

ADDENDUM NO. 2

TO:	All Holders of Plans and Contract	ISSUED:	November 25, 2019	
	Documents for the Gamble Road Bridge			
	No. 2390003 Replacement, BRO-B068(014)			
	Moniteau County, Missouri		Name of Bidder:	
		-		_
			Receipt Acknowledged By	

This Addendum is hereby made a part of the Contract Documents to the same extent as if it were originally included herein. This Addendum shall be inserted in the Contract Documents and submitted with the Bid, and includes the following items:

CONTRACT DOCUMENTS:

- 1) Specification: Proposal form updated:
 - Item Type C Berm 43 LF Removed
 - Item Type A Guardrail 50 LF Removed
 - Item Rock Ditch Check increased from 68 LF to 100 LF

CONTRACT DOCUMENTS:

- 1) Plan Sheet 5, removed Type C berm and increased Rock Ditch Check locations.
- 2) Plan Sheet 7, updated quantities to match proposal form.

Anderson Engineering, Inc.

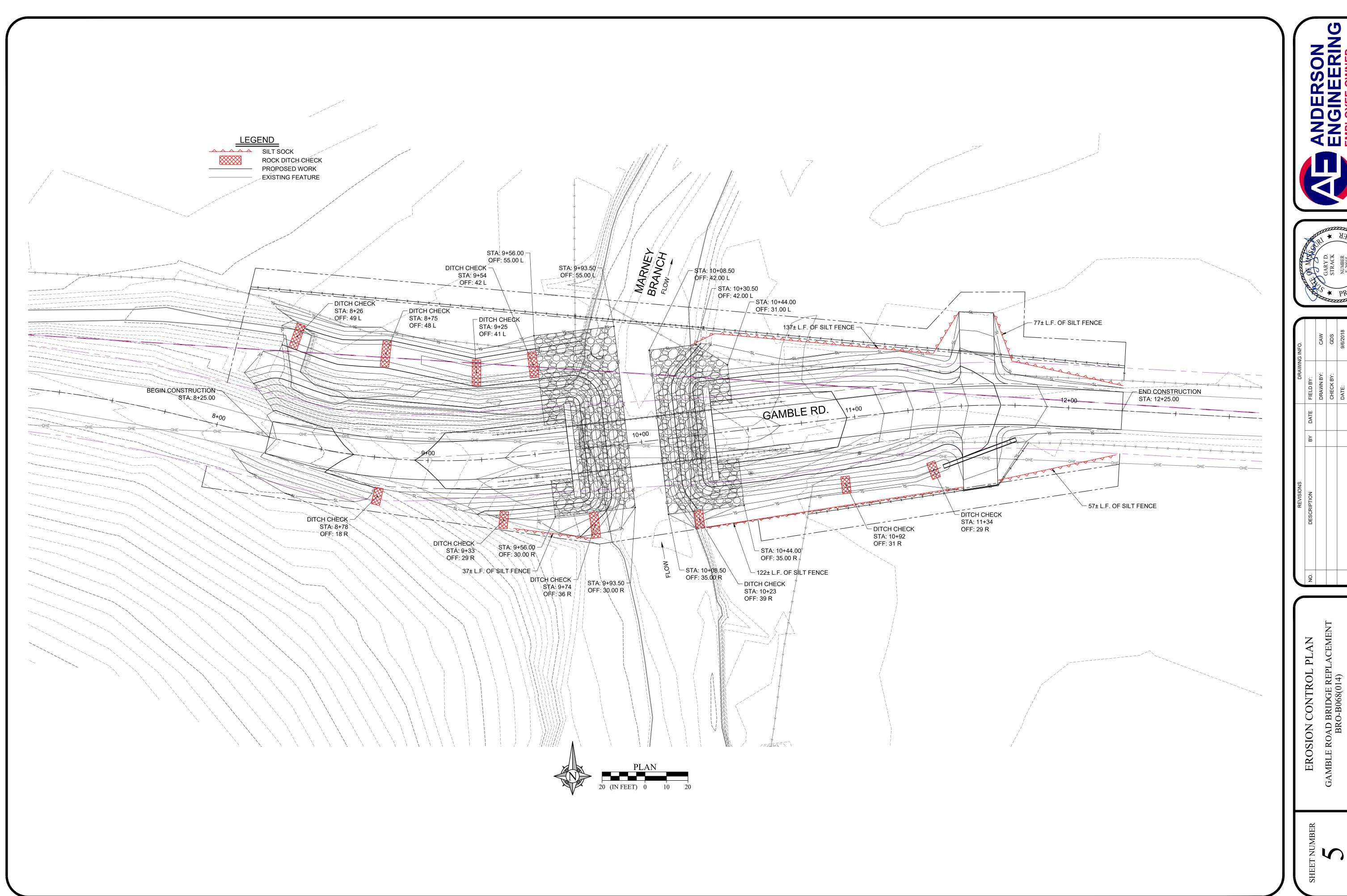
Gary D. Strack, P.E., F.NSPE, SECB

Moniteau County Commission Anderson Engineering, Inc.

GAMBLE ROAD BRIDGE OVER BURRIS FORK BRANCH PROPOSAL

				UNIT	
NO.	BID ITEM	UNITS	QUANTITY	PRICE	SUBTOTAL
	ROADWAY ITEMS				
1	CLEARING AND GRUBBING (.45 AC)	ACRE	1		\$ -
2	REMOVAL OF IMPROVEMENTS	LS	1		\$ -
3	UNCLASSIFIED EXCAVATION	CY	371		\$ -
4	EMBANKMENT IN PLACE	CY	2664		\$ -
