

BEGIN WALL STATION	END WALL STATION	SLOPE	MAX. WALL HEIGHT (ft)	PILE EXCAVATION DEPTHS, "D" (ft)		
				S = 10ft	S = 15ft	S = 20ft
-NW5A- 10+15	-NW5A- 11+65	6:1	22	8	9	10
-NW5A- 11+65	-NW5A- 12+65	6:1	30	9	10	11
-NW5A- 12+65	-NW5A- 16+65	6:1	30	9	11	12
-NW5A- 16+65	-NW5A- 17+70	2:1	28	11	13	14
-NW5A- 17+70	-NW5A- 18+85	2:1	28	12	14	15
-NW5A- 18+85	-NW5A- 20+65	2:1	26	12	13	15
-NW5A- 20+65	-NW5A- 21+70	2:1	22	10	11	12
-NW5A- 21+70	-NW5A- 22+60	6:1	20	8	9	10
-NW5A- 22+60	-NW5A- 23+60	2:1	21	10	12	13
-NW5A- 23+60	-NW5A- 24+35	6:1	23	8	9	10
-NW5B- 24+50	-NW5B- 25+40	6:1	24	8	9	10
-NW5B- 25+40	-NW5B- 28+85	2:1	20	9	10	12
-NW5B- 28+85	-NW5B- 36+20	2:1	20	9	10	11
-NW5B- 36+20	-NW5B- 38+10	2:1	18	10	11	12
-NW5B- 38+10	-NW5B- 43+10	2:1	21	10	12	13

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.

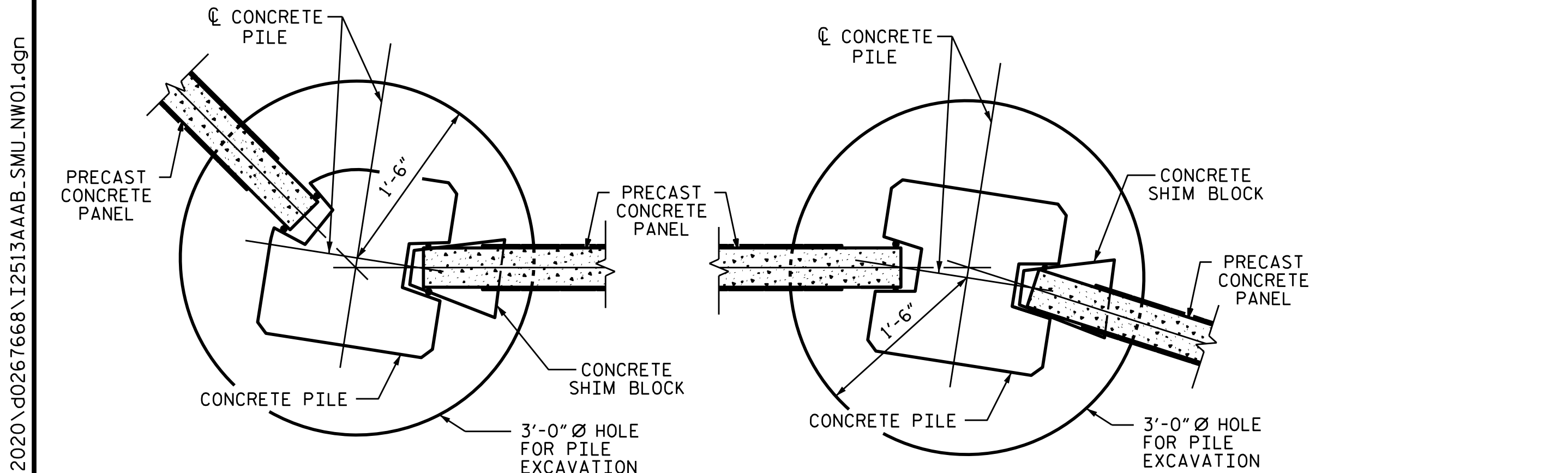
PLACE 1" Ø BACKER RODS FULL HEIGHT ON EACH SIDE OF THE PRECAST PANELS. SET AND SEAL THE BACKER ROD IN PLACE WITH SEALANT THAT CONFORMS WITH ARTICLE 1028-3 OF THE STANDARD SPECIFICATIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR APPLICATION OF SOUND BARRIER WALL COATING, SEE SPECIAL PROVISIONS.

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.
15'-0"	H ≤ 20'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.	15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 25'	4 - #10 EA. FACE	#3 @ 1'-4" CTS.		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 1'-4" CTS.
20'-0"	H ≤ 20'	4 - #9 EA. FACE	#3 @ 1'-4" CTS.	20'-0"	H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE	#3 @ 1'-4" CTS.
	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.
15'-0"	H ≤ 20'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.	15'-0"	H ≤ 20'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 25'	4 - #7 EA. FACE	#3 @ 1'-4" CTS.		20' < H ≤ 25'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 1'-4" CTS.
20'-0"	H ≤ 20'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.	20'-0"	H ≤ 20'	3 - #10 SHORT FACE 4 - #10 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 25'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.				



