



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

July 12, 2019

**Addendum No. 4**

RE: Contract # C204266

WBS # 36030.3.GV4

F. A. # NHPP-026-1(199)6

**Buncombe-Henderson Counties (I-4700)**

I-26 FROM NC-280 (EXIT 40) TO I-40

**July 16, 2019 Letting**

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following **additions** have been made to the Structure plans:

Sheet No.	Revision
SBW1 thru SBW4	These plan sheets were inadvertently omitted.

Please staple sheets SBW1 thru SBW4 into your plan set at the appropriate place.

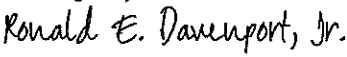
The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 4 Dated 07-12-2019".
Table of Contents	Revised to add ON-SITE PRECAST PLANT
G-40	Revised to add project special provision entitled <b>ON-SITE PRECAST PLANT.</b>
P-1 and New Pages P-2 thru P-190	Revised to include permit

Please void the above listed existing Pages in your proposal and staple the revised Pages thereto. Staple new Pages P-2 thru P-190 after revised Page P-1 in your proposal.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:  
  
F81B6038A47A442...

Ronald E. Davenport, Jr., PE  
State Contract Officer

RED/jjr  
Attachments

cc: Mr. Lamar Sylvester, PE  
Mr. Mark T. Gibbs, PE  
Mr. Brian Burch, PE  
Mr. Ron Hancock, PE  
Mr. Chris Peoples, PE  
Mr. Jon Weathersbee, PE  
Project File (2)

Mr. Ray Arnold, PE  
Mr. Ken Kennedy, PE  
Ms. Jaci Kincaid  
Ms. Lori Strickland  
Mr. Mike Gwyn  
Ms. Penny Higgins  
Mr. Kyle Kempf  
Mr. Mitchell Dixon

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH, N.C.

PROPOSAL

**INCLUDES ADDENDUM No.4 DATED 07-12-2019**

DATE AND TIME OF BID OPENING: **JULY 16, 2019 AT 2:00 PM**

CONTRACT ID C204266  
WBS 36030.3.GV4

FEDERAL-AID NO. NHPP-026-1(199)6  
COUNTY BUNCOMBE, HENDERSON  
T.I.P. NO. I-4700  
MILES 7.490  
ROUTE NO. I 26  
LOCATION I-26 FROM NC-280 (EXIT 40) TO I-40.

TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES.

**NOTICE:**

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

**BIDS WILL BE RECEIVED AS SHOWN BELOW:**

**THIS IS A ROADWAY & STRUCTURE PROPOSAL**

**5% BID BOND OR BID DEPOSIT REQUIRED**

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**STANDARD SPECIAL PROVISIONS**

AVAILABILITY FUNDS – TERMINATION OF CONTRACTS .....	SSP-1
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ERRATA.....	SSP-5

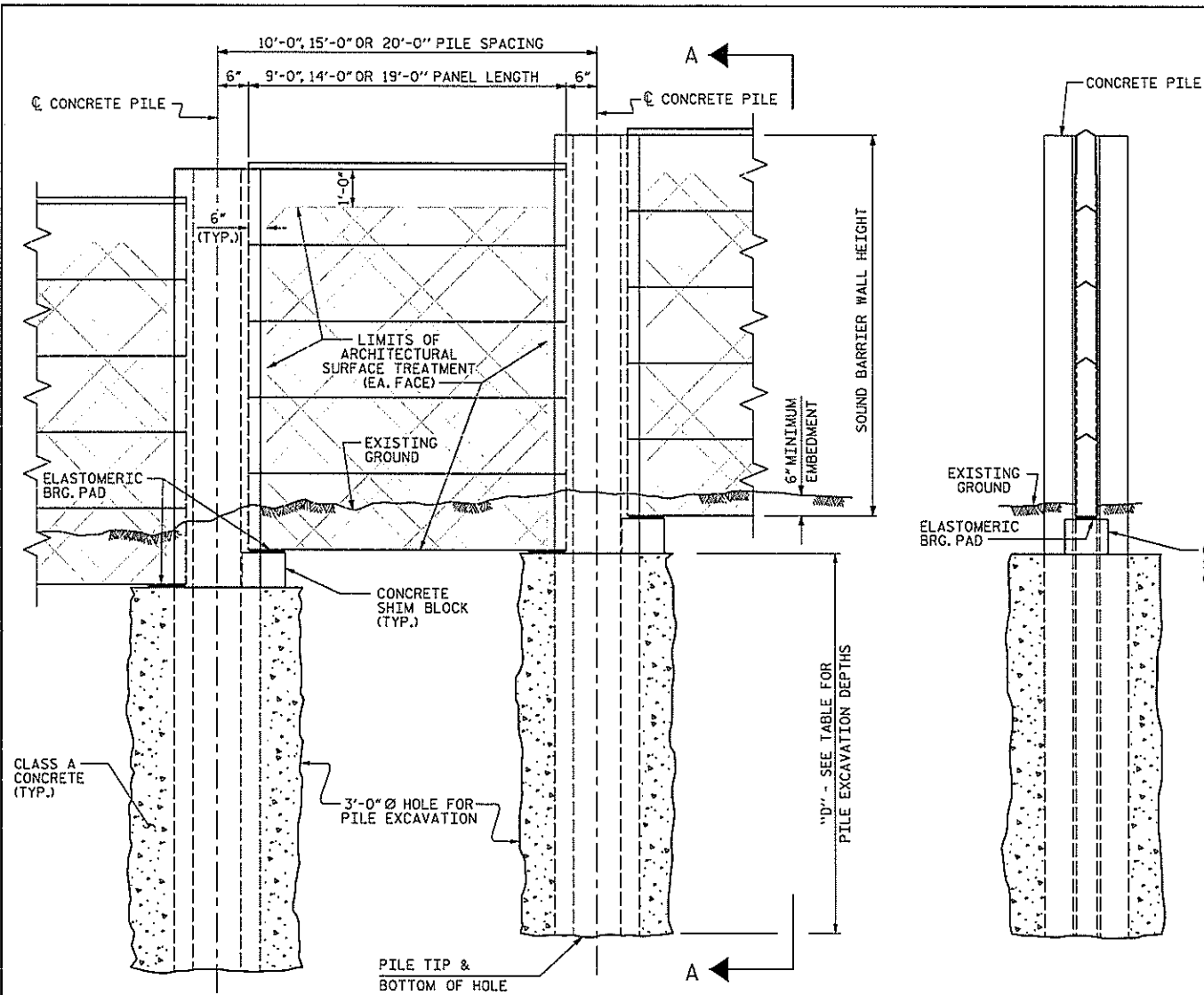
Use single lane closures with flaggers on the Blue Ridge Parkway and as shown in the plans. Open roadway within 24 hours after completion of work or as directed by Engineer.

