All anchor bolts shall be vertical with bolt tops at the same elevation.

18" x 5/4" square x 1" anchor plate tack welded to ASTM A563 Gr DH heavy hex nut (typical). Galvanizing of plate not required.

2 3/4" x 48" anchor bolts ASTM F1554 Gr 55.

Top view

Drain slot in grout pad to low side.

Notes:
1. Standard foundation design is based on the following soil parameters, which are characteristic of the predominantly silty soils located throughout the greater Portland area: soil internal friction angle = 26 degrees, soil effective unit weight = 110pcf.
2. Project bids for foundations shall be based on standard design depth as shown on this drawing. Additional foundation depth, if required for conditions as outlined below in Notes 3-6, will be paid for by contract change order.
3. Shafts that encounter up to 3 feet of fill soil require the total foundation depth be increased by an amount equal to the thickness of the fill.
4. Shafts that encounter more than 3 feet of fill soil require a site observation and special foundation design provided by the city contractor to contact the city's project engineer to coordinate.
5. Shafts that encounter groundwater level in lower half of shaft require a 2-foot increase in total foundation depth.
6. Shafts that encounter groundwater level in upper half of shaft require a total foundation depth of 1.5 times the standard depth.

Steel signal pole footing details - type 1

Pour footings against undisturbed material.