
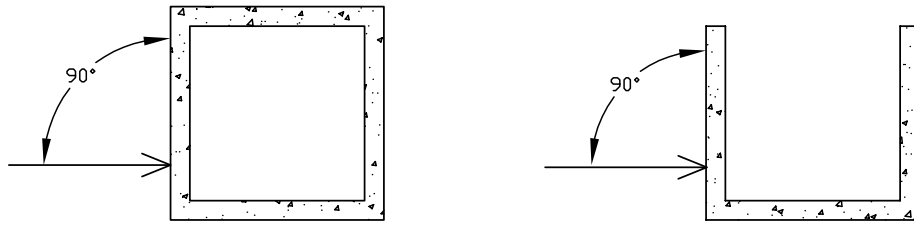


NOTES:

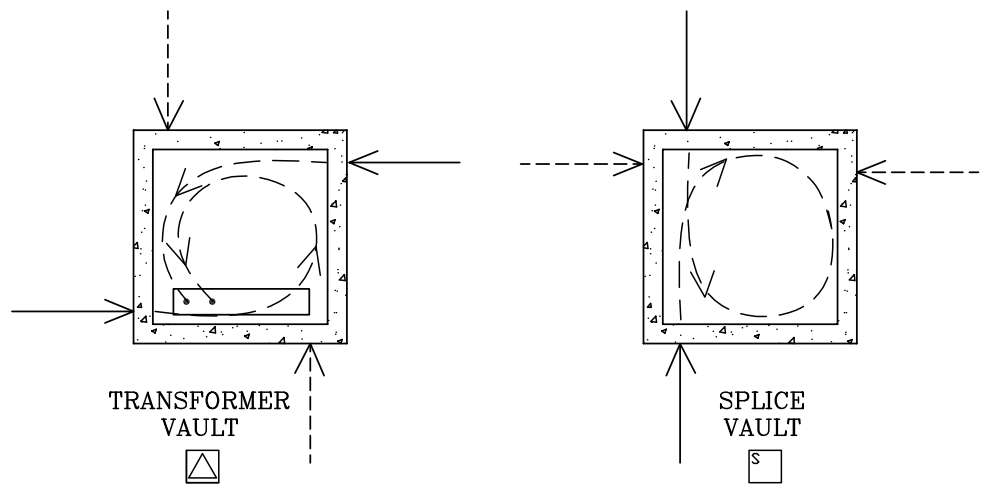
1. Native backfill containing large rocks, paving materials, cinders, large or sharply angular substance, or corrosive material shall not be placed back into trench.
2. Vault lid shall be level, and shall rise above the final grade.
3. The #2 copper ground wire shall enter the vault with the conduit entry.
4. The ground rod shall be on the primary side centered between the knockouts.
5. The vault shall be placed on a minimum 6" bed of ¾" minus crushed rock.
6. Any metallic enclosure within 6' must use common grounding. NESC - 2007, Section 384C.
7. Top of vault wall shall be at grade unless it is within 2' of the sidewalk. In these locations the top of the lid shall match sidewalk grade.
8. The vault shall be plumb to the surrounding structures.
9. 10' minimum except with engineering approval.

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1. Conduits shall enter vaults as perpendicular to vault walls as possible.

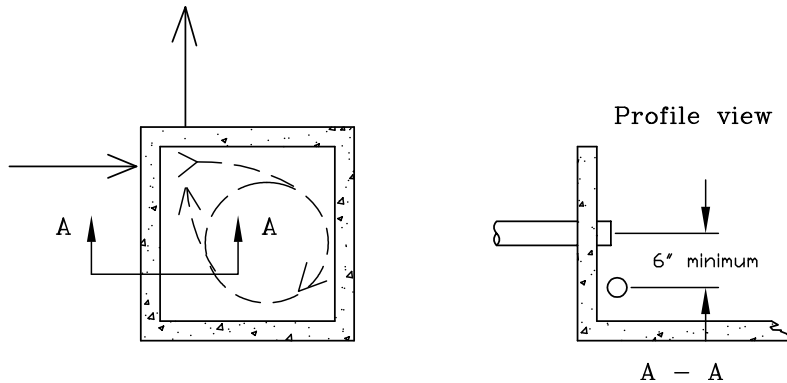



2. For primary vaults, the conduit arrangement shall allow the cable to coil in the same direction. Solid arrows show preferred entrances and the dashed arrows show alternate entrances.



