


<b>SUPERSEDED BY EI 93-012</b> <b>EFFECTIVE 6/7/93</b>	<b>ENGINEERING INSTRUCTION</b> NEW YORK STATE DEPARTMENT OF TRANSPORTATION	
	<b>SUBJECT: Environmental Ground and Waterway Protection</b>  Subject Code: 727-1-570	
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APPROVED:  J.R. LAMBERT, Deputy Chief Engineer, Facilities Design Division		

This Engineering Instruction transmits a revised specification for environmental ground and waterway protection. This revision was the result of a change in policy recently developed by an interdisciplinary committee formed for this purpose. The attached shelf-note implements that policy change as explained in the following paragraph of this Engineering Instruction.

The basic policy change effected by the attached note will require paint waste debris to be removed by High Efficiency Particulate-Air (H.E.P.A.) **Vacuuming** instead of **sweeping**. This will slightly increase costs until most of the bridge painting contractors own the additional equipment.

Items 570.07nnnn and 570.08nnnn are hereby disapproved and replaced by items 570.09nn and 570.10nn, respectively. These provisions were effective starting with the 5/7/92 letting, by amendment. The Design Quality Assurance Bureau of the Main Office has been inserting the attached shelf-note into all proposals containing items 570.07nnnn, 570.08nnnn, 570.09nn, and 570.10nn. If the disapproved pay items are or were included on the plans, they will be and have been changed to the approved pay items by a note on the title sheet.

Any questions regarding this Engineering Instruction may be addressed to Mr. Larry Brown at tel. (518) 457-4093.

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## CLEANING AND PAINTING

Make the following changes to the Standard Specifications of January 2, 1990.

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Under Section 570 CLEANING AND PAINTING *delete* §570-3.05 Environmental Ground Protection and §570-3.06 Environmental Waterway Protection in their entirety, and *replace* them with the following:

**"570-3.05 Environmental Ground Protection.** Coverage shall be provided on or over the ground under all structures that are to be cleaned and painted in the field under §570-3.01, §570-3.02 and §570-3.03.

**NOTE:** Whenever a structure spans over a railroad, covers shall be placed and maintained in accordance with §105-09, Work Affecting Railroads.

Depositing or dropping waste materials into water and onto the ground or roadways below the structure outside the specified containment areas will not be permitted.

Blasting or other cleaning or painting operations shall not be performed when the direction or velocity of prevailing winds causes waste materials to fall outside the containment area. If wind or other factors prevent containment acceptable to the Engineer the Contractor may, with the Engineer's permission, use drapes or other means to prevent drift beyond all specified containment areas.

All waste materials shall be removed from the ground protection by vacuuming. Sweeping, shoveling, or other mechanical means to remove the waste materials from the ground protection shall not be permitted.

Air exhausted from vacuuming equipment shall pass through a HEPA filtering system. A HEPA filter shall be defined as a filter that is at least 99.97% efficient against particles that are 0.3 micron in diameter.

Ground Protection shall consist of the following:

- A. Covers or other material, capable of catching and holding waste materials shall be provided on or over the ground under the structure in the work area. A bridge deck or a highway pavement and paved shoulder under a structure from which wastes may be collected and removed by vacuuming may be used in place of a cover providing that within that area such usage is confined to lanes and shoulders closed to traffic.
- B. The cover provided shall include all areas beneath the structure. The length of the cover shall be determined by the length of the work location, and the width shall be at least 10' greater than each side of the area directly being worked on.

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The cover shall be positioned in such a manner as to contain and prevent the loss of waste materials.

- C. Covers on or over roadways or railroads or sidewalks or other similar areas shall not present a hazard of any kind, as determined by the Engineer, and no cover shall remain in place overnight unless otherwise authorized by the Engineer.
- D. All waste materials that collect on a bridge deck, or on a highway pavement and pavement shoulder under a structure or on covers shall be removed by vacuuming at least once a day or more frequently if directed by the Engineer. No waste material shall remain on the bridge deck, pavement or containment covers overnight.
- E. All waste materials shall be removed from the project site and disposed of in accordance with these specifications and all applicable Local, State or Federal law, regulation or codes.
- F. If approved by the Engineer, the Contractor may use other methods or modifications for ground protection that will accomplish the results required by this specification.

**570-3.06 Environmental Waterway Protection.** Collectors shall be provided under all structures that span bodies of water, waterways, and streambeds, and that are to be cleaned and painted in the field under §570-3.01, §570-3.02 and §570-3.03.

**NOTE:** Structures that span a navigable waterway may be subject to regulation by the U.S. Coast Guard, the U.S. Army-Corps of Engineers, the NYS Department of Transportation-Waterways Maintenance Division, and the NYS Department of Environmental Conservation. If there is conflict between the regulations of the cited agencies and this specification, the regulations of the agencies shall govern. However, the Contractor shall be required to conform with the requirements of this specification and shall submit his proposal for conformance, for approval by the Engineer, at least fourteen (14) days prior to commencing work. No work shall begin until written approval by the Engineer is granted.

The applicable requirements of §570-3.05, Environmental Ground Protection, shall apply together with the following:

- A. A collector shall be suspended from the structure and shall, as measured over the water, be at least 10' greater in length and at least 10' wider than each side of the area on which work is underway. The collector shall be positioned in a manner acceptable to the Engineer so as to contain and prevent the loss of waste materials. The collector shall not remain in place overnight, if in the opinion of

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the Engineer it presents a hazard of any kind.

- B. All waste materials that remain on the collector shall be removed by vacuuming at least once a day or more frequently if directed by the Engineer.
- C. If it is determined by the Engineer that floating waste materials may form on the water surface they shall be contained from moving upstream or downstream by the use of floating water booms (straw or screens). Floating waste material shall be collected daily, or more frequently, as directed by and to the satisfaction of the Engineer. Straw or screening used in the fabrication of water booms shall be replaced with clean material weekly or as otherwise directed by the Engineer.
- D. All waste materials and used straw and screening from dam devices shall be removed from the project site and disposed of in accordance with all applicable Local, State or Federal Law, regulation or codes.
- E. If the bridge location and characteristics or the surrounding topography do not lend themselves to the specified control measures for waterway protection, the Engineer may approve modifications to meet the intent of this specification."

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Under Payment will be made under:

*delete* the following:

Item No.	Item	Pay Unit
"570.07nnnn	Environmental Ground Protection	Lump Sum (for each Structure)
570.08nnnn	Environmental Waterway Protection	Lump Sum (for each Structure)"

and *replace* with the following:

Item No.	Item	Pay Unit
"570.09nn	Environmental Ground Protection	Lump Sum (for each Structure)
570.10nn	Environmental Waterway Protection	Lump Sum (for each Structure)"