Limit construction-caused delays to public traffic along the Blue Ridge Parkway to a maximum of 15 minutes per passage through a lane closure.

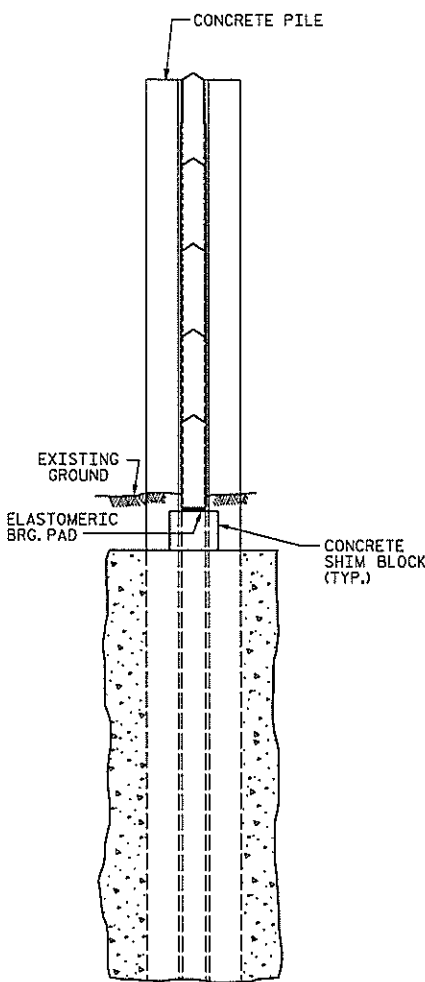
Limit lane closures to 2,500 feet unless otherwise approved by the Engineer. If short-duration Blue Ridge Parkway closure is required for delivery of large items, i.e. pre-cast segments, the contractor will submit a proposed schedule no less than 2 weeks in advance for review and approval by Engineer. Closures will not be allowed during commuter periods, are to be scheduled and prosecuted to minimize duration and are to include public notifications with variable message boards.

**ON-SITE PRECAST PLANT:**

An on-site precast plant may be utilized provided it meets all applicable requirements contained in these contract documents.



ELEVATION



SECTION A-A

PILE EXCAVATION DEPTHS "D"				
WALL -NW6.1-	PILE SPACING	WALL HEIGHT		
		H ≤ 15'	15' < H ≤ 20'	20' < H ≤ 25'
3'-0" Ø HOLE	10'-0"	10'	12'	13'
	15'-0"	11'	13'	16'
	20'-0"	12'	15'	18'
	20'-0"	12'	15'	18'

PILE EXCAVATION DEPTHS "D"				
WALL -NW6.1-	PILE SPACING	WALL HEIGHT		
		H ≤ 15'	15' < H ≤ 20'	20' < H ≤ 25'
3'-0" Ø HOLE	10'-0"	10'	12'	13'
	15'-0"	11'	13'	16'
	20'-0"	12'	15'	18'
	20'-0"	12'	15'	18'

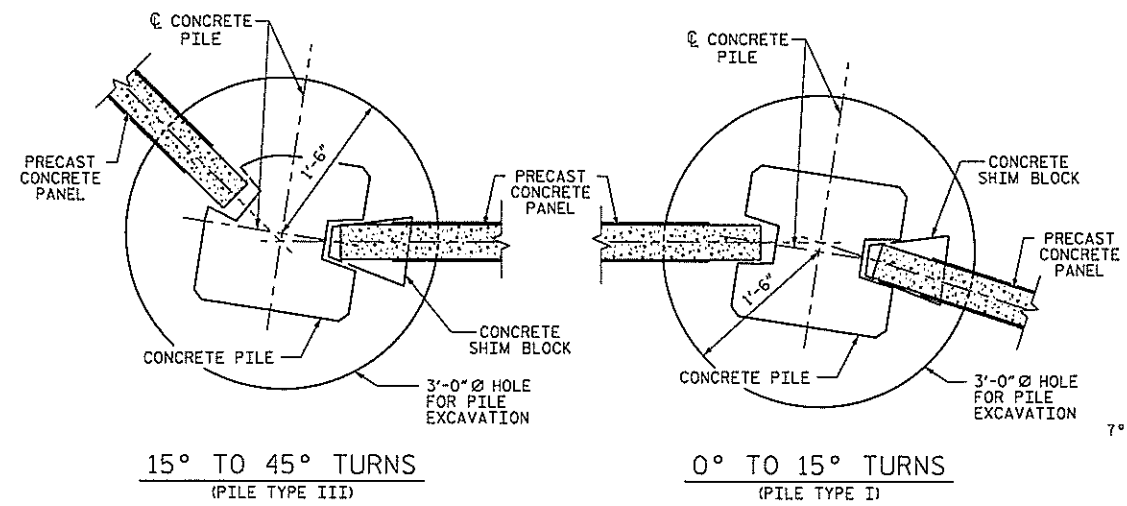
NOTES

- FOR SOUND BARRIER WALL, SEE SPECIAL PROVISIONS.
- CONSTRUCT SOUND BARRIER WALL TO LINES AND GRADES SHOWN ON THE ROADWAY PLANS.
- PROVIDE PANELS WITH A FLAT BOTTOM.
- VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING HOLES TO ENSURE SUFFICIENT CLEARANCE IS AVAILABLE.
- ADJUST PILE EXCAVATION ELEVATIONS TO MAINTAIN 6" MINIMUM EMBEDMENT OF THE BOTTOM PANEL.
- USE CLASS AA FOR PANELS AND CLASS A CONCRETE PILE EXCAVATION BACKFILL, IN ACCORDANCE WITH ARTICLE 1000-4 OF THE STANDARD SPECIFICATIONS.
- AT THE CONTRACTOR'S OPTION, USE 10'-0", 15'-0", OR 20'-0" PILE SPACINGS. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING. FOR 20'-0" PILE SPACING, PANELS DESIGNED AND MANUFACTURED BY A THIRD PARTY VENDOR SHALL BE USED.
- FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS.
- PLACE 1" Ø BACKER RODS FULL HEIGHT ON EACH SIDE OF THE PRECAST PANELS. SET AND SEAL THE BACKER ROD IN PLACE WITH SEALANT THAT CONFORMS WITH ARTICLE 1028-3 OF THE STANDARD SPECIFICATIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR SOUND BARRIER WALL (BRIDGE MOUNTED), SEE BRIDGE PLANS.

