

“Non-Standard” pay item. For example, a Regional Traffic Engineer may require the installation of only fiberglass junction boxes.

- The size of the box is dictated by the size of the wires and conduit. This issue is discussed in more detail in [Appendix VB-4](#).
- All VDOT junction boxes are rated “H20” for heavy traffic.

#### 2.8.5.6 Conduit

VDOT specifications recognize all NEC conduit trade sizes. However, the following items have become the preferred standards:

- PVC schedule-40 conduit is preferred for all buried conduit runs.
- Metal conduit is preferred for all exposed conduit runs.
- 2” conduit is typically the smallest size used throughout a roadway electrical system, except as branch conduits for under bridge lighting and sign lighting.
- 1” and  $\frac{3}{4}$ ” metal conduit work best for an under bridge lighting system.
- 3” or 4” conduit sizes are frequently specified when the NEC conduit fill requirements demand a size larger than 2”.
- Placing multiple conduits in the same trench is an acceptable practice.
- When running conductors under a bridge, the exposed bridge abutment can provide a suitable location for the exposed conduit, as shown in Figure 2-20.
- The electrical grounding conductor (EGC) is incidental to the installation of new conduit.
- Metal conduit does not require an EGC.



Figure 2-20: Exposed Metal Conduit