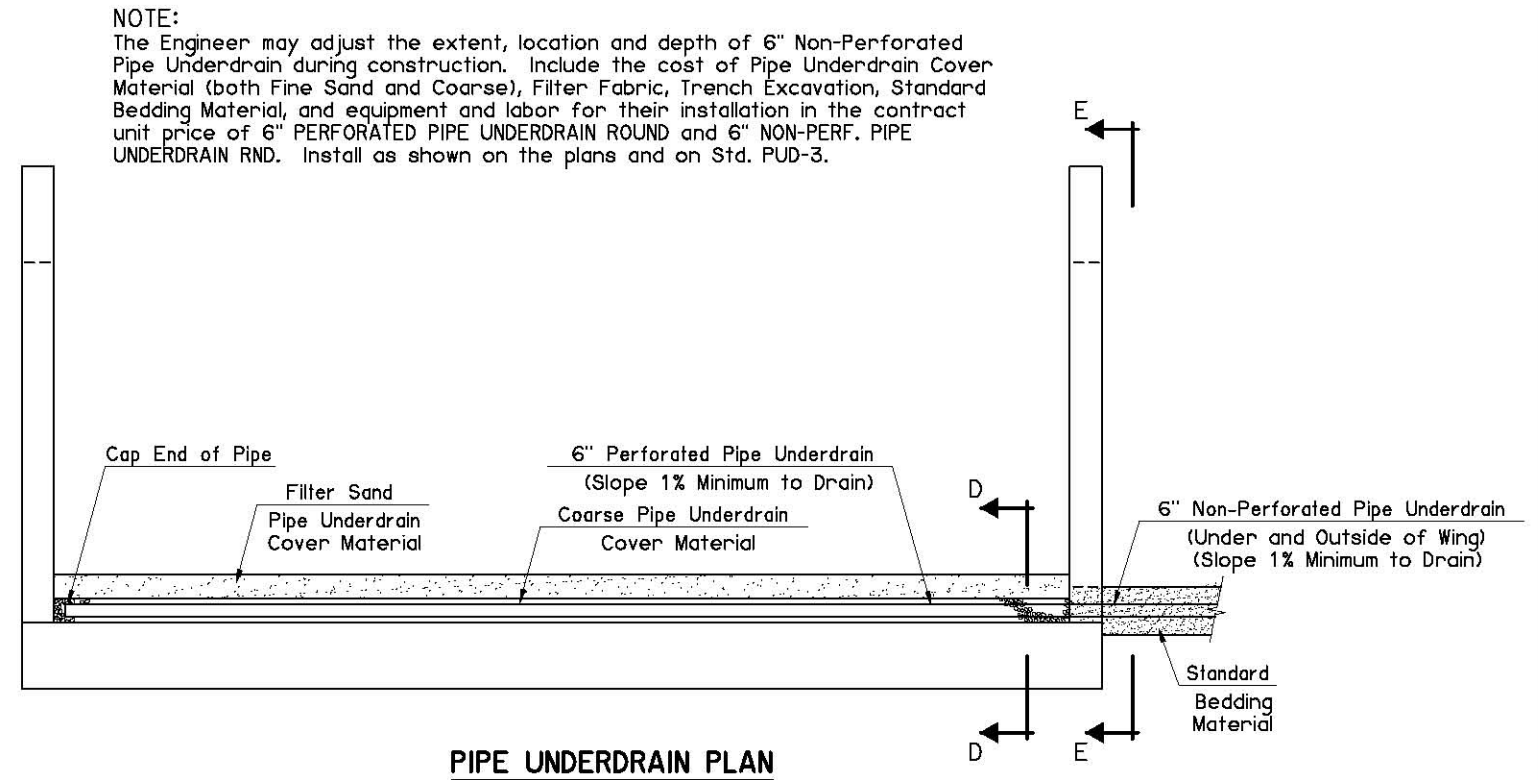


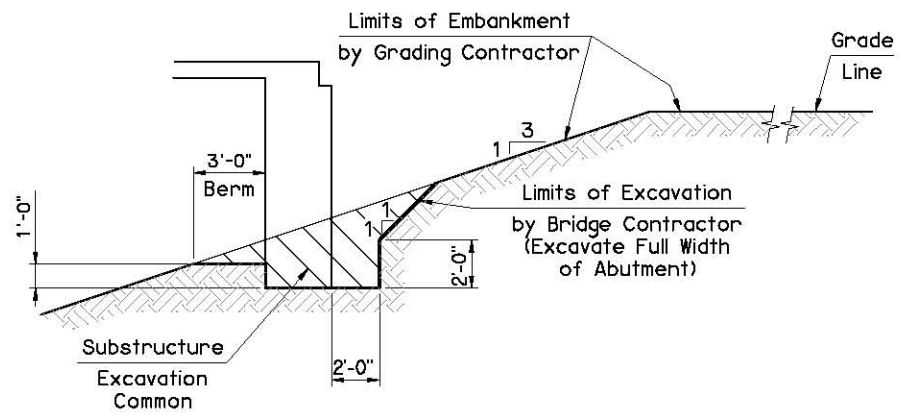
EXCAVATION PLAN

NOTE:
The Contractor may place concrete against the limits of excavation if the material is excavated to the neat lines of the abutment and approved by the Engineer. If necessary, use forms on the back vertical face of the abutment and remove forms after concrete hardens. If the Contractor chooses to place concrete against the soil, the Department will pay for **SUBSTRUCTURE EXCAVATION COMMON** in accordance with the diagram shown on the plans.

