

CITY OF JACKSON, MISSISSIPPI

Martin Luther King, Jr. Drive (MLK)

Bridge Replacement Project

APRIL 2024

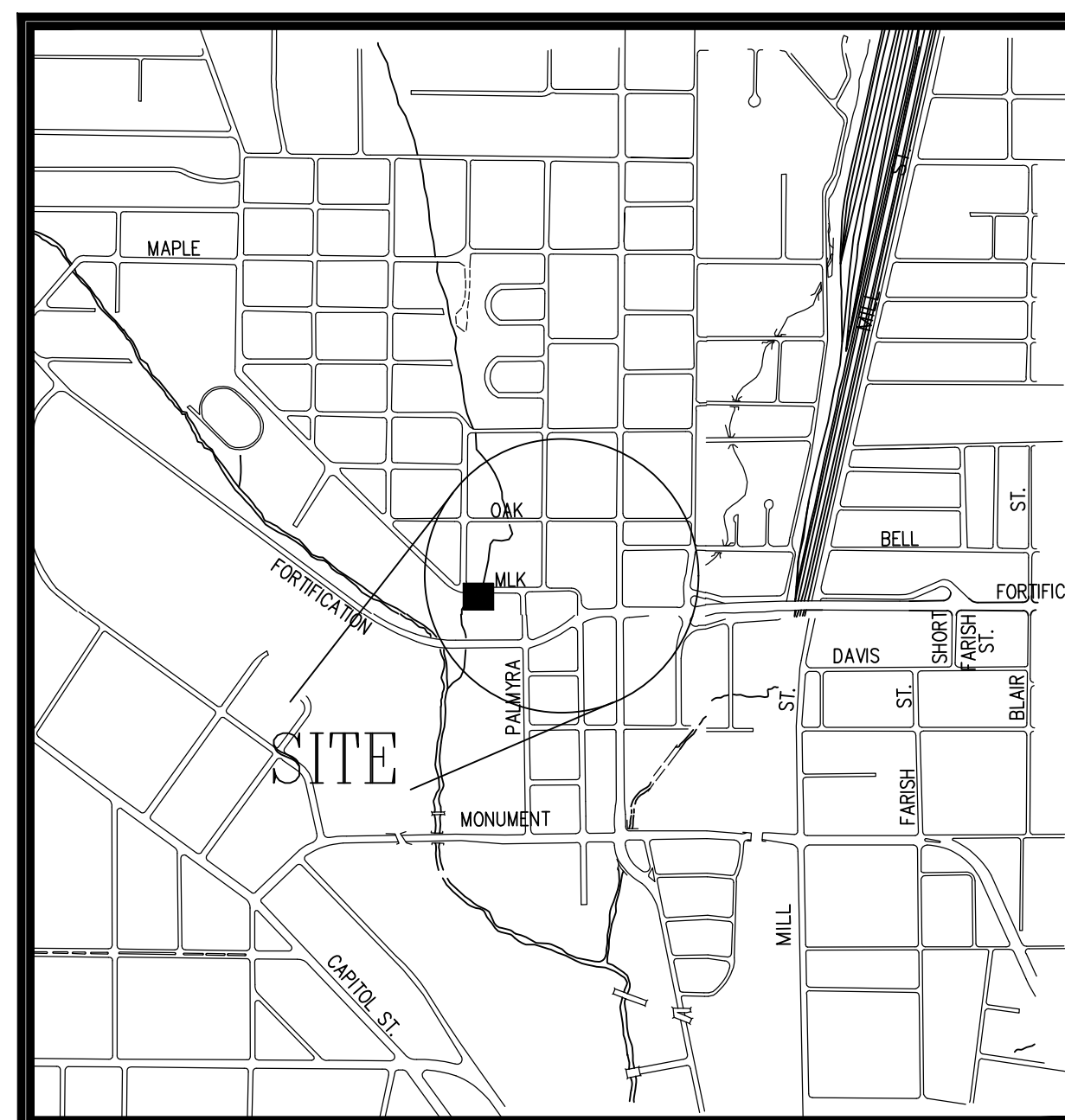


CHOKWE A. LUMUMBA
MAYOR

APPROVAL:
JACKSON CITY COUNCIL

ASHBY FOOTE - WARD 1
ANGELIQUE LEE - WARD 2
KENNETH I. STOKES - WARD 3
BRIAN GRIZZELL - WARD 4
VERNON HARTLEY - WARD 5
AARON BANKS - WARD 6
VIRGI LINDSAY - WARD 7

HENRY CHIA
STREETS, BRIDGES, AND DRAINAGE DIVISION
DEPARTMENT OF PUBLIC WORKS



VICINITY MAP
N.T.S.



ELMORE MOODY, P.E.
REGISTERED PROFESSIONAL ENGINEER # 11553



CiViL Tech, Inc. -Engineers & Project Managers

P.O. Box 12852, Jackson MS 39236-2852
Phone: 601-713-1713
Fax: 601-713-1703

SHEET NO. INDEX

1	TITLE AND LAYOUT
2	QUANTITY AND INDEX SHEET
3	SITE PLAN & PROFILE DETAILS AND SPECIAL NOTES
4	EROSION CONTROL PLAN AND DETAILS
5	TRAFFIC CONTROL PLAN
6	TRAFFIC CONTROL DETAILS
GR-2G-6211	GUARDRAIL BRIDGE END SECTION TYPE "1" (STEEL POSTS) (NEW CONSTRUCTION)
GR-4A-6215	GUARDRAIL TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY
PC-02-09	19'x31' PRECAST CONCRETE SPANS FOR USE WITH BARRIER, 28'-0" ROADWAY, 30'-0" ROADWAY
PC-05-09	19'x3.5' PRECAST CONCRETE SLAB UNIT FOR USE WITH BARRIER RAIL
PC-07-09	19'x4.5' PRECAST CONCRETE SLAB UNIT FOR USE WITH 24' & 30' ROADWAY
PC-13-09	PRECAST CONCRETE CAPS FOR USE WITH 19' & 31' PRECAST CONCRETE SPANS & BARRIER RAIL, 30'-0" ROADWAY
PC-14-09	PILE ENCASEMENT & STRUT DETAILS
PC-15-09	BEARING PAD & PLACEMENT DETAIL FOR USE WITH 23',24',26.5',28' & 20' CLEAR ROADWAYS AND 30 DEG. SKEWS
PC-17-09	PRECAST CONCRETE CAPS FOR USE WITH 19' & 31' PRECAST CONCRETE SPANS & BARRIER RAIL, 30'-0" ROADWAY
PC-18-09	19'-0" SOLID BARRIER RAIL
PC-42-09	PRECAST CONCRETE INT. BENT CAP FOR USE WITH 19 FT. & 31 FT. TO 40 FT. PRECAST CONCRETE SPANS AND BARRIER RAIL 30'-0" ROADWAY
CP-01	14",16",18" & 20" SQUARE PRESTRESSED CONCRETE PILES

UTILITIES:

AT&T	601 859-3162
ATMOS ENTERGY	601 961-6790
ENTERGY	601 925-6506
Water/Sewer	601 960-2041
Mississippi One Call	811

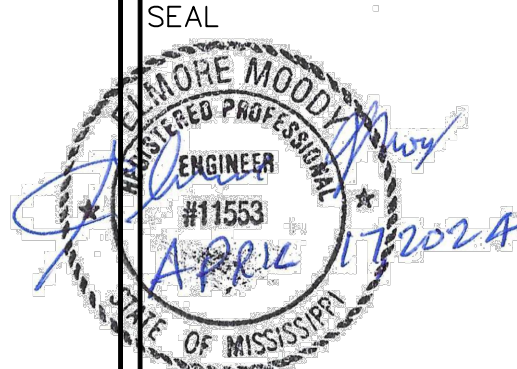
Contractor Shall Reference Mississippi Standard Specifications
For Road And Bridges and Mississippi Standard Specifications For
State Aid Road And Bridges For All Pay Items.

QUANTITY			
Pay Item No.	Description	Quantity	Units
S-200-A	MOBILIZATION	1	LS
S-201-A	CLEARING AND GRUBBING	1	LS
S-202-B	REMOVAL OF BRIDGE	1	UNIT
S-202-D	REMOVAL OF ASPHALT PAVEMENT	65	SQ. YD.
S-203-A	UNCLASSIFIED EXCAVATION (LVM)	200	CU. YD.
S-203-E	BORROW EXCAVATION	200	CU. YD.
S-214	SEEDING	1	ACRE
S-233-A	TEMPORARY SILT FENCE (TYPE 1)	100	L.F.
S-235-A	TEMPORARY EROSION CHECKS,WATTLES DITCH CHECKS	120	EACH.
S-304-A	GRANULAR MATERIAL (LVM) (CLASS 5, GROUP B)	30	TON
S-403-B	HOT MIX ASPHALT, ST (9.5MM)	50	TON
S-403-B	HOT MIX ASPHALT, ST (12.5MM)	30	TON
S-406-A	COLD MILLING	125	SQ. YD.
S-407-A	TACK COAT	75	GAL
S-626-AX	TRAVEL LANE RUMBLE STRIPS (COMPLETE)	1,200	L.F.
S-613-D	ADJUSTMENT OF WATERLINE (IF NEEDED)	1	L.S.
S-613-E	ADJUSTMENT OF SEWERLINE (IF NEEDED)	1	L.S.
S-606-A	GUARDRAILS, "W" BEAM-POST, GUARDRAIL SYSTEM, END TRHU F SECTIONS (COMPLETE)	50	L.F.
S-618-A	MAINTENANCE OF TRAFFIC	1	L.S.
S-620-E-1	4" WIDE THERMO PLASTIC TRAFFIC STRIPE (CONTINUOUS YELLOW)	300	L.F.
S-620-B	4" WIDE THERMO PLASTIC TRAFFIC STRIPE (CONTINUOUS WHITE)	200	L.F.
S-221-A	PAVED CONCRETE DITCH WITH WEEP HOLES	370	SQ. YD.
S-815-E	GEOTEXTILE UNDER PAVED DITCH	370	SQ. YD.
S-627-D	RAISED PAVEMENT MARKERS	30	EACH
S-645-E	FLASHER ASSEMBLY(SOLAR)w/SIGN "CURVE AHEAD" (COMPLETE)	1	EACH
<u>BRIDGE ITEMS</u>			
50'-0' CLEAR ROADWAY WIDTH			
1@19' & 1@31' PRECAST CONCRETE SPANS			
S-803-A	TEST PILE	2	EACH
S-803-C	10x49 PILE, (COMPLETE)	900	FT
<u>END SPAN</u>			
S-806-A	19' PRECAST CONCRETE SLAB UNIT, 4.5' INTERIOR 30° Skew LT FWD	2	EACH
S-806-B	19' PRECAST CONCRETE SLAB UNIT, 3.5' INTERIOR 30° Skew LT FWD	10	EACH
S-806-C	19' PRECAST CONCRETE SLAB UNIT, 3.5' EXTERIOR 30° Skew LT FWD	2	EACH
S-806-G	19' PRECAST CONCRETE BARRIER RAIL	38	L.F.
S-806-H	56' PRECAST CONCRETE END CAP, END UNIT	3	EACH
S-806-I	PRECAST CONCRETE WING	4	EACH
<u>END SPAN</u>			
S-806-D	31' PRECAST CONCRETE SLAB UNIT, 4.5' INTERIOR 30° Skew LT FWD	2	EACH
S-806-E	31' PRECAST CONCRETE SLAB UNIT, 3.5' INTERIOR 30° Skew LT FWD	10	EACH
S-806-F	31' PRECAST CONCRETE SLAB UNIT, 3.5' EXTERIOR 30° Skew LT FWD	2	EACH
S-806-G	PRECAST CONCRETE BARRIER RAIL	62	L.F.

CITY OF JACKSON
BRIDGE REPLACEMENT
MARTIN LUTHER KING DR.

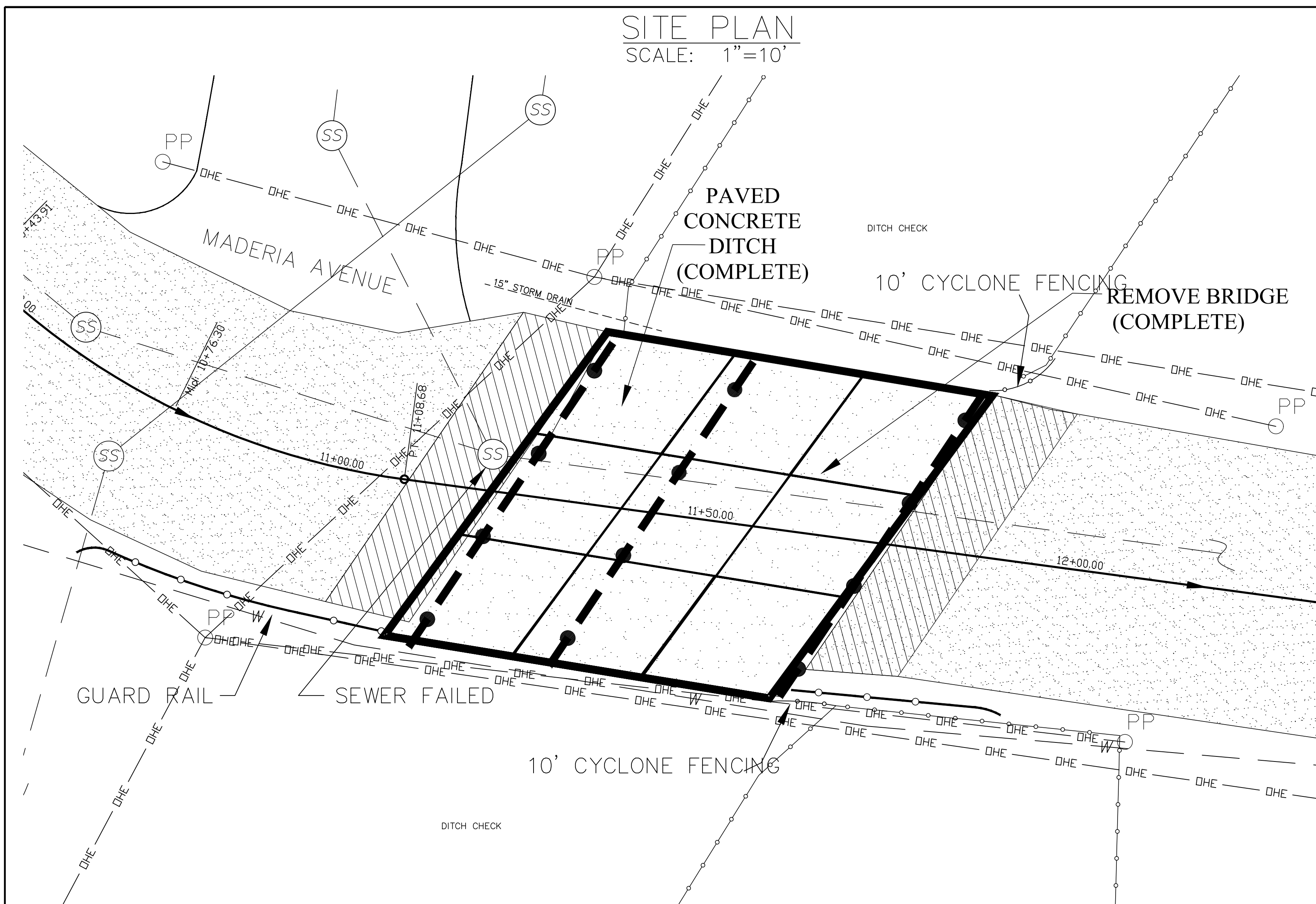
THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. AND WAS CREATED, SOLELY FOR THE PURPOSES OF THIS PROJECT. THIS DRAWING SHALL NOT BE RE-USED (IN WHOLE OR IN PART) ON EXTENSIONS OF THIS PROJECT OR FOR ANY OTHER PROJECT WITHOUT ENGINEER'S KNOWLEDGE AND CONSENT FROM THE ENGINEER IS PROHIBITED. THE ENGINEER ASSUMES NO LIABILITY FOR DAMAGES, LOSSES AND EXPENSES ARISING FROM UNAUTHORIZED RE-USE OF THIS DRAWING. UNAUTHORIZED USE OF THE ENGINEER'S SEAL IS A VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

CIVILTECH, Inc.
Engineers & Project Managers
P.O. Box 12852, Jackson, MS 39236-2852
Phone: (601) 713-1713
Fax: (601) 713-1703



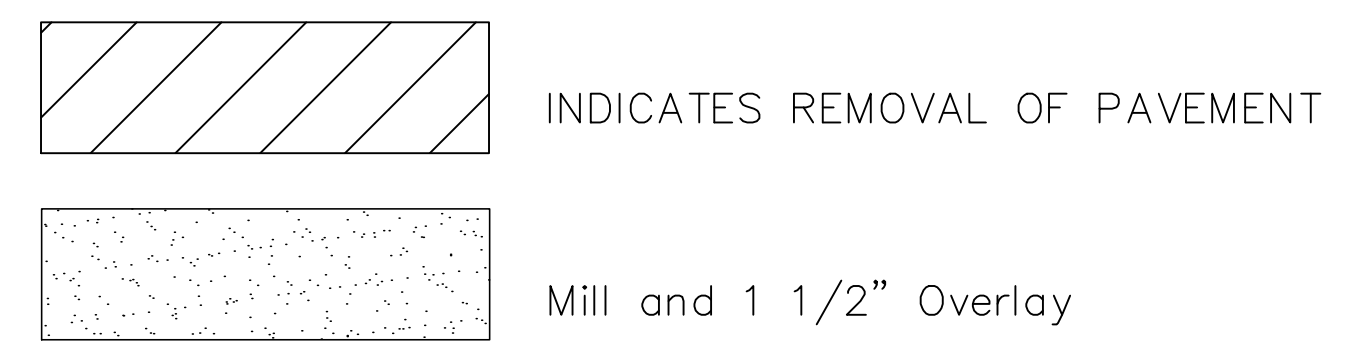
QUANTITY & INDEX SHEET

DRAWN: TL	CHECKED: DJ
CROSS CHK: TL	APP'D: EM
DATE: MARCH 2024	
SCALE: NTS	
SHEET NO. 2	

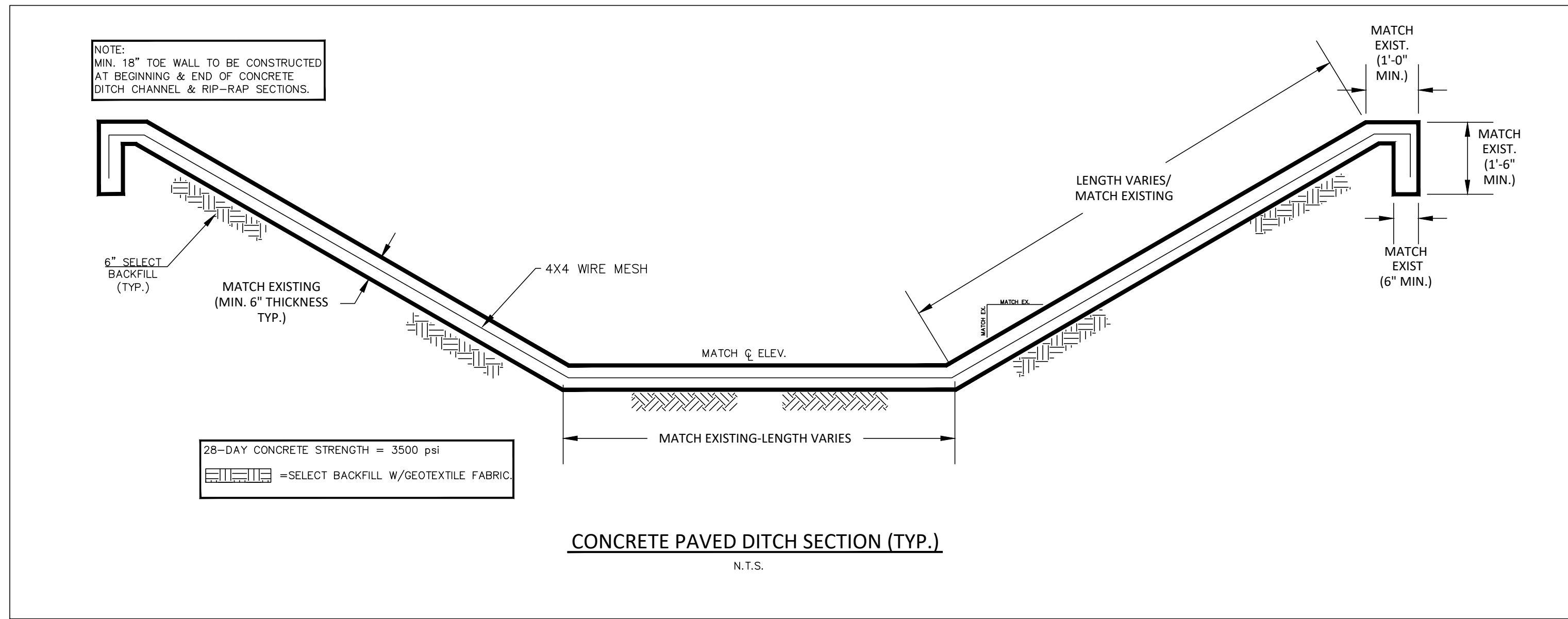
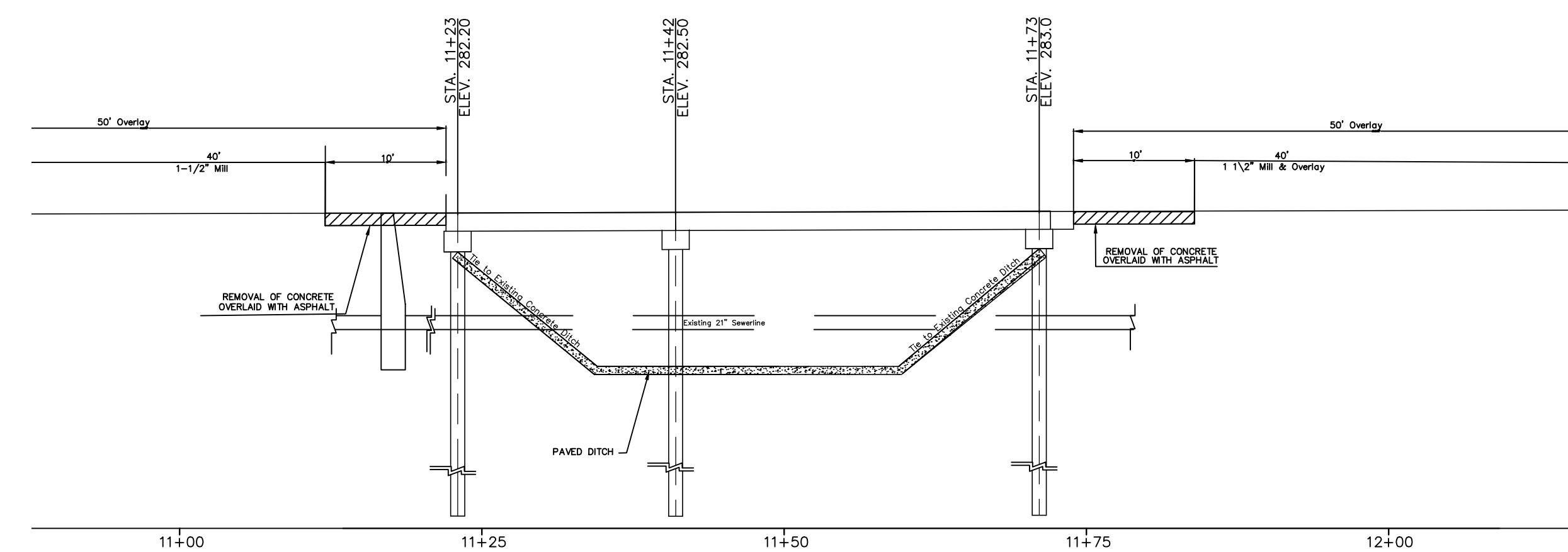


GENERAL NOTES

1. SPECIFICATIONS: MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2017 EDITION.
2. NO UNAUTHORIZED CHANGE OF PLAN WILL BE PERMITTED.
3. EXPANSION JOINT MATERIAL SHALL BE BITUMINOUS FIBER TYPE.
4. CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH SECTION S-804.03.19
5. TEST PILE DATA AND RECOMMENDED PILE LENGTHS SHALL BE SUBMITTED TO & APPROVED BY CITY ENGINEER BEFORE DRIVING OF PILES.
6. TEST PILES SHALL BE DRIVEN AS PERMANENT PILES AT A LOCATION SHOWN ON THE FOUNDATION PLAN AND WILL BE PAID FOR AS TEST PILES.
7. NO PAYMENTS WILL BE ALLOWED FOR EXCAVATION INCIDENTAL TO CONSTRUCTION OF END BENTS.
8. ALL WORK FOR WHICH NO PAY ITEM IS PROVIDED IN THE PROPOSAL WILL NOT BE PAID FOR DIRECTLY AND COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE BID PRICE OF THE ITEMS.
9. IF TEST PILING DOES NOT ACHIEVE TEST BEARING WITHIN TEN FEET BELOW SPECIFIED TEST PILE MINIMUM TIP ELEVATION THE CITY ENGINEER WILL BE NOTIFIED PRIOR TO ANY FURTHER TEST PILING BEING DRIVEN. AFTER REVIEW OF THE TEST PILE REPORT THE CITY ENGINEER WILL THEN DETERMINE WHETHER OR NOT TO REQUIRE A LOAD TEST. A LOAD TEST, WHEN REQUIRED, WILL BE PAID FOR BY THE CITY OF JACKSON SEPERATE FROM THE CONTRACTOR PROJECT.
10. BORROW EXCAVATION (S-203-E) SHALL BE USED FOR SUITABLE FILL MATERIAL AS INDICATED ON THE PLAN PROFILE OR AS DIRECTED BY ENGINEER.
11. CONTRACTOR TO REPAIR RESURFACE STREET DAMAGED DURING CONSTRUCTION.
12. CONTRACTOR SHALL SPLICE BRIDGE CAPS INCLUDING STRUCTURAL CONNECTIONS, FIELD FABRICATION, FORMS PLACEMENT, APPURTENANCES, ETC. (COMPLETE). ALL COSTS SHALL BE INCLUDED FOR THE WORK.
13. ALL HP PILES EXPOSED ABOVE GRADE SHALL BE ENCASED IN 4,000 PSI CONCRETE (COMPLETE).
14. CONTRACTOR WILL BE REQUIRED TO WORK IN PROXIMITY TO ACTIVE HIGH-VOLTAGE TRANSMISSION POWER LINES. THESE LINES WILL NOT BE DE-ENERGIZED. CONTRACTOR TO COORDINATE WITH ENTERGY FOR THIS WORK.



DESIGN DATA
 SPECIFICATIONS -----AASHTO. 2002
 LOADING -----HS20-44
 ROADWAY WIDTH -----50'-0" CLEAR ROADWAY



TEST PILE SCHEDULE

BENT NO.	MIN. LENGTH FT.	MIN. TIP ELEV.
---	50	228.00(+/-)
---	---	---

ESTIMATED BRIDGE QUANTITIES

ITEM	40' SPAN 3'-6" EXT. UNIT	40' SPAN 3'-6" INT. UNIT	31' SPAN 3'-6" EXT. UNIT	31' SPAN 3'-6" INT. UNIT	19' SPAN 4'-6" EXT. UNIT	19' SPAN 4'-6" INT. UNIT	31' SPAN 4'-6" EXT. UNIT	40' SPAN 4'-6" INT. UNIT	CONC. CAP END UNIT	CONC. CAP INT. UNIT 19' TO 19'	SOLID TYPE BARRIER RAIL (19')	SOLID TYPE BARRIER RAIL (31')	ABUT WINGS	TEST PILE	14" CONC PILING
LOCATION	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	UNIT	LIN. FT.	LIN. FT.	UNIT	EACH	LIN. FT.
END BENTS			2	10					2	1			4	2	
INT. BENTS															
END SPANS					2	10					38	62			
INT. SPANS															

CITY OF JACKSON
 BRIDGE REPLACEMENT
 MARTIN LUTHER KING DR.

