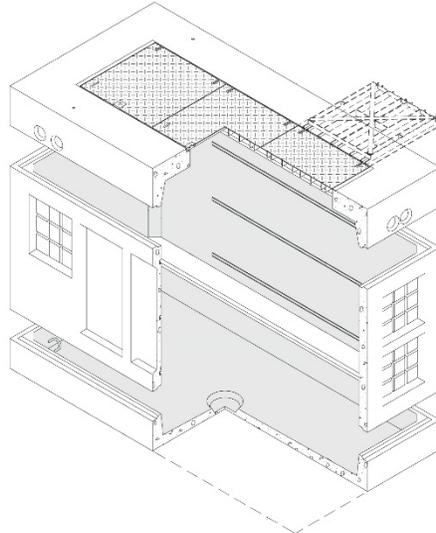


5106 Electric Vault, Primary Service



1. Scope

This standard covers the detailed requirements for the 5106 electrical vault components (vault base, mid-section, and cover with hatch) and the assembled 5106 units.

Components can be ordered separately or as an assembled unit.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No	Description
013863	Base , standard 5106
013864	Mid-section
013865	Cover , with hatches
013866	Assembly (base, mid-section, and cover with hatches)

2. Application

5106 precast concrete vaults are used in the construction of underground electric systems. The vault may be used to house medium-size transformers, load break junction boxes, service connections, and splices for the distribution system.

The standard assembly consists of a base, a mid-section, and a cover with three 3-ft by 3-ft hatches.

H20-rated vault assemblies with rectangular or square hatches should not be used in locations with high-density traffic.

Standards Coordinator
Quan Wang

Standards Supervisor
John Shipek

Unit Director
Darnell Cola

3. General Requirements

This standard is to be used in conjunction with SCL 7203.21, "Precast Reinforced Concrete Structures – General".

Vault grounding shall conform to SCL 7203.21, Section 9, Grounding.

4. Detailed Requirements

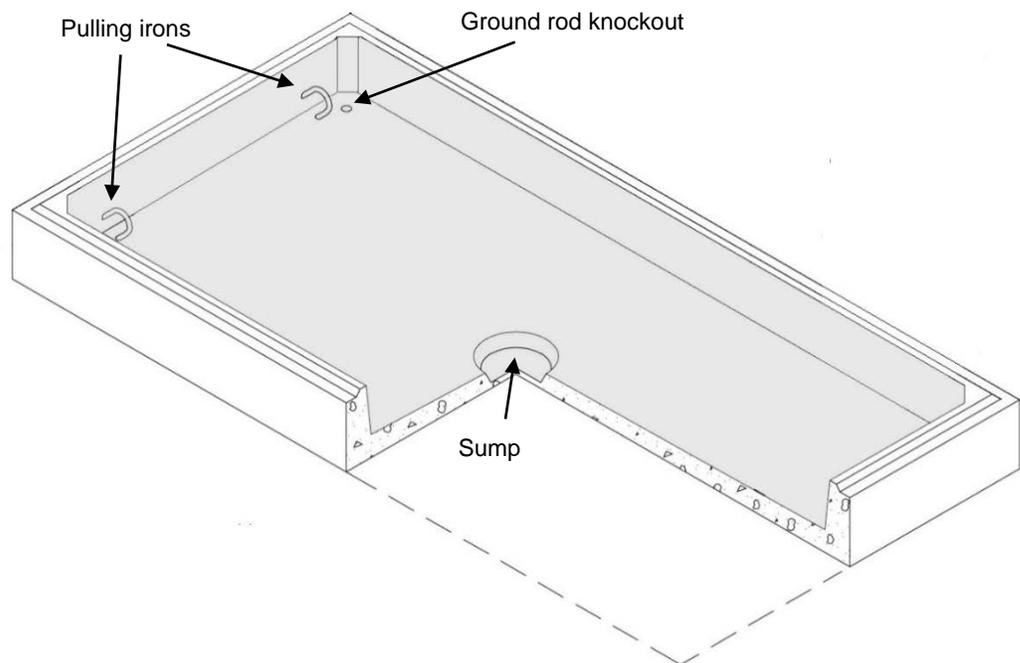
4.1 Base

The base shall have dimensions as shown in Table 4.1.

Table 4.1. Base Dimensions (Nominal)

Stock No.	Outside (ft-in)		Inside (ft-in)		Height (ft-in)	
	Length	Width	Length	Width	Outside	Inside
013863	11-2	5-8	10-6	5-0	1-0	0-8

Figure 4.1. Base



Vault bases shall have:

- Ground rod knockout (1 in diameter) at each corner of the floor.
- 12-in diameter by 1-1/2 in deep sump with removable cover located in the center of the vault floor.
- Pulling iron (7/8 in diameter); two (2) located at each ends of the floor.

