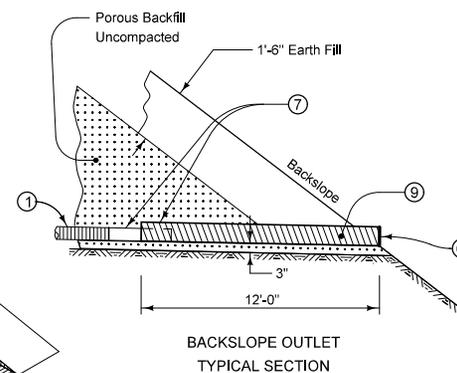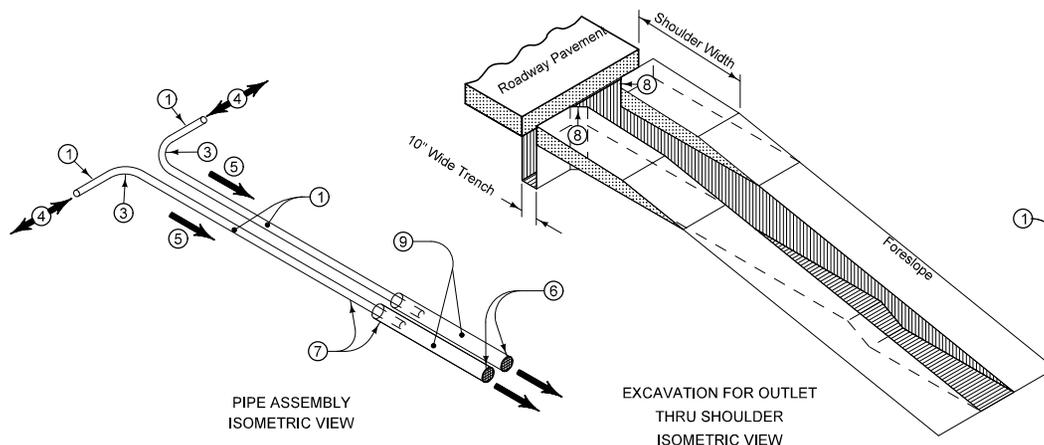Transverse and backslope subdrains require only single outlets. Install double outlet pipes on all longitudinal subdrain systems, except at the beginning and end of the system. At these locations, install a single outlet pipe.

① Perforated Subdrain (Polyethylene Corrugated Tubing).

② On projects where existing shoulder material is removed, replace the shoulder material in accordance with Article 2502.03, C of the Standard Specifications.

③ 'Y' or 'T' connection will not be allowed. Place subdrain on 1 foot minimum radius.

④ Direction of flow.

⑤ 6" minimum drop in elevation between longitudinal subdrain and outlet. 12" minimum drop for projects using recycled PCC subbase.

⑥ Install a removable grate rodent guard on all projects except those using recycled PCC subbase. For projects using recycled PCC subbase, install a removable fork rodent guard. See Materials I.M. 443.01.

⑦ Corrugated metal pipe outlet 2" larger than subdrain pipe or corrugated double-walled PE or PVC pipe of the same diameter as the subdrain pipe with an appropriate coupler. If metal pipe is used, the pipes should be coupled in one of the following ways: (1) Use an inside fit reducer coupler (coupler must be inserted a minimum of 12" into CMP);or (2) Insert 12" of the 4" subdrain into the 6" metal outlet pipe, then fully seal the entire opening with grout.

⑧ Bevel the trench to provide a minimum of 3" of porous backfill surrounding all portions of subdrain pipe.

⑨ Corrugated metal pipe outlet 2" larger than existing subdrain pipe, or corrugated double-walled PE or PVC pipe of the same diameter as the existing subdrain pipe.

⑩ Place class 'A' crushed stone or Special Backfill over outlet and carefully compact to avoid damaging outlet pipe.

Possible Contract Item:

Subdrain Outlet, RF-19E

Possible Tabulation:

104-5C

PLAN

TYPICAL SECTION

LONGITUDINAL AND TRANSVERSE OUTLETS

REMOVABLE GRATE ⑥

TOP VIEW   FRONT VIEW

REMOVABLE FORK ⑥

ISOMETRIC VIEW   FRONT VIEW

RODENT GUARDS ⑥

PIPE ASSEMBLY
ISOMETRIC VIEW

EXCAVATION FOR OUTLET
THRU SHOULDER
ISOMETRIC VIEW

BACKSLOPE OUTLET
TYPICAL SECTION