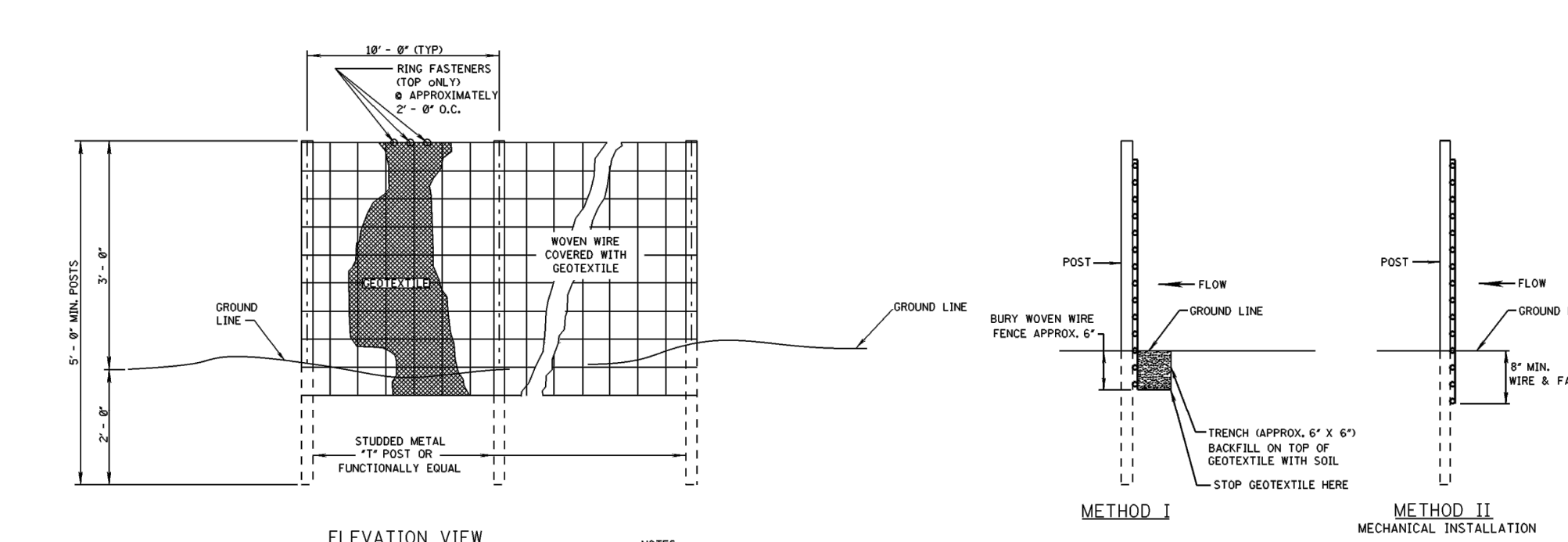
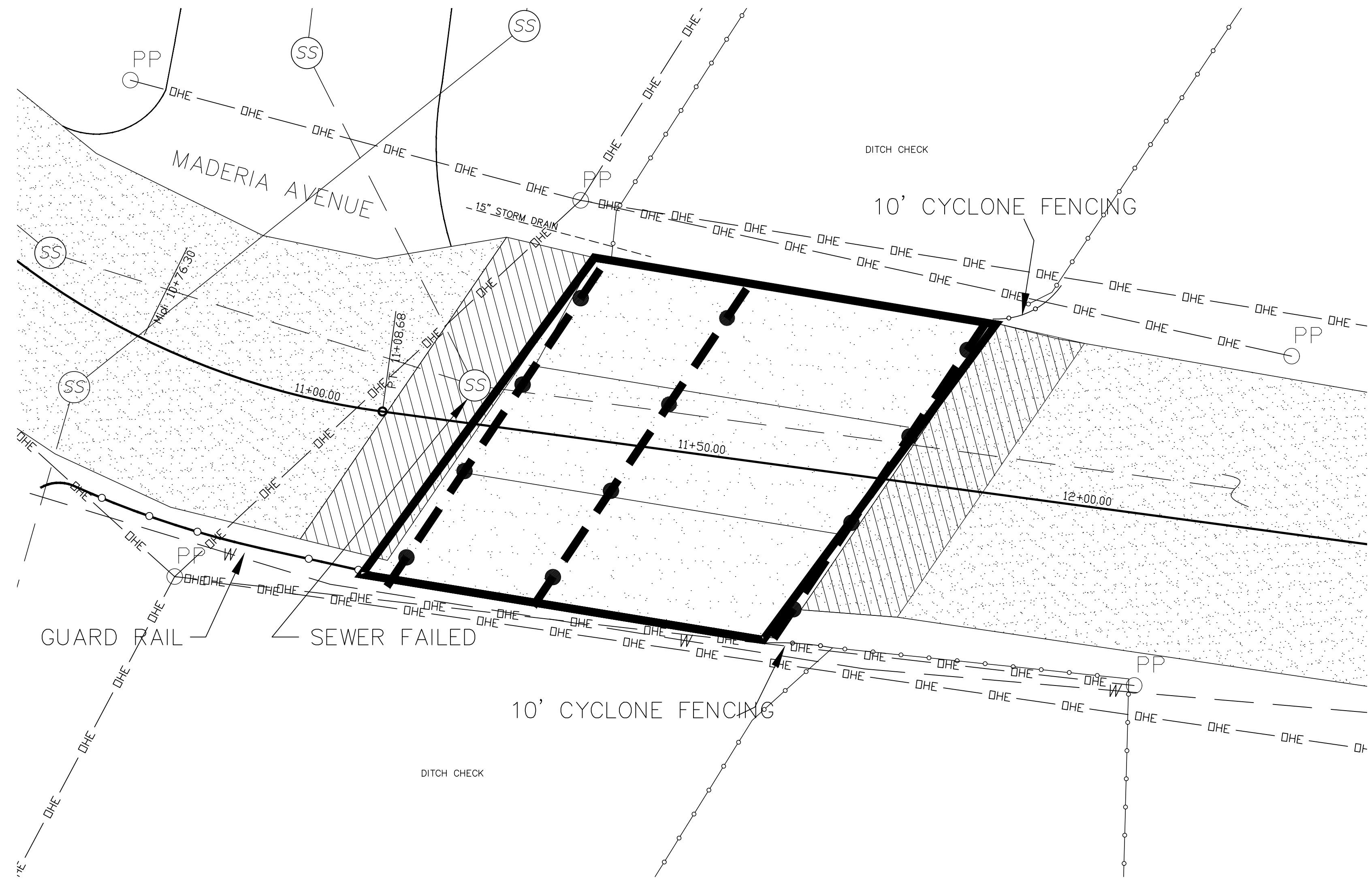
THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. (THE ENGINEER) AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT AND DOES NOT INCLUDE ANY LIABILITY FOR CLAIMS, DAMAGES, LOSSES, AND EXPENSES ARISING FROM UNAUTHORIZED RE-USE OF THIS DRAWING. UNAUTHORIZED USE OF THE ENGINEER'S SEAL IS A VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

CivilTech, Inc.
 Engineers & Project Managers
 P.O. Box 12852, Jackson, MS 39236-2852
 Phone: (601) 713-1713
 Fax: (601) 713-1703

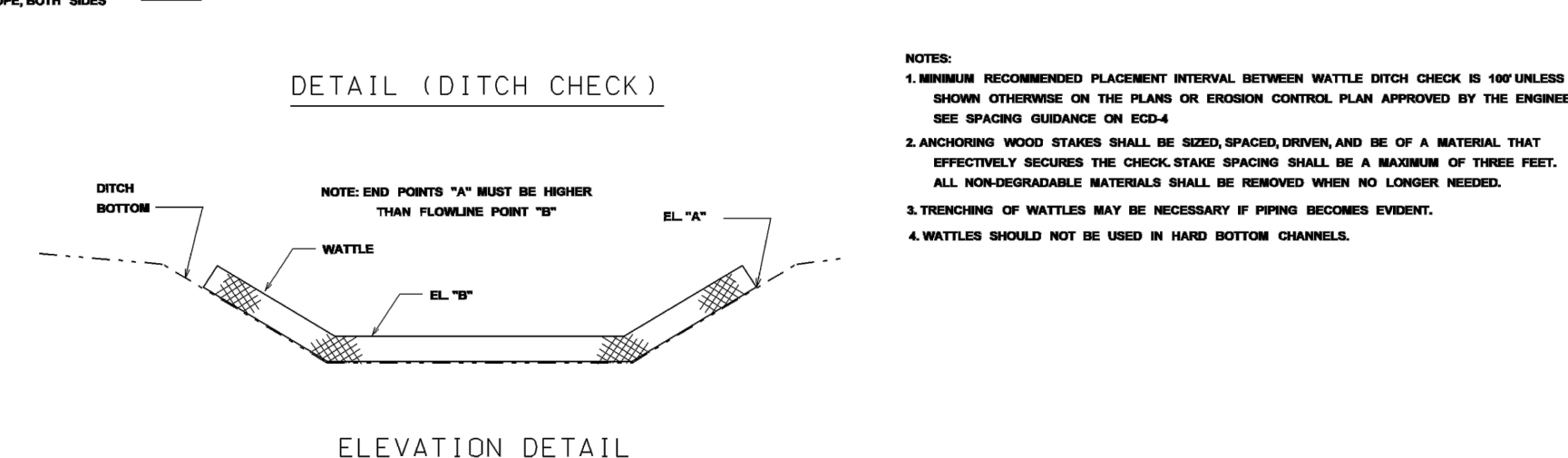
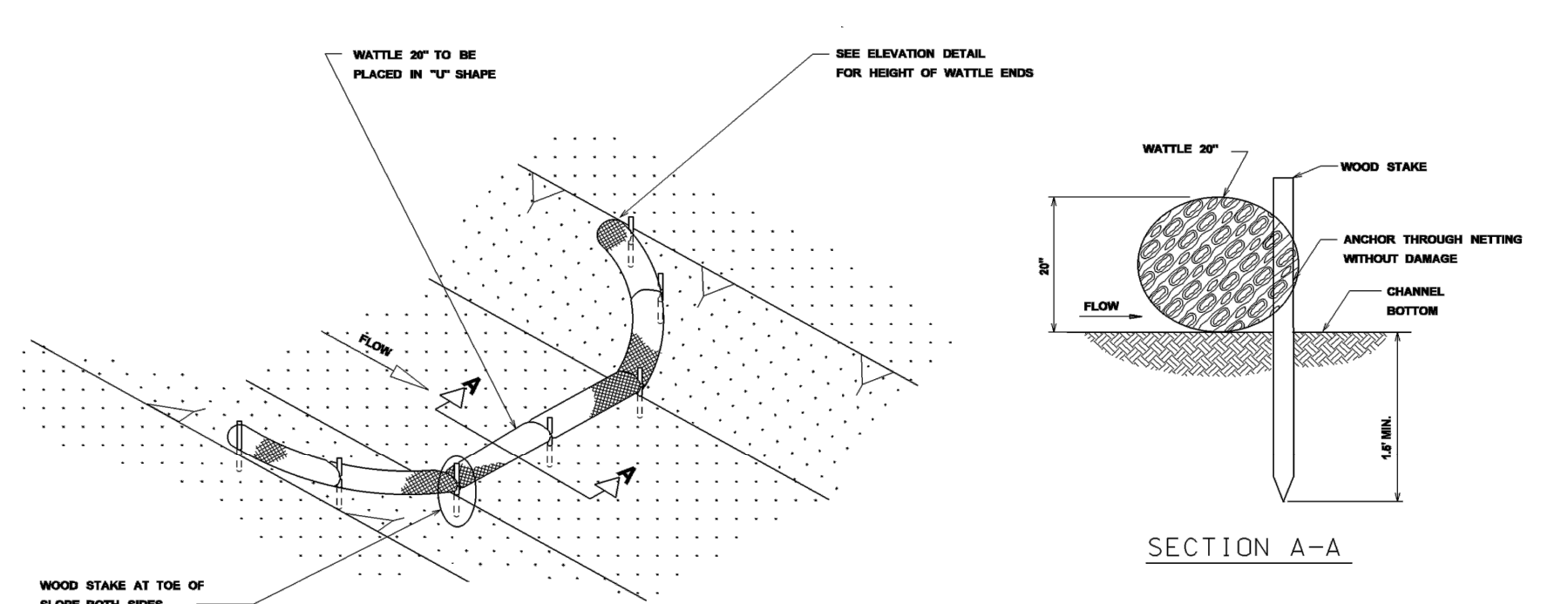
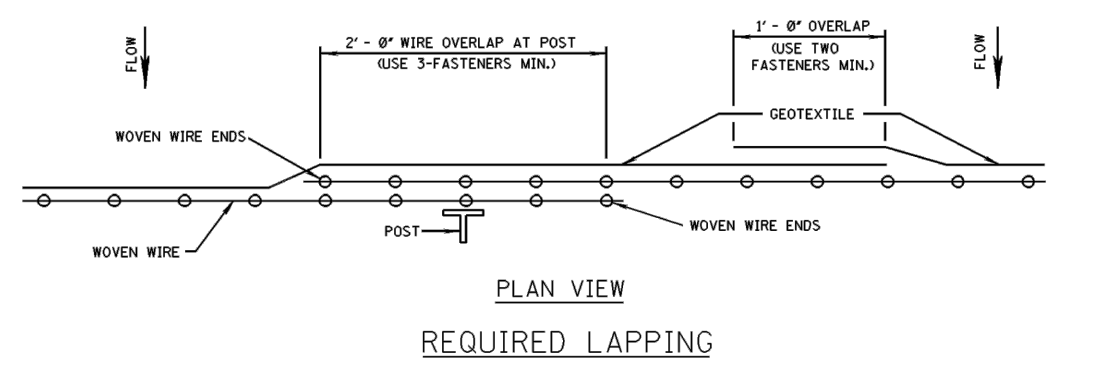
SITE PLAN & PROFILE AND SPEICAL NOTE

DRAWN: TL	CHECKED: TL
CROSS CHKD: --	APP'D: EM
DATE: MARCH 2024	
SCALE: (AS NOTED)	
SHEET NO.	

SITE PLAN
SCALE: 1"=10'



- NOTES:**
- SILT FENCES SHALL BE USED IN AREAS WHERE FLOW IS NOT SEVERE.
 - SILT FENCES ARE TEMPORARY EROSION CONTROL ITEMS THAT SHALL BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
 - SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT-OF-WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR A SICK-UP FENCE IF FIRST FENCE BECOMES FULL.
 - WHENEVER POSSIBLE SILT FENCES SHALL BE CONSTRUCTED ACROSS A LEVEL AREA IN THE SHAPE OF A SMOLE. THIS AIDS IN PONDING OF RUNOFF AND FACILITATES SEDIMENTATION.
 - THE CONTRACTOR MAY ELECT TO USE EITHER METHOD I OR METHOD II. COST TO BE LINEAR FEET OF SILT FENCE.
 - METHOD II INSTALLATION SHALL BE ACCOMPLISHED USING AN IMPLEMENT THAT IS MANUFACTURED FOR THE APPLICATION AND PROVIDES A CONFIGURATION MEETING THE REQUIREMENTS OF THE DETAIL.
 - WIRE SHALL BE MINIMUM OF 30" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
 - GEOTEXTILE FABRIC MEETING THE TYPE II MATERIAL REQUIREMENTS AND INSTALLED ACCORDING TO SPECIFICATION MAY BE USED WITHOUT WIRE FENCE.



WATTLE DITCH CHECK SELECTION GUIDELINES

WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.

- NOTES:**
- MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON ECD-4.
 - ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK-STRAP SPACING SHALL BE A MINIMUM OF THREE FEET. ALL NON-DURABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
 - TRENCHING OF WATTLES MAY BE NECESSARY IF PIPING BECOMES EVENT.
 - WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.

CITY OF JACKSON
BRIDGE REPLACEMENT
MARTIN LUTHER KING DR.

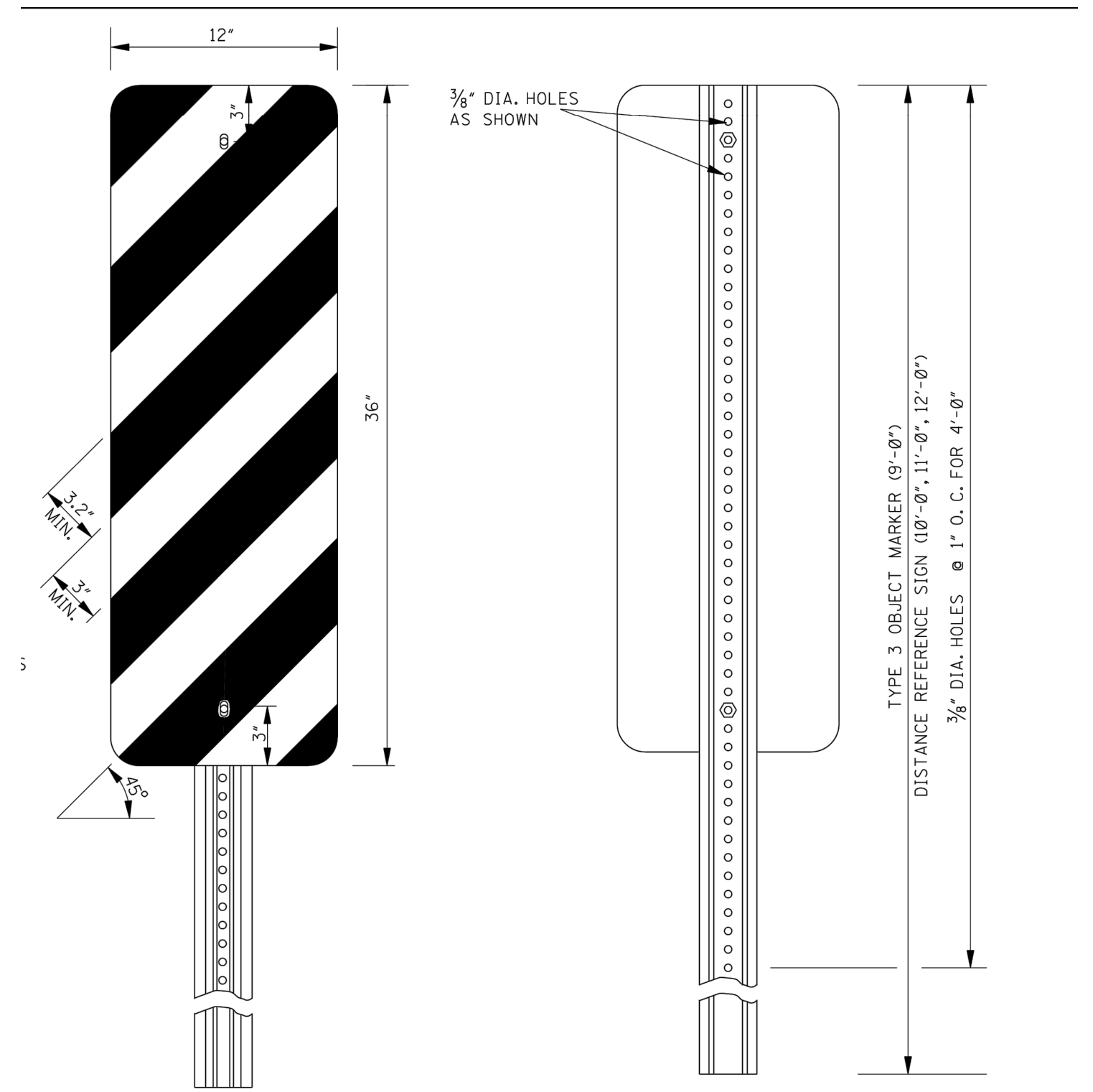
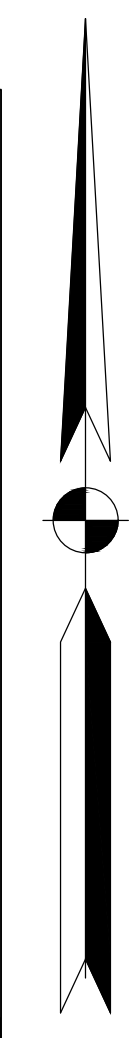
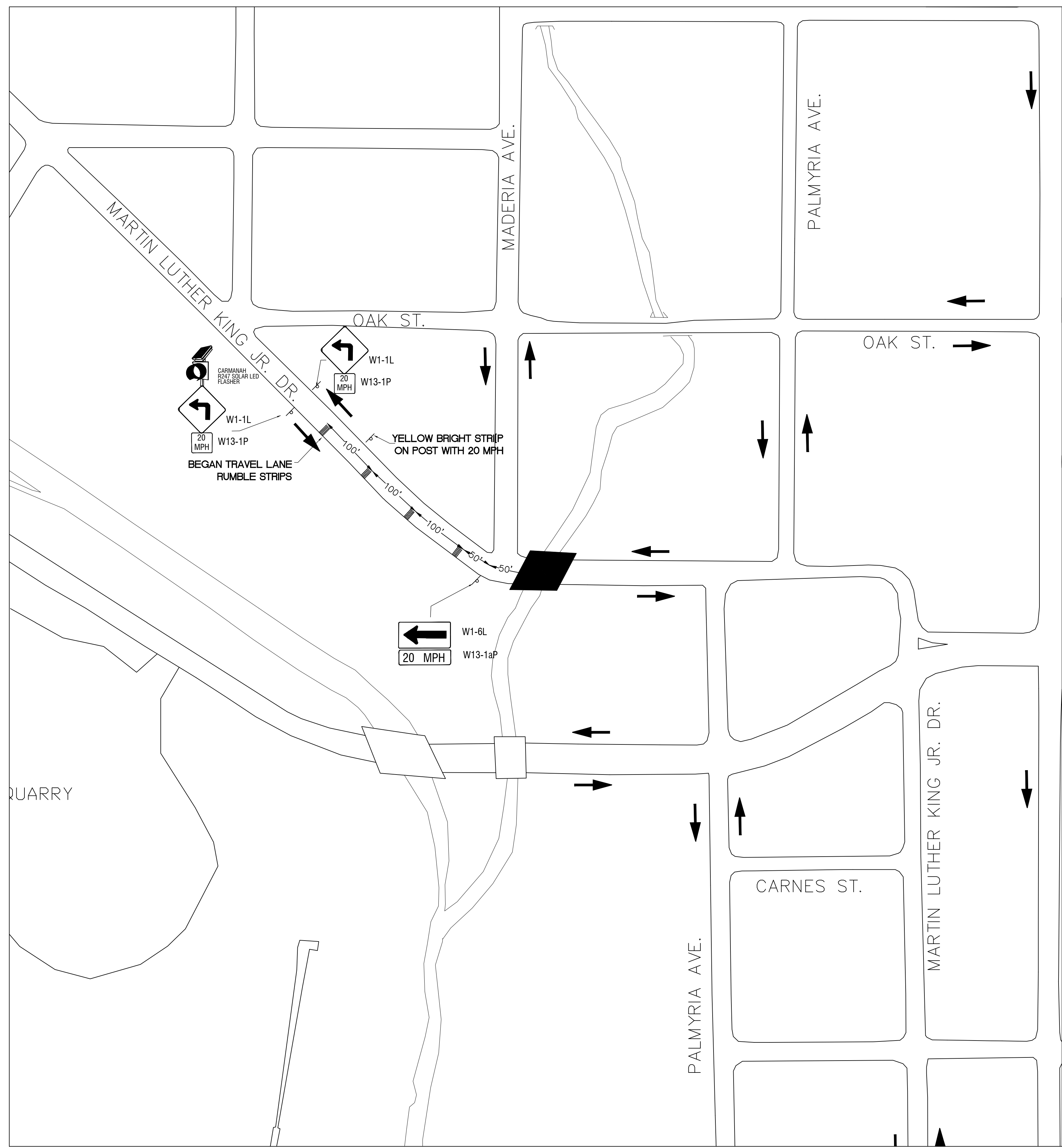
THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. (THE ENGINEER) AND THIS PROJECT. THE DRAWING SHALL NOT BE RE-USED (IN WHOLE OR IN PART) ON EXTENSIONS OF THIS PROJECT OR IN ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE ENGINEER'S SEAL IS A VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

CivilTech, Inc.
Engineers & Project Managers
P.O. Box 12852, Jackson, MS 39236-2852
Phone: (601) 713-1713
Fax: (601) 713-1703

SEAL

EROSION CONTROL PLAN

DRAWN: TL	CHECKED: TL
CROSS CHKD: --	APP'D: EM
DATE: MARCH 2024	
SCALE: (AS NOTED)	
SHEET NO. 4	

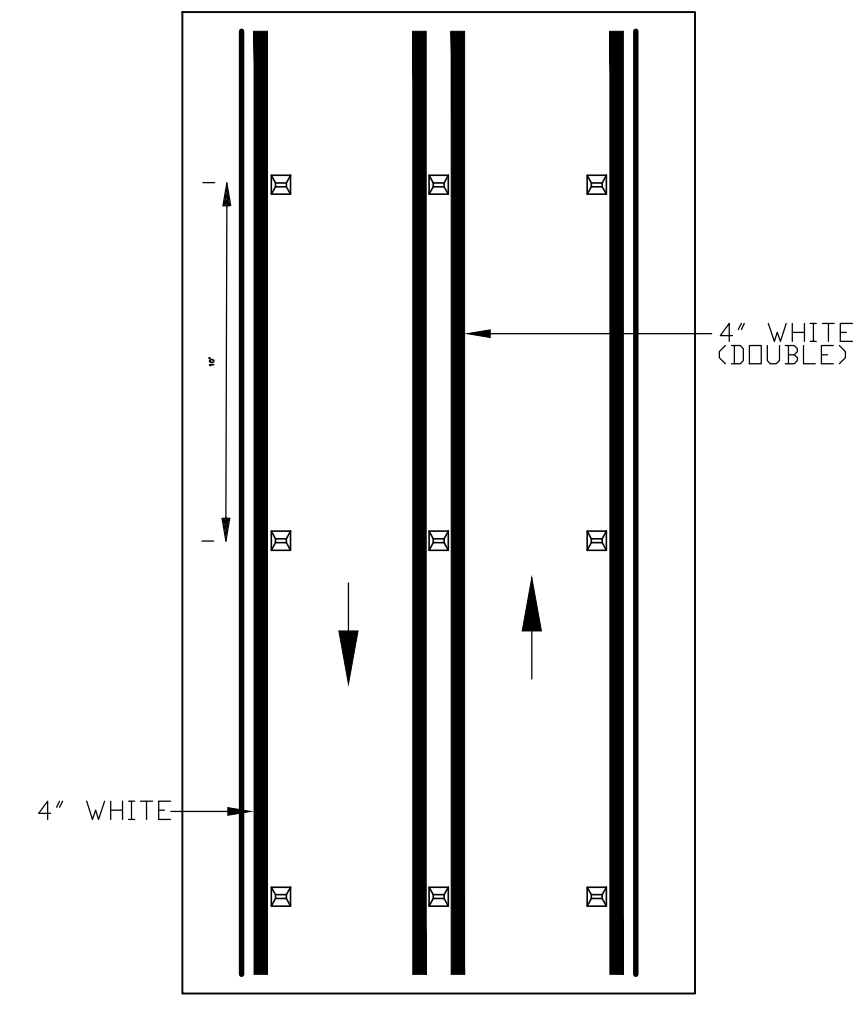


DETAIL OF TYPE 3 OBJECT MARKER

NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.

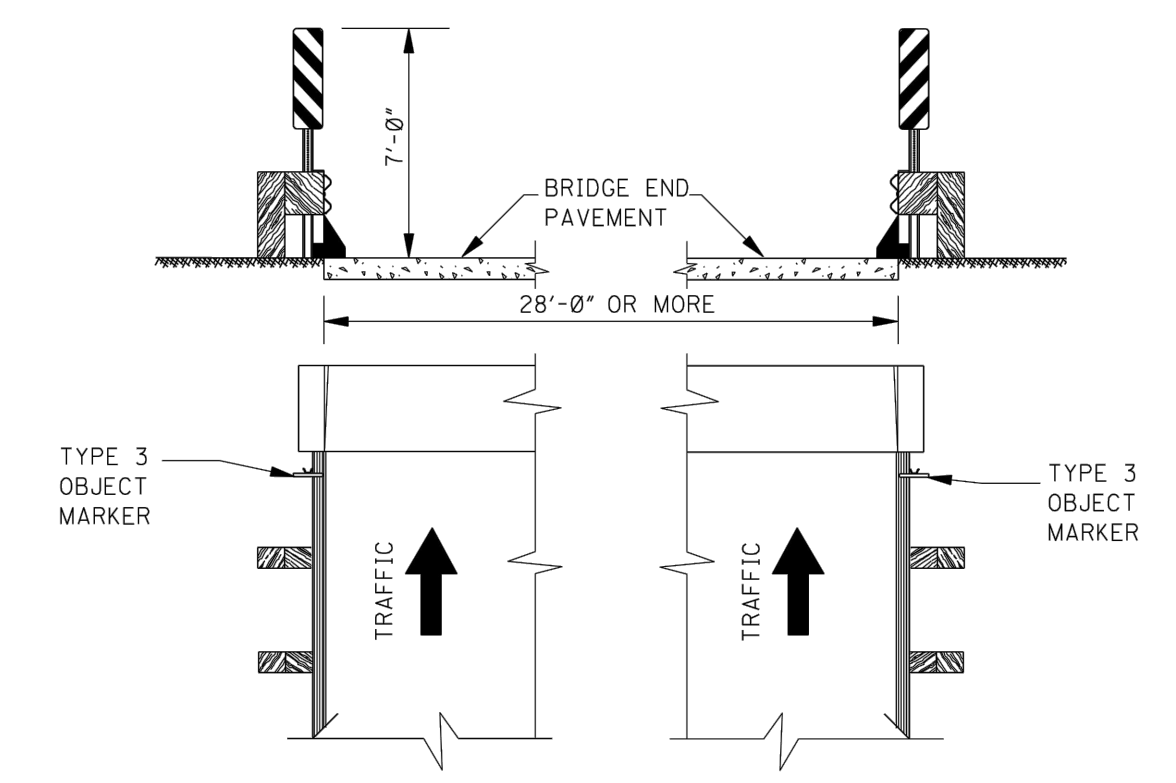
REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY

NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 3/8" DIA. BLIND FASTENERS OF THE COLLAR TYPE.

