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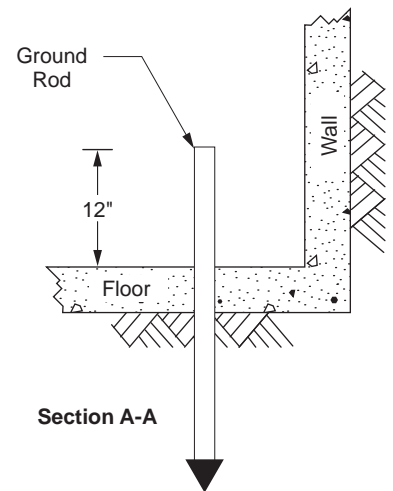
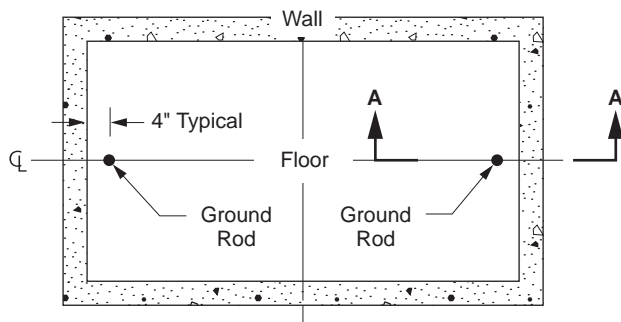
AC 700 Ground Rod — Ground Wires

Scope AC 700.1 Ground Rod — Ground Wires

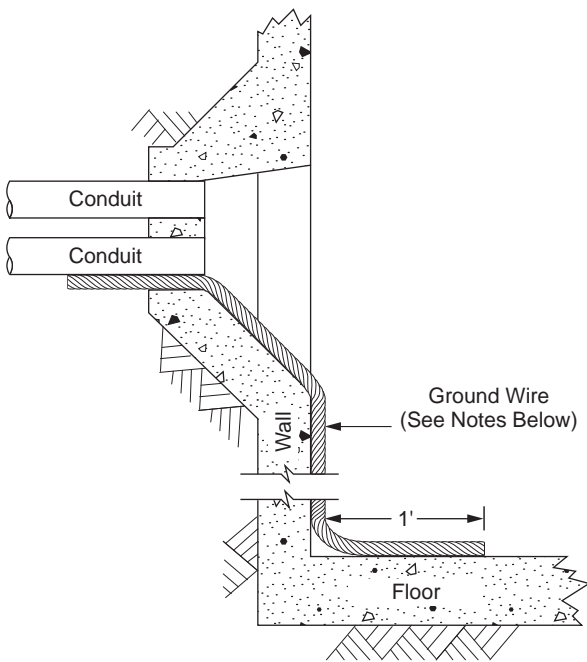
Precast tunnel-style vaults (7' x 8' and 8' x 9'-4") are furnished with two one-half-inch bronze grounding inserts on each end section. Other styles (stacked and so on) of precast vaults and manholes are normally furnished with grounding bars (two per vault/one per manhole). Grounding bars are five-eighths-inch (minimum diameter) copperclad steel bars. Both the grounding inserts and bars are welded to the reinforcing mats of the structures. No ground rods are required where grounding inserts or bars are present.

Where grounding inserts or bars are not present (and in field-poured structures), install 5/8" x 8' copperclad steel ground rods as shown in [Figure AC 700-1 \(Sheet 1\)](#).

Figure AC 700-1: Ground Rod Location for Vaults and Manholes

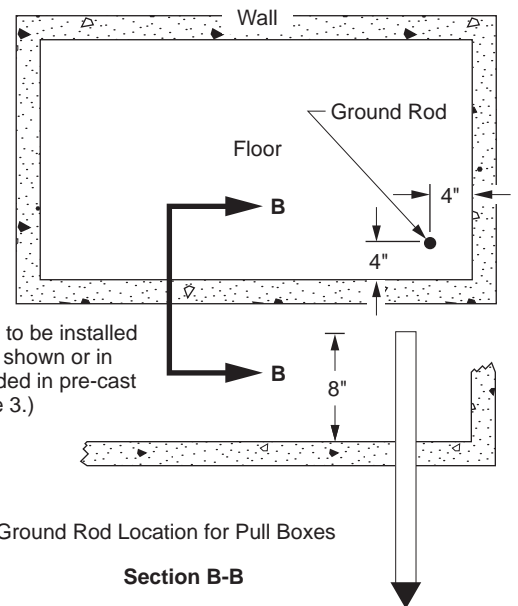


Two ground rods are required in any vault that does not have a ground wire in the conduit bank. One ground wire is required in any manhole that does not have a ground wire in the conduit bank



Ground Wire Entrance See Note 1.

Ground Rods — Pull Boxes



One ground rod to be installed in pull boxes as shown or in knock-out provided in pre-cast units. (See Note 3.)

Ground Rod Location for Pull Boxes

Section B-B

Approved by:

PhH

Ground Rod — Ground Wires

AC 700

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Note(s):

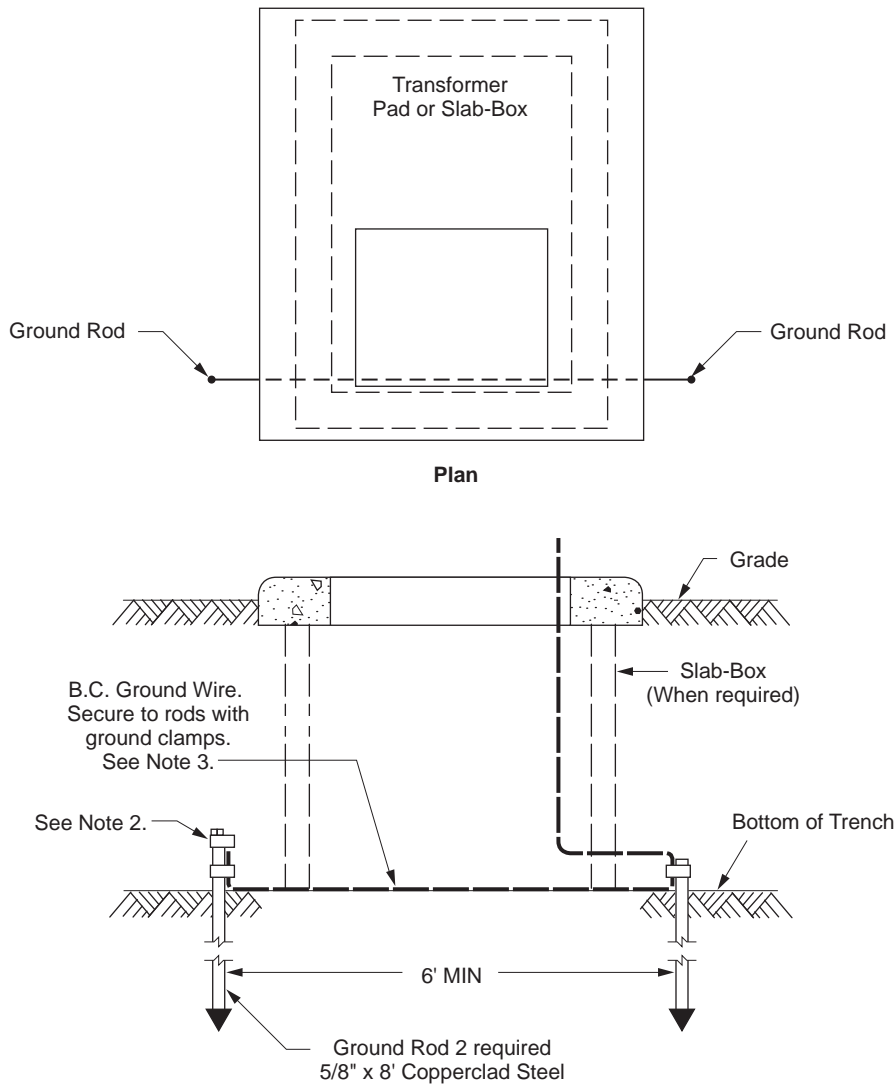
1. Install ground wire only where specified on the working drawing.
2. When specified on working drawing, bring telephone company bond wire into structure the same as shown for ground wire. Extend bond wire to ground rod or bar and attach. (Telephone company to furnish bond wire and clamp.)
3. One ground rod is required only in pull boxes where primary cables are installed.
4. Ground rods and ground wire, when required, are furnished by the contractor. Contractor will install all grounding materials required.

AC 700	Ground Rod — Ground Wires	Approved by: 
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AC 701 Ground Rod Installation for Pad-Mounted Transformers and Capacitors

Scope AC 701.1 Ground Rod Installation for Pad-Mounted Transformers and Capacitors

Figure AC 701-1: Ground Rod Installation for Pad-Mounted Transformers and Capacitors



Approved by:

RK

Ground Rod Installation for Pad-Mounted Transformers and Capacitors

AC 701

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Effective Date:
04-25-2008

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Table AC 701–1: Minimum Ground Conductor Size

Structure Type	Structure Size	Ground Wire Size
Transformers		
Pads	4' x 4'-6"	#6
	6' x 5'-6"	#2
	7'-10" x 6'	2/0
Slab Box	6' x 8"	2/0
	8' x 10'	2/0
	10' x 12'	2/0
Capacitors/Ground Fault Detector		
Pad	7'-10" x 6'	#6

Note(s):

1. When driving ground rods, care should be taken not to drive rod through buried cable or duct.
2. When specified on working drawing, telephone company #6 tinned copper bondwire is to be attached to ground rod with clamp. Wire and clamp furnished and installed by telephone company.
3. Ground rods, clamps, and ground wire furnished by the contractor. See [Table AC 701–1 \(Sheet 2\)](#) for minimum transformer and capacitor bare copper ground wire size. Contractor will install all grounding material.

AC 701

Ground Rod Installation for Pad-Mounted Transformers and Capacitors

Approved by:

RK

Sheet 2 of 2

What's Changed? Information in Table AC 701-1 was updated to include ground fault detectors.

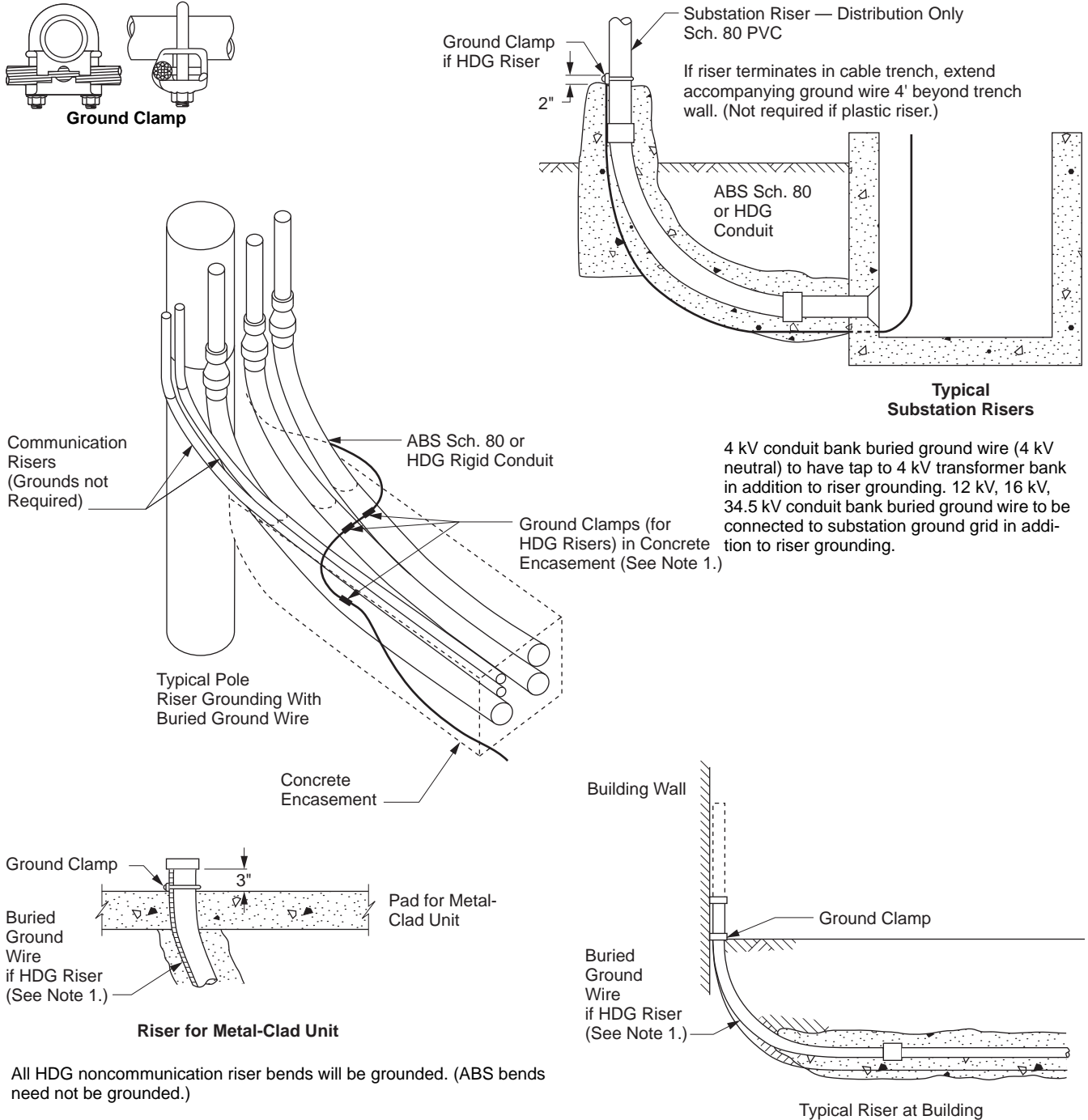
Effective Date:

04-25-2008

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AC 702 Riser Bend Grounding
Scope AC 702.1 Riser Bend Grounding

Figure AC 702-1: Riser Bend Grounding



Note(s):

- 1. Exception: HDG conduit does not require ground when 10' or more is buried in ground.

Approved by: <i>B.C.</i>	Riser Bend Grounding	AC 702
Effective Date: 10-24-2014	What's Changed?	Sheet 1 of 2
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Table AC 702-1: Ground Clamps

Rod or Pipe Size	Wire Size		Code No.	SAP
	From	To		
3/4" I.P.S.	#4 SOL.	2/0 STR.	606-22602	10111612
1" I.P.S.	#4 SOL.	2/0 STR.	606-22800	10111613
1-1/4" I.P.S.	#4 SOL.	2/0 STR.	606-23006	10111614
1-1/2" I.P.S.	#4 SOL.	2/0 STR.	606-23204	10111615
2" I.P.S.	#4 SOL.	2/0 STR.	606-23402	10111616
2-1/2" I.P.S.	#4 SOL.	2/0 STR.	606-23600	10111617
3" I.P.S.	#4 SOL.	2/0 STR.	606-23808	10111618
3-1/2" I.P.S.	#4 SOL.	2/0 STR.	606-24004	10111619
4" I.P.S.	2/0 SOL.	250 kcmil	606-24202	10111620
5" I.P.S.	2/0 SOL.	250 kcmil	606-24400	10111621
6" I.P.S.	2/0 SOL.	250 kcmil	606-24608	10111622

AC 702

Riser Bend Grounding

Approved by:

B. C.

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What's Changed? SAP Numbers added.

Effective Date:

10-24-2014

UGS

AC 703 Grounding Materials — Ground Rod and Clamps

Scope AC 703.1 Grounding Materials — Ground Rod and Clamps

Figure AC 703–1: Copper-Clad Steel Ground Rod

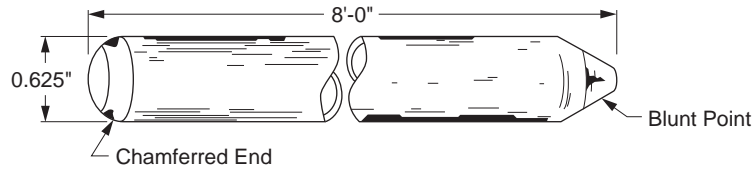


Table AC 703–1: Ground Rod

Manufacturer	Catalog No.
Blackburn	6258
Joslyn	J-8338

Figure AC 703–2: Heavy-Duty Bronze Ground Clamp

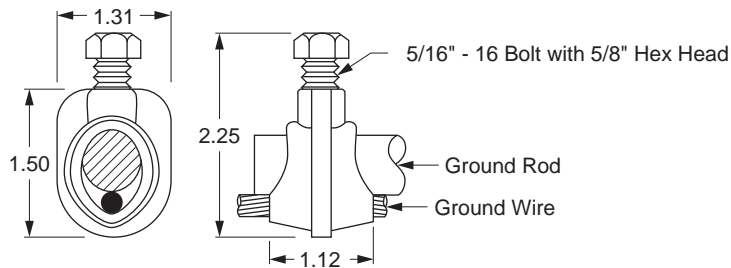


Table AC 703–2: Heavy-Duty Bronze Ground Clamp

Manufacturer	Catalog No.
Blackburn	J-AB5/8H
Burndy	GRC58
Connector Mfg. Co.	WB58
Dossert	GN62
Joslyn	J8492AB
Penn-Union	CAB-2

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PhH

Grounding Materials — Ground Rod and Clamps

AC 703

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Figure AC 703-3: U-Bolt Bronze Ground Clamp

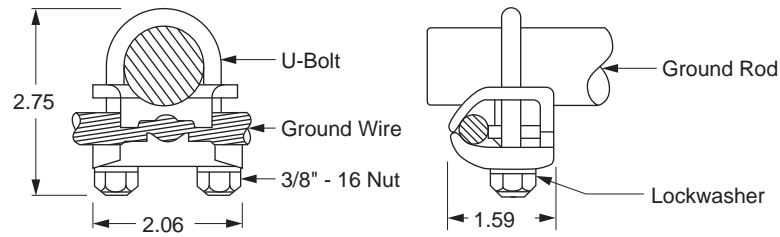


Table AC 703-3: U-Bolt Bronze Ground Clamp

Manufacturer	Catalog No.
Burndy	GAR6426SE
Dossert	GPC38-13
Penn-Union	GPL-5

Note(s):

1. Copper-clad steel ground rods will be 5/8" diameter by 8' long (Figure AC 703-1 [Sheet 1]). Rods are to be driven in undisturbed earth and will be a minimum of 8' in the ground. See Table AC 703-1 (Sheet 1) for approved manufacturers and catalog numbers.
2. Bronze grounding clamp has a ground wire range from #6 to #2 AWG. Clamp dimensions shown in Figure AC 703-2 [Sheet 1] are approximate. See Table AC 703-2 (Sheet 1) for approved manufacturers and catalog numbers.
3. Bronze U-bolt grounding clamp has a ground wire range from #4 to 2/0 AWG. Clamp dimensions shown in Figure AC 703-3 [Sheet 2] are approximate. See Table AC 703-3 (Sheet 2) for approved manufacturers and catalog numbers.

