584  | 19'-10" | I    |
| 585  | 20'-8"  | I    |
| 586  | 21'-0"  | I    |
| 587  | 21'-2"  | I    |
| 588  | 21'-6"  | I    |
| 589  | 22'-0"  | I    |
| 590  | 22'-2"  | I    |
| 591  | 22'-4"  | I    |
| 592  | 23'-6"  | I    |
| 593  | 24'-0"  | I    |
| 594  | 24'-4"  | I    |
| 595  | 24'-8"  | I    |
| 596  | 24'-10" | I    |
| 597  | 25'-0"  | I    |
| 601  | 7'-8"   | I    |
| 602  | 8'-4"   | I    |
| 603  | 8'-8"   | I    |
| 604  | 8'-9"   | I    |
| 605  | 9'-11"  | I    |
| 606  | 10'-0"  | I    |
| 607  | 10'-7"  | I    |
| 608  | 11'-0"  | I    |
| 609  | 11'-1"  | I    |
| 610  | 11'-2"  | I    |
| 611  | 12'-2"  | I    |
| 612  | 12'-4"  | I    |
| 613  | 12'-6"  | I    |
| 614  | 12'-7"  | I    |
| 615  | 13'-3"  | I    |
| 616  | 13'-11" | I    |
| 617  | 14'-0"  | I    |
| 618  | 14'-3"  | I    |
| 619  | 15'-6"  | I    |
| 620  | 15'-10" | I    |
| 621  | 16'-0"  | I    |
| 622  | 16'-4"  | I    |
| 623  | 16'-6"  | I    |
| 624  | 16'-10" | I    |
| 625  | 16'-11" | I    |
| 626  | 17'-2"  | I    |
| 627  | 17'-5"  | I    |
| 628  | 17'-8"  | I    |
| 629  | 18'-5"  | I    |
| 630  | 18'-6"  | I    |
| 631  | 19'-0"  | I    |
| 632  | 19'-1"  | I    |
| 633  | 19'-2"  | I    |

| MARK | LENGTH  | TYPE |
|------|---------|------|
| 634  | 19'-4"  | I    |
| 635  | 19'-6"  | I    |
| 636  | 19'-8"  | I    |
| 637  | 19'-10" | I    |
| 638  | 20'-1"  | I    |
| 639  | 20'-4"  | I    |
| 640  | 20'-7"  | I    |
| 641  | 20'-8"  | I    |
| 642  | 20'-10" | I    |
| 643  | 21'-0"  | I    |
| 644  | 21'-4"  | I    |
| 645  | 21'-6"  | I    |
| 646  | 21'-11" | I    |
| 647  | 22'-0"  | I    |
| 648  | 22'-2"  | I    |
| 649  | 22'-10" | I    |
| 650  | 23'-0"  | I    |
| 651  | 23'-4"  | I    |
| 652  | 23'-6"  | I    |
| 653  | 23'-8"  | I    |
| 654  | 23'-10" | I    |
| 655  | 24'-6"  | I    |
| 656  | 24'-8"  | I    |
| 657  | 24'-10" | I    |
| 701  | 7'-4"   | I    |
| 702  | 7'-8"   | I    |
| 703  | 8'-5"   | I    |
| 704  | 9'-2"   | I    |
| 705  | 9'-8"   | I    |
| 706  | 9'-9"   | I    |
| 707  | 10'-8"  | I    |
| 708  | 10'-10" | I    |
| 709  | 10'-11" | I    |
| 710  | 11'-2"  | I    |
| 711  | 11'-8"  | I    |
| 712  | 11'-10" | I    |
| 713  | 12'-4"  | I    |
| 714  | 12'-6"  | I    |
| 715  | 14'-4"  | I    |
| 716  | 15'-0"  | I    |
| 717  | 15'-4"  | I    |
| 718  | 17'-2"  | I    |
| 719  | 18'-0"  | I    |
| 720  | 18'-5"  | I    |
| 721  | 18'-11" | I    |
| 722  | 19'-1"  | I    |
| 723  | 19'-4"  | I    |
| 724  | 20'-4"  | I    |
| 725  | 21'-0"  | I    |
| 726  | 21'-2"  | I    |
| 727  | 21'-6"  | I    |
| 728  | 21'-8"  | I    |
| 729  | 21'-10" | I    |
| 730  | 22'-0"  | I    |
| 731  | 22'-2"  | I    |
| 732  | 22'-6"  | I    |
| 733  | 23'-0"  | I    |
| 734  | 23'-4"  | I    |
| 735  | 23'-8"  | I    |
| 736  | 23'-10" | I    |
| 737  | 24'-0"  | I    |
| 738  | 24'-2"  | I    |
| 739  | 24'-4"  | I    |
| 740  | 24'-6"  | I    |
| 741  | 24'-10" | I    |

| MARK | LENGTH  | TYPE | A      | B      |
|------|---------|------|--------|--------|
| 401A | 4'-2"   | 3    | 1'-7"  | 2'-7"  |
| 402A | 4'-3"   | 3    | 1'-8"  | 2'-7"  |
| 403A | 4'-4"   | 3    | 1'-8   | 2'-8"  |
| 404A | 4'-4"   | 3    | 1'-9"  | 2'-7"  |
| 405A | 4'-5"   | 3    | 1'-9"  | 2'-8"  |
| 406A | 4'-6"   | 3    | 1'-10" | 2'-8"  |
| 407A | 4'-7"   | 3    | 1'-10" | 2'-9"  |
| 408A | 4'-9"   | 3    | 2'-0"  | 2'-9"  |
| 409A | 4'-9"   | 3    | 2'-2"  | 2'-7"  |
| 410A | 5'-0"   | 3    | 2'-2"  | 2'-10" |
| 411A | 5'-4"   | 3    | 1'-9"  | 3'-7"  |
| 412A | 5'-5"   | 3    | 1'-9"  | 3'-8"  |
| 413A | 5'-6"   | 3    | 1'-10" | 3'-8"  |
| 414A | 5'-7"   | 3    | 1'-11" | 3'-8"  |
| 415A | 5'-8"   | 3    | 1'-11" | 3'-9"  |
| 416A | 5'-8"   | 3    | 2'-1"  | 3'-7"  |
| 417A | 5'-9"   | 3    | 2'-6"  | 3'-9"  |
| 418A | 6'-0"   | 3    | 2'-2"  | 3'-10" |
| 419A | 6'-0"   | 3    | 2'-4"  | 3'-8"  |
| 420A | 6'-1"   | 3    | 2'-3"  | 3'-10" |
| 421A | 6'-6"   | 3    | 1'-11" | 4'-7"  |
| 422A | 6'-7"   | 3    | 2'-7"  | 4'-7"  |
| 423A | 6'-7"   | 3    | 2'-7"  | 4'-0"  |
| 424A | 6'-8"   | 3    | 2'-0"  | 4'-8"  |
| 425A | 6'-9"   | 3    | 2'-0"  | 4'-9"  |
| 426A | 6'-9"   | 3    | 2'-1"  | 4'-8"  |
| 427A | 6'-9"   | 3    | 2'-8"  | 4'-1"  |
| 428A | 6'-10"  | 3    | 2'-1"  | 4'-9"  |
| 429A | 6'-10"  | 3    | 2'-3"  | 4'-7"  |
| 430A | 6'-11"  | 3    | 2'-2"  | 4'-9"  |
| 431A | 7'-0"   | 3    | 2'-4"  | 4'-8"  |
| 432A | 7'-0"   | 3    | 2'-5"  | 4'-7"  |
| 433A | 7'-1"   | 3    | 2'-3"  | 4'-10" |
| 434A | 7'-2"   | 3    | 3'-0"  | 4'-2"  |
| 435A | 7'-6"   | 3    | 3'-3"  | 4'-3"  |
| 436A | 7'-7"   | 3    | 2'-7"  | 5'-0"  |
| 437A | 7'-7"   | 3    | 3'-6"  | 4'-1"  |
| 438A | 7'-9"   | 3    | 2'-2"  | 5'-7"  |
| 439A | 7'-10"  | 3    | 2'-2"  | 5'-8"  |
| 440A | 7'-10"  | 3    | 2'-3"  | 5'-7"  |
| 441A | 7'-10"  | 3    | 2'-9"  | 5'-1"  |
| 442A | 8'-0"   | 3    | 2'-3"  | 5'-9"  |
| 443A | 8'-1"   | 3    | 2'-4"  | 5'-9"  |
| 444A | 8'-1"   | 3    | 2'-6"  | 5'-7"  |
| 445A | 8'-2"   | 3    | 3'-0"  | 5'-2"  |
| 446A | 8'-3"   | 3    | 2'-5"  | 5'-10" |
| 447A | 8'-3"   | 3    | 2'-8"  | 5'-7"  |
| 448A | 8'-4"   | 3    | 2'-8"  | 5'-8"  |
| 449A | 8'-6"   | 3    | 3'-3"  | 5'-3"  |
| 450A | 8'-6"   | 3    | 3'-5"  | 5'-1"  |
| 451A | 8'-9"   | 3    | 2'-9"  | 6'-0"  |
| 452A | 8'-11"  | 3    | 2'-10" | 6'-1"  |
| 453A | 9'-1"   | 3    | 2'-5"  | 6'-8"  |
| 454A | 9'-1"   | 3    | 2'-6"  | 6'-7"  |
| 455A | 9'-3"   | 3    | 2'-6"  | 6'-9"  |
| 456A | 9'-3"   | 3    | 3'-1"  | 6'-2"  |
| 457A | 9'-4"   | 3    | 2'-8"  | 6'-8"  |
| 458A | 9'-5"   | 3    | 3'-2"  | 6'-3"  |
| 459A | 9'-5"   | 3    | 3'-4"  | 6'-1"  |
| 460A | 9'-7"   | 3    | 3'-4"  | 6'-3"  |
| 461A | 9'-9"   | 3    | 3'-1"  | 6'-8"  |
| 462A | 9'-10"  | 3    | 2'-10" | 7'-0"  |
| 463A | 9'-10"  | 3    | 3'-3"  | 6'-7"  |
| 464A | 10'-1"  | 3    | 3'-0"  | 7'-1"  |
| 465A | 10'-4"  | 3    | 3'-2"  | 7'-2"  |
| 466A | 10'-6"  | 3    | 2'-11" | 7'-7"  |
| 467A | 10'-7"  | 3    | 2'-10" | 7'-9"  |
| 468A | 10'-7"  | 3    | 2'-11" | 7'-8"  |
| 469A | 10'-8"  | 3    | 3'-5"  | 7'-3"  |
| 470A | 11'-1"  | 3    | 3'-1"  | 8'-0"  |
| 471A | 11'-5"  | 3    | 3'-9"  | 7'-8"  |
| 472A | 11'-7"  | 3    | 3'-5"  | 8'-2"  |
| 473A | 11'-10" | 3    | 3'-7"  | 8'-3"  |
| 474A | 12'-4"  | 3    | 3'-4"  | 9'-0"  |
| 475A | 12'-9"  | 3    | 3'-7"  | 9'-2"  |
| 476A | 13'-0"  | 3    | 3'-9"  | 9'-3"  |

| MARK | LENGTH  | TYPE | A      | B      |
|------|---------|------|--------|--------|
| 477A | 13'-5"  | 3    | 4'-4"  | 9'-1"  |
| 478A | 13'-9"  | 3    | 3'-10" | 9'-11" |
| 479A | 14'-0"  | 3    | 3'-10" | 10'-2" |
| 480A | 14'-3"  | 3    | 4'-0"  | 10'-3" |
| 481A | 16'-10" | 3    | 4'-9"  | 12'-1" |
| 482A | 18'-1"  | 3    | 7'-0"  | 11'-1" |
| 501A | 4'-4"   | 3    | 1'-9"  | 2'-7"  |
| 502A | 4'-8"   | 3    | 2'-1"  | 2'-7"  |
| 503A | 5'-3"   | 3    | 2'-4"  | 2'-11" |
| 504A | 5'-6"   | 3    | 1'-11" | 3'-7"  |
| 505A | 5'-8"   | 3    | 2'-1"  | 3'-7"  |
| 506A | 6'-3"   | 3    | 2'-4"  | 3'-11" |
| 507A | 6'-7"   | 3    | 2'-7"  | 4'-0"  |
| 508A | 6'-9"   | 3    | 2'-2"  | 4'-7"  |
| 509A | 6'-10"  | 3    | 2'-1"  | 3'-11" |
| 510A | 7'-1"   | 3    | 2'-6"  | 4'-7"  |
| 511A | 7'-1"   | 3    | 2'-11" | 4'-2"  |
| 512A | 7'-5"   | 3    | 2'-4"  | 4'-1"  |
| 513A | 7'-4"   | 3    | 3'-3"  | 4'-1"  |
| 514A | 7'-6"   | 3    | 3'-3"  | 4'-3"  |
| 515A | 7'-7"   | 3    | 2'-7"  | 5'-0"  |
| 516A | 7'-7"   | 3    | 3'-3"  | 4'-4"  |
| 517A | 7'-9"   | 3    | 2'-10" | 4'-11" |
| 518A | 7'-11"  | 3    | 3'-6"  | 4'-5"  |
| 519A | 8'-0"   | 3    | 2'-1"  | 4'-8"  |
| 520A | 8'-0"   | 3    | 2'-5"  |        |



| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA.   |                |           |              |