5	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	SY	659		\$ -
6	GRAVEL (A)	SY	114		\$ -
7	GRAVEL (A) OR CRUSHED STONE (B) (2 IN. THICK)	SY	659		\$ -
8	TRANSITION SECTION, 6.5 FT. POSTS	EA	4		\$ -
9	TYPE A CRASHWORTHY END TERMINAL (MASH)	EA	4		\$ -
10	GATE (16 FT)	EA	2		\$ -
11	WATER GATE	EA	1		\$ -
12	5-STRAND BARBED WIRE	LF	448		\$ -
13	FURNISHING TYPE 1 ROCK BLANKET	СҮ	420		\$ -
14	PLACING TYPE 1 ROCK BLANKET	СҮ	420		\$ -
15	MOBILIZATION	LS	1		\$ -
16	SEPARATION GEOTEXTILE	SY	630		\$ -
17	CONTRACTOR FURNISHED SURVEYING AND STAKING	LS	1		\$ -
18	18 IN. PIPE GROUP A	LF	36		\$ -
19	SEEDING - COOL SEASON MIXTURES	ACRE	0.4		\$ -
20	ROCK DITCH CHECK	LF	100		\$ -
21	SILT FENCE	LF	430		\$ -
	TRAFFIC CONTROL ITEMS				1
22	TYPE III MOVABLE BARRICADE	EA	6		\$ -
23	TEMPORARY TRAFFIC CONTROL SIGNING	SF	65		\$ -
	BRIDGE ITEMS				1
24	CLASS 1 EXCAVATION	СУ	48.5		\$ -
25	REMOVAL OF BRIDGE	LS	1		\$ -
26	STRUCTURAL STEEL PILES (10 IN.)	LF	161		\$ -
27	PRE-BORE FOR PILING	LF	140		\$ -
28	PILE POINT REINFORCEMENT	EA	14		\$ -
29	CLASS B-2 CONCRETE (SUBSTRUCTURE)	CY	34.3		\$ -
30	SLAB ON CONCRETE NU-GIRDER	SY	170		\$ -
31	NU 35, PRESTRESSED CONCRETE NU-GIRDER	LF	197		\$ -
32	2" DIA. CONDUIT SYSTEM IN DECK	LF	68		\$ -
33	SL-1 BRIDGE RAIL	LF	150		\$ -
34	PLAIN NEOPRENE BEARING PAD	EA	6		\$ -
J +		LA LA			
	<u> </u>	otal Contractor			\$ -