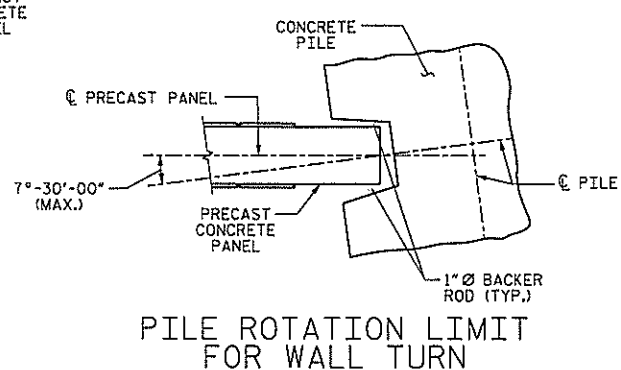
PILE REINFORCING STEEL DESIGN WIND PRESSURE = 40 PSF							
PILE TYPE I				PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 25'	4 - #10 EA. FACE	#3 @ 1'-4" CTS.		15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE
15'-0"	H ≤ 20'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE
	20' < H ≤ 25'	4 - #10 EA. FACE	#3 @ 1'-4" CTS.		20'-0"	H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE
20'-0"	H ≤ 20'	4 - #9 EA. FACE	#3 @ 1'-4" CTS.	20'-0"		H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE
	20' < H ≤ 25'	4 - #11 EA. FACE	#3 @ 1'-4" CTS.				

PILE TYPE II				PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.	10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 25'	4 - #7 EA. FACE	#3 @ 1'-4" CTS.		15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE
15'-0"	H ≤ 20'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.	15'-0"		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE
	20' < H ≤ 25'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.		20'-0"	H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE
20'-0"	H ≤ 20'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.	20'-0"		H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE
	20' < H ≤ 25'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.				



TYPICAL WALL TURN DETAILS



PILE ROTATION LIMIT FOR WALL TURN

(ROTATE THE CONCRETE PILE ±7°-30°-00" TO ACCOMMODATE WALL TURN.)

BILL OF MATERIAL	
SOUND BARRIER WALL	30,058 S.F.
ARCHITECTURAL SURFACE TREATMENT	53,482 S.F.
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	
ARCHITECTURAL SURFACE TREATMENT	
TEXTURE OPTION:	DRystack
STAIN OPTION:	GRAY (FS36173)

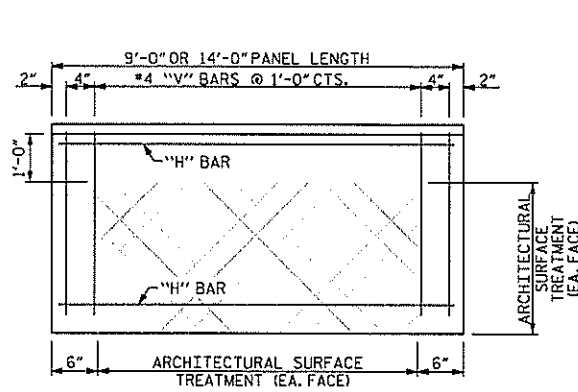
PROJECT NO. I-4700A  
BUNCOMBE COUNTY  
 STATION: 910+99.92 -WBL- =  
10+00.00 -NW6.1-

SHEET 1 OF 4  
 STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 SOUND BARRIER WALL  
 No. -NW6.1-

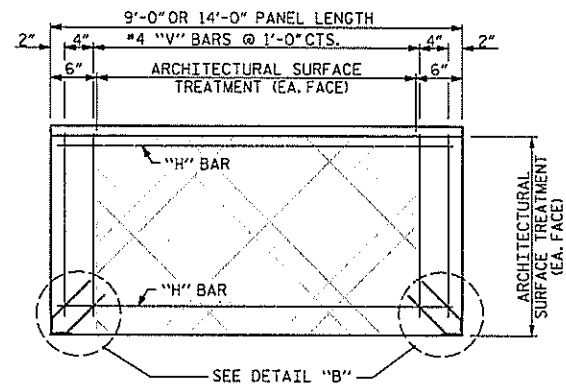
ASSEMBLED BY : M. WRIGHT	DATE : 4/19
CHECKED BY : J. BARCOMB	DATE : 4/19
DRAWN BY : MAA 6/11	REV. 9/26/14
CHECKED BY : GM 6/11	REV. 10/17
	REV. 5/18
	MAA/TMG
	MAA/THC
	MAA/THC

<b>HNTB</b>	HNTB NORTH CAROLINA, P.C. NC Licentiate No. C-554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609
DRAWN BY : M. WRIGHT	DATE : 4/19
CHECKED BY : J. BARCOMB	DATE : 4/19
DESIGN ENGINEER OF RECORD : J. BARCOMB	DATE : 4/19

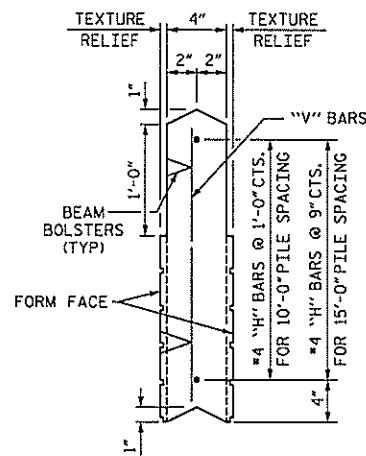
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 4
2			4			



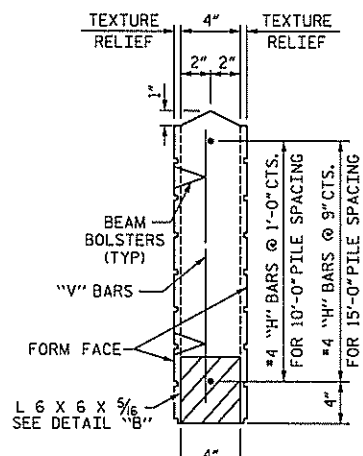
FRONT ELEVATION OF UPPER PRECAST PANEL



FRONT ELEVATION OF BOTTOM PRECAST PANEL

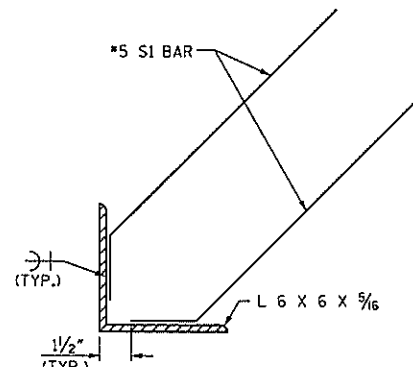


UPPER PANEL



BOTTOM PANEL

SECTION THROUGH PRECAST PANELS



DETAIL "B"

QUANTITIES FOR ONE PRECAST PANEL (FOR 10'-0" PILE SPACING)