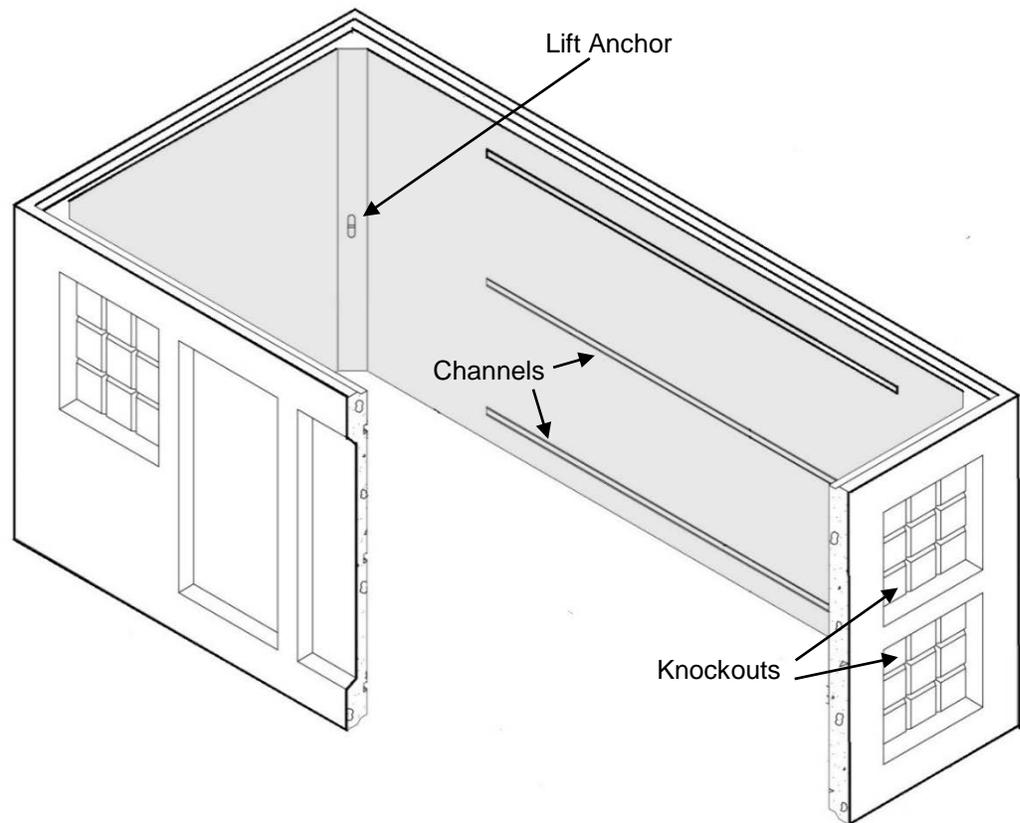
4.2 Mid-Section

The mid-section shall have dimensions as shown in Table 4.2.

Table 4.2. Mid-Section Dimensions (Nominal)

Stock No.	Outside (ft-in)		Inside (ft-in)		Height (ft-in)	
	Length	Width	Length	Width	Outside	Inside
013864	11-2	5-8	10-6	5-0	4-10	4-9

Figure 4.2. Mid-Section



4.2.1. Knockouts, Waffle

Four knockouts shall be located on the outer edge of each wall for a total of 16 knockouts.

Knockouts located on the end (short) walls shall measure 18 in by 18 in.