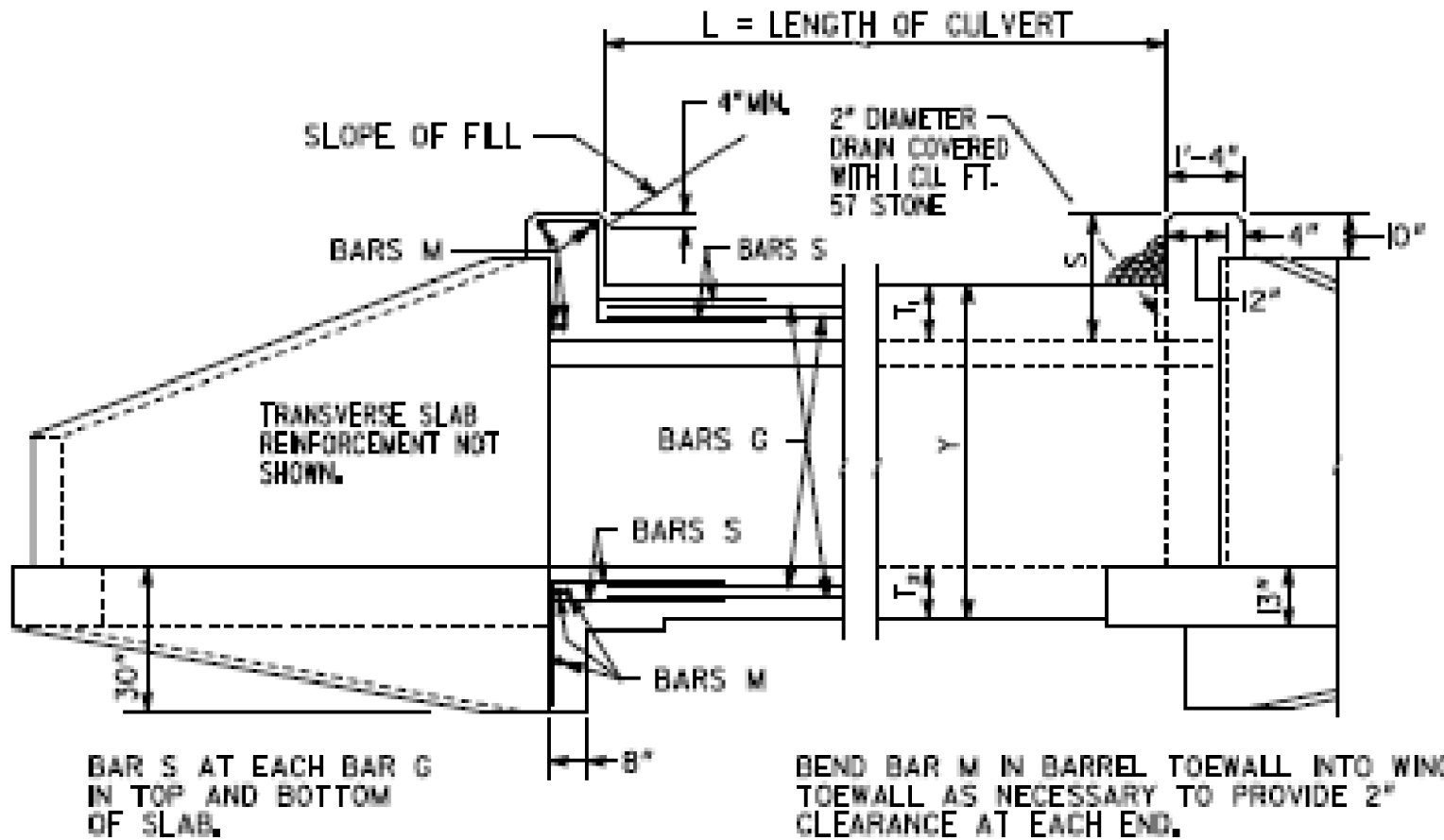
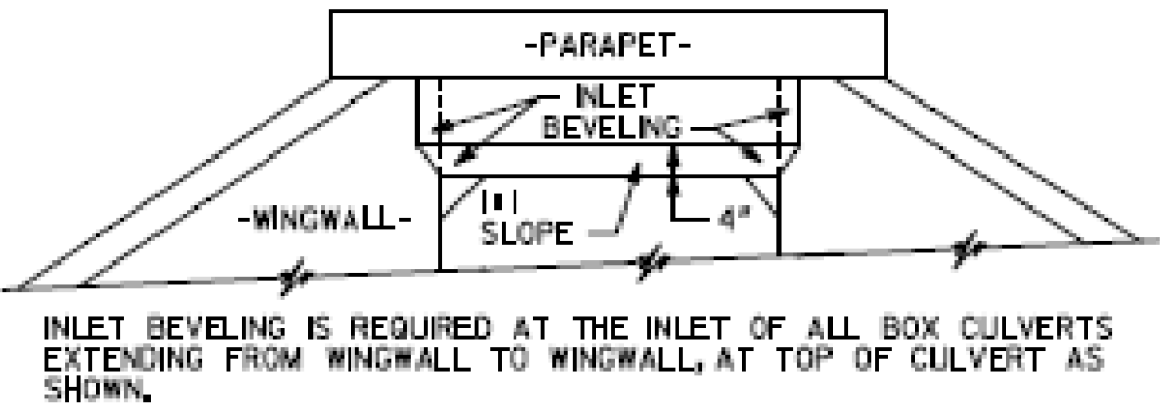
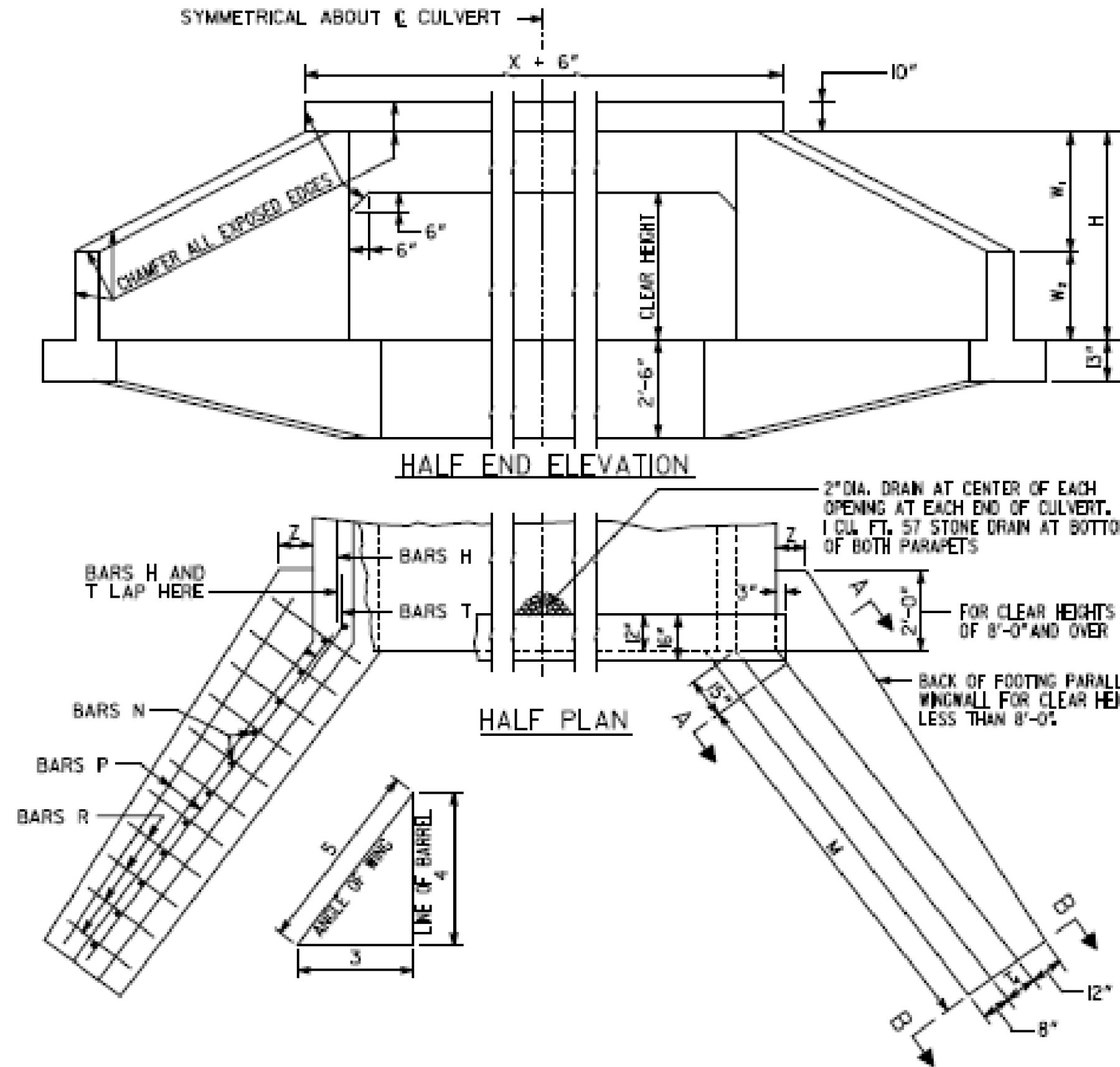
| WINGWALLS, TOEWALLS AND PARAPETS |                          |                             |             |                             |           |         |      |                             |         |                             |          |         |      |                             |                          |         |      |                             |        |     |  |                 |
|----------------------------------|--------------------------|-----------------------------|-------------|-----------------------------|-----------|---------|------|-----------------------------|---------|-----------------------------|----------|---------|------|-----------------------------|--------------------------|---------|------|-----------------------------|--------|-----|--|-----------------|
| CLEAR<br>HEIGHT                  | N BARS AT 1'-0" C. TO C. |                             |             |                             |           |         |      | P BARS AT 1'-0" C. TO C.    |         |                             |          |         |      |                             | R BARS AT 1'-0" C. TO C. |         |      |                             | M BARS |     |  | CLEAR<br>HEIGHT |
|                                  | SIZE                     | NO.<br>(CONSTANT<br>LENGTH) | *<br>LENGTH | NO.<br>(VARIABLE<br>LENGTH) | LENGTH *  |         | SIZE | NO.<br>(CONSTANT<br>LENGTH) | LENGTH  | NO.<br>(VARIABLE<br>LENGTH) | LENGTH   |         | SIZE | NO.<br>(VARIABLE<br>LENGTH) | LENGTH **                |         | SIZE | NO.<br>(CONSTANT<br>LENGTH) | LENGTH |     |  |                 |
|                                  |                          |                             |             |                             | SHORTEST  | LONGEST |      |                             |         |                             | SHORTEST | LONGEST |      |                             | SHORTEST                 | LONGEST |      |                             |        |     |  |                 |
|                                  |                          |                             |             |                             |           |         |      |                             |         |                             |          |         |      |                             |                          |         |      |                             |        |     |  |                 |
| 2'                               | #4                       | 4                           | 5'-4"       | 12                          | 4'-4"     | 5'-2"   | #4   | 20                          | 3'-5"   | 4                           | 1'-2"    | 1'-2"   | #6   | 32                          | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 2'  |  |                 |
| 3'                               | #4                       | 4                           | 6'-7"       | 24                          | 4'-4"     | 6'-5"   | #4   | 20                          | 6'-4"   | 8                           | 1'-9"    | 4'-2"   | #6   | 56                          | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 3'  |  |                 |
| 4'                               | #5                       | 4                           | 8'-2"       | 40                          | 4'-5"     | 8'-2"   | #4   | 20                          | 9'-10"  | 12                          | 2'-11"   | 7'-9"   | #6   | 88                          | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 4'  |  |                 |
| 5'                               | #5                       | 4                           | 9'-1"       | 44                          | 4'-4 1/2" | 9'-0"   | #4   | 20                          | 11'-3"  | 16                          | 2'-11"   | 10'-4"  | #6   | 96                          | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 5'  |  |                 |
| 6'                               | #5                       | 4                           | 10'-2"      | 48                          | 5'-5"     | 9'-11"  | #4   | 24                          | 12'-7"  | 16                          | 2'-11"   | 10'-5"  | #6   | 104                         | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 6'  |  |                 |
| 7'                               | #5                       | 4                           | 11'-2"      | 56                          | 5'-4 1/2" | 11'-2"  | #4   | 24                          | 15'-11" | 20                          | 3'-0"    | 13'-0"  | #6   | 120                         | 3'-6"                    | 3'-6"   | #6   | 4                           | X+2"   | 7'  |  |                 |
| 8'                               | #6                       | 4                           | 12'-4"      | 60                          | 6'-6"     | 12'-3"  | #4   | 28                          | 15'-2"  | 24                          | 3'-2"    | 13'-0"  | #6   | 128                         | 3'-8"                    | 4'-0"   | #6   | 4                           | X+2"   | 8'  |  |                 |
| 9'                               | #6                       | 4                           | 13'-5"      | 64                          | 7'-0"     | 13'-2"  | #4   | 28                          | 16'-6"  | 24                          | 3'-4"    | 15'-7"  | #6   | 136                         | 3'-8"                    | 4'-6"   | #6   | 4                           | X+2"   | 9'  |  |                 |
| 10'                              | #7                       | 4                           | 14'-7"      | 72                          | 7'-8"     | 14'-7"  | #4   | 32                          | 17'-9"  | 24                          | 3'-4"    | 15'-7"  | #6   | 152                         | 3'-8"                    | 5'-0"   | #6   | 4                           | X+2"   | 10' |  |                 |
| 11'                              | #7                       | 4                           | 15'-7"      | 76                          | 8'-2"     | 15'-6"  | #4   | 32                          | 19'-1"  | 28                          | 3'-4"    | 18'-2"  | #6   | 160                         | 3'-8"                    | 5'-6"   | #6   | 4                           | X+2"   | 11' |  |                 |
| 12'                              | #8                       | 4                           | 16'-8"      | 80                          | 8'-9"     | 16'-6"  | #4   | 36                          | 20'-5"  | 28                          | 3'-5"    | 18'-3"  | #6   | 168                         | 3'-8"                    | 6'-0"   | #6   | 4                           | X+2"   | 12' |  |                 |

\* LENGTH INCLUDES VERTICAL LEG, HORIZONTAL LEG AND 180° STANDARD HOOK.  
 \*\* LENGTH INCLUDES 2 STANDARD 180° HOOKS.

X = TOTAL BARREL WIDTH OUT TO OUT (DIMENSION "X" FROM CULVERT SHEET)  
 Y = TOTAL BARREL HEIGHT OUT TO OUT (DIMENSION "Y" FROM CULVERT SHEET)

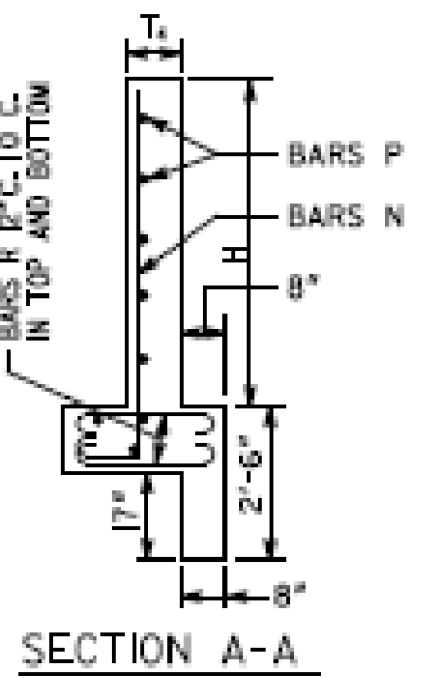
| DIMENSIONS AND QUANTITIES |             |                |                |           |         |                |       |                      |                      |              |  |
|---------------------------|-------------|----------------|----------------|-----------|---------|----------------|-------|----------------------|----------------------|--------------|--|
| CLEAR HEIGHT              | H           | W <sub>1</sub> | W <sub>2</sub> | S         | M       | T <sub>1</sub> | Z     | CY CLASS AA CONCRETE | LBS. BAR REINF STEEL | CLEAR HEIGHT |  |
| 2'                        | 3'-1"       | 1'-1"          | 2'-0"          | 1'-1"     | 2'-8"   | 10"            | -     | 3.3                  | 270                  | 2'           |  |
| 3'                        | 4'-3 1/2"   | 2'-3 1/2"      | 2'-0"          | 2'-1 1/2" | 5'-7"   | 10"            | -     | 6.0                  | 499                  | 3'           |  |
| 4'                        | 5'-9"       | 3'-9"          | 2'-0"          | 2'-7"     | 9'-2"   | 10"            | -     | 9.2                  | 795                  | 4'           |  |
| 5'                        | 6'-9"       | 4'-3"          | 2'-6"          | 2'-7"     | 10'-6"  | 10"            | -     | 12.4                 | 1093                 | 5'           |  |
| 6'                        | 7'-9"       | 4'-9"          | 3'-0"          | 2'-7"     | 11'-10" | 10"            | -     | 15.0                 | 1246                 | 6'           |  |
| 7'                        | 8'-8 1/2"   | 5'-3 1/2"      | 3'-6"          | 2'-7 1/2" | 13'-2"  | 10"            | -     | 17.9                 | 1507                 | 7'           |  |
| 8'                        | 9'-10 1/2"  | 5'-10 1/2"     | 4'-0"          | 2'-8 1/2" | 14'-5"  | 12"            | 1'-0" | 25.3                 | 2070                 | 8'           |  |
| 9'                        | 10'-4 1/4"  | 6'-5"          | 4'-6"          | 2'-9"     | 15'-9"  | 12"            | 1'-6" | 29.9                 | 2345                 | 9'           |  |
| 10'                       | 11'-1 1/4"  | 6'-11"         | 5'-0"          | 2'-9"     | 17'-0"  | 12"            | 2'-0" | 34.7                 | 3277                 | 10'          |  |
| 11'                       | 12'-1 1/4"  | 7'-5"          | 5'-6"          | 2'-9"     | 18'-4"  | 12"            | 2'-6" | 40.0                 | 3676                 | 11'          |  |
| 12'                       | 13'-11 1/2" | 7'-11 1/2"     | 6'-0"          | 2'-9 1/2" | 19'-8"  | 12"            | 3'-0" | 45.8                 | 4788                 | 12'          |  |

QUANTITIES GIVEN INCLUDE WINGWALL, WINGWALL FOOTING, AND WINGWALL TOEWALL FOR BOTH ENDS.

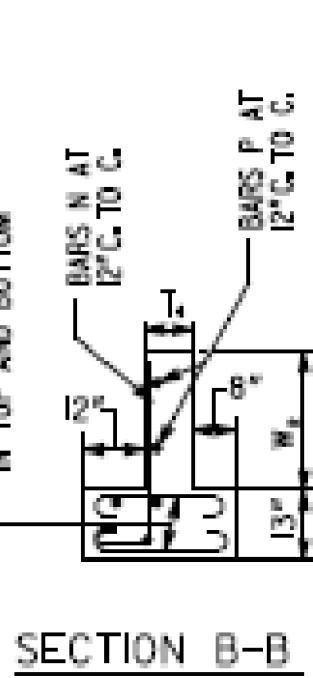


PART SECTION

PART ELEVATION



SECTION A-A



SECTION B-B

GENERAL NOTES

1) SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.

2) MAINTAIN 3" CLEARANCE ON REINFORCEMENT AT FACE OF CONCRETE CAST AGAINST EARTH. MAINTAIN 2" CLEARANCE ON ALL OTHER REINFORCEMENT.

3) CHAMFER ALL EXPOSED EDGES 3/4".

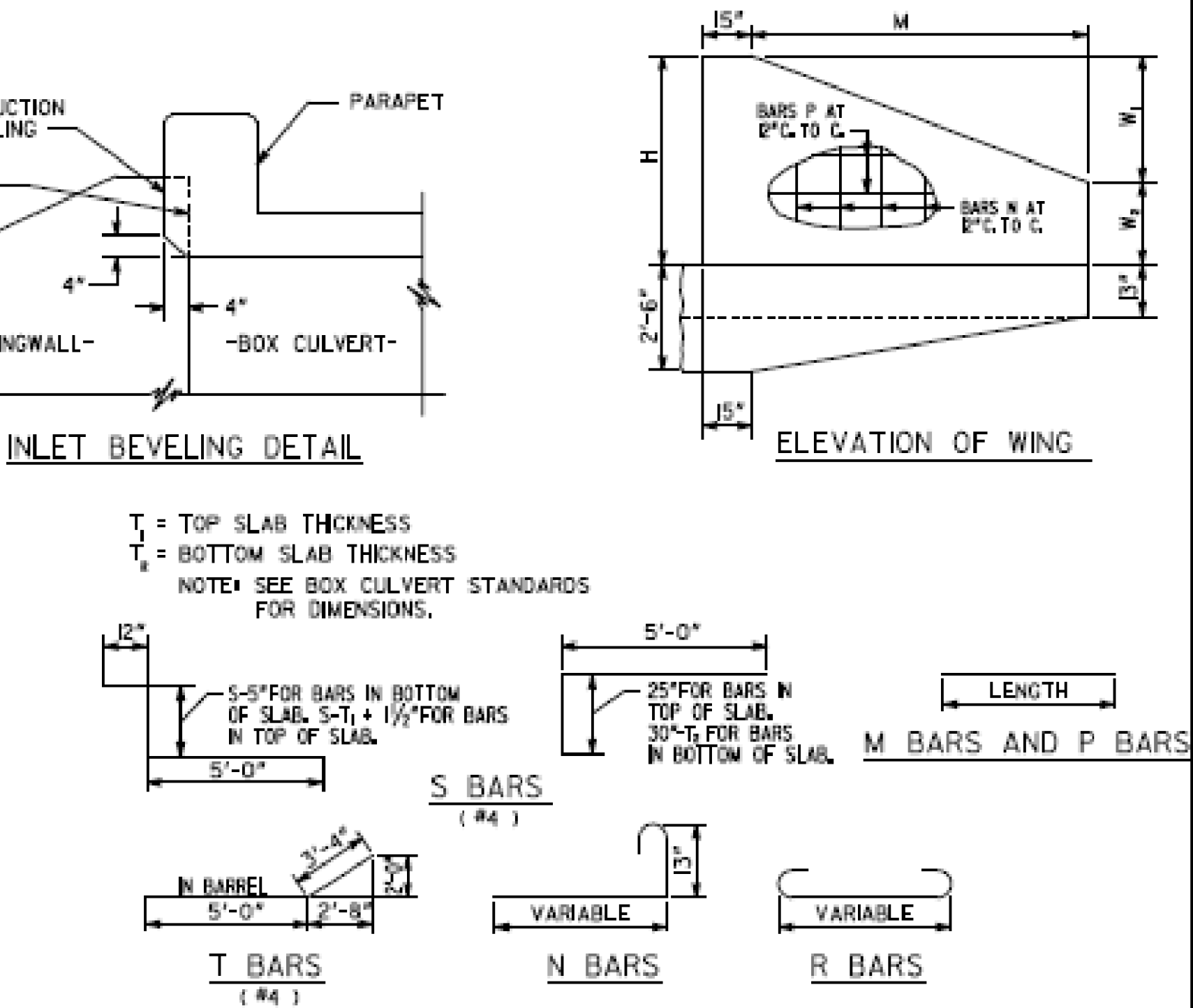
4) CONCRETE APRONS (SEPARATE STANDARD SHEETS) ARE REQUIRED AT ALL OUTLETS. THE ENGINEER MAY ALLOW AN EXCEPTION FOR BED ROCK CONDITIONS. TOEWALLS UNDER PARAPETS MAY BE MODIFIED AT OUTLETS AS SHOWN ON STANDARDS FOR CONCRETE APRONS.

5) PARAPETS AT INLETS SHALL BE CONSTRUCTED WITH A 45/45° BEVEL.

6) CULVERT TO HAVE MINIMUM OF 1'-0" BELOW BOTTOM OF BASE OR CONCRETE PAVEMENT.

