

901 Vine Street  
P.O. Box 72  
Poplar Bluff, MO 63902  
Phone 573.785.9621  
Fax 573.785.2651



#### ADDENDUM NO. 1

DATE: October 10, 2017

PROJECT: S&C # P160218; Stoddard County Road 488 Bridge

LETTING DATE: Monday October 23, 2017 at 10:00 AM

LOCATION: Stoddard Courthouse  
Bloomfield, Missouri

OWNER: Stoddard County Commission

ENGINEER: S. H. Smith & Company, Inc. of Poplar Bluff, Missouri

#### **SUBJECT: Project Manual Changes/Clarifications**

The following changes/clarifications shall be made to the project manual:

1. Bid Item 5 has changed from 4" ASPHALT PAVEMENT to ALTERNATE PAVING. See attached Basis of Bids, Bid Schedule, and JSP documents showing changes.
2. Bid Item 6 has changed from TYPE 1 AGGREGATE BASE(6") to TYPE 1 AGGREGATE BASE(ALTERNATE THICKNESS). See attached Basis of Bids, Bid Schedule, and JSP documents showing changes.

#### **SUBJECT: Project Plans Changes/Clarifications**

The following changes/clarifications shall be made to the project plans:

1. Sheet 4 – ARCH PIPE DETAILS AND LAYOUT
  - An additional detail was provided for the road details regarding the alternate paving. See attached sheet 4 and 4.1 for clarification.

Sincerely,

**SMITH & CO.**  
ENGINEERS

  
Jeremy Manning, P.E.  
Sr. Project Engineer



**Alternate Paving JSP**

- 1.0 This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete constructed on a prepared subgrade. The work shall be performed in accordance to the project plans and the specifications, or as directed according to the engineer.
- 2.0 The paving alternative shall be paid for on a square yard basis, and no change in bid price will be allowed at a rate other than the original contract unit price.
- 3.0 The contractor has the option to install either type of pavement, however a combination of the two will not be allowed.
- 4.0 The contractor may at any time opt to use either paving type, with notification prior to placement given to the engineer.

**Type 1 Aggregate for Base(Alternate Thickness) JSP**

- 1.0 This work shall consist of the placement of Type 1 aggregate base over suitable compacted subgrade prior to placement of Portland cement concrete or asphaltic concrete. The work shall be performed in accordance to the project plans and specifications, or as directed according to the engineer.
- 2.0 The pavement option chosen shall be placed over a minimum thickness of base material as shown in the details provided in the project plans. The depth of base shall be dependent on the paving alternate chosen.
- 3.0 The base material shall be paid in a square yard unit price, and no changes to price will be made after the bid, regardless of paving method chosen.
- 4.0 The contractor shall submit bids based on expected paving alternative, however can opt to change alternative at any time. If the contractor changes paving alternate from the original planned method while bidding, no price negotiations will be made.

## BASIS OF BIDS

### PART 1 - GENERAL

#### 1. GENERAL

- A. The basis of bids is a general description of the work and materials which shall be included in the bid items listed on the bid proposal. Bid item prices shall generally reflect the scope of work described below. It shall be understood by the bidder that the total bid price listed on the bid proposal shall represent total compensation for the entire project based on the estimated quantities given. Due to the complex nature of this project, some overlap of work items is inevitable and some minor items may not be included below. It is the contractors responsibility to be sure that all work items are included in his/her bid prices.
- B. Payment after the award of the contract will be based on the number of units completed for unit price items or on the percentage of each lump sum item for the work that has been completed or as outlined I the specifications. Payment will not be made for items that have not been complete.

#### 2. LIST OF BID ITEMS – BASE BID

- A. Item No. 1 – Clearing/Grubbing (201-99.19):
  - 1. This item shall consist of all labor, equipment and materials necessary for the clearing, grubbing, removing and disposing of vegetation within the limits of right of way and easements for site preparation necessary to provide a complete and functional project as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Acre.**
- B. Item No. 2 – Construction Signs (JSP):
  - 1. This item shall consist of all labor, equipment and materials associated with the installation and use of traffic control devices, construction signs, and barricades as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Each.**
- C. Item No. 3 – Type III Barricade (Section 903):
  - 1. This item shall consist of all labor, equipment and materials associated with the installation and use of Type III Barricades as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Each.**
- D. Item No. 4 – Embankment Compacted in Place (Section 203, JSP):
  - 1. This item shall consist of all labor, equipment and materials associated with the removal of the existing bridge from the project area as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Cubic Yard.**
- E. Item No. 5 – Alternate Paving (Section 401):
  - 1. This item shall consist of all labor, equipment and materials associated with the placement of either 4” asphalt pavement consisting of 2 ½” of Bituminous Base and 1 ½” of BP-1, or 6” of concrete paving including all necessary milling, removal, and disposal of existing pavement, wedging into existing pavement or sawcut transition, width and depth transitions as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Square Yard.**
- F. Item No. 6 – Type 1 Aggregate for Base (Alternate Thickness) (Section 304):
  - 1. This item shall consist of all labor, equipment and materials associated with the placement of Type 1 aggregate for base at either 4” or 6” depending on paving alternate as outlined on the project plans and in the Missouri Standard Specifications for Highway Construction 2011, including Supplemental Specifications to 2011 Missouri Standard Specifications for Highway Construction – April 1, 2017.
  - 2. Method of Payment: **Square Yard.**

ITEMIZED BID: THE BIDDER SHOULD COMPLETE THE FOLLOWING SECTION IN ACCORDANCE WITH SEC 102.7. THE BIDDER PROPOSES TO FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC. REQUIRED FOR THE PERFORMANCE AND COMPLETION OF THE WORK, AS FOLLOWS:

BID SCHEDULE

**Bid Items**

ITEM	DESCRIPTION	UNIT S	QTY	UNIT COST	SUBTOTAL
<b><u>Roadway Items</u></b>					
1	CLEARING AND GRUBBING	AC	0.1	\$ _____	\$ _____
2	CONSTRUCTION SIGNS	EA	4	\$ _____	\$ _____
3	TYPE III BARRICADE	EA	4	\$ _____	\$ _____
4	EMBANKMENT COMPACTED IN PLACE	CY	723	\$ _____	\$ _____
5	ALTERNATE PAVEMENT	SY	356	\$ _____	\$ _____
6	TYPE 1 AGGREGATE FOR BASE	SY	405	\$ _____	\$ _____
7	SILT FENCE	LF	375	\$ _____	\$ _____
8	SEEDING AND MULCHING	AC	0.1	\$ _____	\$ _____
<b><u>Bridge Items</u></b>					
9	MOBILIZATION	LS	1	\$ _____	\$ _____
10	REMOVAL OF BRIDGE	LS	1	\$ _____	\$ _____
11	CLASS 1 EXCAVATION	CY	160	\$ _____	\$ _____
12	TYPE 3 ROCK DITCH LINER (12" THICK)	SY	110	\$ _____	\$ _____
13	SEPERATION GEOTEXTILE	SY	110	\$ _____	\$ _____
14	73X55 CSP ARCH, POLYMER COATED	LF	135	\$ _____	\$ _____
15	TYPE 7 AGGREGATE BASE (VARIABLE THICKNESS)	SY	62	\$ _____	\$ _____
16	TYPE III OBJECT MARKER	EA	12	\$ _____	\$ _____

**TOTAL CONTRACT PRICE: \$**

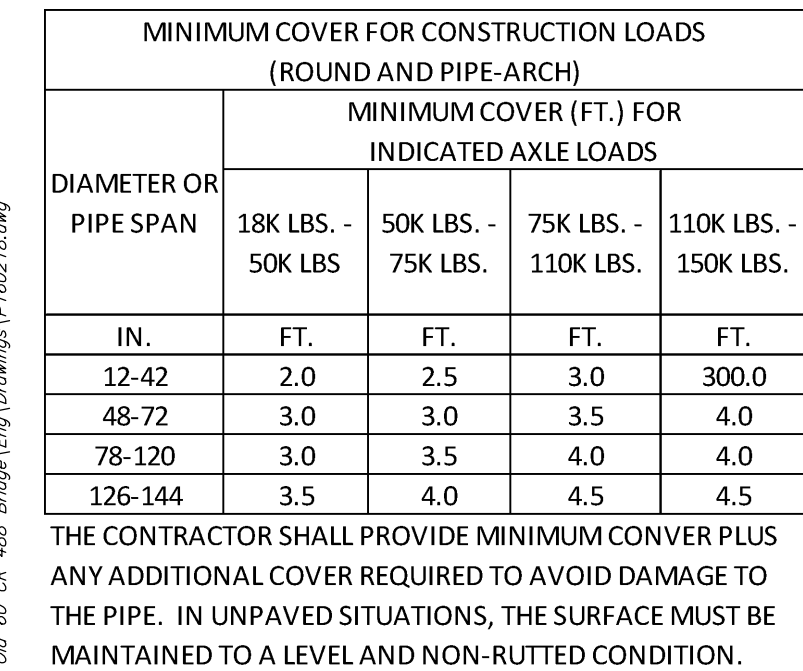
(in words)

