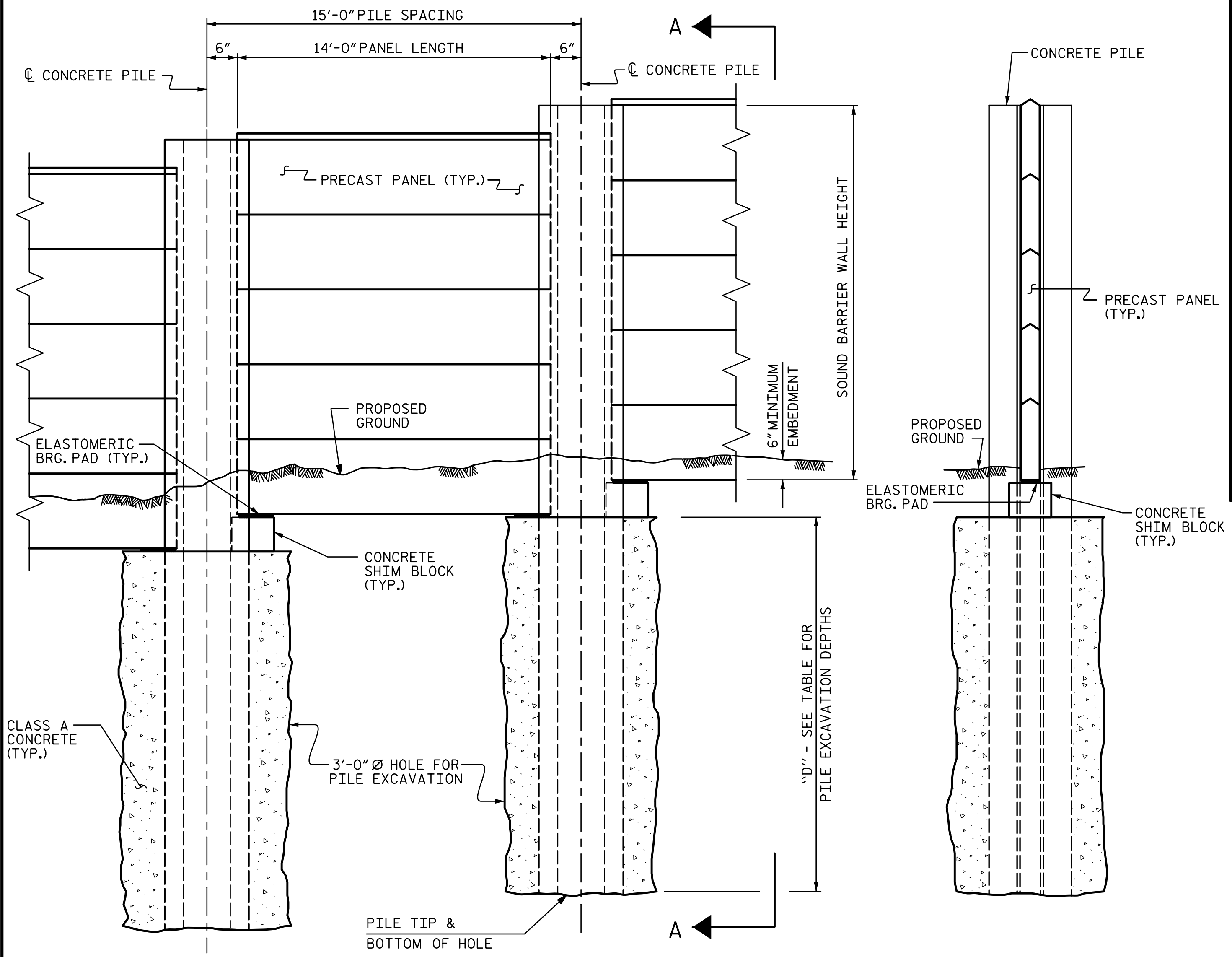


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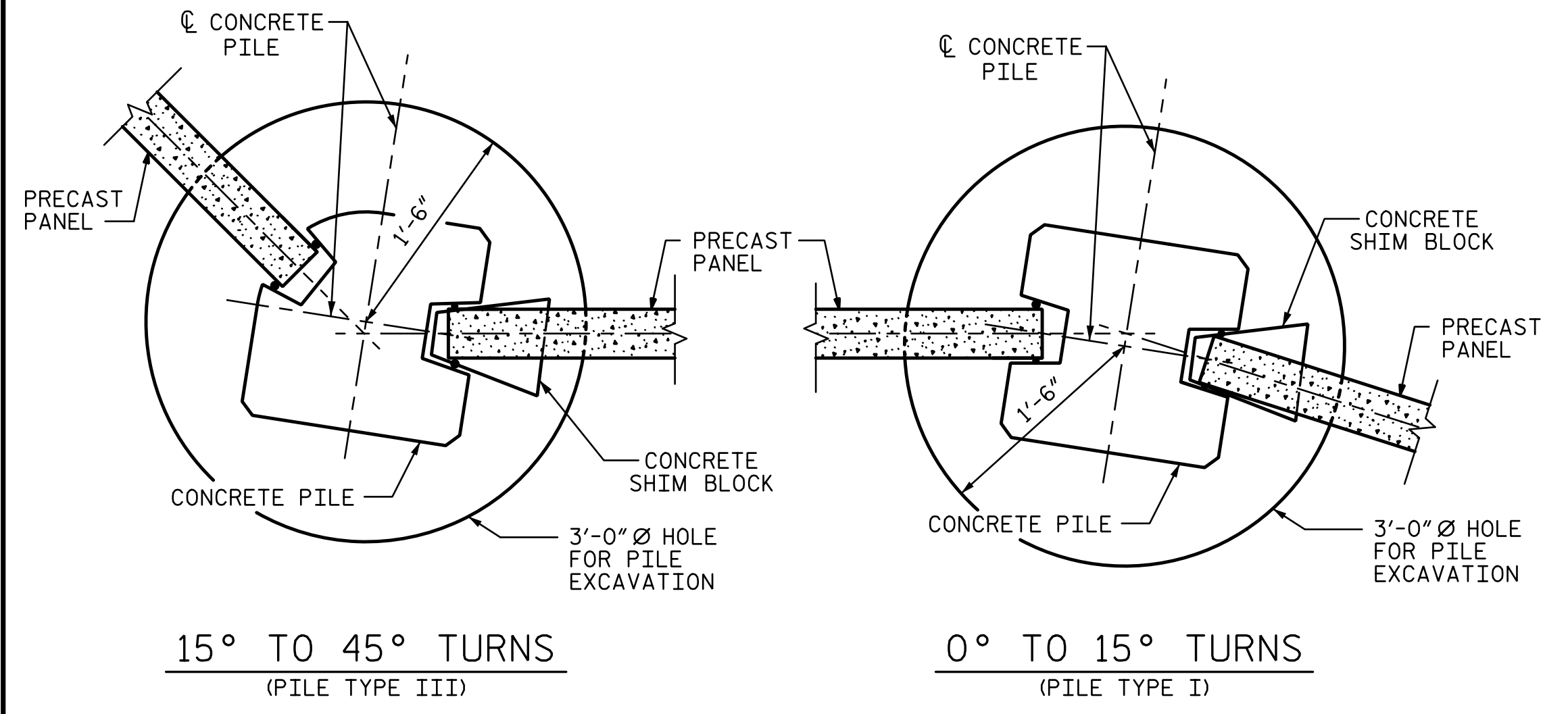


ELEVATION

(DETAIL APPLIES TO 15' PILE SPACING ONLY. FOR 25' PILE SPACING, SEE SHEET 2 OF 3. FOR 38' PILE SPACING, SEE SHEET 3 OF 3.) (CONCRETE BARRIER IN FRONT OF SOUND BARRIER WALL NOT SHOWN FOR CLARITY, SEE ROADWAY PLANS)

SECTION A-A

(DETAIL APPLIES TO 15' PILE SPACING ONLY. FOR 25' PILE SPACING, SEE SHEET 2 OF 3. FOR 38' PILE SPACING, SEE SHEET 3 OF 3.) (CONCRETE BARRIER IN FRONT OF SOUND BARRIER WALL NOT SHOWN FOR CLARITY, SEE ROADWAY PLANS)



