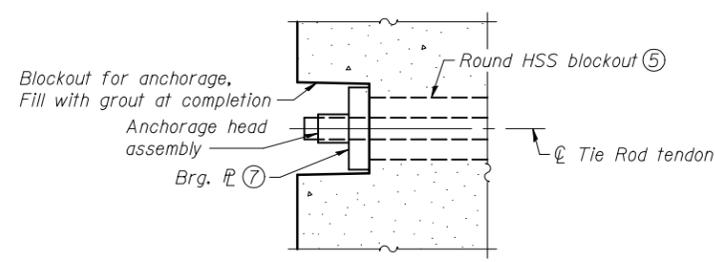


ABUTMENT

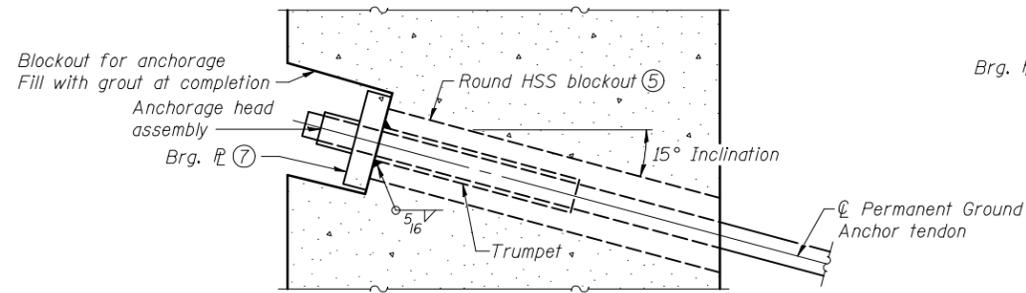
APPROACH BENT

SEQUENCE OF ABUTMENT & APPROACH BENT SYSTEM CONSTRUCTION

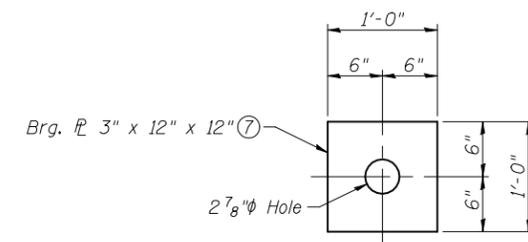
1. Construct abutments and approach bents.
2. Install Tie Rod assemblies. Apply a 10 kip tensile load to each Tie Rod and transfer load to anchorage device in accordance with the Special Provisions.
3. Grout Tie Rod anchorage head assembly and round HSS blockout.
4. Backfill behind approach bent.
5. Install Permanent Ground Anchor system and load test in accordance with the Special Provisions. Reduce test load to specified lock off load and transfer load to anchorage device.
6. Grout Permanent Ground Anchor anchorage head assembly and round HSS blockout if not previously grouted.
7. Backfill between abutment and approach bent as required and construct approach slabs.



DETAIL A



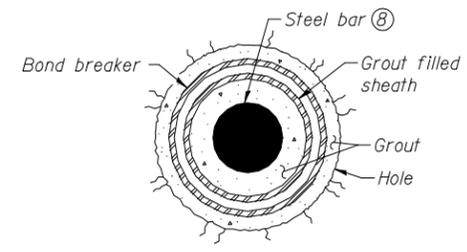
DETAIL B



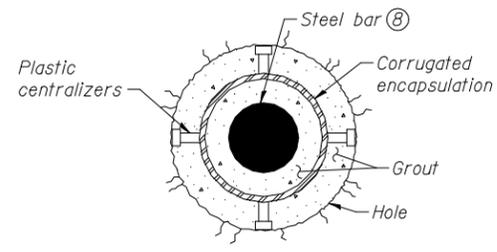
BEARING PLATE

BILL OF MATERIAL

Item	Unit	Quantity
Permanent Ground Anchor	Each	14
Tie Rod	Each	14



SECTION A-A



SECTION B-B

- Notes:
- ① For Tie Rod spacing, see Abutment and Approach Bent details. Self weight of Tie Rod tendon shall be supported its entire length before tendons are stressed.
 - ② For Permanent Ground Anchor spacing, see Approach Bent Details.
 - ③ Actual length as required by Contractor design.
 - ④ Length measured along ϕ Tie Rod.
 - ⑤ For round HSS blockout details, see Abutment and Approach Bent details. Fill round HSS blockout with grout after completion.
 - ⑥ The design of the Tie Rod tendon and Permanent Ground Anchor tendon is based on deflection requirements. Substitution of a smaller diameter or material other than those specified will not be allowed.
 - ⑦ The structural steel bearing plates shall conform to the requirements of AASHTO M 270 Grade 50.
 - ⑧ Round solid steel bars conforming to the requirements of AASHTO M 275 Grade 150 with a nominal diameter of 2 1/2" shall be used for the tendons of both the Tie Rod and the Permanent Ground Anchor.
 - ⑨ For subgrade below slab, see Section Thru Pile Supported Stub Abutment on sheet 2 of 53 and Section A-A on sheets 20 and 23 of 53.