By

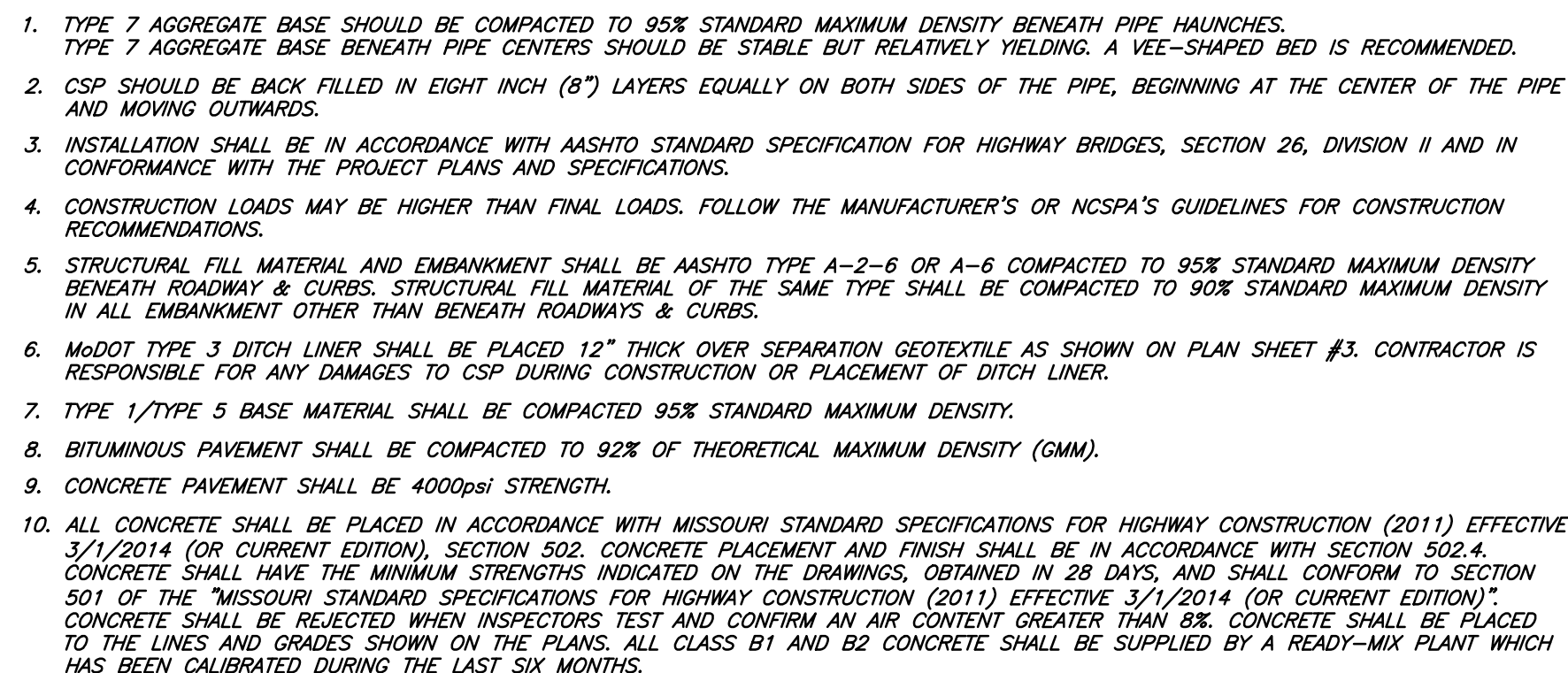
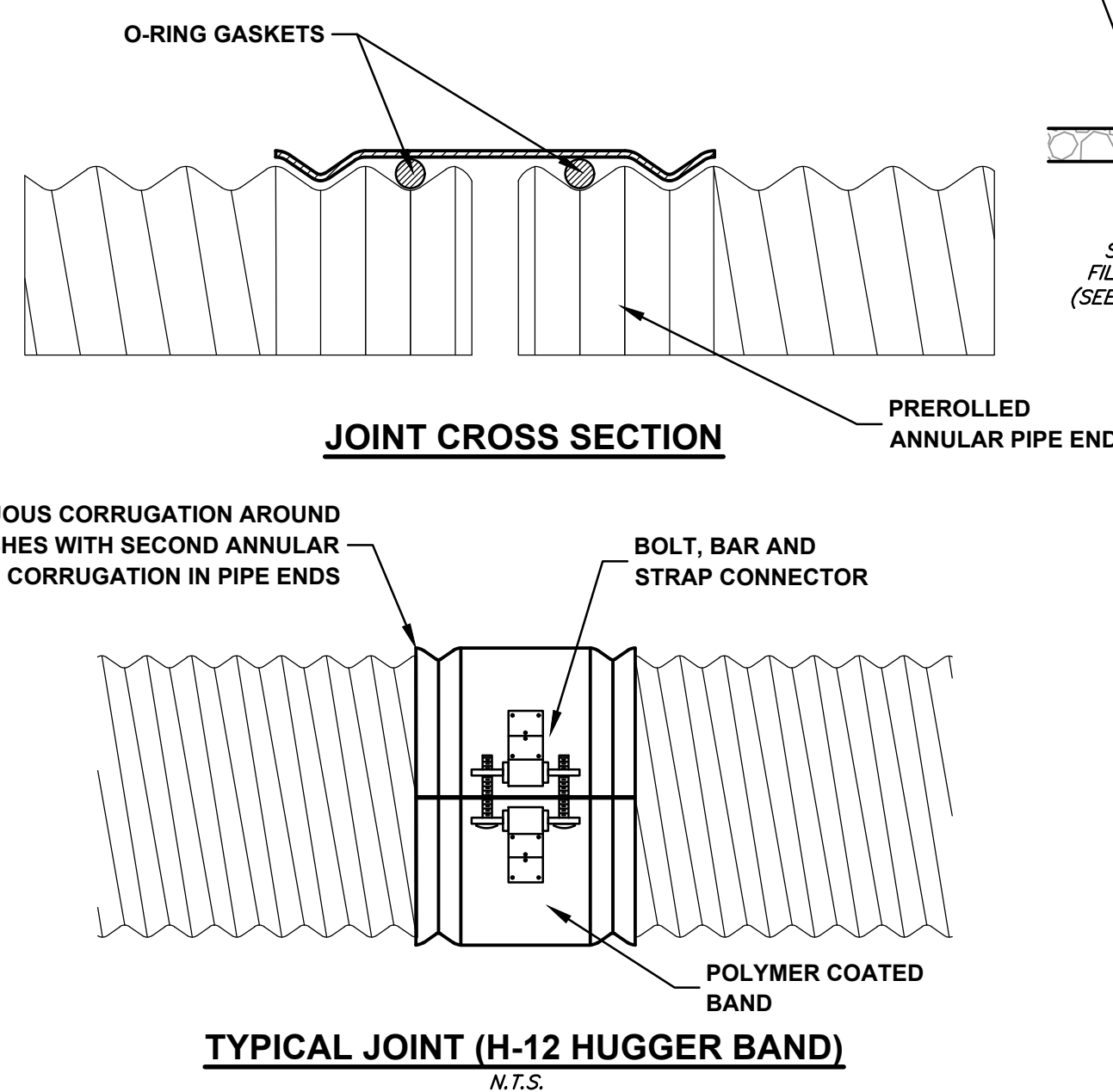
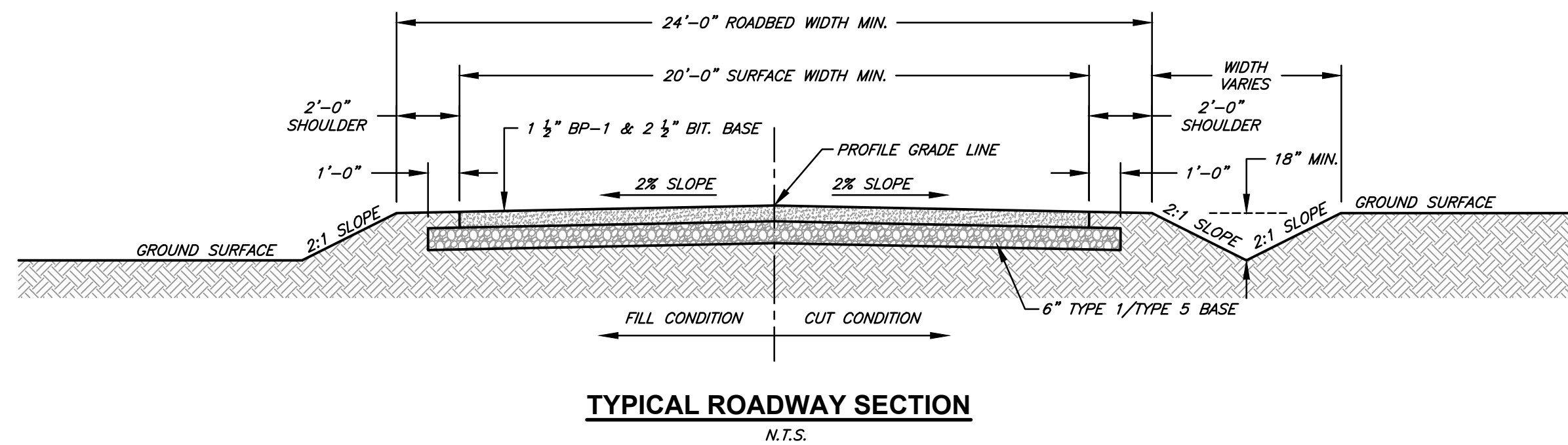
(signature)