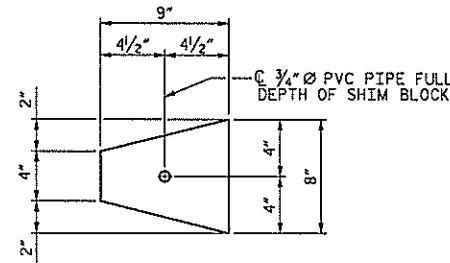
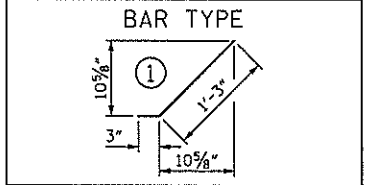
PANEL HEIGHT	CLASS AA CONCRETE	BAR TYPES											
		HORIZONTAL					VERTICAL						
		C.Y.	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	
2'-0"	0.22	3	H1	#4	STR	8'-8"	17	11	V1	#4	STR	1'-8"	12
3'-0"	0.33	4	H2	#4	STR	8'-8"	23	11	V2	#4	STR	2'-8"	20
4'-0"	0.44	5	H3	#4	STR	8'-8"	29	11	V3	#4	STR	3'-8"	27

QUANTITIES FOR ONE PRECAST PANEL (FOR 15'-0" PILE SPACING)

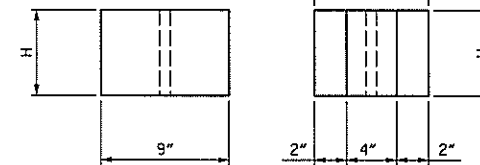
PANEL HEIGHT	CLASS AA CONCRETE	BAR TYPES											
		HORIZONTAL					VERTICAL						
		C.Y.	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	
3'-0"	0.52	5	H1	#4	STR	13'-8"	46	16	V1	#4	STR	2'-8"	29
4'-0"	0.69	6	H2	#4	STR	13'-8"	55	16	V2	#4	STR	3'-8"	39
5'-0"	0.86	7	H3	#4	STR	13'-8"	64	16	V3	#4	STR	4'-8"	50
6'-0"	1.04	8	H4	#4	STR	13'-8"	73	16	V4	#4	STR	5'-8"	61

ADDITIONAL BARS FOR ONE BOTTOM PANEL

NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)
4	S1	#5	1'-6"	6



PLAN

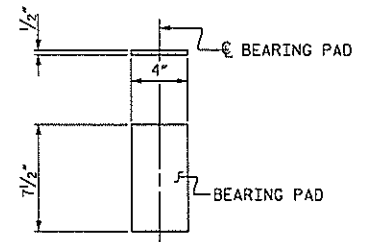


END

ELEVATION

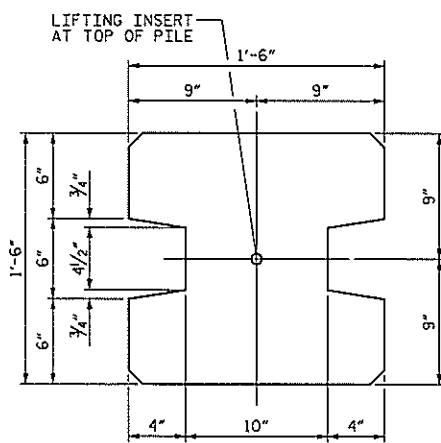
CONCRETE SHIM BLOCK

H = 3", 6" or 1'-0"

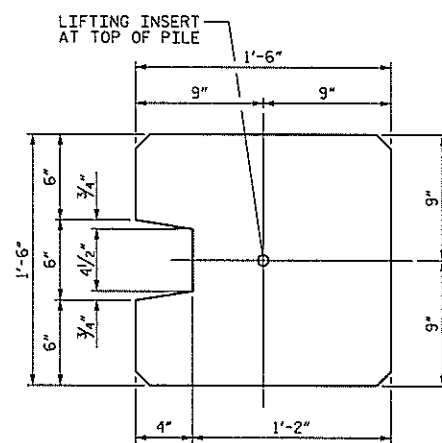


ELASTOMERIC BEARING DETAILS

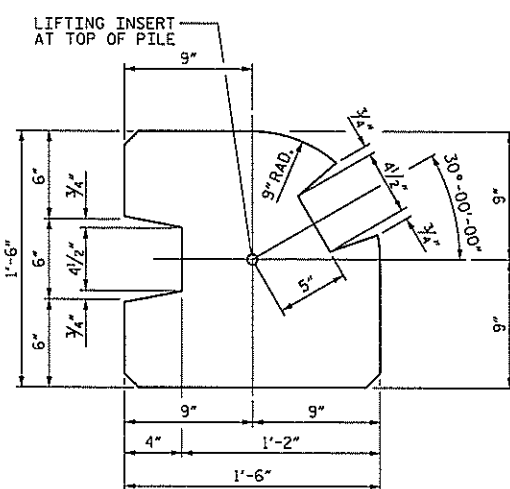
ELASTOMER IN BEARINGS SHALL BE 50 DUROMETER HARDNESS.



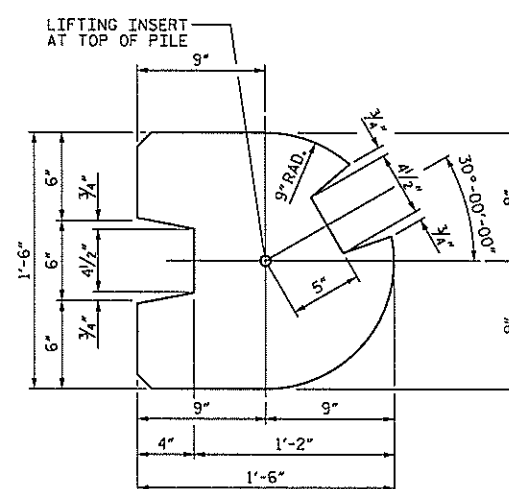
TYPE - I  
(AREA = 1.9444 SQ. FT.)



TYPE - II  
(AREA = 2.0903 SQ. FT.)



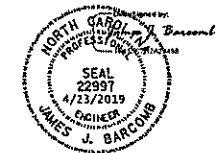
TYPE - III  
(AREA = 1.8336 SQ. FT.)



TYPE - III (ALT.)  
(AREA = 1.7163 SQ. FT.)

