

LETTER TO THE INDUSTRY

DATE: February 10, 2011

TO: Builders and Plumbing Contractors working in Loudoun Water's Service Areas

SUBJECT: Requirements for Water and Sewer Services-Tracer Wire and Soil Marker

This letter follows one dated May 13, 2010, in which Loudoun Water announced two new requirements, pertaining to all new water and sewer service lines being installed within our service areas. A copy of that letter, with its original enclosures, is provided as an enclosure to this correspondence.

In working with the local plumbing and building community to implement these provisions, several clarifications have come to our attention. These are:

1. Minimum Wire Size

The Virginia Uniform Statewide Building Code specifies that the minimum size of tracer wire with building sewers is 18 AWG. Loudoun Water continues to recommend 12 AWG, for its better resilience, and will continue to require 12 AWG with our mains and associated lateral spurs. However, in response to builder request, we will permit tracer wire as small as 18 AWG for the building sewer and water service installations located on private property, and being made by the plumbing community.

Loudoun Water may check the completed tracer wires for continuity. Tracing systems found to be incomplete, defective, or improperly installed will require correction, prior to service being initiated.

The requirements for solid copper wire and 45 mil polyethylene insulation remain as originally adopted. The color of the insulation is not a concern.

2. Splice Permitted at Water Pigtail

Loudoun Water construction detail W-23 is being revised at NOTE 3, so as to delete the text "NO SPLICES". Under current construction standards, the water service is stubbed from the back of each meter box, and a tracer wire is placed with this water "pigtail", by the utility installer. Where the plumber joins to such a pigtail, the continuation of tracer wire may be spliced to that left by the utility contractor, using the same butt connector and shrink sleeve as is employed to continue tracer on sewer services.

Where extending from a pigtail of older construction, where no wire is found, we ask that you continue to strip the pigtail and add the wire from the interior of the meter box, as shown in W-23.



3. Termination of Tracer Wire with Water Service

As specified in NOTE 3 of construction detail W-23, the tracer wire with water service may be terminated either at building's interior, with the valve in the water service entrance, or on exterior with a soil marker. We ask that where termination occurs interior, that the wire be tagged with an identification label, so as to make clear the function of the wire.

For repair or replacement work, we ask that tracer wire be installed with new pipe, to the limit of the necessary excavation. Where only a segment of the line is being replaced, a soil marker should be used to enable one end of the tracer wire to be terminated at grade.

Loudoun Water appreciates your continuing efforts to implement these provisions, to the benefit of all who will own and operate these service lines. If I can be of assistance, please call at 571-291-7916, or via email: rwelliver@loudounwater.org.

Sincerely,



Ralph M. Welliver
Project Engineer

cc: William Sargent, Loudoun County Plumbing Department

enclosure: letter of May 13, 2010

May 13, 2010

{Builder/Plumber}

RE: New Requirements for Water and Sewer Service Lines- Tracer Wire and Soil Marker

Dear Builder or Plumbing Contractor:

Effective July 1, 2010, Loudoun Water will begin the enforcement of **two new requirements**, pertaining to all new water and sewer service lines being installed within our service areas. These requirements are being adopted to ensure that installations comply with Virginia law, which requires that all underground utility lines be installed in a manner that allows for their location to be accurately determined, throughout their service life.

The enclosed Figures S-10 and S-12 describe the required **tracer wire and soil marker for use with sanitary service lines (building sewers)**. This is the same tracer wire requirement that has been in effect since 2002. The new feature is the termination of the tracer wire at the exterior of the building, by means of the soil marker.

The enclosed Figure W-23 concerns **water service lines**. Wherever the service from Loudoun Water's meter to the building is **of nonmetallic pipe**, a continuous **tracer wire** is to be installed from the meter box to the building. The wire must be terminated within the meter box so as to allow the appropriate locating equipment to be connected, and the service line traced.