AC 703

Grounding Materials — Ground Rod and Clamps

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PHH

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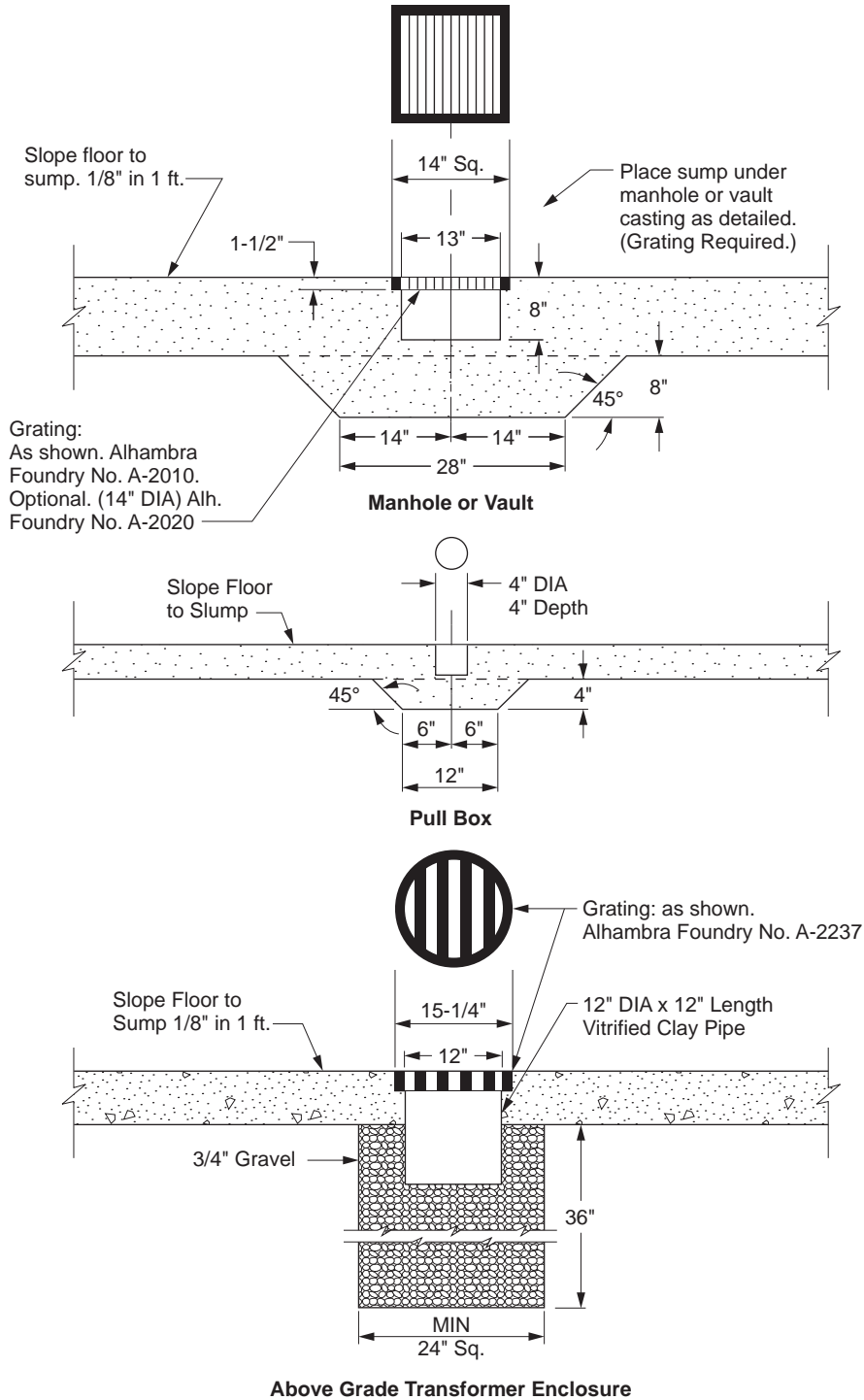
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AC 710 Sump Details for Poured-in-Field Substructures

Scope AC 710.1 Sump Details for Poured-in-Field Substructures

Figure AC 710-1: Sump Details for Poured-In Field Substructures



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PhH

Sump Details for Poured-in-Field Substructures

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AC 711 Sump and Drain Details for Precast Pull Boxes, Manholes, and Vaults

Scope AC 711.1 Sump and Drain Details for Precast Pull Boxes, Manholes, and Vaults

1.0 Sumps

All pull boxes are required to have a sump 6" in diameter and 3" deep, centered in the floor area.

All manholes and vaults are required to have a sump 13" in diameter and 5" deep. Generally, this sump is to be located directly below the man entry.

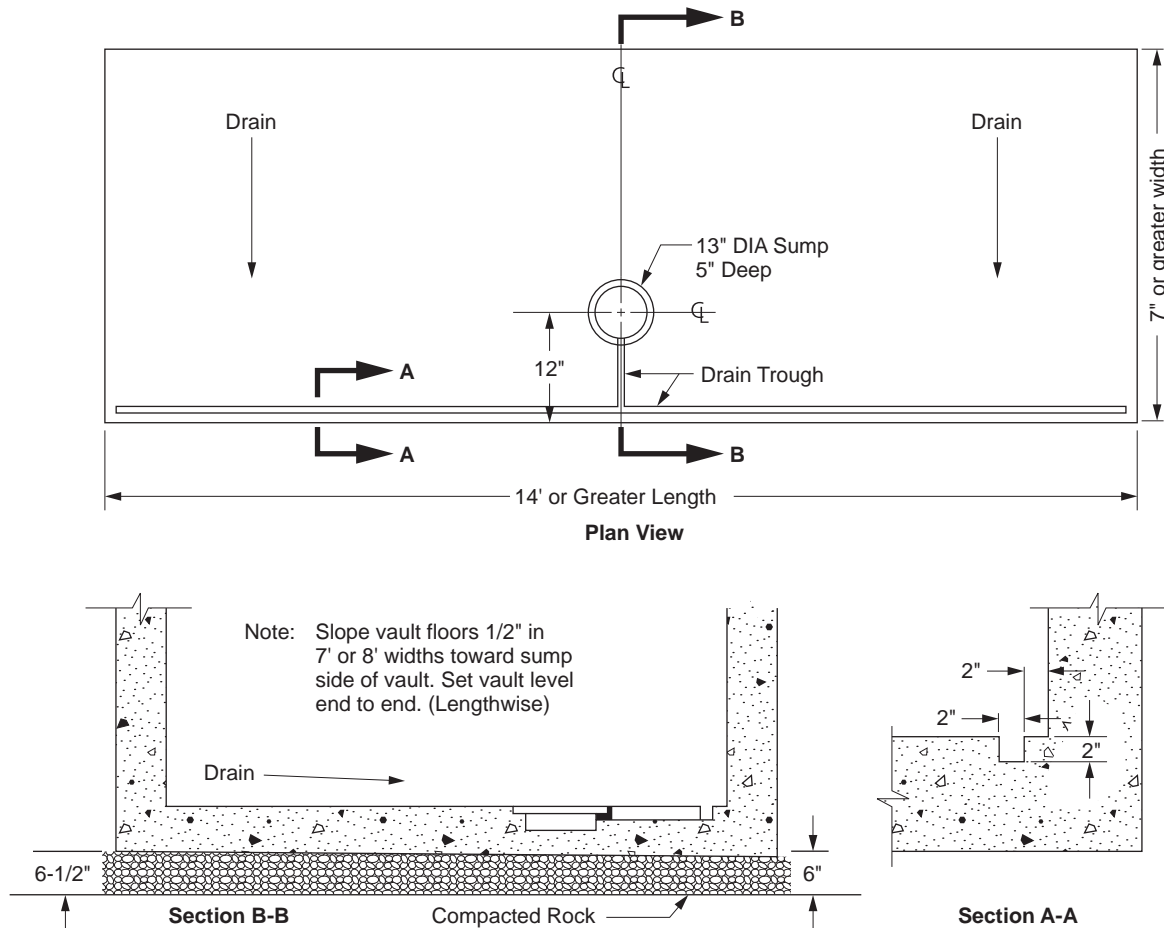
All sumps in manholes and vaults will be designed to accept a flush fitting 15" diameter by 1/4" thick sump cover.

It is not necessary to furnish a sump cover with any structure.

2.0 Drains

In addition to a sump, vaults 7' x 14', 8' x 14' and larger are required to have a drain trough as shown below:

Figure AC 711-1: Sump and Drain Details for Precast Pull Boxes, Manholes, and Vaults



Note(s):

1. With prior approval, slight variation in design may be allowed precasters.

Approved by:

PHH

Sump and Drain Details for Precast Pull Boxes, Manholes, and Vaults

AC 711

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Effective Date:
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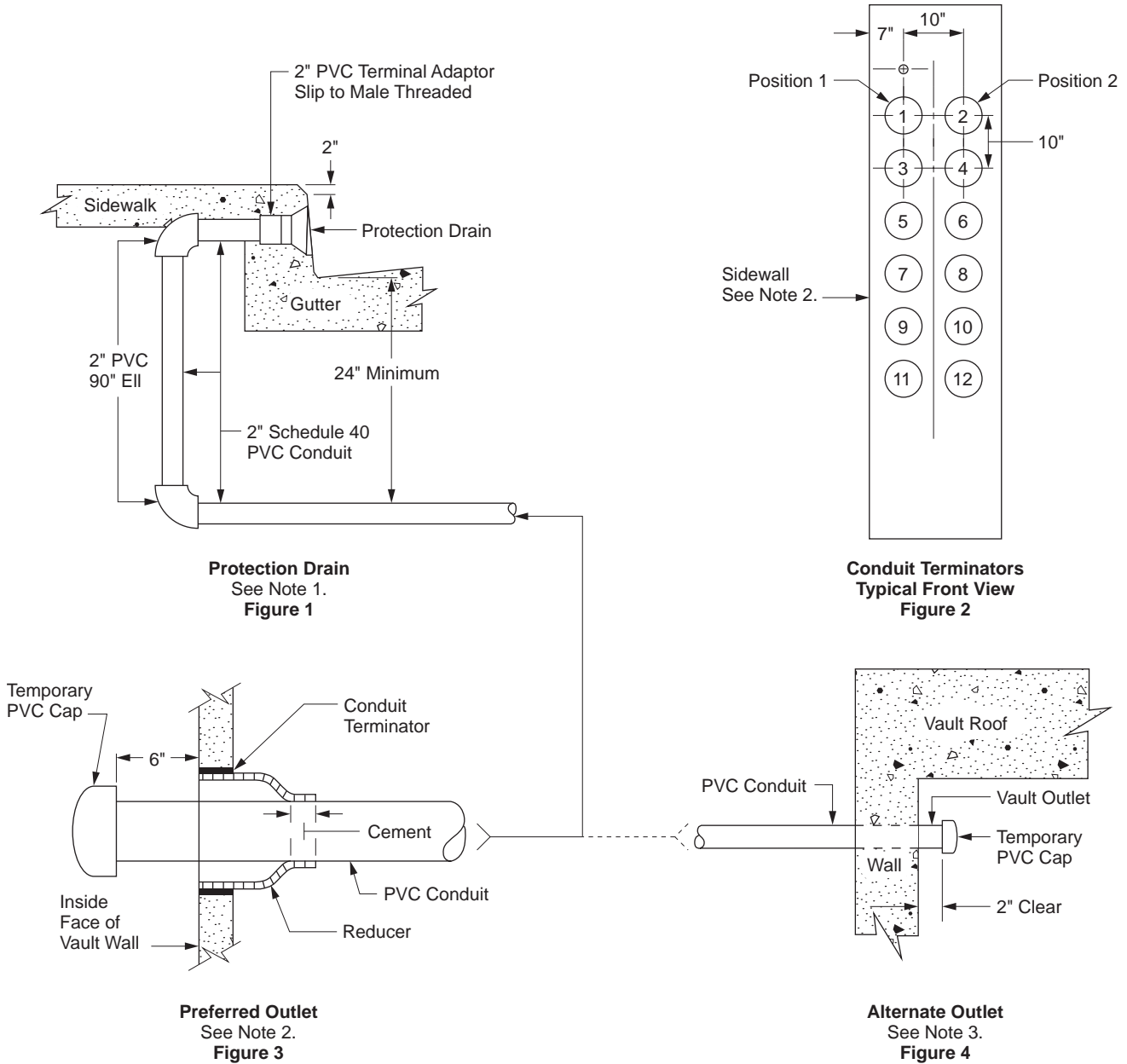
What's Changed?

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AC 712 Sump Discharge Outlet for Underground Vaults
Scope AC 712.1 Sump Discharge Outlet for Underground Vaults

Figure AC 712-1: Discharge Outlet for Underground Vaults



Note(s):

1. The 2" protection drain, 2" Schedule 40 PVC conduit, and related PVC fittings should be installed into the curb face to the dimensions as shown in Figure 1.
2. Preferred outlet applications for vault sump discharge is utilizing conduit termination position #1 or #2 (Figure 2) whichever is closest to vault sidewall. Conduit to be attached to terminator utilizing method as shown in Figure 3.
3. If the alternate outlet method as shown in Figure 4 is employed, the vault sidewall will be core drilled for conduit placement.

Approved by: <i>PhH</i>	Sump Discharge Outlet for Underground Vaults	AC 712	
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4. Following are the approved protection drain manufacturers and supplier.
 - a. Manufacturers:
 - Connecticut Brass Co.
(Brass Type) Part #1171
 - Plumbing Products
(Cast-Iron Type) Part #9A 2" IPS
 - b. Supplier:
 - Cal-Duct Inc.
2522 Lee Avenue
South El Monte, CA 91733
5. Protection drains are also available from most retail/commercial plumbing supply distributors.

AC 712

Sump Discharge Outlet for Underground Vaults

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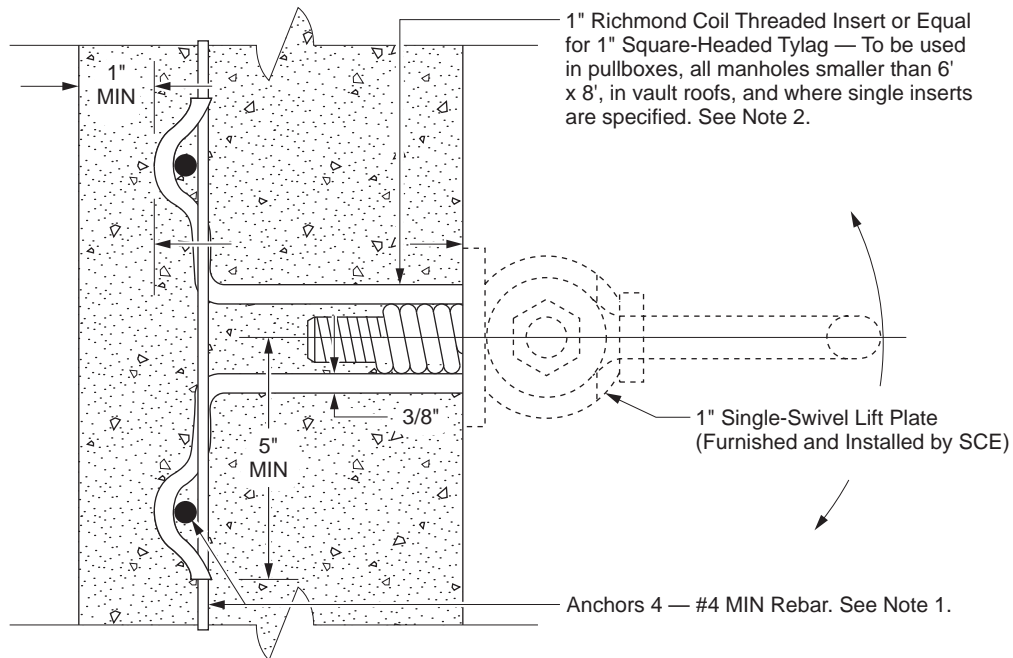
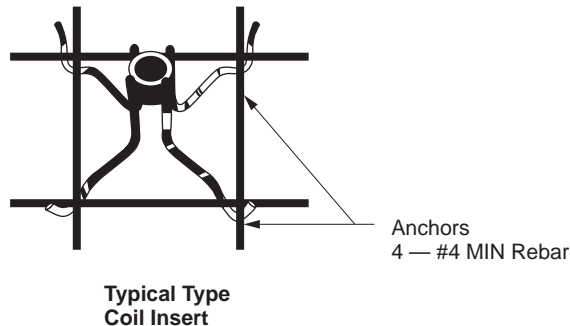
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AC 720 Coil Insert — Standard Installation for Precast and Poured-in-Place Structures

Scope AC 720.1 Single-Threaded Coil Insert

Figure AC 720-1: Single-Threaded Coil Insert



Note(s):

1. Anchor steel to be a minimum of 12" in length if not interlocked with reinforcing steel. Anchors may be shorter if interlocked (1" lap minimum) to reinforcing steel.
2. Alternate pull iron: [AC 729](#).
3. During installation, all inserts must be sealed to prevent the entrance of concrete.
4. All inserts must be galvanized.
5. Inserts:
 - a. Will be capable of sustaining minimum loading of 10,000 pounds at direct in-line and 90° to direct in-line.
 - b. Installed in vault roofs are restricted to 2,000 pounds in direct pull.

Approved by:

PhH

Coil Insert — Standard Installation for Precast and Poured-in-Place Structures

AC 720

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6. Available from:

- Dayton Superior
9415 Sorensen Avenue
Santa Fe Springs, CA 90670
- Meadow Steel Products, Inc
12762 Monarch Street
Garden Grove, CA 92641
- Richmond Screw Co.
17051 Green Drive
Industry Hills, CA 91745

AC 720

Coil Insert — Standard Installation for Precast and Poured-in-Place Structures

Approved by:

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What's Changed?

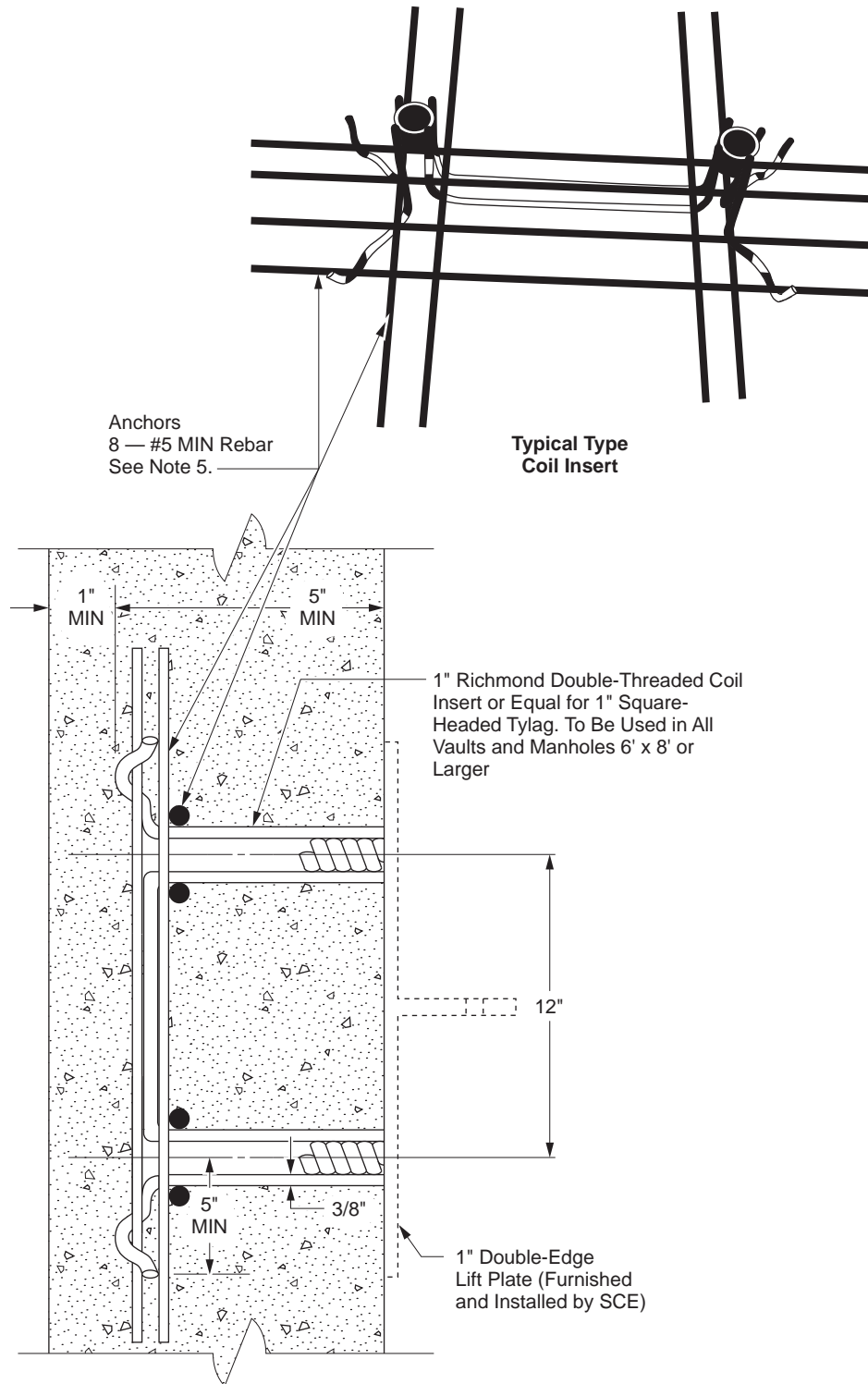
Effective Date:

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Scope AC 720.2 Double-Threaded Coil Insert

Figure AC 720-2: Double-Threaded Coil Insert



Approved by:

PhH

Coil Insert — Standard Installation for Precast and Poured-in-Place Structures

AC 720

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Note(s):

1. During installation, all inserts must be sealed to prevent the entrance of concrete.
2. All inserts must be galvanized.
3. Each individual insert will be capable of sustaining minimum loading of 10,000 pounds at direct in-line and 90° to direct in-line.
4. Available from:
Dayton Superior
9415 Sorensen Avenue
Santa Fe Springs, CA 90670

Meadow Steel Products, Inc.
12762 Monarch Street
Garden Grove, CA 92641

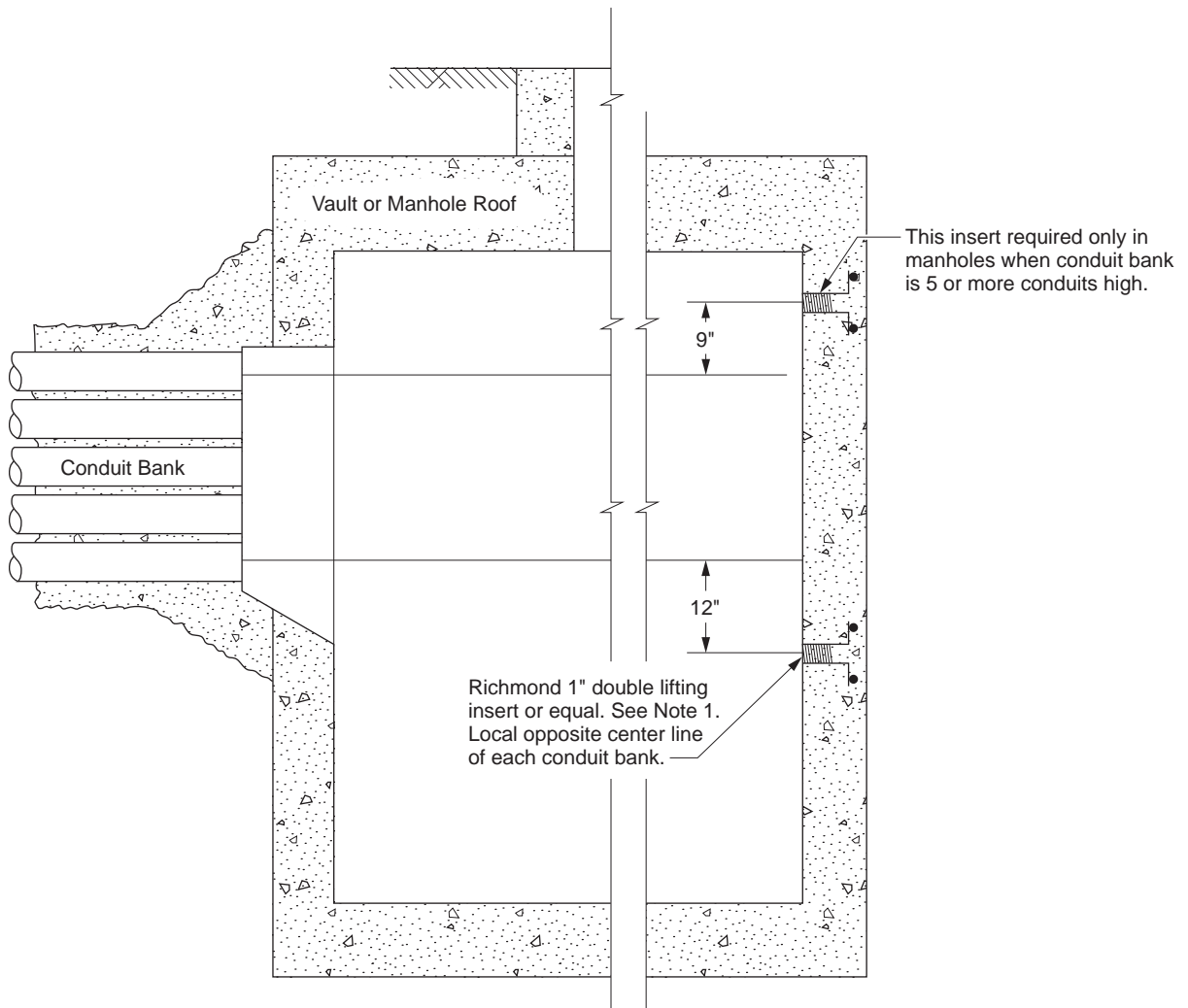
Richmond Screw Co.
17051 Green Drive
Industry Hills, CA 91745
5. Anchor steel to be a minimum of 24" in length if not interlocked with reinforcement steel. Anchors may be shorter if interlocked (1" DAP minimum) to reinforcement steel.

AC 720	Coil Insert — Standard Installation for Precast and Poured-in-Place Structures	Approved by: 
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AC 722 Inserts Opposite Conduit Banks

Scope AC 722.1 Inserts Opposite Conduit Banks

Figure AC 722-1: Inserts Opposite Conduit Banks



Note(s):

1. All inserts must be galvanized for installation. See AC 720.

Approved by:

PHH

Inserts Opposite Conduit Banks

AC 722

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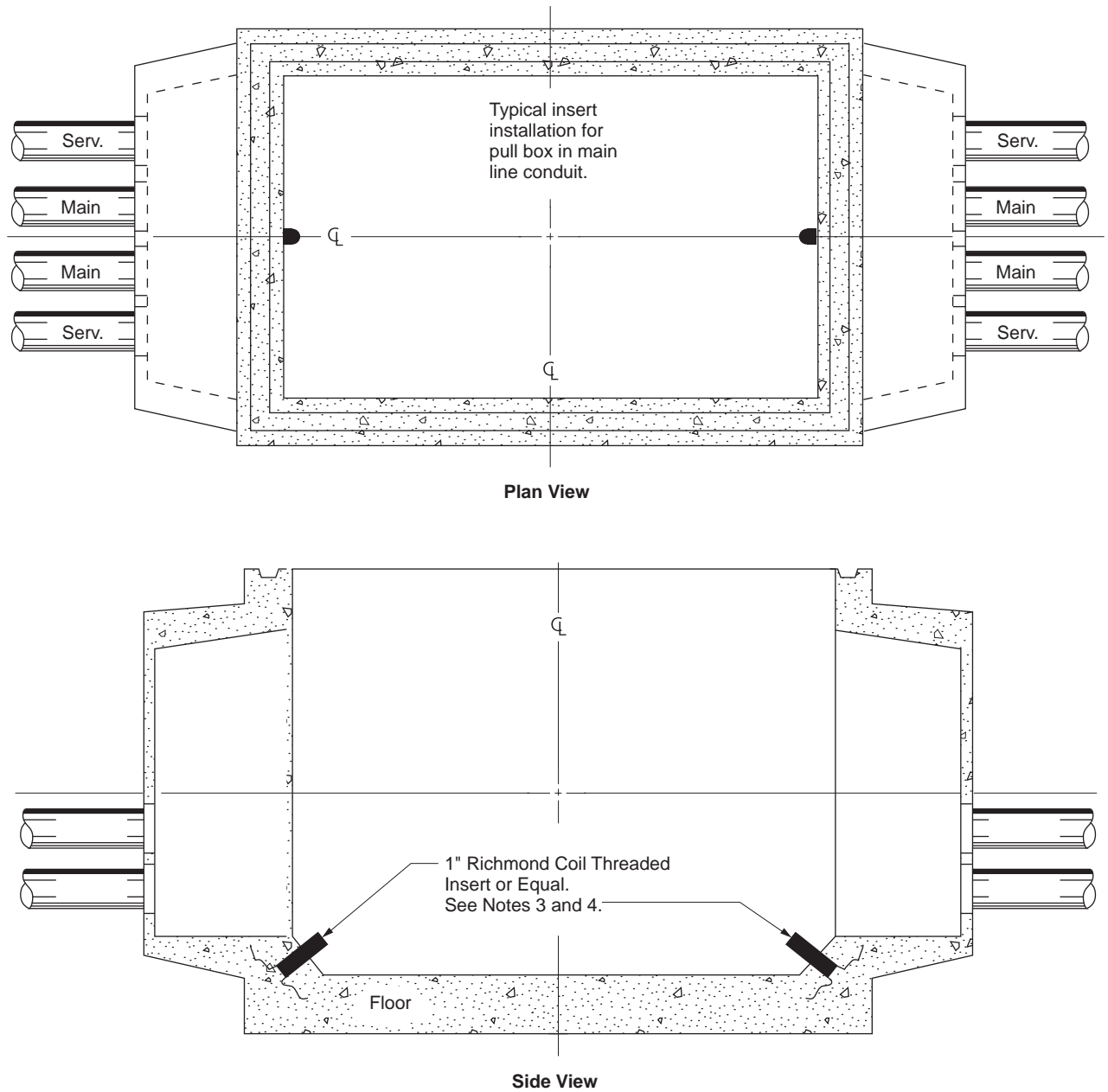
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AC 723 Insert Schedule for Pull Boxes

Scope AC 723.1 Insert Schedule for Pull Boxes

Figure AC 723-1: Insert Schedule for Pull Boxes



Note(s):

1. 2 inserts are required for each pull box regardless of size or number of conduits entering. One insert at each end wall above highest conduit.
2. All inserts must be galvanized.
3. See AC 720.
4. See AC 729.

Approved by:

PhH

Insert Schedule for Pull Boxes

AC 723

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AC 725 Insert Installation Detail for Vaults

Scope AC 725.1 Insert Installation Detail for Vaults

Figure AC 725-1: Insert Installation Detail for Vaults

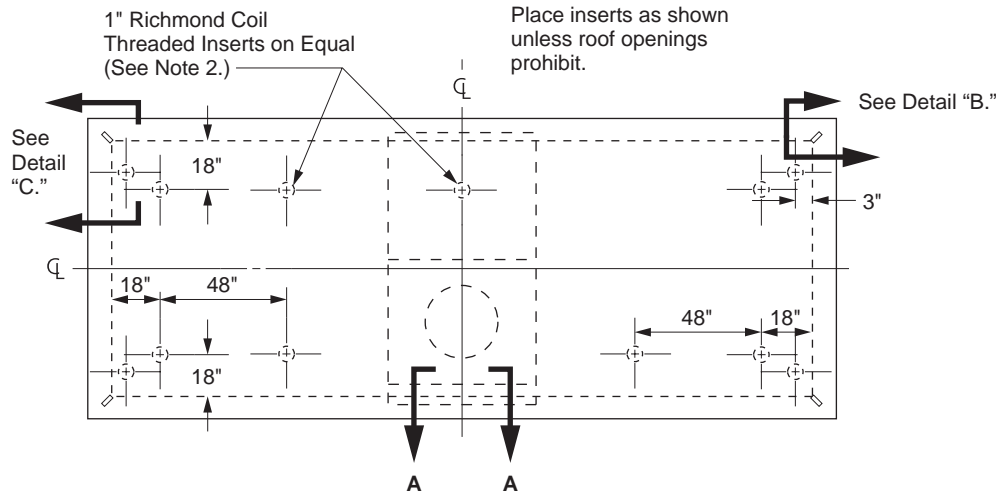


Figure AC 725-1.1: Vault Plan (Roof)

Note(s):

1. One-inch single coil threaded insert to be spaced at 48" intervals for larger vaults. The roof inserts are restricted to 2,000 pounds in direct pull. Use swivel plate pull eye (AC 733) for other than direct pull applications.
2. See AC 720.

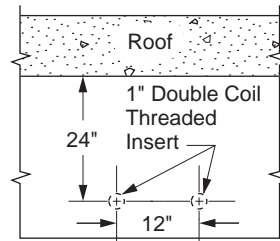


Figure AC 725-1.2: Section A-A

Note(s):

1. Section A-A to be located adjacent to and on centerline of 48" x 60" vault opening. This insert is essential for pulling cable.

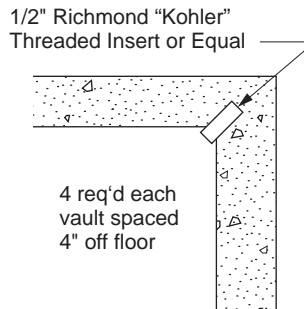

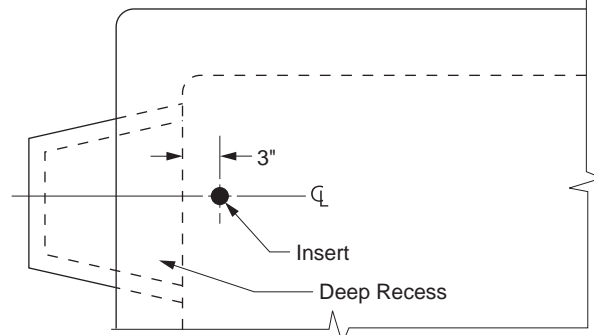


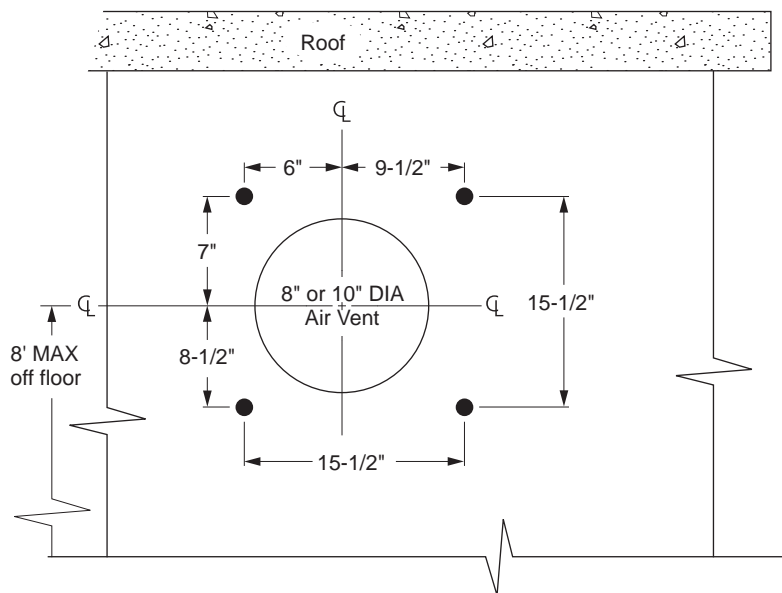
Figure AC 725-1.3: Detail "B"

Approved by: 	Insert Installation Detail for Vaults	AC 725
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 2
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1/2" insert to be located in roof on CL of each deep recess. Not required in 6' width (or smaller) structures.

Figure AC 725-1.4 Detail "C"



For 1/2" Richmond "Kohler" threaded inserts (or equal) to be installed at each vent as shown above. Not required in 6' width (or smaller) structures.

Figure AC 725-1.5: Air Vent

Note(s):

1. One-inch Richmond coil threaded insert or equal to be used in all vaults as tabulated on [AC 720](#) and [AC 722](#).
2. During installation, all inserts must be sealed to prevent concrete from entering.
3. All inserts must be galvanized.

AC 725

Insert Installation Detail for Vaults

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PHH

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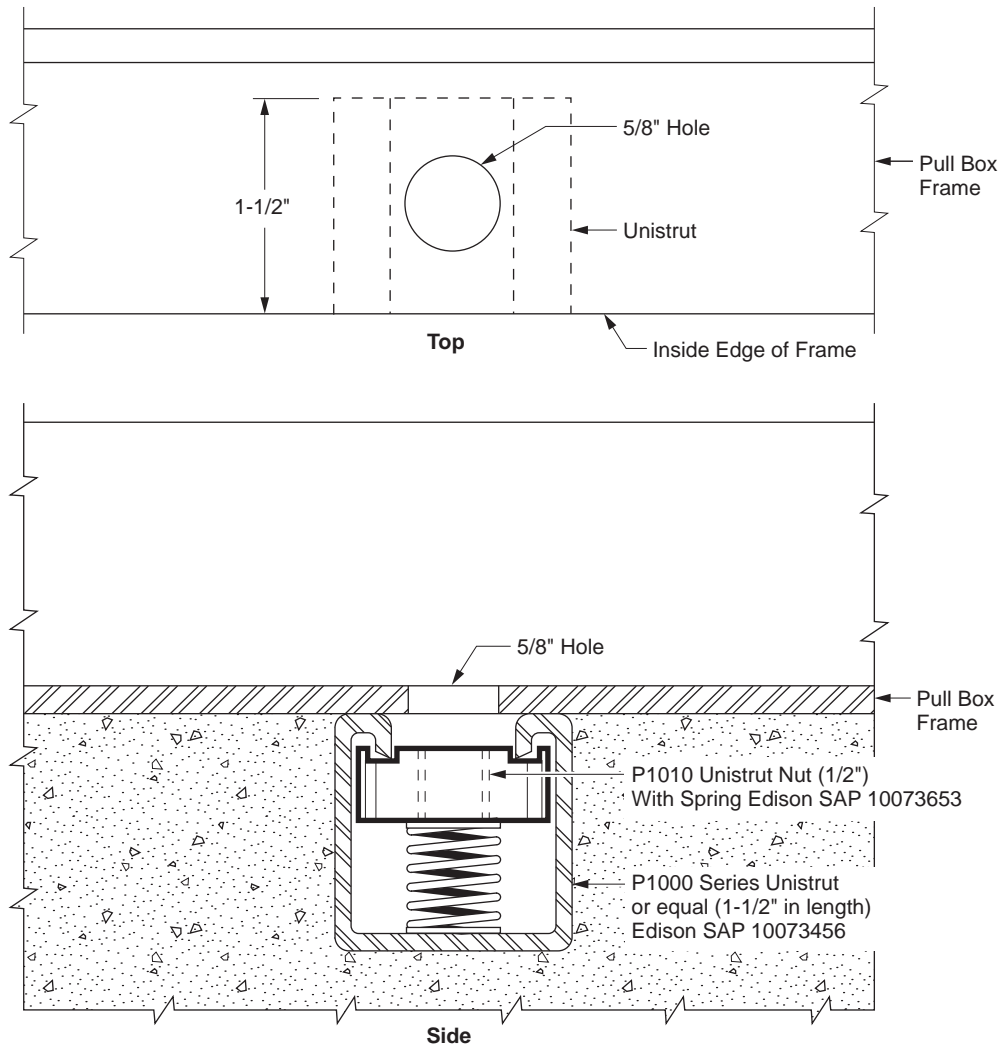
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AC 727 Pull Box Insert Repair

Scope AC 727.1 Pull Box Insert Repair

Figure AC 727-1: Pull Box Insert Repair



Views of Repaired Bolt-Down

1.0 Procedure:

- 1.1 Remove broken inserts from under the frame.
- 1.2 Chip out concrete under each bolt hole in frame until 1-1/2-inch length of Unistrut fits flush with inside edge of frame.
- 1.3 Hold Unistrut directly under frame hole, tight against frame bottom (see sketch) and flush with frame edge. Grout all around with concrete.

Approved by: <i>PhH</i>	Pull Box Insert Repair	AC 727
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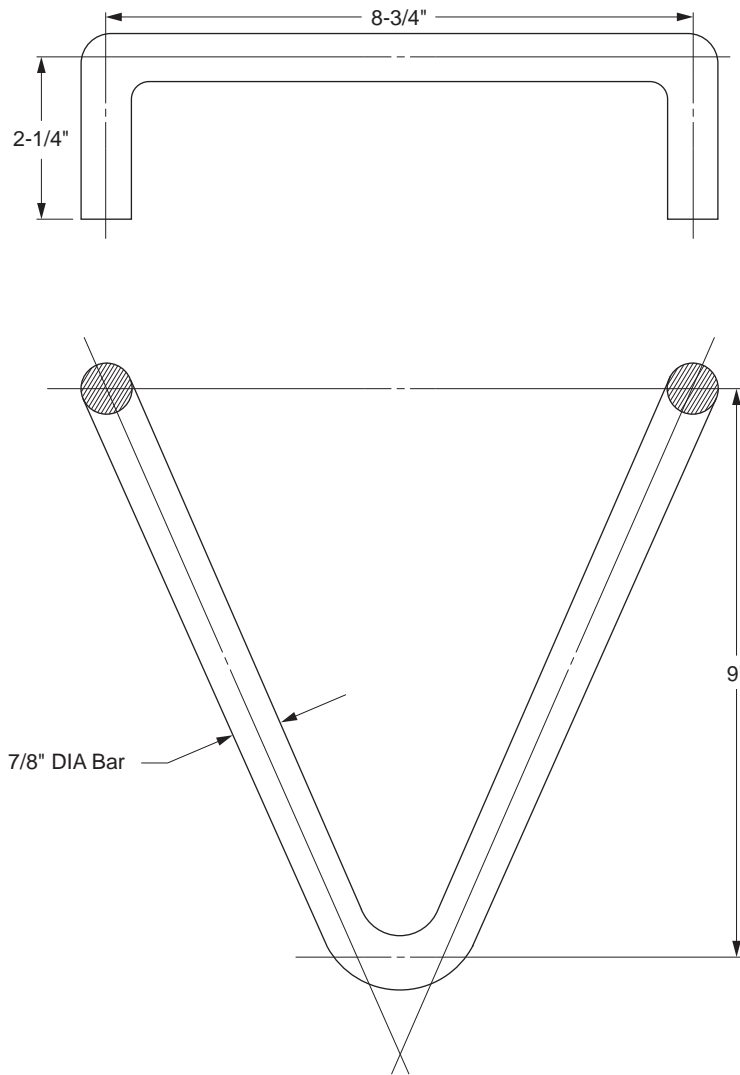
- 1.4 Care should be taken to insure that the inside and end of the Unistrut is kept free of grout to permit bolt to enter.
- 1.5 When concrete has set, install 1/2-inch nut with spring and bolt cover down.