DESIGN DATA

SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014  
 LOADING - HL-93



| DEPARTMENT OF TRANSPORTATION<br>STATE OF GEORGIA                                     |      |                                     |              |
|--|------|-------------------------------------|--------------|
| STANDARD   |      |                                     |              |
| REINFORCED CONCRETE WINGWALLS,<br>TOEWALLS AND PARAPETS<br>FOR CONCRETE BOX CULVERTS |      |                                     |              |
| NO SCALE   |      | SEPTEMBER 2017                      |              |
| DES. JEL   | DATE | BY                                  | REVISION     |
| DRW. JEL   |      |                                     |              |
| CHK. YSE   |      |                                     |              |
| SUBMITTED  |      | STATE DESIGN POLICY ENGINEER        |              |
| APPROVED   |      | MARGARET B. RANKS<br>CHIEF ENGINEER |              |
| NUMBER   |      |                                     | SHEET 1 OF 1 |
| 2404   |      |                                     |              |

**Mallett Consulting, Inc.**  
 101 DEVANT ST., SUITE 804 - FAYETTEVILLE, GEORGIA 30214  
 PHONE: 770-719-3333  
 FAX: 770-719-3377

CATEGORY I UPGRADES TO  
 PENDLETON LAKE DAM FOR  
 TOWN OF TYRONE, GEORGIA

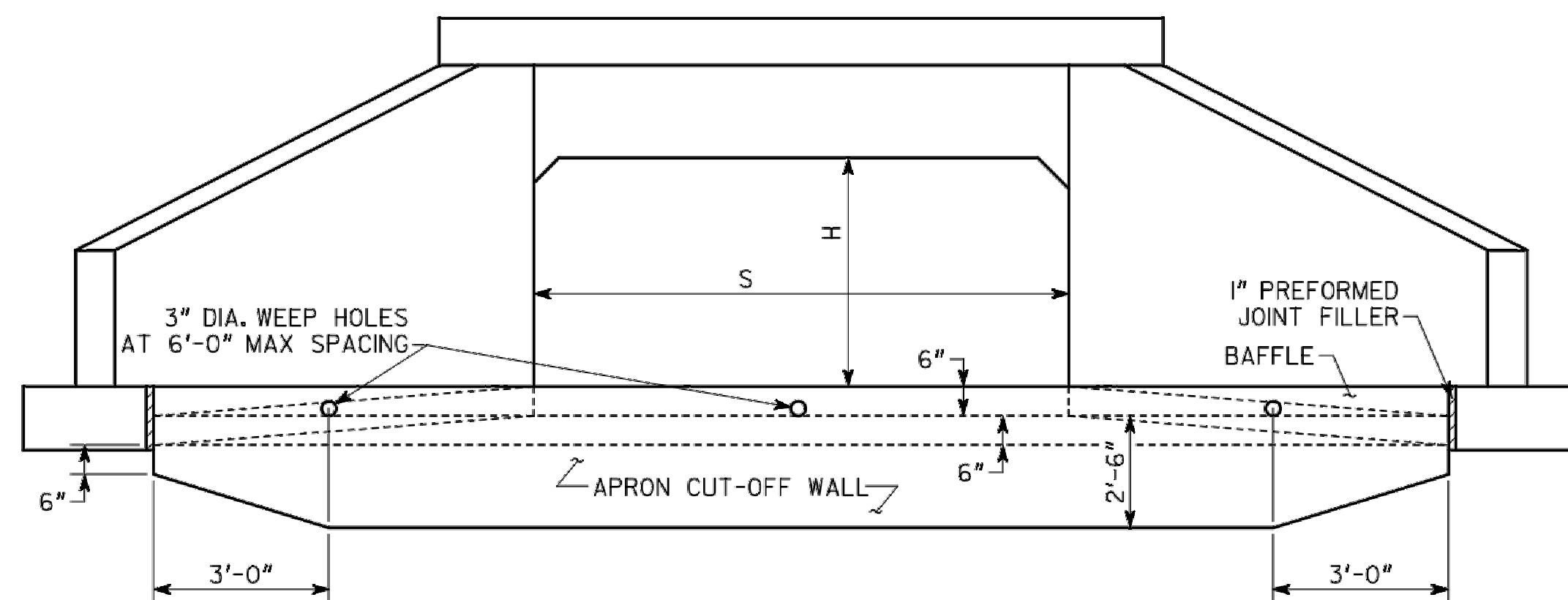
DETAILS - TRIPLE 8X8 CONCRETE BOX CULVERT

|                  |          |          |           |           |
|------------------|----------|----------|-----------|-----------|
| LAND LOT - 108   | DESIGN   | MCI      | SCALE     | AS NOTED  |
| DISTRICT - 7th   | DRAWN    | JTB, DWJ | DATE      | 10/21/19  |
| SECTION -        | CHECK    | DWJ      | FILE NO.  | 18101-24C |
| CITY - TYRONE    | APPROVED | DWJ      | SHEET NO. | 9.0       |
| COUNTY - FAYETTE |          |          |           |           |
| STATE - GEORGIA  |          |          |           |           |



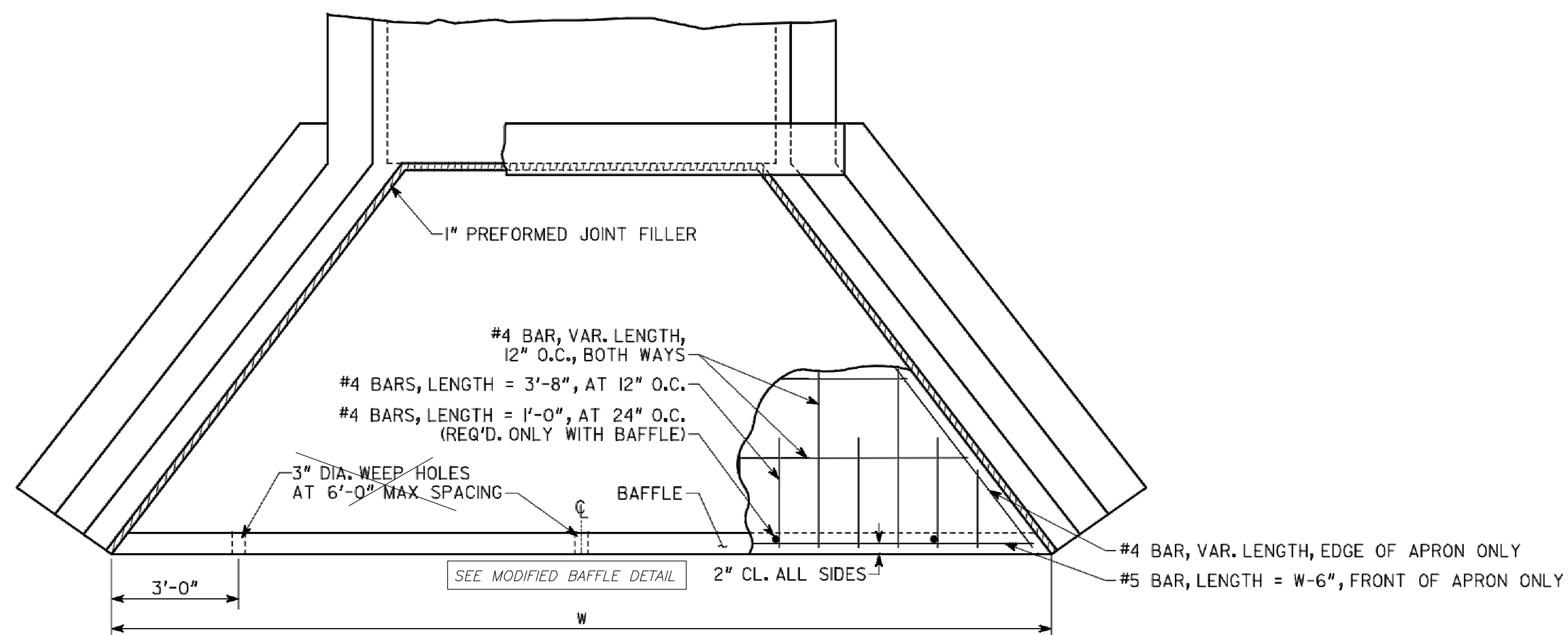


|       |                |           |              |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA.   |                |           |              |

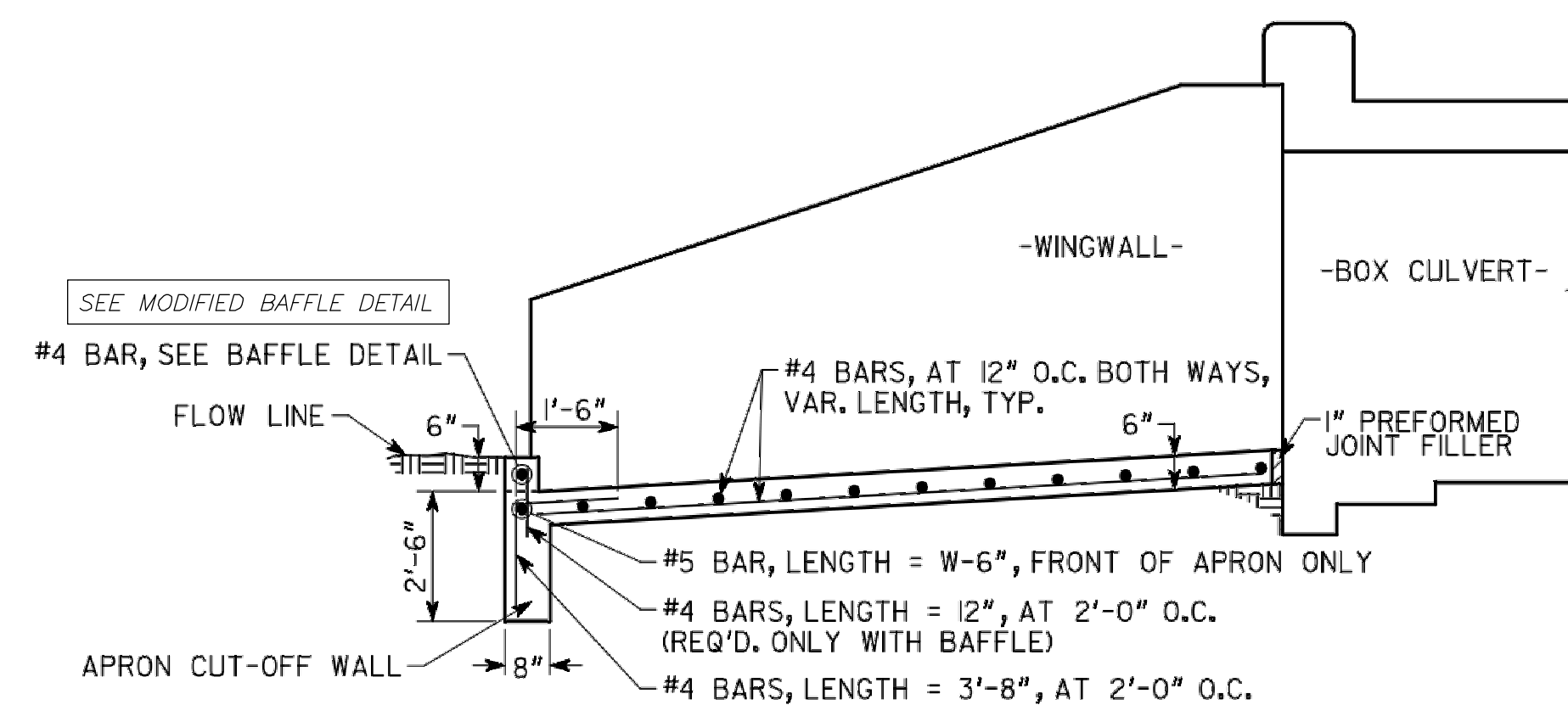
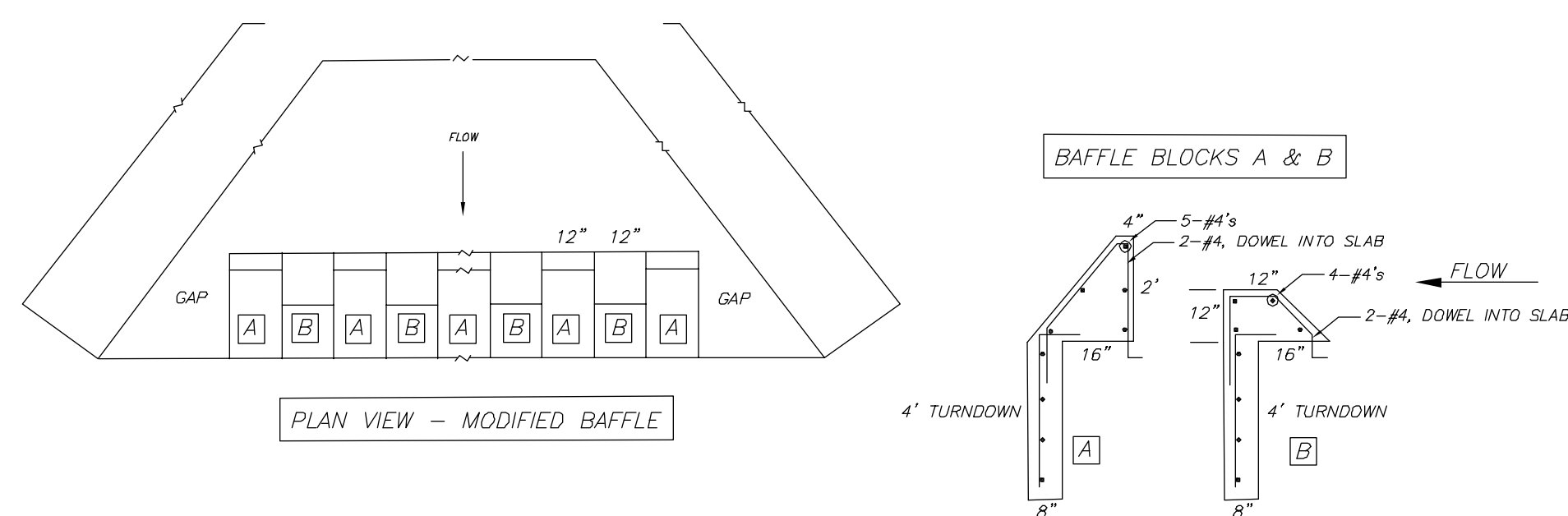


FRONT VIEW OF APRON

S = CLEAR SPAN OF BOX CULVERT  
H = CLEAR HEIGHT (RISE) OF BOX CULVERT

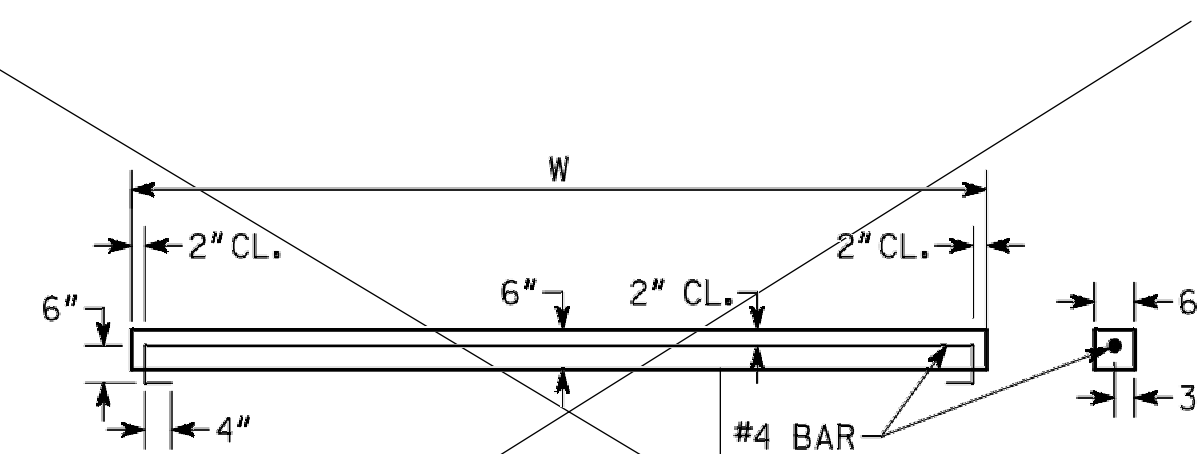


PLAN VIEW OF APRON



ELEVATION VIEW OF APRON

NOTE: 2" CL MIN. ON ALL SIDES UNLESS OTHERWISE NOTED.  
SEE BOX CULVERT STANDARDS FOR DETAILS NOT SHOWN.  
END OF EMBEDDED CULVERT APRON (NOT SHOWN) HAS THE  
SAME MINIMUM BACKFILL AS BARREL.



~~BAFFLE DETAIL~~

NOTE: CONSTRUCT BAFFLES FROM CLASS AA CONCRETE, MAY BE PRECAST OR CAST IN PLACE.

USE BAFFLES ON APRONS AT OUTLETS OF PIPES AND BOX CULVERTS AND IN PAVED DITCHES OR ELSEWHERE AT LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

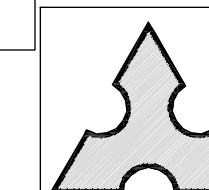
GENERAL NOTES

- 1) SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
- 2) CONCRETE APRONS AND BAFFLES ARE REQUIRED AT ALL OUTLETS OF ALL BOX CULVERT DRAINS. APRON IS NOT TO BE OMITTED AT OUTLETS UNLESS THE ENGINEER DETERMINES THAT BEDROCK WILL PREVENT EROSION AND MAKE THE APRON DIFFICULT TO CONSTRUCT. APRONS (WITHOUT BAFFLES) ARE USED AT INLETS ONLY IF PLANS SPECIFY.
- 3) DETAILS HERESHOWN APPLY TO LRFD STANDARD BOX CULVERTS.
- 4) ALL CONCRETE SHALL BE CLASS "AA" CONCRETE.
5. SEE SEPARATE STANDARDS FOR DETAILS OF BOX CULVERTS, WINGWALLS, PARAPETS, ETC.