As specified on the enclosed figures, all tracer wire is to be #12 AWG solid copper with polyethylene insulation of at least 45 mil thickness. For building sewers, wire may be spliced at the point of extension from the lateral spur, which will have been installed by the mainline utility contractor. For water services, wire is to be continuous without splices, from meter to building. During the initiation of service, Loudoun Water will make occasional checks of tracer continuity.

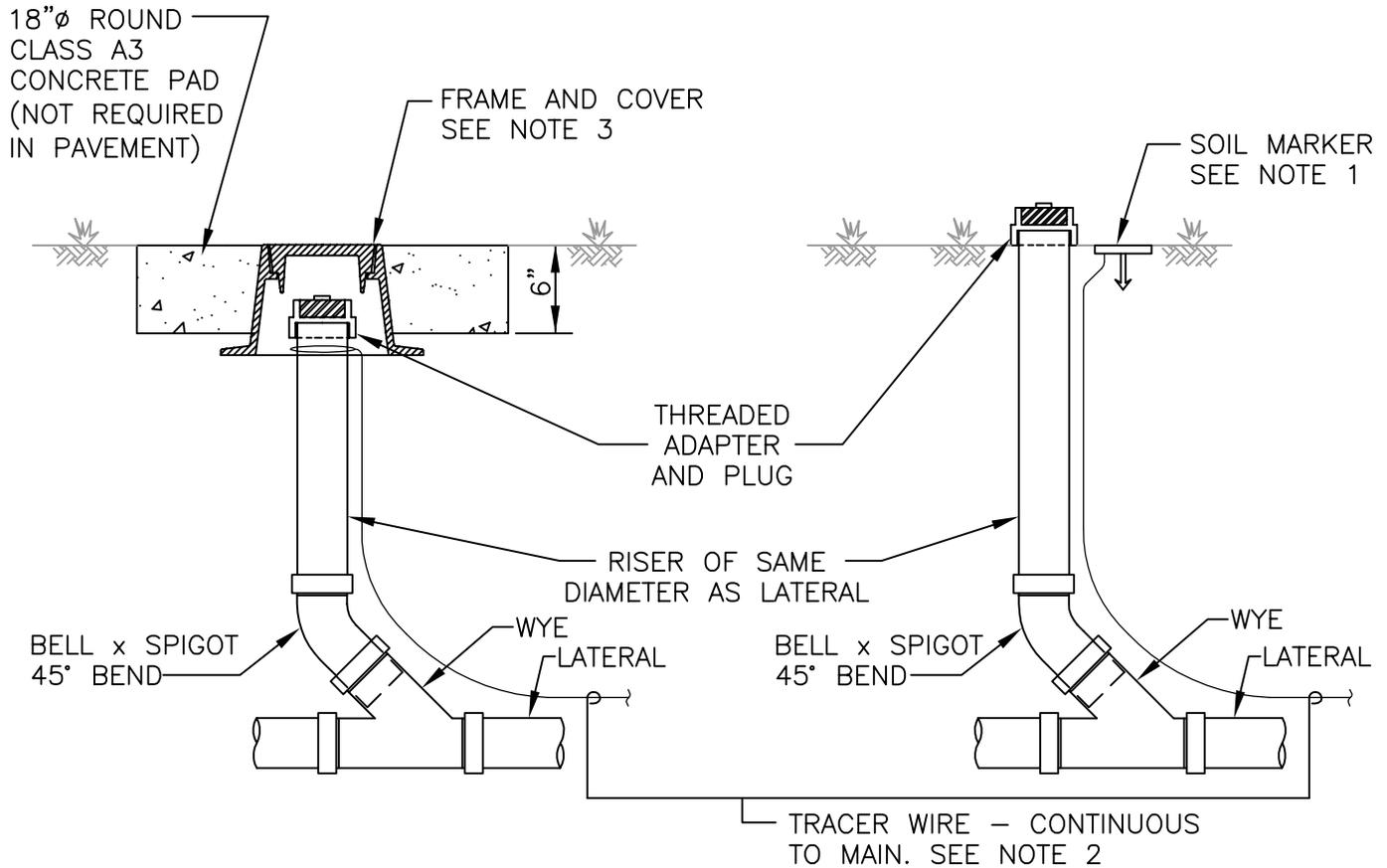
Thank you for incorporating these features into your building program. We believe that these provisions will substantially improve the ability of homeowners and building owners to protect, repair, and maintain their service lines. If I can be of assistance, please call at 571-291-7916, or via email: rwelliver@loudounwater.org.