PHH

AC 729 Pull Iron for Pull Boxes

Scope AC 729.1 Pull Iron for Pull Boxes

Figure AC 729-1: Pull Iron for Pull Boxes



Note(s):

1. Bar to be mild steel, galvanized after fabrication.
2. Two pull irons to be placed in pull boxes (2' x 3', 2-1/2' x 4' and 3' x 5' sizes). (See AC 720 Alternate)
3. Legs may be bent in same or opposite direction.
4. Minimum strength requirement 10,000 # (+ safety factor).
5. Variations in design to accommodate manufacturing processes are acceptable with prior approval.

Approved by:

PhH

Pull Iron for Pull Boxes

AC 729

Sheet 1 of 1

Effective Date:

10-28-2005

What's Changed?

UGS

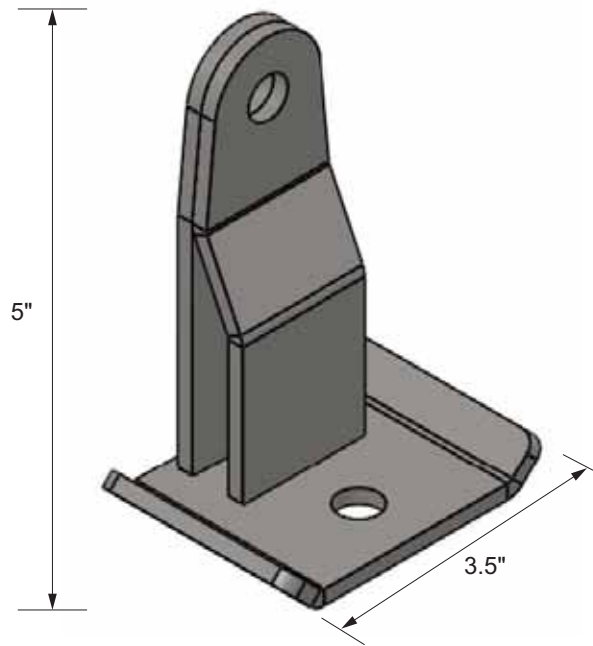
► SCE Public ◀

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AC 731 Support for Ground Bus

Scope AC 731.1 Support for Ground Bus Using Ground Anchor Bracket (Preferred Method)

Figure AC 731-1: Ground Anchor Bracket (SAP 10205786)



Note(s):

1. Four anchors to be supplied with each vault.

Approved by:

ajf

Support for Ground Bus

AC 731

Sheet 1 of 2

Effective Date:
04-27-2018

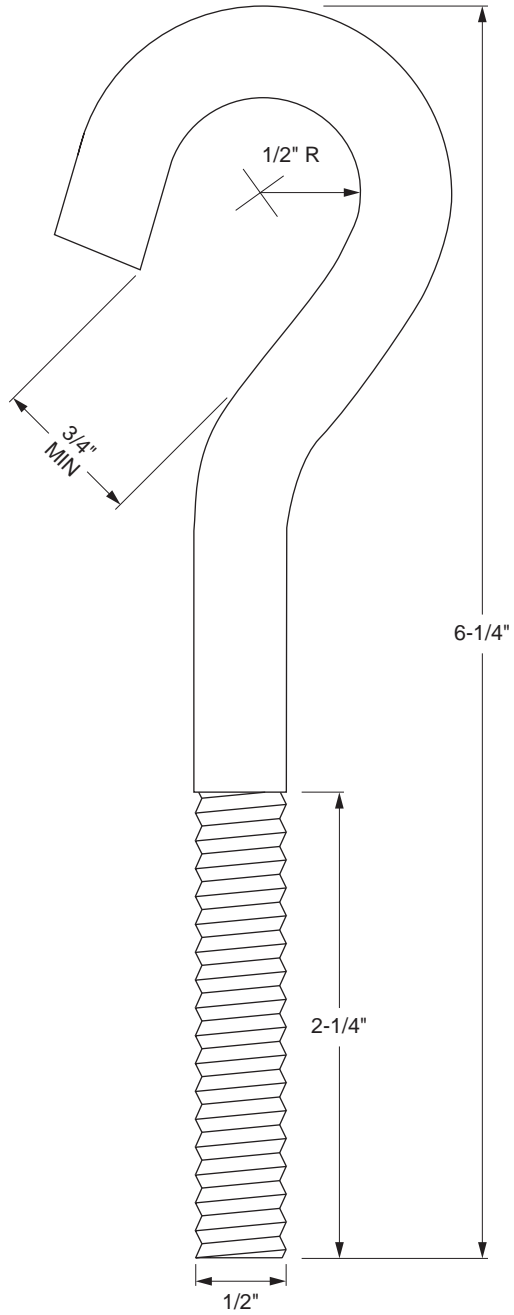
What's Changed? Added new preferred method for supporting ground bus using ground anchor bracket.

UGS

► SCE Public ◀


Scope AC 731.2 Support for Ground Bus Using J Bolt (Alternate Method)

Figure AC 731-2: J Bolt (Support for Ground Bus)



Note(s):

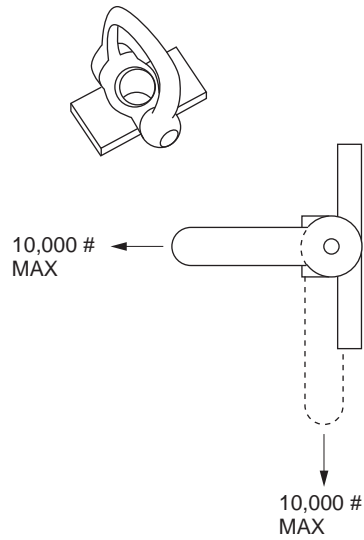
1. J bolt to be hot dip galvanized after fabrication.
2. Four J bolts to be supplied with each vault.

AC 731	Support for Ground Bus	Approved by: 
Sheet 2 of 2	What's Changed? J bolt is now alternate method .	Effective Date:
UGS		04-27-2018

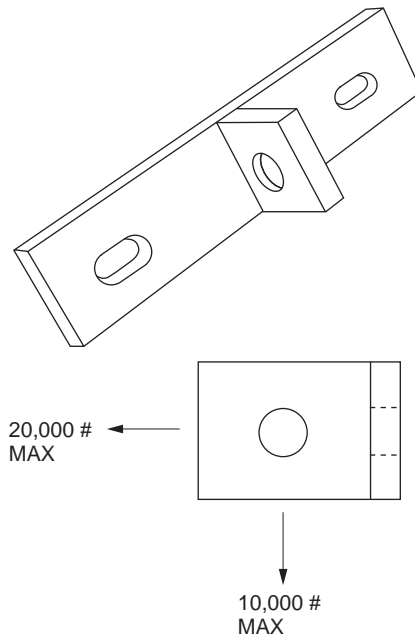
AC 733 Cable Pulling Attachments

Scope AC 733.1 Cable Pulling Attachments


Figure AC 733-1: Cable Pulling Attachments

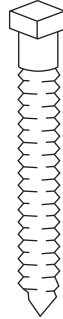


**Figure AC 733-1.1: 1" Swivel Lift Plate — Side View
Item 1**



**Figure AC 733-1.2: 1" Double Edge Lift Plate — Side View
Item 2**


Approved by: 	Cable Pulling Attachments	AC 733
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 2 UGS



**Figure AC 733-1.3: 4" Tyrag
Item 3**

Note(s):

1. The above items may be obtained from:
 - a. Burke Concrete Accessories Inc.
1625 West Washington Blvd.
Montebello, CA 90604
 - b. Superior Concrete Accessories Inc.
9415 Sorenson Street
Santa Fe Springs, CA 90670
2. 1" Swivel Lift Plate (Item 1) may be used at any angle up to a maximum pull of 10,000 pounds. For attachment, it requires 1-4" tyrag (Item 3) which should be tightened snugly but not tight.
3. 1" Double Edge Lift Plate (Item 2) has a maximum loading of 20,000 pounds for direct in-line pulls, and is reduced to 10,000 pounds at 90° to direct in-line pulls. For attachment it requires 2-4" tylags (Item 3) and can only be used where a double threaded coil insert is available (see AC 720). Tylags should be tightened securely.

AC 733	Cable Pulling Attachments	Approved by: 
Sheet 2 of 2	What's Changed?	Effective Date:
UGS		10-28-2005

AC 740 Ladder Installation for Manholes

Scope AC 740.1 Ladder Installation for Manholes

Figure AC 740-1: Ladder Installation for Manholes

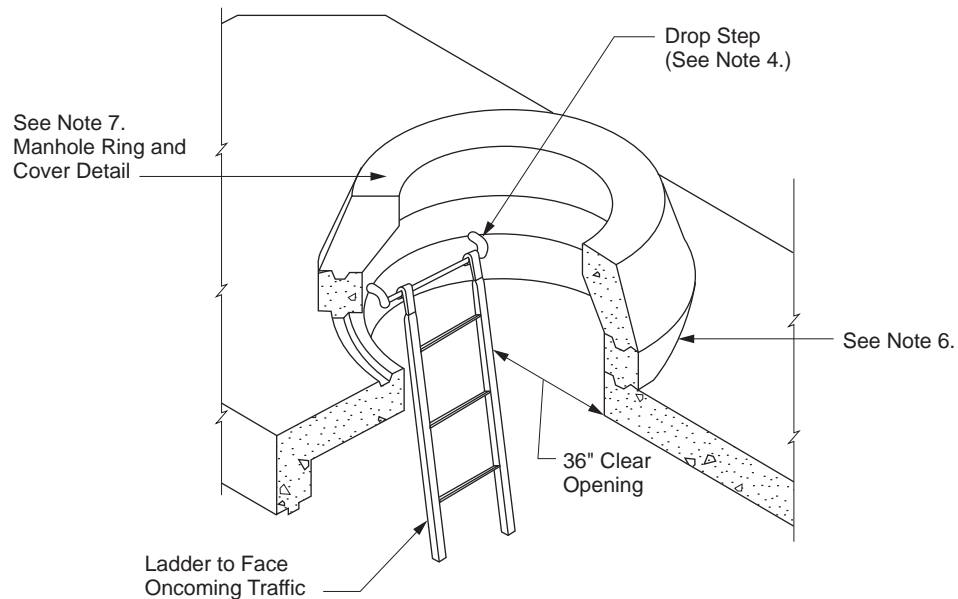


Figure AC 740-1.1: Ladder Mounted Detail for Precast Manholes

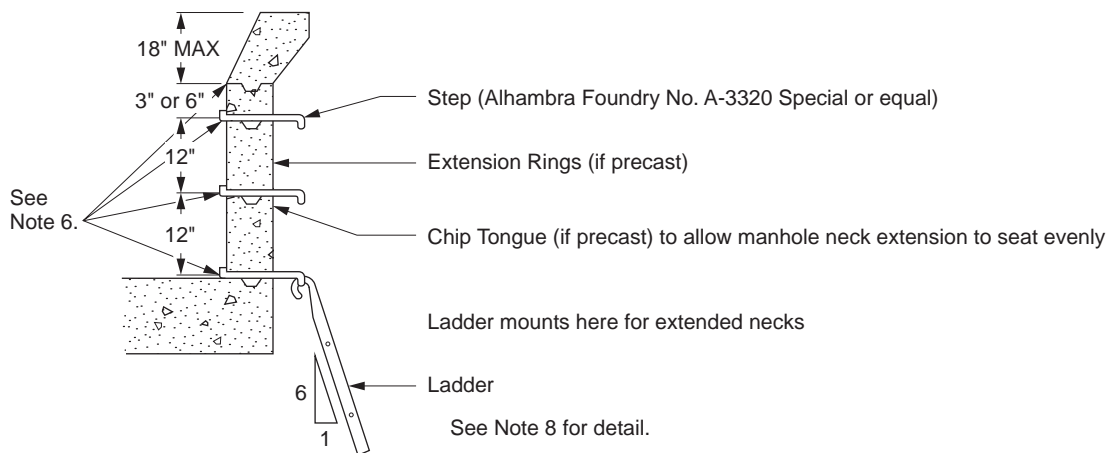


Figure AC 740-1.2: Typical Cross Section Step Installation for Extended Manhole Neck

Note(s):

1. Ladders required only for manholes in excess of 10' (from floor to manhole cover). Ladders not required for manholes 10' or less in height.
2. Offset base of ladder one foot for each six feet of vertical rise.
3. Spacing of steps will be the same as shown above if neck is poured in place.
4. Install additional steps at 12" intervals.
5. When specified, contractor is to install ladder and leave in permanent position at completion of contract.
6. Bonding adhesive per [GI 030](#).
7. See [FC 621](#).
8. See [AC 742](#).

Approved by: <i>PHH</i>	Ladder Installation for Manholes	AC 740
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 1
		UGS

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AC 742 Ladder for Vaults and Manholes (Edison SAP 10117761)

Scope AC 742.1 Ladder for Vaults and Manholes

Figure AC 742-1: Ladder for Vaults and Manholes

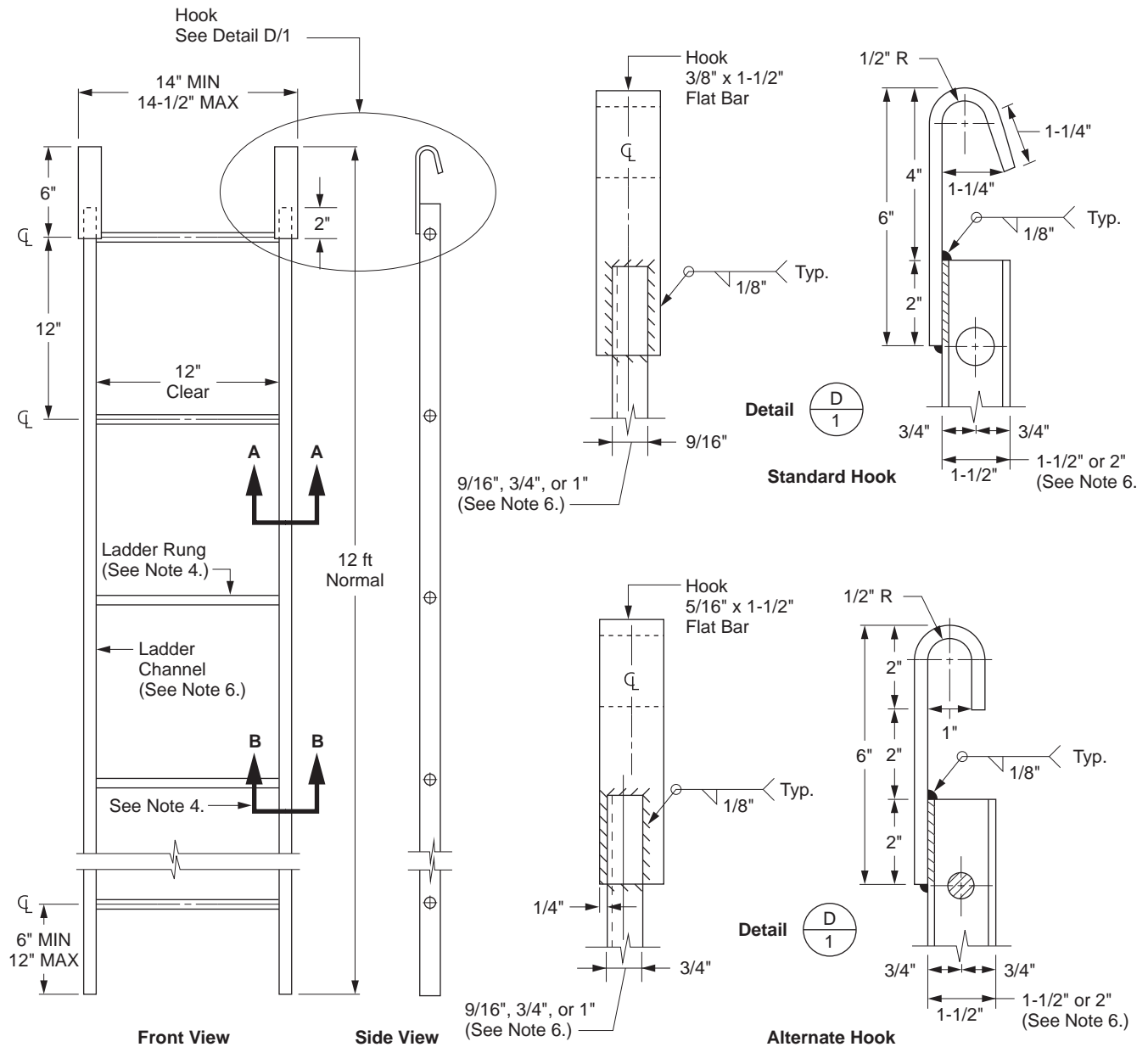


Figure AC 742-1.1: Front View, Side View, Standard Hook, and Alternate Hook

Approved by:

B.C.

Ladder for Vaults and Manholes (Edison SAP 10117761)

AC 742

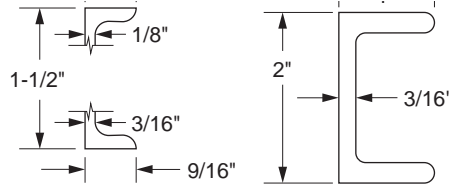
Sheet 1 of 5

Effective Date:

10-24-2014

What's Changed? SAP Number added to title.

UGS



(Channel Detail)
See Note 6.

Figure AC 742-1.2: Section A-A

Note(s):

1. Ladder and support hardware will be ASTM A-575 mild steel.
2. Ladder to be hot dipped galvanized after fabrication per ASTM A-153.
3. Standard ladder length 12 feet. Other lengths available in one-foot increments
4. See ladder rung details on [Figure AC 742-2 \(Sheet 2\)](#).
5. See [AC 740](#) for manhole ladder installation details and [Figure AC 742-5 \(Sheet 4\)](#) for vault ladder installation details.
6. Channel will be either 1-1/2" x 3/4" x 1/8" typ., or 1-1/2" x 9/16" x 3/16" typ. stock for ladder lengths 12 feet or less. Channel will be 2" x 1" x 3/16" typ. for ladders exceeding 12 feet in length.

