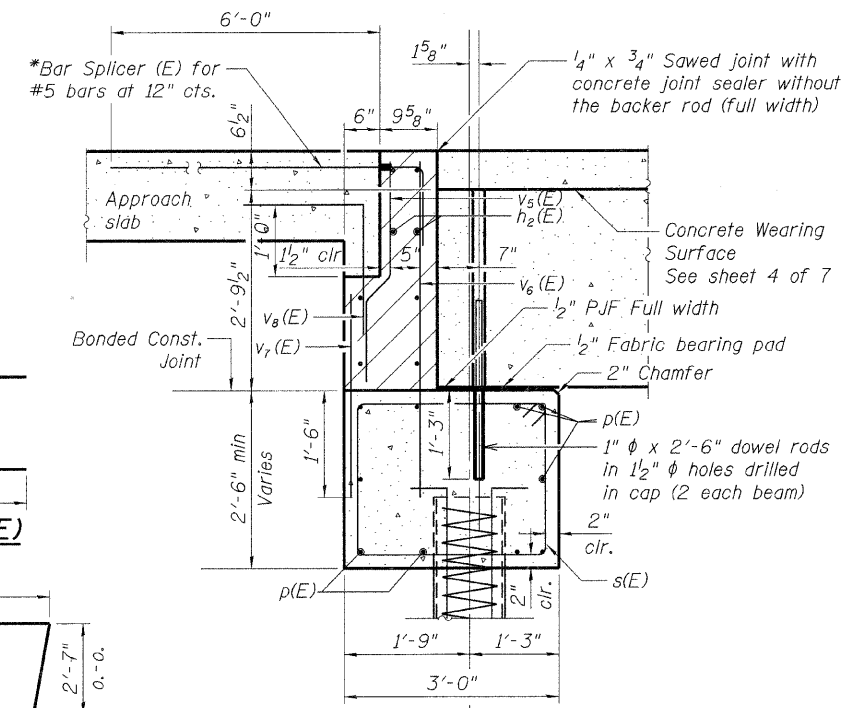
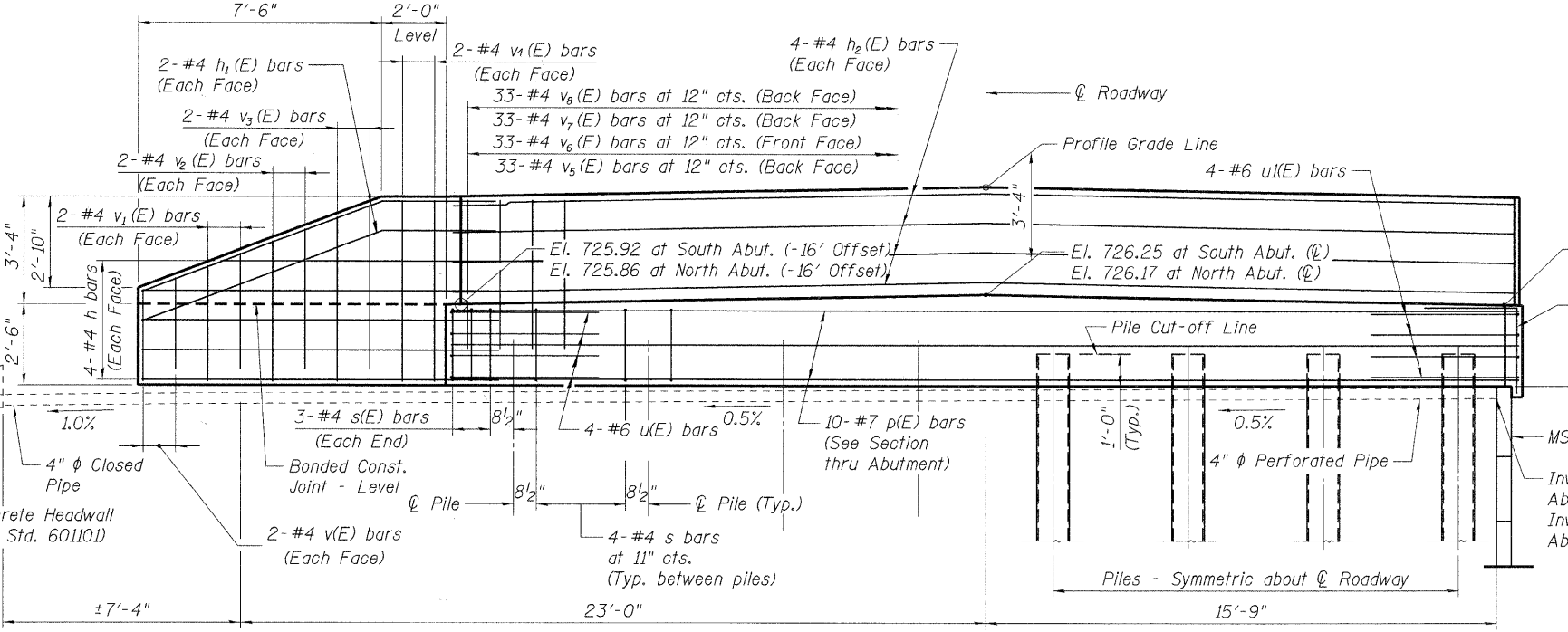


