

TRACER WIRE

Reinforced tracer wire shall be required on all PVC0 water main repairs within the City.

- Tracer wire for open cut installation shall be a #12 AWG HS-CCS high-strength copper clad steel conductor (HS-CCS), insulated with a 30 mil, high-density, high molecular weight polyethylene (HDPE) insulation, and rated for direct burial use at 30 volts. HS-CCS conductor must be at 21% conductivity for locating purposes, break load 380 lbs. minimum. HDPE insulation shall be RoHS compliant and utilize virgin grade material. Insulation color shall blue. Tracer wire shall be Copperhead™ HS-CCS HDPE 30 mil or pre-approved equal.
- Tracer wire for directional drilling/boring shall be SoloShot™ (12 AWG) extra-high strength copper-clad steel conductor (EHS-CCS), insulated with a 45 mil, high density, high molecular weight polyethylene (HDPE) insulation, and rated for direct burial use at 30 volts. EHS-CCS conductor must be at 21% conductivity for locating purposes; break load will be 1150 lbs. minimum. HDPE insulation shall be RoHS compliant and utilize virgin grade material. Tracer wire shall be Copperhead™ SoloShot™ EHS-CCS HDPE 45 mil or pre-approved equal.
- Two separate conductors shall be run along the side (at the nine or three o'clock position) of all new mains and hydrant leads, taped to the pipe a minimum of every 5 feet.
- The wire shall be brought to grade in a tracer box at each hydrant.
 - A magnetized tracer box shall be installed at each new fire hydrant.
 - Locate the magnetized tracer box adjacent to the auxiliary valve, with two feet of the hydrant barrel.
 - The box shall be tamper-proof, with cast or ductile iron blue lid with a brass wire harness and external brass connection screw, (Copperhead Industries, LDXL36BTP in unpaved areas, CD14BTP for concrete applications and RB14BTP in roadways or approved equal.
 - Magnetized tracer boxes maybe required at locations to be determined by the City Engineer.
- The wire shall also be secured to the top (inside) of each valve vault leaving enough slack in the wire so that it may be pulled out of the valve vault with an excess of 6 foot.
- All splices in the wire to connect main line tracer wire shall use Copperhead SnakeBite Part #SCB_01-SR or approved equal.
 - For lateral runs or hydrant leads, connections shall be made with a 3 - way enclosed lug direct bury connector with internal silicone sealant, Copperhead Industries "DryConn" Direct Bury Lug, # 3WB-01 or approved equal.
 - In directional bore operations; splices shall be at valve and fitting locations where excavation is required. If a splice must be done in an unexcavated location, use a wire nut twist connector with restraining cap and internal silicone sealant Copperhead Industries #SCB - 01SR or approved equal. Connections should be wrapped with heavy-duty electrical tape (minimum three {3} inches each side of connection).
 - The contractor is responsible for testing and ensuring the continuity of the tracer wire during installation, the City will test the integrity of the tracing wire at the end of construction.
- Grounding the tracer wire system at all dead end points completed the needed electrical circuit for accurate locates.
 - Contractor to include a Copperhead™ Anode Part #(Ano-1005), 1# x 1.315"D x 18.5"L, Magnesium Drive in Anode which includes an HDPE cap and 10' of density high molecular weight polyethylene (HDPE) insulation.
 - Installation of one Copperhead Snake Bite™ connector, part # SCB-01-SR, shall be installed at a location to be determined by the Engineer.
 - The connector is provided to splice the factory installed anode tracer wire to the mainline tracer wire. The Copperhead™ Anode described above must be used or a pre-approved equal
- Tracer wire shall be tested upon repair.

Revised:
1. 06/12/2015
2. 07/14/2023 JRG - Update PVC0 WM repairs and tracer wire test
3.
4.

Drawing Name
PVC0 WATER MAIN TRACER WIRE GENERAL SPECIFICATIONS

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UW-13
Date: 06/10/2015
Drawn Checked
JH VR