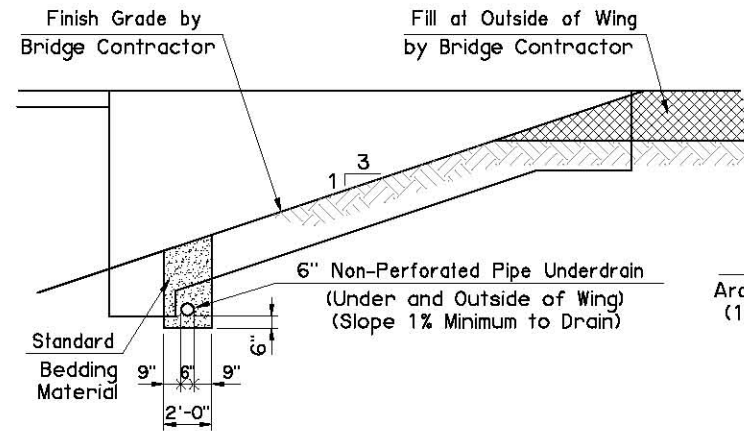


PIPE UNDERDRAIN PLAN

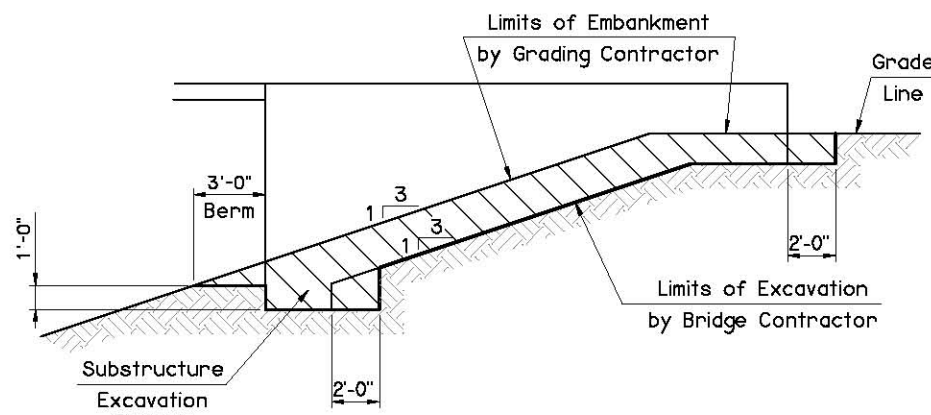
NOTE:
The Engineer may adjust the extent, location and depth of 6" Non-Perforated Pipe Underdrain during construction. Include the cost of Pipe Underdrain Cover Material (both Fine Sand and Coarse), Filter Fabric, Trench Excavation, Standard Bedding Material, and equipment and labor for their installation in the contract unit price of 6" PERFORATED PIPE UNDERDRAIN ROUND and 6" NON-PERF. PIPE UNDERDRAIN RND. Install as shown on the plans and on Std. PUD-3.



