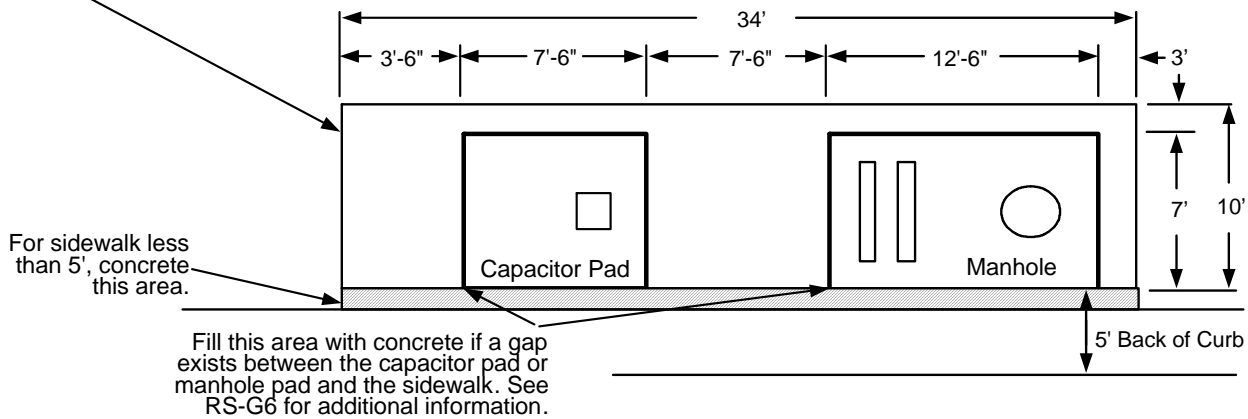


# Vaults and Boxes

## INSTALLATION REQUIREMENTS

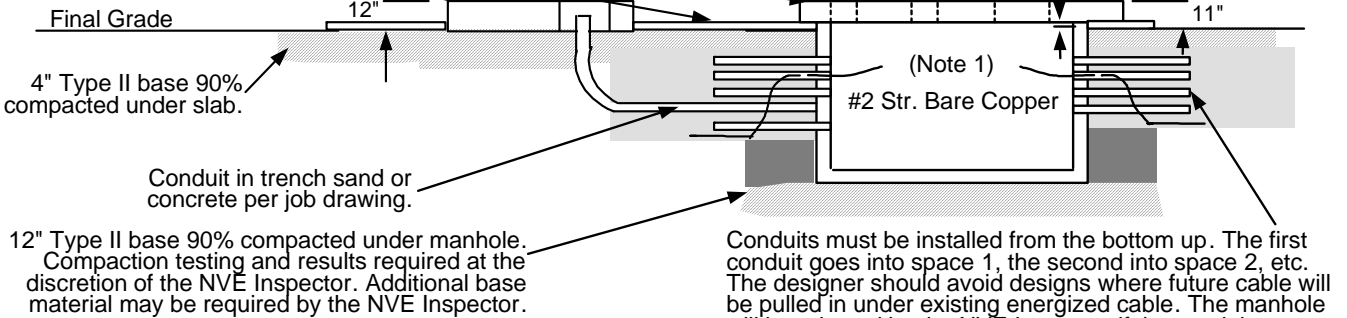
A 4" thick concrete slab is required when the equipment pad is located in a grassy area, planter, or bare ground. The slab must be finished to final grade and constructed per RS-G6.

APPROVED STRUCTURES		
MANUFACTURER	PAD	MANHOLE
Jensen Precast	J-RS-46	J-RS-97
Rockway Precast	R-RS-46	R-RS-97



On a site with a sloping grade, each pad is set level to its own final grade with the slab set to conform with the sloping grade.

Ensure that hole is lined up with manhole wall.



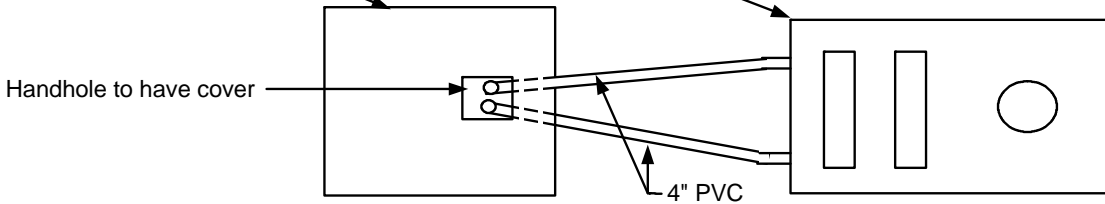
Conduit in trench sand or concrete per job drawing.