Note: For 4x6 vaults enter on the short sides.

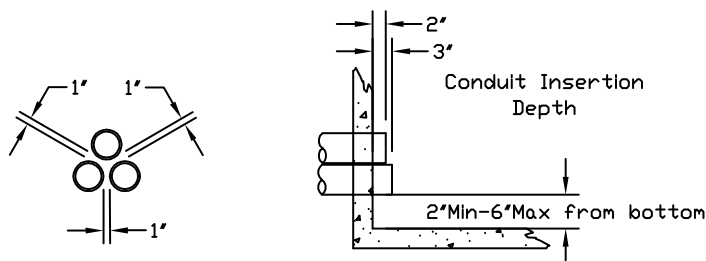
Conduit perpendicular at the same corner only with engineering approval.



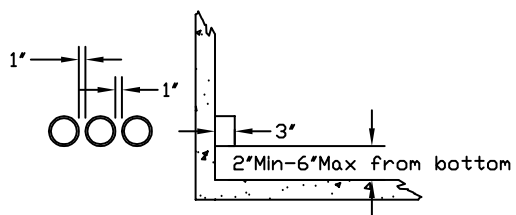
	<p align="center"> SPRINGFIELD UTILITY BOARD ENGINEERING STANDARD DISTRIBUTION PROCEDURES & POLICIES VAULT INSTALLATION NOTES AND DETAILS </p>	<p align="right"> DATE DWN STD CHK APP 10/30/09 SK SK TJ RM STANDARD NUMBER ESD 0070 Page 2 of 4 </p>
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3. Any holes in vault shall be patched to prevent backfill migration into vault cavity.
 - a. Gaps less than 2" across around a single conduit may be filled with foam.
 - b. Gaps larger than 2" or around multiple conduit shall be grouted to maintain structural support for the conduit.
4. Conduit shall ideally extend into the vault 3", with a minimum of 2" and a maximum of 4". The top duct shall have the shortest extension and the bottom duct the longest.
5. Lowest conduit entry shall have a minimum of 2" clearance above the floor of vault.
6. Conduit shall maintain entry orientation when going from one vault to the next.
7. Multiple conduits shall maintain at least one inch separation when entering vaults.
8. Secondary duct shall be above primary duct with a 2" horizontal offset as seen in the drawing below. The primary duct shall be offset such that it is further from the nearest wall than the secondary duct.

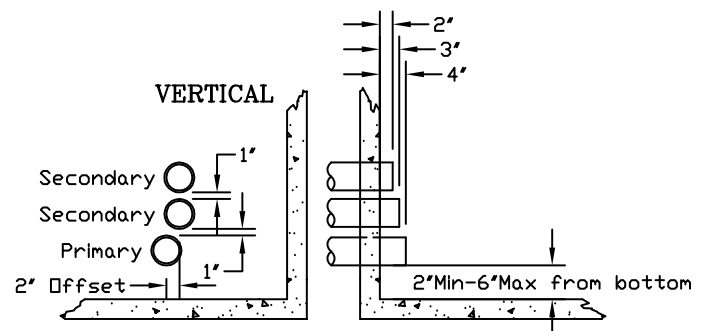
TRIANGLE -- Preferred orientation.



HORIZONTAL



VERTICAL



9. Retrofit vaults must comply with this specification or get engineering approval.
10. Vaults shall be cleared of all foreign material.
11. All duct coming into primary vaults shall have end bells installed. An acceptable alternative for secondary is a beveled inside edge.



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REVISIONS

Date	Description
1/12/2007	Notes on page 1 and 3 updated. Drawing on page 3 updated.
7/21/2008	Updated format, NESC reference on page 1, and bell ends requirement in point 11 on page 3.
10/16/2009	Added note 9 on page 1 and updated drawing on page 2 showing vault entrance orientation for transformer and splice vaults



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