(print)

BRIDGE NO. BRO-B103(067)



1. CSP SHALL BE A 73"x55" POLYMER COATED CORRUGATED STEEL PIPE (CSP) ARCH WITH 10 GAUGE WALLS AND 5 x 1 CORRUGATION PATTERN.
2. CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M-245.
3. POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246.
4. CSP SHOULD BE JOINTED WHEN REQUIRED WITH STANDARD PIPE BONDS TO BE APPROVED BY THE ENGINEER.



JEREMY D MANNING  
MO# PE-2013000601  
S.H. SMITH & COMPANY  
CERT.# E-616-D

[illegible]

AS SHOWN

THIS BAR WILL MEASURE 1" WHEN PRINTED AT FULL SCALE.

SURVEYED BY: CEB  
DESIGNED BY: JDM  
DRAWN BY: DKH  
CHECKED BY: JDM  
FIELD BOOK: 414

DATE: 6/16  
DATE: 10/16  
DATE: 10/16  
DATE: 10/16

ESTABLISHED 1949

AN EMPLOYEE OWNED COMPANY

# SMITH & CO.

ENGINEERS

901 VINE STREET, P.O. BOX 72  
POPULAR BLUFF, MISSOURI 63062  
(673) 765-9621 FAX: (673) 765-4651 [WWW.SMITHCO.COM](http://WWW.SMITHCO.COM)

 45th

CIVIL ENGINEERING • SURVEYING •  
ENVIRONMENTAL & GEOTECHNICAL SERVICES • MATERIAL TESTING

**STODDARD COUNTY 488 BRIDGE**  
**STODDARD COUNTY, MISSOURI**

## ARCH PIPE DETAILS AND LAYOUT (ASPHALT)

PROJECT #: P160218

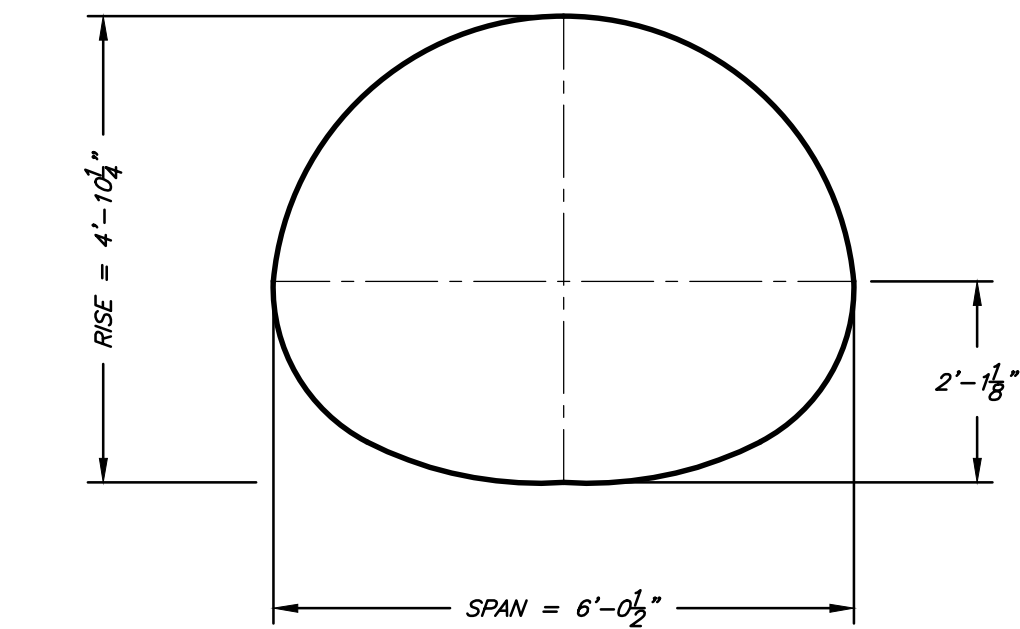
4



F:\P160218 Stoddard County Bridge.dwg 010 60 Cr 488 Bridge [Eng] Drawings\P160218.dwg

