

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 OF 7 SHEETS
F.A.P. 866	*	LAKE	554	310	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

\* (L-2[LW,R]6,6A & 6 EXT) WRS-1

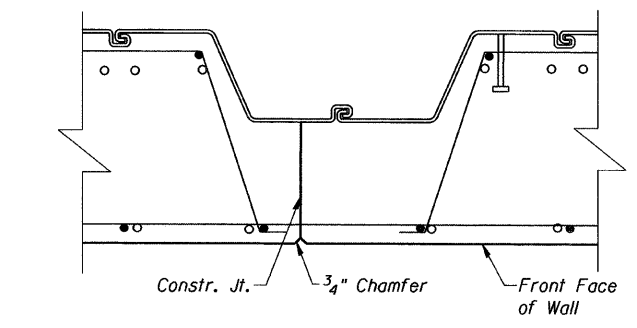
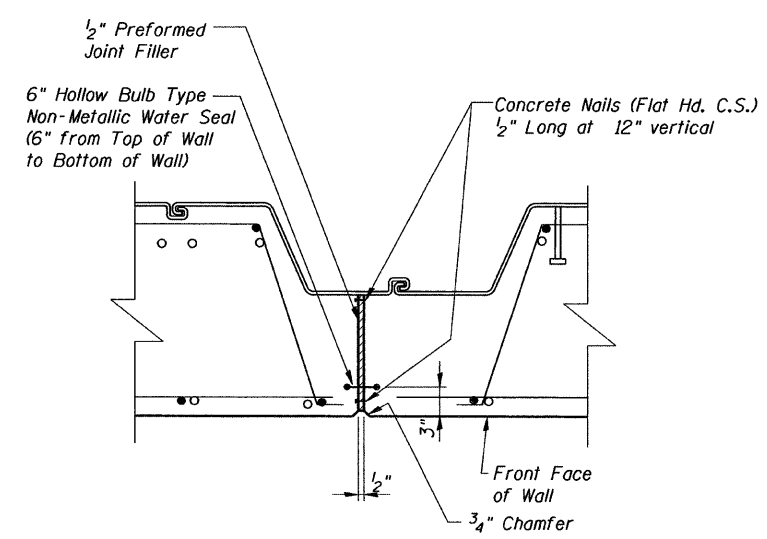
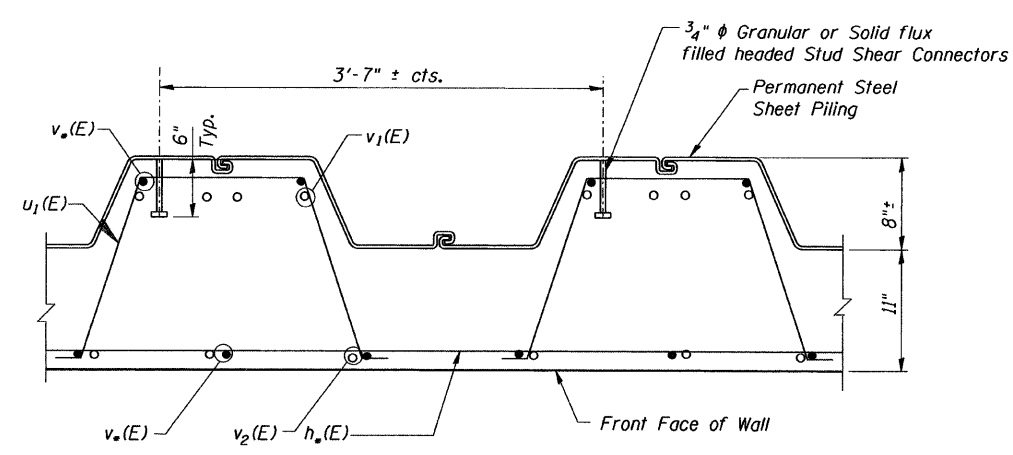
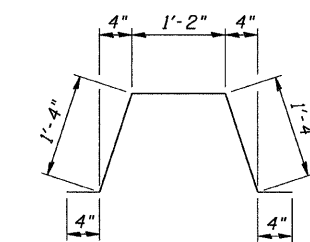
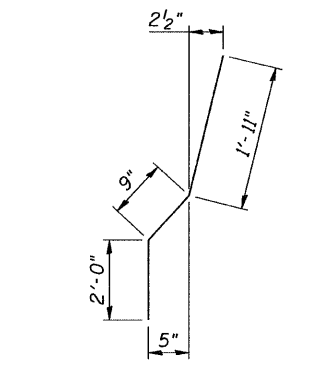
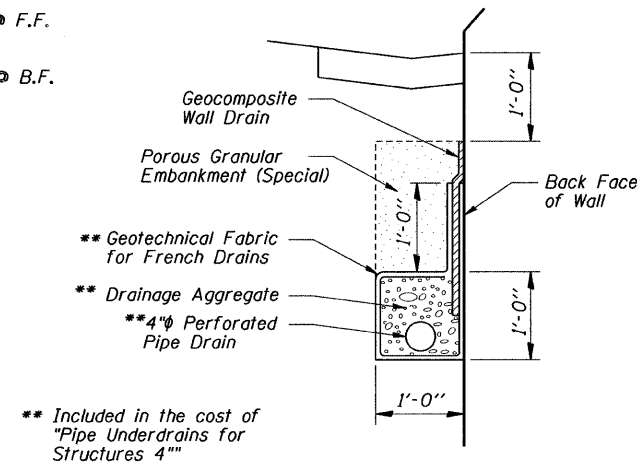
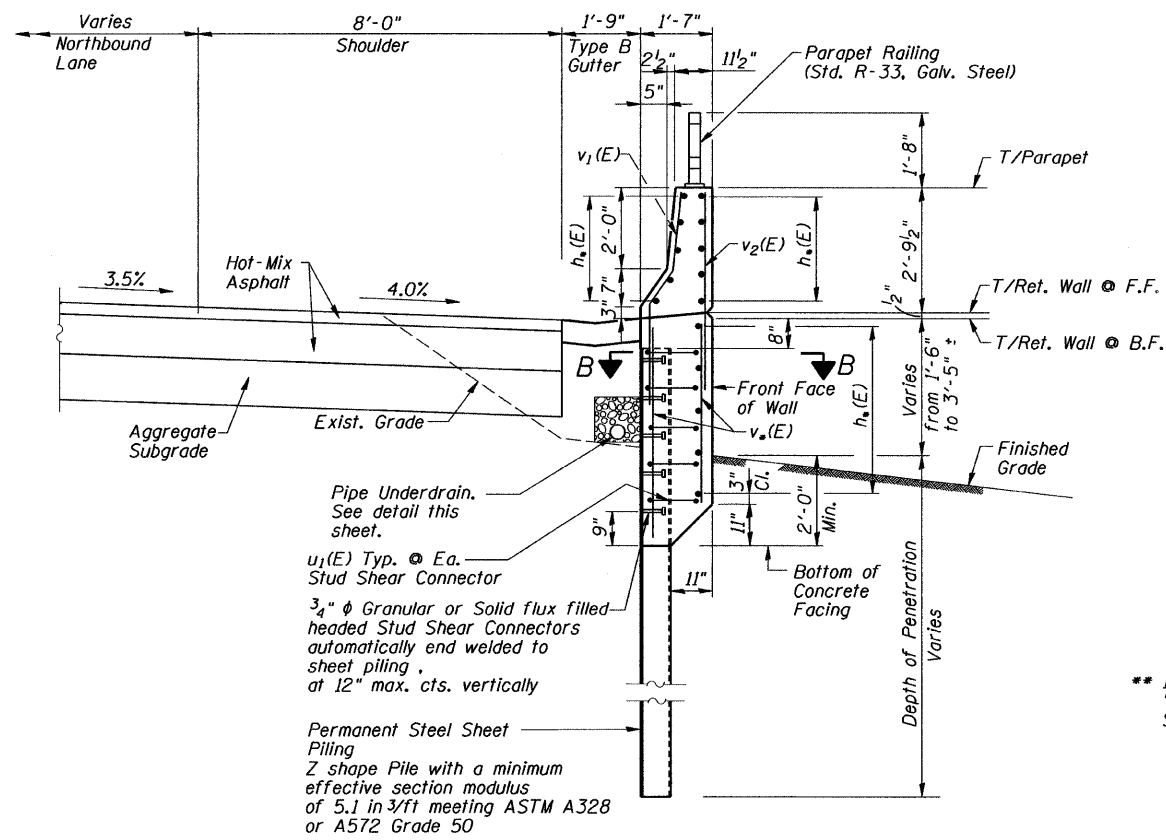
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	15	#4	29'-4"	—
h2(E)	132	#4	26'-6"	—
h3(E)	35	#4	24'-5"	—
h4(E)	8	#4	4'-0"	—
u1(E)	393	#4	4'-6"	J
v1(E)	291	#6	4'-8"	J
v2(E)	291	#6	4'-3"	—
v3(E)	47	#4	3'-0"	—
v4(E)	117	#4	3'-9"	—
v5(E)	156	#4	5'-0"	—
v6(E)	117	#4	4'-5"	—

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Reinforcement Bars, Epoxy Coated	Pound	9,560
Concrete Structures	Cu. Yd.	100
Structure Excavation	Cu. Yd.	85
Parapet Railing	Foot	277
Stud Shear Connectors	Each	393
Permanent Steel Sheet Piling	Sq. Ft.	4,868
Pipe Underdrains for Structures 4"	Foot	274
Porous Granular Embankment, Special	Cu Yd.	15.8
Composite Wall Drain	Sq. Yd.	62.5

- NOTES:
- No reinforcement should pass thru Expansion Joint.
  - \* See Elevation for Bar Number & Size.
  - Reinforcement bars designated (E) shall be epoxy coated.



NOTE:  
The details for the concrete and reinforcement are based on CZ-67 Sheet Piling.

DESIGNED	S.S.T.
CHECKED	J.A.Z.
DRAWN	E.B.
CHECKED	S.S.T.

RETAINING WALL NO. 1  
SECTION, DETAILS & B.O.M.  
ILLINOIS ROUTE 83  
F.A.P. ROUTE 866  
LAKE COUNTY  
Sta. 238+70 to Sta. 241+50  
DATE: 4/22/09  
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC  
CHICAGO ILLINOIS