TYPICAL WALL TURN DETAILS

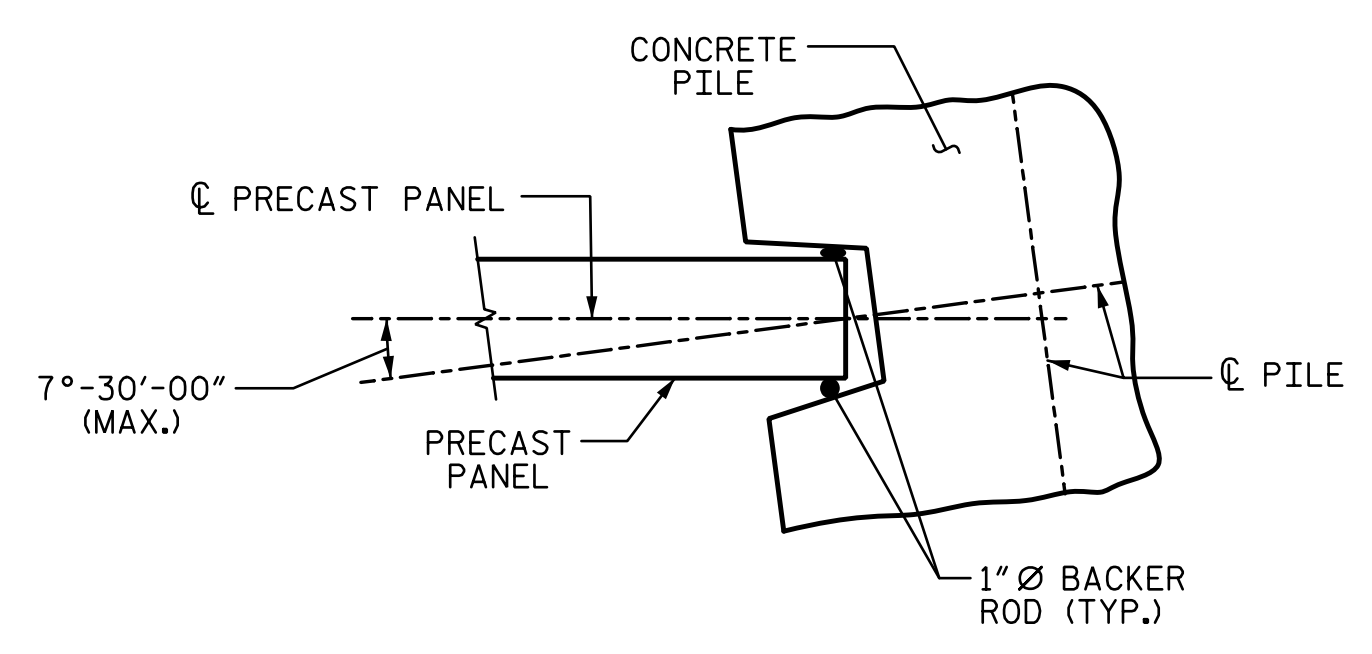
DRAWN BY : MBC	DATE : 5-17	DESIGN ENGINEER OF RECORD: J. DICHAK	DATE : 5-17
CHECKED BY : JAD	DATE : 5-17		

PILE EXCAVATION DEPTHS "D"			
3'-0" Ø HOLE			
WALL -NW13- (STA. 10+00 TO 38+83 -NW13-)			
STATION	MAX WALL HEIGHT	PILE SPACING	SHAFT DEPTH
STA. 128+33.75 -L- TO STA. 128+48.67 -L-	17'-0"	15'-0"	16'-6"
STA. 128+62.49 -L-	15'-0"	15'-0"	14'-6"
▲ STA. 128+77.49 -L- TO STA. 135+62.14 -L-	17'-0"	15'-0"	13'-0"
▲ STA. 135+77.52 -L- TO STA. 138+54.36 -L-	16'-0"	15'-0"	13'-6"
△ STA. 138+69.74 -L- TO STA. 138+95.37 -L-	16'-0"	25'-0"	17'-0"
STA. 139+10.75 -L- TO STA. 151+62.26 -L-	16'-0"	15'-0"	13'-6"
△ STA. 151+77.64 -L- TO STA. 152+16.61 -L-	16'-0"	38'-0"	20'-0"
STA. 152+31.99 -L- TO STA. 157+54.98 -L-	16'-0"	15'-0"	13'-6"