Acknowledgement: Each bidder shall acknowledge receipt of addenda by	Addendum No.(s)
their signature affixed hereto and addendum noted.	_
Contractor:	Phone:
Signature:	Date:
Name:	(please print)









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			FIELD BOOK:	
			JOB NUMBER:	18HA10010
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	ROADWAY QUANTITIES							
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY				
1	201-30.00	CLEARING AND GRUBBING (.45 AC)	ACRE	1				
2	202-20.10	REMOVAL OF IMPROVEMENTS	LUMP SUM	1				
3	203-50.00	UNCLASSIFIED EXCAVATION	CUBIC YARDS	371				
4	203-55.00	EMBANKMENT IN PLACE	CUBIC YARDS	2,664				
5	304-01.43	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	SQUARE YARDS	659				
6	310-10.03	GRAVEL (A)	SQUARE YARDS	114				
	310-50.03	GRAVEL (A) OR CRUSHED STONE (B) (2 IN. THICK)	SQUARE YARDS	659				
8	606-23.00A	TRANSITION SECTION, 6.5 FT. POSTS	EACH	4				
	606-30.14	TYPE A CRASHWORTHY END TERMINAL (MASH)	EACH	4				
10	607-99.02	GATE (16 FT)	EACH	2				
11	607-99.02	WATER GATE	EACH	1				
12	607-99.03	5-STRAND BARBED WIRE	LINEAR FEET	448				
13	611-30.10	FURNISHING TYPE 1 ROCK BLANKET	CUBIC YARDS	420				
14	611-30.30	PLACING TYPE 1 ROCK BLANKET	CUBIC YARDS	420				
15	618-10.00	MOBILIZATION	LUMP SUM	1				
16	624-01.04A	SEPARATION GEOTEXTILE	SQUARE YARDS	630				
17	627-40.00	CONTRACTOR FURNISHED SURVEYING AND STAKING	LUMP SUM	1				
18	726-10.18	18 IN. PIPE GROUP A	LINEAR FEET	36				
	805-10.00A	SEEDING - COOL SEASON MIXTURES	ACRE	0.4				
	806-10.05	ROCK DITCH CHECK	LINEAR FEET	100				
21	806-10.19	SILT FENCE	LINEAR FEET	430				

		TRAFFIC CONTROL QUANTITIES						
	ITEM NO.	DESCRIPTION	<u>UNIT</u>	QUANTIT				
ĺ	22 616-10.30	TYPE III MOVABLE BARRICADE	EACH					
	23 903-99.04	TEMPORARY TRAFFIC CONTROL SIGNING	SQUARE FEET	6				

	BRIDGE QUANTITIES								
	ITEM NO.	<u>DESCRIPTION</u> <u>UNIT</u>		QUANTI [*]					
24	206-10.00	CLASS 1 EXCAVATION CUBIC YARD	os	48					
25	216-05.00	REMOVAL OF BRIDGE LUMP SUM							
26	702-10.10	STRUCTURAL STEEL PILES (10 IN.)	T	1					
27	702-60.00	PRE-BORE FOR PILING LINEAR FEE	T	1-					
28	702-70.00	PILE POINT REINFORCEMENT EACH							
29	703-42.14	CLASS B-2 CONCRETE (SUBSTRUCTURE) CUBIC YARD	os	34					
30	703-42.21	SLAB ON CONCRETE NU-GIRDER SQUARE YA	RDS	1					
31	705-60.21	NU 35, PRESTRESSED CONCRETE NU-GIRDER LINEAR FEE	T	1:					
32	707-99.03	2" DIA. CONDUIT SYSTEM IN DECK LINEAR FEE	T	(
33	713-99.03A	SL-1 BRIDGE RAIL LINEAR FEE	T	1:					
34	716-10.00	PLAIN NEOPRENE BEARING PAD EACH							

ALL CONCRETE ABOVE CONSTRUCTION JOINT IN THE END BENTS IS INCLUDED IN THE ESTIMATED QUANTITIES FOR SLAB ON CONCRETE NU-GIRDER..