Figure AC 742-2: Ladder Rung and Channel

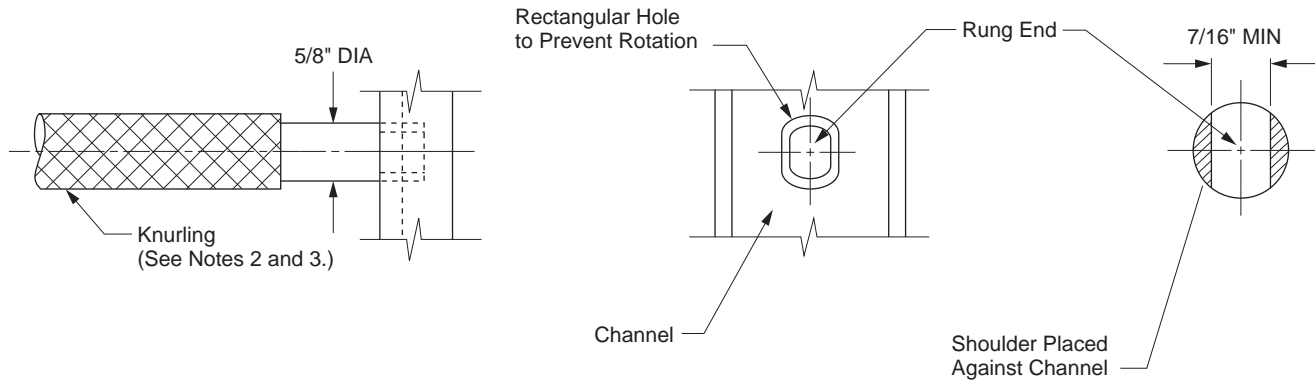
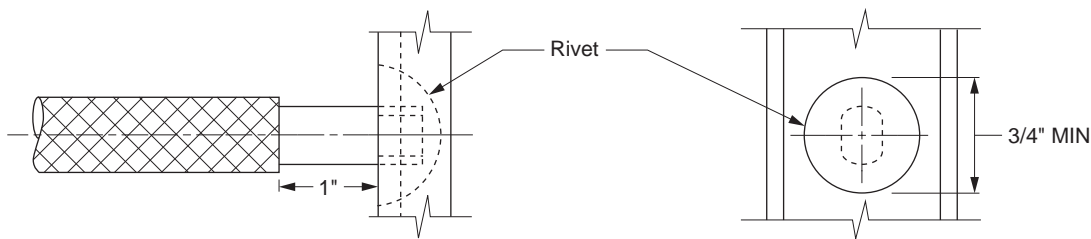


Figure AC 742-3: Standard Rung Attachment — Rivet



AC 742

Ladder for Vaults and Manholes (Edison SAP 10117761)

Approved by:

B. C.

Sheet 2 of 5

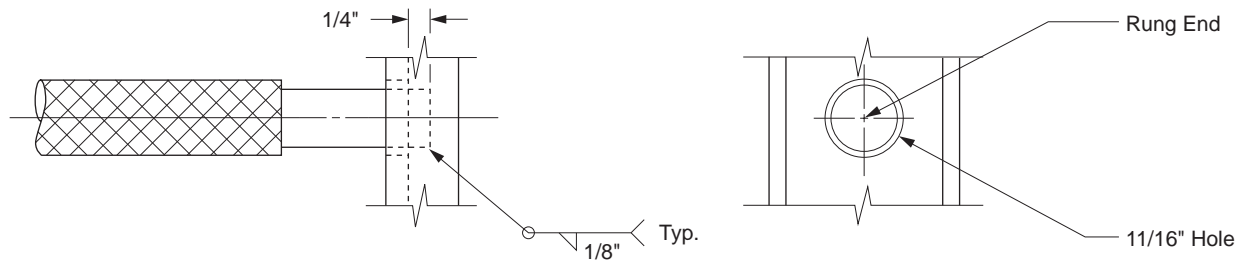
What's Changed?

Effective Date:

UGS

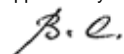
10-24-2014

Figure AC 742-4: Alternate Rung Attachment — Weld — Section B-B



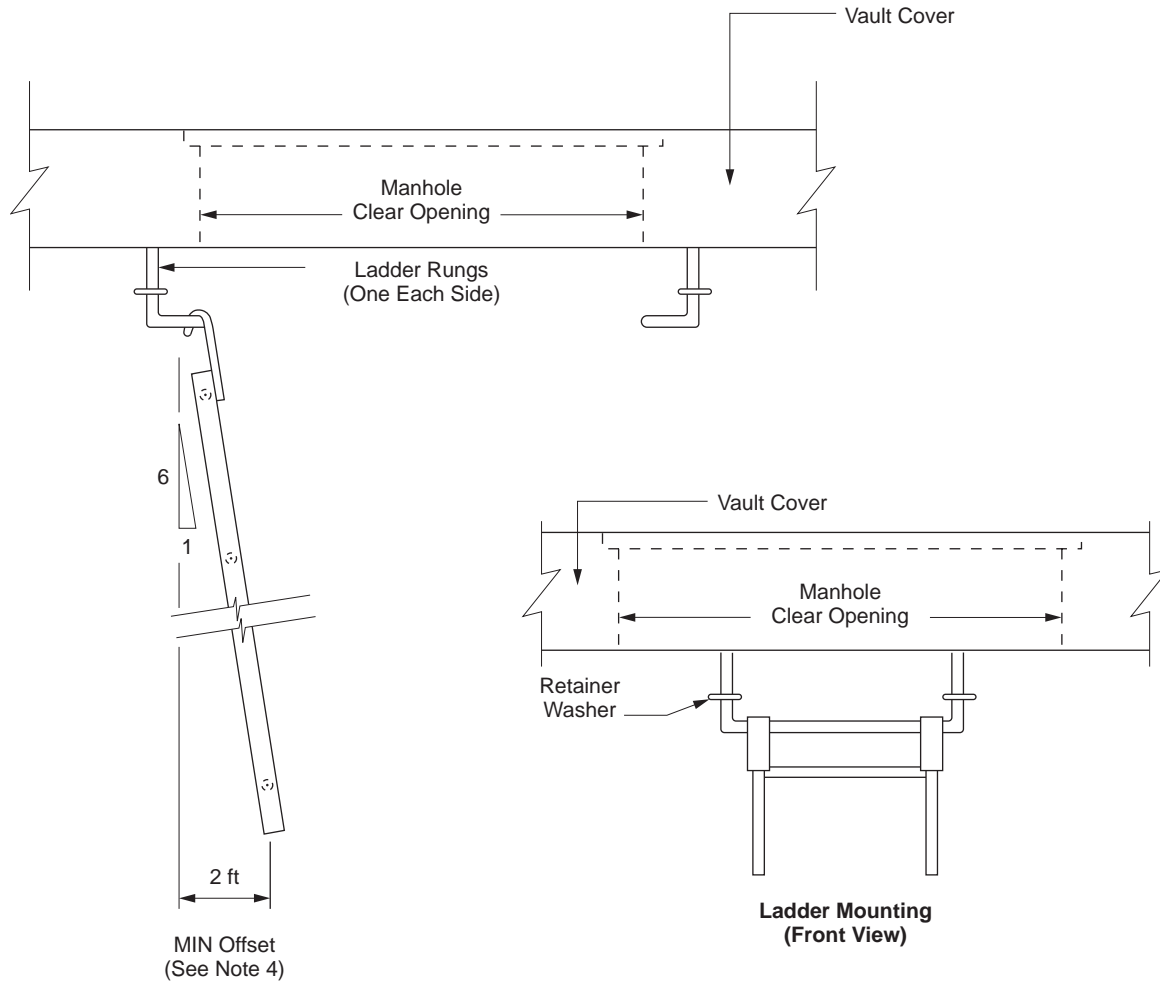
Note(s):

1. Design of rungs and attachment to ladder channels will be in conformance to the methods and dimensions shown.
2. Ladder rungs will have an approved nonslip knurled surface. Knurling lengths on rung to be a minimum of ten inches.
3. Depth of knurling on rungs will be a minimum of 0.046 inch to a maximum of 0.093 inch, with four to six points per one inch of length.
4. Standard method of rung attachment to ladder channel will be riveting. Welding is an approved alternate method of rung attachment.

Approved by: 	Ladder for Vaults and Manholes (Edison SAP 10117761)	AC 742
Effective Date: 10-24-2014	What's Changed?	Sheet 3 of 5 UGS

Scope AC 742.2 Ladder Installation for Vaults

Figure AC 742-5: Ladder Installation for Vaults



Note(s):

1. See Figure AC 742-1 (Sheet 1) through Figure AC 742-4 (Sheet 3) for ladder details.
2. See FC 660 for vault cover and ladder rung details.
3. Ladder to face oncoming traffic.
4. Offset base of ladder two feet (minimum) from vertical.
5. Ladders required in all vaults unless otherwise specified on working drawings.
6. Contractor will install ladder and leave in permanent position at completion of contract.

AC 742

Ladder for Vaults and Manholes (Edison SAP 10117761)

Approved by:

B. C.

Sheet 4 of 5

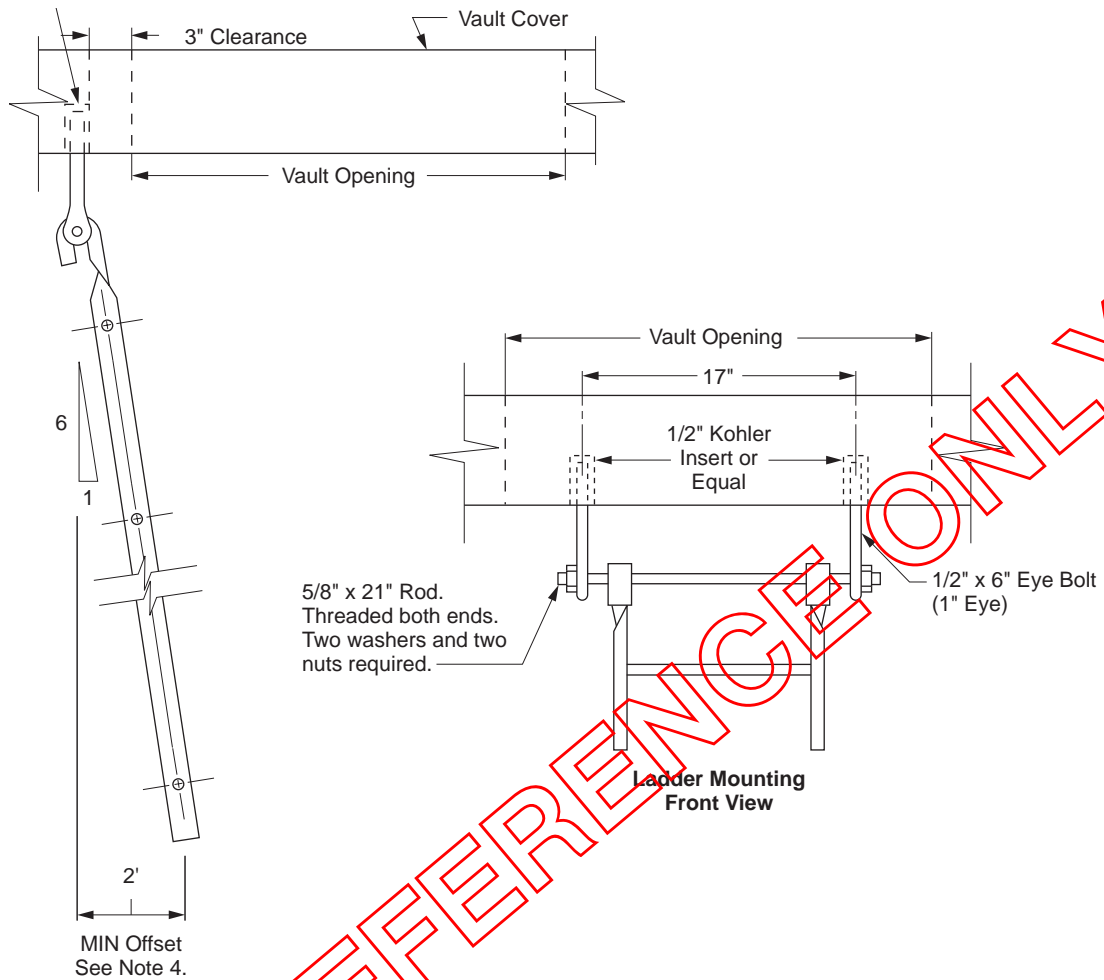
What's Changed?

Effective Date:

UGS

10-24-2014

Figure AC 742-6: Ladder Installation for Vaults — For Reference Only



Note(s):

1. See [Scope AC 742.1 \(Sheet 1\)](#) for ladder details.
2. See [FC 641](#) for insert and vault cover details.
3. Ladder to face oncoming traffic.
4. Offset base of ladder two feet (minimum) from vertical.
5. Contractor will install ladder and leave in permanent position at completion of contract.

FOR REFERENCE ONLY

Approved by:

B.C.

Ladder for Vaults and Manholes (Edison SAP 10117761)

AC 742

Sheet 5 of 5

Effective Date:

10-24-2014

What's Changed?

UGS

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AC 750 Standpipe Vent Placement

Scope AC 750.1 Standpipe Vent Placement

1.0 Standpipe Vents

Standpipe vents should be placed in unobtrusive locations where right-of-way permits. They should also be placed to provide maximum ventilation of the underground structure.

For new installations approved PVC, steel, or polyethylene standpipe vents may be used. PVC should be used for most field installations. To help blend with new construction designs, decorative polyethylene standpipes are available for 8-inch and 10-inch structure ventilation duct, see AC 755. HDG and steel may be used only in areas where vents are exposed to vehicular damage, such as alleys and driveways. Do not paint standpipe vents.

When automating equipment in vaults where an antenna is to be placed into the standpipe vent, use decorative polyethylene standpipe vents.

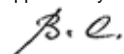
When replacing broken standpipe vents, keep the same style of standpipe for both the intake and exhaust vents, refer to Distribution Underground Construction Standards (DUG), VE 225 for more details. For instructions on mounting fault indicator LED's and fiber optics, refer to DUG TD 100.

Typical installations include:

- 1.1 Where sidewalk is adjacent to curb and sidewalk width is 6' or more from curb face to outside edge of sidewalk, place vent in the sidewalk approximately 24" from the curb face to vent centerline. For PVC vents install a sprinkler guard(s) when exposed to sprinklers (refer to DUG VE 230). Locations close to the outside edge of concrete can be used when damage from vehicles is likely.
- 1.2 Where sidewalk is adjacent to curb and sidewalk width is less than 6' from curb face to outside edge of sidewalk, place vent approximately 10" from the outside edge of sidewalk to vent centerline.
- 1.3 Where a planted parkway is present (adjacent to curb), Install PVC vent with sprinkler guard(s) per DUG VE 230, approximately 24 inches from curb face to centerline.
- 1.4 In state highway rights-of-way, place vent a minimum of 24" from curb face to vent edge.
- 1.5 When no sidewalk or curb is present, place vent well clear of area where vehicles or pedestrians may travel. Install barriers if necessary.

Note(s):

- 1. Keep vents a minimum of 4' from the points where curbs begin to slope to driveways. Keep vents a minimum of 5' from all fire hydrants. The total straight lengths of each vent pipe entering a vault should be limited to approximately 20'. No more than two 90° elbows should be utilized in an air duct run.
- 2. Where two vents are present, they should exit the structure at opposite ends and be placed a minimum of 5' apart at the surface.
- 3. Never paint any standpipe vent.
- 4. For PVC standpipe install the sprinkler guard(s) (DUG VE 230) when exposed to sprinkler systems. Polyethylene pipes do not require sprinkler guards, but should be placed out of the direct spray path of sprinklers whenever possible.

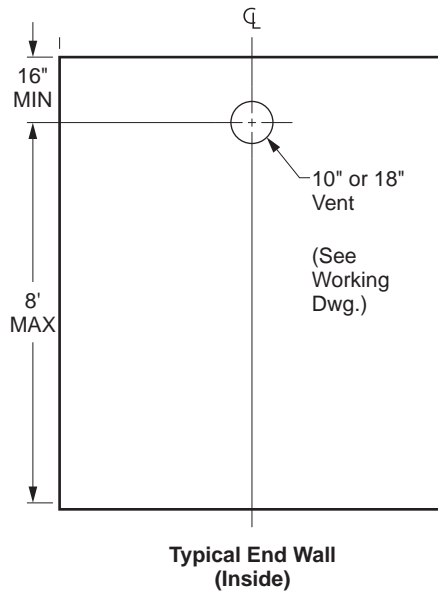
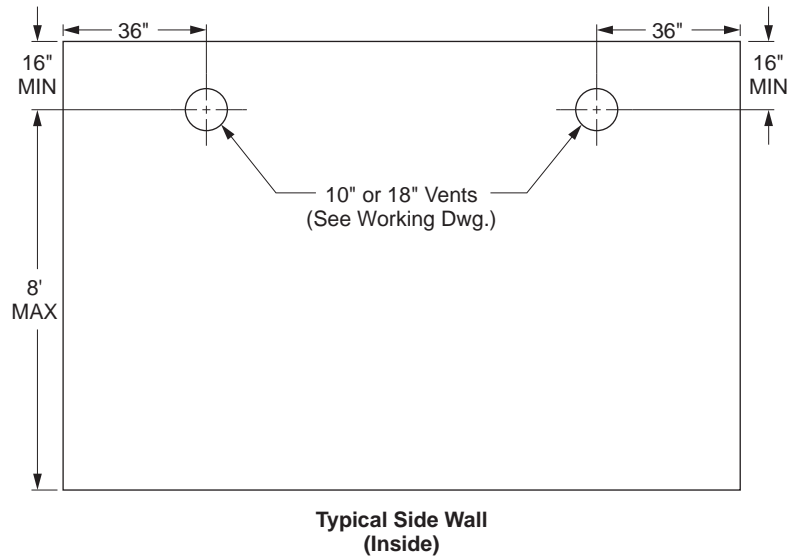
Approved by: 	Standpipe Vent Placement	AC 750
Effective Date: 07-28-2017	What's Changed? Added statement to use polyethylene standpipe vents when using automated equipment.	Sheet 1 of 1 UGS

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AC 751 Vent Locations on Vault and Manhole Walls


Scope AC 751.1 Vent Locations on Vault and Manhole Walls

Figure AC 751-1: Vent Locations on Vault and Manhole Walls



Note(s):

1. 6 vent hole knockouts required in precast vaults and manholes greater than 12 foot length.
2. Variation in vent hole locations allowed on precast vaults and manholes with prior approval of the Edison Company.
3. 2 vent holes are required in poured-in-place vaults and manholes. For vent position and size refer to working drawings.
4. For structures of 12 foot length or less 1 vent hole knockout centered in each wall.

Approved by: 	Vent Locations on Vault and Manhole Walls	AC 751
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 1 UGS

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AC 752 Polyethylene Standpipe Vents

Scope AC 752.1 Polyethylene Standpipe Vents

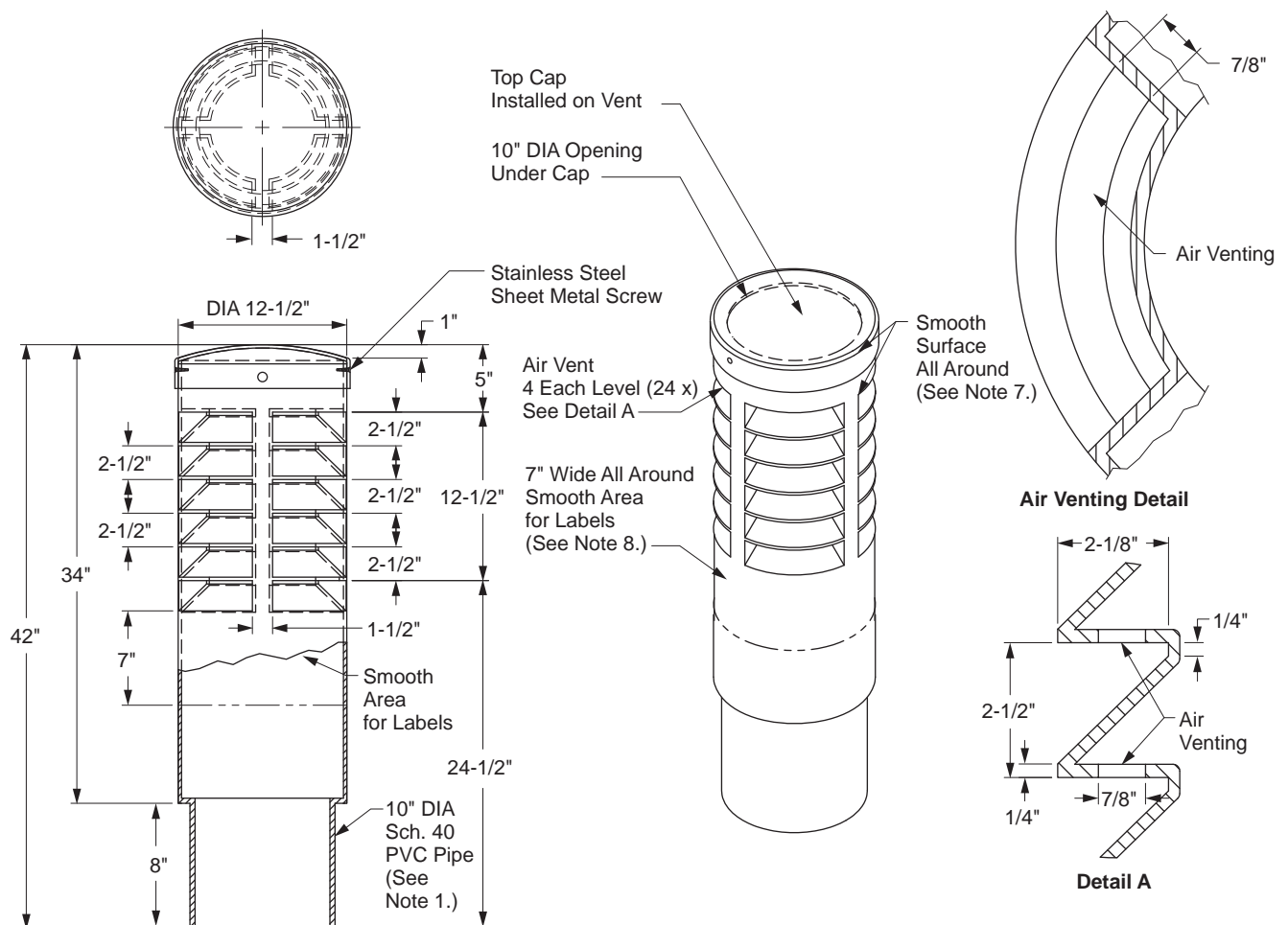
1.0 Application

Protection standpipe for air ventilation of structures. For use on 8-inch and 10-inch ventilation duct. Polyethylene standpipes should be ordered directly from the manufacturer.

