

# REINFORCED CONCRETE CUTOFF WALL

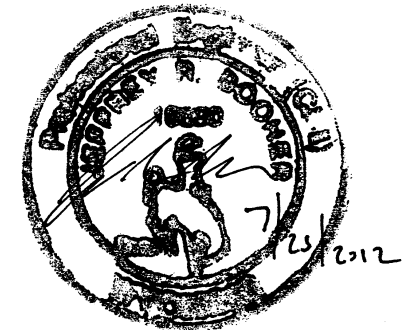
## STA 959+72.00

### HAPPY JACK ROAD

### CURT GOWDY SECTION

0107025

LARAMIE COUNTY

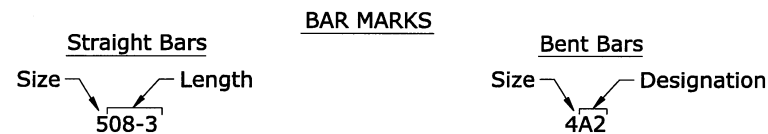


#### GENERAL NOTES

**SPECIFICATIONS:** WYDOT Standard Specifications for Road and Bridge Construction, 2010 Edition

**REINFORCED CONCRETE:** Load Factor Design -  
Class B Concrete  $f'_c = 3250$  psi  
Reinforcing Steel  $f_y = 60,000$  psi (Grade 60)

**REINFORCING STEEL:** Concrete cover to face of reinforcing steel is 2" unless noted. Dimensions for bent bars are out to out. Ensure bars marked with an asterisk (\*) are coated.



**DIMENSIONS:** Longitudinal dimensions are horizontal and include no correction for grade. Slopes are vertical : horizontal.

**WELDED WIRE FABRIC:** The quantity of welded wire fabric is included in the contract pay item, Reinforcing Steel.

**EPOXY-RESIN BONDING COMPOUND:** Clean the exposed ends of the 60"Ø RCP and coat with epoxy resin bonding compound. Place new concrete immediately after applying the bonding compound. If the bonding compound gels before concrete placement, remove by sandblasting and reapply. Use bonding compound conforming to Subsection 810.6, Epoxy Resin. Mix and apply in accordance with the manufacturer's recommendations. Work necessary for the epoxy resin bonding compound is incidental to the contract pay item, Class B Concrete.

**ADHESIVE ANCHORAGE SYSTEM:** Use one of the following anchorage systems:  
Epoxy Anchoring Systems as manufactured by Covert Operations  
Epon System as manufactured by ITW Ramset/Red Head  
Sure-Anchor I (J-51) as manufactured by Dayton Superior  
HIT-RE 500 System as manufactured by Hilti, Inc.  
Drill and prepare holes for the anchorage system as recommended by the manufacturer. Install in accordance with the manufacturer's recommendations to provide pullout strength of equal or greater capacity to the corresponding reinforcing steel. Work necessary for the adhesive anchorage system is incidental to the contract pay item, Class B Concrete.

**CONCRETE AGGREGATE:** Ensure all concrete mix designs meet the following alkali-silica reactivity (ASR) screening:

Test concrete aggregate in accordance with AASHTO T 303-04 (ASTM C1260-07) Accelerated Detection of Potentially deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction or, when fly ash or silica fume is used in the mix, test concrete aggregate in accordance with ASTM C1567-08 Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method).

Conduct the AASHTO T 303 (ASTM C1260) or ASTM C1567 test using a combined sample of fine aggregate and coarse aggregate, in the same proportions that will be used in the concrete mix design and using the cementitious material that is to be used in the final concrete mix design.