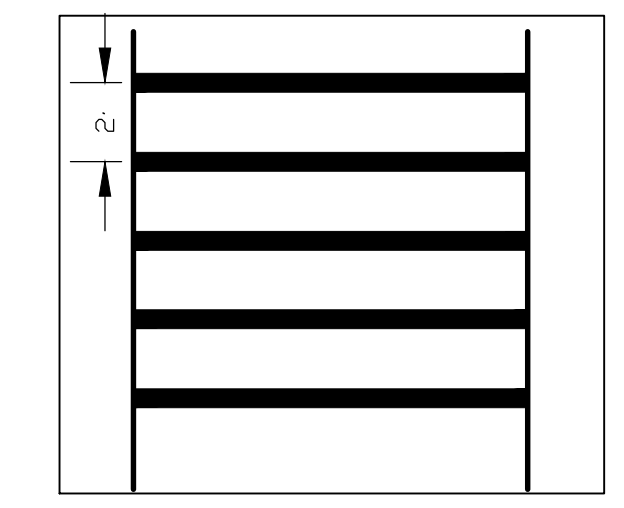


RAISED PAVEMENT MARKERS (N.T.S.)

1. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON DESIGNATED ROAD.
2. MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
3. MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS AND TANGENT SECTION OF LOCAL ROAD.
4. MARKERS SHALL BE INSTALLED AT SIMPLE AND CHANNELIZED INTERSECTIONS TO THE LIMITS SHOWN ABOVE.



DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION



STANDARD SPACING

- TRANSVERSE RUMBLE STRIP (T.R.S.) DETAIL
1. TRANSVERSE RUMBLE STRIPS (T.R.S.) TO BE NORMAL STRIPE WIDTH THERMOPLASTIC LEGEND 360 MILS THICKNESS (3-PLY 120 MILS) 180 L.F. THERMOPLASTIC LEGEND.
 2. LOCATE T.R.S. AS INDICATED ON TRAFFIC CALMING PLAN.
 3. RUMBLE STRIP LENGTH IS EQUAL TO TRANSVERSE TRAVEL LANE DISTANCE-10' (+/-) PER EACH RUMBLE STRIP

CITY OF JACKSON
BRIDGE REPLACEMENT
MARTIN LUTHER KING DR.

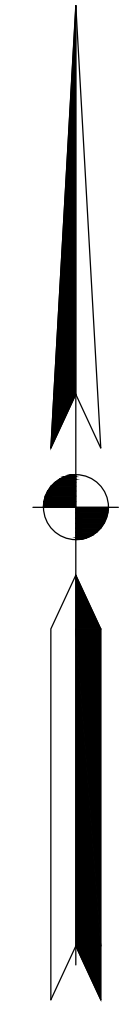
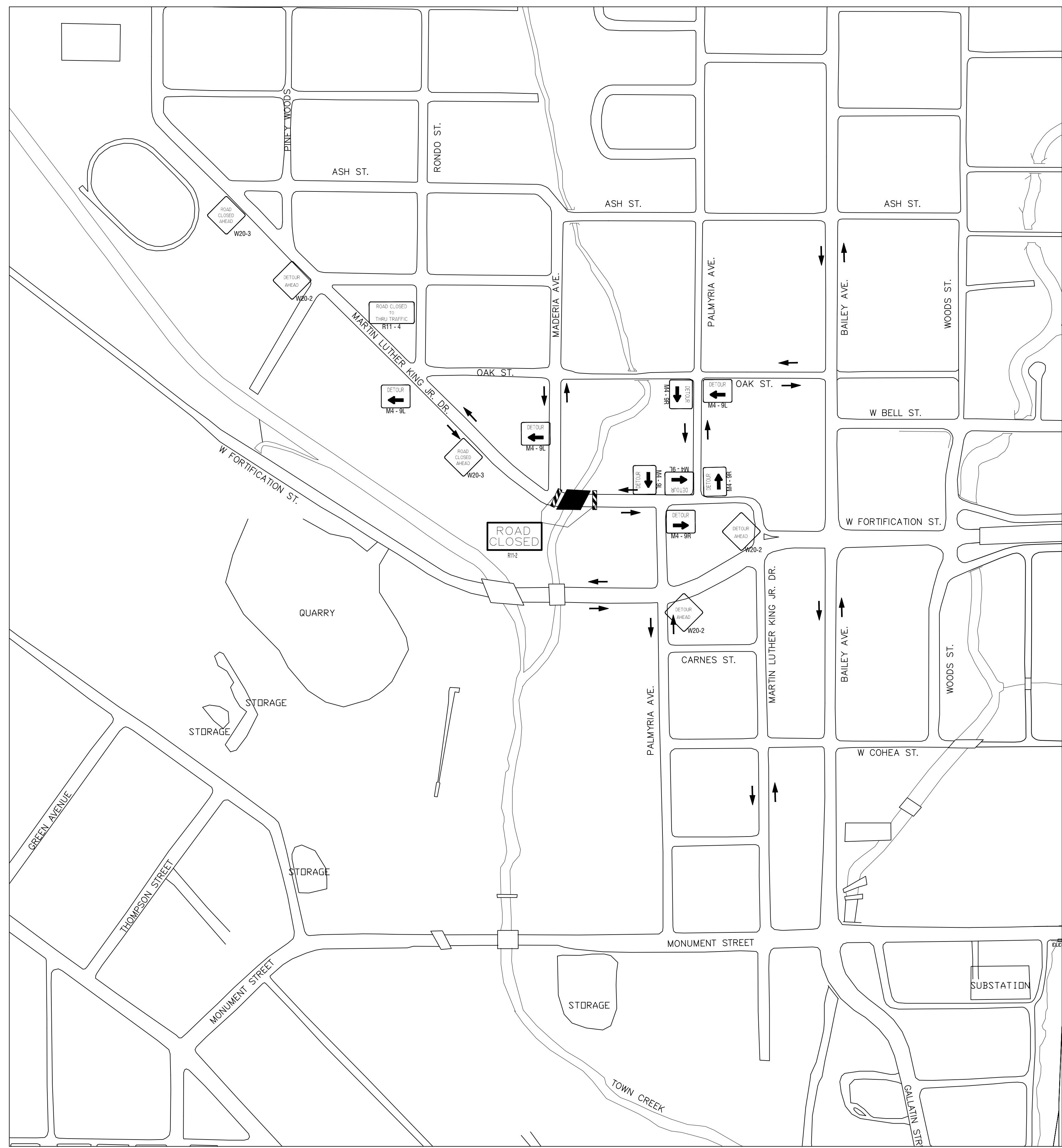
THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. AND WAS CREATED SOLELY FOR THE DEVELOPMENT OF THIS PROJECT. THIS DRAWING SHALL NOT BE RE-USED (IN WHOLE OR IN PART) ON EXTENSIONS OF THIS PROJECT WITHOUT THE WRITTEN CONSENT OF CIVILTECH, INC. THE ENGINEER ASSUMES NO LIABILITY FOR ANY CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING FROM UNAUTHORIZED RE-USE OF THIS DRAWING. CIVILTECH, INC. AND ITS ENGINEERS ARE NOT A VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

CivilTech, Inc.
Engineers & Project Managers
P.O. Box 12852, Jackson, MS 39216-2852
Phone: (601) 713-1713
Fax: (601) 713-1703

SEAL

TRAFFIC CALMING
MARTIN LUTHER KING JR. DRIVE

DRAWN: TL	CHECKED: TL
CROSS CHKD: EM	APP'D: EM
DATE: MARCH 2024	
SCALE: 1"=50'	
SHEET NO.	



GENERAL NOTES:

1. CONTRACTOR SHALL INSTALL TRAFFIC CONTROL DIVICES SUCH AS CONES, DRUMS, FLASHERS, BARRICADES, SIGNS, ETC., TO SAFELY CHANNEL OR DIRECT TRAFFIC. WHEN NECESSARY, FLAGGERS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DEVICES FLAGGER AHEAD SIGN REQUIRED IN ADVANCE OF FLAGGERS EXCEPT DURING BRIEF PERIODS AND EMERGENCY SITUATIONS.
2. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED WHENEVER NECESSARY, REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED, AND REMOVED IMMEDIATELY THEREAFTER, SEE S.P. NO. 901-S -618-1 FOR ADDITIONAL INFORMATION.
3. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL LATEST EDITION.
4. THESE ARE MINIMUM REQUIREMENTS AND IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO MAINTAIN TRAFFIC IN A SAFE MANNER.
5. SEE STANDARD DRAWINGS 259 AND SA-TSP-1 FOR CORRECT PLACEMENT AND INSTALLATION OF BARRICADES AND SIGNS.
6. PAY FOR INSTALLATION, MAINTAINANCE AND REMOVAL OF TRAFFIC CONTROL DEVICES WILL BE MADE UNDER PAY ITEM NOS. S-618-A AND S-618-B.
7. CONTRACTOR SHALL INSTALL ADVANCE WARNING SIGNS SUCH AS WACTCH FOR TRUCKS, TRUCKS TURNING, TRUCKS CROSSING ETC. AND FLAGGERS AS DIRECTED BY THE CITY ENGINEER ALONG THE PUBLIC ROADS ON EACH SIDE OF BORROW PIT ENTRANCE OR CROSSING OF PUBLIC ROADS.

**CITY OF JACKSON
BRIDGE REPLACEMENT
MARTIN LUTHER KING DR.**

THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. AND WAS CREATED SOLELY FOR THE DEVELOPMENT OF THIS PROJECT. THIS DRAWING SHALL NOT BE RE-USED (IN WHOLE OR IN PART) ON EXTENSIONS OF THIS PROJECT. WITHOUT ENGINEER'S KNOWLEDGE AND CONSENT. FROM THE ENGINEER'S FIRM. THE ENGINEER ASSUMES NO LIABILITY FOR ANY CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING FROM UNAUTHORIZED RE-USE OF THIS DRAWING. VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

CivilTech, Inc.
Engineers & Project Managers
P.O. Box 12852, Jackson, MS 39216-2852
Phone: (601) 713-1713
Fax: (601) 713-1703

SEAL

**TRAFFIC CONTROL
MARTIN LUTHER KING JR. DRIVE**

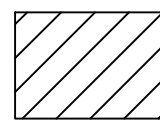

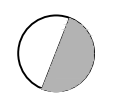


DRAWN: TL	CHECKED: TL
CROSS CHKD: EM	APP'D: EM
DATE: MARCH 2024	
SCALE: 1"=200'	
SHEET NO.	

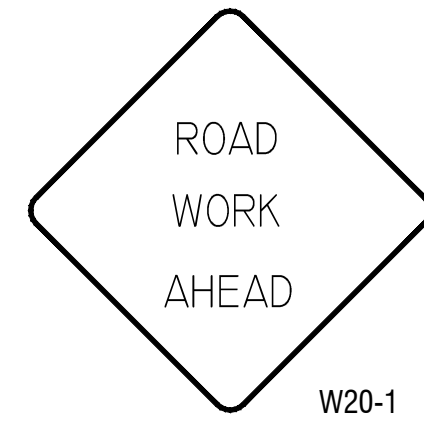
BLACK MESSAGE ON ORANGE REFLECTIVE BACKGROUND - SIGNS A THRU I AND R MIN. SIZE (30" X 30")
 (HIGH INTENSITY SHEETING)



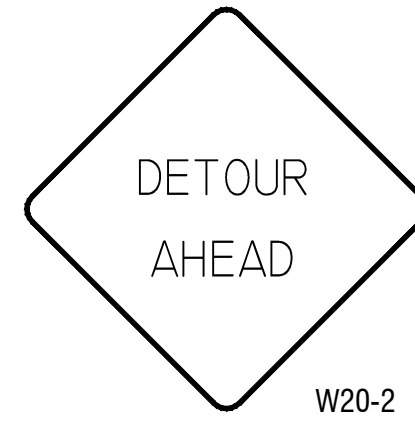
R11-2

LEGEND

-  CONSTRUCTION WORK ZONE
-  TRAFFIC CONTROL SIGN (SINGLE POST)
-  TRAFFIC DRUM
-  BARRICADE
-  DIRECTION OF TRAFFIC



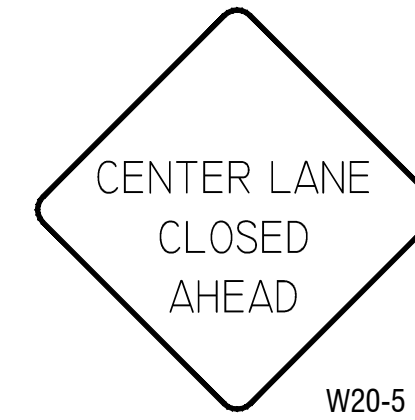
W20-1



W20-2



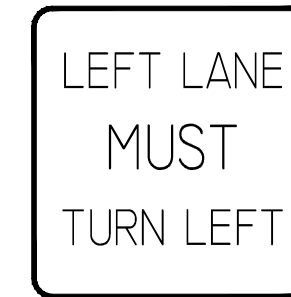
W20-3



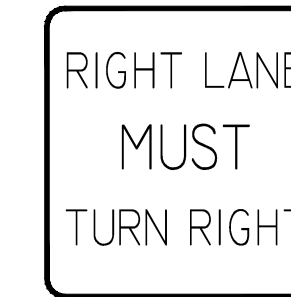
W20-5



R11-4



R3-7L

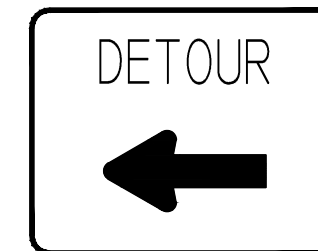


R3-7R



R11-3b
60x30

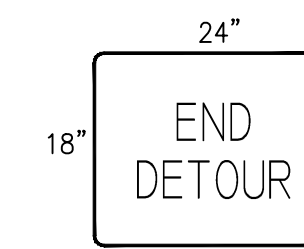
NOTE:
STREET NAME SIGN (8" X 30") REQ'D.
ON ALL M4-9 SERIES SIGNS



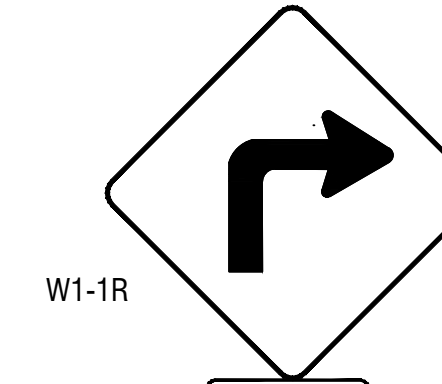
M4-9L



M4-9R

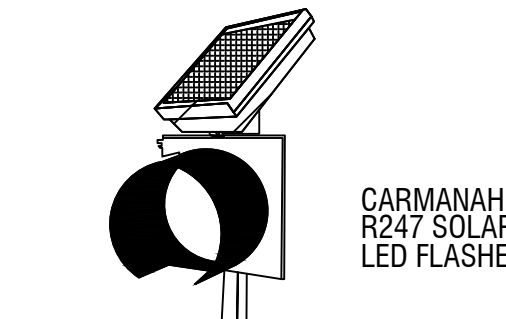


M4-8a

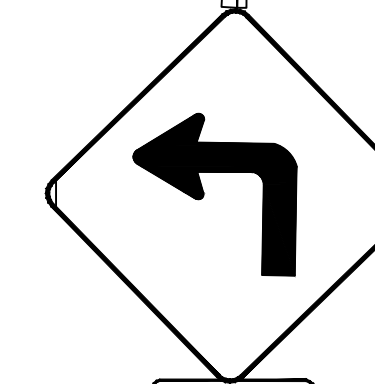


W1-1R

W13-1P



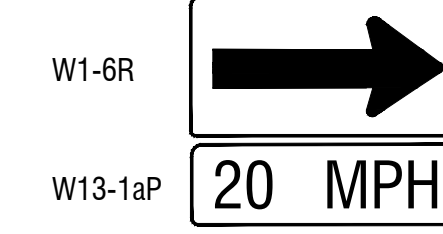
CARMANAH
R247 SOLAR
LED FLASHER



W1-1L

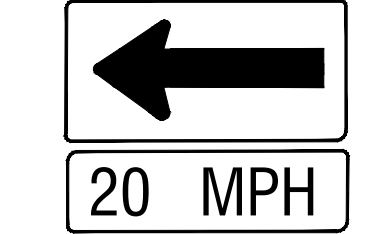
W13-1P

DETOUR SIGN (48" X 24") REQ'D.



W1-6R

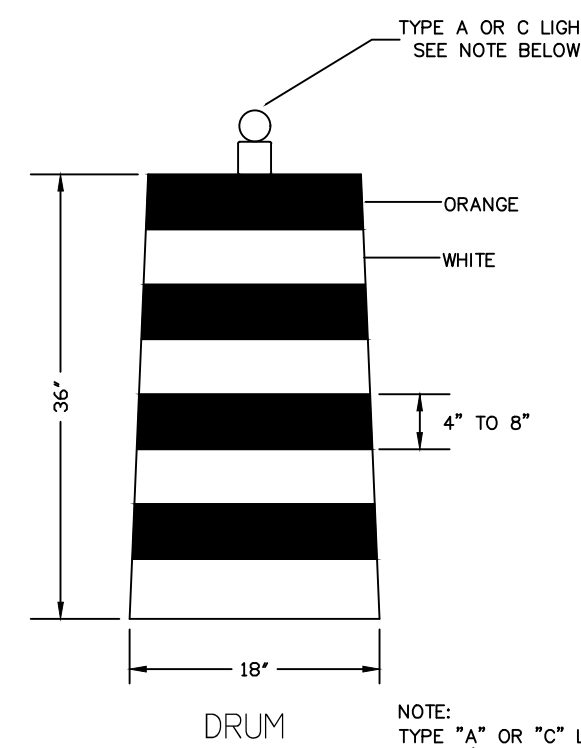
W13-1aP



W1-6L

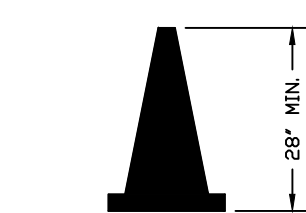
W13-1aP

SPEED SIGN (48" X 15") REQ'D.

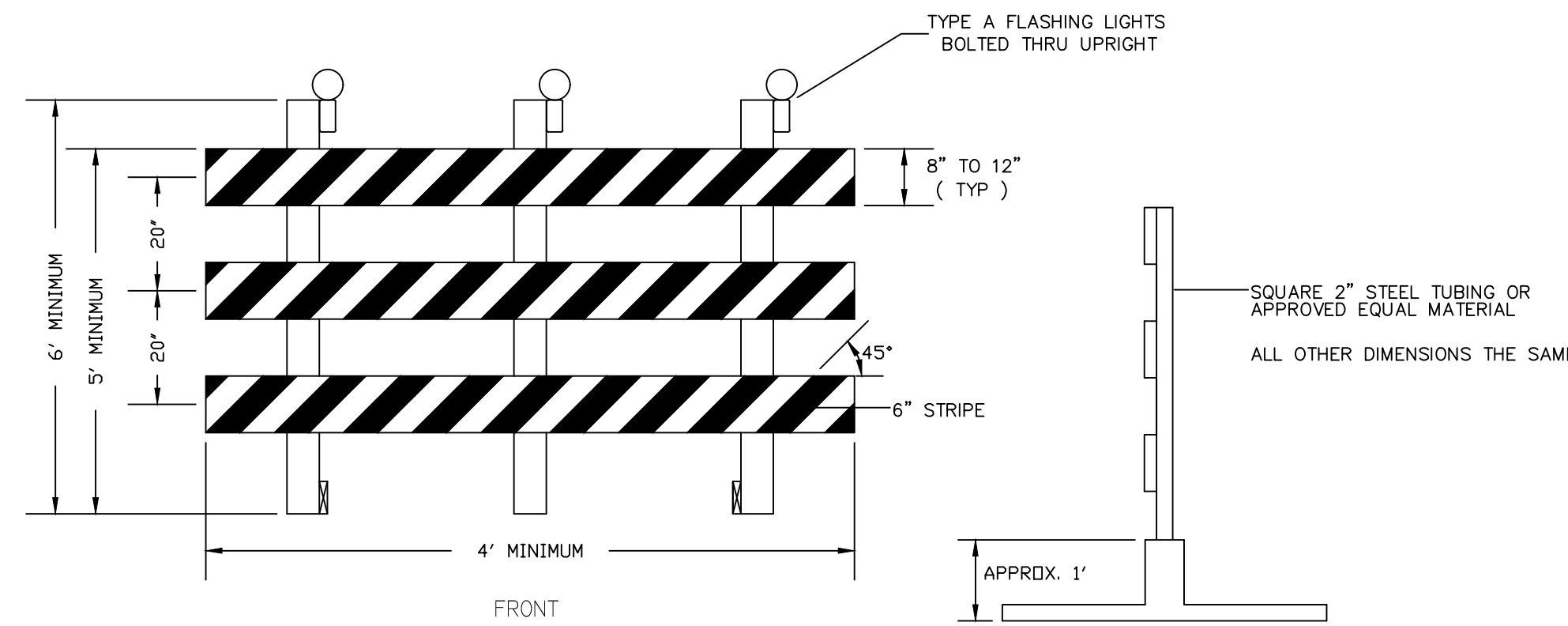


DRUM

NOTE:
TYPE "A" OR "C" LIGHT
AS REQ'D. BY SECTION
VI OF THE MUTCD.