Sincerely,

Utility Protection Department

enclosures

cc: William Sargent, Loudoun County Plumbing Department



COMMERCIAL APPLICATIONS
OR WITHIN PAVEMENT

RESIDENTIAL APPLICATIONS
NOT WITHIN PAVEMENT

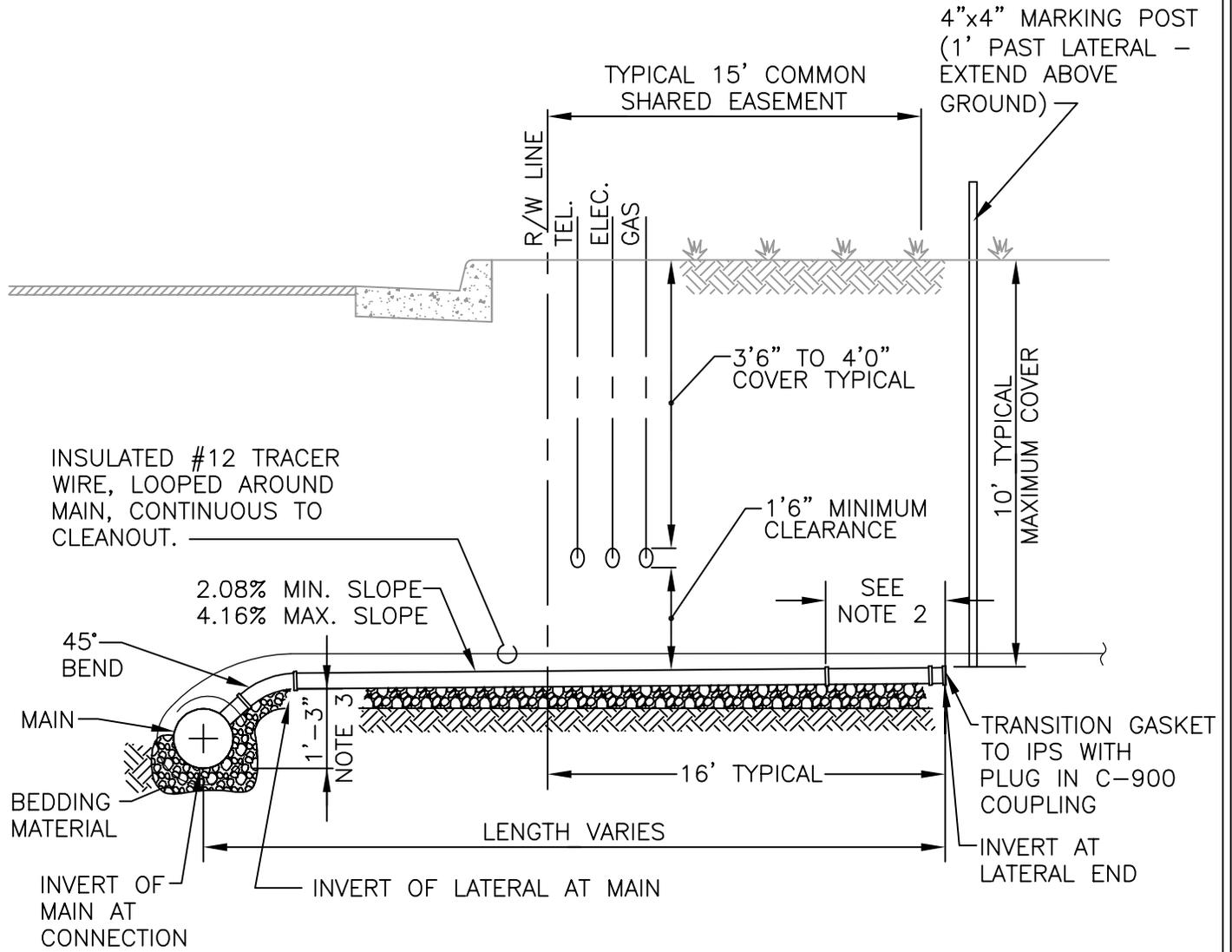
NOTES:

1. TERMINATE TRACER WIRE WITH CLEANOUT THAT IS WITHIN 5' OF BUILDING'S EXTERIOR. IF NOT USING IRON FRAME AND COVER, PROVIDE GREEN SOILMARKER™ BY RHINO MARKING AND PROTECTION SYSTEMS. CONNECT TRACER WIRE TO TERMINAL ON SOIL MARKER.
2. TRACER WIRE TO BE #12 AWG SOLID COPPER WITH 45 MIL POLYETHYLENE INSULATION. AT TEMPORARY TERMINATION OF LATERAL BY UTILITY CONTRACTOR, MAKE SPLICE WITH BUTT CONNECTOR AND SHRINK SLEEVE. NO OTHER SPLICES PERMITTED.
3. ALL MATERIALS MUST CONFORM TO LOUDOUN WATER'S APPROVED MATERIALS LIST.

APR.
2010

SANITARY CLEANOUT

S-12



NOTES:

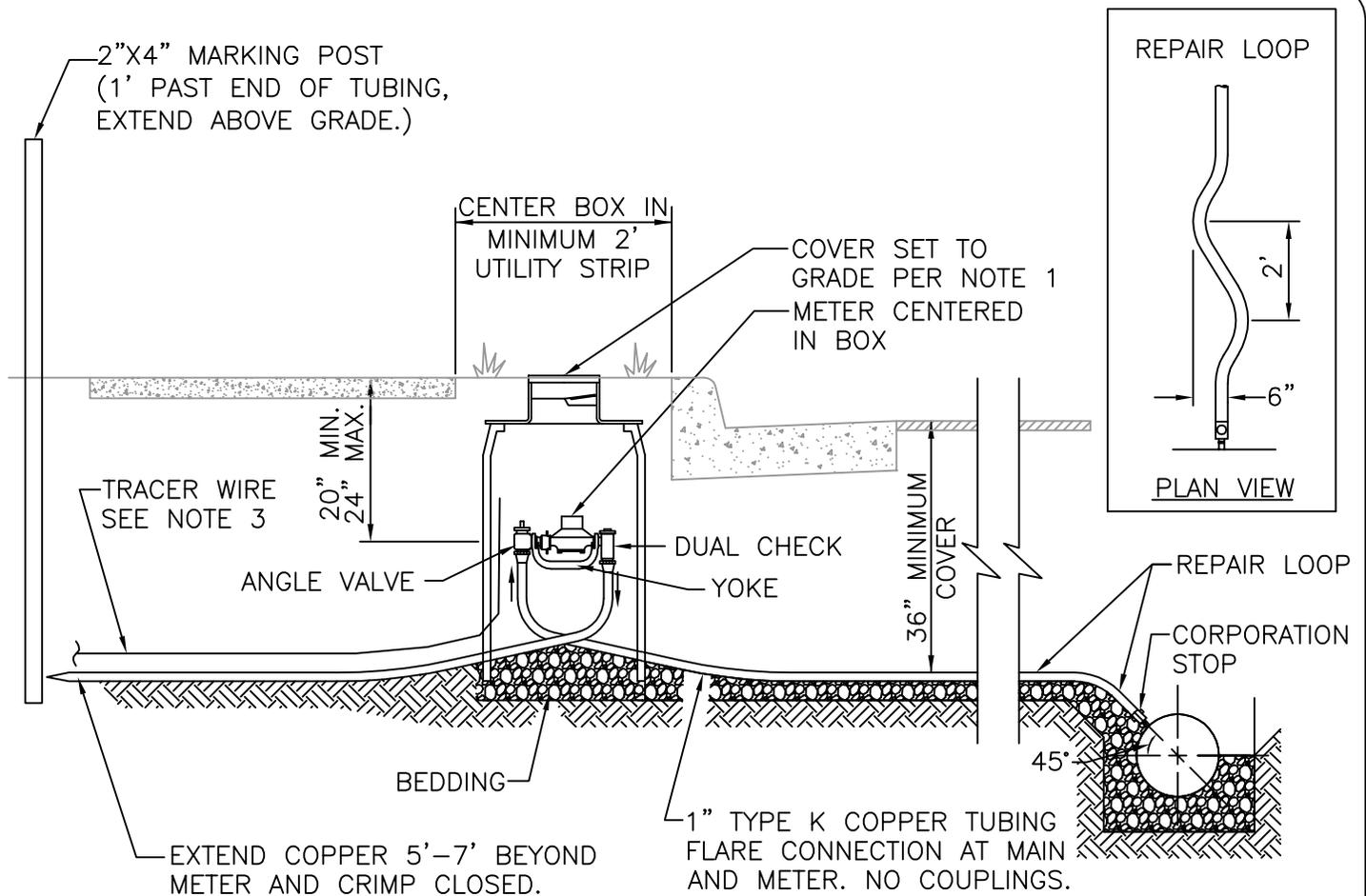
1. LATERAL MUST RECEIVE INSPECTION AND APPROVAL FROM LOUDOUN WATER PRIOR TO BACKFILL.
2. COUPLING TO BE A MINIMUM OF 5' FROM LAST PIPE JOINT.
3. DIMENSION BASED ON 8" DIAMETER MAIN. ADD FOR LARGER MAINS.
4. ALL MATERIALS MUST CONFORM TO LOUDOUN WATER'S APPROVED MATERIALS LIST.

