Purpose:

This RDI re-issues designer guidance for determining the appropriateness of Powder Coating on exterior surfaces of NEW traffic signal poles (including mast arms), light poles and pedestrian signal poles. This guidance shall be used for a particular traffic signal installation or as a consistent treatment for a project-wide/corridor-wide application.

This RDI is not intended to promote the use of Powder Coating. Powder Coating is an appropriate treatment at some locations but not for general use.

Definition:

Powder Coating is the process of coating a surface in which a powder material is applied using an electrostatic or compressed air method. The applied powder is then heated (cured) to its melting point, after which it flows to form a smooth film which dries to a firm, durable finish very resistant to scratches, cracking, peeling, UV rays and rust. Powder Coating provides extremely tough, durable films, enhancing the high quality, value-added image of consumer products. In general, the performance properties, such as impact resistance, flexibility, and corrosion resistance, of powder coatings are better than with liquid paints. Powder coated parts resist cracking, peeling, and marring during handling and normal service use.

Background:

The Department has been installing galvanized traffic signal poles, traffic signal mast arms, traffic light poles and pedestrian signal poles as a matter of normal practice. Galvanizing offers a cost effective and maintenance reduced product. In some instances, the galvanized, shiny appearance and/or the apparent size of galvanized traffic signal poles/mast arms have been viewed as intrusive in the project setting. The Department has partnered with cooperating agencies and communities in advancing the New York State Quality Communities Initiative. In support of this initiative, aesthetic enhancement has been requested as part of many community-wide standards. Powder Coating provides an effective treatment where aesthetic enhancement or mitigation is deemed necessary. The Special Specification for the Powder Coating item calls for a black color in a semi-gloss finish unless otherwise specified in the contract plans. Powder Coating adds an additional cost of approximately 25% and it is important that the additional expenditure be taken into account.
Guidance:

Project Managers and designers shall recognize that Powder Coating is an *optional treatment* for some locations that shall be considered when:

1. It is consistent with community standards and requested by Local Stakeholders.
2. It is consistent with the context of the setting, including the visual assessment.
3. It is requested by Cooperating and/or Regulatory Agencies.

When Powder coating may apply, the Project Manager and designer shall evaluate the use of Powder Coating in consultation with Regional Landscape Architecture/Environmental Services Unit, Design Traffic Engineering Unit Supervisor, signal designer and the Design Supervisor. The Project Manager shall determine the added cost of the Powder Coating and shall make a recommendation to the Design Supervisor for his/her concurrence, discussion and final disposition. The approval of Powder Coating as it applies to a specific capital project may be discussed at a Program Meeting.

In the event that the design team considers the extra expense not to be justified based on the setting and/or the project budget, but the local community would like the treatment to be included in the project, then the local municipality shall be offered the opportunity to pay the additional cost through a municipal betterment share to our contract.

The following items and special specifications are in the Metric and USC PIC as PIN approval only:

**Metric**
- ITEM 680.1001 01 - Powder Coating Traffic Signal Pole – Span Wire
- ITEM 680.1002 01 - Powder Coating Traffic Signal Pole – Mast Arm
- ITEM 680.1003 01 - Powder Coating Street Light Pole and Mast Arm
- ITEM 680.1004 01 - Powder Coating Traffic Signal Pole – Pedestrian

**USC**
- ITEM 680.10010001 - Powder Coating Traffic Signal Pole – Span Wire
- ITEM 680.10020001 - Powder Coating Traffic Signal Pole – Mast Arm
- ITEM 680.10030001 - Powder Coating Street Light Pole and Mast Arm
- ITEM 680.10040001 - Powder Coating Traffic Signal Pole – Pedestrian

**Reference:** None

**Keywords:** Powder Coating, Traffic Signal