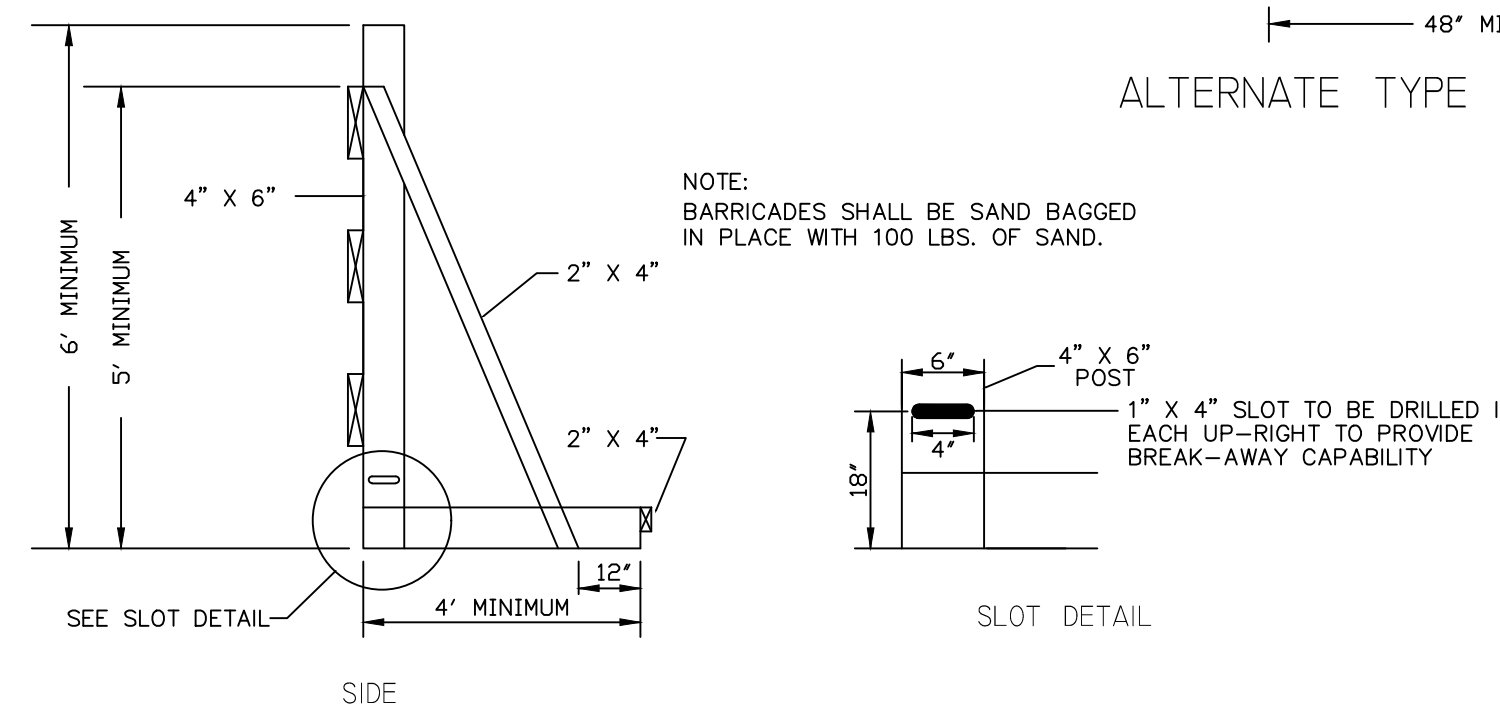


TRAFFIC CONE



FRONT

ALTERNATE TYPE III BARRICADE



SIDE

TYPE III BARRICADE

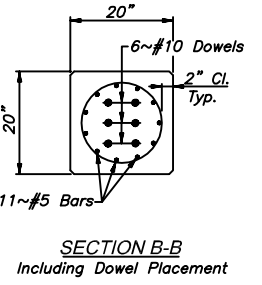
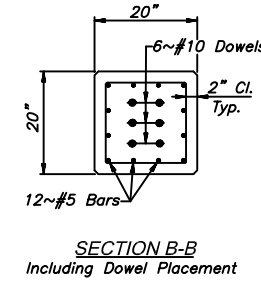
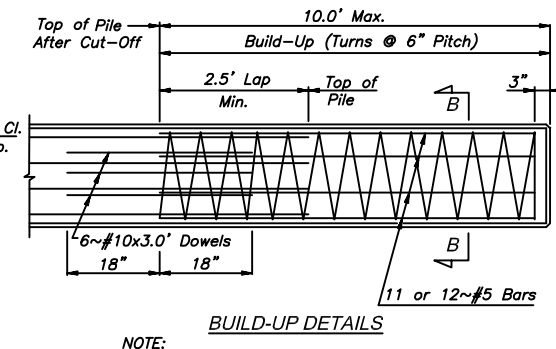
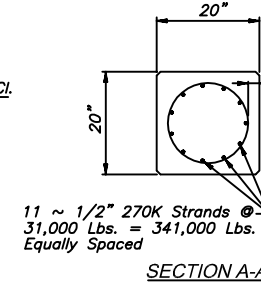
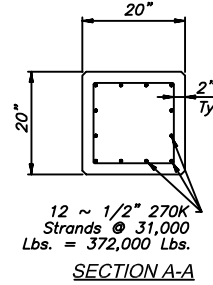
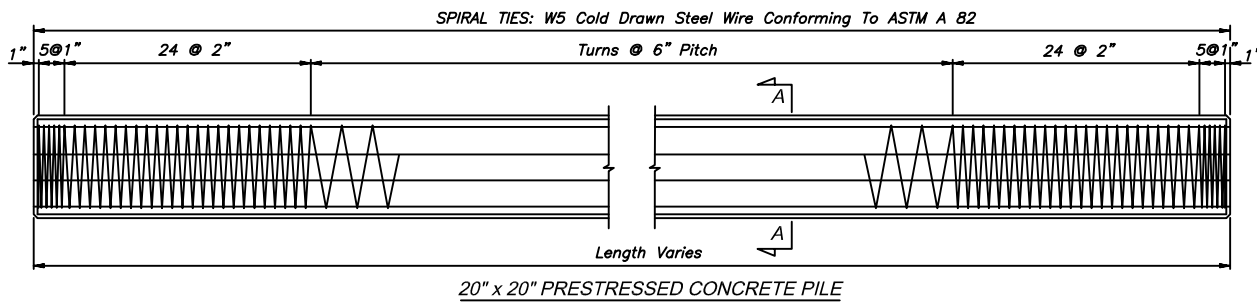
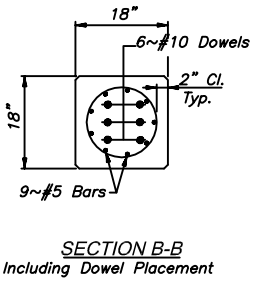
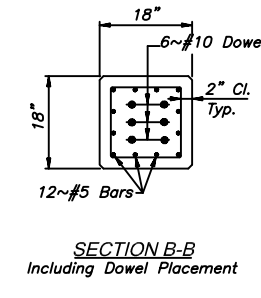
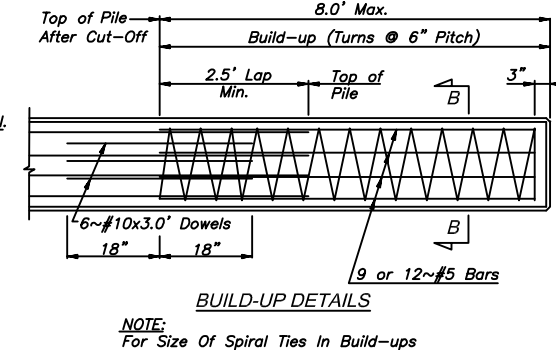
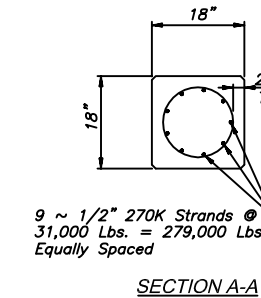
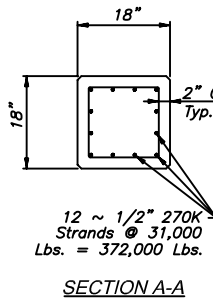
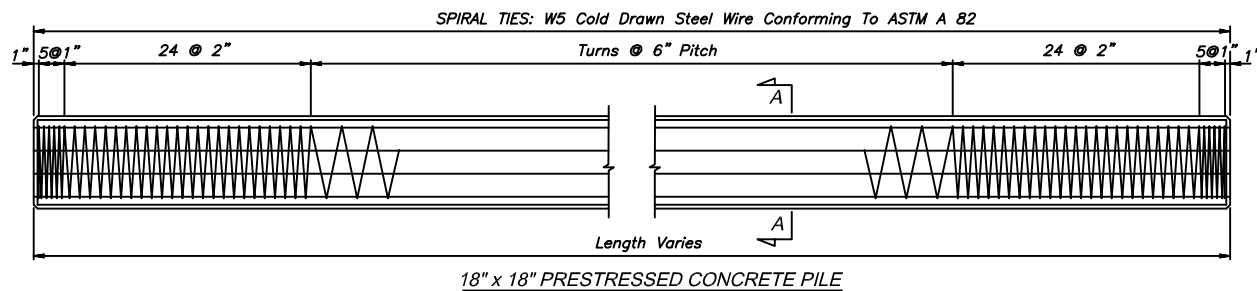
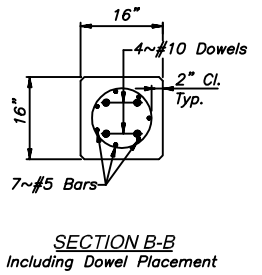
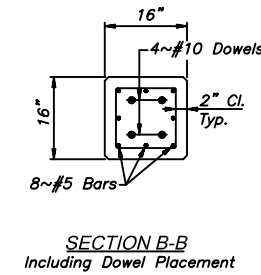
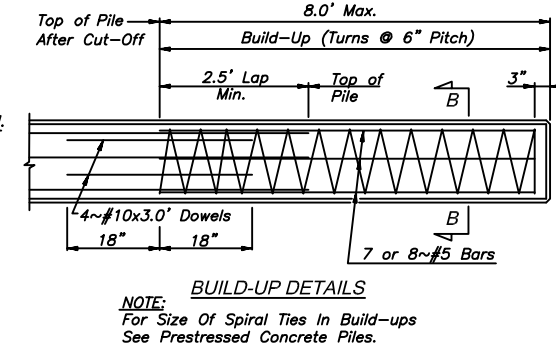
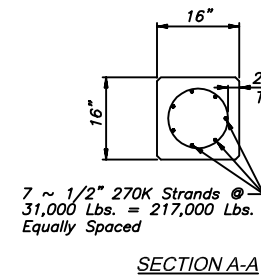
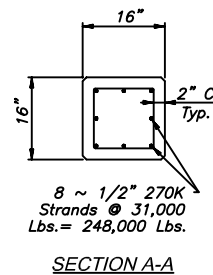
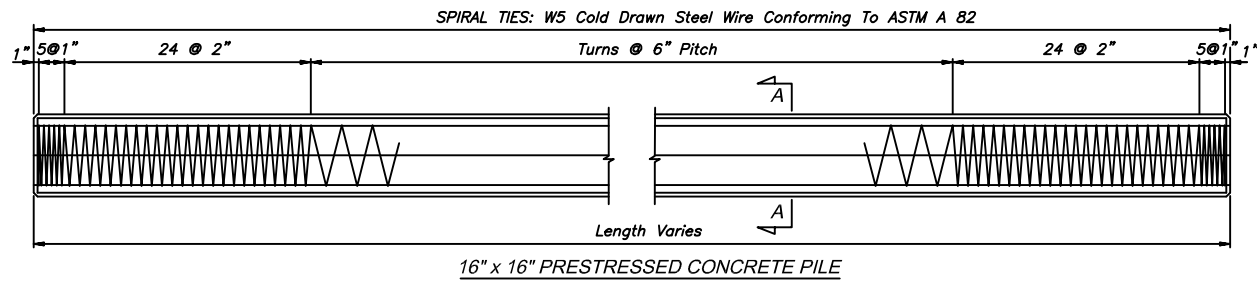
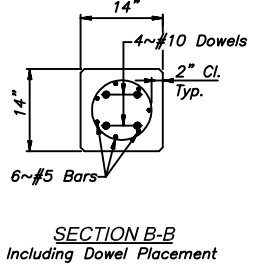
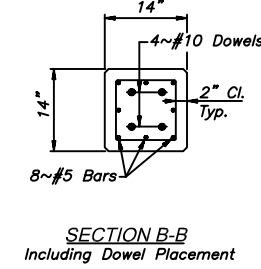
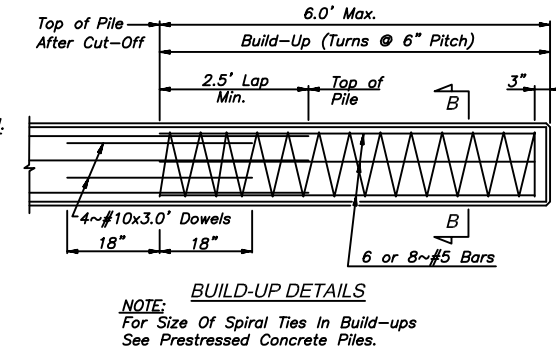
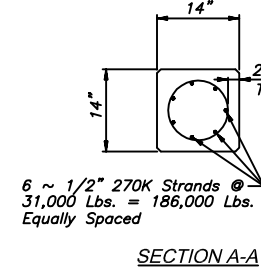
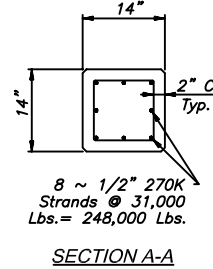
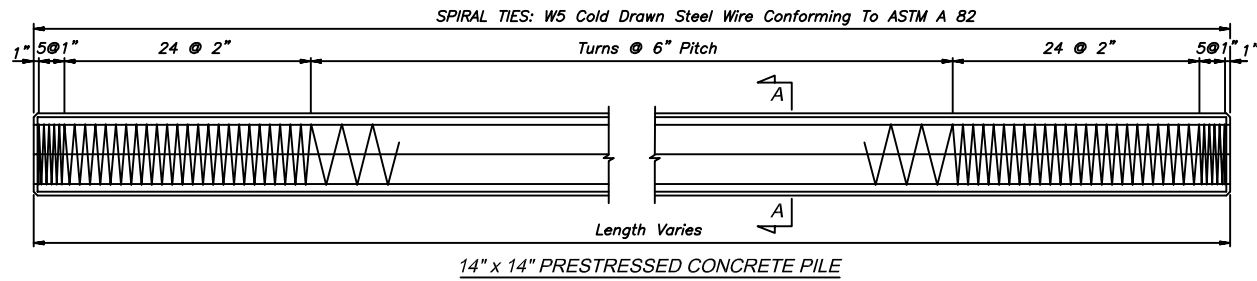
CITY OF JACKSON
 BRIDGE REPLACEMENT
 MARTIN LUTHER KING DR.

THE INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF CIVILTECH, INC. (THE ENGINEER) AND WAS CREATED SOLELY FOR THE DEVELOPMENT OF THIS PROJECT OR IN PART ON EXTENSIONS OF THIS PROJECT OR ON ANY OTHER PROJECT WITHOUT ENGINEER'S KNOWLEDGE AND CONSENT FROM THE ENGINEER IS PROHIBITED. THE ENGINEER SHALL BE HELD HARMLESS FROM ALL INJURIES, DAMAGES, LOSSES, AND COSTS ARISING FROM UNAUTHORIZED RE-USE OF THIS DRAWING. UNAUTHORIZED USE OF THE ENGINEER'S SEAL IS A VIOLATION OF LAW AND IS STRICTLY PROHIBITED.

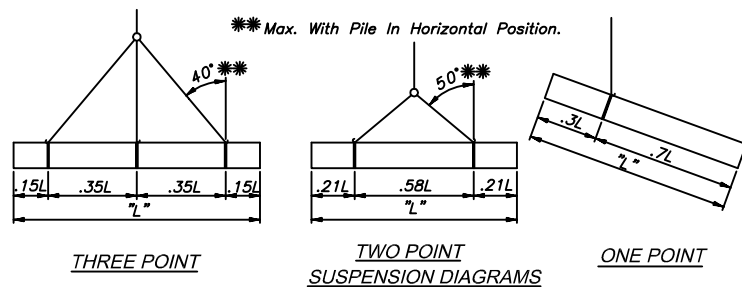
CivilTech, Inc.
 Engineers & Project Managers
 P.O. Box 12882, Jackson, MS 39236-2882
 Phone: (601) 713-1713
 Fax: (601) 713-1703

TRAFFIC CONTROL DETAILS

DRAWN:	CHECKED:
TL	TL
CROSS CHKD:	APP'D:
EM	EM
DATE:	MARCH 2024
SCALE:	NTS
SHEET NO.	



NOTE: Piles Shall Be Marked Plainly With Removable Band Of Paint To Indicate Proper Pickup Points For Attaching Handling Lines.



MAXIMUM LENGTH "L"			
PILE SIZE		Single Point Pick-Up	Two Point Pick-Up
14" x 14"	SQUARE	54.0'	78.0'
	CIRCULAR	60.0'	84.0'
16" x 16"	SQUARE	64.0'	91.0'
	CIRCULAR	62.0'	87.0'
18" x 18"	SQUARE	64.0'	92.0'
	CIRCULAR	66.0'	93.0'
20" x 20"	SQUARE	70.0'	101.0'
	CIRCULAR	70.0'	98.0'

GENERAL NOTES

Prestressed Strands Shall Be Type 270K Seven Wire, Uncoated Low Relaxation And Shall Conform To The Requirements of ASTM A 416 With An Initial Tension Of 31,000 Lbs. Applied To Each Low Relaxation Type Strand And Shall Have A Minimum Ultimate Strength Of 41,300 Lbs.

Piles Shall Be Manufactured In Accordance With Current Mississippi Standard Specifications For State Aid Road And Bridge Construction, With Particular Attention Directed To Sections 711, 803 & 804.

Wire Ties Shall Be Cold Drawn Steel Wire Per ASTM A 82. Spiral Ties Shall Be Tied To All Corner Strands Or Bars. Corners Shall Be Chamfered Uniformly, 1" For 16" Sq. To 18" Sq., And 1 1/2" for 20" Sq. or Larger.

Strands Shall Be Cut Flush With Ends Of Piles. All Reinforcing Steel Shall Conform To ASTM A 615, Grade 60.

If Bridges Are Built In Coastal Areas, Prestressed Concrete Piles Must Be 16" Square Or Larger.

CONCRETE PILE BUILD-UP NOTE:

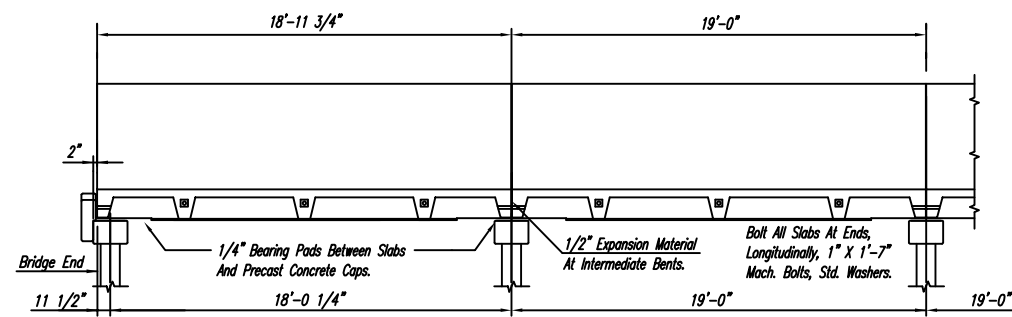
A Precast Section May Be Built-Up By Providing Cored Or Drilled Dowel Holes 18" Minimum Deep As Shown In Build-Up Details Hereon. Dowels Shall Be Adequately Bonded With An Approved Grout. Concrete Shall Be Class "F"

DESIGN DATA:

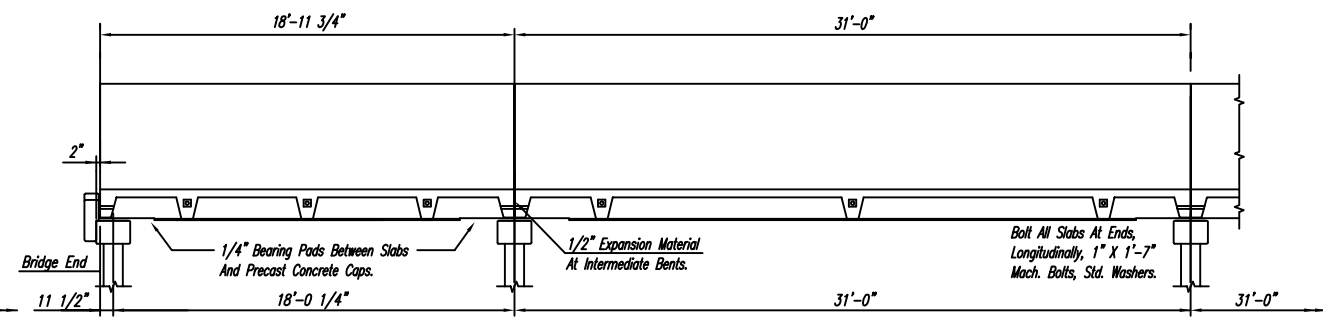
Specifications: AASHTO LRFD Bridge Design Specifications, 4th EDITION, 2007, Through 2009 Interims

FHWA APPROVAL	03-11
STATE AID ENGINEER:	J. BROOKS MILLER, SR.
BRIDGE ENGINEER:	FRED HOLLIS

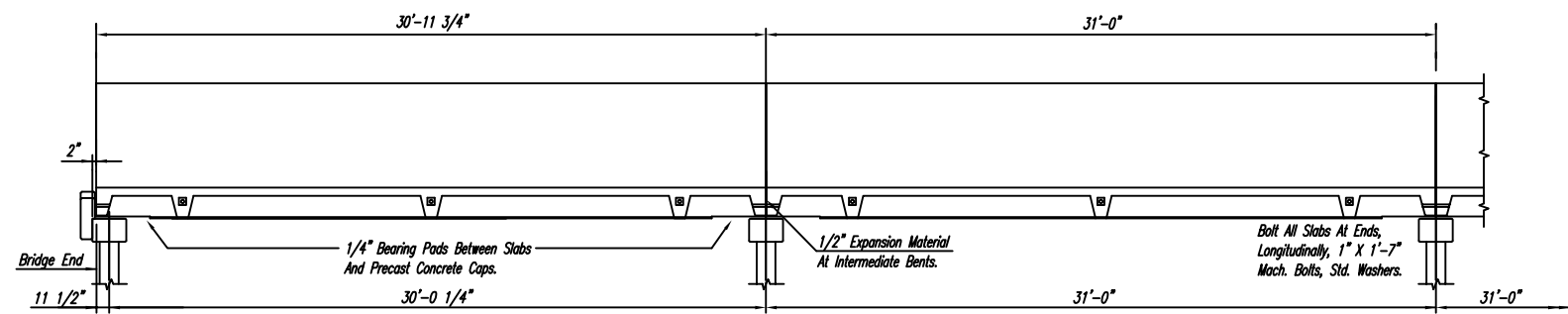
OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
14", 16", 18" & 20" SQUARE PRESTRESSED CONCRETE PILES			
Rev. AASHTO LRFD 2009	M.B.E.	F.C.H.	CP-01
2-11	CHECKED BY: M.B.E.	DATE: 03-11	DRAWING NUMBER: CP-01



ELEVATION - 19' END SPAN & 19' INTERMEDIATE SPAN



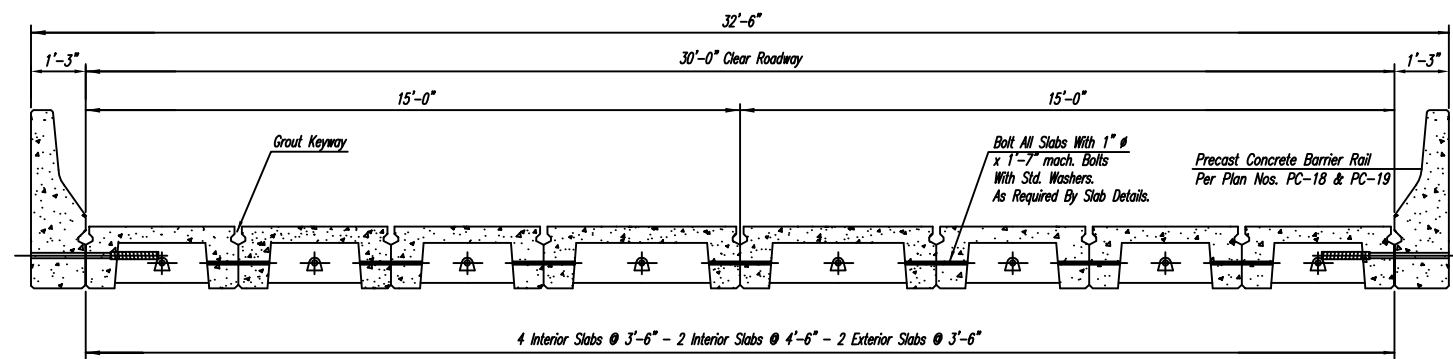
ELEVATION - 19' END SPAN & 31' INTERMEDIATE SPAN



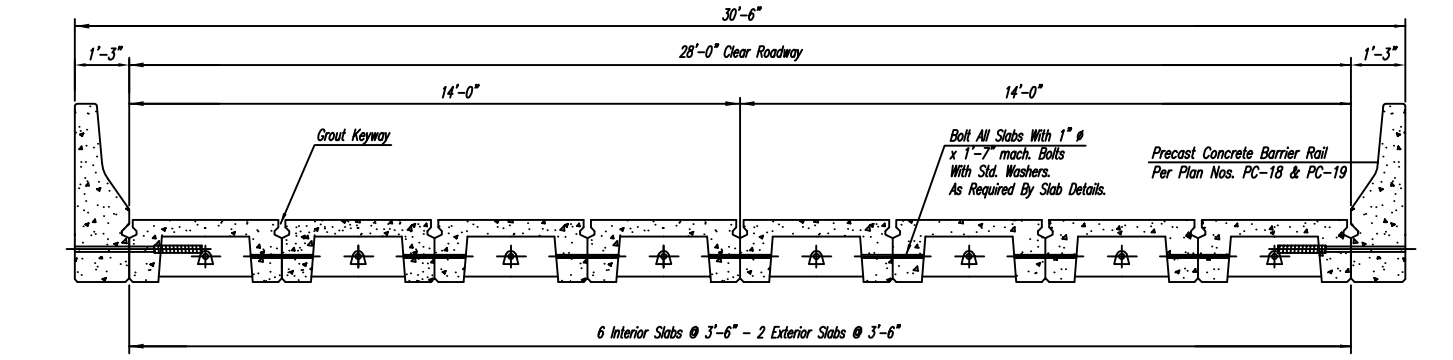
ELEVATION - 31' END SPAN & 31' INTERMEDIATE SPAN

GENERAL NOTES

Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
 All Units Shall Be Accurately Placed On Preset Caps With All Slab To Cap Dowels Installed And All Bolts, Transverse And Longitudinal, Installed. Hardware Shall Be Galvanized Or Cadmium Plated.
 All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.



SECTION OF 30'-0" ROADWAY



SECTION OF 28'-0" ROADWAY

PAY ITEMS FOR 30'-0" ROADWAY

End Span		Intermediate Span	
Pay Item No.	Quantity	Pay Item No.	Quantity
S-806-A: 19' / 31' Precast Concrete Slab Unit, 3.5' Interior	4 Each	S-806-A: 19' / 31' Precast Concrete Slab Unit, 3.5' Interior	4 Each
S-806-A: 19' / 31' Precast Concrete Slab Unit, 4.5' Interior	2 Each	S-806-A: 19' / 31' Precast Concrete Slab Unit, 4.5' Interior	2 Each
S-806-C: 19' / 31' Precast Concrete Slab Unit, 3.5' Exterior	2 Each	S-806-C: 19' / 31' Precast Concrete Slab Unit, 3.5' Exterior	2 Each
S-806-G: Precast Concrete Barrier Rail	19' / 31' 38.0 L.F. / 62.0 L.F.	S-806-G: Precast Concrete Barrier Rail	19' / 31' 38.0 L.F. / 62.0 L.F.
S-806-I: 33.0' Precast Concrete Cap, Intermediate Unit, Concrete Pile	1 Each	S-806-I: 33.0' Precast Concrete Cap, Intermediate Unit, Concrete Pile	1 Each
S-806-J: 33.0' Precast Concrete Cap, End Unit, Concrete Pile	1 Each		
S-806-M: 10.0' Precast Concrete Wing	2 Each		

PAY ITEMS FOR 28'-0" ROADWAY

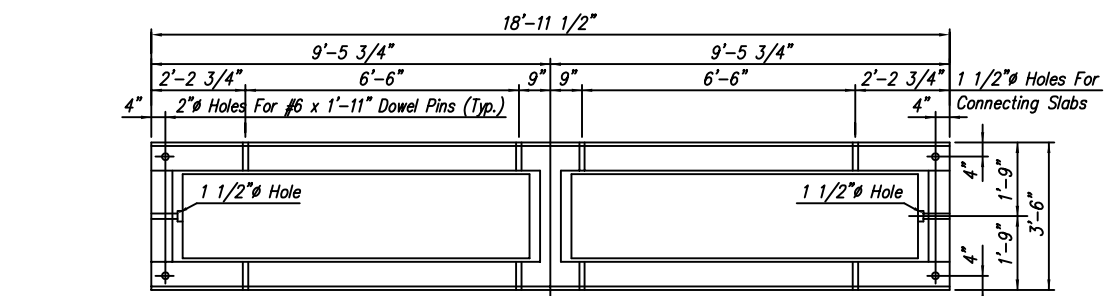
End Span		Intermediate Span	
Pay Item No.	Quantity	Pay Item No.	Quantity
S-806-A: 19' / 31' Precast Concrete Slab Unit, 3.5' Interior	6 Each	S-806-A: 19' / 31' Precast Concrete Slab Unit, 3.5' Interior	6 Each
S-806-C: 19' / 31' Precast Concrete Slab Unit, 3.5' Exterior	2 Each	S-806-C: 19' / 31' Precast Concrete Slab Unit, 3.5' Exterior	2 Each
S-806-G: Precast Concrete Barrier Rail	19' / 31' 38.0 L.F. / 62.0 L.F.	S-806-G: Precast Concrete Barrier Rail	19' / 31' 38.0 L.F. / 62.0 L.F.
S-806-I: 31.0' Precast Concrete Cap, Intermediate Unit, Concrete Pile	1 Each	S-806-I: 31.0' Precast Concrete Cap, Intermediate Unit, Concrete Pile	1 Each
S-806-J: 31.0' Precast Concrete Cap, End Unit, Concrete Pile	1 Each		
S-806-M: 10.0' Precast Concrete Wing	2 Each		

DESIGN DATA:

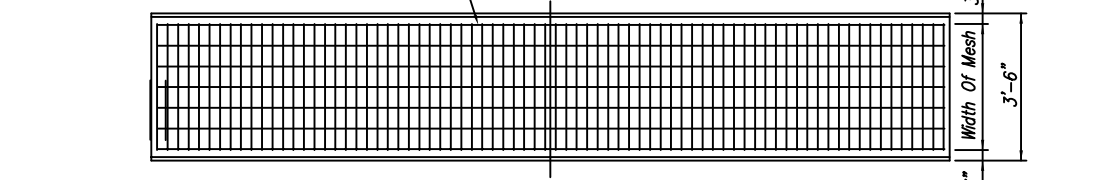
Specifications:.....2007 AASHTO LRFD Bridge Design Specifications, 4th Edition, 2007, Through 2009 Interims
 Design Loading:.....HL-93
 fy = 60,000 p.s.i.; fc = 4,500 p.s.i.; n = 7

FD00000000 (N.S.) 06/01/2006

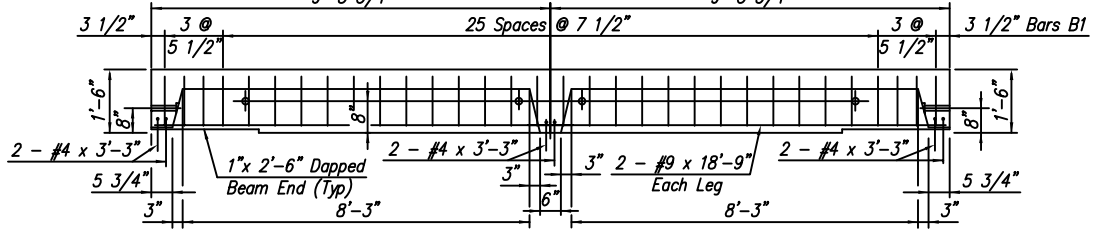
OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
19' & 31' PRECAST CONCRETE SPANS FOR USE WITH BARRIER RAIL 28'-0" ROADWAY 30'-0" ROADWAY			
DATE	REVISIONS	DATE	REVISIONS
04-11	Rev AASHTO LRFD 2009		
FHWA APPROVAL: 6-10		DRAWN BY: M.B.E.	
STATE AID ENGINEER: J. BROOKS MILLER, Sr.		ISSUED BY: F.C.H.	
BRIDGE ENGINEER: FRED HOLLIS		DESIGNED BY: M.B.E.	
		DATE: 06-11	
DRAWING NUMBER: PC-02-09			



PLAN Bolt All Slabs Transversely At 3 Points. One At Each End And One Near The Center.

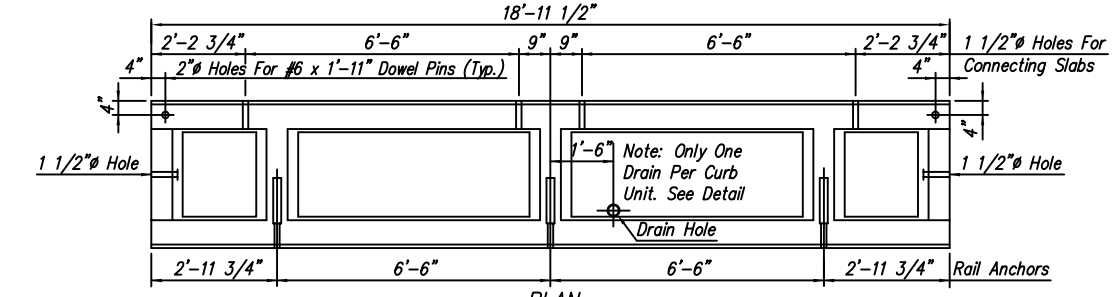


PLAN-REINFORCING

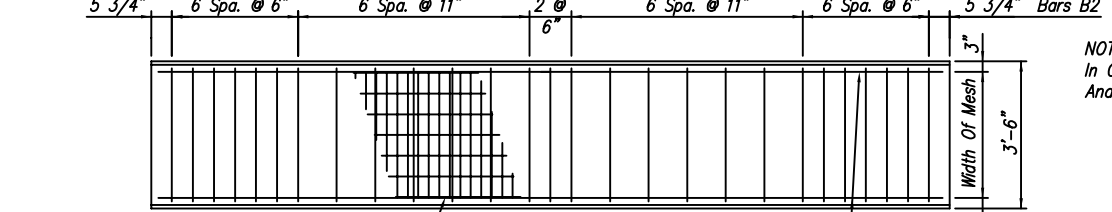


ELEVATION INTERIOR UNIT

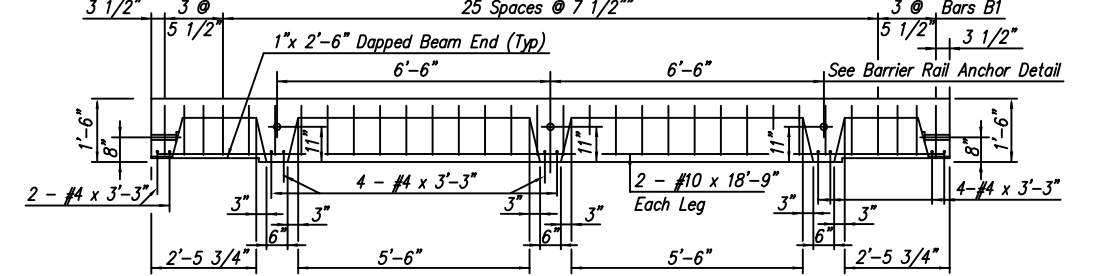
PAY ITEM S-806-A: 19' Precast Concrete Slab Unit, 3.5' Interior - per each



PLAN

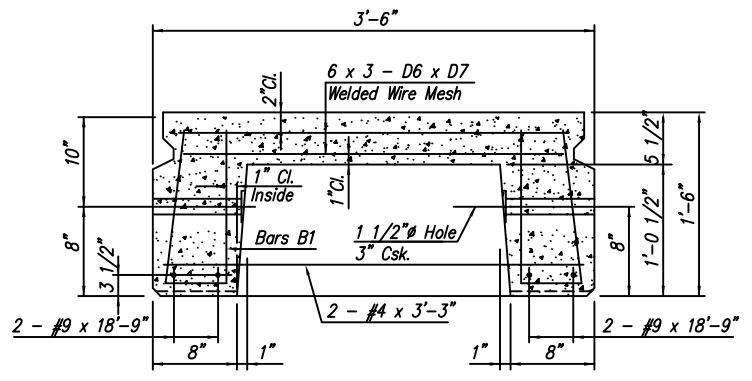


PLAN-REINFORCING

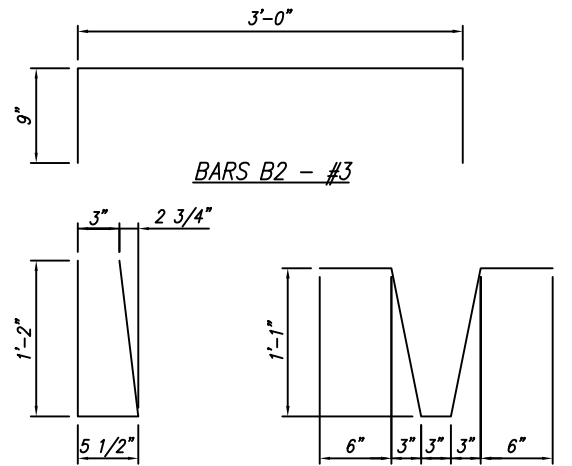


ELEVATION EXTERIOR UNIT

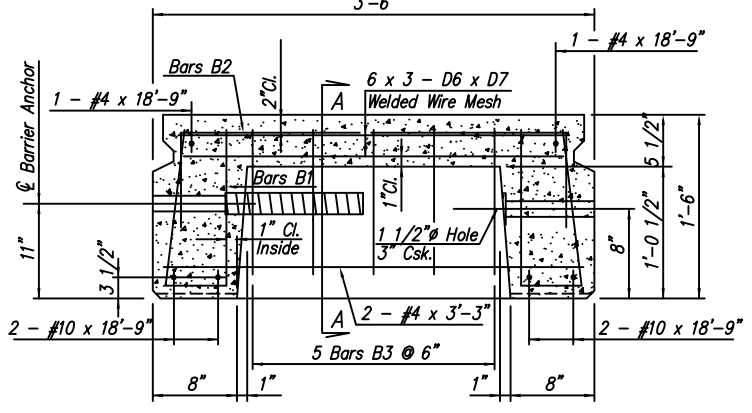
PAY ITEM S-806-C: 19' Precast Concrete Slab Unit, 3.5' Exterior - per each



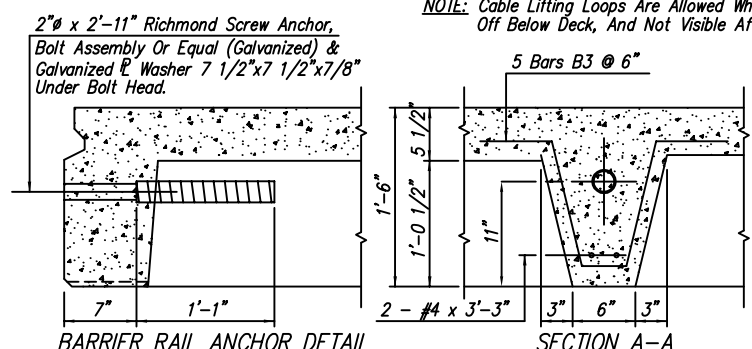
SECTION INTERIOR UNIT



BAR BENDING DETAILS

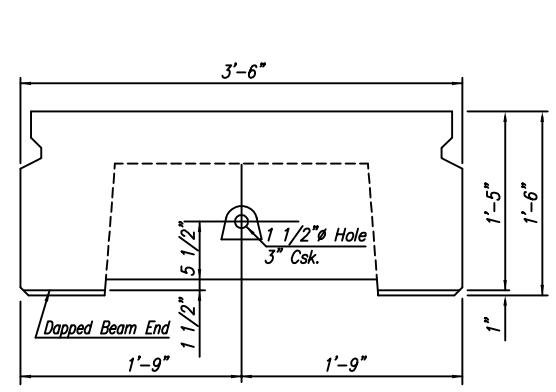


SECTION EXTERIOR UNIT

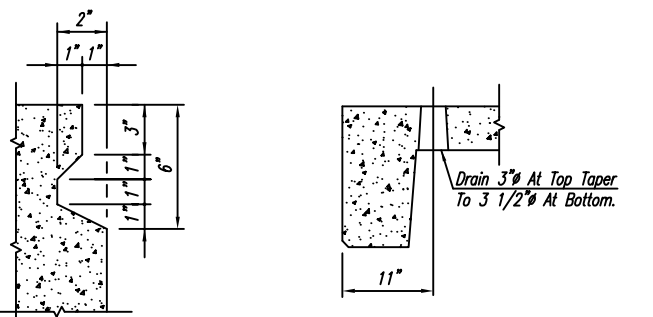


BARRIER RAIL ANCHOR DETAIL

NOTE: Cable Lifting Loops Are Allowed When Located In Keyways, Cut Off Below Deck, And Not Visible After Placing Keyway Grout.