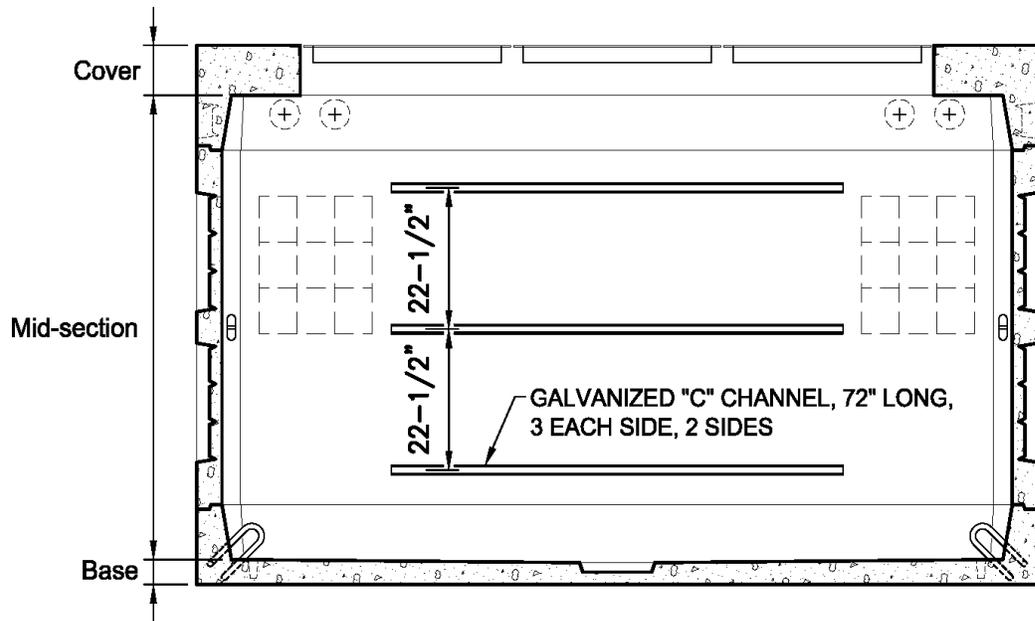
Knockouts located on the side (long) walls shall measure 18 in by 22 in.

4.2.2. Channels

Galvanized "C" channels (three total) shall be embedded and centered in the side walls between knockouts. There shall be 22.5 inches of space between channel rows as measured from the center of each row.

Channels shall measure 1-5/8 in by 13/16 in by 72 in.

Figure 4.2.2. "C" Channel Placement, Side Walls



4.2.3. Lift Anchor

A lift anchor with a 2-ton ultimate strength rating shall be located on each corner of wall.

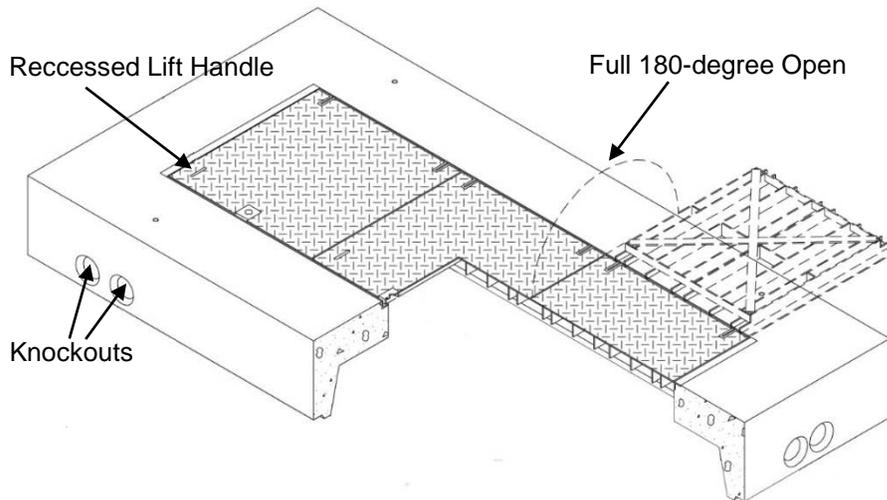
4.3 Cover

Covers shall be constructed according to the dimensions shown in Table 4.3.

Table 4.3. Cover Dimensions (Nominal)

Stock No.	Outside (ft-in)		Inside (ft-in)		Height (ft-in)		Access Configuration
	Length	Width	Length	Width	Outside	Inside	
013865	11-2	5-8	10-6	5-0	1-4	0-8	Three 3 ft x 3 ft hatches

Figure 4.3. Cover



The cover shall have:

- 3/4 in diameter lift inserts, two on each end of the top, with caps
- A keyway to ensure a tight fit with the mid-section
- 4-3/4 in diameter knockouts located on all 4 walls, 2 each at the corner of the outer edge of wall
- Three 3-ft by 3-ft non-slip hatches with recessed lift handles.

5. Issuance

Unit: EA

6. Approved Manufacturer

Stock No.	Description	Oldcastle/Utility Vault Catalog No.
130863	Base , standard 5106	5106-BL
130864	Mid-section	5106-ML
130865	Cover , with hatches	5106-TL3-332
013866	Assembly (base, mid-section, and cover with hatches)	5106-LA w/3-33 Cover-SCL

7. References

SCL Material Standard 7203.21; "Precast Reinforced Concrete Structures, General"

8. Sources

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