PILE DETAIL

(ALL CORNERS TO BE CHAMFERED 1")



PROJECT NO. I-4700A  
 BUNCOMBE COUNTY  
 STATION: 910+99.92 -WBL- =  
 10+00.00 -NW6.1-

SHEET 2 OF 4

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 SOUND BARRIER WALL  
 DETAILS  
 No. -NW6.1-

ASSEMBLED BY : M. WRIGHT	DATE : 4/19
CHECKED BY : J. BARCOMB	DATE : 4/19
DRAWN BY : MAA 6/11	REV. 1/15/14 RWW/TMG
CHECKED BY : GM 6/11	REV. 10/17 MAA/THC
	REV. 5/18 MAA/THC

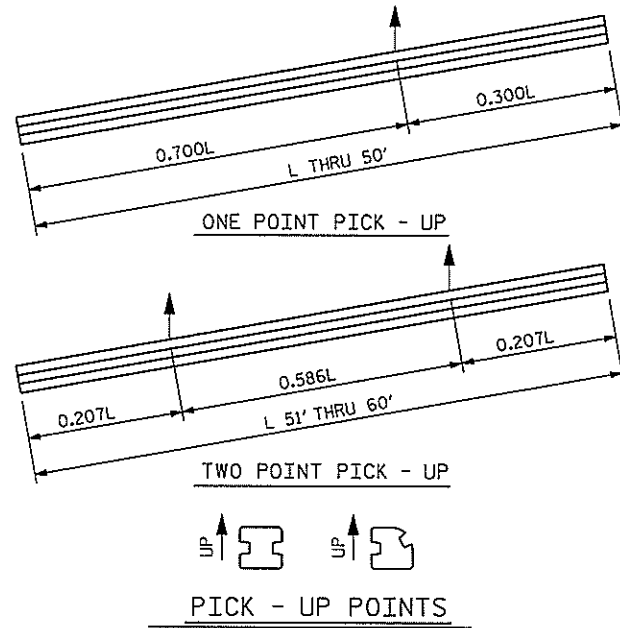
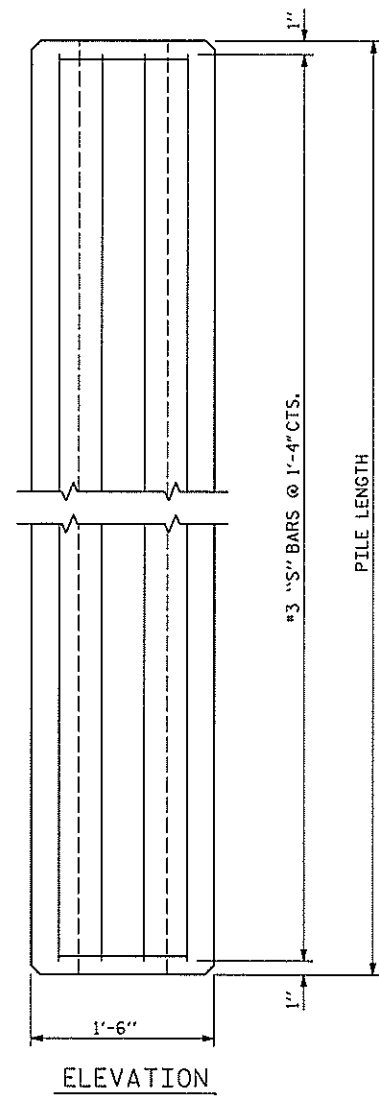
<b>HNTB</b>	HNTB NORTH CAROLINA, P.C. NC License No. C-554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609
DRAWN BY : M. WRIGHT	DATE : 4/19
CHECKED BY : J. BARCOMB	DATE : 4/19
DESIGN ENGINEER OF RECORD : J. BARCOMB	DATE : 4/19

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

DWG. NO. 2

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 4
2			4			

STD. NO. SBW2



**QUANTITIES FOR ONE PRECAST CONCRETE PILE**

LENGTH	APPROX. PILE WT. TONS	ONE PICK-UP POINT		TWO PICK-UP POINT	
		0.300L	0.700L	0.207L	0.586L
10'-0"	1.56	3'-0"	7'-0"		
15'-0"	2.35	4'-6"	10'-6"		
20'-0"	3.14	6'-0"	14'-0"		
25'-0"	3.93	7'-6"	17'-6"		
30'-0"	4.70	9'-0"	21'-0"		
35'-0"	5.49	10'-6"	24'-6"		
40'-0"	6.28	12'-0"	28'-0"		
45'-0"	7.05	13'-6"	31'-6"		
50'-0"	7.84	15'-0"	35'-0"		
55'-0"	8.63			11'-4 1/2"	32'-3"
60'-0"	9.42			12'-5"	35'-2"

**NOTES**

CONCRETE DESIGN DATA : f'c = 5,000 PSI

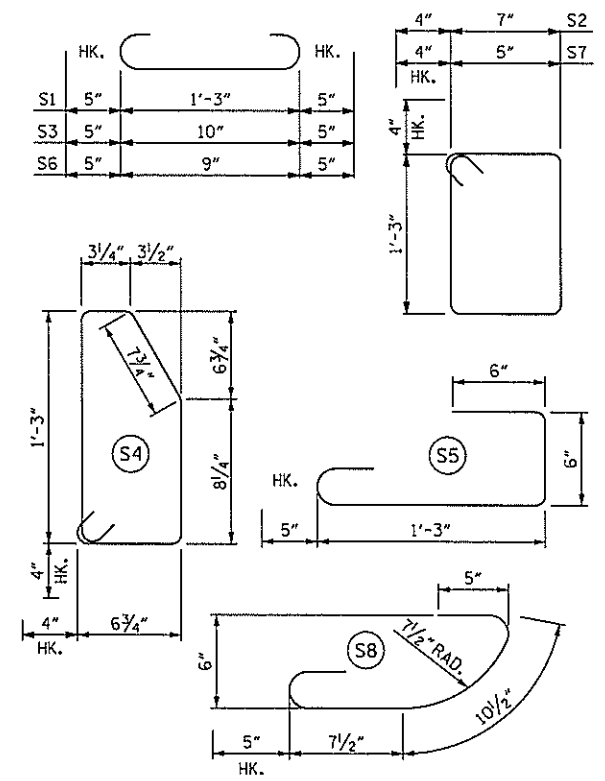
PROPOSED DEVICES FOR LIFTING PILES, RECESS DETAILS, AND PATCHING MATERIAL SHALL BE DETAILED IN SHOP DRAWINGS. AFTER ATTACHMENTS HAVE BEEN REMOVED, OPENINGS SHALL BE REPAIRED SUCH THAT THE APPEARANCE OF THE PILE IS UNIFORM.

WHERE CAST-IN-PLACE LIFTING DEVICES ARE NOT USED, PICK-UP POINTS TO BE INDICATED WITH A BLACK MARK 2" WIDE.

