

Item No. 683	High level luminaire—type _____ watt _____ lamp	Per each
Item No. 683	Service car	Per each
Item No. 683	Lowering device power supply unit	Per each

683.5.01 Adjustments

General Provisions 101 through 150.

Section 685—Blast Cleaning Portland Cement Concrete Structures

685.1 General Description

This work includes blast cleaning Portland cement concrete surfaces and removing blasting residue from roadway and shoulder surfaces.

685.1.01 Definitions

General Provisions 101 through 150.

685.1.02 Related References

A. Standard Specifications

Section 109—Measurement and Payment

B. Related Documents

General Provisions 101 through 150.

685.1.03 Submittals

General Provisions 101 through 150.

685.2 Materials

General Provisions 101 through 150.

685.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

685.3 Construction Requirements

685.3.01 Personnel

General Provisions 101 through 150.

685.3.02 Equipment

Maintain and use the following equipment for this work so as not to threaten anyone's safety or health.

- Blasting/cleaning equipment
- Supporting traffic control devices, such as arrow boards, signs, barricades, cones, etc., according to the Traffic Control Section of the Contract and the MUTCD

A. Environmental Protection

Provide blasting equipment with either of the following environmental protections:

- An enclosure to keep dust from escaping into the surrounding area
- Water spraying equipment that encircles the blast nozzle(s) to suppress the dust created by the blasting operation

B. Protective Devices

Provide and have personnel use eye and hearing protection devices when working near the blasting operation.

Also, provide personnel with respirators (with appropriate filters) or with forced air hoods when working in dust-contaminated areas.

685.3.03 Preparation

General Provisions 101 through 150.

685.3.04 Fabrication

General Provisions 101 through 150.

685.3.05 Construction

A. Blast Cleaning Methods

Use any of the following blast cleaning methods:

- Dry abrasive blasting with compressed air, blast nozzles, and abrasive
- Recirculating dry abrasive blasting with compressed air, blast nozzles, abrasive, and a recovery system
- Dry abrasive blasting with centrifugal wheels and abrasive
- Recirculating dry abrasive blasting with centrifugal wheels, abrasive, and a recovery system
- Wet abrasive blasting with compressed air, blast nozzles, abrasive, and a water injection system

B. Blast Cleaning Operation

Follow these requirements for blast cleaning operations:

1. When using compressed air in the blasting operation, provide and maintain traps to prevent contaminating the blasted substrate with oil or grease.
2. When blast cleaning within 10 ft (3 m) of a lane occupied by traffic, immediately remove the residue to prevent a traffic hazard.
3. Control dust to the Engineer's satisfaction to protect motorists from reduced visibility or damage to passing vehicles. The Engineer judges dust control effectiveness. If the Engineer believes that the blasting makes the highway unsafe, stop operations until instituting effective dust control measures.

C. Appearance of the Blasted Surface

Blast the surface uniformly, leaving only minute quantities of existing coating remaining in pit surface imperfections.

The remaining existing coating may be no more than one percent of the blast-cleaned surface in each square yard (meter).

Match the structure's finished appearance to the standard photographs. Copies of these can be found in the District Office, the Office of Materials and Research, or the Office of Maintenance.

685.3.06 Quality Acceptance

All work performed under this Specification is subject to timely inspection by the Department. Correct defective work by reblasting at no additional cost to the Department.

685.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

685.4 Measurement

Blast cleaning of the Portland cement concrete structures is measured by the square foot (meter), according to Section 109. Median barrier walls are measured by the linear mile (kilometer) for variable height. Each face of the blast-cleaned wall is measured separately.

685.4.01 Limits

General Provisions 101 through 150.

685.5 Payment

Blast cleaning will be paid for at the Contract Unit Price bid. Payment is full compensation for costs, direct and indirect, incurred in complying with the requirements of this Specification.

Payment will be made under:

Item No. 685	Blast cleaning Portland cement concrete structures	Per square yard (meter)
Item No. 685	Blast cleaning Portland cement concrete median barriers—variable height	Per linear mile (kilometer)

685.5.01 Adjustments

General Provisions 101 through 150.

Section 690—Static Scale System

690.1 General Description

This work includes furnishing and installing components for three-axle load static scale weighing systems according to the Plans and Specifications. Install the scales in truck weighing stations.

690.1.01 Definitions

General Provisions 101 through 150.

690.1.02 Related References

A. Standard Specifications

- Section 101—Definitions and Terms
- Section 105—Control of Work
- Section 108—Prosecution and Progress
- Section 109—Measurement and Payment
- Section 500—Concrete Structures
- Section 511—Reinforcement Steel
- Section 853—Reinforcement and Tensioning Steel

B. Related Documents

National Institute of Standards and Technology Handbook 44

690.1.03 Submittals

A. Material, Equipment, and Shop Drawings

After the Contract is awarded, submit the following to the Engineer for approval:

- Complete materials list
- Complete Shop Drawings
- List of equipment with supporting data that will be incorporated into the work

Identify each Item on the material and equipment list with an applicable Section and Subsection from the Specifications.

Allow the Department 60 days for review of materials, equipment, shop drawings and other manufacturer's data.

B. Manufacturer's Data

Along with the materials and equipment list, submit manufacturer's catalogs, cuts, diagrams, performance curves, charts, and other data demonstrating that equipment adheres to the Specifications and Plans. Model numbers alone are not acceptable.

C. Manufacturer's Guarantees and Instructions

Submit manufacturer's guarantees on materials and equipment, as well as manufacturer's instruction manuals. The Engineer will transmit these to the Department for future operation and maintenance of the truck scale system. Ensure that guarantees are subject to transfer.