MINIMUM COVER FOR CONSTRUCTION LOADS (ROUND AND PIPE-ARCH)					
DIAMETER OR PIPE SPAN	MINIMUM COVER (FT.) FOR INDICATED AXLE LOADS				
	18K LBS. - 50K LBS	50K LBS. - 75K LBS.	75K LBS. - 110K LBS.	110K LBS. - 150K LBS.	
IN.	FT.	FT.	FT.	FT.	
12-42	2.0	2.5	3.0	300.0	
48-72	3.0	3.0	3.5	4.0	
78-120	3.0	3.5	4.0	4.0	
126-144	3.5	4.0	4.5	4.5	

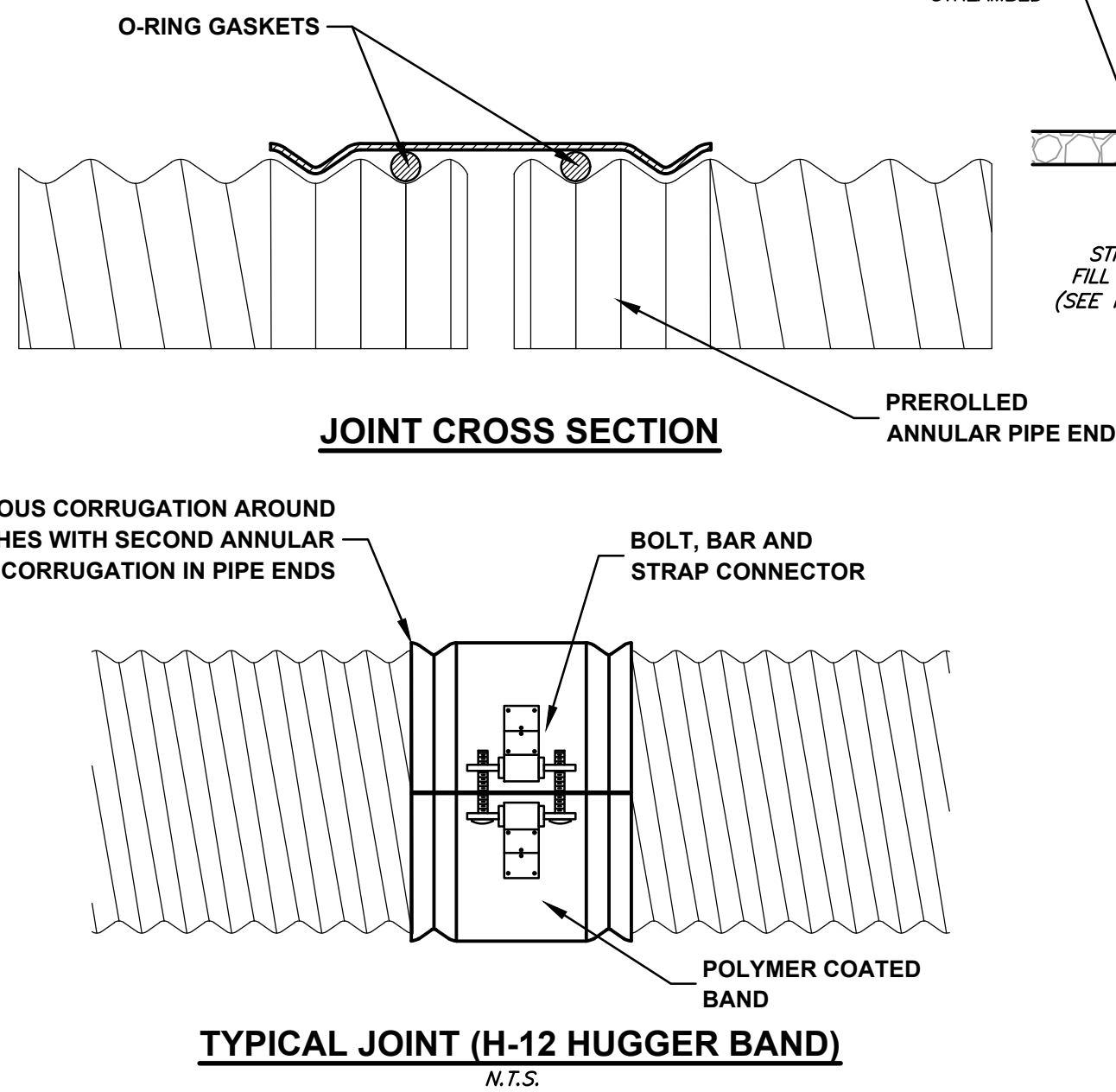
THE CONTRACTOR SHALL PROVIDE MINIMUM COVER PLUS ANY ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. IN UNPAVED SITUATIONS, THE SURFACE MUST BE MAINTAINED TO A LEVEL AND NON-RUTTED CONDITION.