ALL REINFORCEMENT IN THE END BENTS IS INCLUDED IN THE ESTIMATED QUANTITIES FOR SLAB ON CONCRETE NU-GIRDER

THE CONTRACTOR SHALL PROVIDE BRACING NECESSARY FOR LATERAL AND TORSIONAL STABILITY OF THE GIRDERS DURING CONSTRUCTION OF THE CONCRETE SLAB AND REMOVE THE BRACING AFTER THE SLAB HAS ATTAINED 75% DESIGN STRENGTH. CONTRACTOR SHALL NOT DRILL HOLES IN THE GIRDERS. THE COST FOR FURNISHING, INSTALLING, AND REMOVING BRACING WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR PRESTRESSED CONCRETE NU-GIRDER.

PAYMENT FOR ALL ITEMS AND APPURTENANCES REQUIRED TO COMPLETE THE WATER GATE, INCLUDING PILING, PILE POINT REINFORCEMENT, AND/OR PRE-BORING SHALL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR WATER GATE.

ESTIMATED QUANTIT FOR SLAB ON CONCRETE N						
ITEM	UNIT	TOTAL				
CLASS B-2 CONCRETE CUBIC YARDS 69.3						
REINFORCING STEEL	REINFORCING STEEL POUNDS 13,769					

THE TABLE OF ESTIMATED QUANTITIES FOR SLAB ON CONCRETE NU-GIRDER REPRESENTS THE QUANTITIES USED BY THE OWNER IN PREPARING THE COST ESTIMATE FOR CONCRETE SLABS. THE AREA OF THE CONCRETE SLAB WILL BE MEASURED TO THE NEAREST SQUARE YARD WITH THE HORIZONTAL DIMENSIONS AS SHOWN ON THE PLAN OF SLAB. PAYMENT FOR PRESTRESSED PANELS, CONVENTIONAL FORMS, ALL CONCRETE AND COATED AND UNCOATED REINFORCING STEEL WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR SLAB ON CONCRETE NU-GIRDER. VARIATIONS MAY BE ENCOUNTERED IN THE ESTIMATED QUANTITIES BUT THE VARIATIONS CANNOT BE USED FOR AN ADJUSTMENT IN THE CONTRACT UNIT PRICE.

METHOD OF FORMING THE SLAB SHALL BE AS SHOWN ON THE SHOP DRAWINGS AND IN ACCORDANCE WITH SEC 703. ALL HARDWARE FOR FORMING THE SLAB TO BE LEFT IN PLACE AS A PERMANENT PART OF THE STRUCTURE SHALL BE COATED IN ACCORDANCE WITH ASTM A123 OR ASTM B633 WITH A THICKNESS CLASS SC 4 AND A FINISH TYPE I, II OR III.

THE ESTIMATED QUANTITIES FOR SLAB ON CONCRETE NU-GIRDER ARE BASED ON SQUARE PRECAST PRESTRESSED END PANELS.

THE PRESTRESSED PANEL QUANTITIES ARE NOT INCLUDED IN THE TABLE OF ESTIMATED QUANTITIES FOR SLAB ON CONCRETE NU-GIRDER.