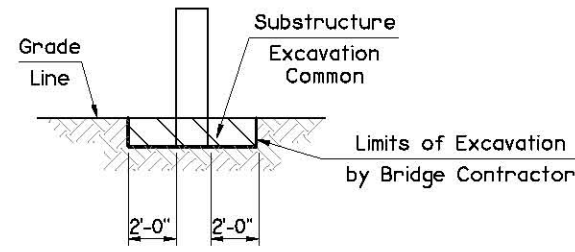
SECTION A-A



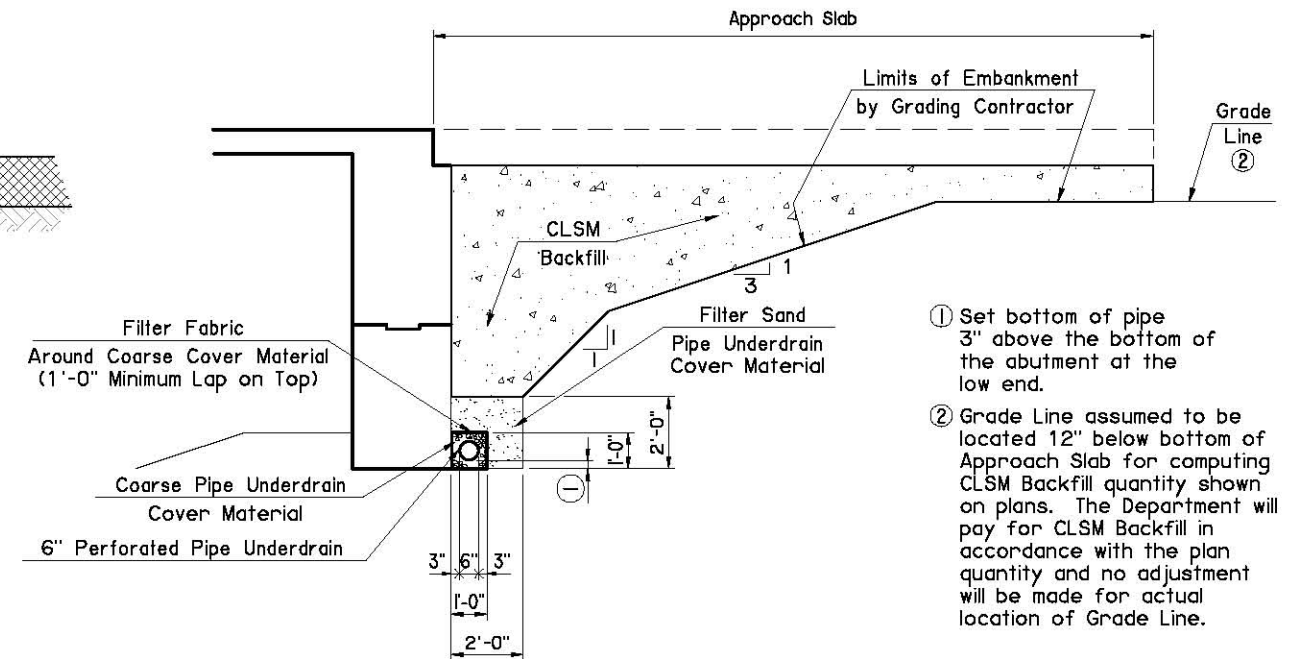
SECTION E-E



SECTION B-B



SECTION C-C



SECTION D-D

- ① Set bottom of pipe 3" above the bottom of the abutment at the low end.
- ② Grade Line assumed to be located 12" below bottom of Approach Slab for computing CLSM Backfill quantity shown on plans. The Department will pay for CLSM Backfill in accordance with the plan quantity and no adjustment will be made for actual location of Grade Line.

Do not place CLSM Backfill until Superstructure is in place and the Abutment Wing concrete has attained a strength of 3000 p.s.i.

APPROVED BY BRIDGE ENGINEER *Scott J. Smith* DATE *4/2/10*

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (ENGLISH)
**SUBSTRUCTURE EXCAVATION AND
PIPE UNDERDRAIN ASSEMBLY DETAILS
INTEGRAL**

2009 SPECIFICATIONS | B40-I-ABUT-MISC | 01E
B-60E