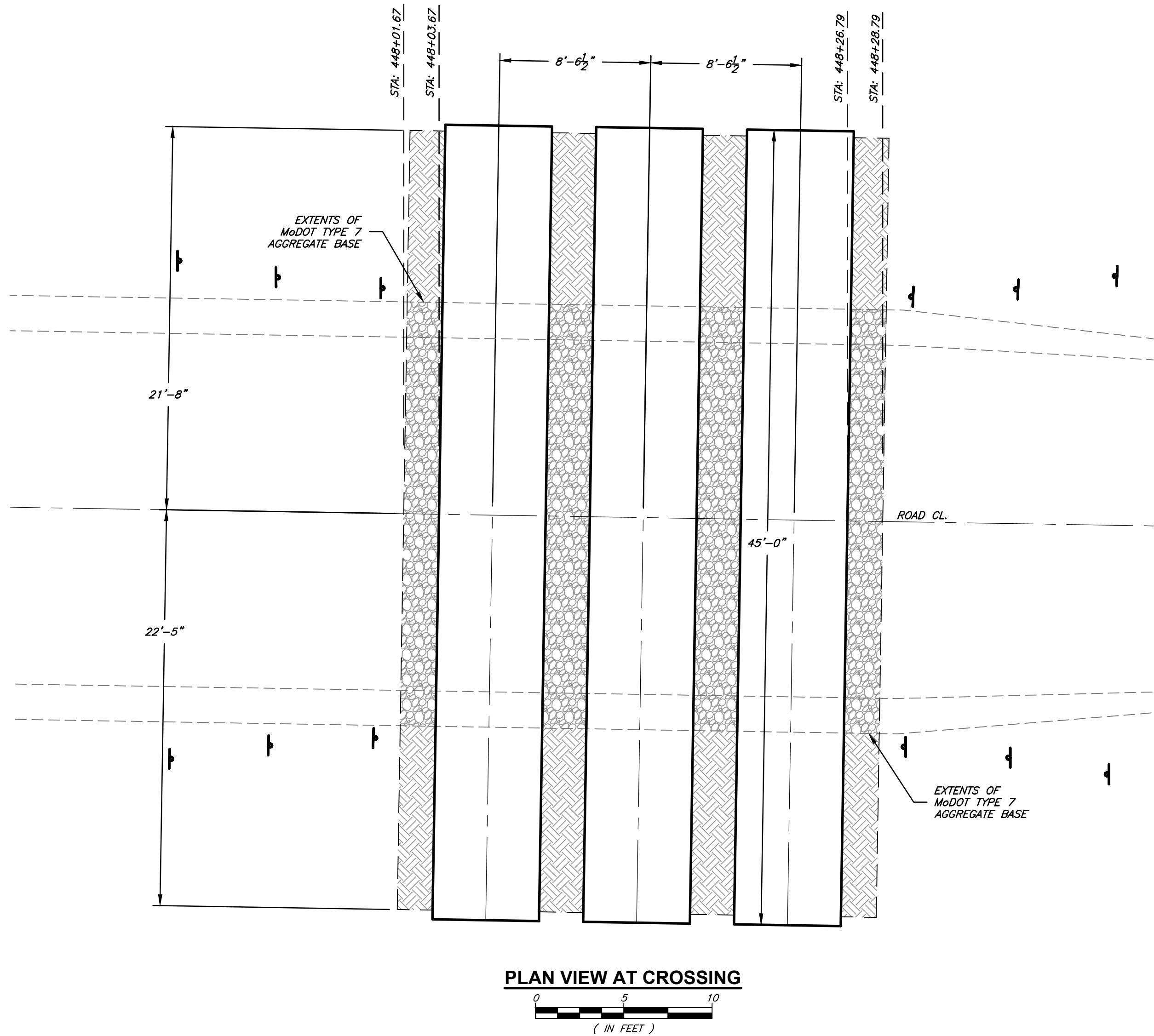
**TYPICAL CORRUGATED STEEL PIPE (CSP) ARCH DETAIL**  
N.T.S.

**NOTES:**

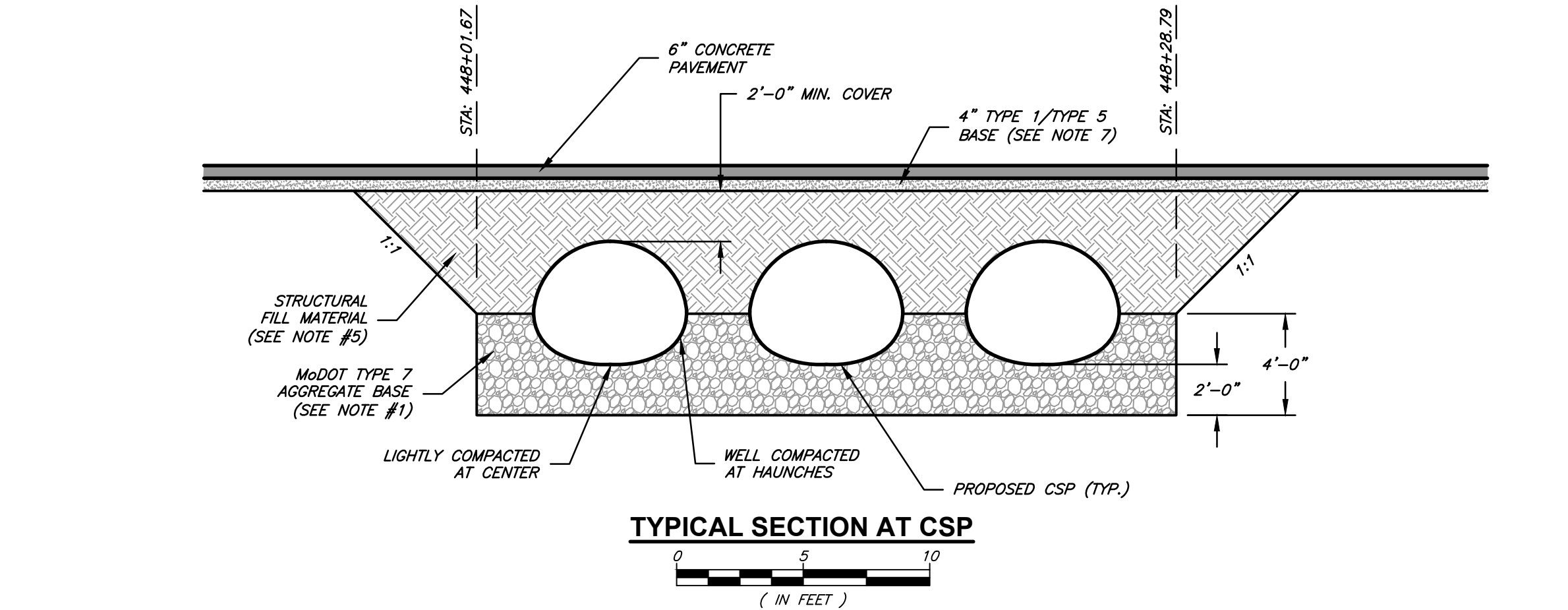
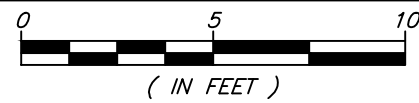
- CSP SHALL BE A 73"x55" POLYMER COATED CORRUGATED STEEL PIPE (CSP) ARCH WITH 10 GAUGE WALLS AND 5 x 1 CORRUGATION PATTERN.
- CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M-246.
- POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246.
- CSP SHOULD BE JOINTED WHEN REQUIRED WITH STANDARD PIPE BONDS TO BE APPROVED BY THE ENGINEER.



