

4551604 STRUCTURES FOUNDATIONS – CROSS-HOLE SONIC LOGGING (CSL) TUBES  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Juan Castellanos  
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Comments: (3-20-12, Internal)

Please add yellow highlighted text below:

→ 455-16.4 Cross-Hole Sonic Logging (CSL) Tubes: Install CSL access tubes full length in all drilled shafts from the tip of shaft to a point high enough above top of shaft to allow cross-hole sonic logging testing, but not less than 30 inches above the top of the drilled shaft, ground surface or water surface, whichever is higher. Equally space tubes around circumference of drilled shaft. Securely tie access tubes to the inside of the reinforcing cage and align tubes to be parallel to the vertical axis of the center of the cage. Access tubes *from the top of the reinforcing cage to the tip of the shaft shall must* be NPS 1-1/2 Schedule 40 black iron or **black** steel (not galvanized) pipe. *Access tubes above the top of the reinforcing cage may be the same black iron or black steel pipe or Schedule 80 PVC pipe.* Ensure that the CSL access tubes are free from loose rust, scale, dirt, paint, oil and other foreign material. Couple tubes as required with threaded couplers, such that inside of tube remains flush. Seal the bottom and top of the tubes with threaded caps. The tubes joints and bottom caps shall be watertight. Seal the top of the

Response: Change made prior to Industry Review.

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Comments: (3-27-12, Internal)

The following (shown as final) looks a little out of balance:

Access tubes *from the top of the reinforcing cage to the tip of the shaft shall must* be NPS 1-1/2 Schedule 40 black iron or steel (not galvanized) pipe. *Access tubes above the top of the reinforcing cage may be the same black iron or black steel pipe or Schedule 80 PVC pipe.*

If the second sentence needs to read “*black iron or black steel pipe or Schedule 80 PVC pipe*” then the first sentence should also read “black iron or **black** steel (not galvanized) pipe”.

Response: Change made prior to Industry Review.

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Comments: (4-3-12)

Are these tubes required on ALL drilled shafts, including those for light poles and mast arms? Or is there a limit on the length of shaft. That is, if they are 15 ft. or less they do not need the tubes?

Response: All drilled shafts require access tubes, including shafts for miscellaneous structures (high mast light poles, mast arms, signs) of any length.

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