END ELEVATION



KEY DETAIL

SECTION AT DRAIN

GENERAL NOTES:

- Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
- All Concrete Shall Obtain A Minimum Compressive Strength Of 4,500 p.s.i. At 28 Days, And Shall Obtain A Minimum Compressive Strength Of 2,500 p.s.i. Before Units Are Lifted From Forms.
- All Concrete Edges Shall Be Chamfered 3/4" Unless Otherwise Noted.
- All Other Concrete Corners Shall Be Rounded To A 1/4" Radius.
- All Reinforcing Steel Shall Be A.S.T.M. A615, Grade 60.
- Dimensions For Reinforcing Steel Are To The Centerline Of The Bars Unless Otherwise Noted.
- All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place By Means Of Steel Wire Supports.
- Wire Mesh Shall Conform To "Specification For Welded Deformed Steel Wire Fabric For Concrete Reinforcement" (A.S.T.M. A497) For Deformed Wire And "Specification For Welded Steel Wire Fabric For Concrete Reinforcement" (A.S.T.M. A185) For Smooth Wire.
- All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.

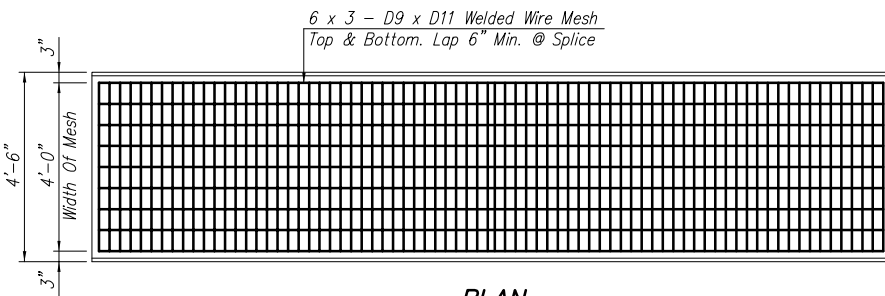
DESIGN DATA:

- Specifications:.....2007 AASHTO LRFD Bridge Design Specifications, 4th Edition, 2007, Through 2009 Interims
- Design Loading:.....HL-93
- fy = 60,000 p.s.i.; f'c = 4,500 p.s.i.; n = 7

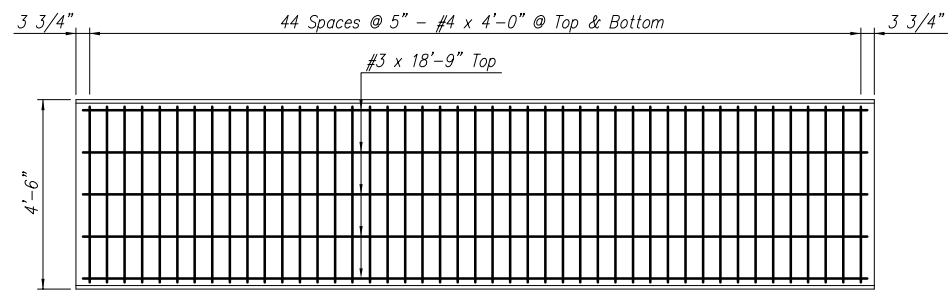
OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
19' x 3.5' PRECAST CONCRETE SLAB UNIT FOR USE WITH BARRIER RAIL			
DATE	DESIGNED BY:	ISSUED BY:	DRAWING NUMBER:
3-08	M.B.E.	F.C.H.	PC-05-09
DATE	DESIGNED BY:	ISSUED BY:	DRAWING NUMBER:
	M.B.E.	6-11	

FINRA APPROVAL	6-10
STATE AID ENGINEER:	J. BROOKS MILLER, Sr.
BRIDGE ENGINEER:	FRED HOLLIS

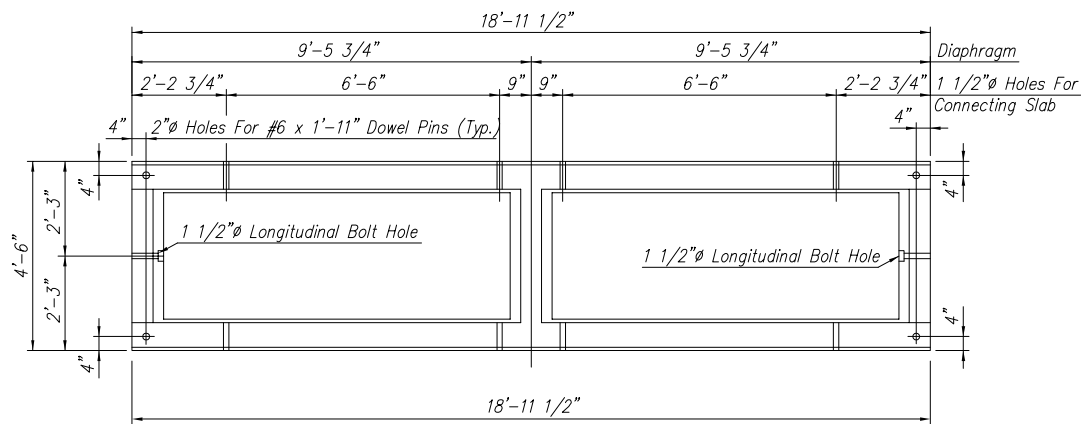
PC050509 (N.E.S.) 2-1-2008



PLAN
Welded Wire Mesh Reinforcement

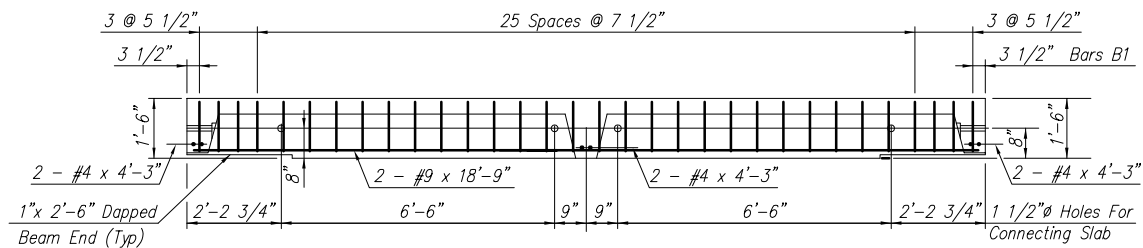


PLAN
Deformed Bar Reinforcement



PLAN
Concrete Dimensions

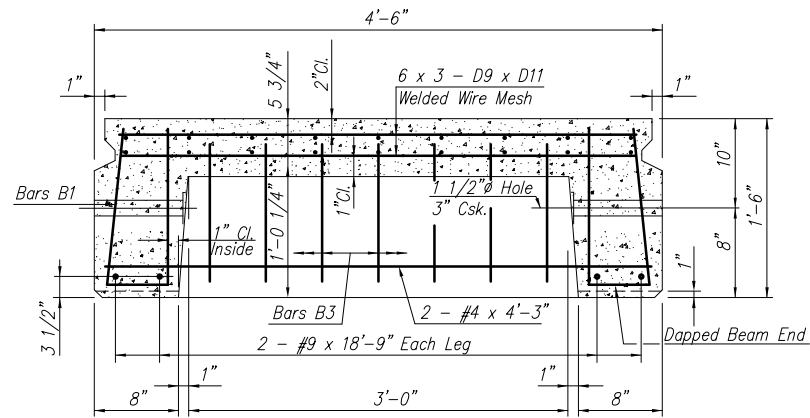
Bolt All Slabs Transversely At 3 Points.
(One At Each End And One Near The Center.)



ELEVATION
INTERIOR UNIT

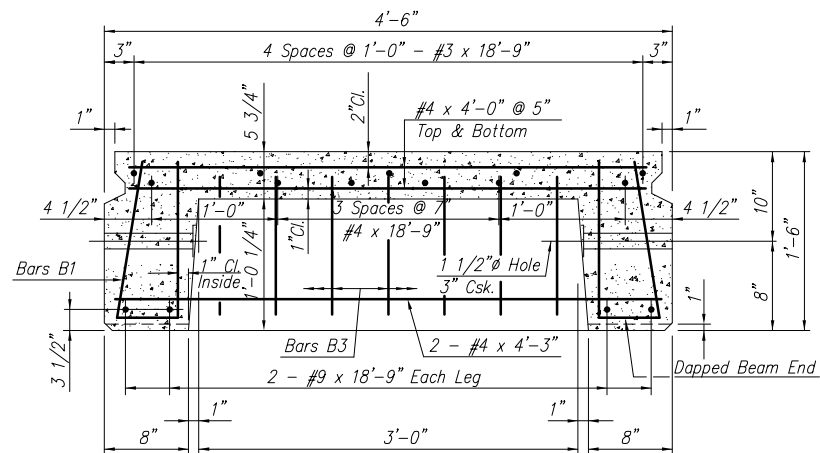
Slab Reinforcing Not Shown

PAY ITEM
S-806-A: 19' Precast Concrete Slab Unit, 4.5' Interior - per each



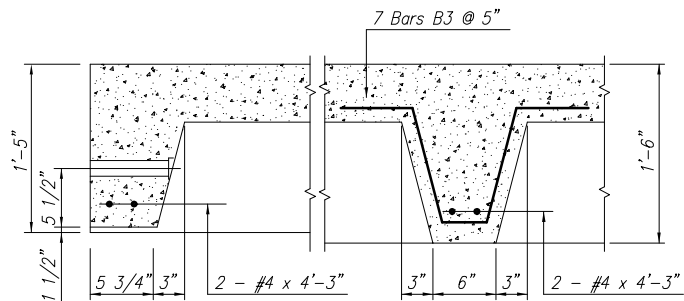
SECTION

Welded Wire Mesh Reinforcing



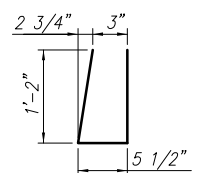
SECTION

Deformed Bar Slab Reinforcing

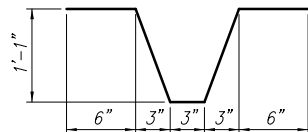


SECTION AT END

SECTION AT DIAPHRAGM



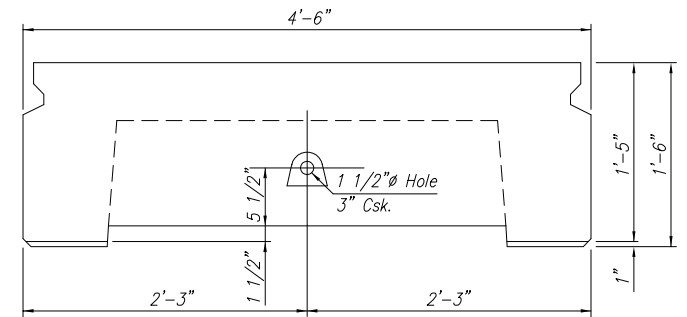
BARS B1 - #3



BARS B3 - #3

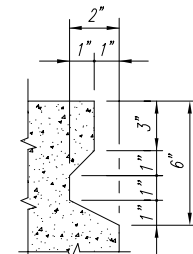
BAR BENDING DETAILS

Dimensions Are Out To Out.



END ELEVATION

NOTE: Cable Lifting Loops Are Allowed When Located In Keyways, Cut Off Below Deck, And Not Visible After Placing Keyway Grout.



KEY DETAIL

GENERAL NOTES

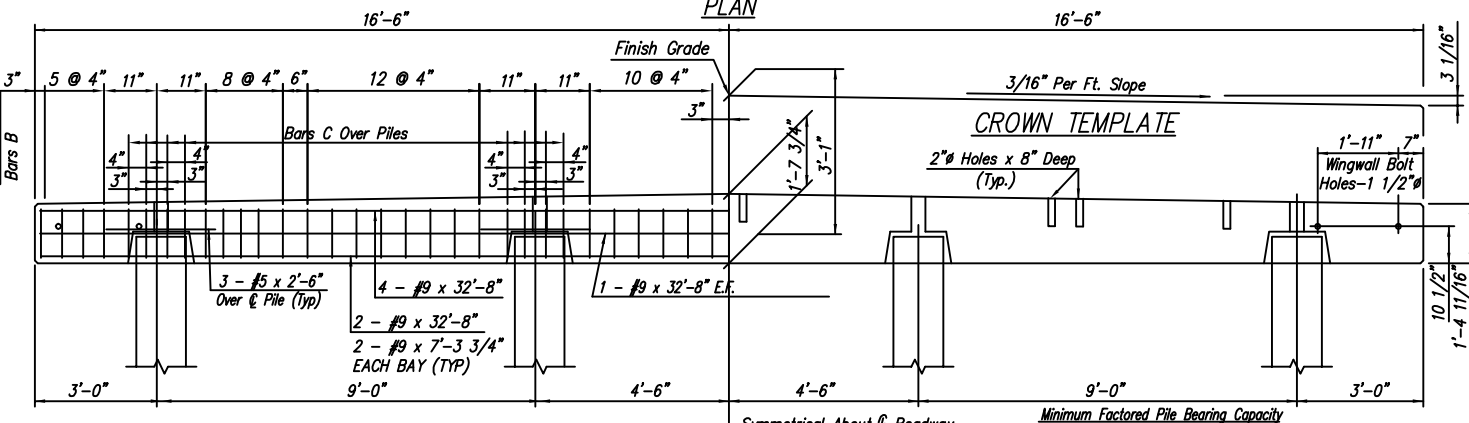
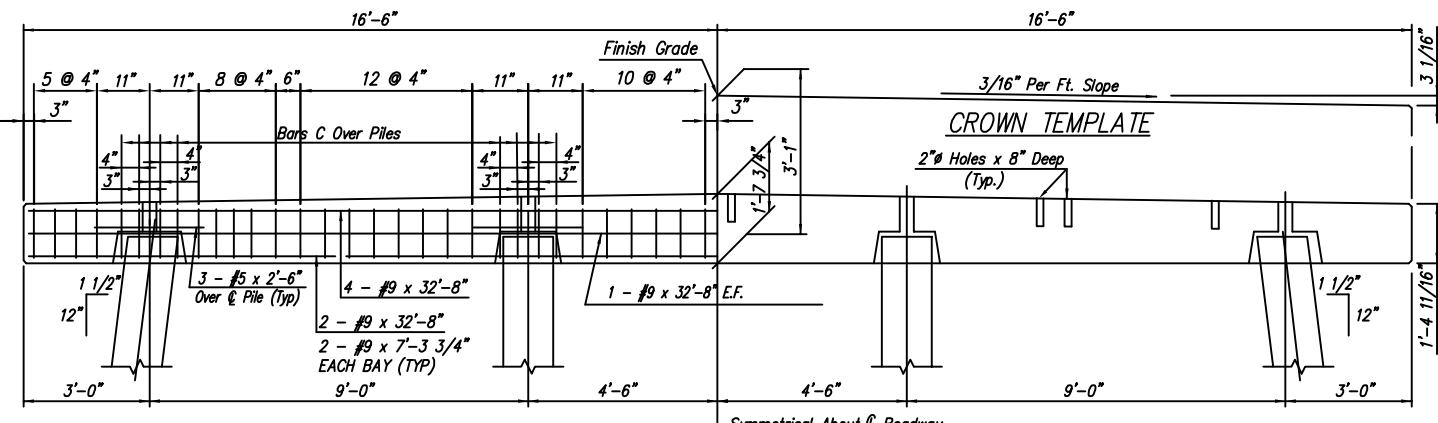
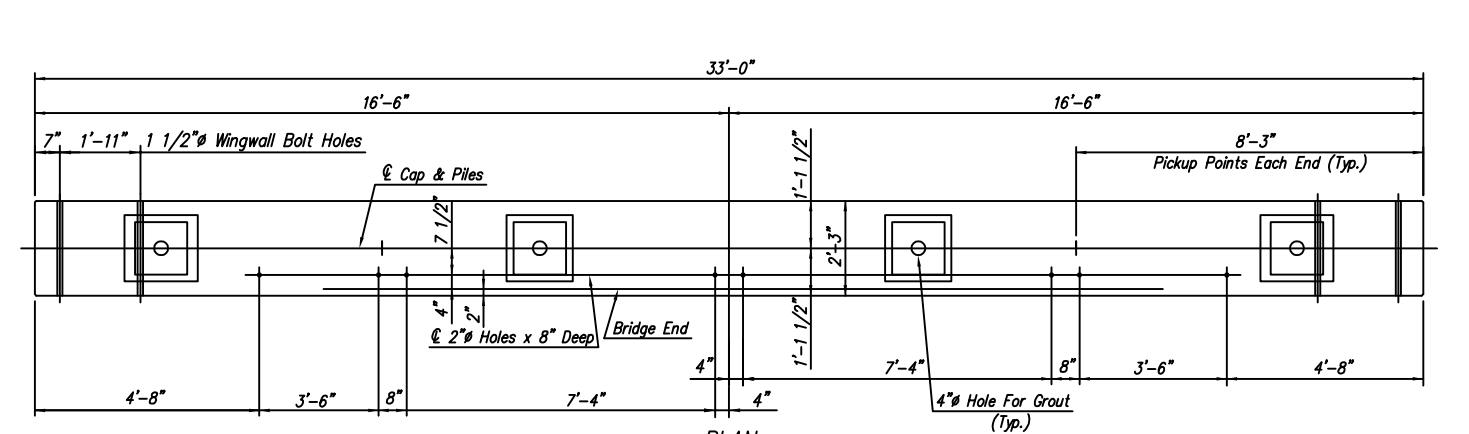
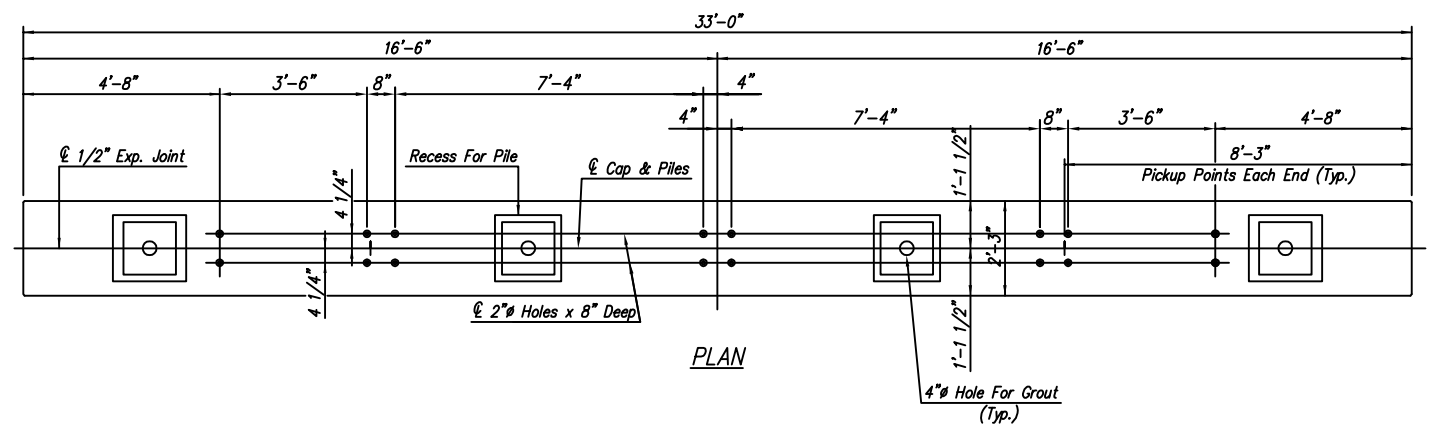
Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
All Concrete Shall Obtain A Minimum Compressive Strength Of 4,500 p.s.i. At 28 Days, And Shall Obtain A Minimum Compressive Strength Of 2,500 p.s.i. Before Units Are Lifted From Forms.
All Concrete Edges Shall Be Chamfered 3/4" Unless Otherwise Noted.
All Concrete Corners Shall Be Rounded To A 1/4" Radius.
All Reinforcing Steel Shall Be A.S.T.M. A615, Grade 60.
Dimensions For Reinforcing Steel Are To The Centerline Of The Bars, Unless Otherwise Noted.
All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place By Means Of Steel Wire Supports.
Wire Mesh Shall Conform To "Specification For Welded Deformed Steel Wire Fabric For Concrete Reinforcement" (A.S.T.M. A497) For Deformed Wire And "Specification For Welded Steel Wire Fabric For Concrete Reinforcement" (A.S.T.M. A185) For Smooth Wire.
All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.

DESIGN DATA:

Specifications:.....2007 AASHTO LRFD Bridge Design Specifications, 4th Edition, 2007, Through 2009 Interims
Design Loading:.....HL-93
fy = 60,000 p.s.i.; f'c = 4,500 p.s.i.; n = 7

		OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
		19' x 4.5' PRECAST CONCRETE SLAB UNIT FOR USE WITH 24' & 30' ROADWAYS	
DATE	4-11	DESIGNED BY:	M.B.E.
DATE	4-11	CHECKED BY:	F.C.H.
DATE	4-11	DESIGNED BY:	M.B.E.
DATE	4-11	CHECKED BY:	F.C.H.
DRAWING NUMBER:		PC-07-09	

FHWA APPROVAL	6-10
STATE AID ENGINEER:	J. BROOKS MILLER, Sr.
BRIDGE ENGINEER:	FRED HOLLIS



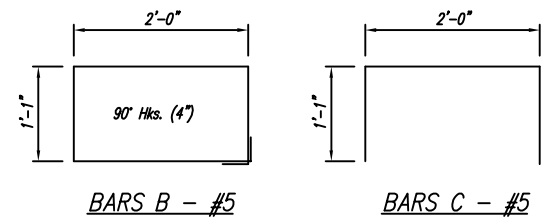
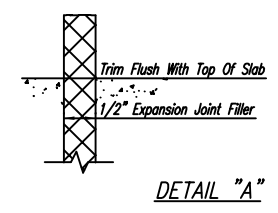
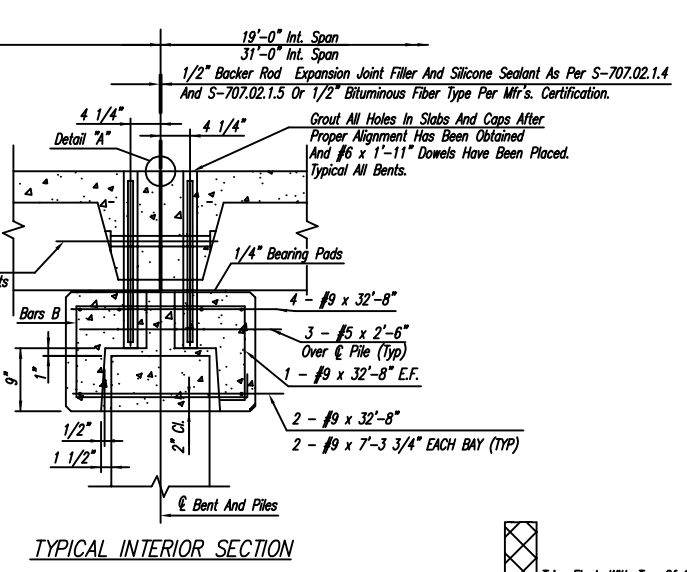
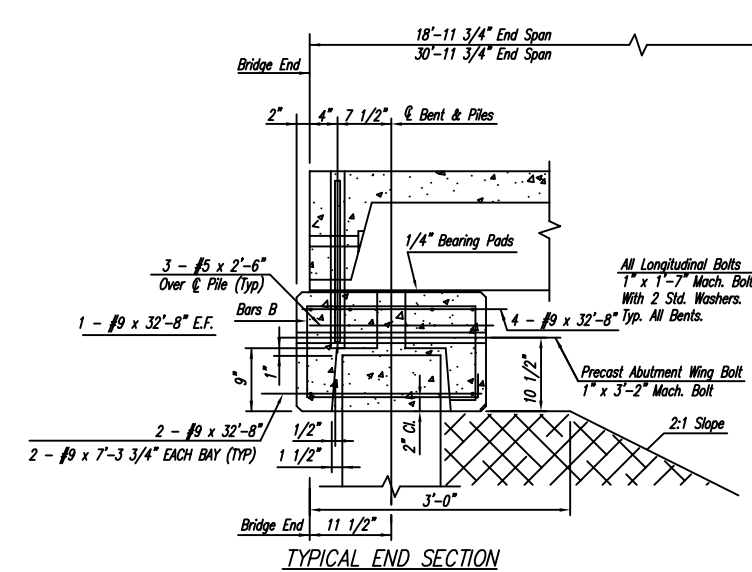
NOTE: Piles Shall Be In Accordance With Guidelines On Sheet PC-14-09.

Minimum Factored Pile Bearing Capacity
 19'-19" ~ 52 Tons (STR)
 19'-31" ~ 63 Tons (STR)
 31'-31" ~ 71 Tons (STR)

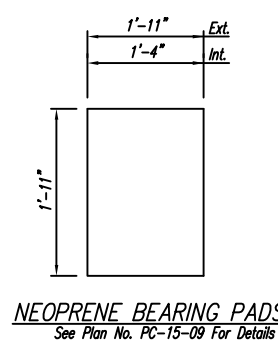
PAY ITEM
 S-806-I: 33' Precast Concrete Cap, Steel Intermediate Unit, Concrete Pile - per each.

Minimum Factored Pile Bearing Capacity
 19' ~ 34 Tons (STR1)
 31' ~ 45 Tons (STR1)

PAY ITEM
 S-806-I: 33' Precast Concrete Cap, End Unit, Steel Concrete Pile - per each.



