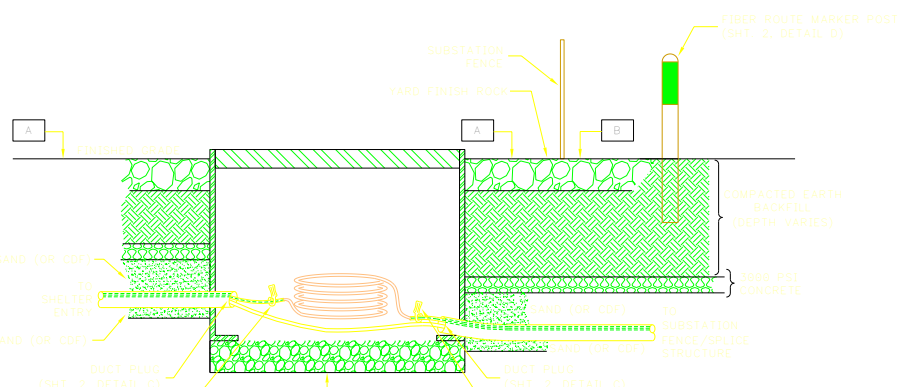


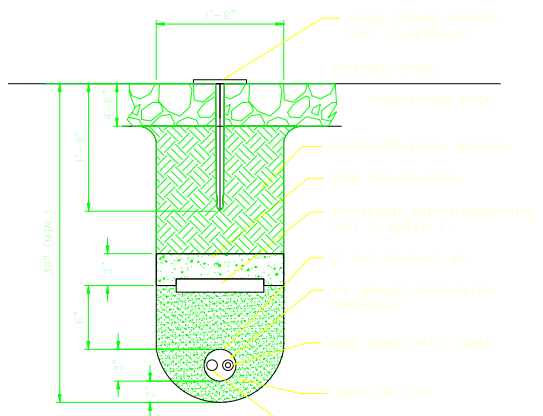
**TYPICAL HAND HOLE - TOP VIEW**

36" W x 48" L x 36" D QUARTZITE OPEN BOTTOM HAND HOLE (PN PG3048BA30) OR WITH TWO 4"x4" MOUSE HOLES (CAN BE USED FOR CONDUIT) (PN PG3048BB36)



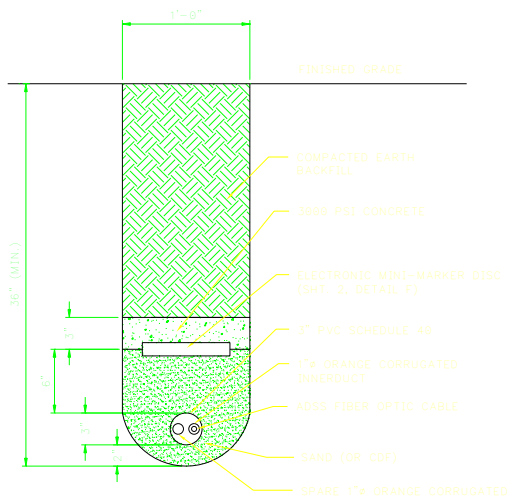
**TYPICAL HAND HOLE - SIDE VIEW**

36" W x 48" L x 36" D QUARTZITE OPEN BOTTOM HAND HOLE WITH EXTRA HEAVY DUTY COVER (PN PG3048HH50) OR WITH EXTRA HEAVY-DUTY COVER INCLUDING OPTIONS FOR ORANGE PAINT, INTERNAL ELECTRONIC FIBER MARKER AND FIBER LOGO (PN PG13044HHT12)



**DETAIL A - TYPICAL CABLE TRENCH**

INSIDE SUBSTATION YARD



**DETAIL B - TYPICAL CABLE TRENCH**

OUTSIDE SUBSTATION YARD

- NOTES:**
- DIG A TRENCH TO A MINIMUM DEPTH OF 24 INCHES INSIDE A SUBSTATION YARD AND 36 INCHES OUTSIDE THE YARD.
  - PLACE TWO INCHES OF SAND IN THE BOTTOM OF THE TRENCH LAY 3-INCH PVC CONDUIT ON THIS CUSHION.
  - COVER THE CABLE WITH SAND TO FORM AN UPPER CUSHION 6-INCHES THICK TO PROTECT THE CONDUIT WHEN FLOODING OR FROST HEAVING DISTURBS THE SURROUNDING EARTH.
  - PLACE A 3" CONCRETE CAP ON THE SAND FILL ABOVE THE CABLE TO PROTECT IT AND WARN WORKERS OF ITS PRESENCE WHEN DIGGING.
  - IF SAND IS NOT AVAILABLE, WELL WORKED EARTH WITH ALL CLUMPS BROKEN AND ROCKS REMOVED MAY BE SUBSTITUTED.
  - CONCRETE STRUCTURAL CONCRETE CONFORMING TO SUBSTATION CONSTRUCTION STANDARD 91153 WITH A COMPRESSIVE STRENGTH OF 3,000 PSI.
  - CONCRETE CAP SHALL HAVE AN BRAN EYE IN THE MIX OR EYE RELEASE MIXED INTO THE CONCRETE AFTER PLACEMENT.
  - ADDS FIBER CABLE SHALL BE PLACED INSIDE ONE 1" INNERDUCT THE SECOND INNERDUCT SHALL BE SPARE.
  - INSTALL FIBER CABLE BY TAG WITH TO/TROM INTO PACIFICORP T34 683808.
  - 150' OF THE ADDS FIBER CABLE SHALL BE COIL BOUND AND STORED IN THE VAULT (IN NO CASE SHALL THE MINIMUM BEND RADIUS OF THE CABLE BE EXCEEDED).
  - CONTROL DENSITY FILL (CDF) CAN BE USED IN PLACE OF THE SAND AT SITES WHERE THERE IS A GREATER CHANCE OF THE CABLE BEING ACCIDENTLY SUD UP.
  - PER THE PROJECT ENGINEER, FIBER OPTIC WARNING TAPE MAY BE PLACED 6-12" BELOW FINISHED GRADE.

PACIFICORP	
COMMUNICATIONS	PROJECT NO. 13044
SITE DETAILS	DATE: 08/14/2013
FIBER OPTIC TRENCH DETAIL	BY: J. H. [unreadable]
CEA/BCB	CHECKED BY: [unreadable]
	DATE: 08/14/2013