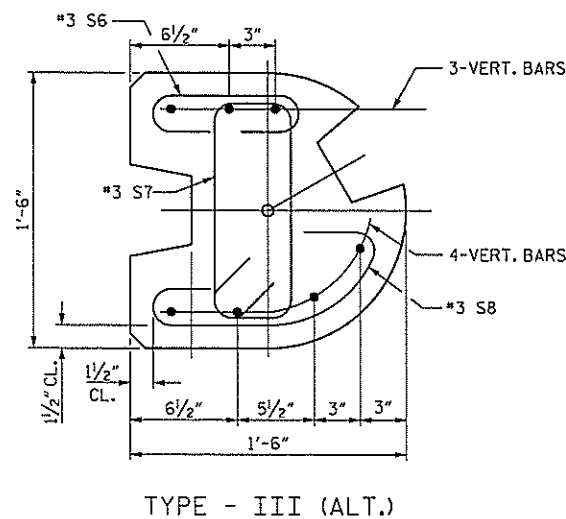
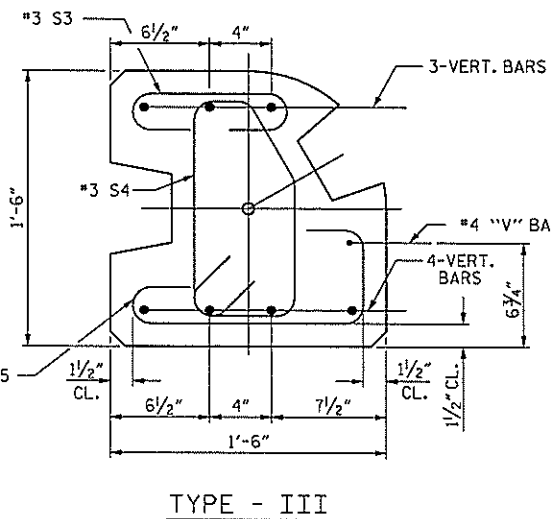
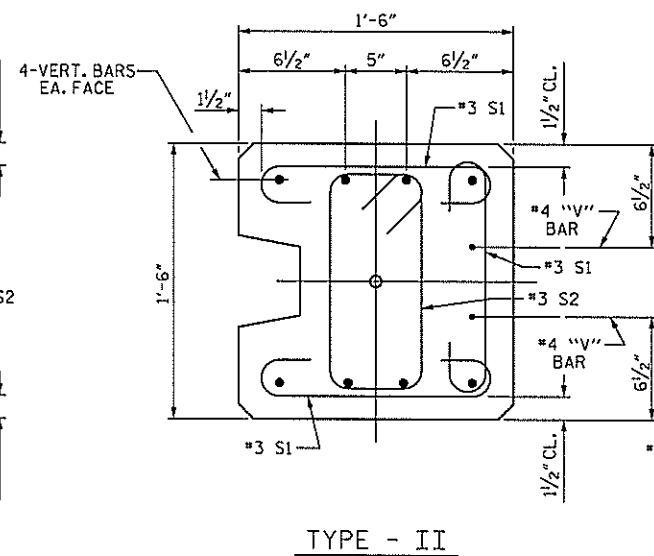
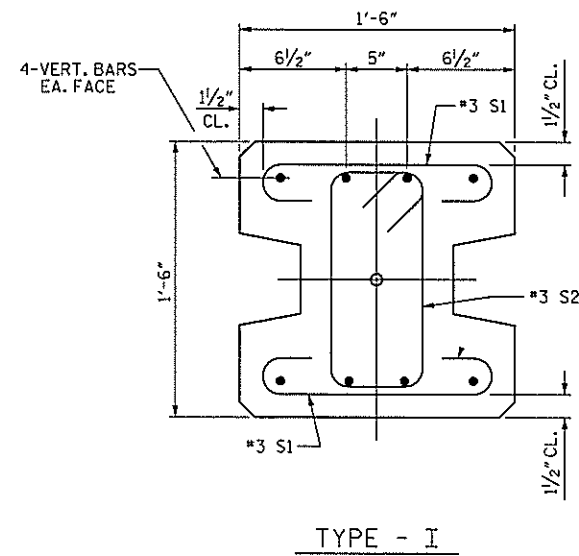
THE SLIP-FORM METHOD OF CASTING PILES WILL NOT BE PERMITTED.

ALL CORNERS TO BE CHAMFERED 1".

**BAR TYPES**



ALL BAR DIMENSIONS ARE OUT TO OUT.



**PILE DETAIL**

FOR VERTICAL BAR PILE REINFORCING, SEE SHEET 1 OF 3



PROJECT NO. I-4700A  
BUNCOMBE COUNTY  
 STATION: 910+99.92 -WBL- =  
10+00.00 -NW6.1-

SHEET 3 OF 4

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**STANDARD**  
**SOUND BARRIER WALL**  
**DETAILS**  
 No. -NW6.1-

ASSEMBLED BY : M. WRIGHT DATE : 4/19  
 CHECKED BY : J. BARCOMB DATE : 4/19  
 DRAWN BY : MAA 6/11 REV. 1/15/14 RHW/TMG  
 CHECKED BY : GM 6/11 REV. 12/17 MAA/THC