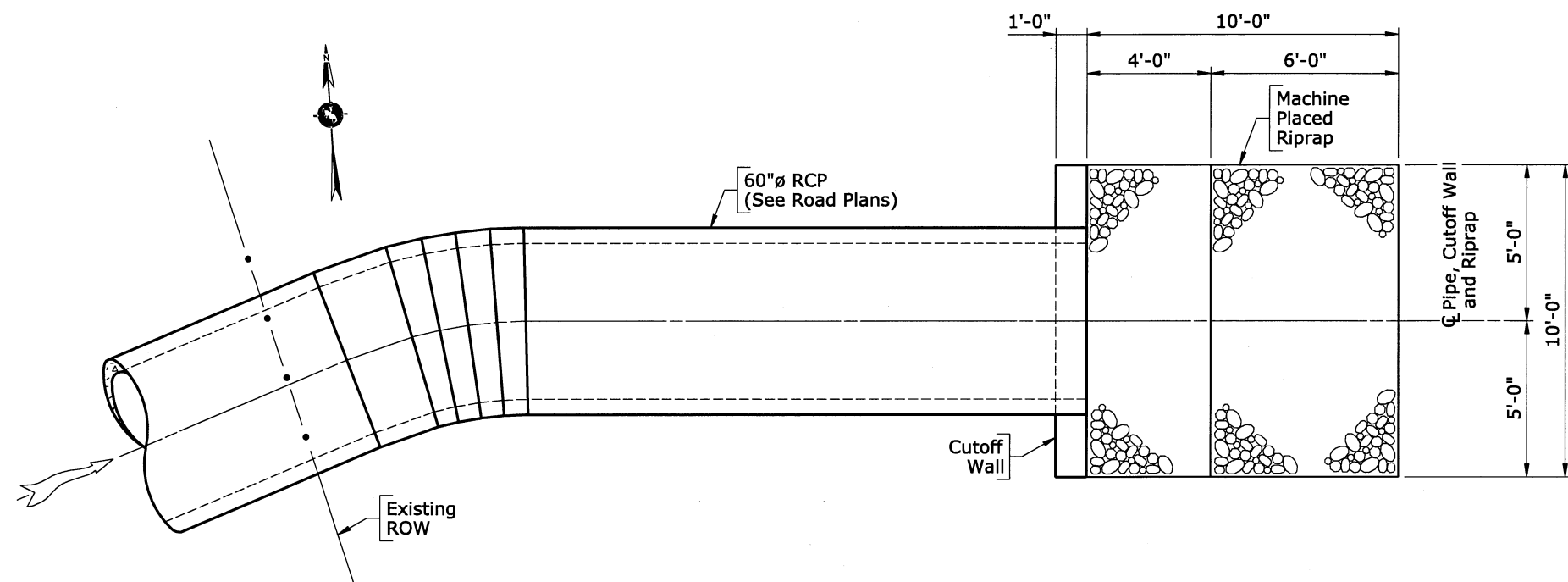
Ensure the test results indicate an expansion at 16 days from casting of 0.10 percent or less.

Mitigate sources which indicate reactive aggregate through the use of a class F fly ash approved for ASR mitigation in accordance with the Materials Testing Manual, silica fume and/or lithium nitrate additive. Ensure the AASHTO T 303 (ASTM C1260) and ASTM C1567 tests are performed within 12 months before the submittal date. The department's Materials Program maintains the option to conduct AASHTO T 303 (ASTM C1260) and ASTM C1567 testing for verification.

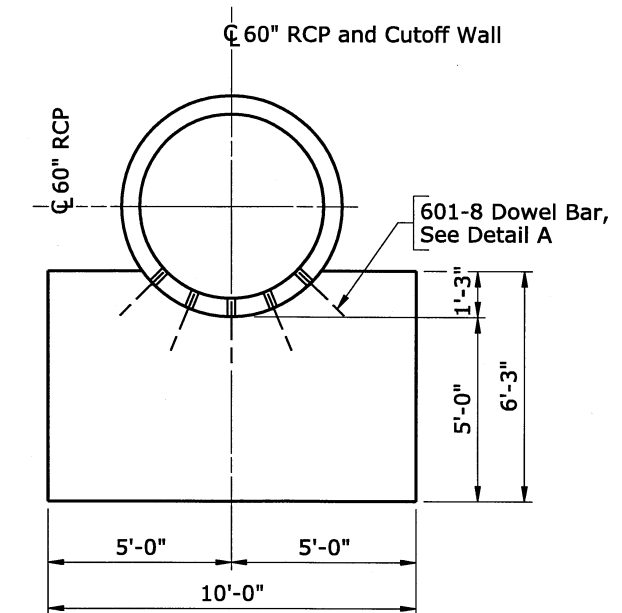
Submit qualifying AASHTO T 303 (ASTM C1260) and ASTM C1567 test results to the engineer a minimum of 14 calendar days before concrete production. Submit test results to the Materials Program along with each mix design request.

| ESTIMATED QUANTITIES |                             |      |                |          |
|----------------------|-----------------------------|------|----------------|----------|
| ITEM NO.             | ITEM                        | UNIT | TOTAL QUANTITY | ESTIMATE |
| 217.01010            | GEOTEXTILE, EROSION CONTROL | SY   | 12             |          |
| 511.06000            | MACHINE PLACED RIPRAP       | CY   | 10             |          |
| 513.00015            | CLASS B CONCRETE            | LS   | LUMP SUM       | 2.2 CY   |
| 514.00015            | REINFORCING STEEL           | LS   | LUMP SUM       | 70 LB    |

| WYOMING DEPARTMENT OF TRANSPORTATION |   |                           |                            |
|--------------------------------------|---|---------------------------|----------------------------|
| BRIDGE PROGRAM                       |   |                           |                            |
| REVISIONS                            |   |                           |                            |
| APPROVED<br><br>DATE 7.26.2012       | DESIGN <input checked="" type="checkbox"/> DER<br>DETAIL <input checked="" type="checkbox"/> JRB<br>QTY'S <input checked="" type="checkbox"/> | Design Section J R Booper | Drwg No. 7555 Sheet 1 of 2 |