CLASS B-2 CONCRETE QUANTITY IS BASED ON MINIMUM TOP FLANGE THICKNESS AND MINIMUM JOINT MATERIAL

	FOUNDATION	DATA		
TYPE	DESIGN DATA		BENT NUMBER	
=	223.3.1.27.1.7.	DEGICIN DATA		2
	PILE TYPE AND SIZE		HP 10x42	HP 10x42
	NUMBER	EACH	7	7
LOAD	APPROXIMATE LENGTH PER EACH	FEET	11.5	11.5
BEARING	PILE DRIVING VERIFICATION METHOD		DF	DF
PILE	HAMMER ENERGY REQUIRED	FT-LB	12,555	12,555
	PILE POINT REINFORCEMENT	EACH	7	7
	PRE-BORE PILING	FEET	70	70

DF = FHWA-MODIFIED GATES DYNAMIC FORMULA

MINIMUM NOMINAL AXIAL COMPRESSIVE RESISTANCE = MAXIMUM FACTORED LOADS

RESISTANCE FACTOR

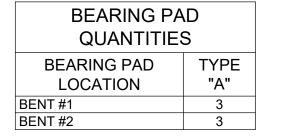
MINIMUM NOMINAL AXIAL COMPRESSIVE RESISTANCE = MAXIMUM FACTORED LOADS
(SIDE RESISTANCE + TIP RESISTANCE)
RESISTANCE FACTORS

MINIMUM ENERGY REQUIREMENT OF HAMMER IS BASED ON PLAN LENGTH AND DESIGN BEARING VALUE OF PILES. ALL PILES SHALL BE DRIVEN TO PRACTICAL REFUSAL.

MINIMUM PILE LENGTHS SHALL BE IN ACCORDANCE WITH SECTION 702.4.11 OF THE STANDARD SPECIFICATIONS.

PAYMENT FOR PILE SPLICES WILL ONLY BE MADE FOR PILES REACHING LENGTHS BEYOND 40 FEET.

EMBANKMENT IN PLACE SHALL INCLUDE HAULING AND REMOVING MATERIAL FROM/TO THE SITE, PLACEMENT AND COMPACTION OF MATERIAL AND EXCAVATION OF DITCHES TO MAKE GRADE SHOWN ON PLANS. PAYMENT WILL ONLY BE MADE FOR FILL MATERIAL PLACED PER PLAN REQUIREMENTS.



5" 5"

NOTE:
BEARING PADS TO BE PLACED PARALLEL TO SLOPE OF GIRDER.

TYPE "A"

LENGTH = 10"

WIDTH = 36"

HEIGHT AT Q = ½"

PLAIN NEOPRENE BEARING PADS

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (6TH ED.) AND 2013 INTERIM REVISIONS
SEISMIC DESIGN CATEGORY A

2001 AASHTO GUIDELINES FOR GEOMETRIC DESIGN OF VERY LOW-VOLUME LOCAL ROADS (ADT≤400)

DESIGN LOADING:

HS20-44

FATIGUE STRESS - CASE III

FUTURE WEARING SURFACE = 35 LB/SF

EARTH PRESSURE = 120 LB/CF

EQUIVALENT FLUID PRESSURE = 45 LB/CF

SUPERSTRUCTURE:

SIMPLY SUPPORTED NON-COMPOSITE FOR DEAD LOAD. CONTINUOUS COMPOSITE FOR LIVE LOAD.

DESIGN UNIT STRESSES:

CLASS B-2 CONCRETE fc = 4,000 p.s.i.REINFORCING STEEL (GRADE 60) fy = 60,000 p.s.i.STEEL PILE (ASTM A709 GRADE 50) fy = 50,000 p.s.i.

FOR PRECAST PRESTRESSED PANEL STRESSES, SEE SHEET NO. B8. FOR PRESTRESSED GIRDER STRESSES, SEE SHEET NO. B7.

NEOPRENE PADS:

PLAIN AND LAMINATED NEOPRENE BARING PADS SHALL BE 60 DUROMETER AND SHALL BE IN ACCORDANCE WITH SEC 716.

JOINT FILLER:

ALL JOINT FILLER SHALL BE IN ACCORDANCE WITH SEC 1057 FOR PREFORMED SPONGE RUBBER EXPANSION AND PARTITION JOINT FILLER, EXCEPT AS NOTED.