### DESIGN DATA

SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014  
LOADING - HL- 93.

|  |  |  |          |  |                                       |
|--|--|--|----------|--|---------------------------------------|
|  |  |  | DATE     | DEPARTMENT OF TRANSPORTATION   |                                       |
|  |  |  |          | STATE OF GEORGIA   |                                       |
|  |  |  |          | STANDARD   |                                       |
|  |  |  | REVISION | CONCRETE BOX CULVERT APRONS<br>AND BAFFLES DETAIL  |                                       |
|  |  |  |          | NO SCALE   | SEPTEMBER 201                         |
|  |  |  | BY       | DES. <u>WEL</u><br>DRW. <u>EJC</u><br>TRA. <u>CHK. EJC</u><br>(SUBMITTED) <u>B. A. S.</u><br>(APPROVED) <u>Margaret B. Puelo</u><br>CHIEF ENGINEER | NUMBER<br><b>2406</b><br>SHEET 1 OF 2 |

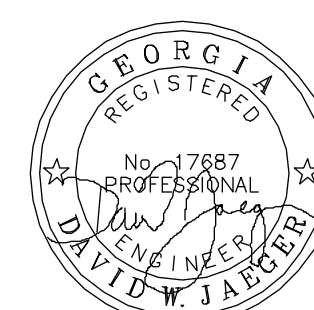


**Mallett Consulting, Inc.**  
101 DEVANT ST., SUITE 804 FAYETTEVILLE, GEORGIA 30214  
PHONE: 770-719-3333  
FAX: 770-719-3377

CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

DETAILS - TRIPLE 8X8 CONCRETE BOX CULVERT

|  |  |  |  |  |                  |          |           |
|--|--|--|--|--|------------------|----------|-----------|
|  |  |  |  |  | LAND LOT - 108   | DESIGN   | SCALE     |
|  |  |  |  |  | DISTRICT - 7th   | MCI      | AS NOTED  |
|  |  |  |  |  | SECTION -        | DRAWN    | DATE      |
|  |  |  |  |  | CITY - TYRONE    | JTB, DWJ | 10/21/19  |
|  |  |  |  |  | COUNTY - FAYETTE | CHECK    | FILE NO.  |
|  |  |  |  |  | STATE - GEORGIA  | DWJ      | 18101-24C |
|  |  |  |  |  |                  | APPROVED | SHEET NO. |
|  |  |  |  |  |                  | DWJ      | 10.       |



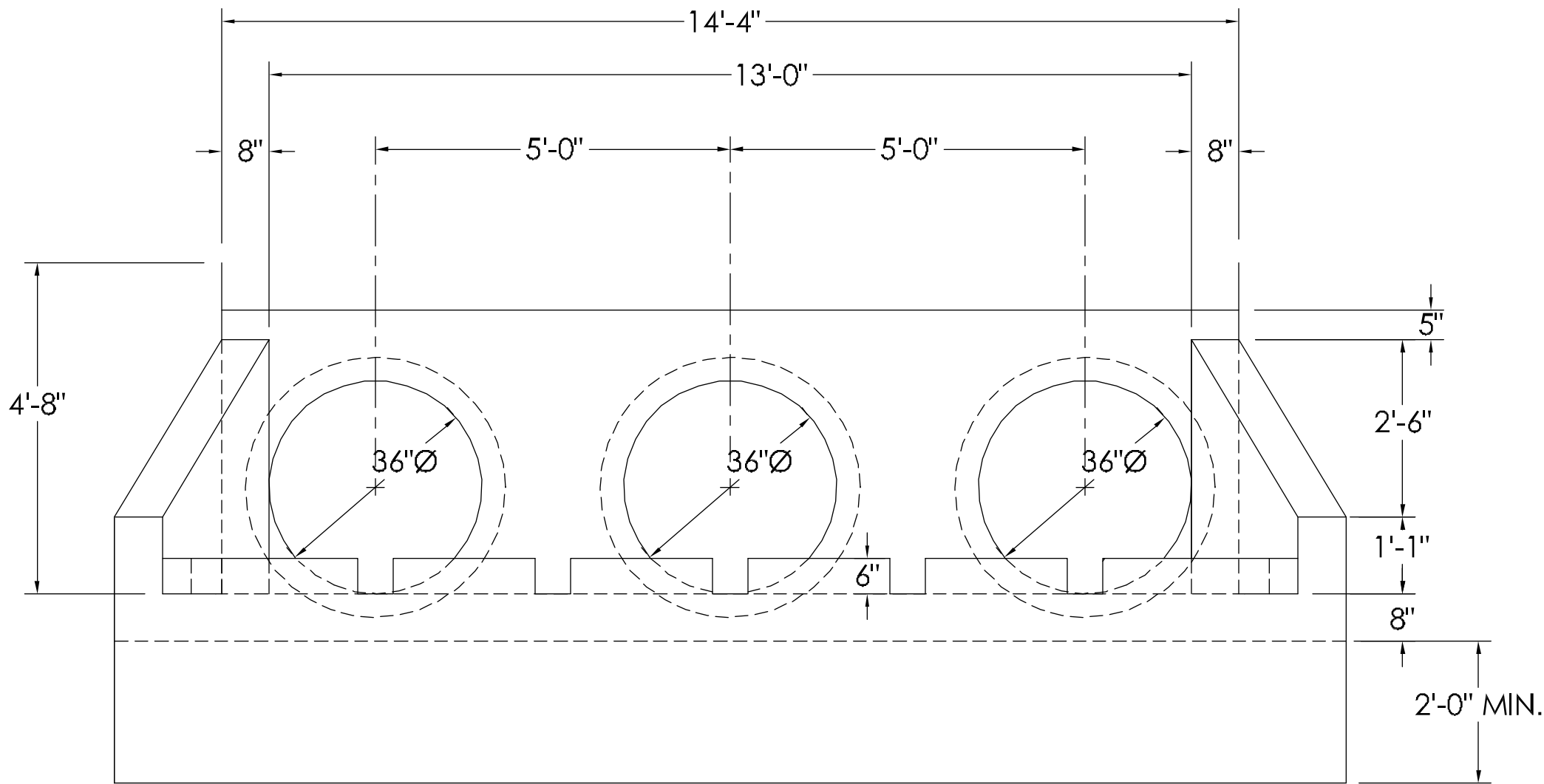


|       |                |           |              |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA.   |                |           |              |

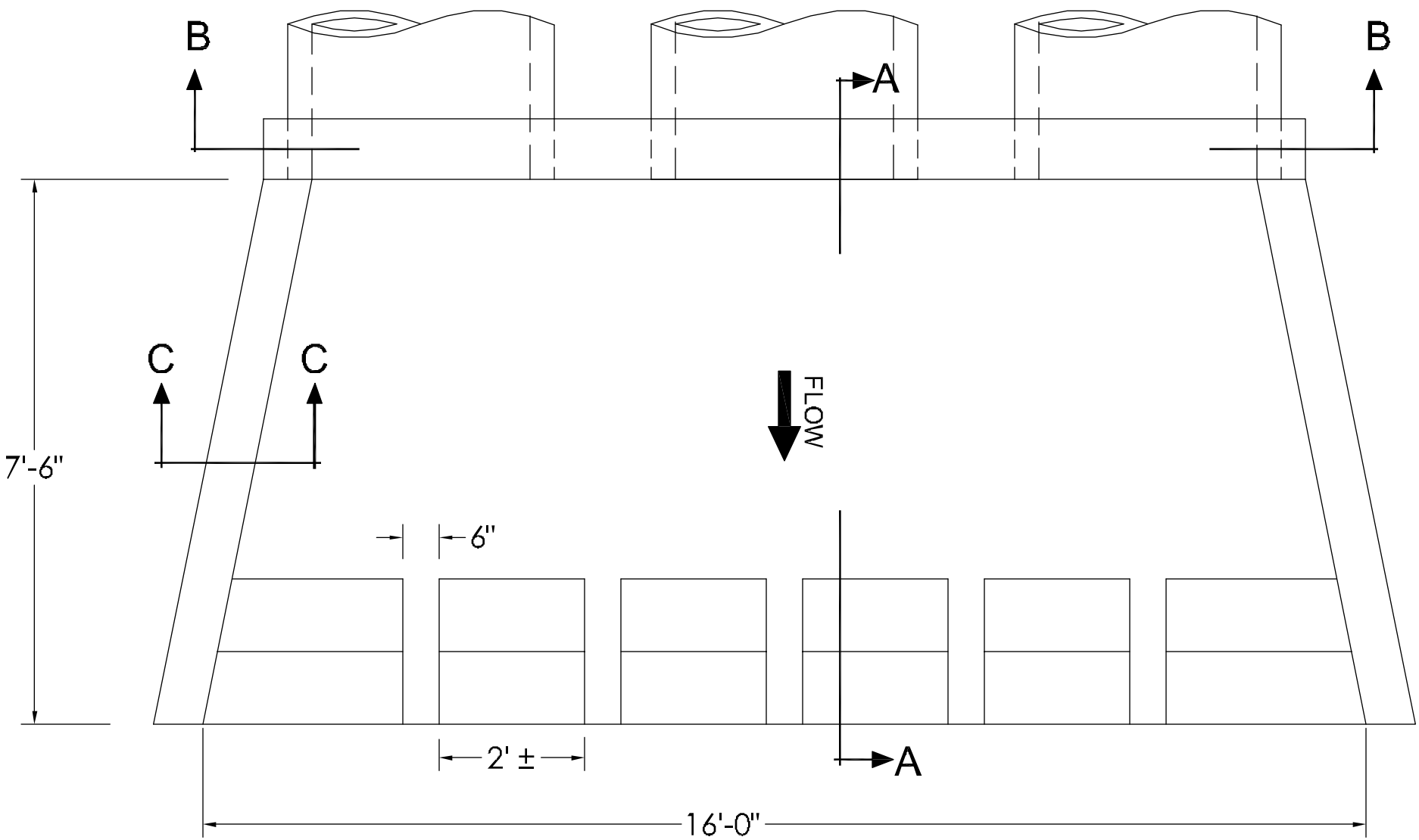
| S   |    | H      |      | APRON QUANTITIES FOR CONCRETE BOX CULVERTS |               |            |         |               |            |         |               |            |         |               |            |            |               |            |         |               |            |         |               |            |         |               |            |            |               |            |         |               |            |         |               |            |         |               |            |            |               |            |         |               |            |  |  |            |  |  |  | H |  | S |  |
|-----|----|--------|------|--|---------------|------------|---------|---------------|------------|---------|---------------|------------|---------|---------------|------------|------------|---------------|------------|---------|---------------|------------|---------|---------------|------------|---------|---------------|------------|------------|---------------|------------|---------|---------------|------------|---------|---------------|------------|---------|---------------|------------|------------|---------------|------------|---------|---------------|------------|--|--|------------|--|--|--|---|--|---|--|
|     |    |        |      | SINGLE 90°                                 |               |            |         | SINGLE 75°    |            |         |               | SINGLE 60° |         |               |            | SINGLE 45° |               |            |         | DOUBLE 90°    |            |         |               | DOUBLE 75° |         |               |            | DOUBLE 60° |               |            |         | DOUBLE 45°    |            |         |               | TRIPLE 90° |         |               |            | TRIPLE 75° |               |            |         | TRIPLE 60°    |            |  |  | TRIPLE 45° |  |  |  |   |  |   |  |
|     |    |        |      | W (FT.)                                    | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.)    | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.)    | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL | W (FT.)    | CU.YDS. CONC. | LBS. STEEL | W (FT.) | CU.YDS. CONC. | LBS. STEEL |  |  |            |  |  |  |   |  |   |  |
| 4'  | 3' | 11.33  | 1.27 | 108  | 12.831        | 1.55       | 127     | 12.831        | 1.55       | 127     | 16.715        | 1.95       | 157     | 16.433        | 2.11       | 170        | 17.825        | 2.45       | 193     | 17.825        | 2.45       | 193     | 21.715        | 2.83       | 222     | 21.333        | 2.95       | 232        | 22.821        | 3.35       | 260     | 22.821        | 3.35       | 260     | 26.714        | 3.71       | 287     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 15.433 | 2.23 | 178  | 17.279        | 2.58       | 204     | 17.279        | 2.58       | 204     | 23.174        | 3.35       | 262     | 20.433        | 3.33       | 259        | 22.275        | 3.75       | 290     | 22.275        | 3.75       | 290     | 28.174        | 4.49       | 345     | 25.433        | 4.43       | 339        | 27.273        | 4.91       | 375     | 27.273        | 4.91       | 375     | 33.174        | 5.63       | 429     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 17.033 | 2.65 | 209  | 20.324        | 3.44       | 267     | 20.324        | 3.44       | 267     | 26.244        | 4.16       | 320     | 22.033        | 3.85       | 297        | 25.322        | 4.78       | 365     | 25.322        | 4.78       | 365     | 31.243        | 5.42       | 413     | 27.033        | 5.05       | 385        | 30.321        | 6.12       | 463     | 30.321        | 6.12       | 463     | 36.243        | 6.69       | 506     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 18.633 | 3.09 | 240  | 22.109        | 3.99       | 307     | 23.553        | 4.45       | 340     | 29.386        | 5.06       | 385     | 23.633        | 4.39       | 335        | 27.107        | 5.44       | 413     | 28.551        | 5.98       | 452     | 34.386        | 6.45       | 488     | 28.633        | 5.69       | 431        | 32.106        | 6.88       | 519     | 33.550        | 7.52       | 563     | 39.386        | 7.85       | 589     | 6'            | 7'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 5'  | 3' | 12.133 | 1.44 | 121  | 13.830        | 1.73       | 140     | 13.830        | 1.73       | 140     | 17.715        | 2.13       | 170     | 18.133        | 2.44       | 195        | 19.823        | 2.81       | 219     | 19.823        | 2.81       | 219     | 23.714        | 3.18       | 248     | 24.133        | 3.45       | 269        | 25.820        | 3.89       | 299     | 25.820        | 3.89       | 299     | 29.714        | 4.24       | 326     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 16.433 | 2.45 | 194  | 18.278        | 2.82       | 222     | 18.278        | 2.82       | 222     | 24.174        | 3.58       | 279     | 22.433        | 3.77       | 291        | 24.274        | 4.21       | 324     | 24.274        | 4.21       | 324     | 30.174        | 4.95       | 379     | 28.433        | 5.10       | 388        | 30.272        | 5.61       | 426     | 30.272        | 5.61       | 426     | 36.174        | 6.32       | 479     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 18.083 | 2.89 | 227  | 21.324        | 3.71       | 286     | 21.324        | 3.71       | 286     | 27.244        | 4.41       | 339     | 24.033        | 4.33       | 333        | 27.322        | 5.32       | 404     | 27.322        | 5.32       | 404     | 33.243        | 5.93       | 450     | 30.033        | 5.77       | 438        | 33.320        | 6.93       | 522     | 33.320        | 6.93       | 522     | 39.243        | 7.45       | 561     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 19.633 | 3.35 | 259  | 23.108        | 4.28       | 328     | 24.553        | 4.76       | 362     | 30.386        | 5.33       | 406     | 25.633        | 4.91       | 373        | 29.107        | 6.01       | 455     | 30.551        | 6.60       | 497     | 36.386        | 7.01       | 528     | 31.633        | 6.47       | 487        | 35.105        | 7.75       | 582     | 36.549        | 8.43       | 631     | 42.386        | 8.68       | 651     | 6'            | 7'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 6'  | 3' | 12.233 | 1.45 | 121  | 13.930        | 1.74       | 141     | 13.930        | 1.74       | 141     | 17.815        | 2.14       | 171     | 18.233        | 2.45       | 196        | 19.923        | 2.82       | 220     | 19.923        | 2.82       | 220     | 23.814        | 3.19       | 249     | 24.233        | 3.46       | 270        | 25.920        | 3.90       | 300     | 25.920        | 3.90       | 300     | 29.814        | 4.25       | 327     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 17.133 | 2.67 | 210  | 19.278        | 3.05       | 238     | 19.278        | 3.05       | 238     | 25.174        | 3.81       | 295     | 24.433        | 4.21       | 324        | 26.273        | 4.68       | 358     | 26.273        | 4.68       | 358     | 32.174        | 5.41       | 412     | 31.433        | 5.76       | 436        | 33.271        | 6.30       | 477     | 33.271        | 6.30       | 477     | 39.174        | 7.00       | 529     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 19.033 | 3.13 | 244  | 22.323        | 3.98       | 306     | 22.323        | 3.98       | 306     | 28.244        | 4.66       | 358     | 26.033        | 4.81       | 368        | 29.321        | 5.86       | 443     | 29.321        | 5.86       | 443     | 35.243        | 6.44       | 487     | 33.033        | 6.49       | 491        | 36.320        | 7.74       | 581     | 36.320        | 7.74       | 581     | 42.243        | 8.21       | 617     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 20.633 | 3.61 | 278  | 24.108        | 4.57       | 350     | 25.552        | 5.06       | 384     | 31.386        | 5.61       | 426     | 27.633        | 5.43       | 411        | 31.006        | 6.59       | 498     | 32.550        | 7.21       | 541     | 38.386        | 7.57       | 569     | 34.633        | 7.25       | 545        | 38.105        | 8.62       | 646     | 39.549        | 9.35       | 698     | 42.738        | 11.06      | 822     | 48.652        | 10.86      | 809        | 7'            | 8'         |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 7'  | 3' | 12.233 | 1.43 | 121  | 13.755        | 1.72       | 140     | 13.755        | 1.72       | 140     | 17.633        | 2.12       | 170     | 18.133        | 2.44       | 195        | 19.823        | 2.81       | 219     | 19.823        | 2.81       | 219     | 23.714        | 3.18       | 248     | 24.133        | 3.45       | 269        | 25.820        | 3.89       | 299     | 25.820        | 3.89       | 299     | 29.714        | 4.24       | 326     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 18.233 | 4.38 | 334  | 26.388        | 5.41       | 411     | 29.988        | 6.80       | 510     | 36.753        | 7.37       | 553     | 28.833        | 6.17       | 465        | 32.396        | 7.38       | 554     | 35.986        | 9.02       | 671     | 42.753        | 9.34       | 697     | 34.833        | 7.97       | 596        | 38.395        | 9.35       | 698     | 41.985        | 11.24      | 833     | 48.753        | 11.31      | 841     | 8'            | 9'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 19.333 | 4.83 | 366  | 27.388        | 5.94       | 443     | 31.388        | 7.45       | 513     | 38.753        | 7.97       | 555     | 29.333        | 6.68       | 476        | 33.396        | 7.89       | 567     | 36.753        | 9.38       | 702     | 43.753        | 9.66       | 728     | 35.833        | 8.27       | 627        | 39.395        | 9.66       | 728     | 42.395        | 11.24      | 833     | 48.753        | 11.31      | 841     | 9'            | 10'        |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 20.833 | 5.35 | 398  | 28.388        | 6.45       | 471     | 32.388        | 7.96       | 516     | 39.753        | 7.96       | 556     | 30.333        | 6.68       | 476        | 33.396        | 7.89       | 567     | 36.753        | 9.38       | 702     | 43.753        | 9.66       | 728     | 35.833        | 8.27       | 627        | 39.395        | 9.66       | 728     | 42.395        | 11.24      | 833     | 48.753        | 11.31      | 841     | 10'           | 11'        |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 8'  | 3' | 12.333 | 1.44 | 121  | 13.830        | 1.73       | 140     | 13.830        | 1.73       | 140     | 17.715        | 2.13       | 170     | 18.133        | 2.44       | 195        | 19.823        | 2.81       | 219     | 19.823        | 2.81       | 219     | 23.714        | 3.18       | 248     | 24.133        | 3.45       | 269        | 25.820        | 3.89       | 299     | 25.820        | 3.89       | 299     | 29.714        | 4.24       | 326     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 16.533 | 2.46 | 196  | 18.378        | 2.85       | 225     | 18.378        | 2.85       | 225     | 24.474        | 3.61       | 282     | 22.733        | 3.80       | 294        | 24.574        | 4.24       | 327     | 24.574        | 4.24       | 327     | 30.474        | 4.98       | 383     | 28.733        | 5.14       | 392        | 30.572        | 5.65       | 430     | 30.572        | 5.65       | 430     | 36.574        | 6.36       | 483     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 18.183 | 2.90 | 230  | 21.624        | 3.74       | 289     | 21.624        | 3.74       | 289     | 27.644        | 4.45       | 343     | 24.433        | 4.37       | 337        | 27.722        | 5.36       | 409     | 27.722        | 5.36       | 409     | 33.743        | 5.98       | 455     | 30.533        | 5.82       | 443        | 33.820        | 6.98       | 527     | 33.820        | 6.98       | 527     | 39.743        | 7.50       | 566     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 19.183 | 3.30 | 260  | 23.308        | 4.30       | 330     | 24.853        | 4.80       | 366     | 30.786        | 5.37       | 410     | 26.133        | 4.96       | 378        | 29.607        | 6.06       | 460     | 30.901        | 6.65       | 502     | 36.886        | 7.06       | 533     | 32.133        | 6.52       | 492        | 35.605        | 7.80       | 587     | 36.549        | 8.48       | 636     | 42.886        | 8.73       | 656     | 6'            | 7'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 9'  | 3' | 12.433 | 1.45 | 122  | 13.930        | 1.74       | 141     | 13.930        | 1.74       | 141     | 17.815        | 2.14       | 171     | 18.233        | 2.45       | 196        | 19.923        | 2.82       | 220     | 19.923        | 2.82       | 220     | 23.814        | 3.19       | 249     | 24.233        | 3.46       | 270        | 25.920        | 3.90       | 300     | 25.920        | 3.90       | 300     | 29.814        | 4.25       | 327     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 16.633 | 2.47 | 197  | 18.478        | 2.86       | 222     | 18.478        | 2.86       | 222     | 24.574        | 3.62       | 283     | 22.833        | 3.81       | 295        | 24.674        | 4.25       | 328     | 24.674        | 4.25       | 328     | 30.574        | 4.99       | 384     | 28.933        | 5.15       | 393        | 30.672        | 5.66       | 431     | 30.672        | 5.66       | 431     | 36.674        | 6.37       | 484     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 18.383 | 2.91 | 231  | 21.724        | 3.75       | 290     | 21.724        | 3.75       | 290     | 27.744        | 4.46       | 344     | 24.533        | 4.38       | 339        | 27.822        | 5.37       | 410     | 27.822        | 5.37       | 410     | 33.743        | 5.98       | 455     | 30.533        | 5.82       | 443        | 33.820        | 6.98       | 527     | 33.820        | 6.98       | 527     | 39.743        | 7.50       | 566     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 19.383 | 3.31 | 261  | 23.408        | 4.31       | 331     | 24.953        | 4.81       | 367     | 30.886        | 5.38       | 411     | 26.133        | 4.96       | 378        | 29.607        | 6.06       | 460     | 30.901        | 6.65       | 502     | 36.886        | 7.06       | 533     | 32.133        | 6.52       | 492        | 35.605        | 7.80       | 587     | 36.549        | 8.48       | 636     | 42.886        | 8.73       | 656     | 6'            | 7'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
| 10' | 3' | 12.533 | 1.46 | 123  | 14.030        | 1.75       | 142     | 14.030        | 1.75       | 142     | 17.915        | 2.15       | 172     | 18.333        | 2.46       | 197        | 20.023        | 2.83       | 221     | 20.023        | 2.83       | 221     | 24.014        | 3.20       | 250     | 24.433        | 3.47       | 271        | 26.020        | 3.91       | 301     | 26.020        | 3.91       | 301     | 30.014        | 4.26       | 328     | 3'            | 4'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 4' | 16.733 | 2.48 | 198  | 18.578        | 2.87       | 223     | 18.578        | 2.87       | 223     | 24.674        | 3.63       | 284     | 22.933        | 3.82       | 296        | 24.774        | 4.26       | 329     | 24.774        | 4.26       | 329     | 30.574        | 4.99       | 385     | 28.933        | 5.16       | 394        | 30.672        | 5.66       | 432     | 30.672        | 5.66       | 432     | 36.674        | 6.38       | 485     | 4'            | 5'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 5' | 18.583 | 2.92 | 232  | 21.824        | 3.76       | 291     | 21.824        | 3.76       | 291     | 27.844        | 4.47       | 345     | 24.633        | 4.39       | 339        | 27.922        | 5.38       | 410     | 27.922        | 5.38       | 410     | 33.743        | 5.98       | 455     | 30.533        | 5.82       | 443        | 33.820        | 6.98       | 527     | 33.820        | 6.98       | 527     | 39.743        | 7.50       | 566     | 5'            | 6'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |
|     | 6' | 19.583 | 3.32 | 262  | 23.508        | 4.32       | 332     | 25.053        | 4.81       | 367     | 30.886        | 5.38       | 411     | 26.133        | 4.96       | 378        | 29.607        | 6.06       | 460     | 30.901        | 6.65       | 502     | 36.886        | 7.06       | 533     | 32.133        | 6.52       | 492        | 35.605        | 7.80       | 587     | 36.549        | 8.48       | 636     | 42.886        | 8.73       | 656     | 6'            | 7'         |            |               |            |         |               |            |  |  |            |  |  |  |   |  |   |  |