PLAN

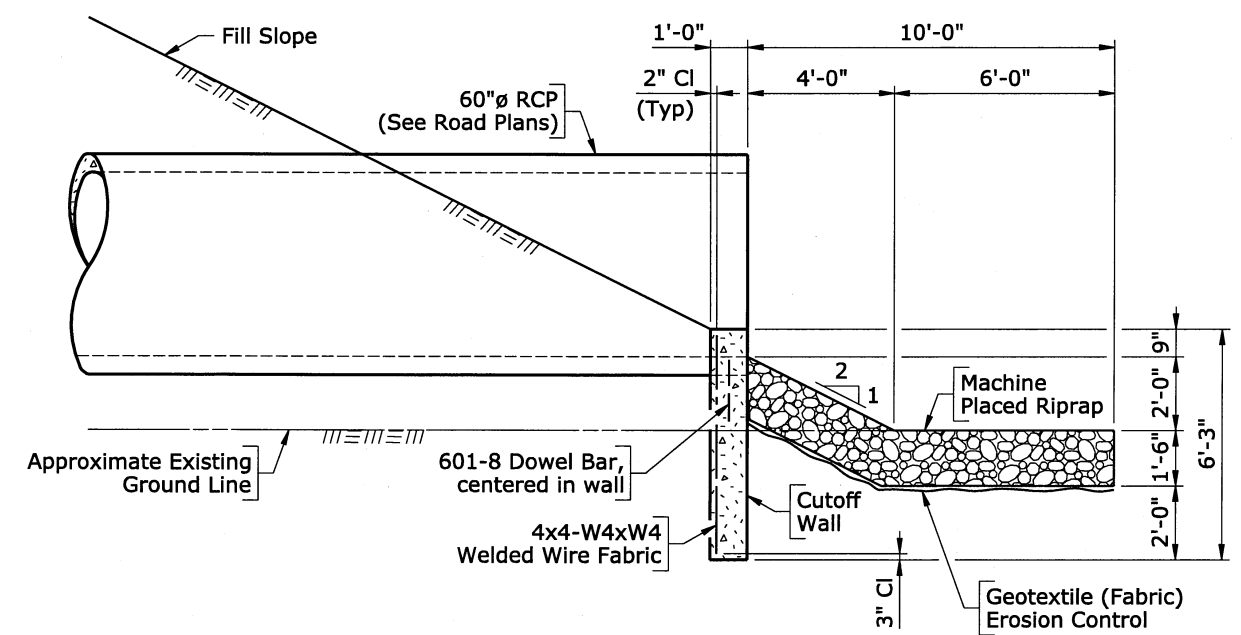


ELEVATION

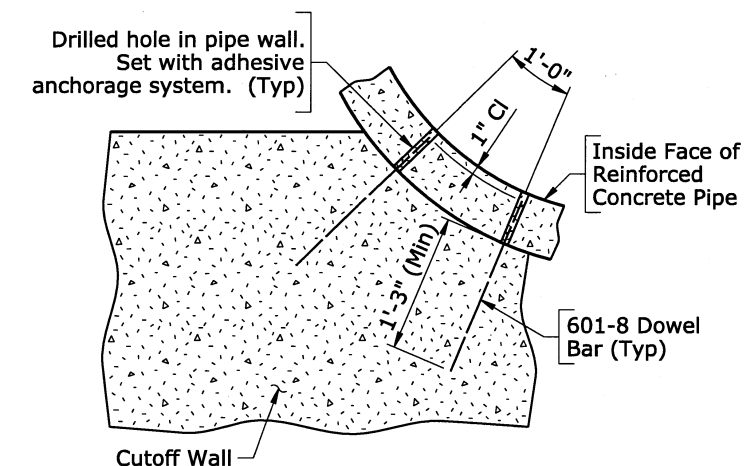
| BILL OF REINFORCEMENT |                              |                   |
|-----------------------|------------------------------|-------------------|
| Location              | Mark                         | Quantity Required |
| Cutoff Wall           | 601-8                        | 5                 |
|                       | 4x4-W4xW4 Welded Wire Fabric | 7 SY              |

Note: Welded wire fabric shall be placed 2" clear from all edges of cutoff wall and pipe and 3" clear from bottom of cutoff wall.

STA 959+72  
 OUTLET DETAILS



LONGITUDINAL SECTION



DETAIL A  
 (Welded Wire Fabric not shown)

| WYOMING DEPARTMENT OF TRANSPORTATION<br>BRIDGE PROGRAM |           |                     |                           |
|--|-----------|---------------------|---------------------------|
| REVISIONS  |           | CUTOFF WALL DETAILS |                           |
| <b>REINFORCED CONCRETE CUTOFF WALL</b>                 |           |                     |                           |
| STA 959+72   |           |                     |                           |
| Happy Jack Road  |           |                     |                           |
| Curt Gowdy Section                                     |           |                     |                           |
|  |           | 0107025             | La                        |
| DESIGN   | DER ✓     | JRB                 | Design Section J R Booher |
| DATE   | 7-26-2012 | JRB                 | Drwg No. 7555             |
| QTY'S  | DER ✓     | JRB                 | Sheet 2 of 2              |