△ FOR ELEVATION VIEW AND DETAILS FOR 25' AND 38' PILE SPACINGS, SEE SHEETS 2 AND 3 OF 3.
 △ FOR STEEL PILES, SUPPORT BEAM, ANGLES, AND LAGGING STOP NOTES, SEE "SOUND BARRIER WALL DETAILS" SHEET 3 OF 3.

EXPOSURE CATEGORY D - PILE REINFORCING STEEL

DESIGN WIND PRESSURE = 62 PSF (0' < H ≤ 14'); 71 PSF (14' < H ≤ 25')			
PILE TYPE I			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
15'-0"	H ≤ 15'	4 - #8 EA. FACE	#3 @ 11" CTS.
15'-0"	15' < H ≤ 20'	4 - #10 EA. FACE	#3 @ 10" CTS.
PILE TYPE II			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
15'-0"	H ≤ 15'	4 - #6 EA. FACE	#3 @ 11" CTS.
15'-0"	15' < H ≤ 20'	4 - #8 EA. FACE	#3 @ 10" CTS.
PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
15'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.
15'-0"	15' < H ≤ 20'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 10" CTS.
PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
15'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.
15'-0"	15' < H ≤ 20'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 10" CTS.



PILE ROTATION LIMIT FOR WALL TURN

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

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.
 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 ELASTOMERIC BEARING DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 OF 3.
 FOR CONCRETE SHIM BLOCK DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 OF 3.
 FOR PRECAST PANEL DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 & 3 OF 3.
 FOR CONCRETE PILE DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEETS 1 & 2 OF 3.
 AT THE CONTRACTOR'S OPTION, USE CONTINUOUS FLIGHT AUGER PILES IN LIEU OF PILE EXCAVATION FOR SOUND BARRIER WALL FOUNDATION. SEE "CONTINUOUS FLIGHT AUGER PILES FOR SOUND BARRIER WALLS" SPECIAL PROVISION.
 NOTE THAT SOUND BARRIER WALL PILES LOCATED WITHIN THE MSE WALL BACKFILL MUST BE INSTALLED PRIOR TO MSE WALL CONSTRUCTION. THE DEPTHS ARE MEASURED FROM THE BOTTOM OF THE MSE WALL REINFORCED ZONE ASSUMING 2 FEET OF WALL EMBEDMENT AND BASED ON THE DIMENSION SHOWN IN THE ROADWAY CROSS SECTIONS.
 THE ARCHITECTURAL CONCRETE SURFACE TREATMENT SHALL MATCH THE APPEARANCE (STONE SIZE AND SHAPE, STONE TEXTURE, PATTERN AND RELIEF) OF NATURAL STONE TO RESEMBLE A DRY STACKED STONE PATTERN WITH FEDERAL STANDARD 595 COLOR # FS30450 STAIN.

BILL OF MATERIAL -NW13-	
SOUND BARRIER WALL	S.F. 44,952
ARCHITECTURAL SURFACE TREATMENT	{S.F. 75,822}
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	

△ REVISED ARCHITECTURAL SURFACE TREATMENT QUANTITY

PROJECT NO. **U-4751**
NEW HANOVER COUNTY
 STATION: **128+33.75 -L- = 10+00.00 -NW13-**
 SHEET 1 OF 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SOUND BARRIER WALL NO. -NW13-																		
	REVISIONS <table border="1"> <tr> <th>NO.</th> <th>BY:</th> <th>DATE:</th> <th>NO.</th> <th>BY:</th> <th>DATE:</th> </tr> <tr> <td>1</td> <td>STV</td> <td>10-17</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> </tr> </table>		NO.	BY:	DATE:	NO.	BY:	DATE:	1	STV	10-17	3			2			4		
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STV ENGINEERS, INC. 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-5991		SHEET NO. NW-10 TOTAL SHEETS 17																		