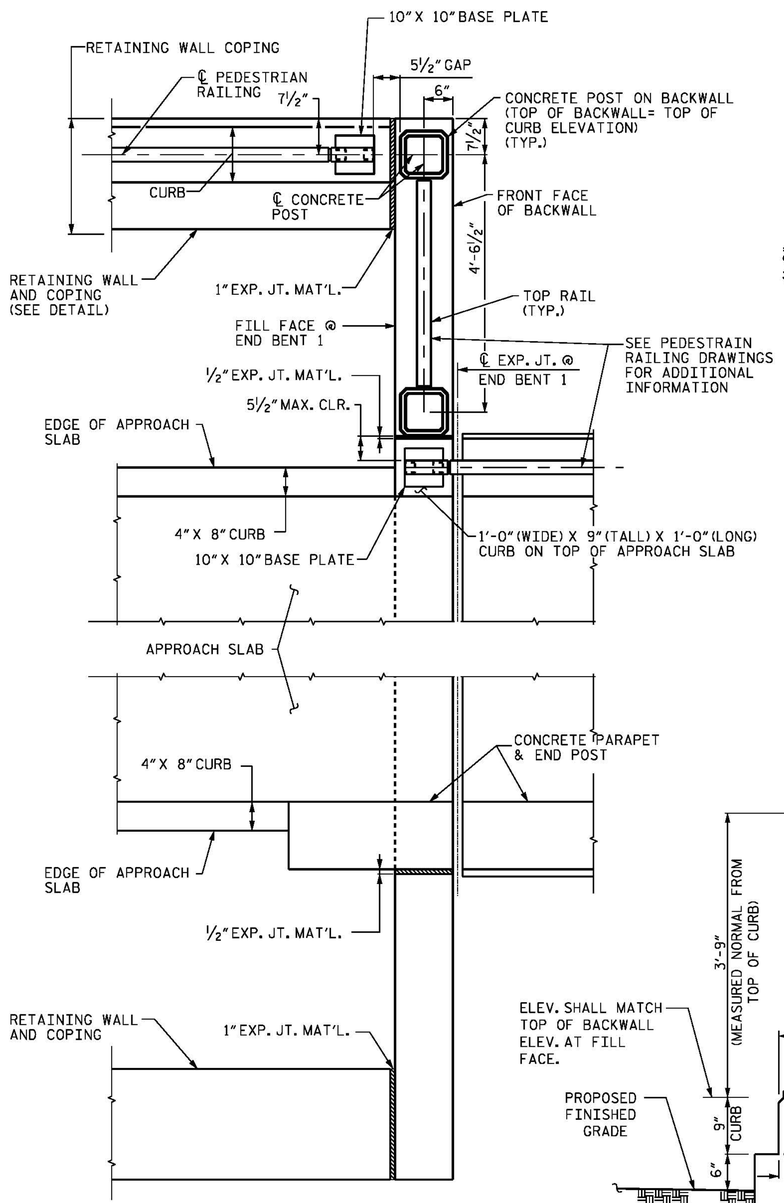
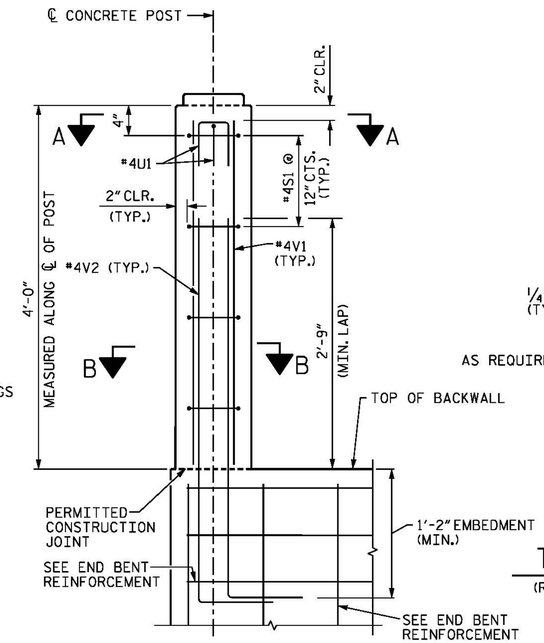
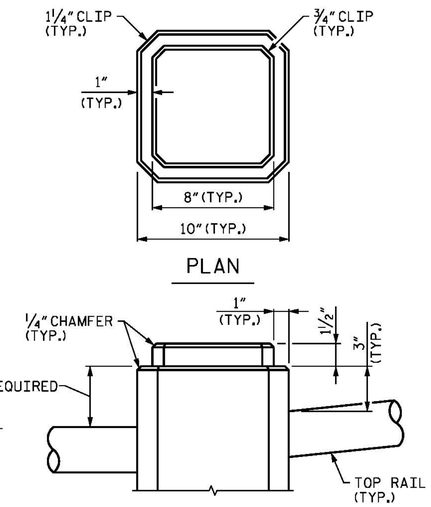