OUTLET HEADWALL

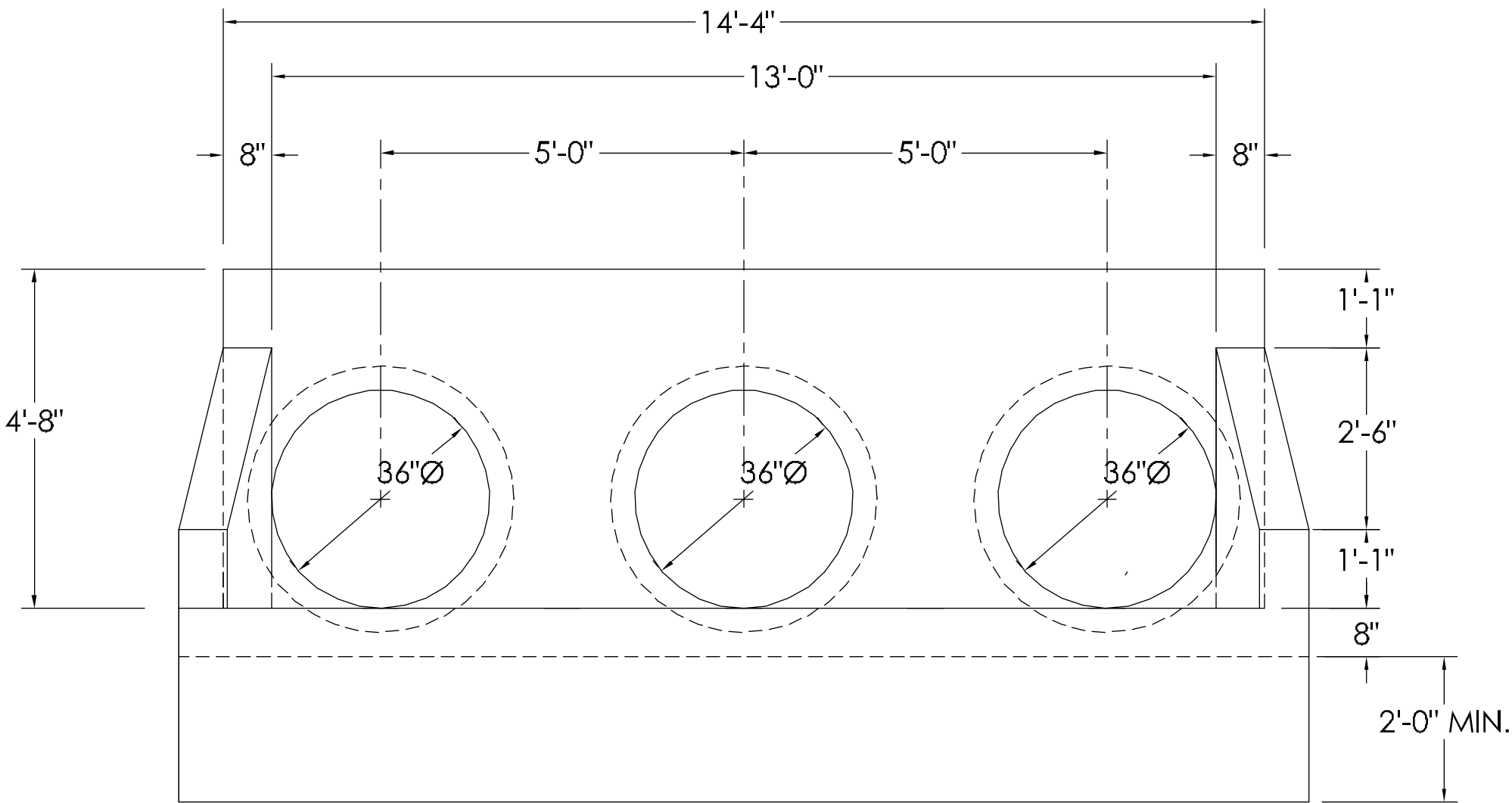


FRONT ELEVATION

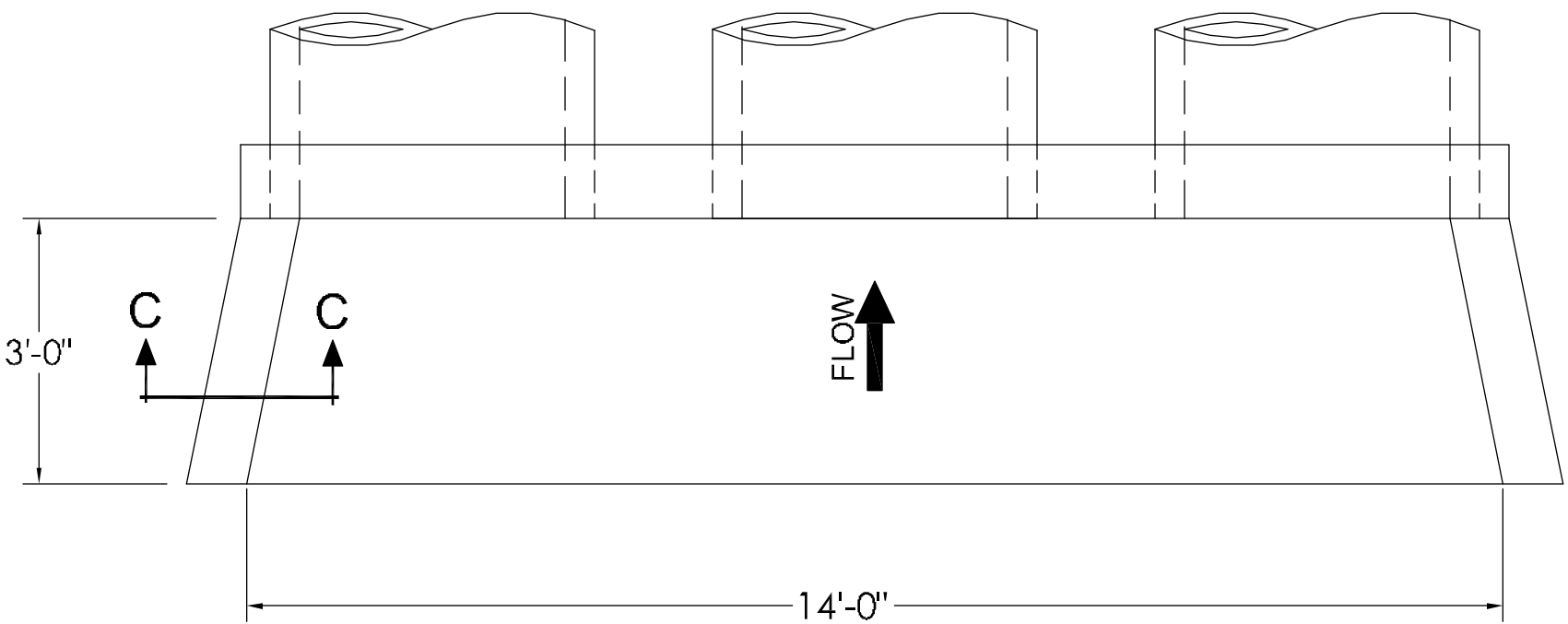


PLAN VIEW

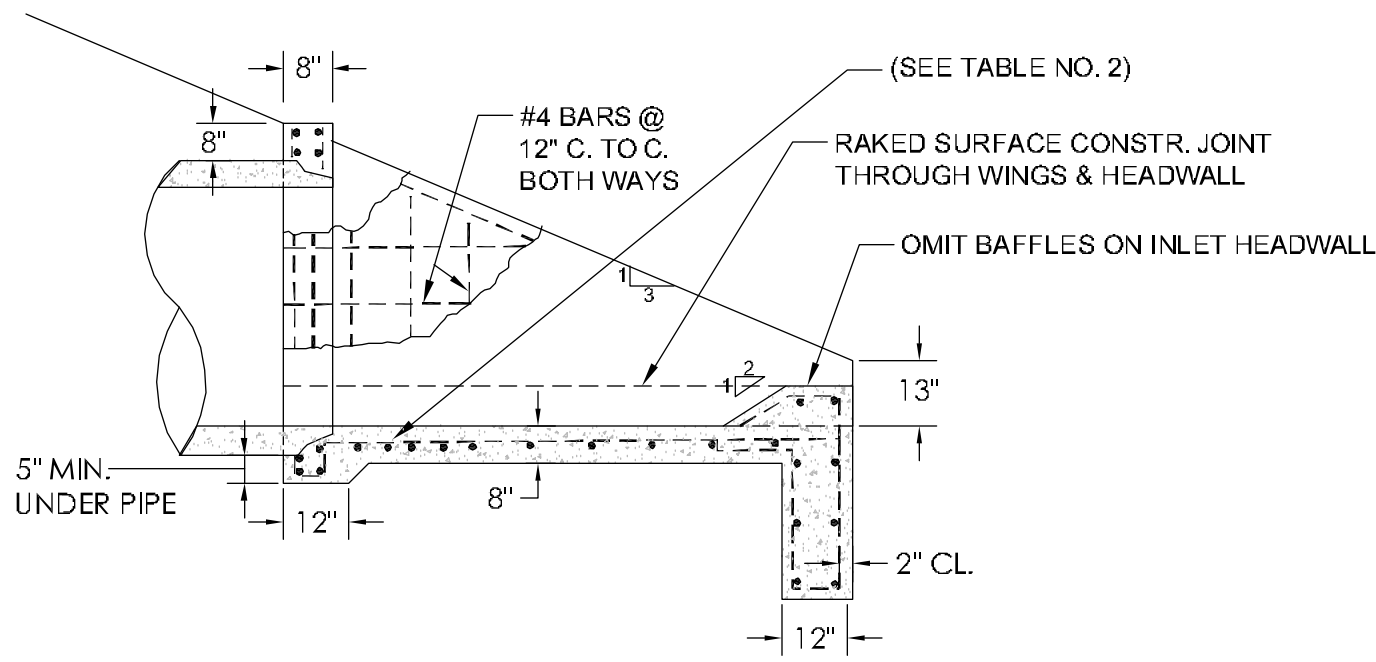
INLET HEADWALL



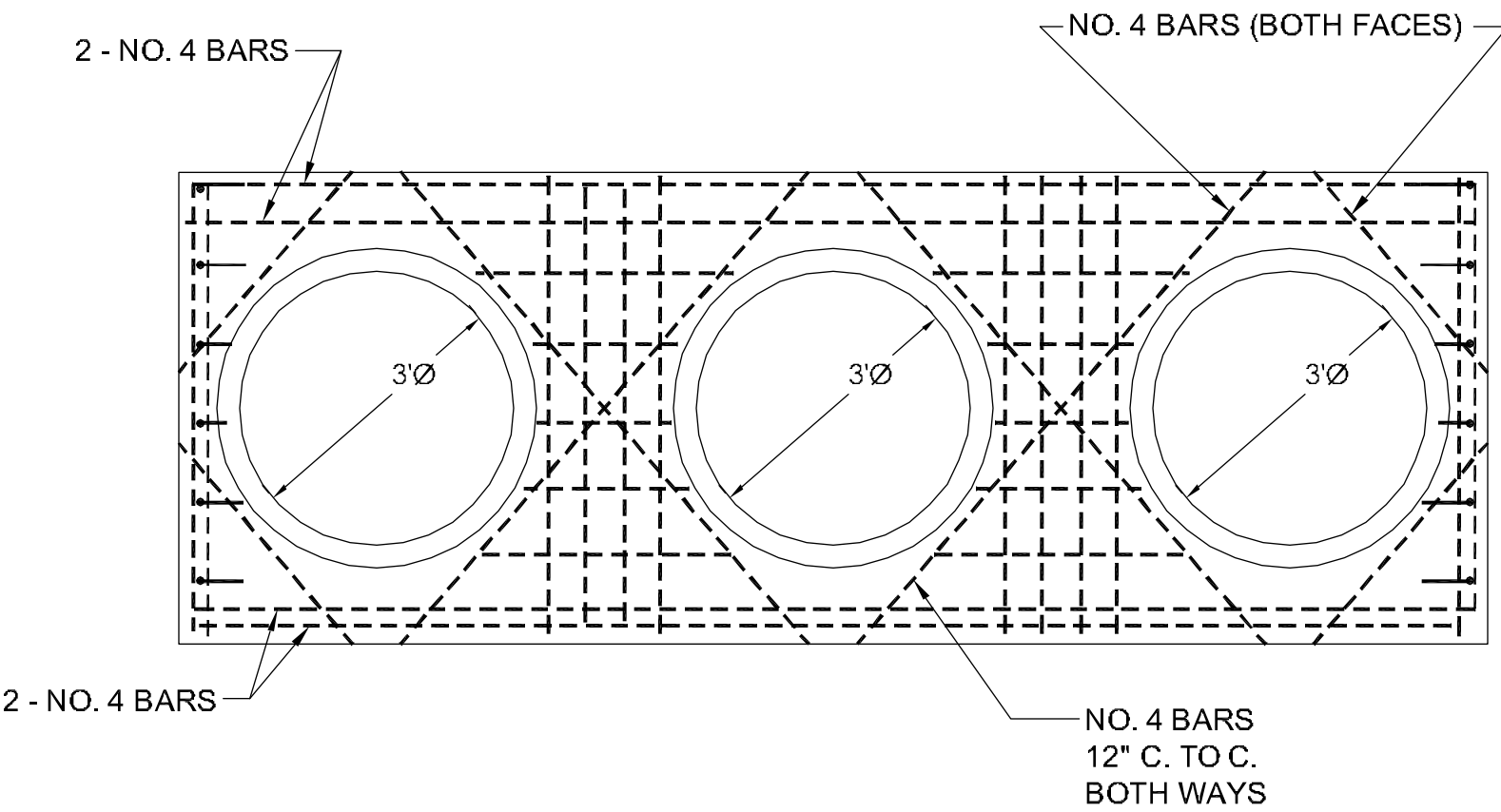
FRONT ELEVATION



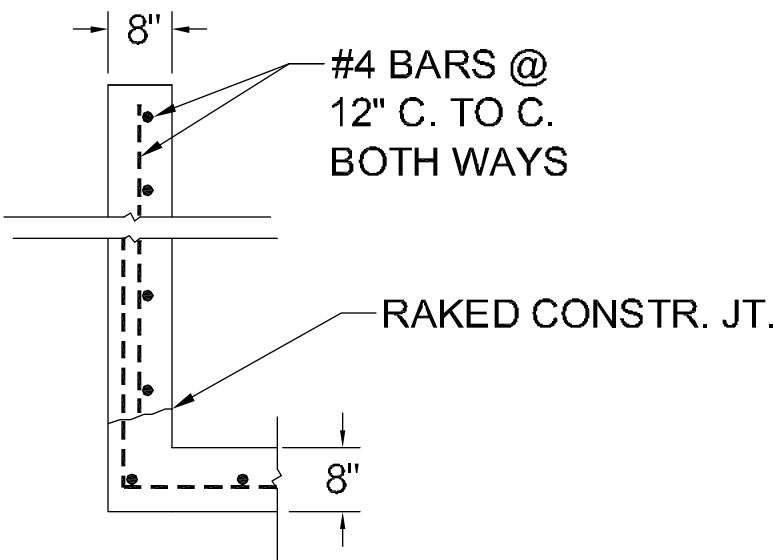
PLAN VIEW



SECTION A-A



SECTION B-B  
(MULTIPLE PIPE LINE) \*



SECTION C-C

| TABLE No.1 - QUANTITIES FOR HEADWALL |                 |        |  |                         |        |  |  |        |  |                         |        |  |
|--------------------------------------|-----------------|--------|--|-------------------------|--------|--|--|--------|--|-------------------------|--------|--|
| CU. YDS. CONCRETE (PAY QUANTITIES)   |                 |        |  |                         |        |  | LBS STEEL (GIVEN FOR INFORMATION ONLY) |        |  |                         |        |  |
|                                      | FOR SINGLE LINE |        |  | ADD FOR ADDITIONAL LINE |        |  | FOR SINGLE LINE                        |        |  | ADD FOR ADDITIONAL LINE |        |  |
| D                                    | INLET           | OUTLET |  | INLET                   | OUTLET |  | INLET                                  | OUTLET |  | INLET                   | OUTLET |  |
| 36"                                  | 2.92            | 3.05   |  | 2.49                    | 2.63   |  | 238                                    | 254    |  | 196                     | 212    |  |