REINFORCING STEEL:

MINIMUM CLEARANCE TO THE REINFORCING STEEL SHALL BE 1-1/2 INCHES, UNLESS OTHERWISE SHOWN.

TRAFFIC HANDLING:

STRUCTURE TO BE CLOSED DURING CONSTRUCTION. TRAFFIC TO BE MAINTAINED ON OTHER ROUTES DURING CONSTRUCTION. SEE ROADWAY PLANS FOR TRAFFIC CONTROL.

ACCEPTANCE OF NU-GIRDERS:

THE FOLLOWING PROCEDURES HAVE BEEN ESTABLISHED FOR THE ACCEPTANCE OF NU-GIRDERS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE APPROVAL WILL COVER ONLY THE GENERAL DESIGN FEATURES, AND IN NO CASE SHALL THIS APPROVAL BE CONSIDERED TO COVER ERRORS OR OMISSIONS IN THE SHOP DRAWINGS. THE LOCAL AGENCY OR THEIR CONSULTANT HAS THE OPTION OF INSPECTING THE PRECAST UNITS DURING FABRICATION OR REQUIRING THE FABRICATOR TO FURNISH A CERTIFICATION OF CONTRACT COMPLIANCE AND SUBSTANTIATING TEST REPORTS. IN ADDITION, THE FOLLOWING REPORTS WILL BE REQUIRED.

1. CERTIFIED MILL TEST REPORTS, INCLUDING RESULTS OF PHYSICAL TEST ON THE PRESTREESED STRANDS, AND REINFORCEMENT AS REQUIRED.

2. TEST REPORTS ON CONCRETE CYLINDER BREAKS.

THE LOCAL AGENCY OR CONSULTANT MUST VERIFY AND DOCUMENT THAT DIMENSIONS OF THE UNITS WERE CHECKED AT THE JOB AND FOUND TO BE IN COMPLIANCE WITH THE SHOP DRAWINGS.

MODOT AND FHWA MAY MAKE INSPECTIONS OF THE WORK AND THE CONTRACTOR SHALL GRANT THEM ACCESS TO ALL PARTS OF THE WORK.

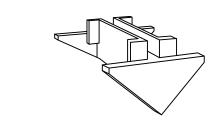
NOTE:

QUANTITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED BY THE OWNER AND ARE USED SOLELY FOR THE PURPOSE OF COMPARING BIDS AND AWARDING THE CONTRACT, AND MAY OR MAY NOT REPRESENT THE ACTUAL QUANTITIES ON THE JOB, SEE SPECIFICATIONS.

ANY ITEMS NOT SHOWN IN BID TAB, SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT FORM 106, TO MISSOURI DEPARTMENT OF NATURAL RESOURCES, HISTORIC PRESERVATION PROGRAM FOR ANY BORROW AREAS TO BE USED ON THIS PROJECT.

NOTE:
THE PILE POINT REINFORCEMENT SHALL BE A ONE-PIECE UNIT OF CAST STEEL. THE CUTTING EDGES SHALL BE HARDENED. THE PILE POINT SHALL BE DESIGNED TO PENETRATE BOULDERS WITHOUT DAMAGE TO THE PILE. THE PILE POINTS SHALL BE WELDED, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, TO EACH STEEL PILE AT THE END BENT BEFORE DRIVING.



CAST STEEL PILE POINT





G INFO.		CAW	CDS	9/6/2018		18HA10010	
DRAWING INFO.	FIELD BY:	DRAWN BY:	CHECK BY:	DATE:	FIELD BOOK:	JOB NUMBER:	
	DATE						
	ВУ						
REVISIONS	DESCRIPTION						©COPYRIGHT ANDERSON ENGINEERING, INC. 2012
	NO.						

AD BRIDGE REPLACEMENT BRO-B068(014) C. 28, T44N, R15W

BRO-B0 SEC. 28, T4