PLAN AT END BENT 1

(PEDESTRIAN HANDRAIL MOUNTED ON BACKWALL AND COPING)



TYPICAL ELEVATION



TOP OF CONCRETE POST

(REINFORCEMENT AND TOP RAIL CONNECTION ℄ NOT SHOWN FOR CLARITY)

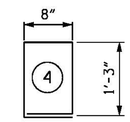
BILL OF MATERIAL Ⓐ (30' SECTION OF CURB)

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
✳B1	4	#4	STR	29'-6"	79
✳S2	30	#4	4	4'-6"	90

✳EPOXY COATED REINFORCING STEEL LBS. 169

CLASS AA CONCRETE: C.Y. 0.9

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

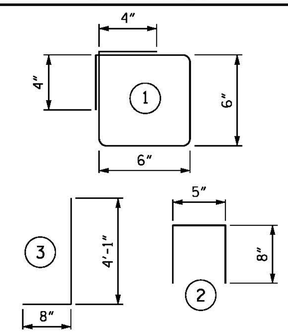
BILL OF MATERIAL (1 POST)

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
✳S1	4	#4	1	2'-8"	7
✳U1	3	#4	2	1'-9"	4
✳V1	4	#4	STR	3'-8"	10
✳V2	4	#4	3	4'-9"	13

✳EPOXY COATED REINFORCING STEEL LBS. 34.0

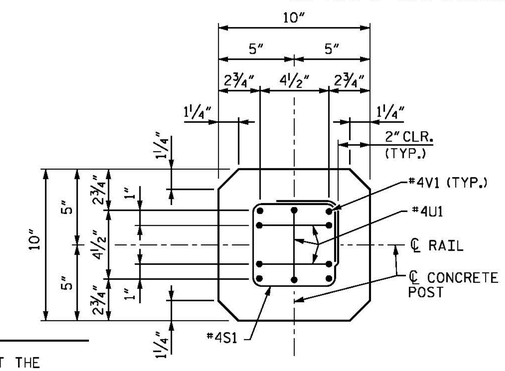
CLASS AA CONCRETE: C.Y. 0.1

BAR TYPES

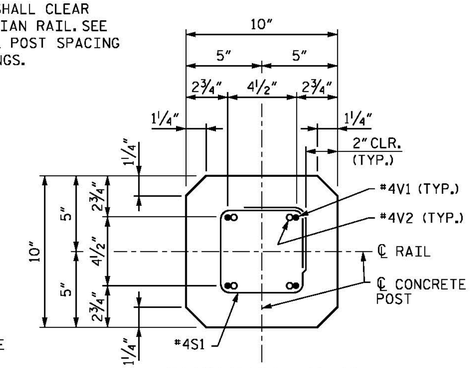


ALL BAR DIMENSIONS ARE OUT TO OUT.