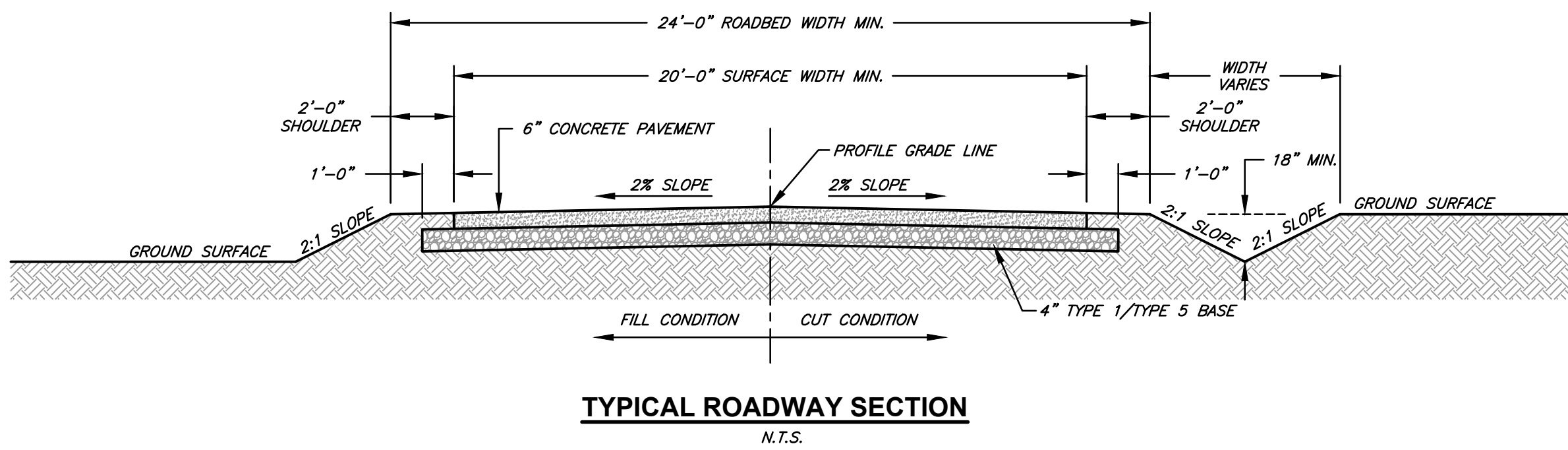
**TYPICAL JOINT (H-12 HUGGER BAND)**  
N.T.S.