Table AC 752-1: Polyethylene Standpipe Information

Standpipe Application	Duct Sizes (in)	Armorcast Part Number	SAP
New	8	P6002708-GRT	10117598
New	10	P6002710-SND	10117599

Figure AC 752-1: Polyethylene Standpipe Vents



Note(s):

- The bottom section is designed with a schedule 40 PVC pipe that will couple to standard PVC fittings. (Refer to Distribution Underground Construction Standards [DUG], VE 225 for replacement details.)
- Material: Linear medium-density polyethylene.

Approved by:

B.C.

Polyethylene Standpipe Vents

AC 752

Sheet 1 of 2

Effective Date:
10-24-2014

What's Changed? SAP Numbers added.

UGS

3. The sandstone finish is supplied for 10-inch ventilation duct standpipe vents. The granite finish is supplied for 8-inch ventilation duct standpipe vents.
4. Install per [AC 750](#) and [AC 758](#). Refer to Distribution Underground Construction Standards (DUG), VE 225 for replacement installation instructions.
5. Air venting: 125 square inches minimum open area per standpipe.
6. See [AC 760](#) for installing a ground wire.
7. Smooth surface section provided for stickers to label fault indicators and inspection dates.
8. Smooth surface section provided for structure and equipment numbers.
9. Four stainless steel sheet metal screws, "one way" head. Use tool, SAP 10145894

Manufacturer:

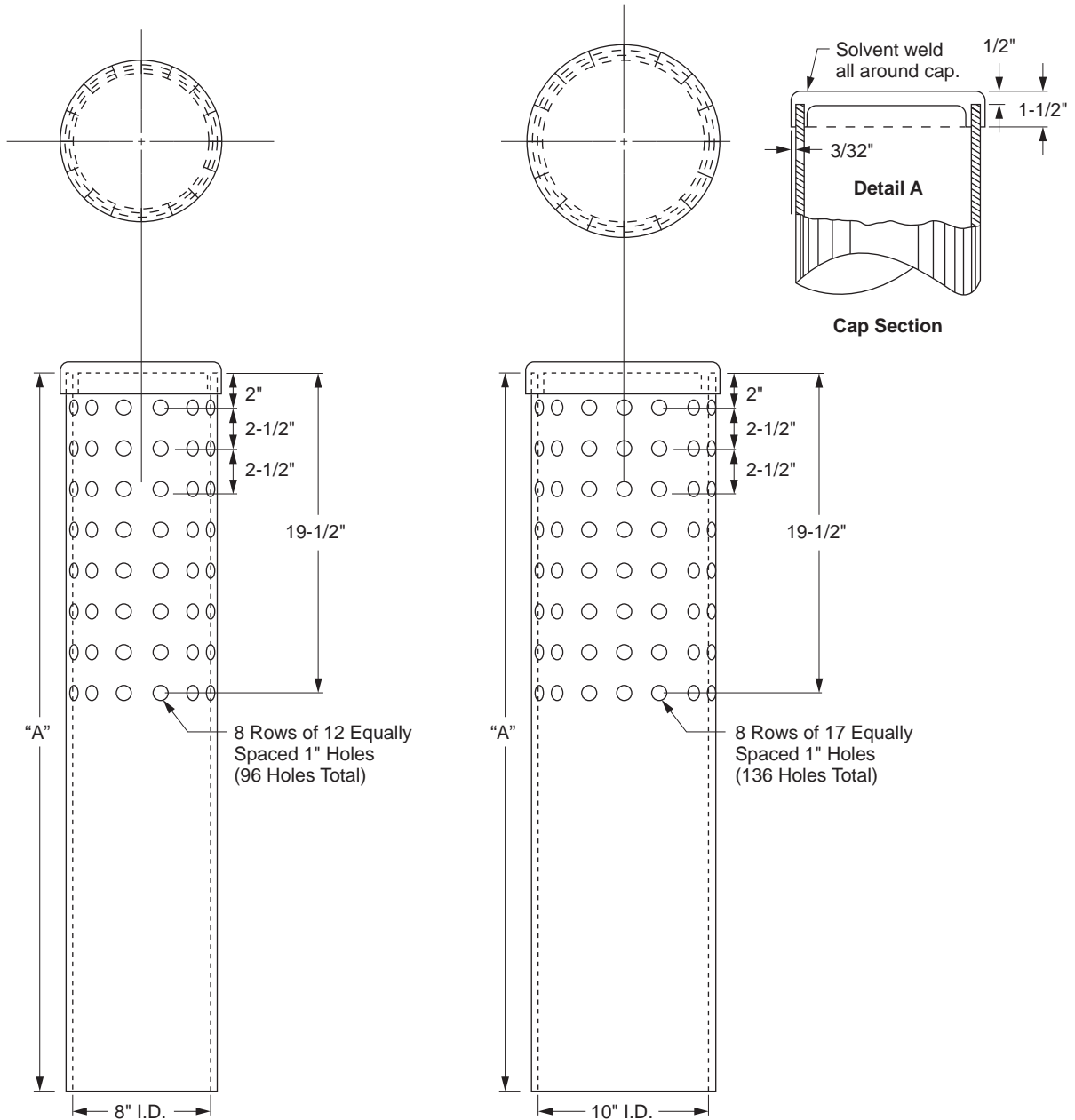
Armorcast Products Company
 13230 Saticoy st. North Hollywood, Ca 91605
 Phone: (818) 982-3600
 Fax: (818)982-7747

AC 752	Polyethylene Standpipe Vents	Approved by: <i>B. C.</i>
Sheet 2 of 2	What's Changed? SAP Number added to Note 9.	Effective Date:
UGS		10-24-2014

AC 753 PVC Standpipe Vents — 8 Inches and 10 Inches

Scope AC 753.1 PVC Standpipe Vents — 8 Inches and 10 Inches

Figure AC 753-1: PVC Standpipe Vents — 8 Inches and 10 Inches



Note(s):

1. Dimension "A" to be 40" (minimum) unless otherwise shown on working drawing.
2. Material: PVC (Polyvinyl Chloride) Type II, Grade 1. ASTM D-1784 with 0.365" wall
3. Finish: Goodrich Gray #260 or equivalent. Painted vents are not acceptable.
4. Install per [AC 758](#).

Approved by:

PhH

PVC Standpipe Vents — 8 Inches and 10 Inches

AC 753

Sheet 1 of 1

Effective Date:
10-28-2005

What's Changed?

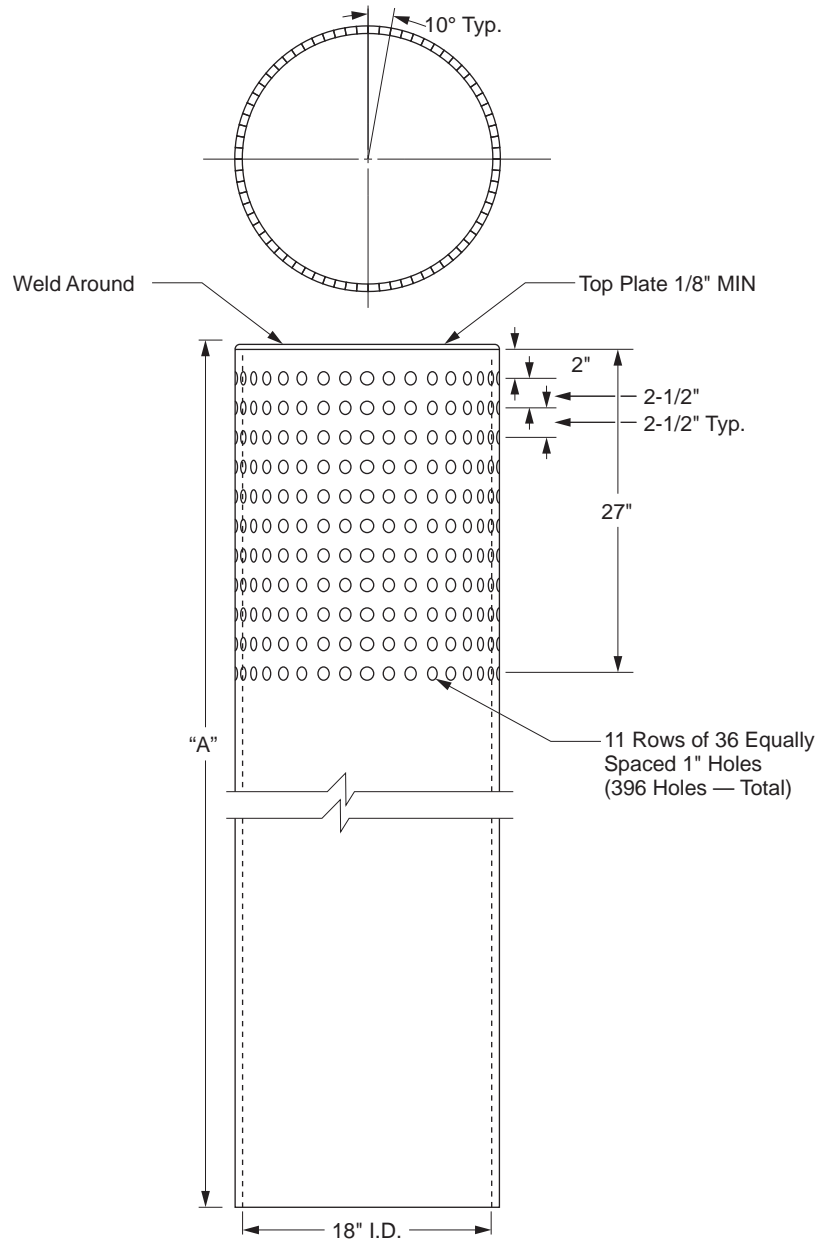
UGS

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AC 754 Steel Standpipe Vent — 18 Inches


Scope AC 754.1 Steel Standpipe Vent — 18 Inches

Figure AC 754-1: Steel Standpipe Vent — 18 Inches



Note(s):

1. Dimension "A" to be 40" (minimum) unless otherwise specified on working drawing.
2. Material will be steel or iron-pipe or casing — 1/8" minimum thickness.
3. Finish to be hot dip galvanized unless otherwise specified on working drawing.
4. Install per [AC 758](#) **except** use 18-inch air duct and 30-inch square concrete around vent from grade to horizontal duct.

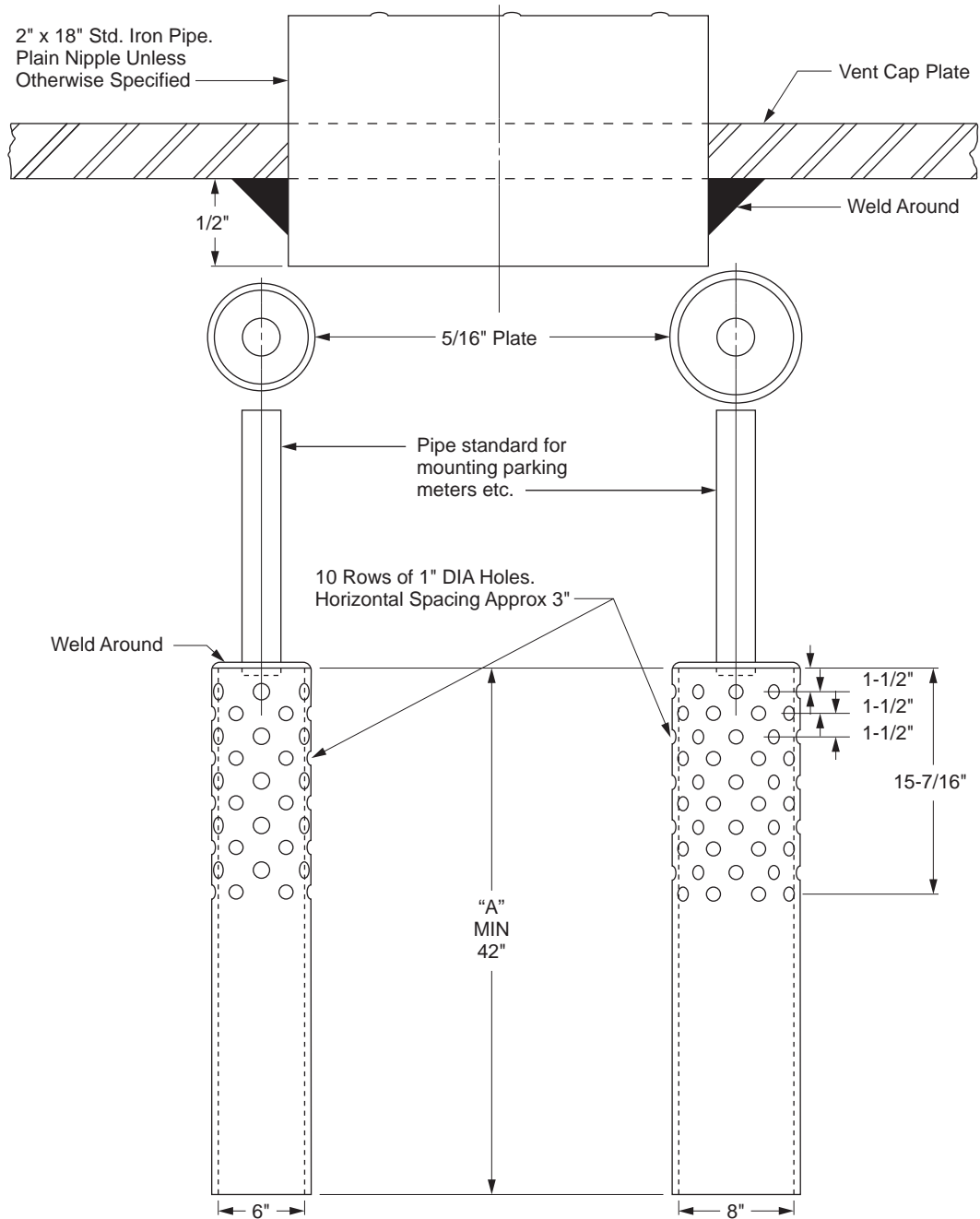
Approved by: 	Steel Standpipe Vent — 18 Inches	AC 754
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 1 UGS

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AC 756 Steel Standpipe Vents with Meter Pipe — 6 Inches and 8 Inches

Scope AC 756.1 Steel Standpipe Vents with Meter Pipe — 6 Inches and 8 Inches

Figure AC 756-1: Steel Standpipe Vents with Meter Pipe — 6 Inches and 8 Inches



Note(s):

1. Dimension "A" to be 42" unless otherwise shown on working drawing.
2. Material: steel or iron, pipe or casing.
3. Finish: hot dip galv. unless otherwise shown on working drawings.

Approved by:

PhH

Steel Standpipe Vents with Meter Pipe — 6 Inches and 8 Inches

AC 756

Sheet 1 of 1

Effective Date:

10-28-2005

What's Changed?

UGS

► SCE Public ◀

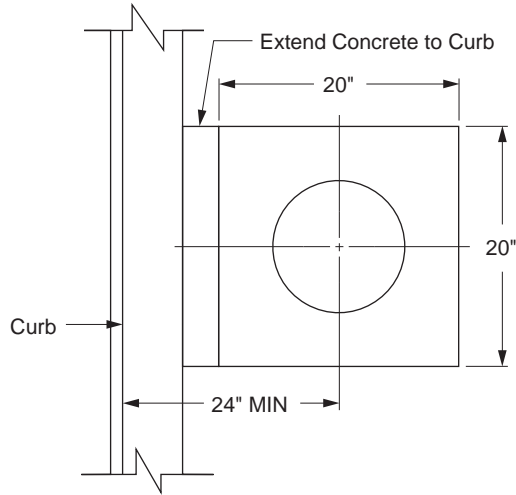
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AC 758 Standpipe Vent Installation

Scope AC 758.1 Standpipe Vent Installation

Refer to Working Drawing for Specific Details

Figure AC 758-1: Standpipe Vent Installation — Vertical View Detail

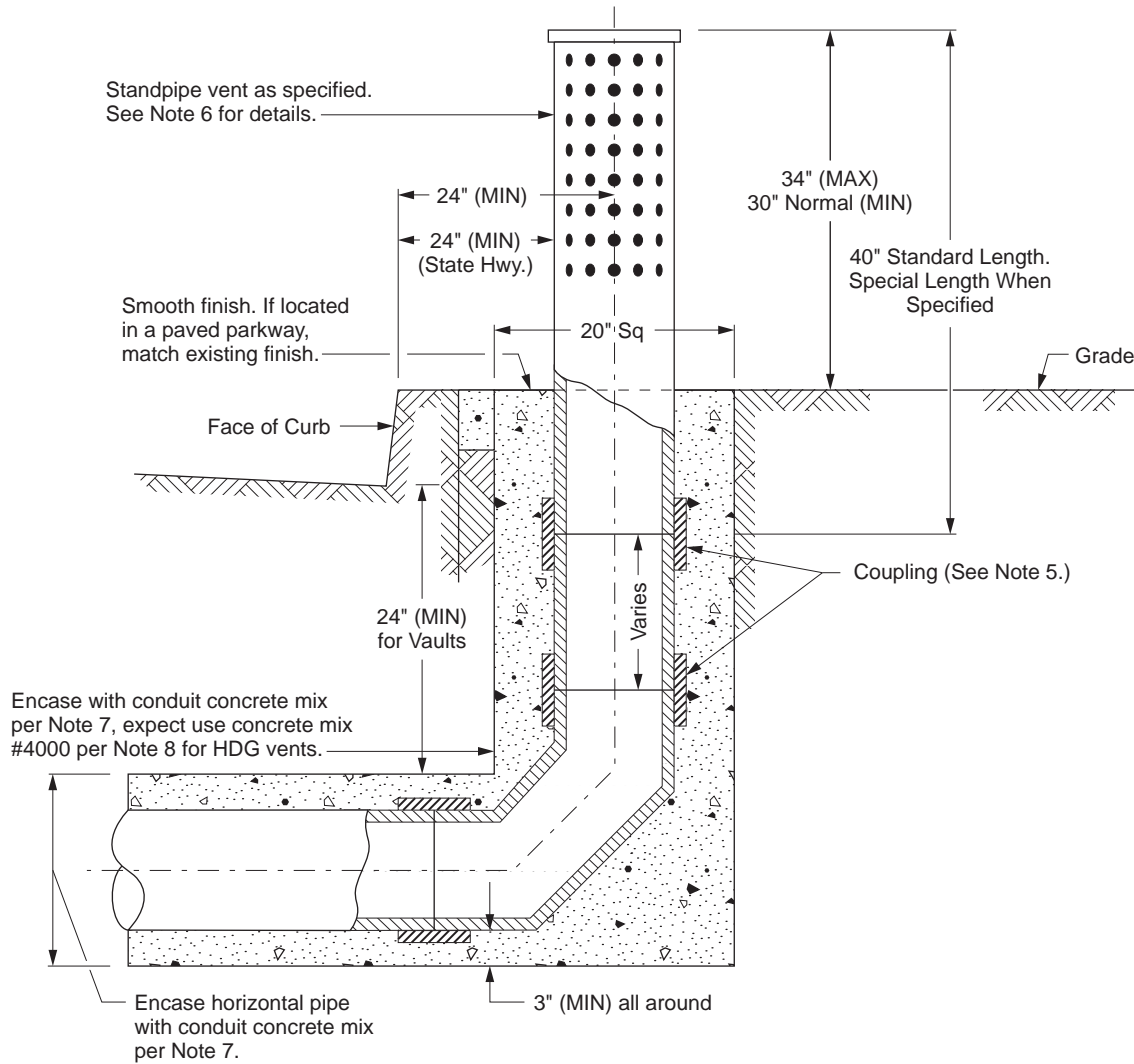


Approved by: <i>f.s.e.</i>	Standpipe Vent Installation	AC 758
Effective Date: 07-26-2013	What's Changed?	Sheet 1 of 3 UGS

