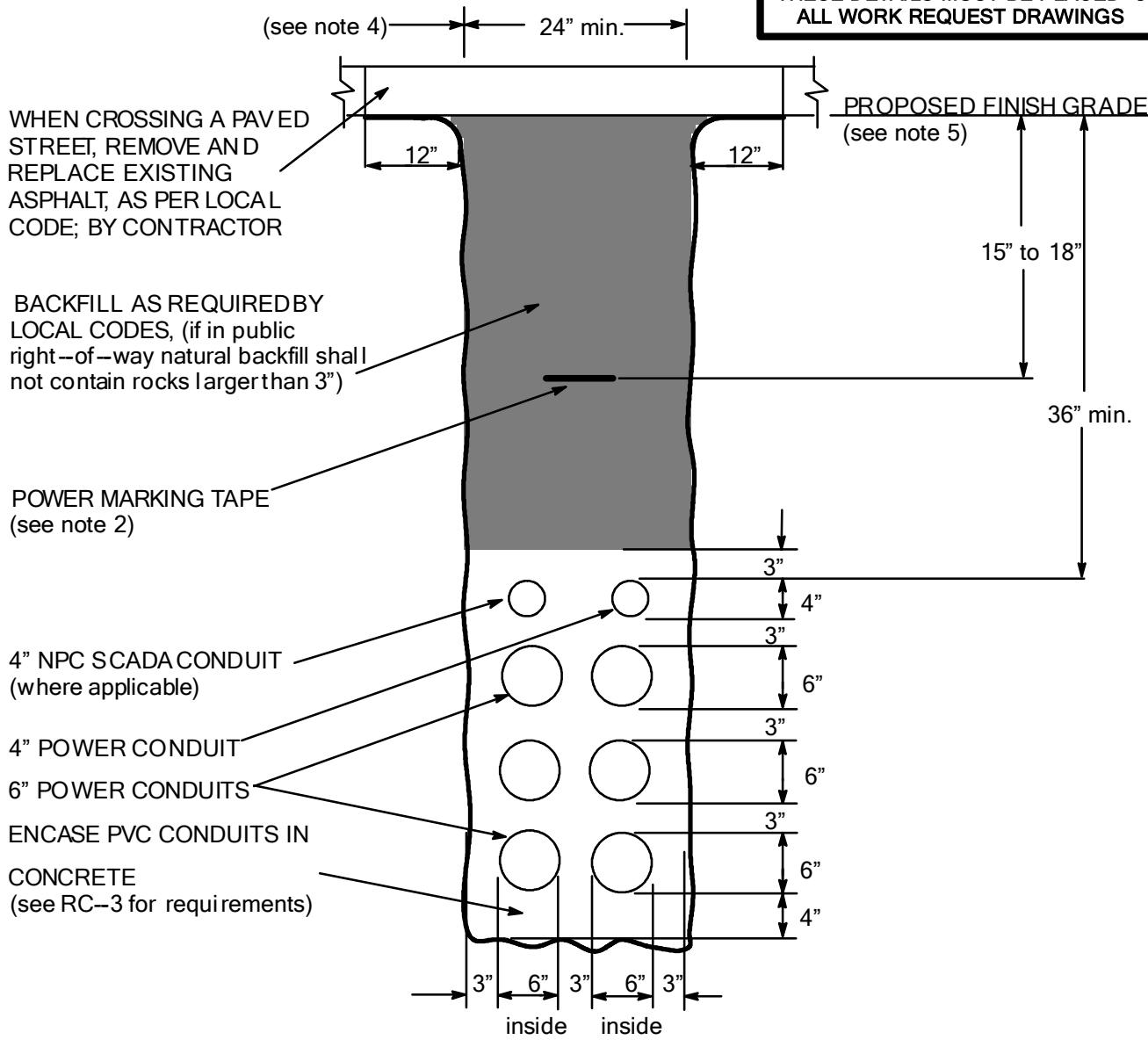


RT-5: MAIN TRENCH DETAIL, RESIDENTIAL AND COMMERCIAL

THESE DETAILS MUST BE PLACED ON ALL WORK REQUEST DRAWINGS



REV	REVISION RECORD	ENGR BY:	APPD BY:	DATE
5	.	.	.	.
4	.	.	.	.
3	.	.	.	.
2	Revised Section 2, Criteria for Emergency Only 6" Conduit(s) Installations	KL	KL	2/27/2008
1	Added Emergency Only and Note in Bores, New Format	MS	DA	10/06

**T&D STANDARDS
NEVADA POWER COMPANY
ELECTRIC SERVICE REQUIREMENTS**

**RT-5 Main Trench Detail
Residential or Commercial**

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NOTES:

1. See RT-G for general trenching requirements.
2. Vinyl marking tape is provided as supplemental protection because NPC cannot control the final grade elevation due to possible future surface grade changes by the developer or owner.
3. Excavated material shall be placed a minimum of two feet from both edges of the trench to prevent material from falling into an open trench.
4. Edges of trench shall be a minimum of 36" from edge of Water, Gas or Sewer pipes.
5. Where the final grade cannot be determined, the trench depth in an undeveloped area shall be determined by the NPC Inspector with a minimum trench depth of 5'.
6. Prior to installing conduit in trench, place one of the following:
 - a. A #2 stranded bare copper wire (made electrode) 100 feet in length in bottom of trench along with a 5' tail inside pad or vault.



OR

- b. If trench is too short, place 2-50' #2 stranded bare copper wires in the incoming and outgoing trenches along with 2-5' tails in the pad or vault.

Note: Backfill #2 stranded bare copper wire with natural soil to a depth of 3" prior to placing sand backfill.

1. CRITERIA FOR CONCRETE ENCASEMENT OF 6" CONDUIT DUCT BANKS

- A. Encase with 300 psi concrete (per RC-3) all 6" conduits installed:
 - 1) Under roads
 - 2) In railroad easements
 - 3) In areas with potential erosion
 - 4) In areas with poor compaction
 - 5) In trenches with 3 or more 6" conduits
 - 6) In locations that at the discretion of the NPC Underground Inspector(s) are required for reasons of public safety and/or NPC System reliability.
- B. Encase with 3000 psi concrete (per RC-3) all 6" conduits installed:
 - 1) Within 10' of a high pressure gas line
 - 2) Beneath natural or concrete lined washes and drainages
 - 3) In locations that at the discretion of the NPC Underground Inspector(s) are required for reasons of safety and/or NPC reliability.
- C. Encase with 300 or 3000 psi concrete (per RC-3 and B.2 above) all 6" conduit(s) bores deeper than 60" and extend concrete encasement from final bore depth to standard conduit depths at each end of bore.



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2. CRITERIA FOR EMERGENCY ONLY 6" CONDUIT(S) INSTALLATIONS



- A. A minimum of one (1) additional 6" emergency conduit per circuit/feeder installation is required.
- B. Any additional emergency conduits are solely at the discretion of NPC designer(s).

3. CRITERIA FOR FUTURE LOAD 6" CONDUIT(S) INSTALLATIONS

Install a 6" conduit(s) in location that at the discretion of NPC Distribution Planning are required for future load service or for reasons of system reliability.

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