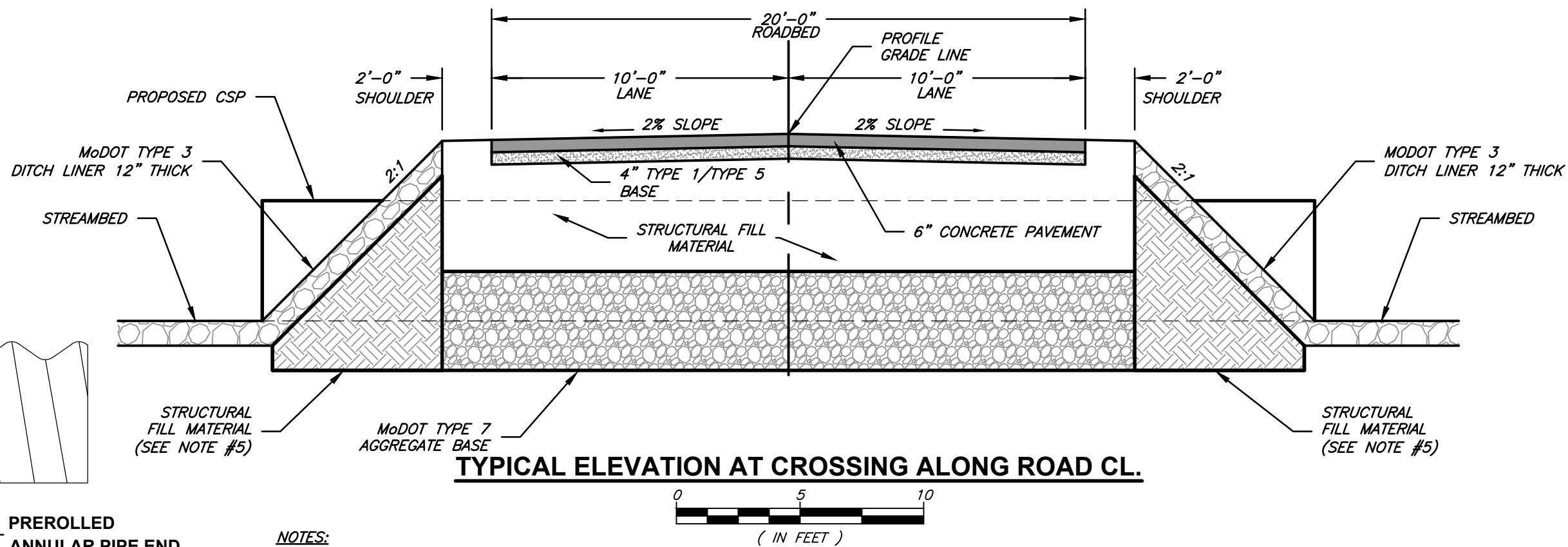
**PLAN VIEW AT CROSSING**



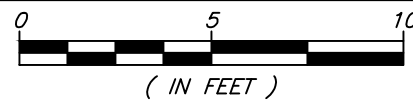
**TYPICAL SECTION AT CSP**



**TYPICAL ROADWAY SECTION**  
N.T.S.



**TYPICAL ELEVATION AT CROSSING ALONG ROAD CL.**



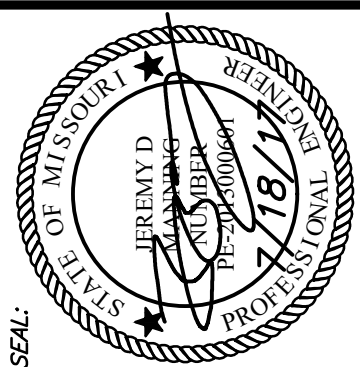
**NOTES:**

- TYPE 7 AGGREGATE BASE SHOULD BE COMPACTED TO 95% STANDARD MAXIMUM DENSITY BENEATH PIPE HAUNCHES. TYPE 7 AGGREGATE BASE BENEATH PIPE CENTERS SHOULD BE STABLE BUT RELATIVELY YIELDING. A VEE-SHAPED BED IS RECOMMENDED.
- CSP SHOULD BE BACK FILLED IN EIGHT (8") LAYERS EQUALLY ON BOTH SIDES OF THE PIPE, BEGINNING AT THE CENTER OF THE PIPE AND MOVING OUTWARDS.
- INSTALLATION SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
- CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA'S GUIDELINES FOR CONSTRUCTION RECOMMENDATIONS.
- STRUCTURAL FILL MATERIAL AND EMBANKMENT SHALL BE AASHTO TYPE A-2-6 OR A-6 COMPACTED TO 95% STANDARD MAXIMUM DENSITY BENEATH ROADWAY & CURBS. STRUCTURAL FILL MATERIAL OF THE SAME TYPE SHALL BE COMPACTED TO 90% STANDARD MAXIMUM DENSITY IN ALL EMBANKMENT OTHER THAN BENEATH ROADWAYS & CURBS.
- MoDOT TYPE 3 DITCH LINER SHALL BE PLACED 12" THICK OVER SEPARATION GEOTEXTILE AS SHOWN ON PLAN SHEET #3. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES TO CSP DURING CONSTRUCTION OR PLACEMENT OF DITCH LINER.
- TYPE 1/TYPE 5 BASE MATERIAL SHALL BE COMPACTED 95% STANDARD MAXIMUM DENSITY.
- BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92% OF THEORETICAL MAXIMUM DENSITY (GMM).
- CONCRETE PAVEMENT SHALL BE 4000psi STRENGTH.
- ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2011) EFFECTIVE 3/1/2014 (OR CURRENT EDITION), SECTION 502. CONCRETE PLACEMENT AND FINISH SHALL BE IN ACCORDANCE WITH SECTION 502.4. CONCRETE SHALL HAVE THE MINIMUM STRENGTHS INDICATED ON THE DRAWINGS, OBTAINED IN 28 DAYS, AND SHALL CONFORM TO SECTION 501 OF THE "MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2011) EFFECTIVE 3/1/2014 (OR CURRENT EDITION)". CONCRETE SHALL BE REJECTED WHEN INSPECTORS TEST AND CONFIRM AN AIR CONTENT GREATER THAN 8%. CONCRETE SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE PLANS. ALL CLASS B1 AND B2 CONCRETE SHALL BE SUPPLIED BY A READY-MIX PLANT WHICH HAS BEEN CALIBRATED DURING THE LAST SIX MONTHS.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SE	MO	BRO-B103(067)	2016	4	6

SEC 15 & 22, T25N, R9E

BRIDGE NO. BRO-B103(067)



JEREMY D. MANNING  
MO# PE-2013000601

S.H. SMITH & COMPANY  
CERT. # E-616-D

NO.	REVISIONS	DATE	BY	APP.
0	ISSUED FOR BID	10/19/2016		

DATE: 6/16	DESIGNED BY: JDM
DATE: 10/16	DRAWN BY: DMH
DATE: 10/16	CHECKED BY: JDM
FIELD BOOK: 414	

**SMITH & CO. ENGINEERS**  
AN EMPLOYEE OWNED COMPANY  
901 VINE STREET, P.O. BOX 72  
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(673) 785-9621 FAX: (673) 785-2651 WWW.SHSMITHCO.COM  
CIVIL ENGINEERING • SURVEYING • MATERIAL TESTING  
ENVIRONMENTAL & GEOTECHNICAL SERVICES

STODDARD COUNTY 488 BRIDGE  
STODDARD COUNTY, MISSOURI

PROJECT #: P160218

SHEET: **4.1**