

**ELEVATION - TEMP.
SOIL RETENTION SYSTEM
AT PIER 9 & PIER 12**

TABLE 1

Structure	Elev. "A"	Elev. "B"	Length "C" (ft.)
Pier 9	±588.32	±580.52	±44
Pier 12	±574.66	±565.34	±52

BILL OF MATERIAL

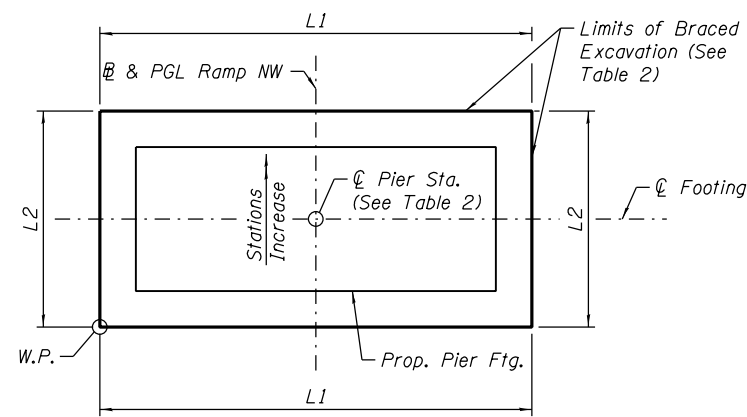
Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	872

NOTES

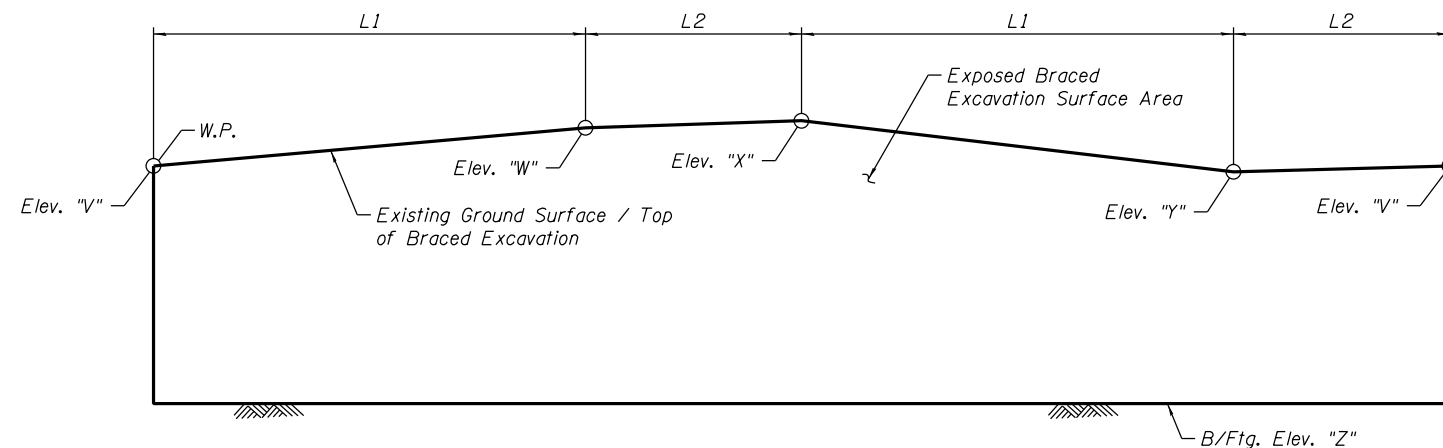
1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Braced Excavation shall be completed in accordance with Special Provision Braced Excavation
3. The bracing system for Braced Excavation shall be installed without the use of impact-type pile drivers. The proposed equipment and procedures used for the installation of bracing system shall be submitted to the Engineer for approval prior to their use. If vibratory equipment utilized, the Contractor shall also submit documentation regarding the operating noise levels and operating vibration characteristics of the equipment proposed. The approval of the equipment and procedure by the Engineer does not guarantee the performance in the field of the equipment will be acceptable. If in the judgment of the Engineer, the noise and/or vibration effects exceed those required by the local residents, then the Contractor must halt production and find a remedy suitable to the Engineer. Threshold values for vibration monitoring are included in the special provision "CONSTRUCTION VIBRATION MONITORING". The costs incurred finding suitable equipment and procedures shall be included in the cost of Braced Excavation. No additional costs shall be paid for this effort..

TABLE 2

Pier	Sta.	L1 (ft)	L2 (ft)	Elevation				
				V	W	X	Y	Z
1	1820+34.17	27	20	± 583.11	± 582.91	± 582.94	± 583.2	580.98
2	1822+20.67	25	12	± 582.15	± 582.37	± 582.27	± 582.04	576.10
3	1823+94.17	24.75	31	± 580.45	± 580.9	± 580.49	± 580.14	571.28
5	1827+28.17	31	12	± 579.06	± 579.01	± 579.09	± 579.05	571.69
6	1828+59.67	27	12	± 577.98	± 577.84	± 577.81	± 578	566.90
7	1830+50.17	29	13	± 574.21	± 577.36	± 577.26	± 574.14	566.53
8	1832+40.67	31	28	± 588.93	± 590.3	± 590.33	± 589.75	579.19
10	1834+97.67	27	12	± 580.09	± 579.42	± 578.25	± 579.32	572.28



BRACED EXCAVATION PLAN
(Typ. For All Piers)



UNFOLDED BRACED EXCAVATION ELEVATION
(Looking Upstation)

0161705-60W28-5011-SoilRetSys.dgn



USER NAME = floresg	DESIGNED - ABT	REVISED
	CHECKED - EJO	REVISED
PLOT SCALE = N.T.S.	DRAWN - MRK	REVISED
PLOT DATE = 5/7/2014	CHECKED - ABT	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMP. SOIL RETENTION SYSTEM & BRACED EXCAVATION DETAILS
STRUCTURE NO. 016-1705**

SHEET NO. S-11 OF S-165 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-010R	COOK	747	327
CONTRACT NO. 60W28			ILLINOIS FED. AID PROJECT	