BAR BENDING DETAILS
 Dimensions Are Out To Out



NEOPRENE BEARING PADS
 See Plan No. PC-15-09 For Details

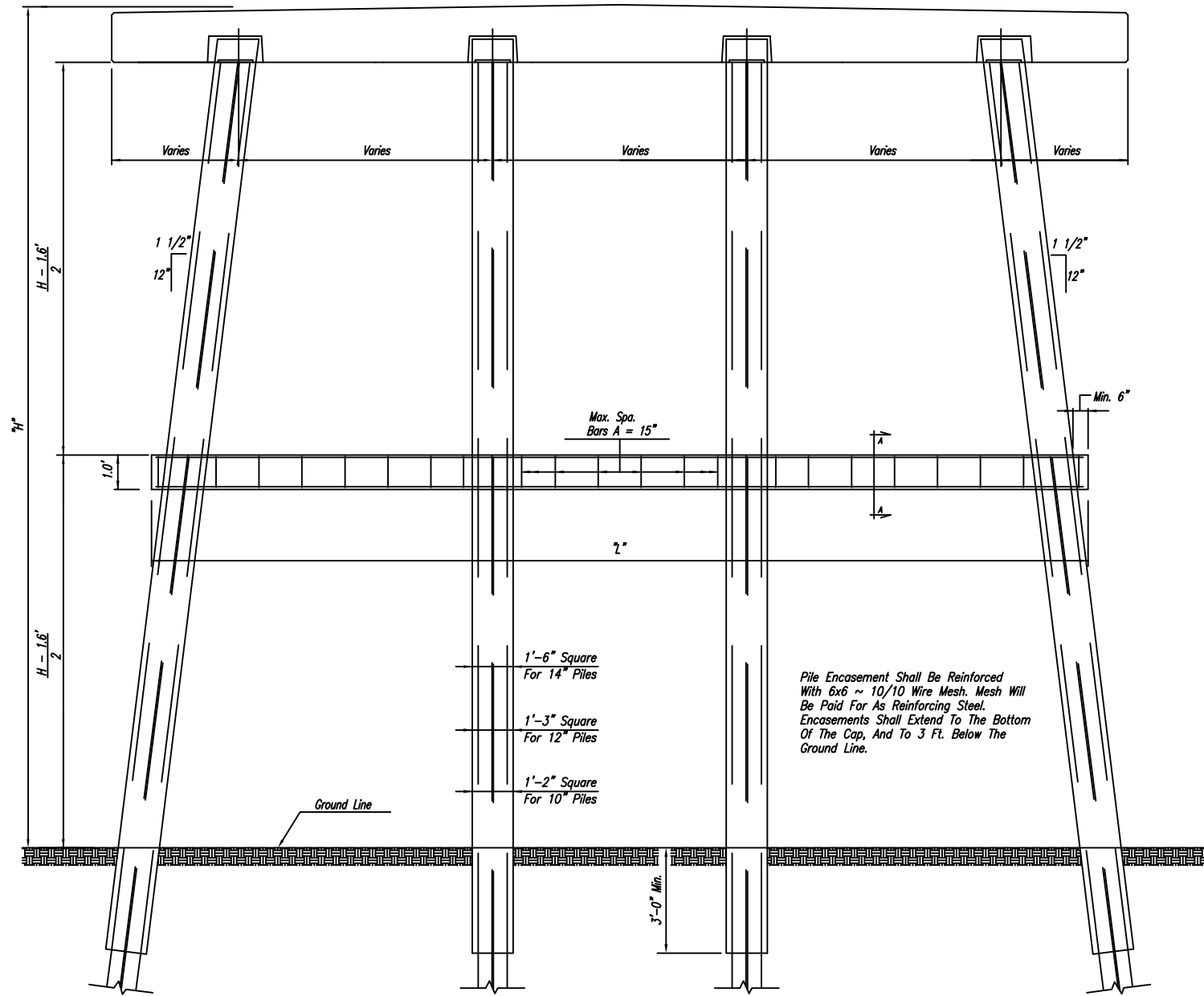
GENERAL NOTES

Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction. All Concrete Shall Obtain A Minimum Compressive Strength Of 3000 p.s.i. At 28 Days, And A Minimum Compressive Strength Of 2500 p.s.i. Before Caps Are Lifted From Forms. The Top Surface Of Caps Shall Have A Rubbed Finish In Accordance With Section S-804.03.19.3.1 Of The Specifications. All Concrete Edges Shall Be Chamfered 3/4". Reinforcing Steel Shall Be Deformed Bars Conforming To A.S.T.M. A615 Grade 60. All Reinforcing Steel Shall Be Accurately Located In The Forms And Securely Held In Place By Means Of Steel Wire Supports. Grout For Cap To Piling Connection Shall Be Non-Shrink Commercial Type Or Epoxy Type In Accordance With Section S-806.03.5 "Handling And Placing Precast Caps, Slabs, Barrier Rail, And Wings" Of The Specifications. Hardware Shall Be Galvanized Or Cadmium Plated. All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items. For Federal Aid Projects This Drawing May Only Be Used In Seismic Zone 1 With Site Classes A, B, C, D & E As Described In The AASHTO LRFD Bridge Design Specifications. The Engineer Must Provide Design Calculations To The Owner Which Confirms The Seismic Zone And Site Class.

DESIGN DATA:

Specifications:A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, THROUGH 2009 INTERIMS
 Design Loading:HL-93
 fy = 60,000 p.s.i. fc = 3,000 p.s.i. n = 9

OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
PRECAST CONCRETE CAPS FOR USE WITH 19 FT. & 31 FT. PRECAST CONCRETE SPANS & BARRIER RAIL 30'-0" ROADWAY	
J.M. Rev. Exp. Joint Filler Spec. 09-11 DATE	M.B.E. DATE
F.H.A. APPROVAL 6-10 STATE AID ENGINEER: J. BROOKS MILLER, Sr. BRIDGE ENGINEER: FRED HOLLIS	DRAWN BY: M.B.E. ISSUED BY: F.C.H. DATE: 6-11
DRAWING NUMBER: PC-13-09	

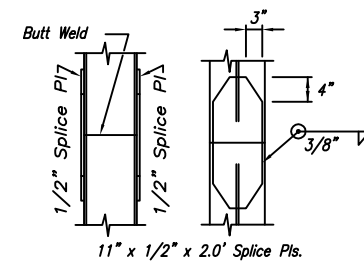
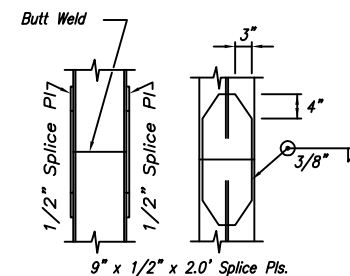
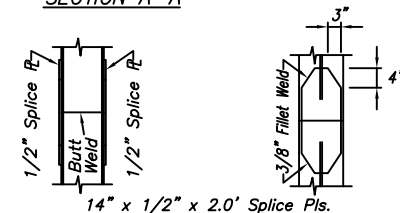
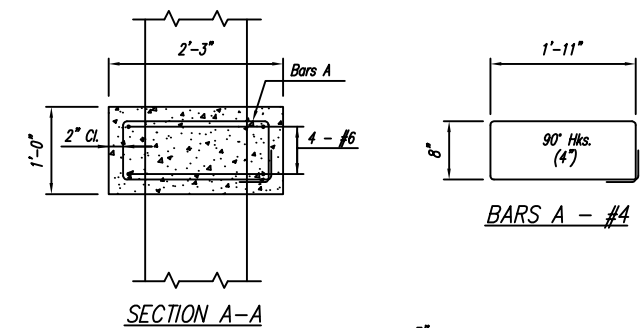


STEEL PILE ENCASEMENT AND STRUT DETAILS

MAXIMUM "H" FOR UNBRACED PILE BENT				
Roadway Width	Steel H-Pile			Prestressed Concrete Pile
	HP 10X42	HP 12X53	HP 14X73	14" Square
23'-0"	9'-0"	15'-0"	25'-0"	14'-0"
24'-0"	9'-0"	15'-0"	25'-0"	14'-0"
26'-6"	8'-0"	14'-0"	24'-0"	13'-0"
28'-0"	7'-0"	13'-0"	22'-0"	12'-0"
30'-0"	-	13'-0"	22'-0"	12'-0"
31'-6"	9'-0"	15'-0"	25'-0"	14'-0"
28'-0" (40' Span)	8'-0"	14'-0"	24'-0"	13'-0"
30'-0" (40' Span)	8'-0"	14'-0"	24'-0"	13'-0"
31'-6" (40' Span)	8'-0"	14'-0"	24'-0"	13'-0"

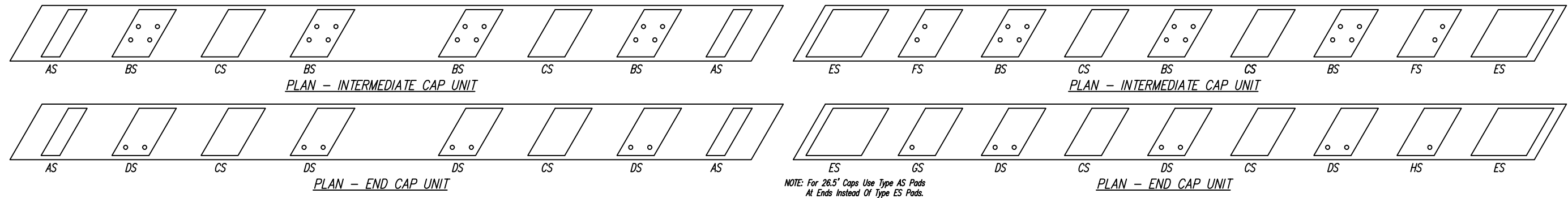
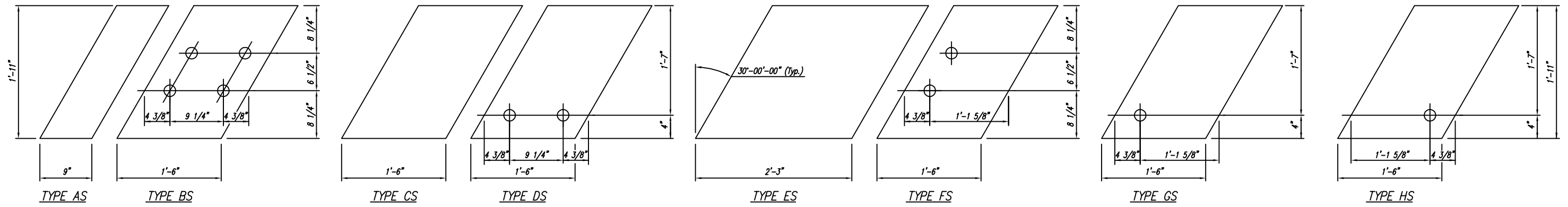
MAXIMUM "H" FOR BRACED PILE BENT				
Roadway Width	Steel H-Pile			
	HP 10X42	HP 12X53	HP 14X73	HP 14X89
23'-0"	12'-0"	20'-0"	39'-0"	39'-0"
24'-0"	12'-0"	20'-0"	39'-0"	39'-0"
26'-6"	12'-0"	20'-0"	39'-0"	39'-0"
28'-0"	10'-0"	18'-0"	39'-0"	39'-0"
30'-0"	-	18'-0"	36'-0"	39'-0"
31'-6"	12'-0"	20'-0"	39'-0"	39'-0"
28'-0" (40' Span)	-	-	38'-0"	39'-0"
30'-0" (40' Span)	-	-	37'-0"	39'-0"
31'-6" (40' Span)	-	-	35'-0"	39'-0"

ESTIMATED QUANTITIES	
PER FT. PILE ENCASEMENT	
Class "B" Concrete C.Y.	0.050
Reinforcing Steel Lb.	0.945
PER FT. STRUT	
Class "B" Concrete C.Y.	0.083
Reinforcing Steel Lbs.	9.92



GENERAL NOTES:
 Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
 All Welding Shall Be Done By The Electric Arc Process.
 When Practicable, All Piles Shall Be Driven Full Length And Shall Not Be Spliced Except By Authority Of The Engineer.
 Steel Piles Shall Be Paid For At The Contract Price Per Linear Foot Complete In Place And No Additional Payment Will Be Allowed For Excavation And De-watering Incidental To Installation Of Pile Encasements.
 Pile Encasement And Strut Concrete Shall Be Paid For As Class "B" Concrete.
 Wire Mesh And Strut Reinforcement Will Be Paid For As Reinforcing Steel.
 All Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.
 All Piles Shown In Plans Shall Conform To AASHTO M270 Grade 50.
 When Prestressed Piling Is Used, Piling Details Shall Meet The Requirements Shown In Sheet CP-01.
DESIGN DATA:
 Specifications:.....A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, THROUGH 2009 INTERIMS

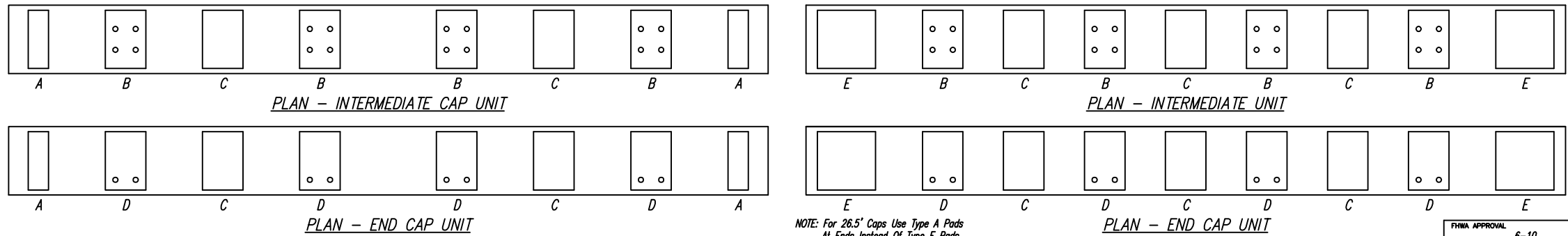
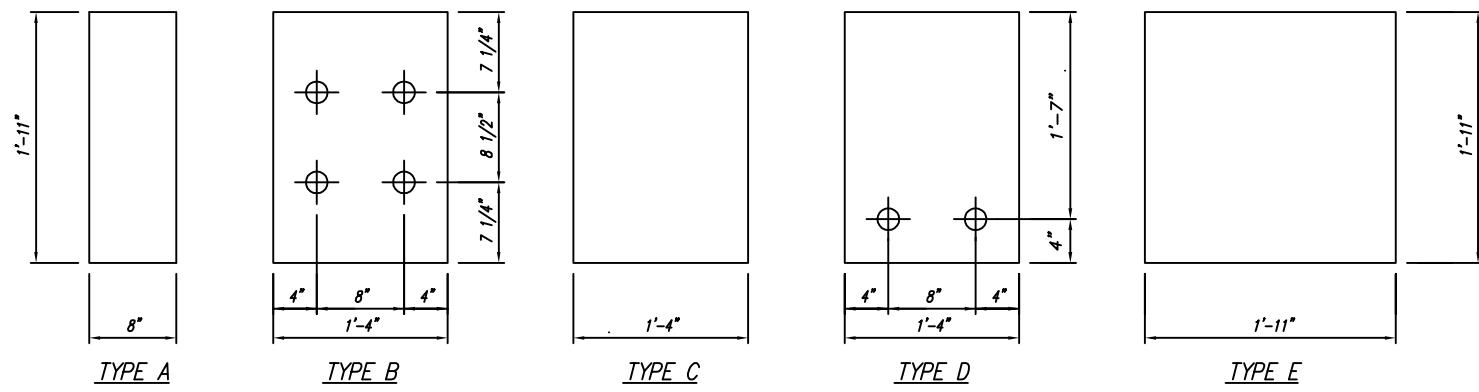
DATE	4-11	BY	M.B.E.	ISSUED BY	F.C.H.	DRAWING NUMBER	PC-14-09
DATE	6-10	BY	FRED HOLLIS	ISSUED BY			
DATE	6-10	BY	J. BROOKS MILLER, Sr.	ISSUED BY			
DATE	6-10	BY		ISSUED BY			



NEOPRENE PAD PLACEMENT - 23' & 24' CLEAR ROADWAYS

NEOPRENE PAD PLACEMENT - 26.5', 28', & 30' CLEAR ROADWAYS

NOTE: For 26.5' Caps Use Type AS Pads At Ends Instead Of Type ES Pads.



NEOPRENE PAD PLACEMENT - 23' & 24' CLEAR ROADWAYS

NEOPRENE PAD PLACEMENT - 26.5', 28', & 30' CLEAR ROADWAYS

NOTE: For 26.5' Caps Use Type A Pads At Ends Instead Of Type E Pads.

GENERAL NOTES:

Specifications:
 Hardness A.S.T.M. D2240 70 Durometer ±5
 Tensile Strength A.S.T.M. D412 2500
 Ultimate Elongation Minimum % 300
 All Holes Are 2 Inches In Diameter
 Thickness Of The Pads Shall Be 1/4" Unless Otherwise Designated On The Plans. Pads May Be Cut From Stock Using Appropriate Saw Or Shear, And Holes May Be Drilled. Pads Will Not Be Paid For Separately And Compensation Therefore Shall Be Considered Included In The Prices And Payment For Bid Items.

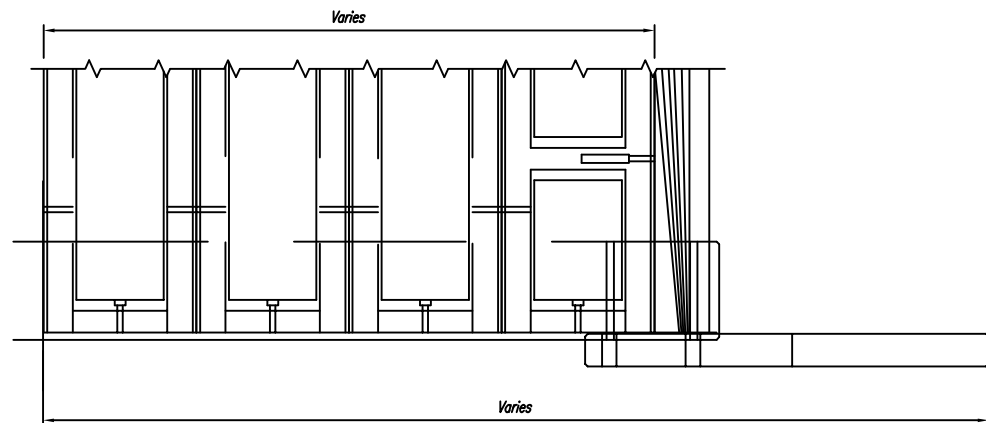
DESIGN DATA:

Specifications:.....A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, THROUGH 2009 INTERIMS

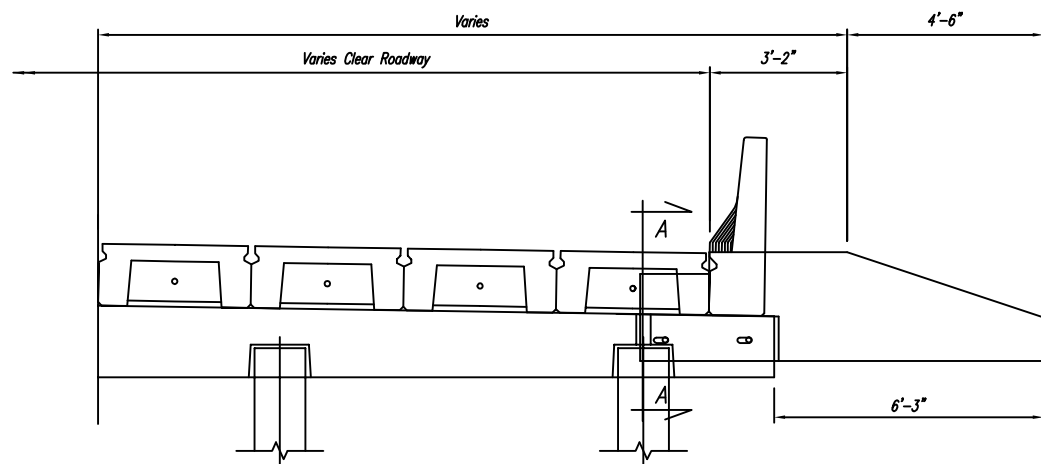
DATE	4-11	ISSUED BY:	F.C.H.	DRAWING NUMBER:	PC-15-09
	4-11	DESIGNED BY:	M.B.E.		
DATE	6-10	ISSUED BY:	F.C.H.	DRAWING NUMBER:	PC-15-09
DATE	6-11	DESIGNED BY:	M.B.E.		

STATE AID ENGINEER:
 J. BROOKS MILLER, Sr.
 BRIDGE ENGINEER:
 FRED HOLLIS

PC-15 PADS (N.T.S.) 06/07/2005

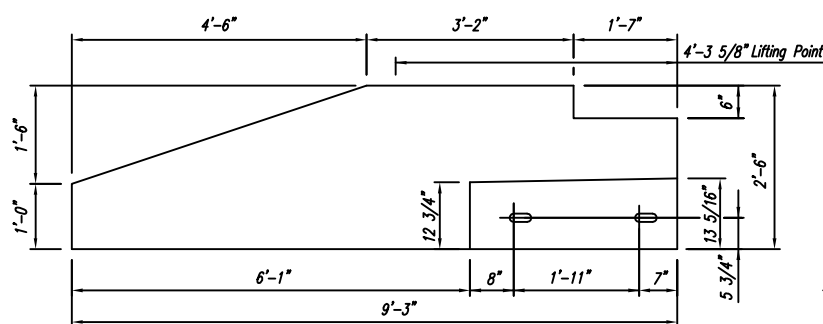


PART PLAN



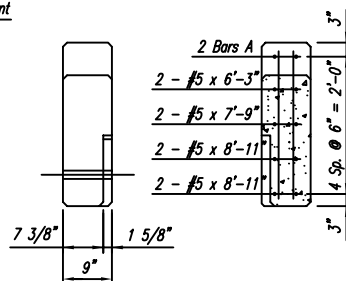
PART ELEVATION

PAY ITEM
S-806-M: 9.25' Precast Concrete Wing - per each.



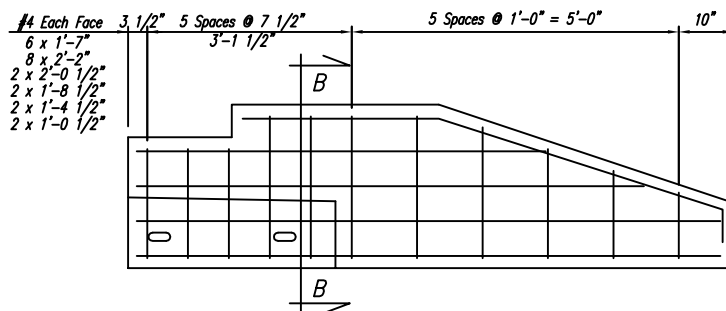
ELEVATION

LEFT WING
Showing Concrete Dimensions



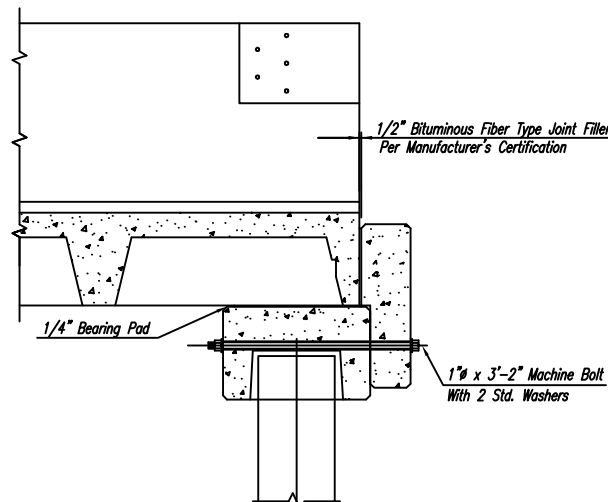
RIGHT END
ELEVATION

SECTION B-B

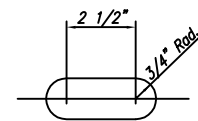


ELEVATION

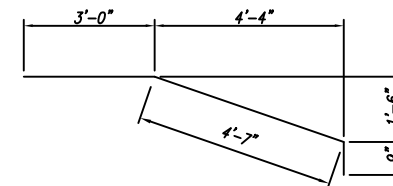
RIGHT WING
Showing Reinforcing



SECTION A-A



SLOT DETAIL



BARS A - #5

BAR BENDING DETAILS
Dimensions Are Out To Out

GENERAL NOTES

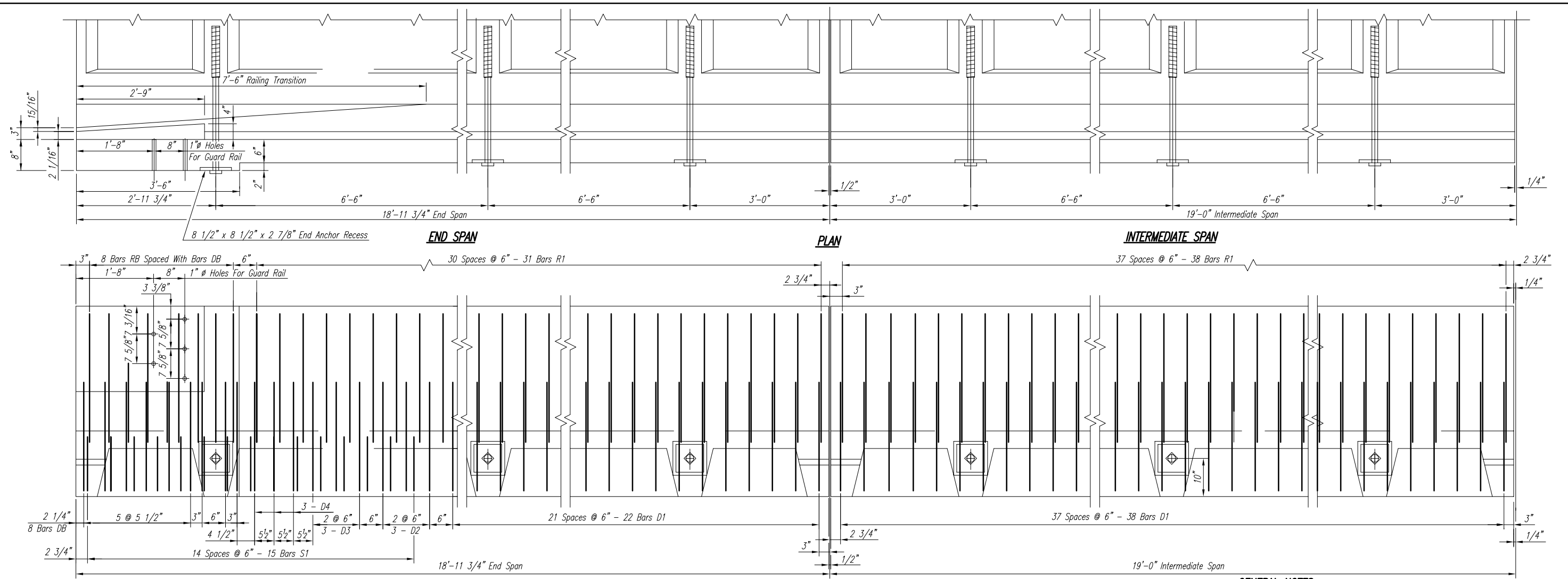
Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
All Concrete Shall Obtain A Minimum Compressive Strength Of 3000 p.s.i At 28 Days, And Shall Obtain A Minimum Compressive Strength Of 2500 p.s.i. Before Units Are Lifted From Forms.
All Concrete Edges Shall Be Chamfered 3/4" Unless Otherwise Noted.
All Concrete Corners Shall Be Rounded To A 1/4" Radius.
All Reinforcing Steel Shall Be A.S.T.M. A615, Grade 60.
Dimensions For Reinforcing Steel Are To The Centerline Of The Bars, Unless Otherwise Noted.
All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place By Means Of Steel Wire Supports.
All Hardware Shall Be Galvanized Or Cadmium Plated.
All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.