\*NOTE:  
QUANTITIES SHOWN ARE APPROXIMATE. PAY QUANTITIES FOR CLASS "A" CONCRETE WILL BE AS INDICATED ON BID FORM, INCLUDING REINFORCED STEEL. NO ADJUSTMENT WILL BE MADE FOR AS BUILT QUANTITIES.



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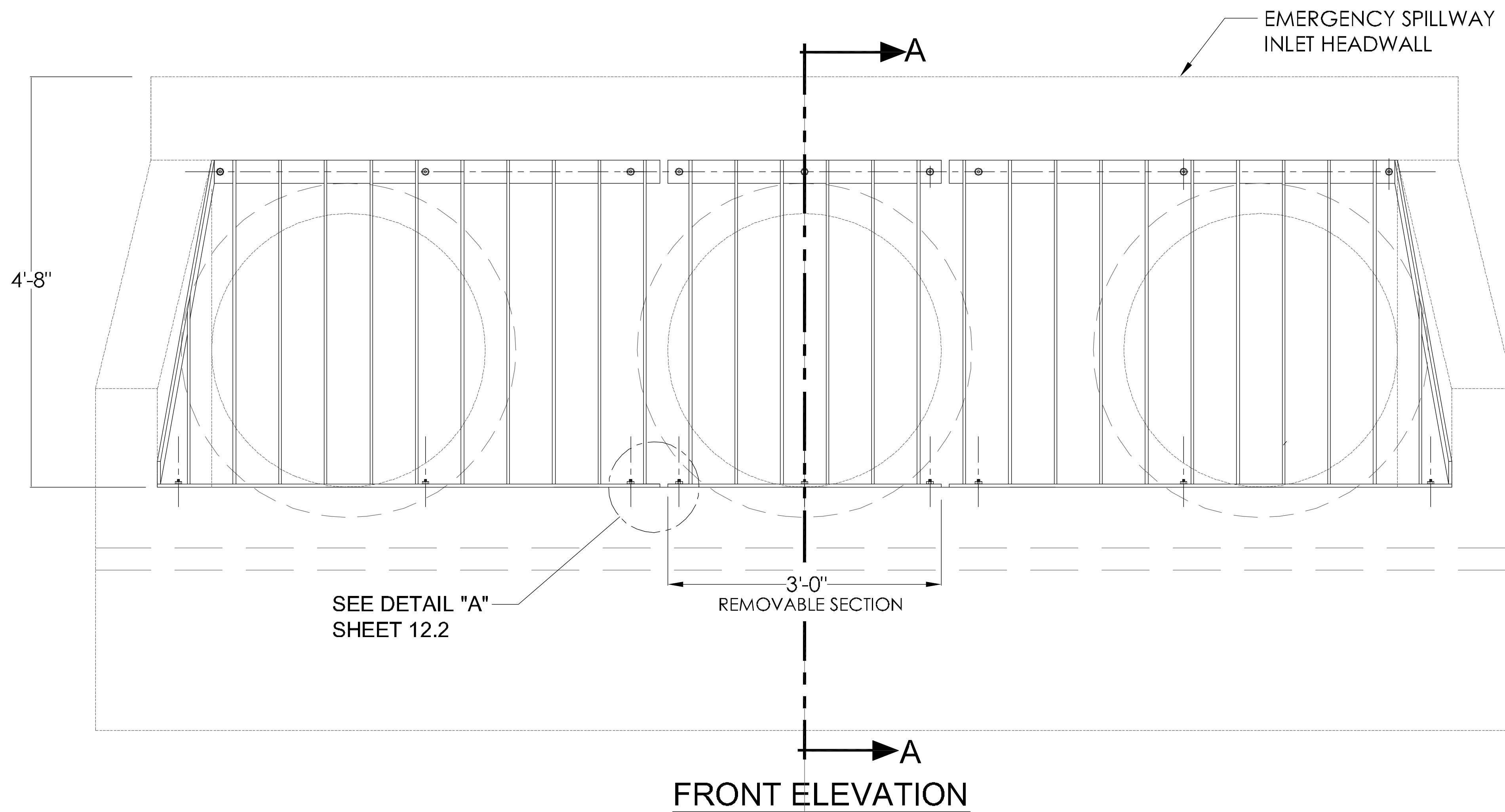
CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

STORM LINE "A" HEADWALLS

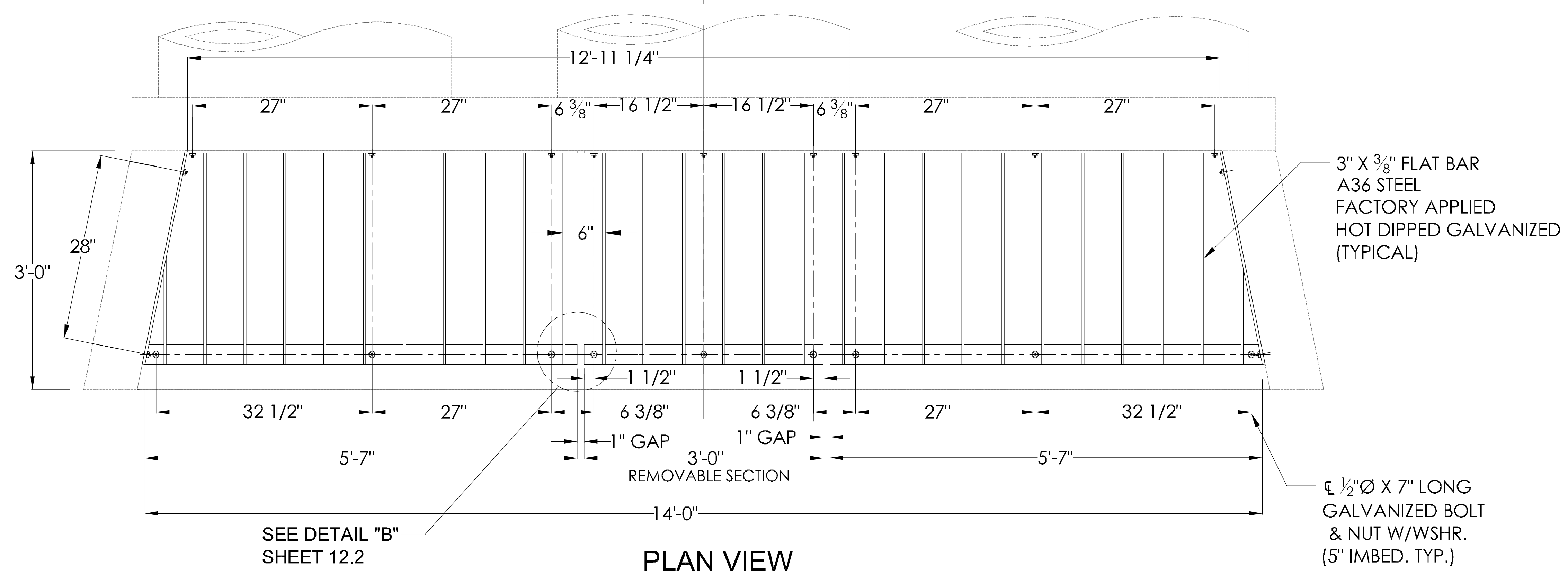
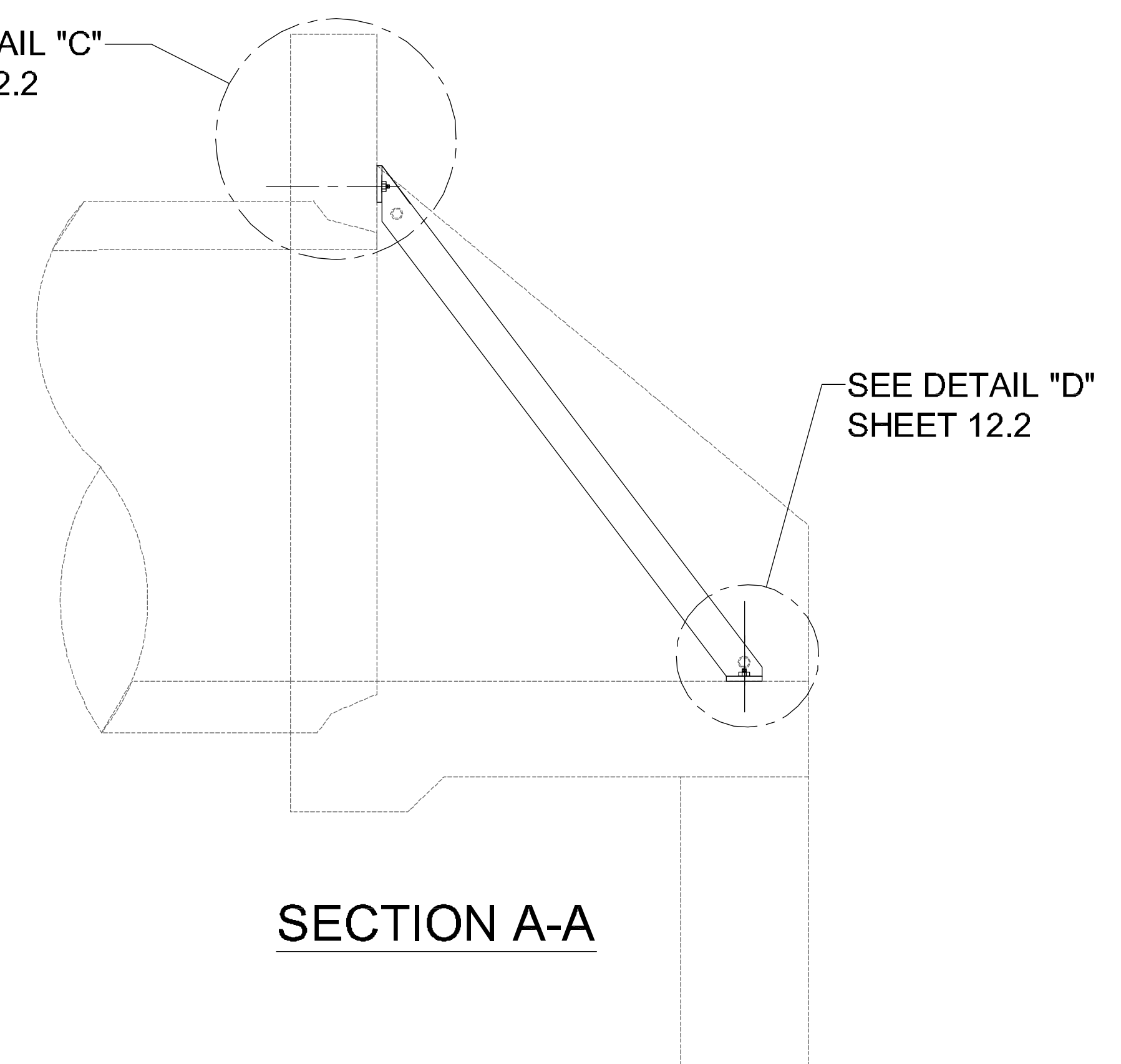
|          |         |                |  |  |                  |          |          |               |            |
|----------|---------|----------------|--|--|------------------|----------|----------|---------------|------------|
|          |         |                |  |  | LAND LOT - 108   | DESIGN   | MCI      | SCALE         | 1" = 2'-0" |
|          |         |                |  |  | DISTRICT - 7th   | DRAWN    | JLP, DWJ | DATE          | 10/21/19   |
|          |         |                |  |  | SECTION -        |          |          | CITY - TYRONE | CHECK      |
|          |         |                |  |  | COUNTY - FAYETTE | APPROVED | DWJ      | SHEET NO.     | 12.0       |
|          |         |                |  |  | STATE - GEORGIA  |          |          |               |            |
| REV. No. | DATE    | DESCRIPTION    |  |  | BY               | APP'D    |          |               |            |
|          | 1/15/21 | PER SDP REVIEW |  |  | JLP              | DWJ      |          |               |            |







SEE DETAIL "C"  
SHEET 12.2



NOTES:

1. MAXIMUM SIZE OF OUTLET TO BE USED WITH THIS RACK IS 48" PIPE.
2. ALL EXPOSED FERROUS PARTS SHALL BE GALVANIZED.
3. IF FIELD WELDS ARE NECESSARY, USE CALVICON, GALVALLOY OR CITY APPROVED EQUAL FOR COATING.
4. ALL BOLTS SHALL BE 1/2" IN DIAMETER AND 7" IN LENGTH. ON REMOVABLE PORTION OF THE RACK, USE STAINLESS STEEL BOLTS AND NUTS. WHERE HEADWALL AND WINGWALL ARE EXISTING, HILTI KWIK-BOLT OR EQUIVALENT CAN BE USED.

