SP00589 (Special Provisions for the 2024 Book) (Bidding on or after: 028-01-276
Last updated: 1004-263-26
Requires SP02530, SP02540,
SP02560 & SP02910.
Requires SP01140 when a waterline
is attached to a bridge)

SECTION 00589 - UTILITIES ON STRUCTURES

(Follow all instructions and make all edits with "Track Changes" turned on. This Section is not published in the Oregon Standard. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project, unless the item(s) that are included in the subsection, paragraph, sentence, or bullet are not required on the Project and then they should be deleted. In general do not re-number or re-letter subsections when item(s) are deleted. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Section 00589 is not a Standard Specification and is included in this Project by Special Provision.

Description

00589.00 Scope - This Work consists of furnishing and installing Utilities on new and existing Structures as shown or directed.

(Use the following two paragraphs when Structures have been designated "Special Structures" by Bridge Engineering Section. List the designated Special Structures by Bridge number.)

The following Structures are designated "Special Structures":

- Bridge No. _____
- Bridge No. _____

Furnish Utility installations on Special Structures that do not alter the appearance of the Structure. Position Utilities only inside the girder line, as close as possible to the soffit, or as required to make the installation as inconspicuous as practicable.

00589.01 Definitions:

Carrier Pipe - A pipe specifically designed to carry liquids or gases.

Conduit - An enclosure that is specifically designed and approved to carry and protect electrical or communications wiring.

Protective Casing - A protective sleeve located at strategic locations to shield and isolate the Carrier Pipe or Conduit from external loads, environmental exposure, or damage, or to shield adjacent Structures or Soils.

Materials

00589.10 General - Furnish Utility installations (other than for electrical Conduits) using Materials from the QPL and meeting the following requirements:

Structural Steel 02530
Forgings, Shafting, Castings, and Nonferrous Materials 02540
Fasteners 02560
Reflective Sheeting ..... 02910.20(a)
Resin Bonded Anchor System 00535.10

Furnish brackets constructed of stainless steel or hot-dip galvanized structural steel.

Furnish Materials for electrical Conduits according to 00583.10.

Construction

00589.40 General - Provide sufficient space around utilities for maintenance activities.

Avoid drilling through reinforcing steel. If reinforcing steel is hit, move the anchor location and patch the hole with an approved patching material from the QPL.

Attach conduits or brackets to concrete Structures with resin bonded concrete anchors, unless otherwise shown or approved.

00589.41 Natural Gas Lines - Conform to the portions of CFR 49 Part 192 that are applicable to the Work. Furnish isolation valves 200 feet from each end of the Bridge as shown.

(Include the following subsection .42 when a Protective Casing is requested by the Utility Coordinator. Delete the item from the subsection that does not apply, but do not change the alpha characters next to the title. Fill in the blank with the appropriate information.)

00589.42 Protective Casing –

(a) Natural Gas Casing - Install steel pipe casing for natural gas lines below bridge deck as shown. Natural gas line is installed within casing by others.

(b) Communication Casing - Install (insert the type of casing as discussed with the Utility Owner) casings for communications lines below the bridge deck as shown. Communication lines are installed within casings by others.

(Include the following Subsection .43 when a waterline is attached to a Bridge)

00589.43 Water Line - Install ductile iron pipe and fittings with restrained joints according to 01140.00 through 01140.52 below the bridge deck as shown and specified.

00589.48 Labeling - Clearly label all piping or conduit systems according to the following APWA color code:

Table 00589-1

Type of Utility	Marker Background Color
Electrical Power Lines, Cables, Conduits, Lighting Cables	Red
Gas, Oil, Steam, Petroleum, Gaseous Materials	Yellow
Communications, Alarm, Signal Lines, Cables, or Conduits	Orange
Potable Water	Blue
Reclaimed Water, Irrigation, Slurry Lines	Purple
Sewers, and Drain Lines	Green

Generate purple by placing purple transparent film over white reflective sheeting. Furnish transparent film with a purple tint that matches Federal Standard Color 595B No. 37100.

Furnish labels with a minimum size as shown in Table 00589-2.

Table 00589-2

Pipe O.D. Min.	Pipe O.D. Max.	Length of Label	Width of Label
3/4"	1 1/4"	8"	3/4"
1 1/2"	2"	8"	1"
2 1/2"	6"	12"	2"
8"	10"	12"	2"
10"	—	12"	2"

Place labels on each Carrier Pipe, Conduit, or Protective Casing, visible on each side of every bent, and at each entrance to a box girder.

Where piping is above or below normal line of sight, place pipe labels so that label may be seen from normal eye height.

Measurement

00589.80 Measurement - The quantities of Work performed under this Section will be measured according to the following:

No measurement of quantities will be made for Utility attachments on Structures.

The quantities of Carrier Pipe, Conduit and Protective Casing will be measured on the length basis.

Payment

00589.90 Payment - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
(a) Utility Attachment on Structure, _____	Lump Sum
(b) _____ Carrier Pipe, _____	Foot
(c) _____ Conduit, _____	Foot
(d) Protective Casing, _____	Foot

In item (a) the type of Utility is inserted in the blank.

In items (b) and (c) the type of Utility is inserted in the first blank, the size and type of the Carrier Pipe or Conduit is inserted in the second blank.

In item (d) the size and type of the Protective Casing is inserted in the blank.

No separate or additional payment will be made for pipe insulation or casing spacers.

Payment will payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

Electrical Conduit installed on Structures will be paid for according to 00583.90.