Scope AC 758.2 PVC Standpipe Vent Installation

Refer to Working Drawing for Specific Details

Figure AC 758-2: PVC Standpipe Vent Installation



Note(s):

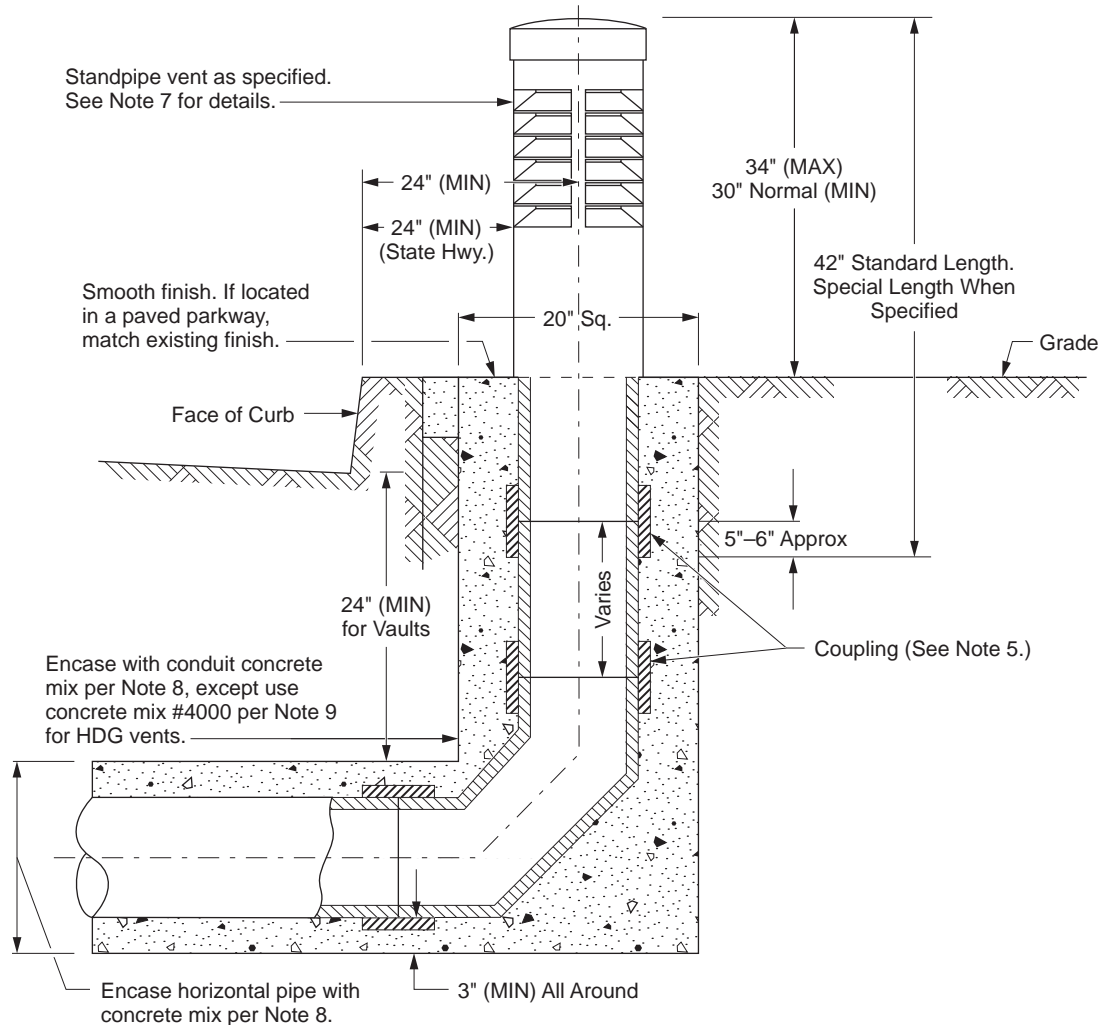
1. Vents shall be placed as shown on working drawings. See AC 750 for details.
2. Vents shall be 10" I.D. PVC unless specified otherwise on the working drawings. Air duct shall be PVC plastic 0.200" minimum wall.
3. Where curbs and grades are not established, bottom holes of vents must be 10" minimum above surface of the ground.
4. Vents must be placed a minimum of five feet apart unless otherwise shown on working drawings.
5. All joints are to be sealed against water infiltration in conformance with conduit manufacturers' recommendations and are to be made in presence of Edison Inspector.
6. See AC 753.
7. See CD 100.
8. See GI 020.

AC 758	Standpipe Vent Installation	Approved by: <i>B.E.</i>
Sheet 2 of 3	What's Changed?	Effective Date: 07-26-2013
UGS		

Scope AC 758.3 Polyethylene Standpipe Vent Installation

Refer to Working Drawing for Specific Details

Figure AC 758-3: Polyethylene Standpipe Vent Installation



Note(s):

1. Vents shall be placed as shown on working drawings. See AC 750 for details.
2. Vents shall be Edison approved polyethylene standpipes unless specified otherwise on the working drawings. Air duct shall be PVC plastic 0.200" minimum wall.
3. Where curbs and grades are not established, bottom opening of vents must be 10" minimum above surface of the ground.
4. Vents must be placed a minimum of five feet apart unless otherwise shown on working drawings.
5. All joints are to be sealed against water infiltration in conformance with conduit manufacturers' recommendations and are to be made in presence of Edison Inspector.
6. For use only with 8-inch and 10-inch structure ventilation duct.
7. See AC 752.
8. See CD 100.
9. See GI 020.

Approved by: <i>p.e.</i>	Standpipe Vent Installation	AC 758
Effective Date: 07-26-2013	What's Changed? Figure AC 758-3 was updated for clarity.	Sheet 3 of 3
		UGS

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AC 759 Wall Stand Vent Detail and Installation

Scope AC 759.1 Wall Stand Vent Detail and Installation

Figure AC 759-1: Wall Stand Vent Detail and Installation

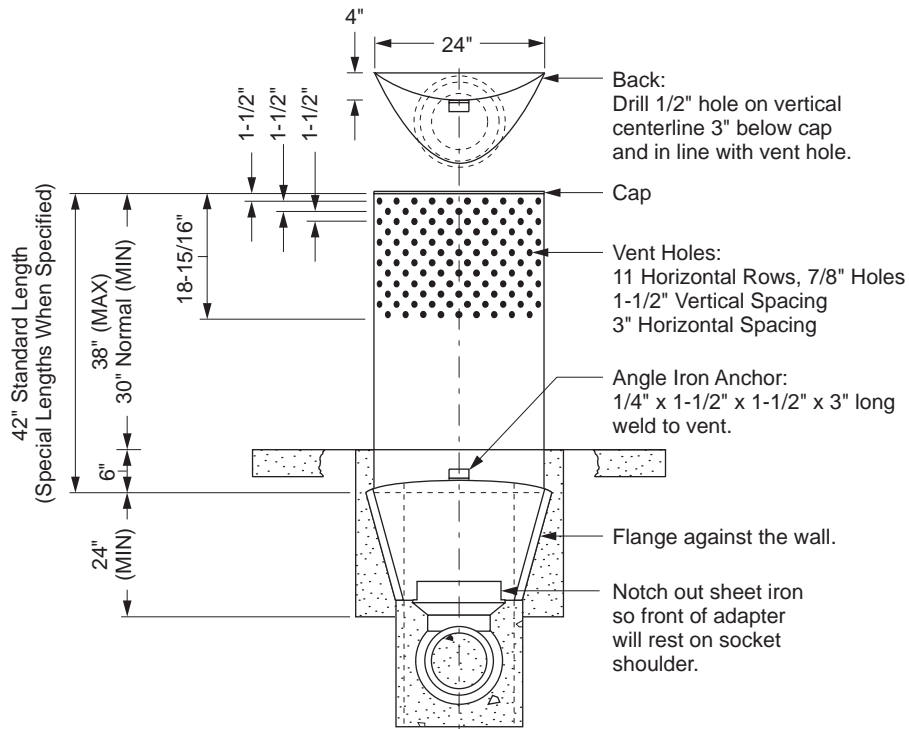


Figure AC 759-1.1: Front View

Approved by: <i>PhH</i>	Wall Stand Vent Detail and Installation	AC 759
Effective Date: 10-28-2005	What's Changed?	Sheet 1 of 2
		UGS

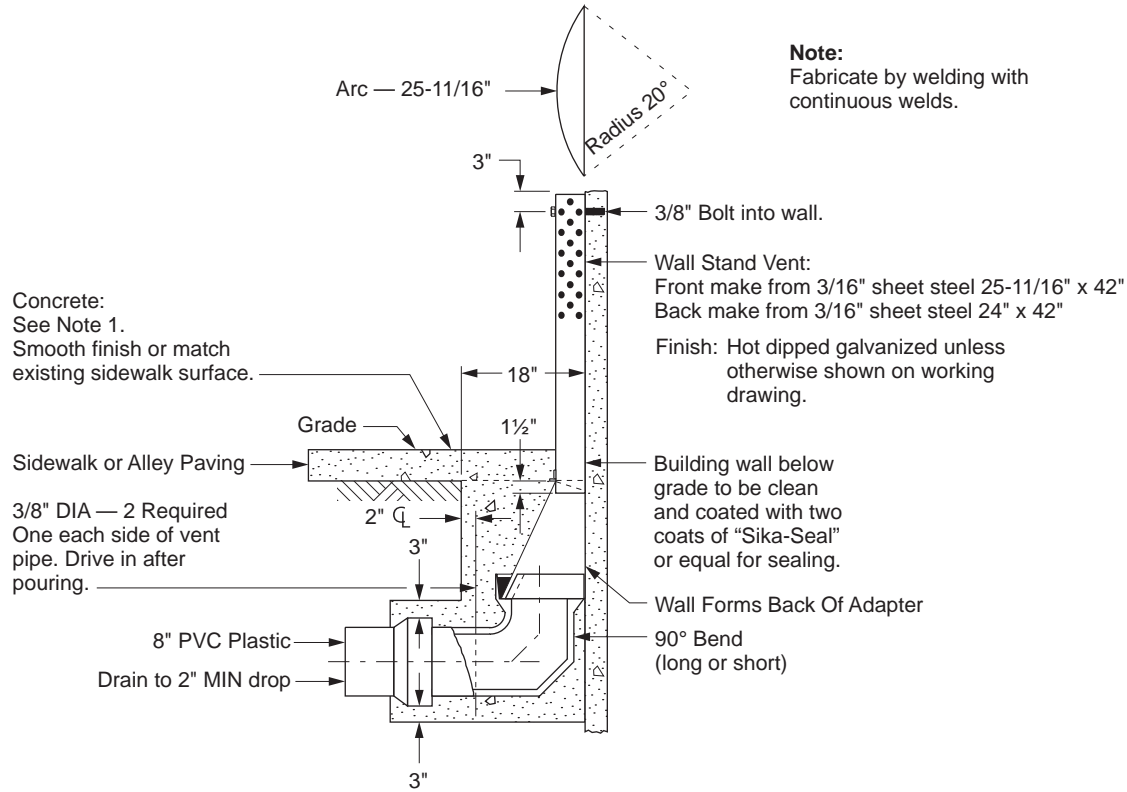


Figure AC 759-1.2: Side View (with Cut-Away Section)

Note(s):

1. See GI 020.

AC 759

Wall Stand Vent Detail and Installation

Approved by:

PHH

Sheet 2 of 2

What's Changed?

Effective Date:

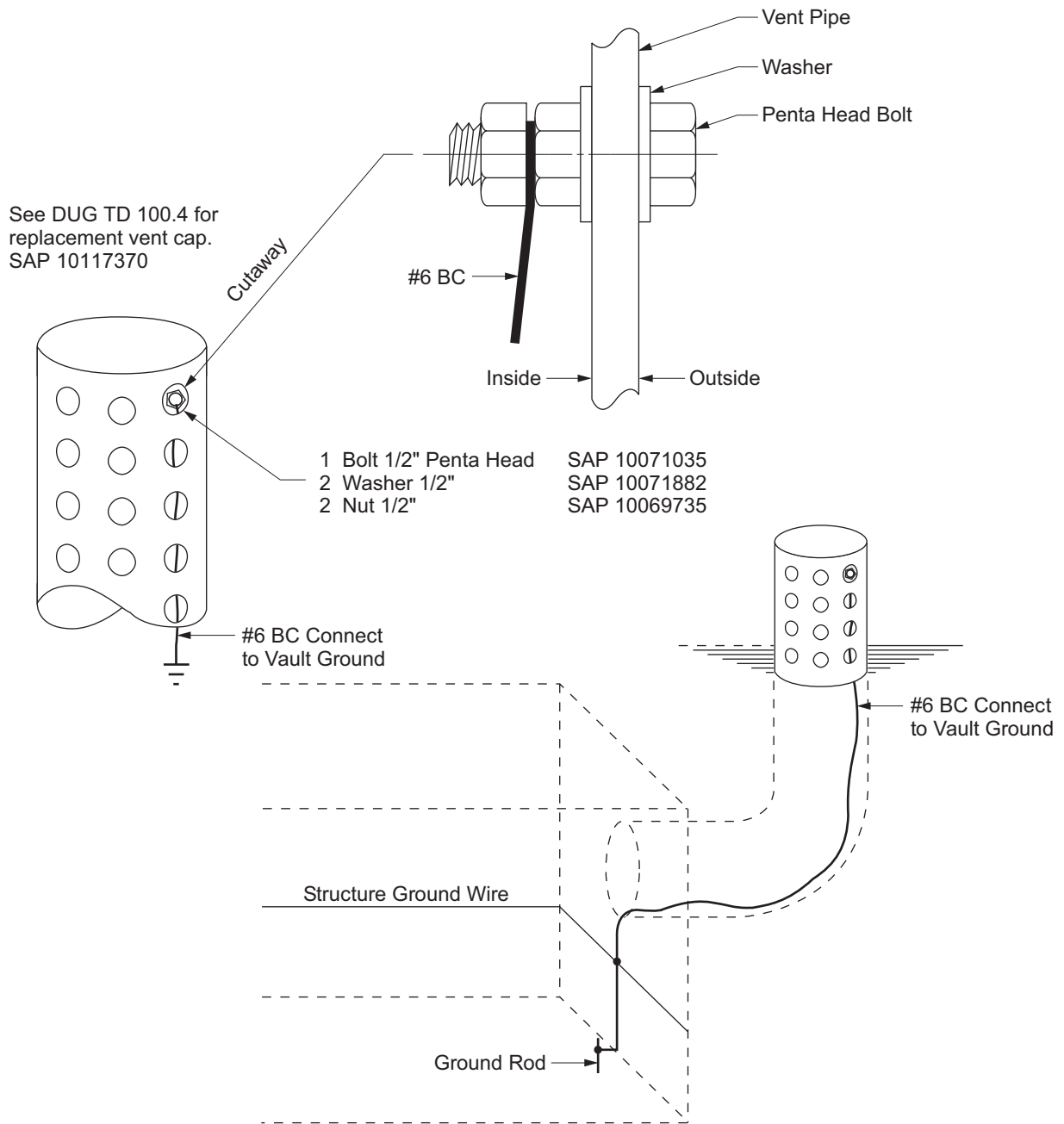
UGS

10-28-2005

AC 760 Installation of a Ground Wire in a Vent

Scope AC 760.1 Installation of a Ground Wire in a PVC Vent

Figure AC 760-1: Installation of a Ground Wire in a PVC Vent



Note(s):

- To assist in underground structure locating from the surface, install a #6 bare copper wire from inside the vent pipe to the structure ground system. This installation will allow a single person crew to tie into the system ground and locate the facilities unaided. The installation should be made during new construction, added to the appropriate structures during the routine maintenance cycle, or as the need arises by request for assistance from the contract cable locating company.

Approved by:

B.C.

Installation of a Ground Wire in a Vent

AC 760

Sheet 1 of 2

Effective Date:

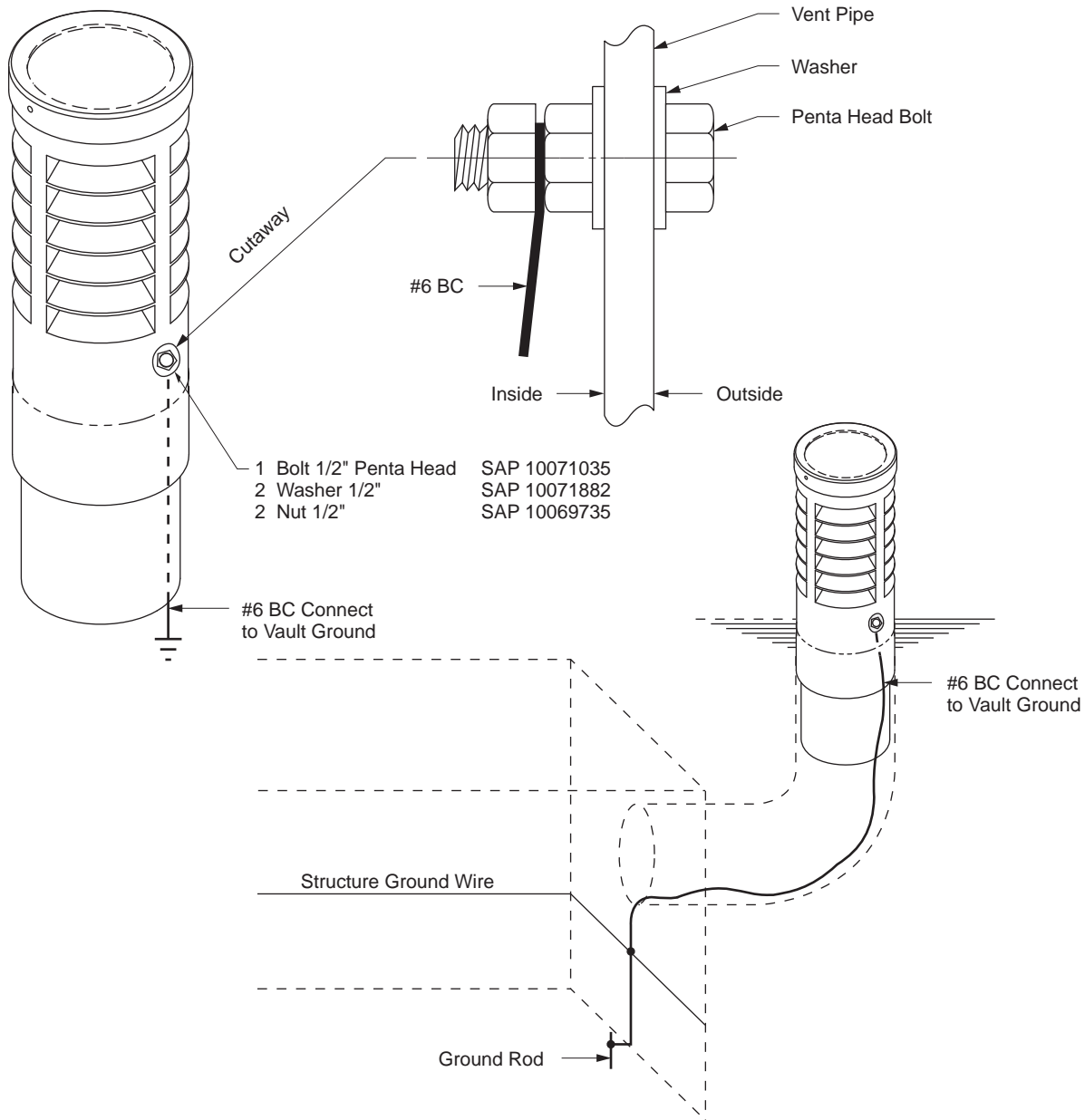
10-24-2014

What's Changed? Figure AC 760-1 SAP Numbers added.

