

**SPP962 (1-26-16)**

***(This Section requires SP440 and SP2560.  
Requires SP512 when illumination poles  
include small wireless facilities)***

***(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence or bullet, then include them in the project but make necessary modifications to only include project specific specifications. Delete specifications that do not apply to the project. Remove all instructions before preparing the final document.)***

**SECTION 00962 - METAL ILLUMINATION AND TRAFFIC SIGNAL SUPPORTS**

Comply with Section 00962 of the Standard Specifications modified as follows:

**00962.02 Calculations and Drawings** – Replace the first sentence of the second paragraph with the following:

All engineered details and drawings which are not pre-approved by the City, but are required in the Contract Documents, shall be submitted for review prior to fabrication.

**00962.05(a) Traffic Signal Mast Arm Supports** – delete “non-standard” from first sentence.

In design factor table, replace ‘No Galloping, Truck Speed... 50 mph’ with ‘No Galloping, Truck Speed ...55 mph.’

**00962.05(c) Illumination Supports** – Replace this subsection with the following:

**00962.05(c) Illumination Supports** - Design non-standard Luminaire slip base, and fixed base poles and foundations according to the AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals 4<sup>th</sup> Edition” with 2001, 2002, and 2003 interim revisions. Design factors include:

Basic wind speed (3 second gust) ..... 100 mph

***(Use the following subsection if illumination poles include small wireless facilities)***

**00962.05(d) Illumination Supports with Small Wireless Facilities** – Design illumination poles and foundations according to the AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals 6<sup>th</sup> Edition, 2013.” Design factors include:

Basic wind speed (3 second gust) ..... 100mph  
Gust Factor (G) ..... 1.14  
Importance Factor (Ir) ..... 1.0 (50 year recurrence interval)

**00962.10 Materials** - Add the following to the end of the material list:

High-Strength Fasteners 02560.20

Replace second bullet of second paragraph with the following:

- Provide all other steel sheet and plate meeting the requirements of ASTM A 572, or approved equal.

***(Use the following paragraph if illumination poles include small wireless facilities)***

If small wireless facilities are included use the following:

Anchor Bolts .....	02560.30
Drilled Shaft Concrete .....	00512.10(b)

- Provide steel sheet and tubes for pole and arms meeting the requirements of ASTM A572 Grade 50 or ASTM A595 Grade A or B.
- Provide all other steel sheet and plate meeting the requirements of ASTM A572 Grade 50, or approved equal.
- Provide anchor bolts meeting the requirements of ASTM F1554 Grade 55.

**00962.41(b) Disposition of Waste Materials** - Replace this subsection with the following subsection:

**00962.41(b) Disposal of Materials** - Dispose of all materials according to 00290.20.

***(Use the following subsection if illumination poles include small wireless facilities)***

**00962.43 Foundations** – Replace the first sentence with the following:

Construct foundations according to Section 00512.

***(Use the following subsection if illumination poles include small wireless facilities)***

**00962.46 Metal Illumination and Signal Poles** – Replace the third paragraph with the following:

Eight standard anchor bolts each fitted with heavy hex nuts and hardened washers shall be furnished with each pole.

***(Use the following subsection if illumination poles include small wireless facilities)***

**00962.46 (a)(1) General** – Replace this subsection except the first paragraph with the following:

All illumination poles with small wireless facilities shall have three reinforced hand holes with a minimum overall dimension of 4 inches x 6½ inches. Two hand holes shall be positioned with the center of the hand hole approximately 12 inches above the bottom of the pole base. The hand holes shall be positioned 180° apart, with one positioned directly below the luminaire arm. The third hand hole shall be located 180° from the luminaire arm with the bottom of the hole approximately 6 inches above the center of the luminaire arm connection. A cover that matches the pole shall be provided for each hand hole. The cover shall be secured to the pole with brass or stainless steel round-head screws.

A J-hook shall be installed on the interior of the pole across from the top hand hole.