12" Type II base 90% compacted under manhole. Compaction testing and results required at the discretion of the NVE Inspector. Additional base material may be required by the NVE Inspector.

Conduits must be installed from the bottom up. The first conduit goes into space 1, the second into space 2, etc. The designer should avoid designs where future cable will be pulled in under existing energized cable. The manhole will be rejected by the NVE Inspector if the conduits are not found in the correct locations.

See RS-46, capacitor pad design and installation requirements

See RS-97 for manhole design and safety requirements.



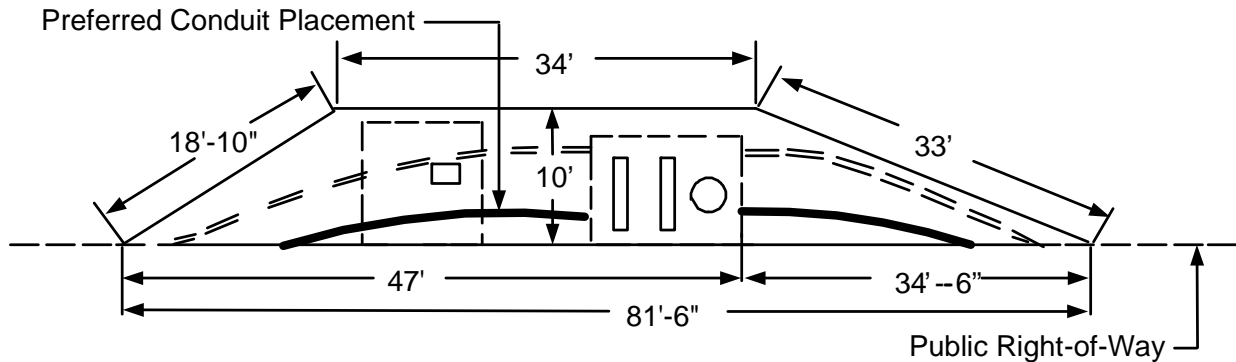
**Note:** When PM switch is installed, then a Cap. Bank (UC-1) or Dummy Cap. Bank (UCD-101) must also be installed.

				Electric Service Requirements		<b>RS-100</b>
				<b>12kV Manhole Pad and Capacitor Pad: Adjacent to Public R.O.W.</b>		
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## Vaults and Boxes

### NOTES:

1. Grounding by customer shall be 2-50' #2 stranded bare copper ground wires laid in the bottom of the conduit trench in opposite directions with 2-5' tails left in the box.  
**NOTE:** Ground wires shall be installed through a 1" PVC conduit in the structures end walls.
2. For location and clearances to other structures, see: RS-5.
3. Retaining wall required when grade from bottom of pad rises or lowers more than 1' in 5' horizontally.
4. Required easement:



5. If the designer specifies additional conduit openings, the contractor shall core drill the holes as required.
6. The bottom surface of the manhole shall be level.
7. If the ground water level is at least 3' below the bottom of the pull box, the 2" diameter knockout in the sump pump recess shall be removed.
8. If any final grade adjustment "x" is needed, take the following action:
  - A. 0" -6" – The top of the pad has to clear the final grade 11" to min. 5".
  - B. 6" -24" – The NVE contractor shall order an extension from the original manufacturer.
  - C. Above 24" – Any extension exceeding 24" shall be subject to Regional Standards approval.
  - D. If bottom of the manhole pad is located 1" to 24" above a final ground level, the NVE contractor shall make a concrete collar that fills the space under the outside dimensions of the pad.
  - E. If bottom of the manhole pad is located more than 24" above or below ground level, the proposed adjustment shall be subject to Regional Standards approval.
9. This manhole may be installed next to sidewalks, but never under traffic areas.  
For heavy frequency traffic areas, (e.g. streets, roads, etc.) use the RS-94 manhole.

				Electric Service Requirements		<b>RS-100</b>
				<b>12kV Manhole Pad and Capacitor Pad: Adjacent to Public R.O.W.</b>		
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