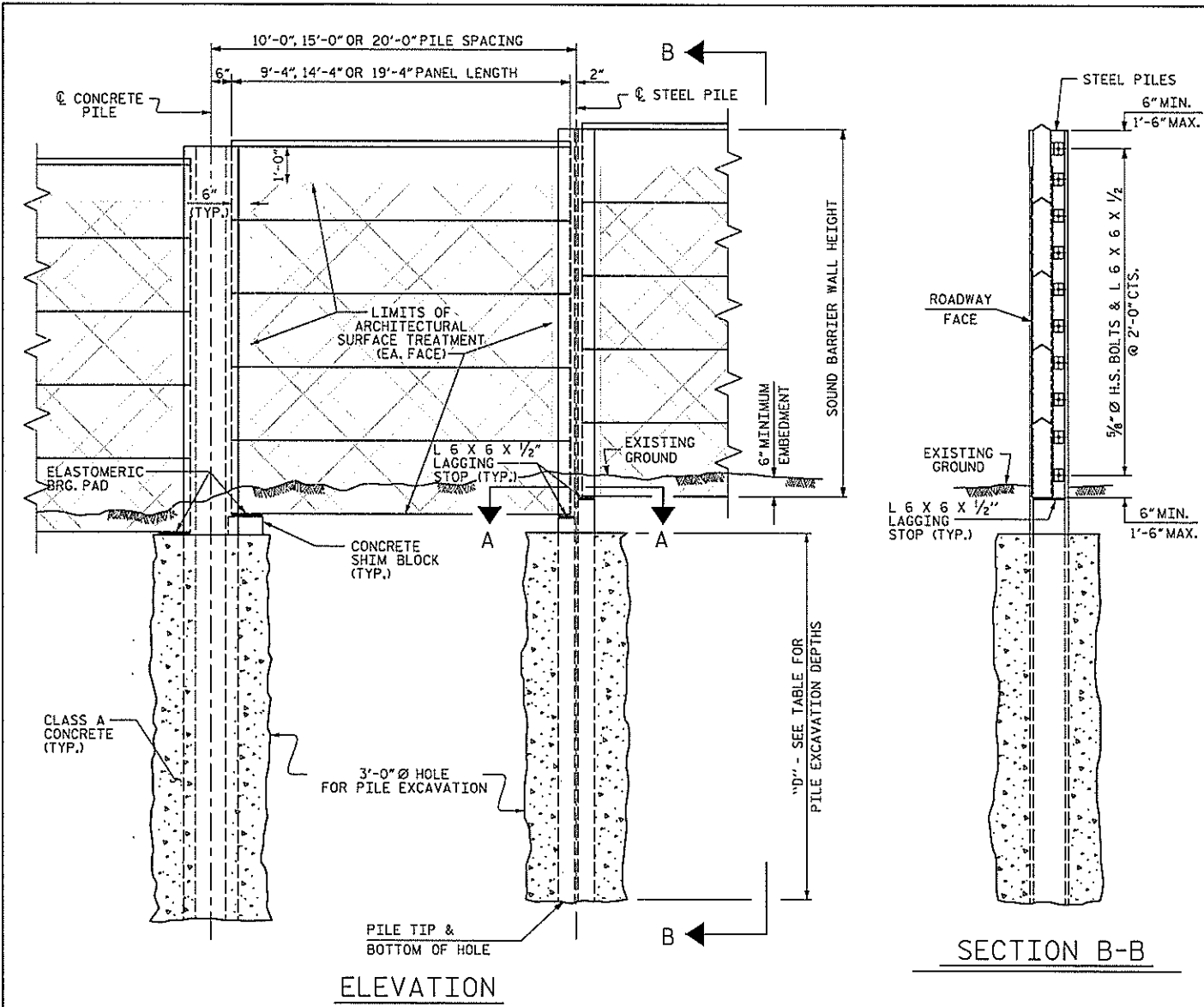
**HNTB** HNTB NORTH CAROLINA, P.C.  
 NO. License No. C-1554  
 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609  
 DRAWN BY : M. WRIGHT DATE : 4/19  
 CHECKED BY : J. BARCOMB DATE : 4/19  
 DESIGN ENGINEER OF RECORD : J. BARCOMB DATE : 4/19  
 DWG. NO. 3

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	TOTAL SHEETS
1			3			4
2			4			

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

STD. NO. SBW3





ELEVATION

SECTION B-B

PILE EXCAVATION DEPTH "D"			
WALL -NW6.1-		AT: STA. 11+81.29	
3'-0" Ø HOLE	PILE SPACING	WALL HEIGHT	
		H ≤ 15'	15' < H ≤ 20'
	10'-0"	10'	13'
	15'-0"	11'	16'
	20'-0"	12'	18'

WALL -NW6.1-		AT: STA. 13+32.71	
3'-0" Ø HOLE	PILE SPACING	WALL HEIGHT	
		H ≤ 15'	15' < H ≤ 20'
	10'-0"	10'	13'
	15'-0"	11'	16'
	20'-0"	12'	18'

STEEL PILES DESIGN WIND PRESSURE = 40 PSF			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	MINIMUM W SIZE STEEL PILES	MINIMUM HP SIZE STEEL PILES
10'-0"	H ≤ 15'	W 12 X 40 W 14 X 48	HP 12 X 53 HP 14 X 73
	15' < H ≤ 20'	W 12 X 45 W 14 X 48	HP 12 X 53 HP 14 X 73
	20' < H ≤ 25'	W 12 X 65 W 14 X 61	HP 12 X 53 HP 14 X 73
	25' < H ≤ 29'	W 12 X 87 W 14 X 90	HP 14 X 73
15'-0"	H ≤ 15'	W 12 X 40 W 14 X 48	HP 12 X 53 HP 14 X 73
	15' < H ≤ 20'	W 12 X 53 W 14 X 61	HP 12 X 53 HP 14 X 73
	20' < H ≤ 25'	W 12 X 72 W 14 X 90	HP 12 X 74 HP 14 X 73
	25' < H ≤ 29'	W 12 X 120 W 14 X 90	HP 14 X 89
20'-0"	H ≤ 15'	W 12 X 40 W 14 X 48	HP 12 X 53 HP 14 X 73
	15' < H ≤ 20'	W 12 X 58 W 14 X 61	HP 12 X 63 HP 14 X 73
	20' < H ≤ 25'	W 12 X 96 W 14 X 90	HP 14 X 89
	25' < H ≤ 29'	W 12 X 152 W 14 X 109	HP 14 X 117

**NOTES**

FOR SOUND BARRIER WALL, SEE SPECIAL PROVISIONS.

CONSTRUCT SOUND BARRIER WALL TO LINES AND GRADES SHOWN ON THE ROADWAY PLANS.

PROVIDE PANELS WITH A FLAT BOTTOM.

USE STEEL PILES, ANGLES, AND LAGGING STOPS MEETING THE REQUIREMENTS OF AASHTO M270, GRADE 50. GALVANIZE ALL STEEL COMPONENTS INCLUDING PILES, ANGLES, LAGGING STOPS, BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. REPAIR ANY DAMAGED GALVANIZATION IN ACCORDANCE WITH ARTICLE 1076-7 OF THE STANDARD SPECIFICATIONS.

VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING HOLES TO ENSURE SUFFICIENT CLEARANCE IS AVAILABLE.

AT THE CONTRACTOR'S OPTION, USE AN APPROVED NON-SHRINK NON-METALLIC GROUT BETWEEN THE FLANGES OF THE STEEL PILES TO SUPPORT THE BOTTOM PANEL IN LIEU OF LAGGING STOPS.

ADJUST PILE EXCAVATION ELEVATIONS TO MAINTAIN 6" MINIMUM EMBEDMENT OF THE BOTTOM PANEL.

USE CLASS AA FOR PANELS AND CLASS A CONCRETE PILE EXCAVATION BACKFILL, IN ACCORDANCE WITH ARTICLE 1000-4 OF THE STANDARD SPECIFICATIONS.

PROVIDE PLATES AND ANGLES TO SECURE PANELS 6" LONG AS MEASURED ALONG THE STEEL PILE.