APR.
2010

LATERAL

S-10

LOUDOUN WATER



NOTES:

- AT INITIAL INSTALLATION, ROTATIONAL (ADJUSTABLE) FRAME TO BE IN CENTER OF HEIGHT RANGE.
 - WHERE AT CURB, SET COVER FLUSH TO 1" ABOVE TOP OF CURB.
 - WHERE NO CURB, SET COVER 1" ABOVE FINAL GRADE.
 - IN SLOPE, PROVIDE TIMBER RETAINING WALL 3' FROM COVER.
- WHERE TAP IS ON 4" MAIN, CORPORATION STOP SHALL HAVE 3/4" INLET AND 1" FLARE OUTLET. ON 3" WATER MAIN, USE 3"x3/4" BRASS SADDLE.
- WHERE SERVICE BETWEEN METER AND BUILDING IS PLASTIC TUBING, PROVIDE TRACER WIRE OF AWG #12 SOLID COPPER WITH 45 MIL POLYETHYLENE INSULATION. NO SPLICES. TURN TRACER WIRE UP INSIDE METER BOX. TERMINATE TRACER WIRE INDOORS OR AT EXTERIOR WALL WITH A SOIL MARKER.
- ALL MATERIALS MUST CONFORM TO LOUDOUN WATER'S APPROVED MATERIALS LIST.
- METER FURNISHED AND INSTALLED BY LOUDOUN WATER.

APR.
2010

SERVICE CONNECTION FOR
5/8", 3/4", AND 1" METERS

W-23