Each pole shall be equipped with a removable metal cover plate when a canister antenna is not in place. The cover plate shall be secured to the pole top plate with three ½-inch diameter bolts 120° apart. The pole top plate shall have a minimum 6-inch diameter opening.

Each pole shaft shall have an internal lug nut, or 5/8 inch hole for the purpose of attaching a grounding conductor.

All structural steel, fasteners, and other hardware shall be hot dip galvanized according to ASTM A123 and ASTM A153. Silicon content of the base metal shall be 0.0% to 0.06% or 0.13% to 0.25%.

***(Use the following subsection on all projects with steel cobrahead poles)***

**00962.46 (a)(3) Steel Illumination Poles** – Add the following paragraph:

The following poles may be used for projects where steel cobra head poles are specified:

- Valmont DS-32 series
- Ameron City of Portland "N" series
- Union Metal 71049-B36 series

***(Use the following subsection on all projects with traditional ornamental street light poles)***

**00962.46 (a)(4) Ornamental Poles** – Add the following paragraphs:

**(1) Twin Ornaments** - The following vendors conform to the City specification for poles and castings:

- Visco (VI-C-C2-F)
- Spring City Electrical Mfg. Co.
- Continental Pole and Lighting, LLC
- Olympic Foundry (castings only)

**(2) Single Ornaments** - The following vendors conform to the City specifications for poles and castings:

- Visco (VI-A-F)
- Spring City Electrical Mfg. Co.
- Continental Pole and Lighting, LLC
- Olympic Foundry (castings only)

***(Use the following subsection on all projects with traffic signal poles)***

**00962.46 (b)(1) General** – Replace the first sentence of the first paragraph with the following:

**(1) General** – All poles shall be 8-sided or round in cross section unless otherwise specified by the Engineer.

Replace the third paragraph with the following:

All tube thicknesses shall consist of a single ply of steel, no multi-ply shafts shall be utilized. The height of strain poles and mast arm poles and the length of mast arms shall be as indicated on the plans.

Add the following paragraph at the end of the section:

The following vendors conform to the City specification for traffic signal poles:

- Ameron Pole Products
- Union Metal Corporation.
- Valmont Industries, Inc.

*(Use the following subsection on all projects with traffic signal poles)*

**00962.46 (b)(2) Design** – Replace the first sentence of the first paragraph with the following:

- **Type 1 Strain Poles** – Type 1 strain poles shall be tapered 8 or 12 sided faceted or round and shall, as a minimum, be fabricated of 5/16 inch weldable plate or coil steel.

Replace the second sentence of the second paragraph with the following:

This footing utilizes four 2 ¼ inches x 48 inches ASTM F1554 Grade 55 anchor rods on a 18 inches bolt circle.

Replace the first sentence of the third paragraph with the following:

- **Type 2 Strain Poles** – Type 2 strain poles shall be tapered 8 or 12 sided faceted or round and shall, as a minimum, be fabricated of 3/8 inch weldable plate or coil steel.

Replace the second sentence of the fourth paragraph with the following:

This footing utilizes four 2 ¾ inches x 60 inches ASTM F1554 Grade 55 anchor rods on a 20 inches bolt circle.

Replace the fifth paragraph with the following:

**Mast Arm Poles** – Mast arm poles shall be tapered 8 sided faceted or round unless otherwise indicated on the plans and shall be fabricated of weldable plate or coil steel.

Delete the last paragraph in its entirety.

*(Use the following subsection on all projects with painted poles)*

**00962.48 Coating** – Replace the bullets in this section with the following:

- Transit Blue MC-Luster (W211.0233)
- Historic Black MC-Luster (W211.79)
- Portland Green MC-Luster (W211.0227)
- Gold MC-Luster (W211.0226)
- Cascade Green MC-Luster (W211.0225)
- Chinatown Red MC-Luster (W211.0261)
- Silver MC-Luster (W211.82)
- Transit Mall Dark Silver MC-Luster (W211.8002)