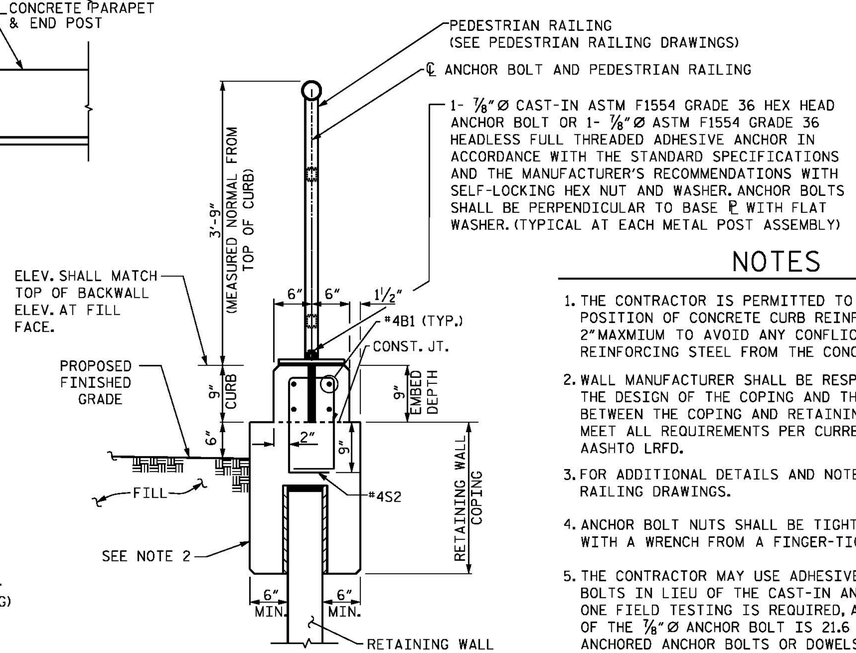
Ⓐ BILL OF MATERIAL FOR CURB IS BASED ON A 30'-0" SECTION OF CURB. SHORTER SECTIONS OF CURB ARE ALLOWED PROVIDED A MINIMUM OF 2" CLEAR IS PROVIDED TO THE REINFORCING STEEL ON ALL FACES OF THE CURB AND NO SECTION OF CURB IS LESS THAN 10'-0" IN TOTAL LENGTH. 1" OF EXP. JT. MAT'L SHALL BE PROVIDED BETWEEN EACH SECTION OF CURB. EXPANSION JOINTS SHALL CLEAR BASE PLATES FOR PEDESTRIAN RAIL. SEE PEDESTRIAN RAILING RAIL POST SPACING AND PLAN OF CURB DRAWINGS.



SECTION A-A



SECTION B-B



PEDESTRIAN HANDRAIL MOUNTED ON RETAINING WALL COPING

(ADHESIVE ANCHOR BOLTS SHOWN, CAST-IN-PLACE ANCHOR BOLTS SIMILAR)

NOTES

1. THE CONTRACTOR IS PERMITTED TO SHIFT THE POSITION OF CONCRETE CURB REINFORCEMENT BY 2" MAXMIUM TO AVOID ANY CONFLICTS WITH THE REINFORCING STEEL FROM THE CONCRETE POST.
2. WALL MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE COPING AND THE CONNECTION BETWEEN THE COPING AND RETAINING WALL TO MEET ALL REQUIREMENTS PER CURRENT AASHTO LRFD.
3. FOR ADDITIONAL DETAILS AND NOTES SEE PEDESTRIAN RAILING DRAWINGS.
4. ANCHOR BOLT NUTS SHALL BE TIGHTENED ONE-HALF TURN WITH A WRENCH FROM A FINGER-TIGHT POSITION.
5. THE CONTRACTOR MAY USE ADHESIVELY ANCHORED ANCHOR BOLTS IN LIEU OF THE CAST-IN ANCHOR BOLTS. LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE ⅞"Ø ANCHOR BOLT IS 21.6 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE THE STANDARD SPECIFICATIONS.
6. IF CONTRACTOR ELECTS TO USE ADHESIVELY ANCHORED ANCHOR BOLTS AS SHOWN IN DETAIL, THE ADHESIVE MATERIAL SHALL SATISFY THE NCDOT STANDARD SPECIFICATIONS AND SHALL HAVE MINIMUM CHARACTERISTIC BOND STRENGTH, τ_{CR} OF 1000 PSI.

PROJECT NO. B-4929

PENDER COUNTY

STATION: 38+13.81 -L2-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT 1
DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 032967 ENGINEER JASON R. DOUGHTY
5/12/16
DocuSigned by: Jason R Doughty
00F1C86448274F7...

PARSONS BRINCKERHOFF
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
LICENSE NO. F-0165

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-151
1			3			TOTAL SHEETS
2			4			278

DESIGNED BY:	M. WAGNER	DATE :	DEC. 2015
DRAWN BY:	B. CALDWELL	DATE :	DEC. 2015
CHECKED BY:	J. SHERMAN	DATE :	MAR. 2016
DESIGN ENGINEER OF RECORD:	J. DOUGHTY	DATE :	MAY 2016

5/10/2016
400_295_B4929_SMU_EB13.dgn