



Chandler • Arizona
Where Values Make The Difference

MEMORANDUM

Case # 19-04

DATE: May 23, 2019

TO: MAG Specifications and Details Committee Members

FROM: Warren White, City of Chandler Representative

SUBJECT: Proposed Revisions to Section 360 Telecommunications Installation

Update:

- Added two new sections:

360.5 Trenchless Installation

Trenchless pipe installation shall be performed in accordance with Section 608.

360.6 Subsurface Explorations

The contractor shall make subsurface explorations in accordance with Section 355.

SECTION 360

TELECOMMUNICATIONS INSTALLATION

360.1 DESCRIPTION:

This work shall consist of the installation of underground telecommunications facilities within the public right-of-way.

Except as otherwise specified in special provisions or agency supplements, all work shall conform to the latest version of the National Electrical Safety Code (NESC).

360.2 TRENCHING, BACKFILL AND RESTORATION:

All work shall be done in accordance with Section 601 and Section 336.

360.3 CABLE INSTALLATION:

~~(A) "Trunk Lines" Cable providing telecommunications service by connecting regions or states or by connecting central offices within a metropolitan area. Such cable shall be installed as described below:~~

~~(1) If the cable is to be installed within an open trench, the cable shall be placed within schedule 40 PVC conduit or equal with a minimum inside diameter of 4 inches. The conduit shall be buried at a minimum depth of 48 inches below finished grade measured to the top of the conduit. A color coded plastic warning tape with a minimum thickness of 5 mil and a minimum width of 3 inches shall be installed in the trench and centered over the PVC conduit at a depth of from 18 to 30 inches below finish grade.~~

~~(2) Cable crossings under existing paved streets shall be accomplished by jacking or boring unless open trenching is authorized by the Engineer or Agency. The cable shall be placed within a schedule 40 PVC conduit or better at a minimum depth of 48 inches.~~

~~(B) Telecommunications cables facilities other than "trunk lines" shall be installed as described below.~~

~~(1) If a cable facility is to be installed within the right-of-way of an arterial or collector street, it shall be placed at a minimum depth of ~~36~~ 48 inches below finished grade. ~~A color coded plastic warning tape as described in "A" shall be placed 18 inches below the surface.~~~~

~~(2) If a cable facility is to be installed within the right-of-way of a local/residential street or alley it shall be placed at a minimum depth of ~~24~~ 36 inches below finished grade.~~

~~(3) Cable crossings under existing, paved streets shall be accomplished by jacking or boring unless open trenching is authorized by the Engineer or Agency.~~

(4) All cables are to be installed within a two (2) inch minimum diameter PVC Schedule 40 or better conduit unless otherwise authorized by the Agency. Conduits should be placed in sufficient quantity to allow for replacement of, or addition to, the capacity of existing facilities without disturbing the surface.

360.4 CABLE-LOCATING ~~(FIBER OPTIC):~~

(1) If a cable which is to be installed is fiber optic a tracing or locating wire shall be installed with the cable.

(2) A minimum of one vacant conduit in a duct bank must contain a tracing or locating wire or traceable pull tape, unless a copper cable is also installed within one of the conduits of a duct bank.

SECTION 360

360.5 TRENCHLESS INSTALLATION:

Trenchless pipe installation shall be performed in accordance with Section 608.

360.6 SUBSURFACE EXPLORATIONS:

The contractor shall make subsurface explorations in accordance with Section 355.

360.5-7 PAYMENT:

Payment will be made at the contract unit price bid per lineal foot.

- End of Section -

SECTION 360**TELECOMMUNICATIONS INSTALLATION****360.1 DESCRIPTION:**

This work shall consist of the installation of underground telecommunications facilities within the public right-of-way.

Except as otherwise specified in special provisions or agency supplements, all work shall conform to the latest version of the National Electrical Safety Code (NESC).

360.2 TRENCHING, BACKFILL AND RESTORATION:

All work shall be done in accordance with Section 601 and Section 336.

360.3 CABLE INSTALLATION:

Telecommunications facilities shall be installed as described below.

- (1) If a facility is to be installed within the right-of-way of an arterial or collector street, it shall be placed at a minimum depth of 48 inches below finished grade.
- (2) If a facility is to be installed within the right-of-way of a local/residential street or alley it shall be placed at a minimum depth of 36 inches below finished grade.
- (3) Cable crossings under existing, paved streets shall be accomplished by jacking or boring unless open trenching is authorized by the Agency.
- (4) All cables are to be installed within a two (2) inch minimum diameter PVC Schedule 40 or better conduit unless otherwise authorized by the Agency. Conduits should be placed in sufficient quantity to allow for replacement of, or addition to, the capacity of existing facilities without disturbing the surface.

360.4 LOCATING

- (1) If a cable which is to be installed is fiber optic a tracing or locating wire shall be installed with the cable.
- (2) A minimum of one vacant conduit in a duct bank must contain a tracing or locating wire or traceable pull tape, unless a copper cable is also installed within one of the conduits of a duct bank.

360.5 TRENCHLESS INSTALLATION:

Trenchless pipe installation shall be performed in accordance with Section 608.

360.6 SUBSURFACE EXPLORATIONS:

The contractor shall make subsurface explorations in accordance with Section 355.

360.7 PAYMENT:

Payment will be made at the contract unit price bid per lineal foot.

- End of Section -