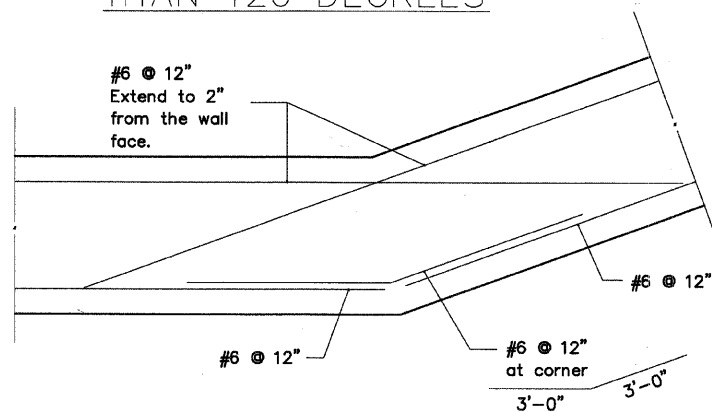
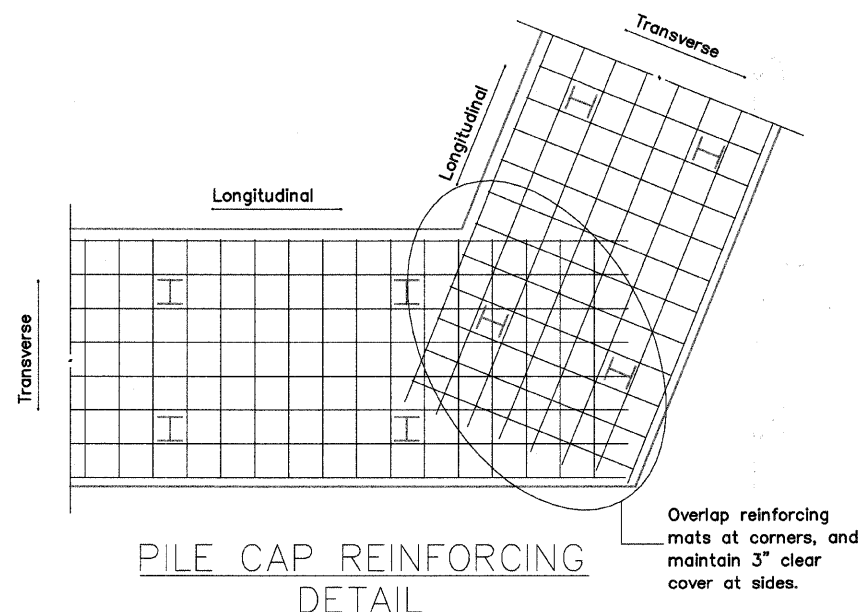


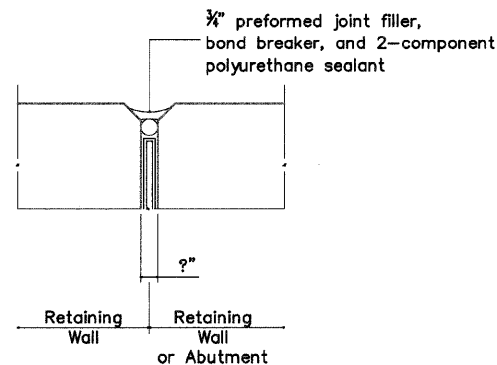
WALL CORNER DETAIL  
ANGLES LESS  
THAN 120 DEGREES



WALL CORNER DETAIL  
ANGLES GREATER  
THAN 120 DEGREES



PILE CAP REINFORCING  
DETAIL



JOINT DETAIL

Place 2" dia. PVC weep holes @ 10' max c/c. Cost shall be included in Concrete Structures. The height of the holes shall be the higher of 1'-6" above the top of the cap or 6" above the finish grade at the front of the wall.

Clear covers shall be: 3" bottom, 2" sides of walls 3" sides of footing, 2" top

All edges shall receive a 3/8" chamfer.

Spacing of bars shown shall be the maximum allowed. Bars may be adjusted to miss piles.

The following reinforcing laps shall be used when necessary:

- #4 = 2'-0"
- #5 = 2'-6"
- #6 = 3'-0"
- #7 = 4'-6"
- #8 = 5'-6"

The #5 and #7 vertical dowels may be trimmed to maintain clear cover at walls with shorter heights.

Joints in the form of 3/4" preformed joint filler, with bond breaker, and 2-component polyurethane sealant shall be used between retaining wall and abutment sections. The cost of the joint shall be included with the cost of Concrete Structures.

PILE DATA

NUMBER REQ'D :	SEE BILL OF MATERIAL
NOM. REQ'D BEARING :	335 KIPS/PILE
ALLOWABLE AVAILABLE RESISTANCE :	110 KIPS/PILE
EST. LENGTH :	50 FT. FOR NE1, NE2, NE3, NW1, NW2, 50 FT. FOR SE1, SE2, SE3, SW1 ALL PILES DRIVEN TO REFUSAL
TEST PILES :	TEST PILES FROM THE ADJACENT ABUTMENT CAN BE USED TO ESTIMATE PILE LENGTHS FOR THE RETAINING WALLS

BILL OF MATERIAL 9 RETAINING WALLS, PROTECT SEWER

ITEM	UNIT	SEWER PROTECTION									TOTAL	
		SE1	SE2	SE3	SW1	NE1	NE2	NE3	NW1	NW2		
Concrete Structures	Cu. Yd.	54.6	75.7	88.8	91.3	42.9	65.6	120.8	69.3	87	56	752
Reinforcement Bars	Pounds	6050	7950	9200	9100	4860	7750	12810	7690	9590	1840	76840
Test Pile, Steel HP10x42	Each	0	0	0	0	0	0	0	0	0	0	0
Furnishing Steel Piles, HP10x42	Feet	600	600	500	600	400	500	850	600	700	0	5350
Driving Piles	Feet	600	600	500	600	400	500	850	600	700	0	5350
Pile Shoes & # Piles	Each	12	12	10	12	8	10	17	12	14	0	107
Structure Excavation	Cu. Yd.	103	110	59	138	59	58	65	72	49	240	953
Sub-base Granular Material, Type C, CA-11	Cu. Yd.	5	18	27	23	3	16	37	7	24	0	160

**FRAUENHOFER**

Frauenhoffer and Associates, P.C. Consulting Engineers  
3002 Crossing Court Champaign, IL 61822 217-351-6268

RETAINING WALL DETAILS

SHEET	X
DWG NO.	abut.DWG
DATE	NOV 2009
PROJ NO.	8137



USER NAME =	DESIGNED -- KJH	REVISED --
PLOT SCALE =	DRAWN -- KJH	REVISED --
PLOT DATE =	CHECKED -- JF	REVISED --
	DATE -- JANUARY, 2010	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DUPAGE RIVER BRIDGE  
RETAINING WALL DETAILS

SCALE: 3/4"=1'-0" SHEET NO. 2 OF 3 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	01-P4015-01-BT	WILL	41	29
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			CONTRACT NO. 63325	

W:\P\110113\130113 Dupage River Trail\cod\Phase 1\Frauenhoffer Details.dwg Updated by: abussena 1/14/2010