SEE SHEET 12.2 FOR DETAILS



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TOWN OF TYRONE, GEORGIA

STORM LINE "A" INLET  
HEADWALL TRASH GUARD

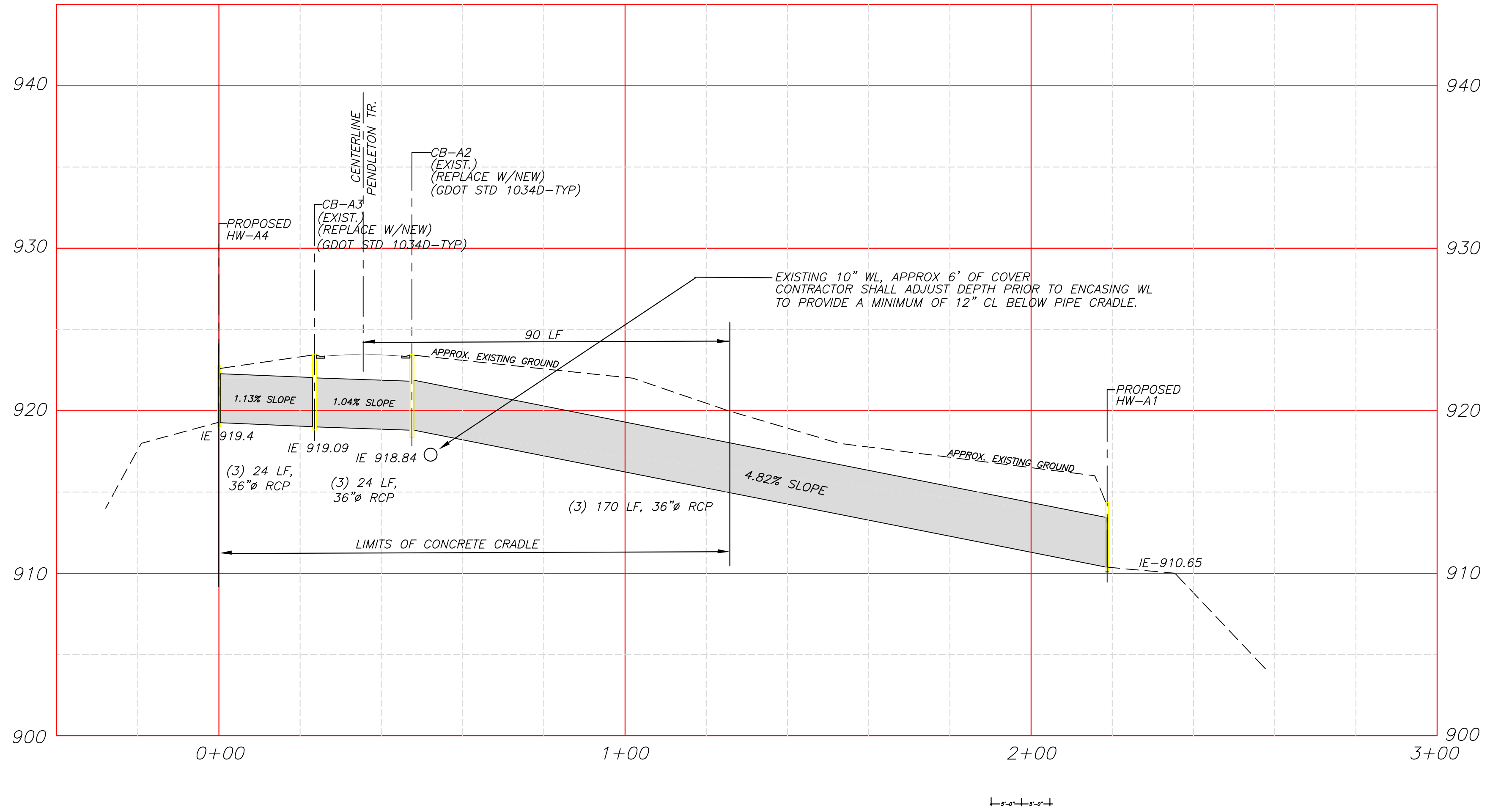
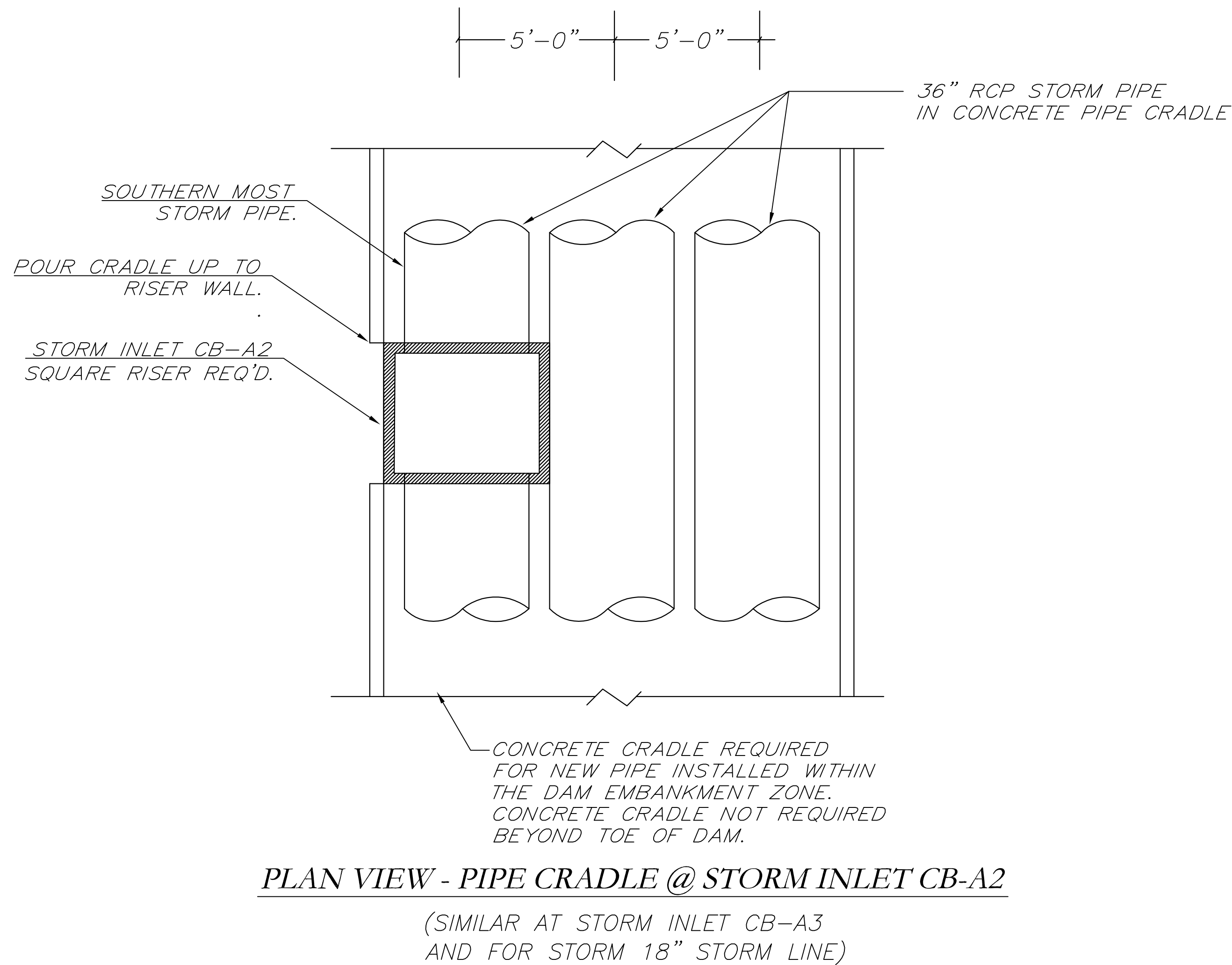


|          |      |             |    |       |                  |          |          |           |           |
|----------|------|-------------|----|-------|------------------|----------|----------|-----------|-----------|
|          |      |             |    |       | LAND LOT - 108   | DESIGN   | MCI      | SCALE     | H: 1"=20' |
|          |      |             |    |       | DISTRICT - 7th   | DRAWN    | JLP, DWJ |           | V: 1"=5'  |
|          |      |             |    |       | SECTION -        | CHECK    | DWJ      | DATE      | 10/21/19  |
|          |      |             |    |       | CITY - TYRONE    | APPROVED | DWJ      | FILE NO.  | 18101-24C |
| REV. No. | DATE | DESCRIPTION | BY | APP'D | COUNTY - FAYETTE |          |          | SHEET NO. | 12.1      |
|          |      |             |    |       | STATE - GEORGIA  |          |          |           |           |





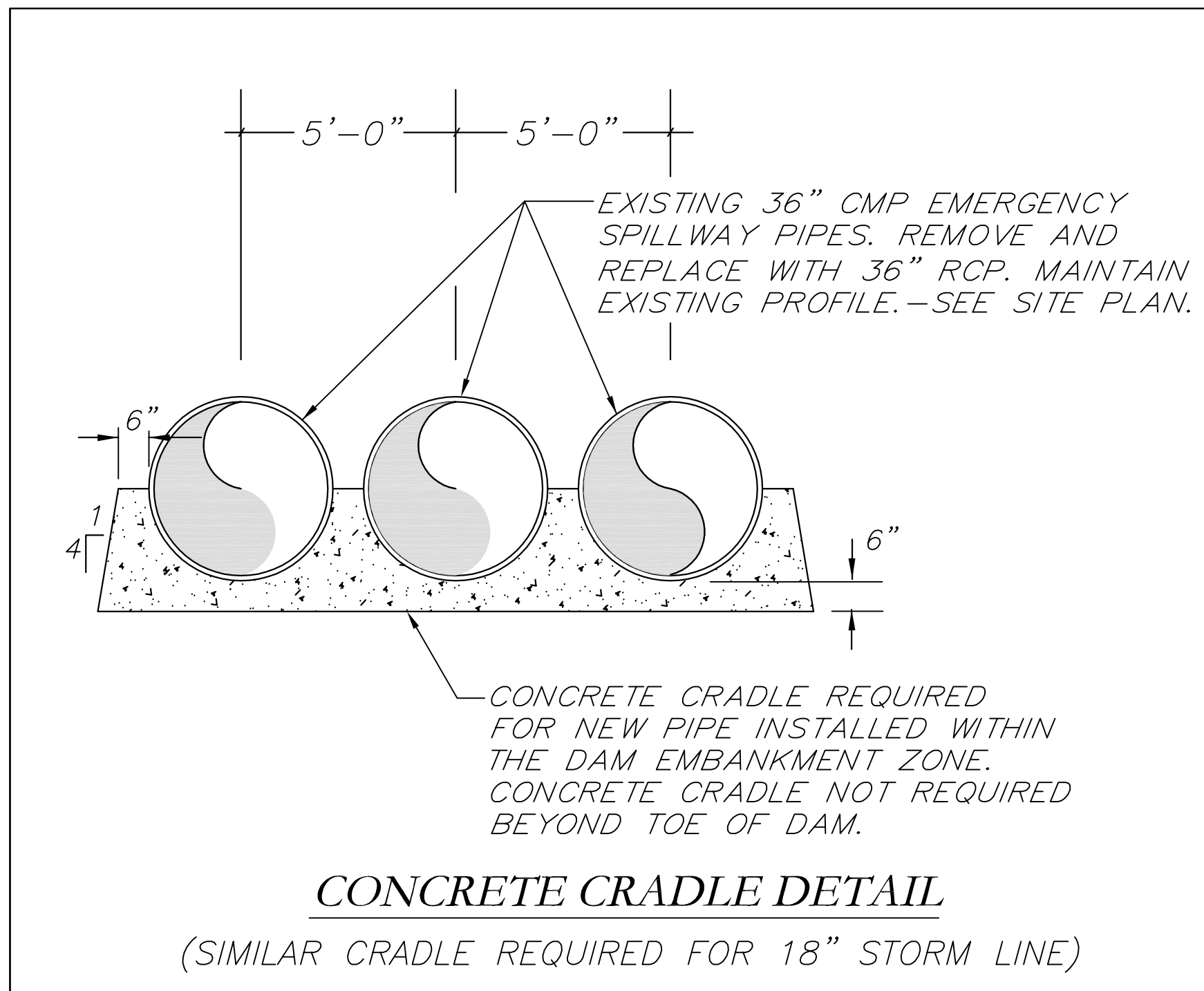




**PROFILE - STORMLINE "A" - SOUTHERN-MOST PIPE**

**NOTE:**

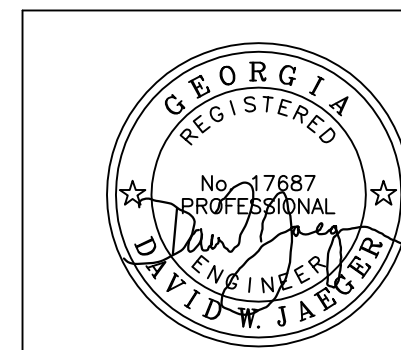
1. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING 36" CMP EMERGENCY SPILLWAY PIPES (3) WITH 36" RCP. EXISTING CB-A2 AND CB-A3 SHALL BE REPLACED W/NEW. NEW HW-A1 AND HW-A4 SHALL BE INSTALLED AT THE OUTLET AND INLET ENDS OF THE NEW PIPES. THE NORTHERN-MOST AND CENTER PIPES DO NOT CONNECT TO CB-A2 AND CB-A3. THE SOUTHERN-MOST PIPE SHALL CONNECT TO CB-A2 AND CB-A3. SLOPE AND GRADES SHOWN ON THE PROFILE ARE FOR THE SOUTHERN-MOST PIPE. THE OTHER PIPES SHALL BE DEFLECTED AT EACH PIPE JOINT AS NEEDED TO APPROXIMATELY FOLLOW THE PROFILE OF THE SOUTHERN-MOST PIPE.
2. EXISTING ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO ORDERING MATERIALS AND SHALL NOTIFY ENGINEER REGARDING ANY CONFLICTS OR IRREGULARITIES.
3. DISTURBED GRASS AREA SHALL BE RE-SODDED TO MATCH SURROUNDING SOD.



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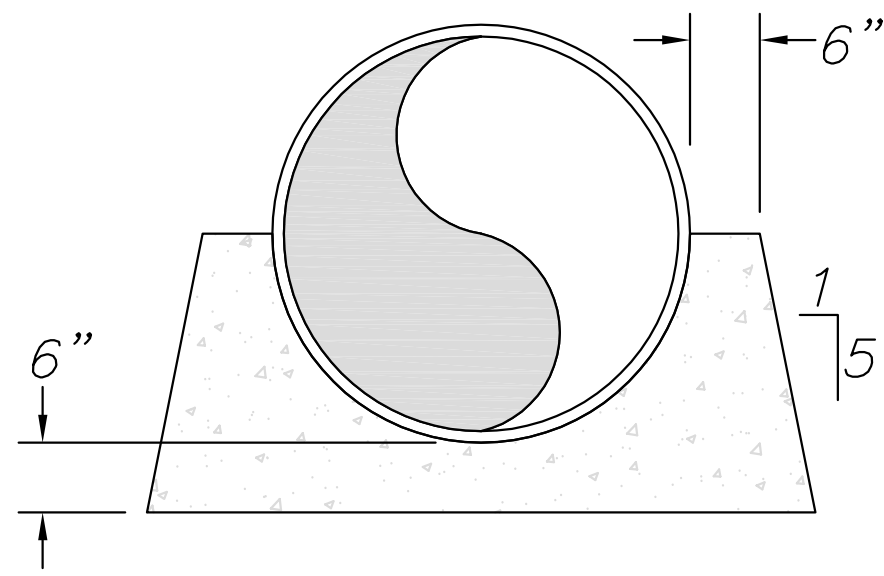
CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

STORMLINE "A" PROFILE

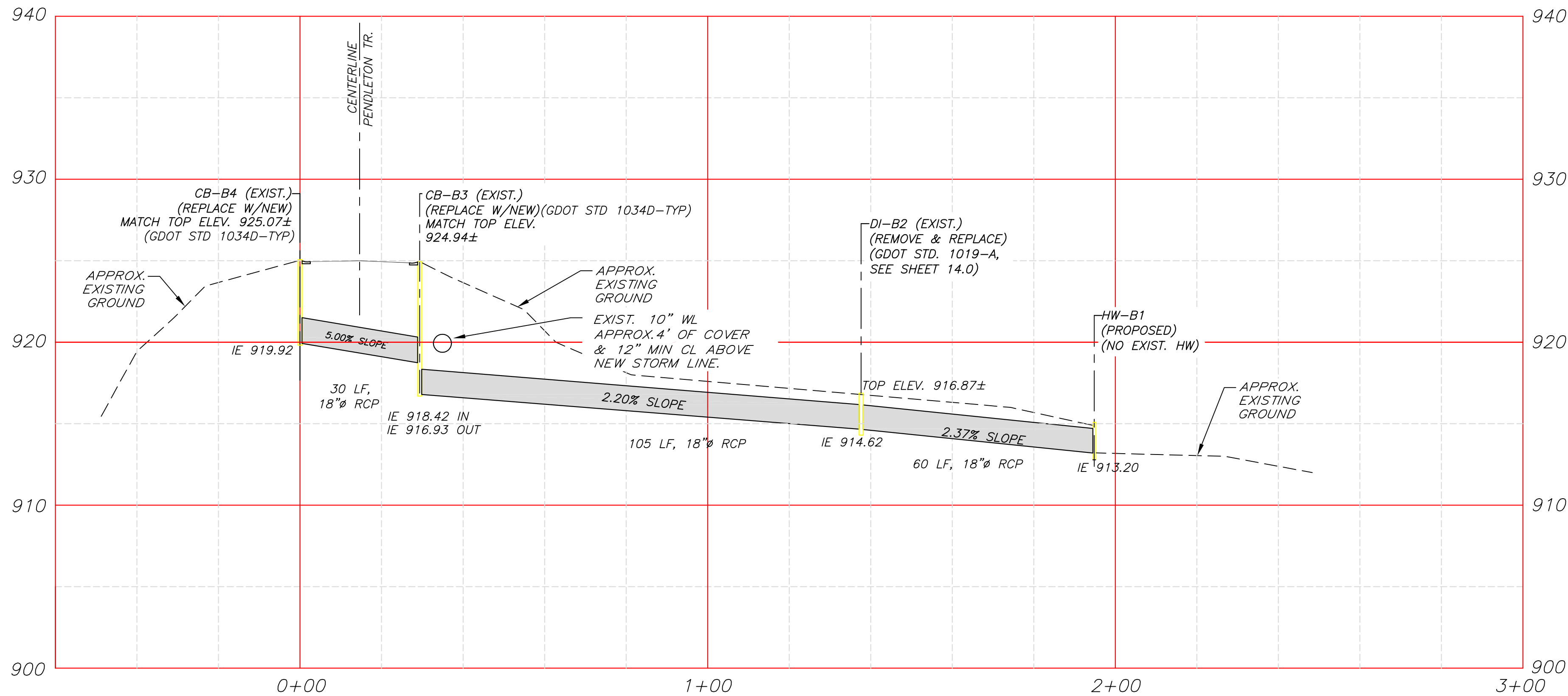


|          |                |             |     |                |                 |                             |
|----------|----------------|-------------|-----|----------------|-----------------|-----------------------------|
| 2/13/25  | PER SDP REVIEW | DWJ         | DWJ | LAND LOT - 108 | DESIGN MCI      | SCALE H: 1"=20'<br>V: 1"=5' |
| 5/10/24  | PER SDP REVIEW | DWJ         | DWJ | DISTRICT - 7th | DRAWN JLP, DWJ  | DATE 10/21/19               |
| 7/10/23  | PER SDP REVIEW | DWJ         | DWJ | SECTION -      | CHECK DWJ       | FILE NO. 18101-24C          |
| 1/15/21  | PER SDP REVIEW | JLP         | DWJ | CITY - TYRONE  | APPROVED DWJ    | SHEET NO. 12.3              |
| REV. No. | DATE           | DESCRIPTION | BY  | APP'D          | STATE - GEORGIA |                             |





CONCRETE CRADLE DETAIL  
(REQUIRED FOR NEW RCP BETWEEN  
STA 0+00 AND 0+80)



PROFILE - STORM LINE "B"

NOTES:






- EXISTING 18" CMP STORM DRAIN SHALL BE REMOVED AND REPLACED WITH NEW 18" RCP STORM DRAIN. EXISTING CATCH BASINS (CB-B3 AND CB-B4) SHALL BE REPLACE W/NEW.
- EXISTING ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY PRIOR TO ORDERING MATERIALS AND SHALL NOTIFY ENGINEER REGARDING ANY CONFLICTS OR IRREGULARITIES.
- DISTURBED GRASS AREA SHALL BE RE-SODDED TO MATCH SURROUNDING SOD.



