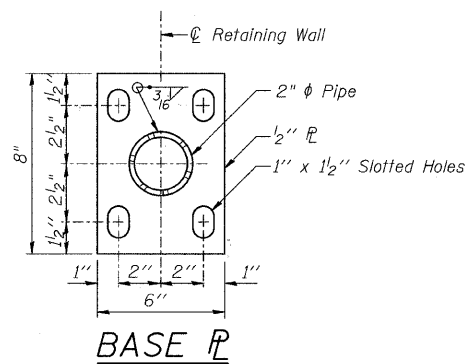
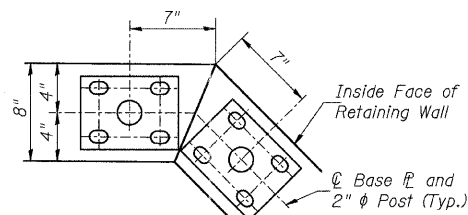


**ANCHOR BOLT DETAILS**

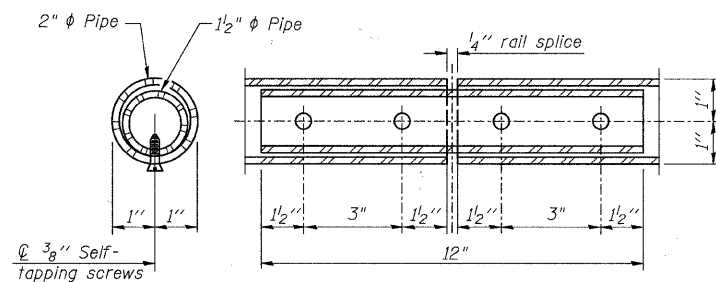
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



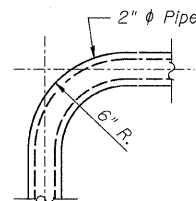
**BASE PLATE**



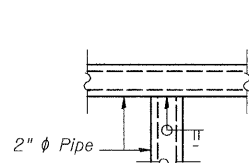
**DETAIL A**



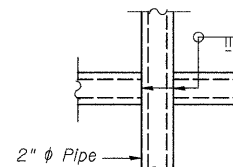
**HANDRAIL SPLICE**



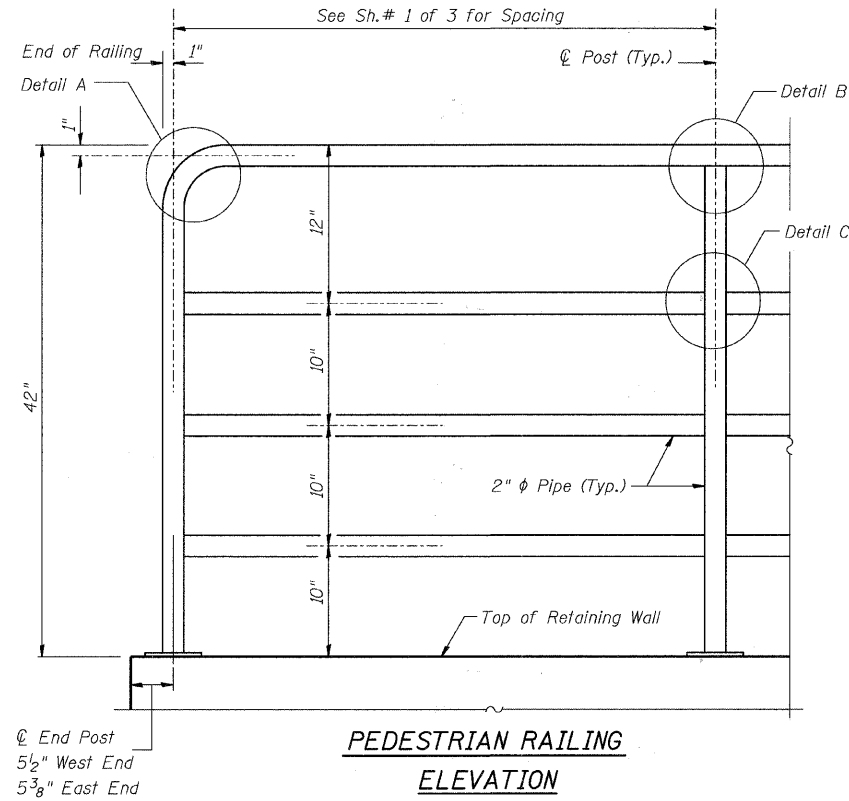
**DETAIL B**



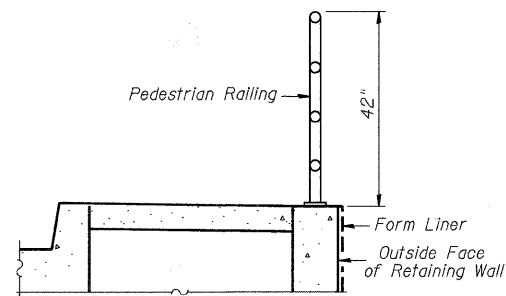
**DETAIL C**



**DETAIL D**



**PEDESTRIAN RAILING ELEVATION**



**SECTION THRU SIDEWALK**

**NOTES**

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Railing, Special.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.

All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers, and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanized shall be placed in posts and rails at locations that will not allow the accumulation of moisture in the members.

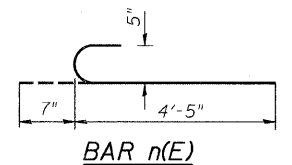
All posts, rails, base plates and all components shall be cleaned and powder coated (electrostatically applied), in accordance with Article 1006.29(b)(5) of the Standard Specifications except as noted in the Special Provisions.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	56	#4	20'-3"	
h <sub>1</sub> (E)	12	#4	30'-11"	
h <sub>2</sub> (E)	2	#4	31'-0"	
n(E)	117	#5	5'-0"	C
h(E)	270	#4	4'-9"	
v(E)	84	#4	5'-0"	
v <sub>1</sub> (E)	35	#4	4'-10"	
v <sub>2</sub> (E)	39	#4	6'-4"	
v <sub>3</sub> (E)	17	#4	6'-2"	
w(E)	36	#4	27'-0"	
w <sub>1</sub> (E)	24	#4	17'-6"	
Structure Excavation		Cu. Yd.	148.0	
Concrete Structures		Cu. Yd.	36.8	
Reinforcement Bars, Epoxy Coated		Pound	4,070	
* Protective Coat		Sq. Yd.	158	
Steel Railing (Special)		Foot	106	
Geocomposite Wall Drain		Sq. Yd.	45	
Porous Granular Embankment (Special)		Cu. Yd.	30	
Form Liner Textured Surface (Special)		Sq. Ft.	296	

\* Apply Protective Coat to Inside Face, Outside Face and top of wall.

Notes: Reinforcement bars designated (E) shall be epoxy coated.



**BAR n(E)**

**RETAINING WALL #1 DETAILS  
C.H. 35 (55TH STREET)  
SECTION 94-00302-00-FP  
DU PAGE COUNTY  
STA. 35+07.85 TO STA. 36+05.63**

DESIGNED	JOH
CHECKED	BAN
DRAWN	TAC
CHECKED	JOH

2791WALL1-03

HUTCHISON ENGINEERING, INC. Jacksonville & Shorewood, Illinois Date: 2011	SHEET NO. 3	F.A.U. RTE. 1504	SECTION 94-00302-00-FP	COUNTY DU PAGE	TOTAL SHEETS 240	SHEET NO. 146
	3 SHEETS	ILLINOIS		CONTRACT NO. 63609 FED. AID PROJECT		