

A

#### Access Hole

An opening built into a vault's top section that allows access to the vault interior after installation is complete.

B

#### Backfilling

The final step in the vault installation process; it involves filling the excavation with backfilling material in a manner that provides structural integrity to the vault.

#### Backfilling Material

Any stable material used to fill the voids around a completely assembled vault; it can include sand, soil, slurry, CDF, crushed rock and pea gravel, among others.

#### Backfilling Methods

Any process used to adequately fill the voids around a completely assembled vault; they can include machine tamping and water jetting, among others.

#### Base Installation

The lifting and placement of the vault's base section into the hole.

#### Base Keyway

The outside edge of the vault's base section, on which the upper section(s) rests.

#### Bedding Material

Any stable material used to cover the floor of the hole; can include sand, crushed rock and pea gravel, among others.

#### Bolt-On Ladder

A simple ladder which is constructed to fasten to the interior wall of a vault; it allows safe access to the vault interior after installation is complete.

C

#### Conduit

Pipe or tubing through which cables can be pulled or housed.

#### Contract Drawings

Technical diagrams created as part of the installation package; they show the location of the vault within the hole and contain other important job specifications like placement of the access hole and backfilling method, among others.

#### Corbel

A projecting area built into the side of a vault during the manufacturing process.

#### Crane Weight Capacity

The amount of weight that a crane of a specific size and make can lift safely.

## D

#### Deep Sump Protrusion

A projecting area built into the base of a vault during the manufacturing process; it is designed to accommodate pump equipment.

## E

#### Excavation Contractor

The project team responsible for digging the hole, assembling the vault and backfilling.

#### Excavation Dimensions

The required size of the hole to be dug; depends on overall vault dimensions and additional space needed to accommodate grade ring risers, frame and cover, pump operation, shoring and compaction equipment, stable base material, corbels, deep sump protrusions and specific field conditions.

## F

#### Final Assembly

The last steps in the vault assembly process; they include installing racking, running conduit into the vault and installing wiring and a ground ribbon when required.

#### Foreign Utilities

Utility lines typically installed underground; they can include cable, fiber optic and high pressure gas lines, among others.

#### Frame and Cover

A cast-iron component that includes a frame and manhole cover; it serves to enclose the vault's access hole.

## G

#### Gasket Material

An industrial adhesive material that is shipped in long coils; it is used to seal the vault's sections together.

#### Grade Ring Risers

Tall cylindrical rings that elevate the access hole to ground level; they include grooves in which steps are attached.

#### Grout

A mixture of cement, sand and water used to fill cracks and cavities.

## H

#### Hook Ladder

A ladder whose top is constructed to hook over the steps in a vault with a manhole cover; it allows safe access to the vault interior after installation is complete.

## I

#### Inspection Requirements

Procedures specified by a local or state government regard the location of below-ground foreign utilities before excavation.

## K

#### Knockout

A waffle-shaped feature that is built into the side of a water or electrical vault. It is constructed so that openings of various sizes can be made into it by breaking it with a hammer during the final assembly process.

## L

### Lift

An even quantity of backfilling material placed around the entire perimeter of an assembled vault; typically, bedding material is installed in 1 to 2 foot lifts as part of the backfilling process.

### Lift Point Locations

The places on the vault from which lifting gear is attached and the vault can be lifted safely; most vaults include four lift points.

### Lift Rigging Length

The length of the individual cables used to lift a vault from the truck bed; equal to 2-1/2 times longer than the longest distance between lift points.

## P

### Permitting Regulations

Procedures specific by a local or state government; they dictate safe and legal practices for projects such as vault installations.

### PVC Pipe (see Conduit)

## R

### Rigging

Chains, straps or other gear which is attached to a vault for lifting purposes. Most vaults require four-way rigging, or gear that includes four legs. Risers (see Grade Ring Risers)

## S

### Shoring

Supports for excavation walls to prevent cave-ins; shoring options include a metal shoring box or sloping the hole, among others.

## Site Planning

One of the most critical steps in the vault installation process, site planning includes reviewing the site for above- and below-ground obstructions, planning an access path and suitable surface area for the vault delivery truck, selecting an appropriate crane weight, evaluating lift conditions.

## Soil Conditions

The specific state of the soil being removed to accommodate the vault; they can affect the efficiency and safety of the excavation process.

## Splicing

The recommended method for joining one piece of gasket material to another; the two pieces of gasket material are placed end-to-end.

## Stable Base Preparation

The installation of several inches of material in the bottom of the hole; provides a stable foundation for the vault.

## Step

A curved piece of rebar that is made to interlock with grooves on the grade ring risers; it is installed with a hook ladder in a vault with a manhole cover.

## T

### Termaduct

Also known as a PVC duct terminator; a round plastic insert that is built into the side of a utility vault and matches the size of a conduit that houses telephone lines. It is constructed to be broken easily with a hammer during the final assembly process.

### Tongue and Groove Joint

A two-part joint in which a projection on one vault section called a tongue fits into a groove on the other vault section.

### Top Installation

The lifting and placement of the vault's top section onto the base section.