UGS

Scope AC 760.2 Installation of a Ground Wire in a Polyethylene Standpipe Vent

Figure AC 760-2: Shows Installation of a Ground Wire in a Polyethylene Standpipe Vent



Note(s):

1. To assist in underground structure locating from the surface, install a #6 bare copper wire from inside the vent pipe to the structure ground system. This installation will allow a single person crew to tie into the system ground and locate the facilities unaided. The installation shall be made to a minimum of one vent per vault during new construction, added to the appropriate structures during the routine maintenance cycle, or as the need arises by request for assistance from the contract cable locating company.
2. Drill a 9/16" hole for grounding bolt approximately one inch below the lowest ventilation fin slot. The ground connection should be attached on the side of the vent facing away from the street. This is done to maintain a flat surface for attaching structure identification stickers.

AC 760

Installation of a Ground Wire in a Vent

Approved by:

B. C.

Sheet 2 of 2

What's Changed? Figure AC 760-2 SAP Numbers added.

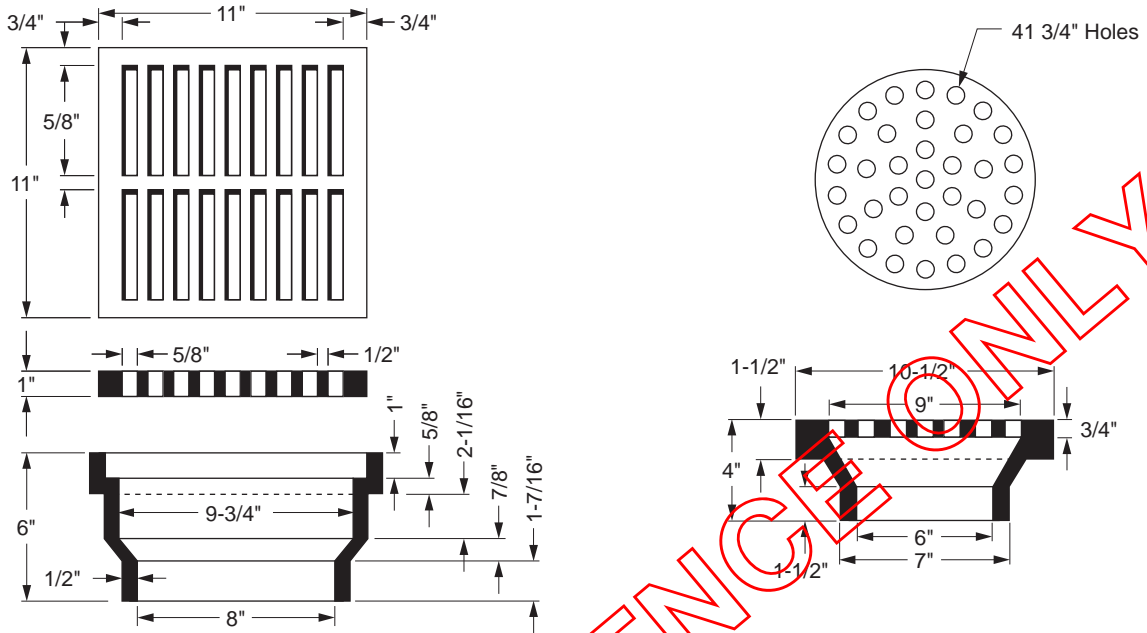
Effective Date:

UGS

10-24-2014

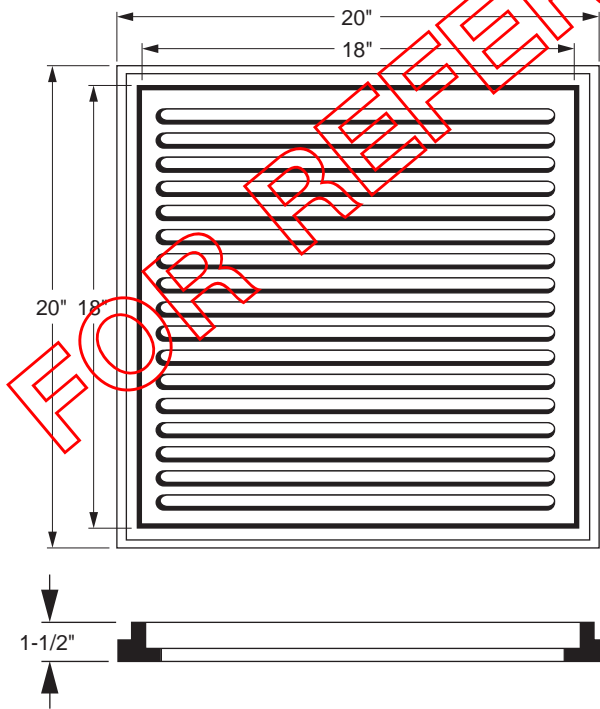
AC 765 Flush Vent Grates and Frames
Scope AC 765.1 Flush Vent Grates and Frames

Figure AC 765-1: Flush Vent Grates and Frames



Square Type for Light Traffic
6" — Alh. Fdy. A-2122
8" — Alh. Fdy. A-2121

Round Type for Heavy Traffic
8" — Alh. Fdy. A-2130



Square Type for Use with Trash Pit

18" x 18" Grate { Sidewalk Type — Alh. Fdy. A-2010
Traffic Type — Alh. Fdy. A-2012

Approved by:

PhH

Flush Vent Grates and Frames

AC 765

Sheet 1 of 9

Effective Date:
10-28-2005

What's Changed?

UGS

► SCE Public ◀

Note(s):

1. Finish to be black unless otherwise specified.
2. Foundry number and size to be shown with working drawings.

FOR REFERENCE ONLY

AC 765

Flush Vent Grates and Frames

Approved by:

PHH

Sheet 2 of 9

What's Changed?

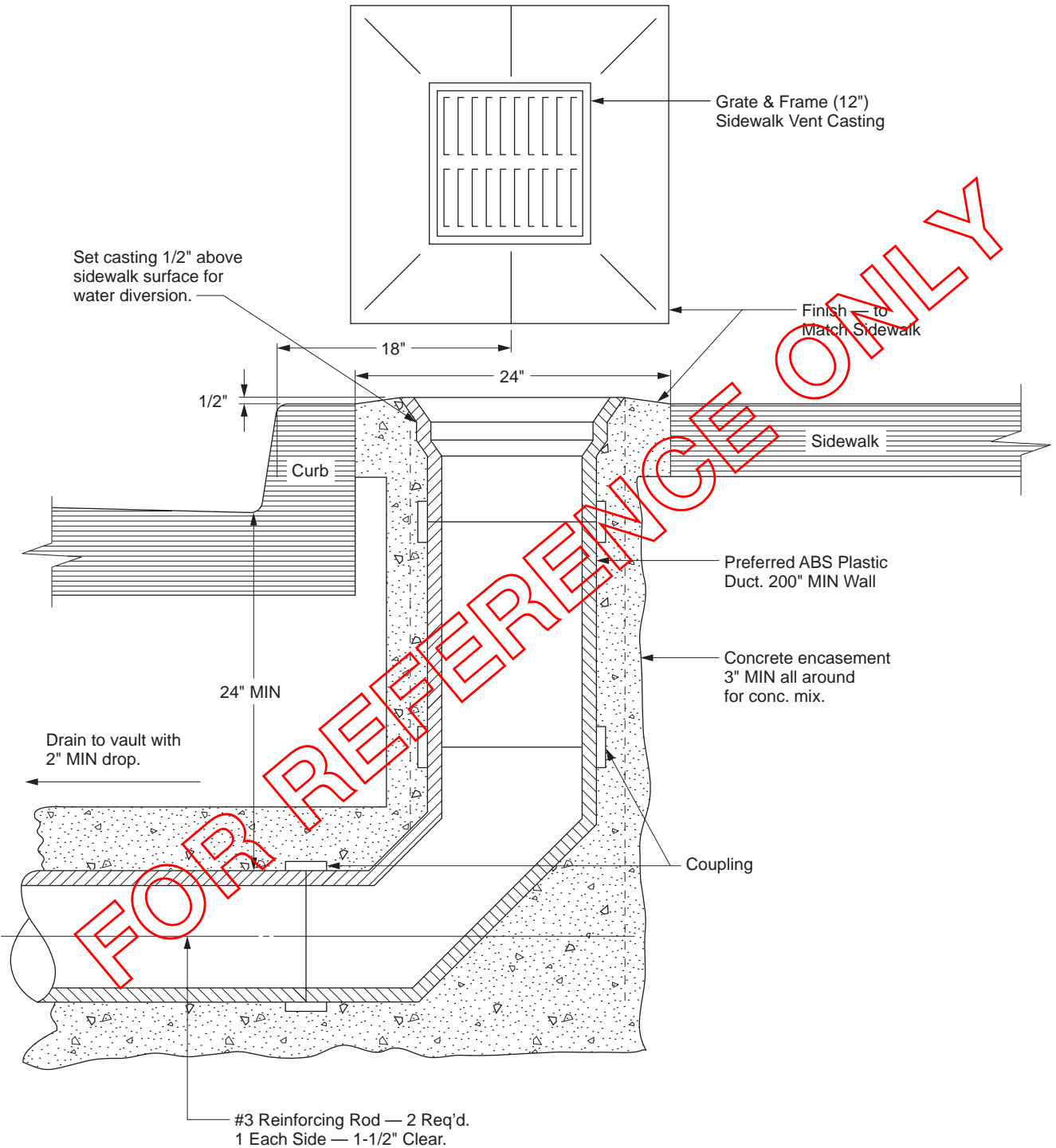
Effective Date:

UGS

10-28-2005

Scope AC 765.2 Flush Vent Installation

Figure AC 765-2: Flush Vent Installation



Approved by:

PHH

Flush Vent Grates and Frames

AC 765

Sheet 3 of 9

Effective Date:
10-28-2005

What's Changed?

UGS

► SCE Public ◀

Note(s):

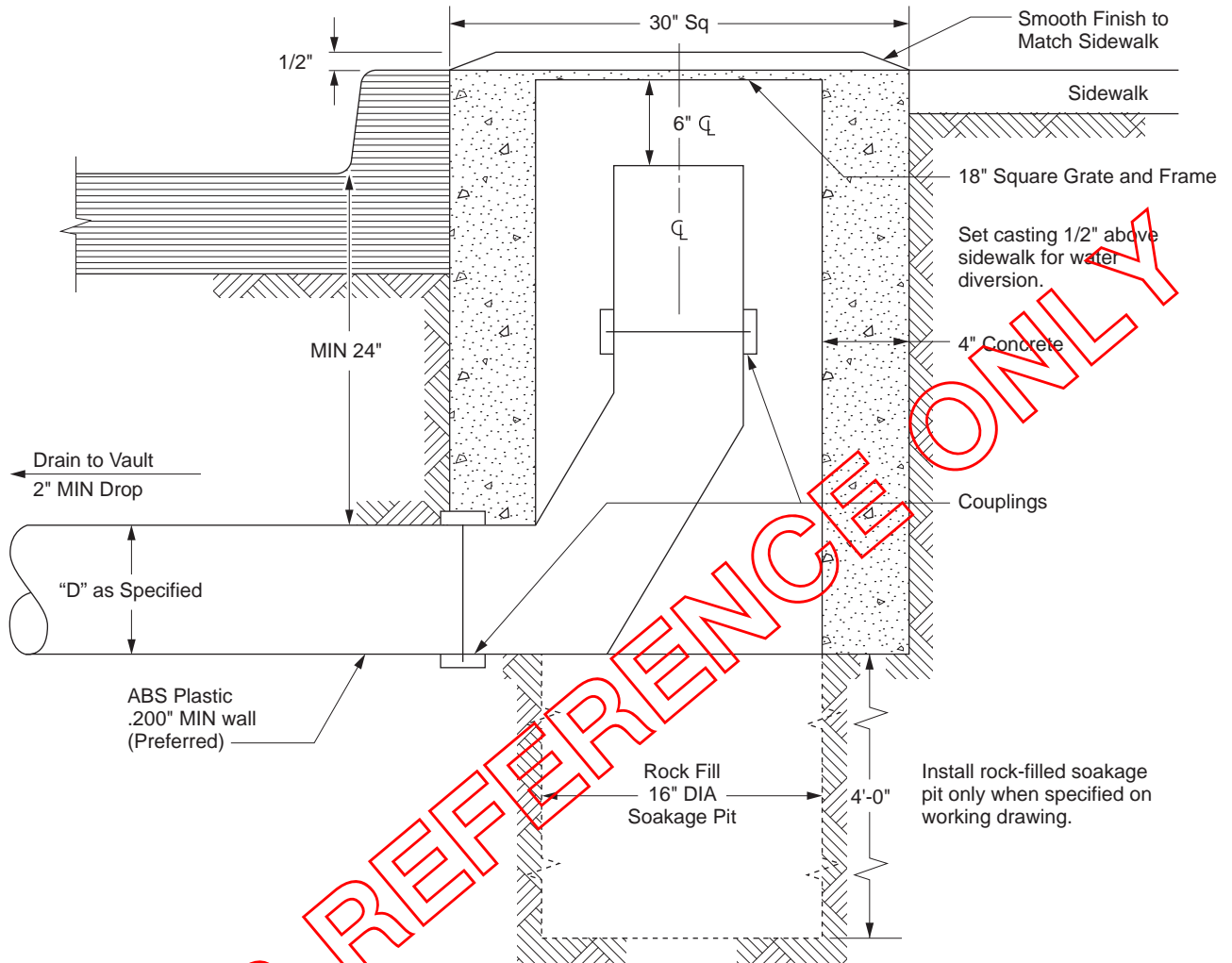
1. Air duct will be one of the following materials:
 - a. ABS plastic 200" minimum wall — preferred
 - b. Vitrified clay pipe, standard strength
 - c. Transite air duct, type (5)

FOR REFERENCE ONLY

AC 765	Flush Vent Grates and Frames	Approved by: <i>PHH</i>
Sheet 4 of 9	What's Changed?	Effective Date: 10-28-2005
UGS		

Scope AC 765.3 Flush Vent Installation with Trash Pit

Figure AC 765-3: Flush Vent Installation with Trash Pit



Note(s):

1. Air duct will be one of the following materials:
 - a. ABS plastic, .200" minimum wall — preferred
 - b. Vitrified clay pipe, standard strength
 - c. Transite air duct, type (5)

Approved by:

PHH

Flush Vent Grates and Frames

AC 765

Sheet 5 of 9

Effective Date:

What's Changed?

10-28-2005

UGS

► SCE Public ◀

Scope AC 765.4 Flush Vault Roof Vents

Figure AC 765-4: Flush Vault Roof Vents

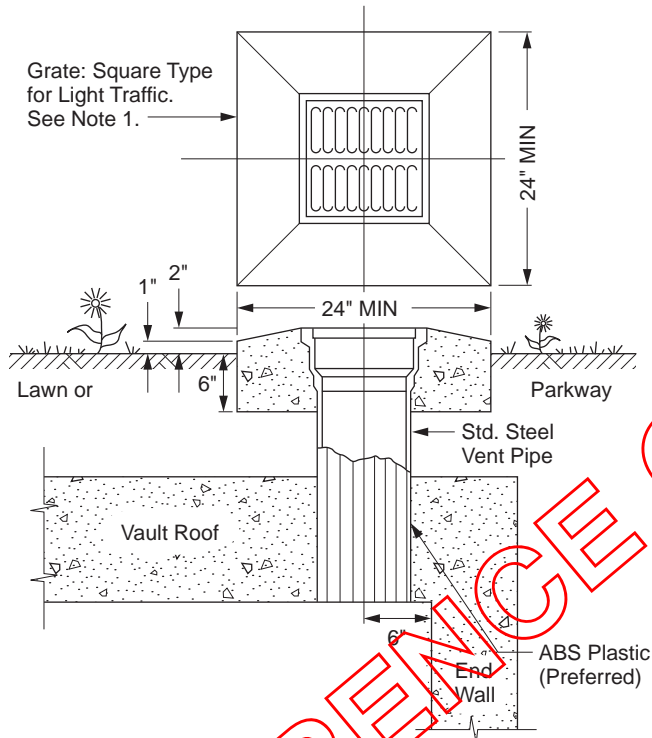


Figure AC 765-4.1

Note(s):

1. See [Scope AC 765.1 \(Sheet 1\)](#).

FOR REFERENCE ONLY

AC 765	Flush Vent Grates and Frames	Approved by: <i>PHH</i>
Sheet 6 of 9	What's Changed?	Effective Date: 10-28-2005
UGS		

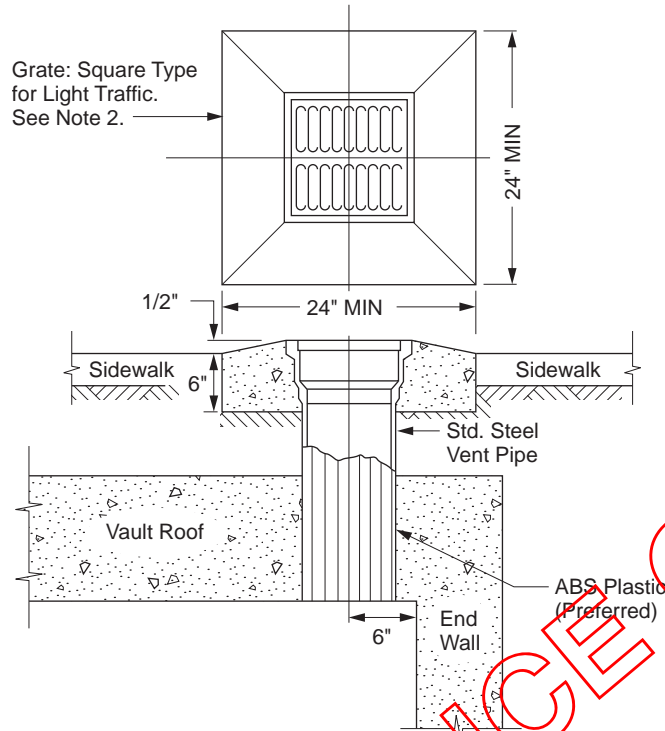



Figure AC 765-4.2

Note(s):

1. Size of vent pipe will be specified on working drawing.
2. See [Scope AC 765.1 \(Sheet 1\)](#).

FOR REFERENCE ONLY

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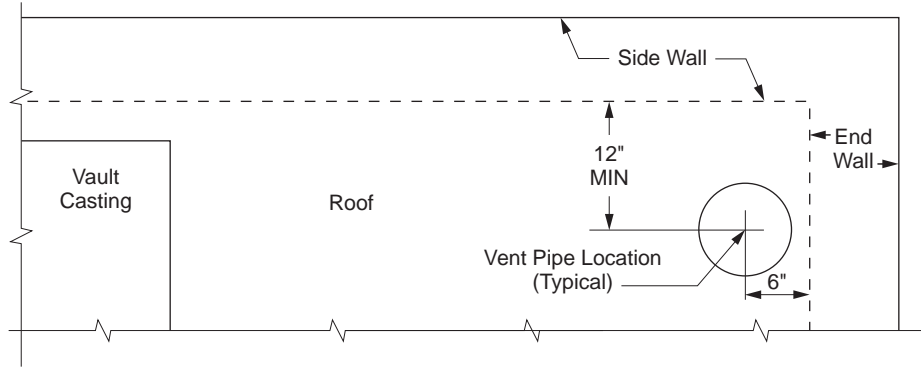



Figure AC 765-4.4: Plan

Note(s):

1. Air ducts will be one of the following materials:
 - a. ABS Plastic, 200" minimum wall — preferred
 - b. Vitrified clay pipe, standard strength
 - c. Transite air duct, type (5)

FOR REFERENCE ONLY

Approved by: 	Flush Vent Grates and Frames	AC 765
Effective Date: 10-28-2005	What's Changed?	Sheet 9 of 9 UGS

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