DESIGN DATA:

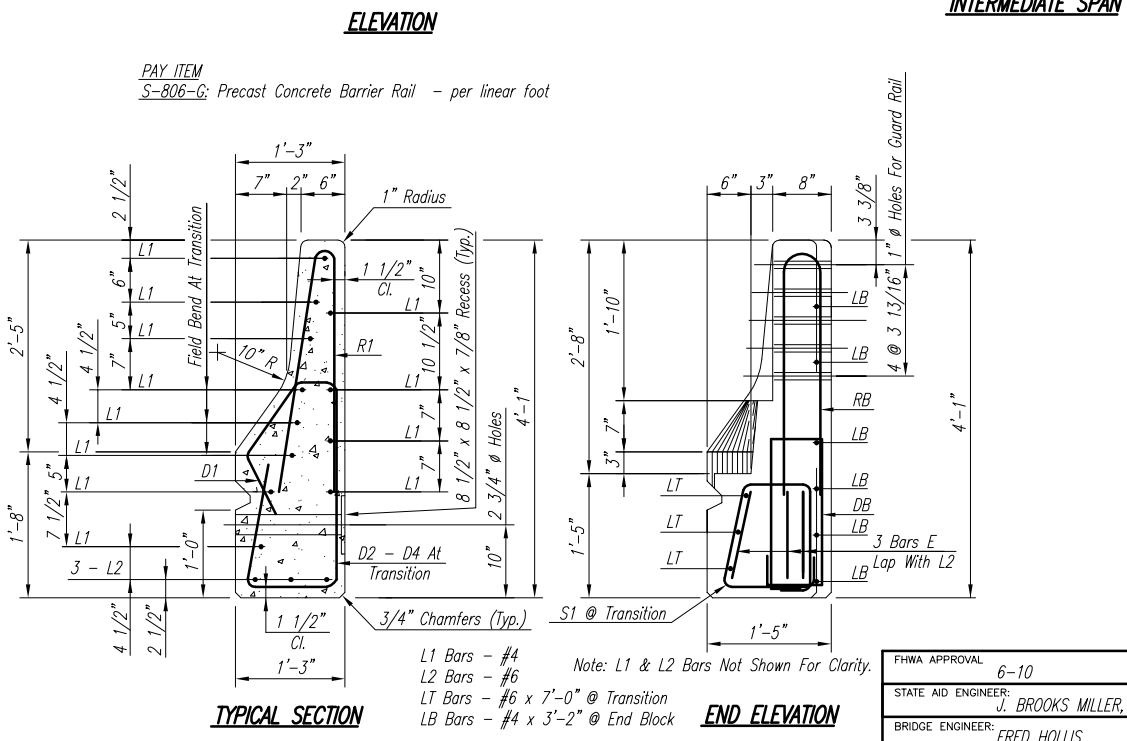
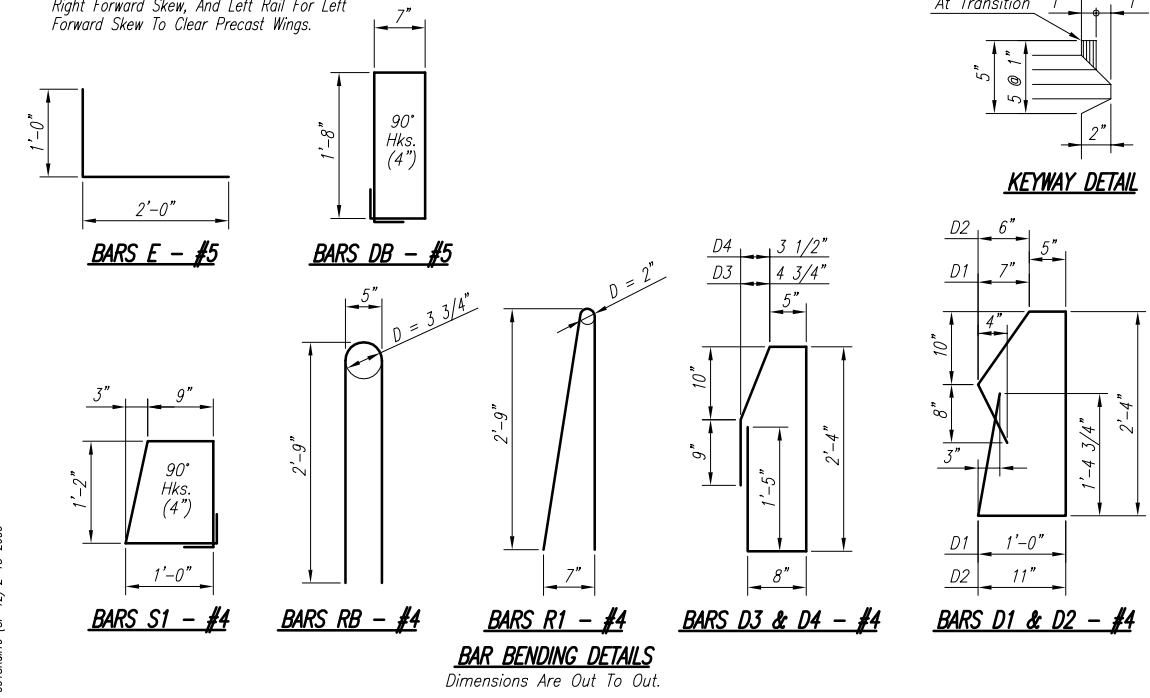
Specifications:.....A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, THROUGH 2009 INTERIMS

JCM		OFFICE OF STATE AID ROAD CONSTRUCTION	
MBE		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
Rev. Exp. Joint Filler Note		PRECAST ABUTMENT WINGWALL	
Rev. ASHTO LRFD 2009		FOR USE WITH 19 FT. & 31 FT. PRECAST	
REVISIONS		CONCRETE SPANS & BARRIER RAIL	
		28 FT. & 30 FT. ROADWAYS	
DATE	DESIGNED BY:	ISSUED BY:	DRAWING NUMBER:
09-11	M.B.E.	F.C.H.	PC-17-09
4-11	M.B.E.	6-11	

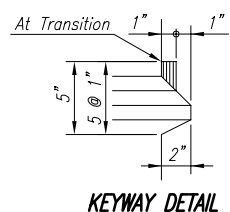
FHWA APPROVAL:	6-10
STATE AID ENGINEER:	J. BROOKS MILLER, Sr.
BRIDGE ENGINEER:	FRED HOLLIS



NOTE: Block Out Bottom Corners Of Right Rail For Right Forward Skew, And Left Rail For Left Forward Skew To Clear Precast Wings.



PAY ITEM
S-806-G: Precast Concrete Barrier Rail - per linear foot



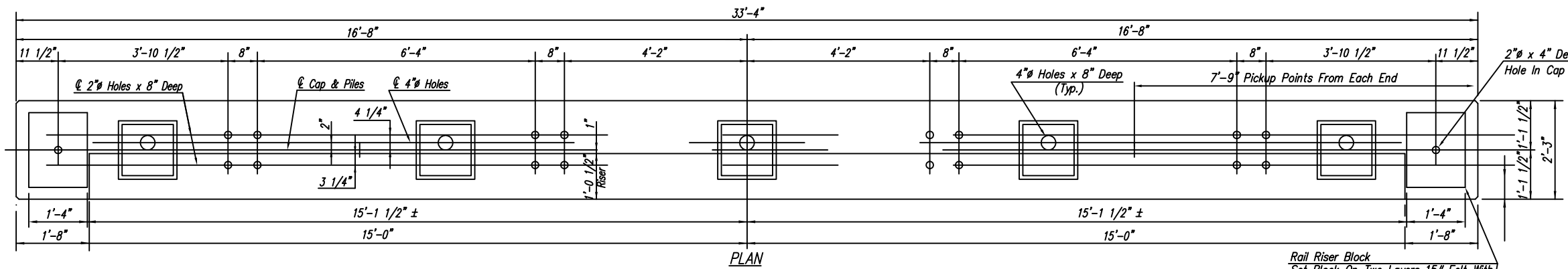
GENERAL NOTES
Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction.
All Concrete Shall Obtain A Minimum Compressive Strength Of 3,000 p.s.i. At 28 Days. And Obtain A Minimum Compressive Strength Of 2,500 p.s.i. Before Units Are Lifted From Forms.
Reinforcing Steel Shall Be Deformed Bars Conforming To A.S.T.M. A615, Grade 60. All Reinforcing Steel Shall Be Accurately Located In The Forms And Securely Held In Place By The Means Of Steel Wire Supports.
Screw Anchor And Bolt Assembly Shall Be 2" ϕ x 2'-11" As Manufactured By Richmond Screw And Anchor Co., Inc. Or Equal. Assembly Shall Be Galvanized In Accordance With A.S.T.M. A153. Minimum Ultimate Strength In Tension Shall Be 112,000 Lbs. Anchor Plate Washers For Screw Anchor Bolts Shall Be 7 1/2" x 7 1/2" x 7/8" Steel Plate, A.S.T.M. A123.
All Material For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.

DESIGN DATA:
Specifications:.....A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, Through 2009 Interims

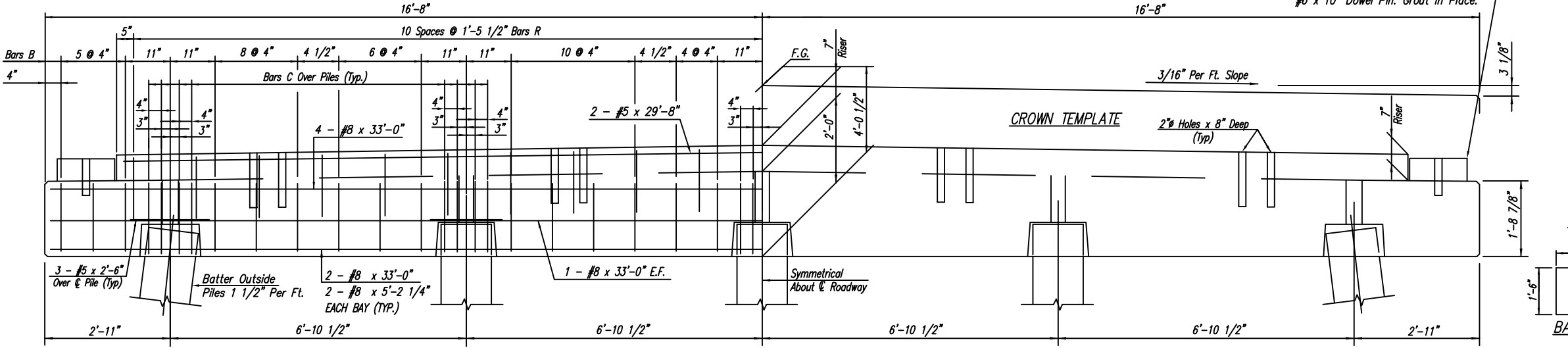
OFFICE OF STATE AID ROAD CONSTRUCTION MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
19'-0" SOLID TYPE BARRIER RAIL	
DATE: 4-11	REVISION: 009
DESIGNED BY: M.B.E.	ISSUED BY: F.C.H.
CHECKED BY: M.B.E.	DATE: 6-11
PC-18-09	

FHWA APPROVAL: 6-10
STATE AID ENGINEER: J. BROOKS MILLER, Sr.
BRIDGE ENGINEER: FRED HOLLIS

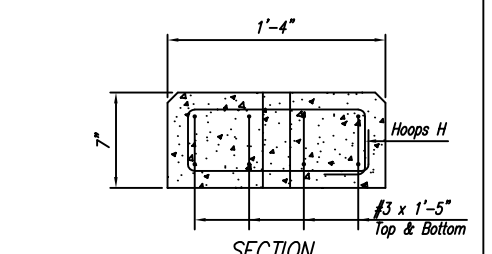
PC018R019 (SF-12) 2-15-2006



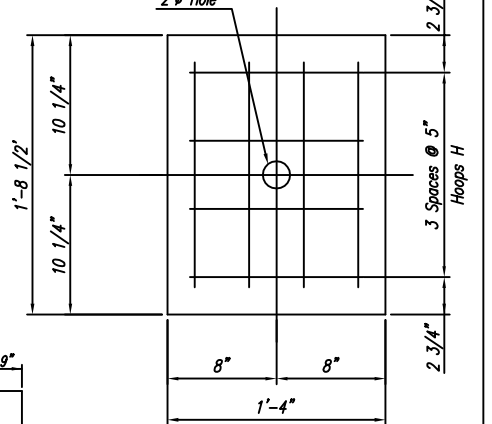
PLAN



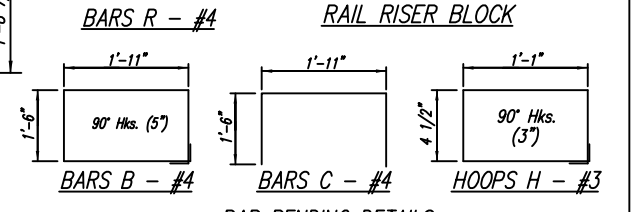
ELEVATION



SECTION



PLAN RAIL RISER BLOCK



BAR BENDING DETAILS

NOTE: Piles Shall Be In Accordance With Guidelines On Sheet PC-14-09.

PAY ITEM S-806-I: 33.33' Precast Concrete Cap, Steel Intermediate Unit, Concrete Pile, - per each.

Minimum Factored Pile Bearing Capacity 19'-40' ~ 62 Tons (STR) 31'-40' ~ 68 Tons (STR)

NOTE: It Is Permissible To Cast Riser Block Monolithic With Cap.

GENERAL NOTES

Specifications: Current Mississippi Standard Specifications For State Aid Road And Bridge Construction. All Concrete Shall Obtain A Minimum Compressive Strength Of 3000 p.s.i. At 28 Days, And A Minimum Compressive Strength Of 2500 p.s.i. Before Caps Are Lifted From Forms. The Top Surface Of Caps Shall Have A Rubbed Finish In Accordance With Section S-804.03.19.3.1 Of The Specifications. All Concrete Edges Shall Be Chamfered 3/4". Reinforcing Steel Shall Be Deformed Bars Conforming To A.S.T.M. A615 Grade 60. All Reinforcing Steel Shall Be Accurately Located In The Forms And Securely Held In Place By Means Of Steel Wire Supports. Grout For Cap To Piling Connection Shall Be Non-Shrink Commercial Type Or Epoxy Type In Accordance With Section S-806.03.5 "Handling And Placing Precast Caps, Slabs, Barrier Rail, And Wings" Of The Specifications. Hardware Shall Be Galvanized Or Cadmium Plated. All Material And Work For Which No Pay Items Are Provided In The Proposal Will Not Be Paid For Directly And Compensation Therefore Will Be Considered Included In The Prices And Payments For Bid Items.

DESIGN DATA:

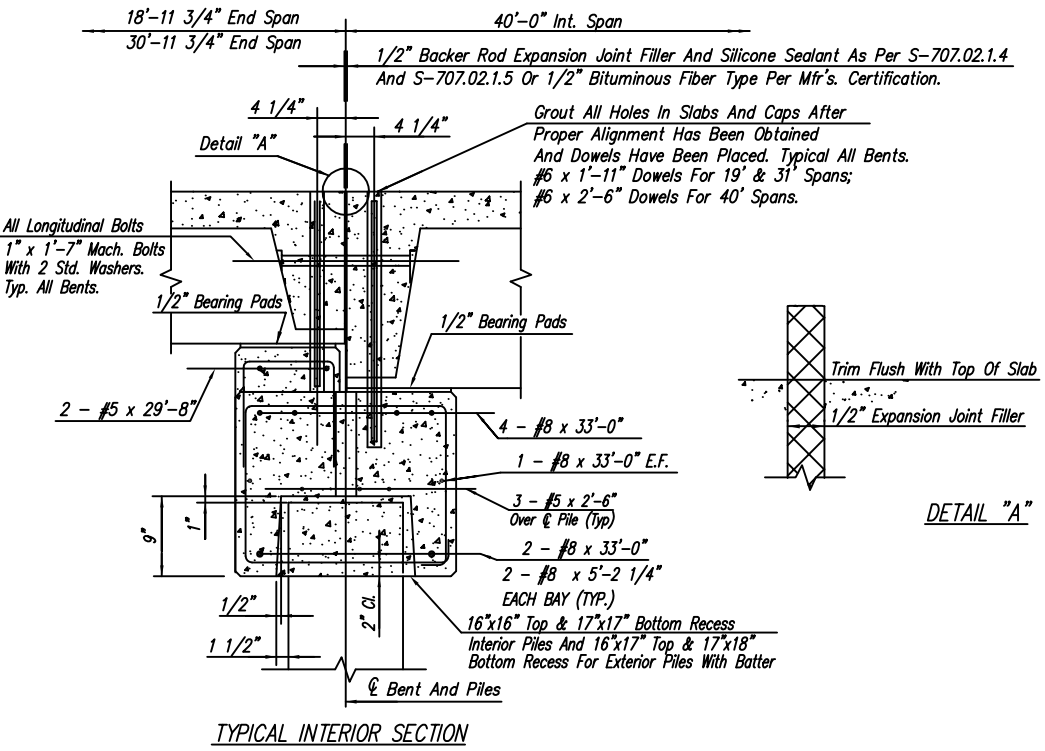
Specifications: A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, 2007, THROUGH 2009 INTERIMS
Design Loading: HL-93
fy = 60,000 p.s.i. fc = 3,000 p.s.i. n = 9

NEOPRENE BEARING PADS

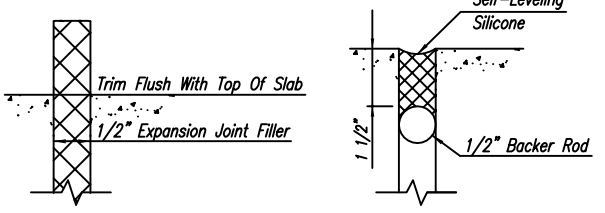
See Plan No. PC-44-09 For Details

GENERAL NOTE

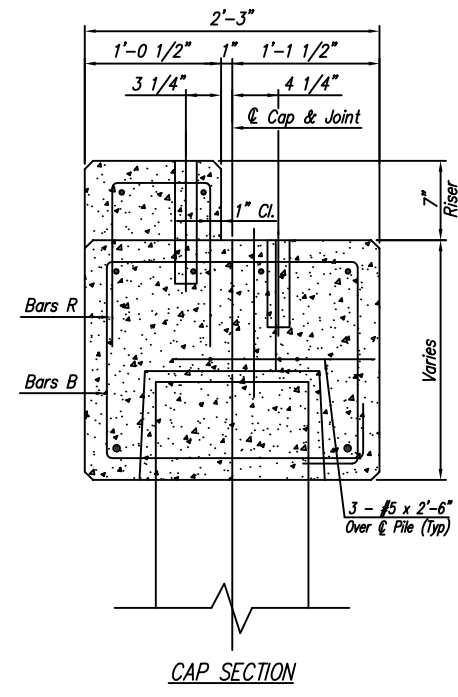
For Federal Aid Projects This Drawing May Only Be Used In Seismic Zone 1 With Site Classes A, B, C, D & E As Described In The AASHTO LRFD Bridge Design Specifications. The Engineer Must Provide Design Calculations To The Owner Which Confirms The Seismic Zone and Site Class.



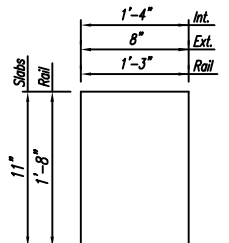
TYPICAL INTERIOR SECTION



DETAIL "A"



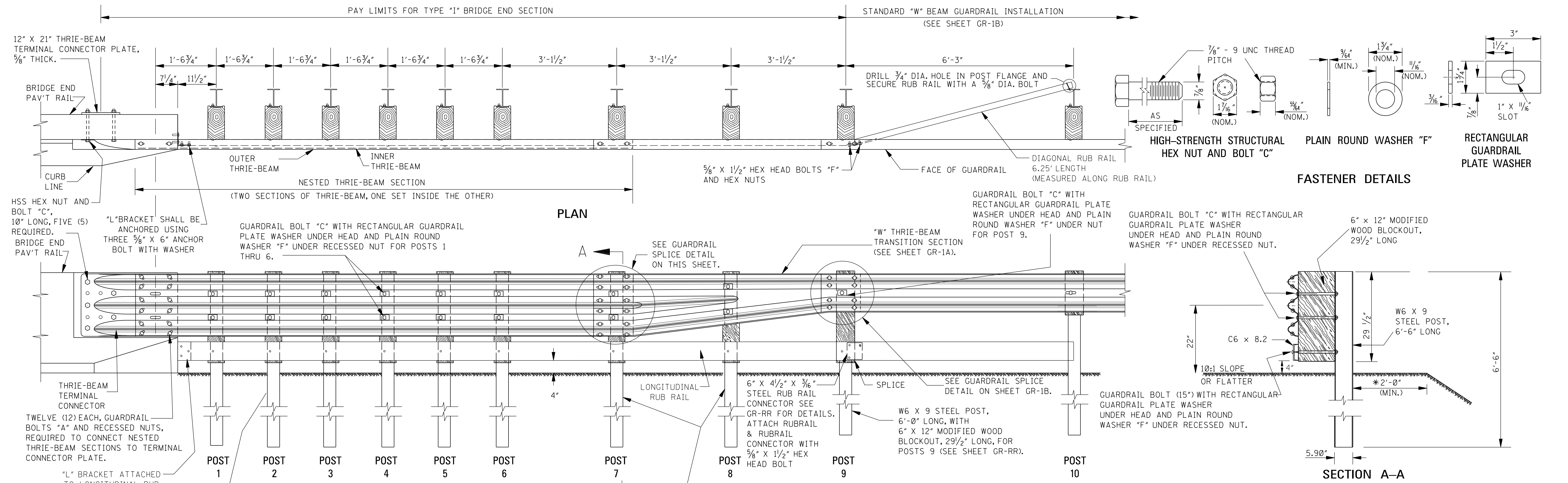
CAP SECTION



FWHA APPROVAL	6-10
STATE AID ENGINEER:	J. BROOKS MILLER, Sr.
BRIDGE ENGINEER:	FRED HOLLIS

DATE	09-11	04-11	REVISIONS	BY	DATE
DATE	09-11	04-11	REVISIONS	BY	DATE
DESIGNED BY:	M.B.E.	ISSUED BY:	F.C.H.	DRAWING NUMBER:	PC-42-09
DESIGNED BY:	M.B.E.	DATE:	6-11		

PC042CAP (M.T.S.) 10/05/2005

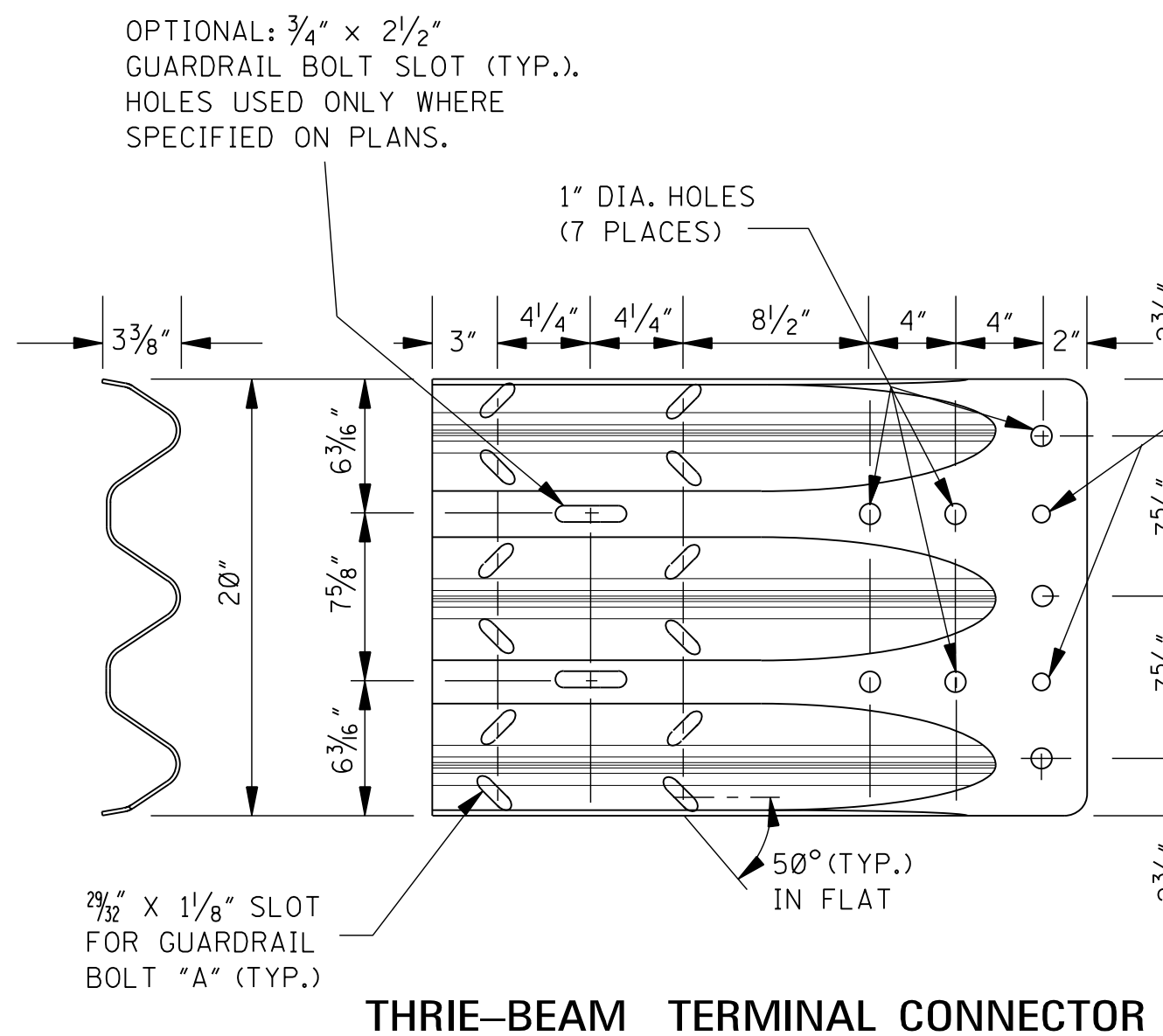


ELEVATION FROM ROADWAY

NOTE: BACKUP PLATES ARE NOT USED IN THIS TRANSITION.

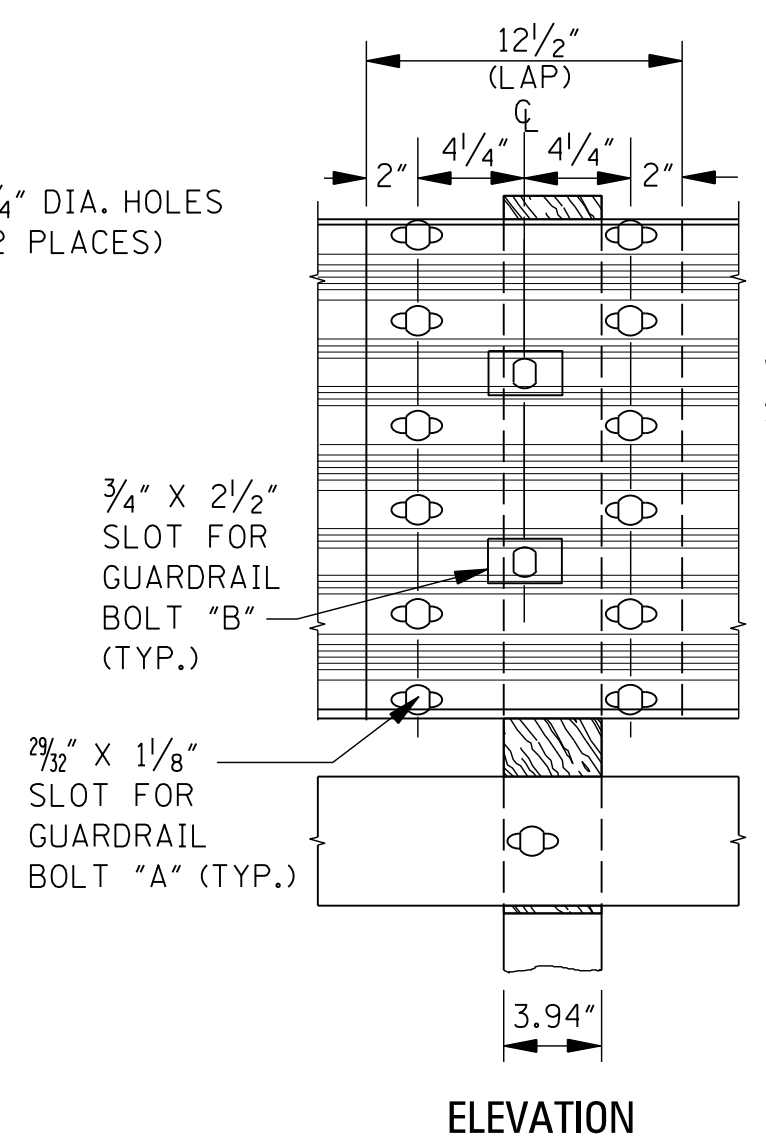
GENERAL NOTES (CONTINUED):

- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
- THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF APPROACHING TRAFFIC.
- POSTS SHALL CONFORM TO AASHTO M 270/M 270 (ASTM A 709/A 709M) GRADE 250 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE GRADE 50W STEEL SHALL BE USED. THE STRUCTURAL W6 X 9 DIMENSIONS ARE DEFINED IN AASHTO M 160M (ASTM A 6M). THE SECTION SHOULD BE ZINC-COATED PER AASHTO M 111 (ASTM A 123) AFTER CUTTING, DRILLING OR PUNCHING. CORROSION RESISTANT STEEL SHOULD NOT BE ZINC COATED, PAINTED OR OTHERWISE TREATED. GUARDRAIL IS EXEMPT FROM THE FRACTURE-CRITICAL TOUGHNESS IN AASHTO M 270/A 270 M.
- FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1B.
- DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1B AND GR-1C, RESPECTIVELY.
- FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13 GUIDE TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE", LATEST EDITION.
- ALL WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS..
- FOR DETAIL OF NOTCH IN MODIFIED WOOD BLOCKOUTS, SEE SHEET GR-1B.