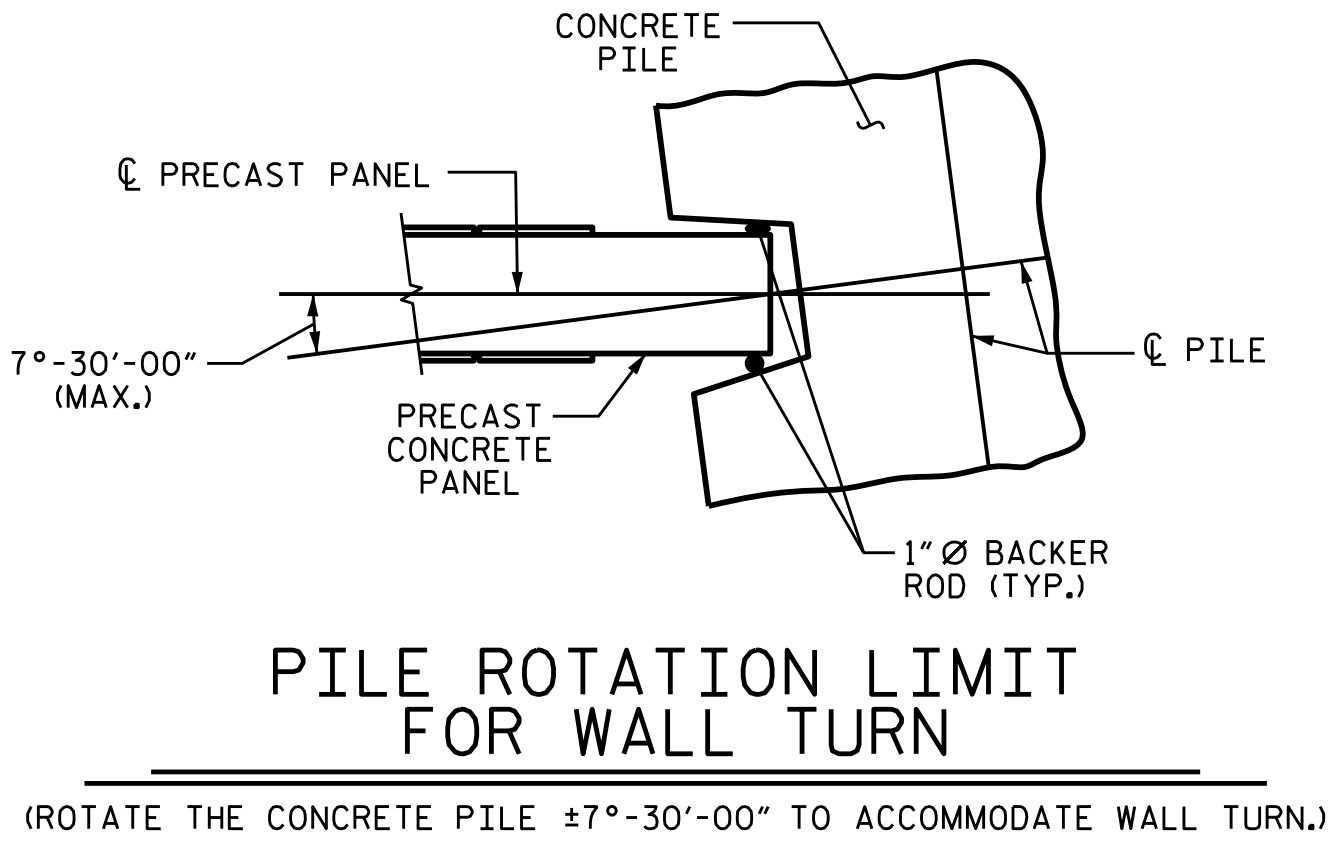
TYPICAL WALL TURN DETAILS

15° TO 45° TURNS (PILE TYPE III)

0° TO 15° TURNS (PILE TYPE I)

BILL OF MATERIAL (NW5A)	
SOUND BARRIER WALL	34,985 S.F.
ARCHITECTURAL SURFACE TREATMENT	58,152 S.F.
APPLICATION OF SOUND BARRIER WALL COATING	LUMP SUM
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	
ARCHITECTURAL SURFACE TREATMENT	
TEXTURE OPTION:	DRYSTACK
STAIN OPTION:	FED. COLORS # 26420/36373/36173/26081

BILL OF MATERIAL (NW5B)	
SOUND BARRIER WALL	33,440 S.F.
ARCHITECTURAL SURFACE TREATMENT	53,208 S.F.
APPLICATION OF SOUND BARRIER WALL COATING	LUMP SUM
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	
ARCHITECTURAL SURFACE TREATMENT	
TEXTURE OPTION:	DRYSTACK
STAIN OPTION:	FED. COLORS # 26420/36373/36173/26081



PILE ROTATION LIMIT FOR WALL TURN

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

PROJECT NO. I-2513AA/AB
BUNCOMBE COUNTY
 STATION: 63+46.57 -Y-
10+00.00 -NW5A-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SOUND BARRIER WALL
 -NW5A- AND -NW5B-**

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. NW-1
 TOTAL SHEETS 5

WVGI
 5640 Dillard Drive, Suite 200
 Cary, NC 27518
 LICENSURE NO. C-4434

STATE OF NORTH CAROLINA
 PROFESSIONAL SEAL
 023908
 ENGINEER
 MARK A. AVERETTE

DRAWN BY: T. BANKOVICH DATE: 7-23
 CHECKED BY: M.A. AVERETTE DATE: 7-23
 DESIGN ENGINEER OF RECORD: M.A. AVERETTE DATE: 7-23

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

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