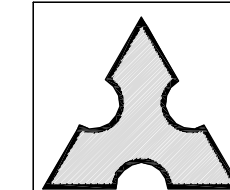
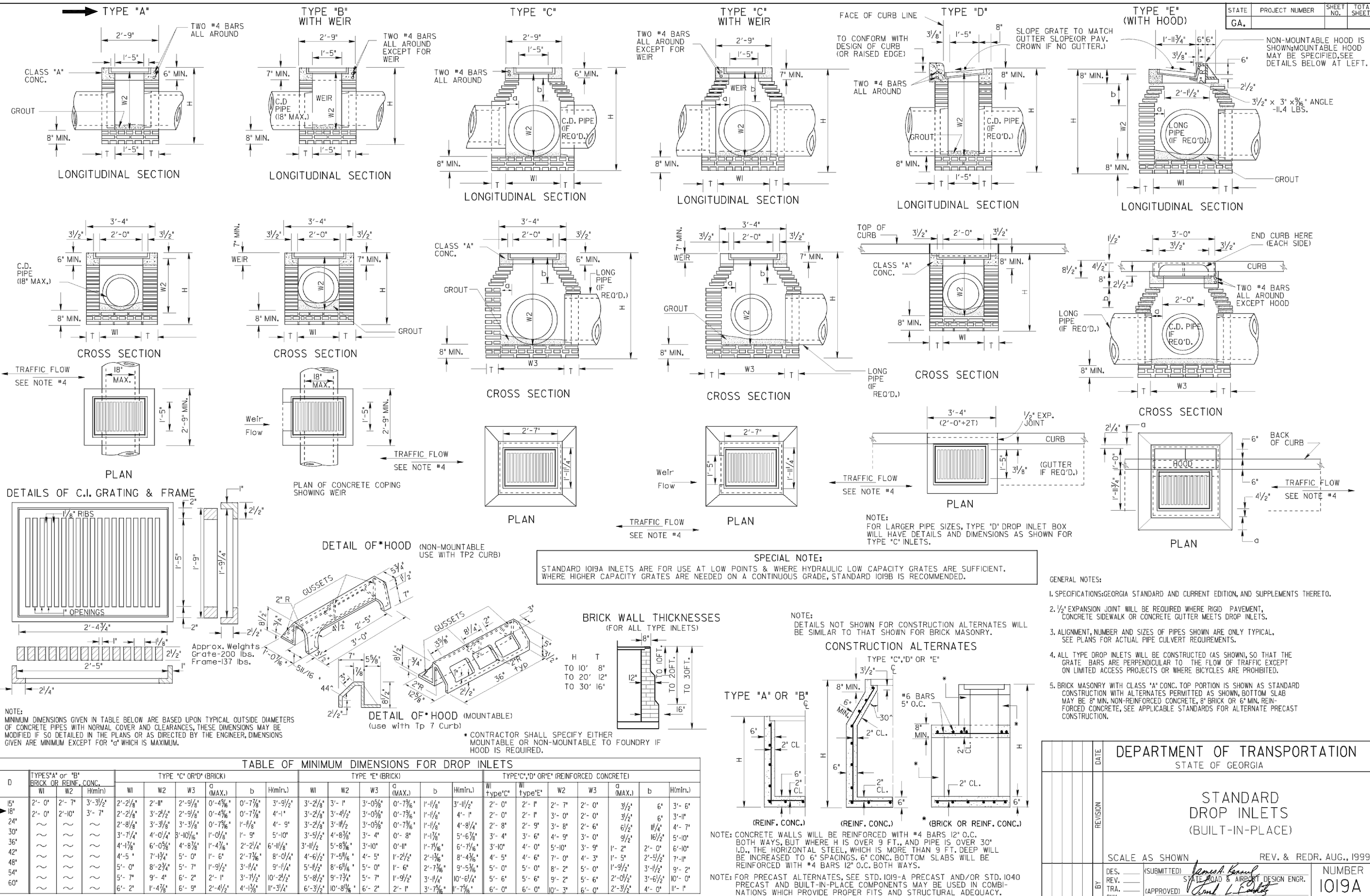
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CATEGORY I UPGRADES TO  
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PROFILE - STORMLINE "B"

|   |   |   |         |                |     |     |                |                 |                             |
|---|---|---|---------|----------------|-----|-----|----------------|-----------------|-----------------------------|
|  |  |   |         |                |     |     | LAND LOT - 108 | DESIGN MCI      | SCALE H: 1"=20'<br>V: 1"=5' |
|   |   |  | 6/09/25 | PER SDP REVIEW | DWJ | DWJ | DISTRICT - 7th | DRAWN JLP, DWJ  | DATE 10/21/19               |
|   |   |  | 2/13/25 | PER SDP REVIEW | DWJ | DWJ | SECTION -      | CHECK DWJ       | FILE NO. 18101-24C          |
|   |   |  | 7/10/23 | PER SDP REVIEW | DWJ | DWJ | CITY - TYRONE  | APPROVED DWJ    | SHEET NO. 13.0              |
| REV. No.  | DATE  | DESCRIPTION   |         |                |     | BY  | APP'D          | STATE - GEORGIA |                             |





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CATEGORY I UPGRADES TO  
PENDLETON LAKE DAM FOR  
TOWN OF TYRONE, GEORGIA

DROP INLET DETAILS

|                  |          |          |           |           |
|------------------|----------|----------|-----------|-----------|
| LAND LOT - 108   | DESIGN   | MCI      | SCALE     | N.T.S.    |
| DISTRICT - 7th   | DRAWN    | JLP, DWJ | DATE      | 10/21/19  |
| SECTION -        | CHECK    | DWJ      | FILE NO.  | 18101-24C |
| CITY - TYRONE    | APPROVED | DWJ      | SHEET NO. | 14.0      |
| COUNTY - FAYETTE |          |          |           |           |
| STATE - GEORGIA  |          |          |           |           |

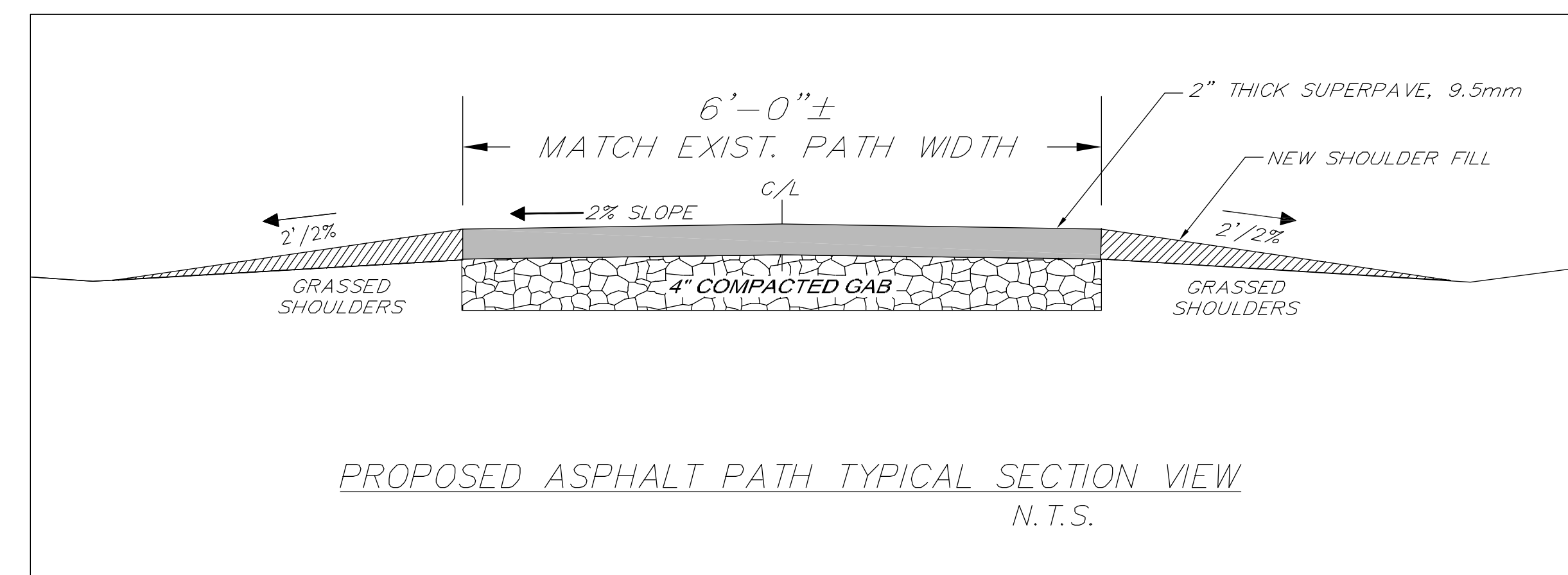
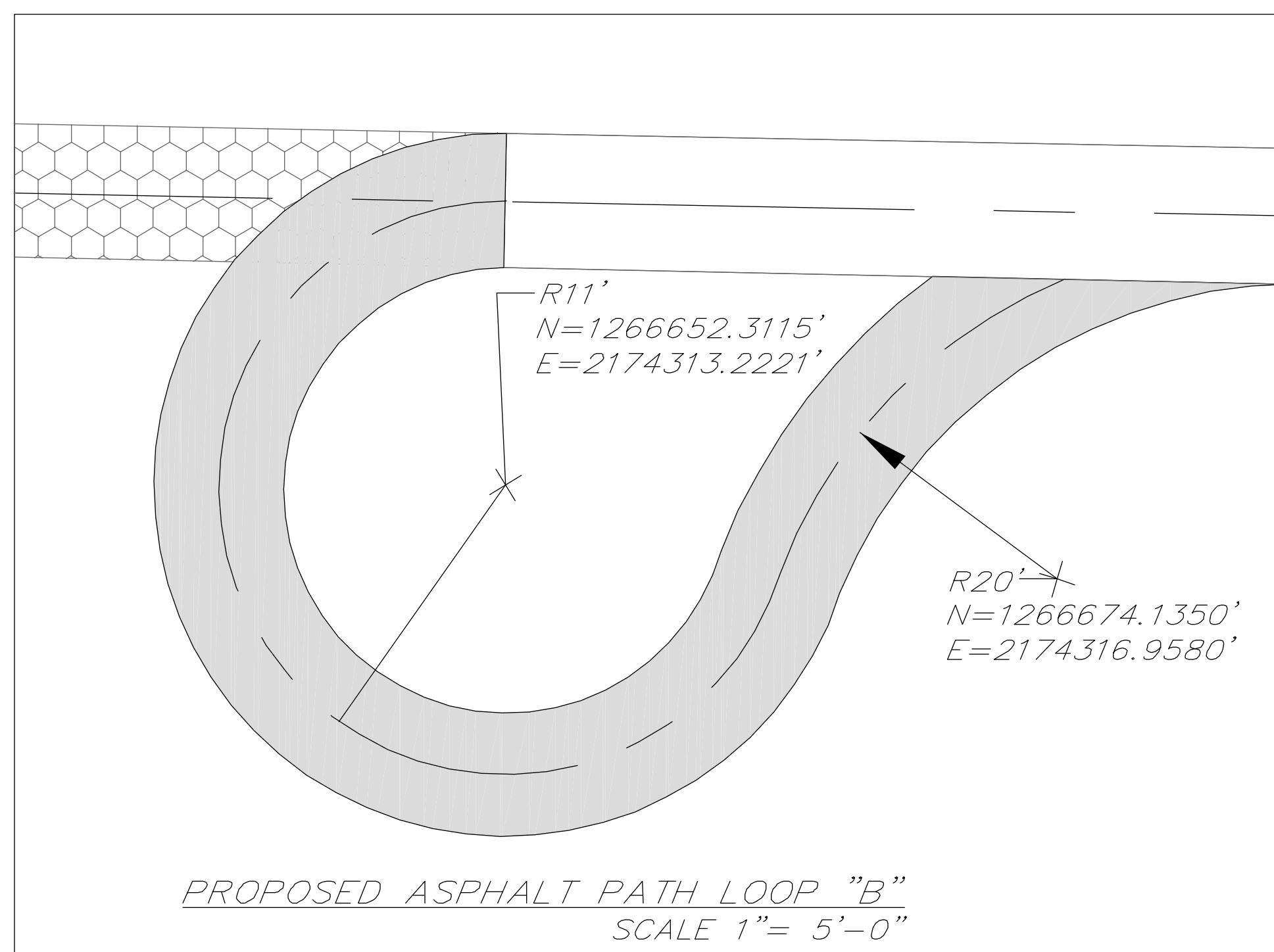
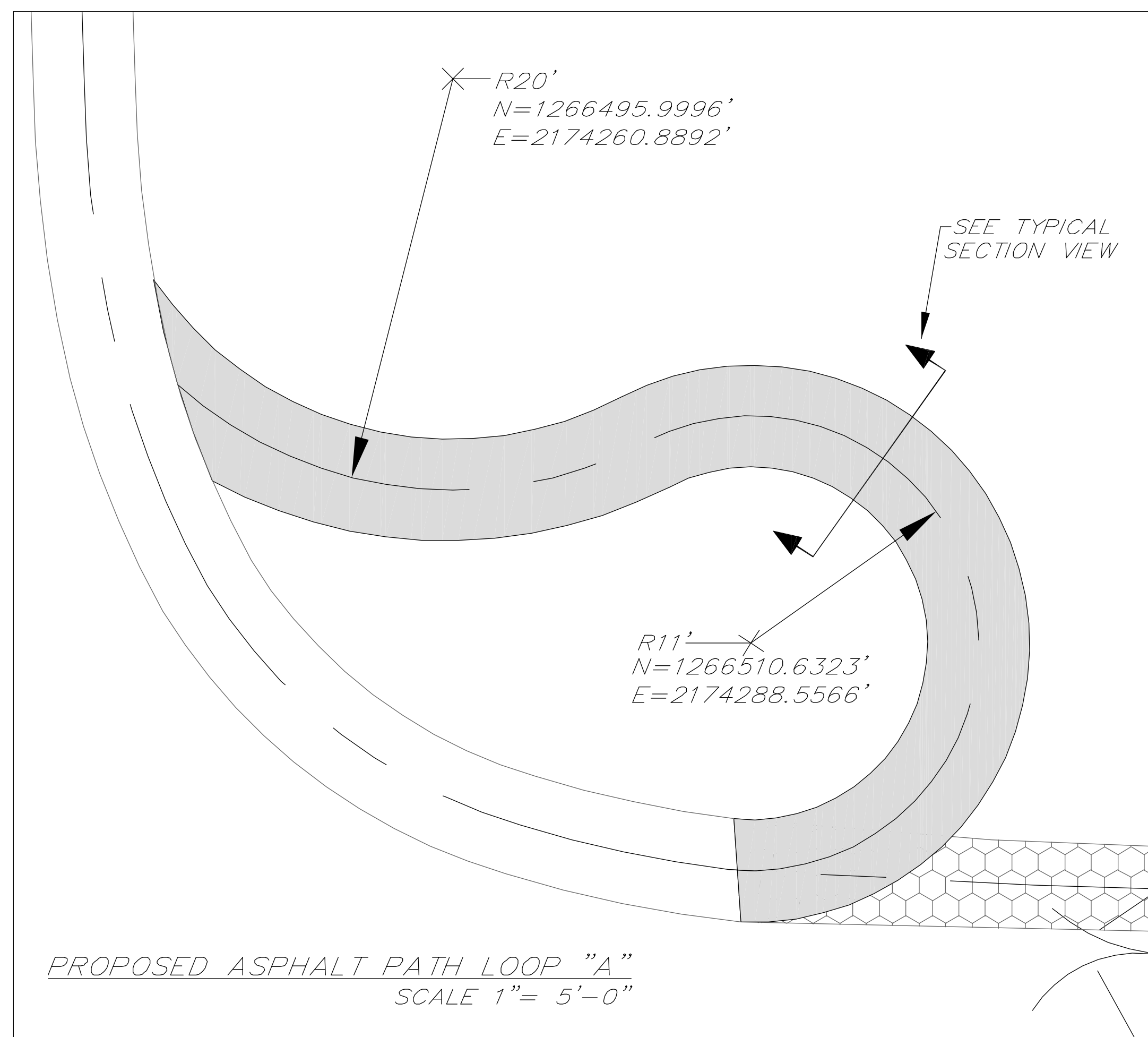
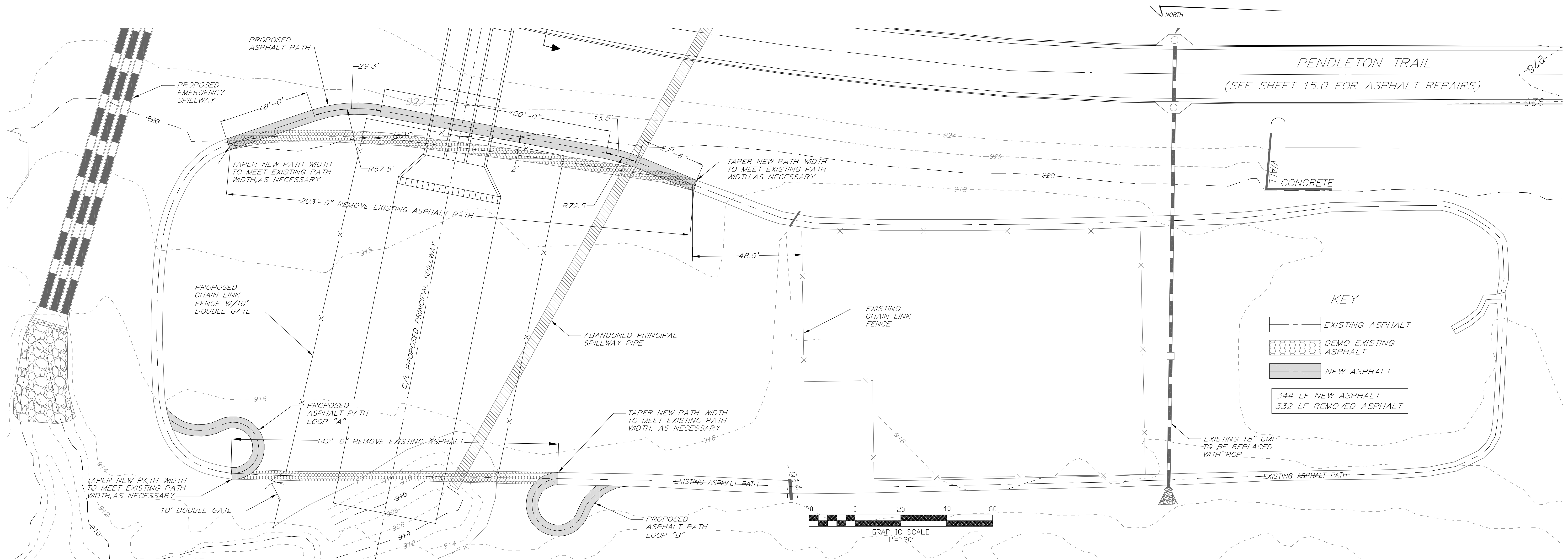


|          |         |                |     |       |
|----------|---------|----------------|-----|-------|
| REV. No. | DATE    | DESCRIPTION    | BY  | APP'D |
| 1        | 1/15/21 | PER SDP REVIEW | JLP | DWJ   |
|          |         |                |     |       |
|          |         |                |     |       |









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**CATEGORY I UPGRADES TO  
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TOWN OF TYRONE, GEORGIA**

**ASPHALT PATH MODIFICATIONS**

|                  |          |          |           |           |
|------------------|----------|----------|-----------|-----------|
| LAND LOT - 108   | DESIGN   | MCI      | SCALE     | AS NOTED  |
| DISTRICT - 7th   | DRAWN    | JTB, DWJ | DATE      | 10/21/19  |
| SECTION -        | CHECK    | DWJ      | FILE NO.  | 18101-24C |
| CITY - TYRONE    | APPROVED | DWJ      | SHEET NO. | 16.0      |
| COUNTY - FAYETTE |          |          |           |           |
| STATE - GEORGIA  |          |          |           |           |

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ENGINEER  
DAVID W. JENSEN

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|----------|---------|----------------|-----|-------|
| REV. No. | DATE    | DESCRIPTION    | BY  | APP'D |
| 1        | 1/15/21 | PER SDP REVIEW | JLP | DWJ   |