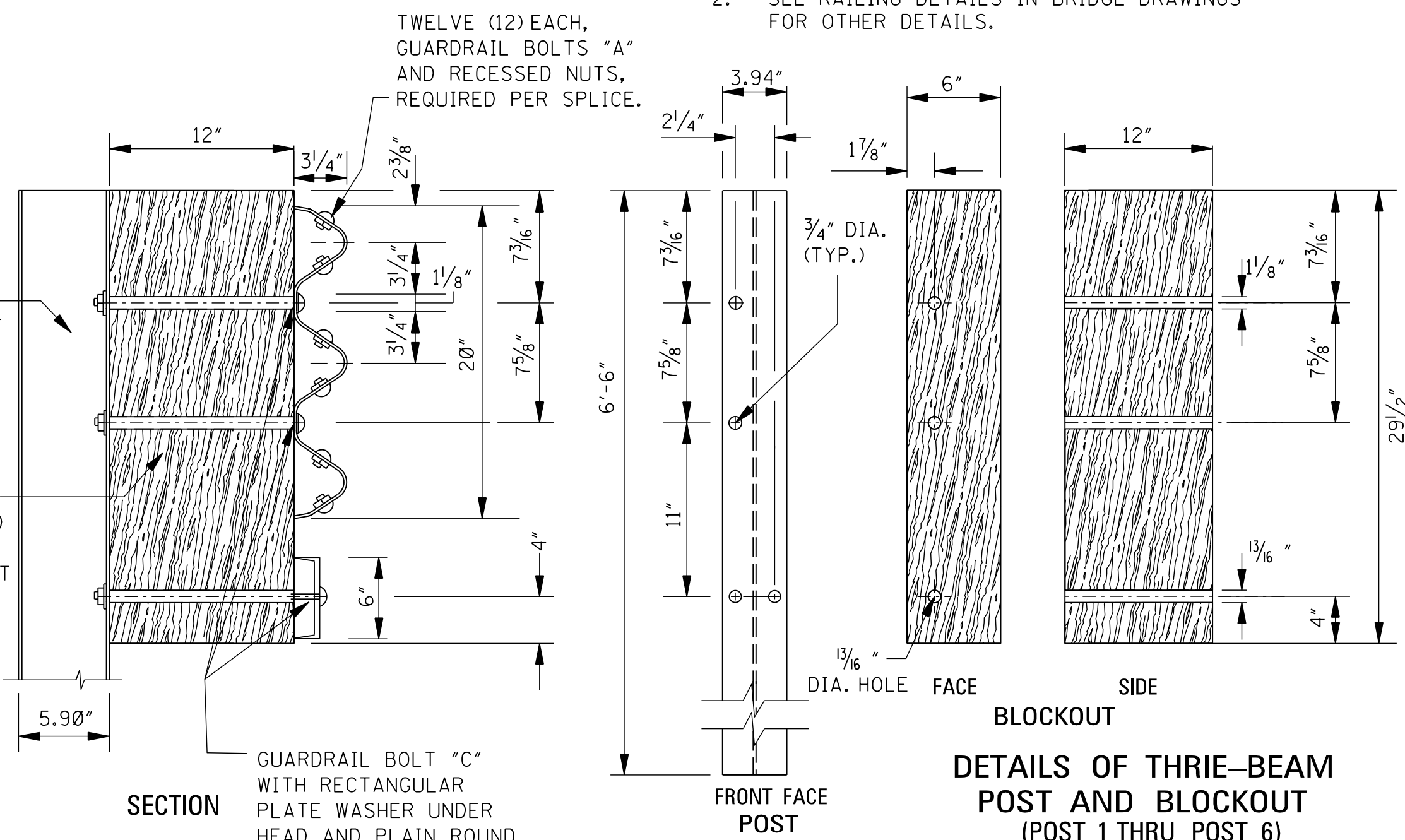


THRIE-BEAM TERMINAL CONNECTOR

- NOTES:
- THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
 - ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.



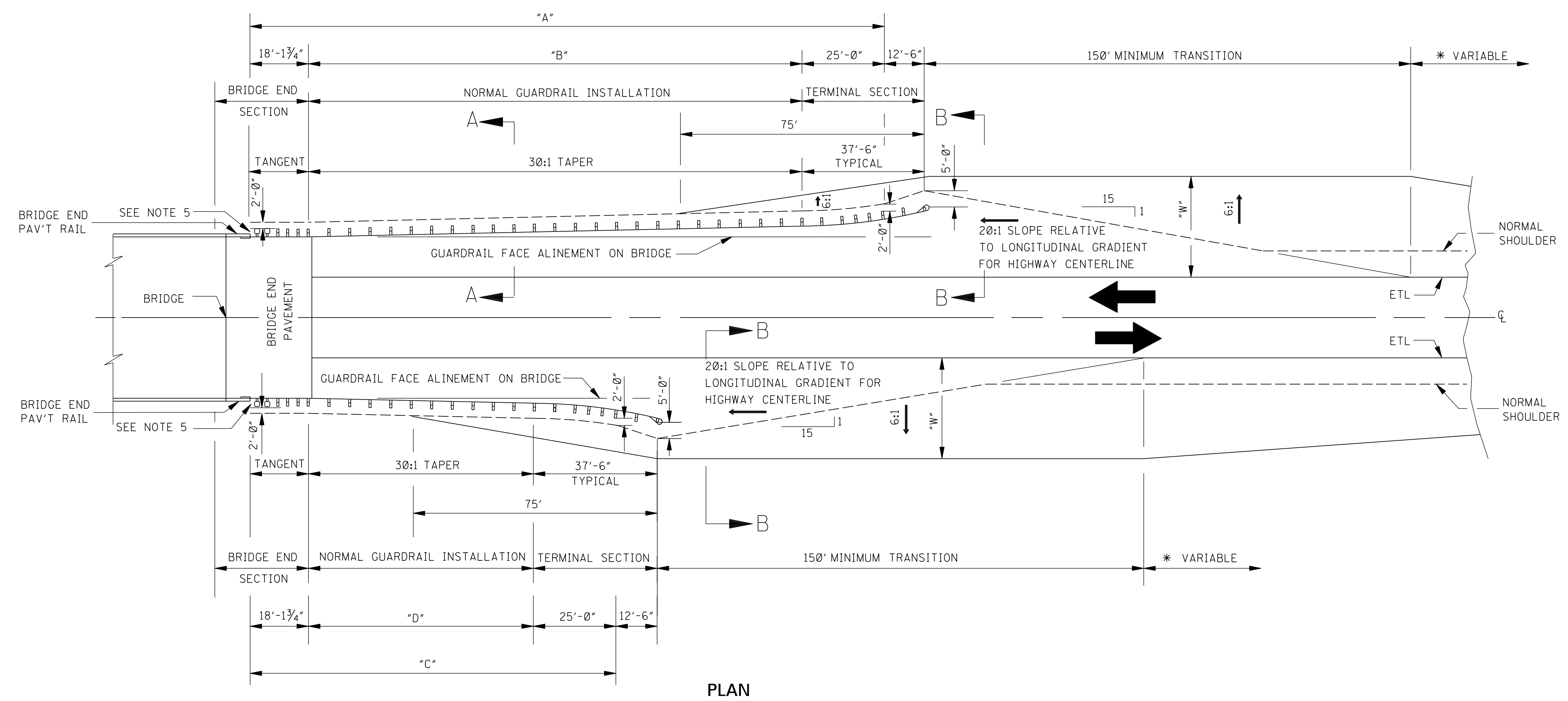
GUARDRAIL SPLICE DETAIL (POST 7)



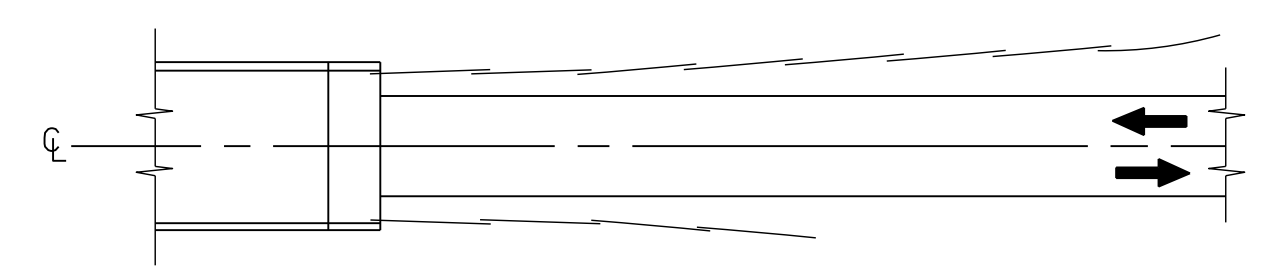
- NOTES:
- HOLE DETAILS ARE REQUIRED FOR POSTS AND BLOCKOUTS 1 THRU 8.
 - STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
 - ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
GUARDRAIL: BRIDGE END SECTION TYPE "I" (STEEL POSTS) (NEW CONSTRUCTION)	
BY	
REVISION	
DATE	ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER	GR-2G
SHEET NUMBER	6211

* NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.



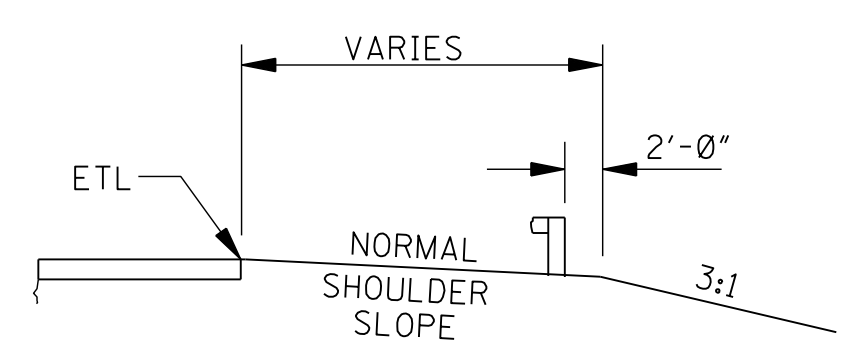
PLAN



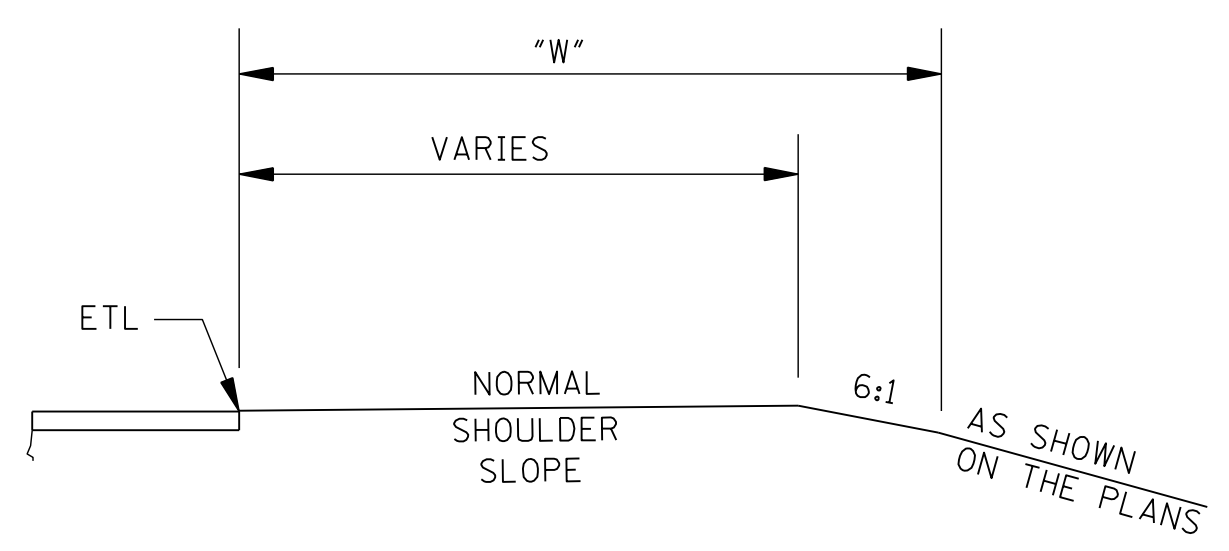
DETAIL OF GUARDRAIL SECTION LAPS

GENERAL NOTES:

- VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
- FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
- GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
- THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
- IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL, CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL (SEE WK. NOS. GR-2 THRU GR-2C). THE SHOULDER WIDTH AT THE BRIDGE END PAVEMENT RAIL OR BRIDGE END RAIL SHOULD BE SUFFICIENTLY WIDE TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
- TYPE, DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
- W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.



SECTION A-A



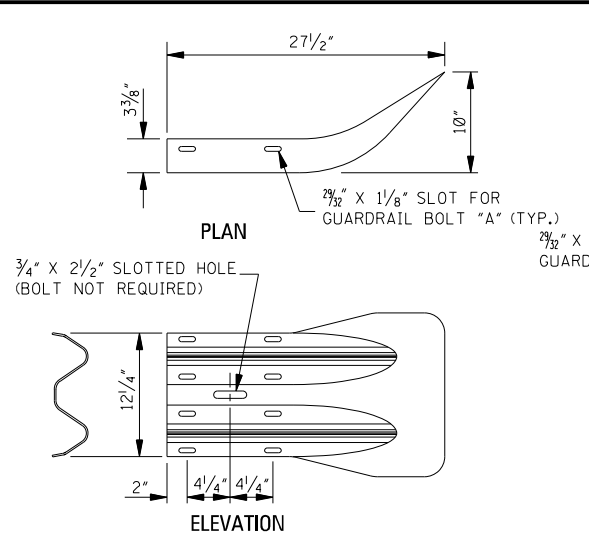
SECTION B-B

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	



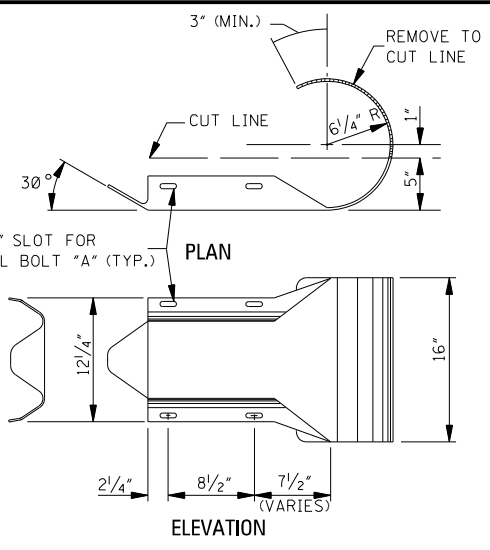
WORKING NUMBER
GR-4A
SHEET NUMBER
6215

STATE	PROJECT NO.
MISS.	



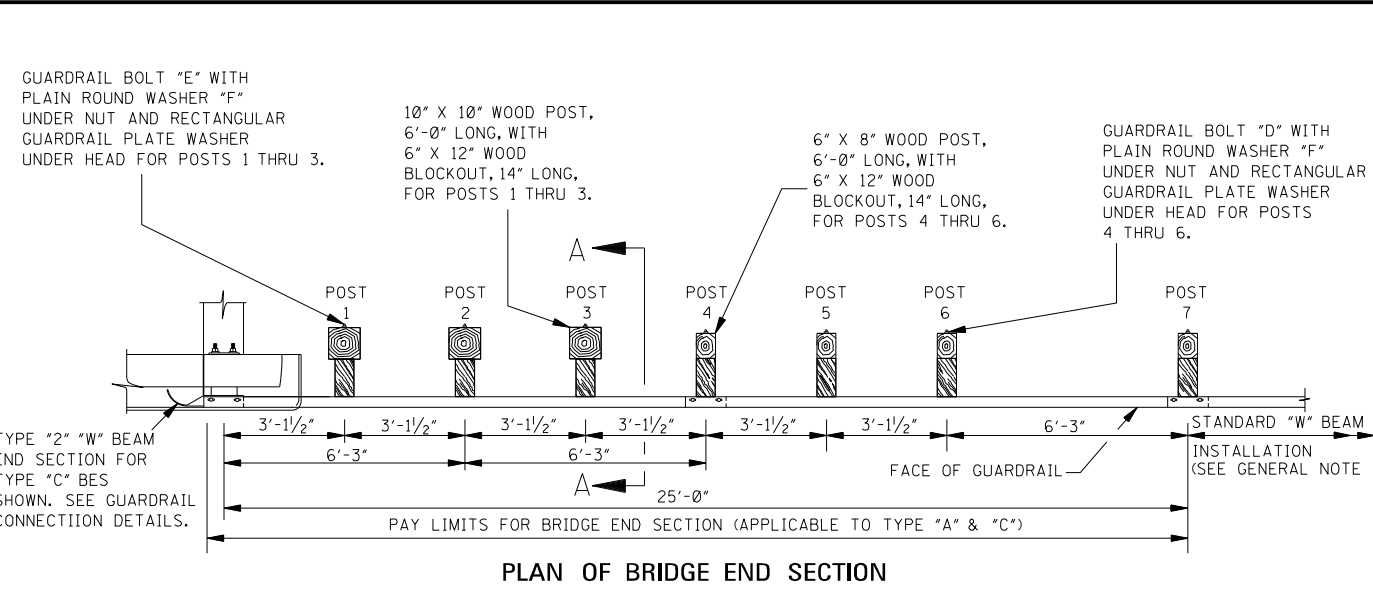
TYPE "1" "W" BEAM END SECTION

NOTE: THE TYPE "1" END SECTION IS THE STANDARD FLARED "W" BEAM END SECTION AND IS USED WITH THE TYPE "A" AND TYPE "E" BRIDGE END SECTIONS. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THOSE OF THE STANDARD "W" BEAM GUARDRAIL.

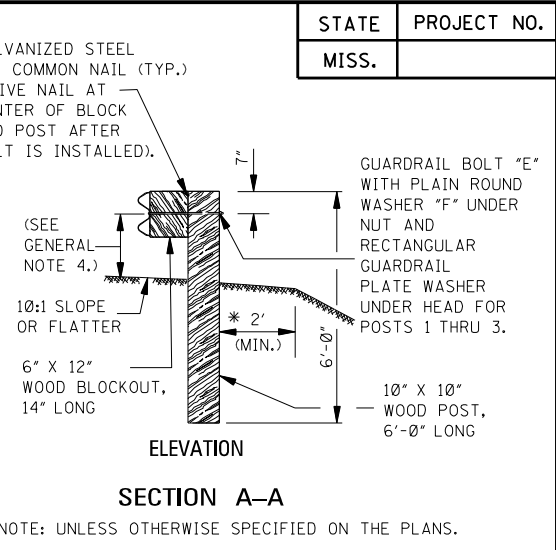


TYPE "2" "W" BEAM END SECTION

NOTE: THE TYPE "2" END SECTION IS A MODIFICATION OF THE STANDARD ROUNDED "W" BEAM END SECTION AND IS USED EXCLUSIVELY WITH THE TYPE "C" BRIDGE END SECTION. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THOSE OF THE STANDARD "W" BEAM GUARDRAIL.

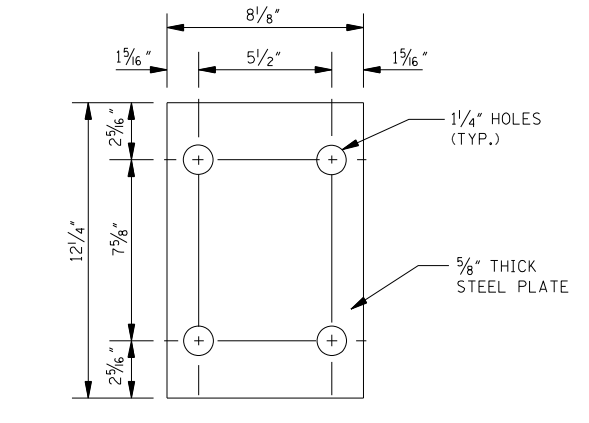


PLAN OF BRIDGE END SECTION

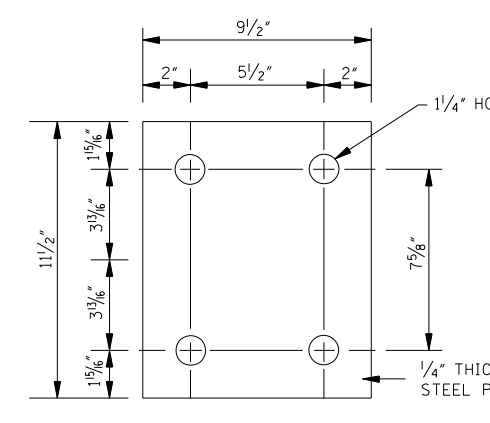


SECTION A-A

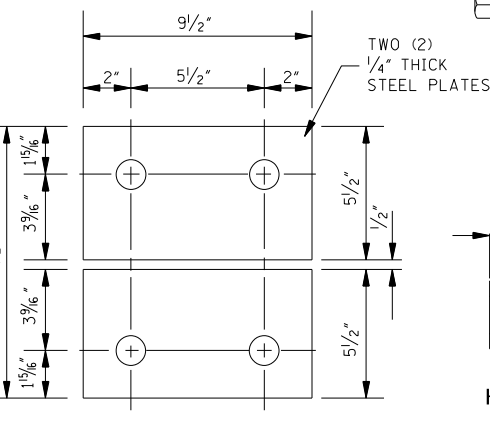
*NOTE: UNLESS OTHERWISE SPECIFIED ON THE PLANS.



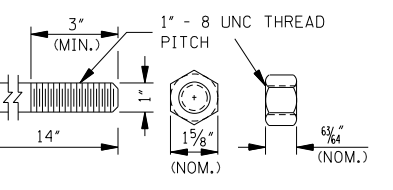
DETAIL OF PLATE "B"



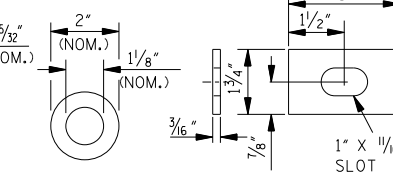
STANDARD



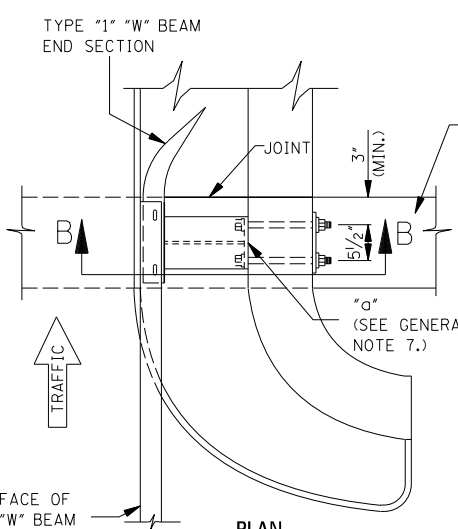
ALTERNATIVE



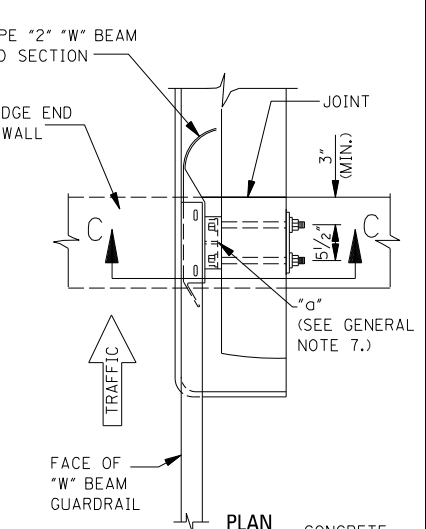
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "D" (ASTM A 325)



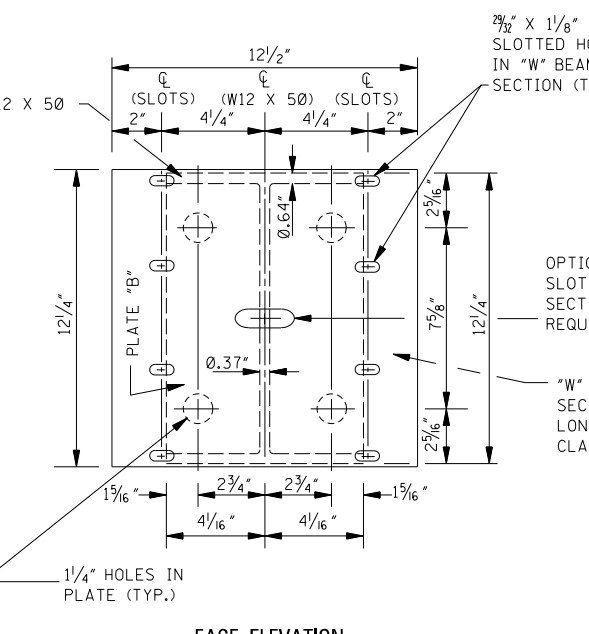
HARDENED ROUND WASHER "F" RECTANGULAR GUARDRAIL PLATE WASHER



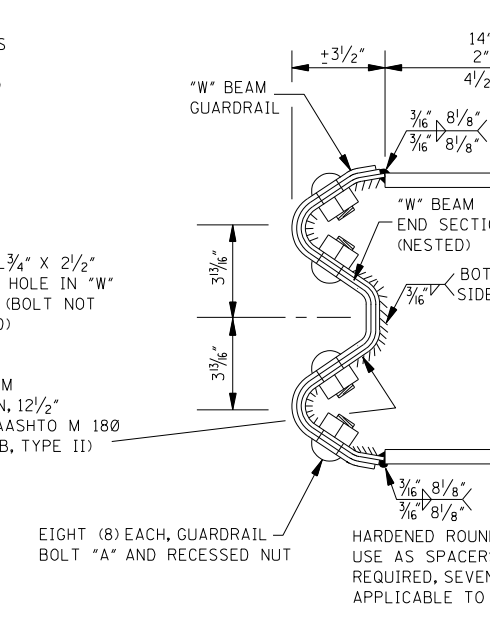
SECTION B-B



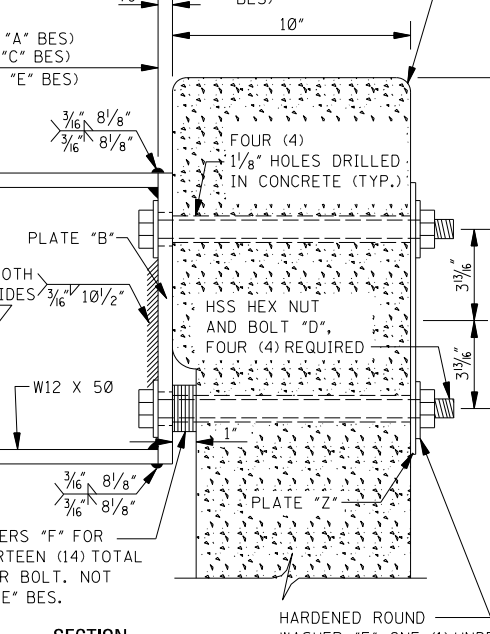
SECTION C-C



FACE ELEVATION



SECTION

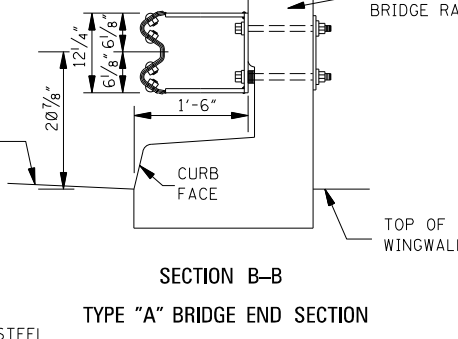


SECTION

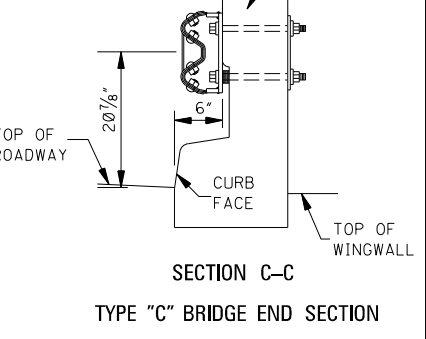
FASTENER DETAILS

GENERAL NOTES:

1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. WOOD POSTS ARE SHOWN ON THIS SHEET. WHEN STEEL POSTS ARE INSTALLED, A SOIL BEARING PLATE IS PLACED ON THE STANDARD SIZE STEEL POST FOR POSTS 1 THRU 3 AND A RECTANGULAR GUARDRAIL PLATE WASHER IS PLACED UNDER THE STANDARD POST BOLT HEAD FOR POSTS 1 THRU 6. SEE DETAILS FOR STEEL POST INSTALLATIONS ON SHEET GR-1B.
3. FOR INFORMATION PERTAINING TO THE INSTALLATION OF THE TYPE "E" BRIDGE END SECTION, SEE SHEET GR-2A.
4. THE HEIGHT OF RAIL AT THE BRIDGE END IS 20 7/8" AND WILL BE TRANSITIONED TO 25" AT POST 7.
5. ALL GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC.
6. POINT "α", WHICH IS AT THE CENTERLINE BETWEEN THE ANCHOR BOLTS, WILL BE CENTERED OVER THE CENTERLINE OF THE BRIDGE END WALL EXCEPT IN SKEWED BRIDGE ENDS WHERE THE BOLT NEAREST THE JOINT WILL BE A MINIMUM OF 3" FROM THE JOINT.



SECTION B-B



SECTION C-C

GUARDRAIL CONNECTION AT BRIDGE END

NOTE: UNLESS OTHERWISE SPECIFIED, THE BLOCKOUT ASSEMBLY, FASTENER AND PLATE DETAILS SHOWN ABOVE ARE ALSO APPLICABLE TO THE TYPE "E" BRIDGE END SECTION. SEE GENERAL NOTE 3.

BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
REVISION		<p align="center">GUARDRAIL: BRIDGE END SECTIONS TYPE "A" & "C"</p>	
DATE			
ISSUE DATE:		AUGUST 01, 2017	

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

WORKING NUMBER
GR-2

SHEET NUMBER
6204