AT THE CONTRACTOR'S OPTION, USE EITHER "W" OR "HP" PILES THAT SATISFY THE MINIMUM PILE SIZE REQUIRED IN THE "STEEL PILES" TABLE. PILES SMALLER THAN W12 OR HP12 ARE NOT PERMITTED. AT TURNS WITH A 3'-0" DIAMETER HOLE FOR PILE EXCAVATION, USE ONLY W12 OR HP12 PILES, AS SHOWN.

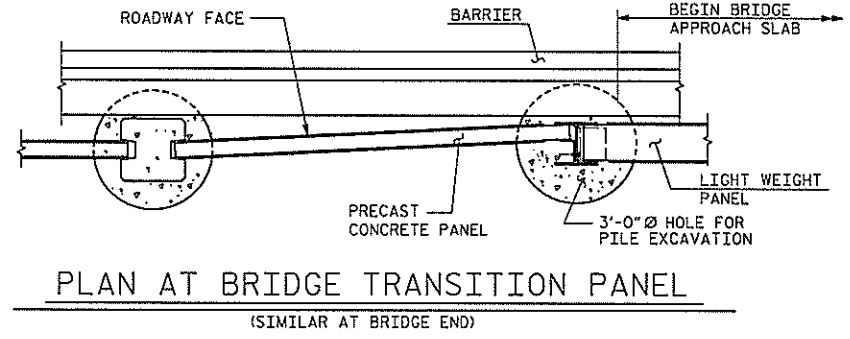
AT THE CONTRACTOR'S OPTION, USE 10'-0", 15'-0", OR 20'-0" PILE SPACINGS, AND EITHER 2'-6" OR 3'-0" DIAMETER HOLES FOR PILE EXCAVATION. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING. FOR 20'-0" PILE SPACING, PANELS DESIGNED AND MANUFACTURED BY A THIRD PARTY VENDOR SHALL BE USED.

DO NOT SPLICE STEEL PILES.

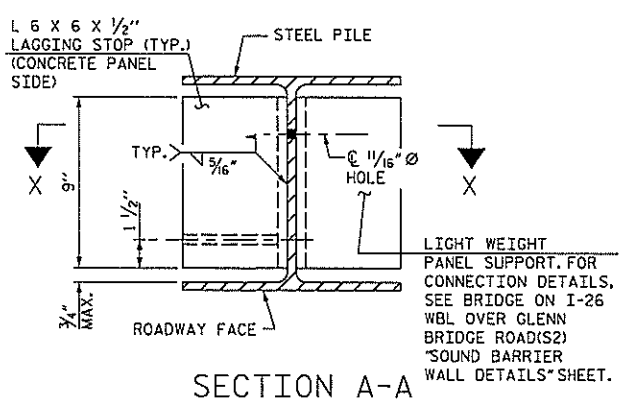
FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

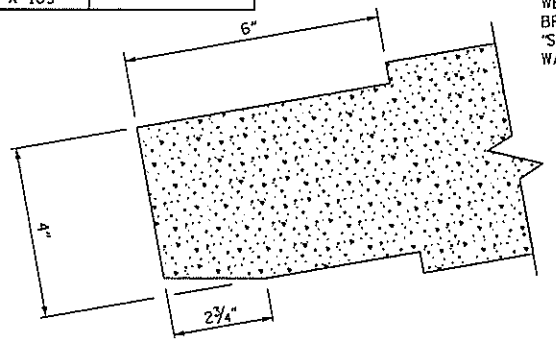
FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.



PLAN AT BRIDGE TRANSITION PANEL

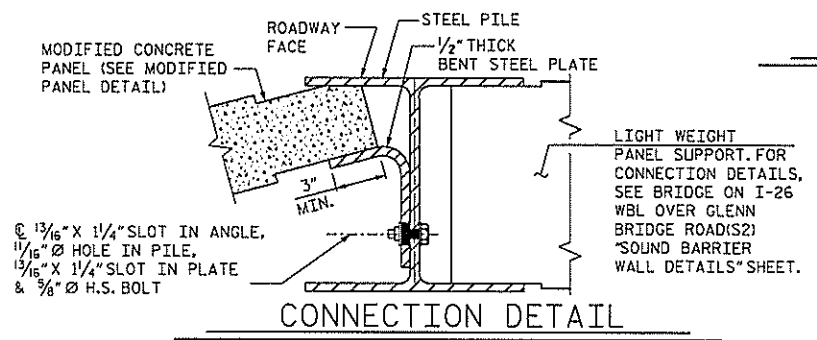


SECTION A-A

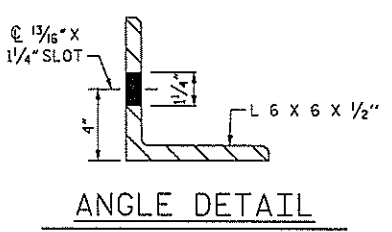


MODIFIED PANEL DETAIL

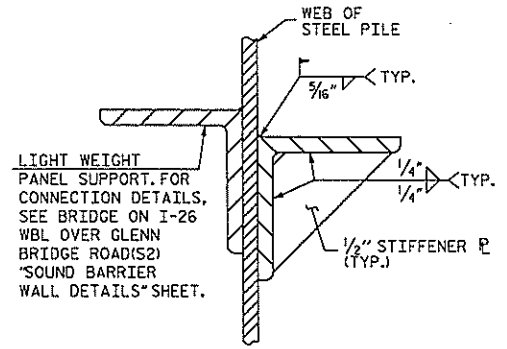
(USE ONLY FOR TURNS 15° OR LESS, CONVEX TOWARD ROADWAY)



CONNECTION DETAIL



ANGLE DETAIL



SECTION X-X

PROJECT NO. I-4700A  
BUNCOMBE COUNTY  
 STATION: 910+99.92 -WBL- =  
10+00.00 -NW6.1-

SHEET 4 OF 4  
 STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 STANDARD  
**SOUND BARRIER WALL (STEEL PILES)**  
 No. -NW6.1-

ASSEMBLED BY : M. WRIGHT	DATE : 4/19
CHECKED BY : N. HART	DATE : 4/19
DRAWN BY : JAD 5/01	REV. 9/26/14 MAA/TMG
CHECKED BY : RDR 5/01	REV. 10/17 MAA/THC
	REV. 5/18 MAA/THC

<b>HNTB</b>	HNTB NORTH CAROLINA, P.C. NC License No. C-554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609
DRAWN BY : M. WRIGHT	DATE : 4/19
CHECKED BY : N. HART	DATE : 4/19
DESIGN ENGINEER OF RECORD : J. BARCOMB	DATE : 4/19

REVISIONS						TOTAL SHEETS
NO.	BY	DATE	NO.	BY	DATE	
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DWG. NO. 4

STD. NO. SBW4