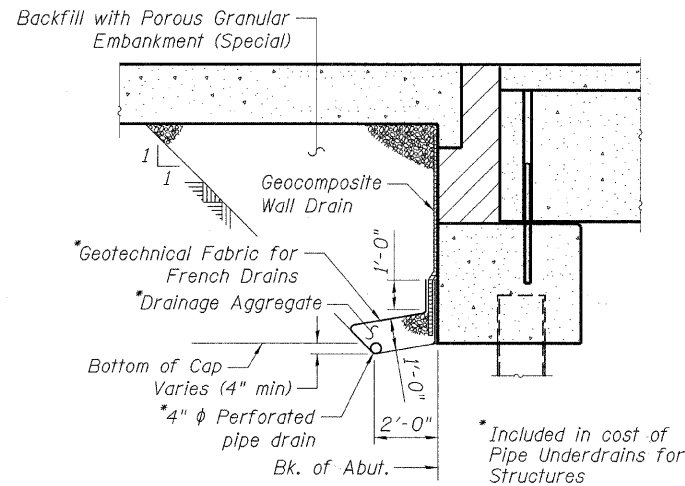
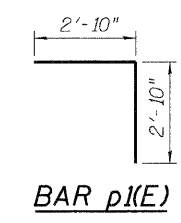
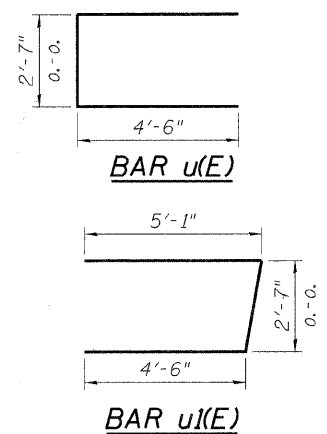
**PLAN**  
(North abutment shown, South abutment symmetric, opposite hand)



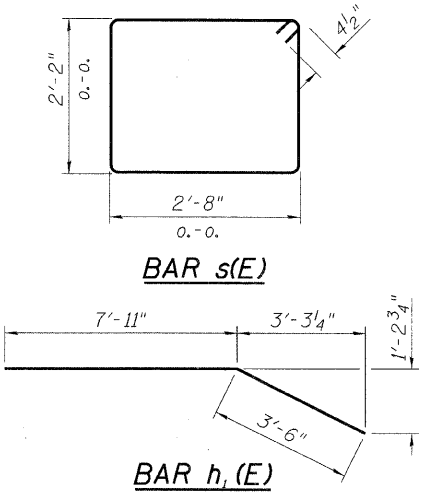
**SECTION THRU ABUTMENT**  
(At Right Angles)



**ELEVATION**  
(North abutment shown, South abutment symmetric, opposite hand)



**ABUTMENT DRAINAGE**  
(Dimensions are at Right Angles to Abutment)



**PILE DATA (2 ABUTMENTS)**  
Type: Metal Shell - 12 in. dia. x 0.179 in. walls with pile shoes  
Nominal Required Bearing: 256 kips  
Factored Resistance Available: 128 kips  
Est. Length: 65 ft  
No. Production Piles: 14  
No. Test Piles: 2

**NOTES**

1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
2. All horizontal dimensions are at right angles to beam ends.
3. Hatched area to be poured after concrete wearing surface is in place.
4. See sheet 18 of 43 for bearing pad details.
5. All edges shall have standard 3/4" chamfers except as noted.
6. The backwall and portion of the wingwalls above the bonded construction joint shall be cast against the in-place beams.
7. Space reinforcement in cap to miss dowel bars.
8. Reinforcement bars designated (E) shall be epoxy coated.
9. Excavation for placing Porous Granular Embankment (Special) is paid for as Structure Excavation.
10. All drainage system components shall extend to the limits shown except the outlet pipes shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

**BILL OF MATERIAL FOR TWO ABUTMENTS**

Bar	No.	Size	Length	Shape
h(E)	16	#4	11'-0"	[Symbol]
h1(E)	8	#4	11'-5"	[Symbol]
h2(E)	16	#4	32'-11"	[Symbol]
p(E)	20	#7	32'-4"	[Symbol]
p1(E)	8	#4	5'-8"	[Symbol]
s(E)	68	#4	10'-5"	[Symbol]
u(E)	8	#6	11'-7"	[Symbol]
u1(E)	8	#6	12'-2"	[Symbol]
v(E)	8	#4	2'-9"	[Symbol]
v1(E)	8	#4	3'-6"	[Symbol]
v2(E)	8	#4	4'-4"	[Symbol]
v3(E)	8	#4	5'-0"	[Symbol]
v4(E)	8	#4	5'-7"	[Symbol]
v5(E)	66	#4	3'-2"	[Symbol]
v6(E)	66	#4	4'-7"	[Symbol]
v7(E)	66	#4	2'-10"	[Symbol]
v8(E)	66	#5	3'-6"	[Symbol]
Item		Unit	Quantity	
Structure Excavation		Cu. Yd.	56	
Concrete Structures		Cu. Yd.	31.0	
Reinforcement Bars, Epoxy Coated		Lbs.	3,480	
Name Plates		Each	1	
Permanent Survey Marker, Type 1		Each	1	

FILE NAME = \S:\P\112018.DWG USER = JFG DATE = 10-26-2010  
 USER NAME = #USER# DATE = 10/27/10  
 DESIGNED - JFG REVISIONS -  
 DRAWN - JFG REVISIONS -  
 CHECKED - KPS REVISIONS -  
 DATE = 10/27/10 REVISIONS -  
**TENG** TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS  
 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION GREEN GARDEN TOWNSHIP 88TH AVENUE (PEOTONE ROAD)