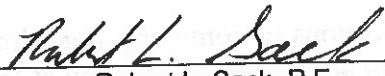


SUPERSEDED BY EB 15-031 EFFECTIVE 9/28/15		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 09-026
Title: SECTION 621 – CLEANING CULVERTS, DRAINAGE STRUCTURES, AND EXISTING ROADSIDE SECTIONS			
Distribution: ☐ Manufacturers (18) ☒ Local Govt. (31) ☒ Agencies (32) ☐ Surveyors (33) ☒ Consultants (34) ☒ Contractors (39) ☐ _____ ()		Approved:  Robert L. Sack, P.E., Deputy Chief Engineer (Research) 21 Dec 09 Date	

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of May 6, 2010.
- Superseded issuance(s): This EI does not supersede any previous issuances.
- The information transmitted by this issuance will be incorporated into a future revision to the Standard Specifications.

PURPOSE: The purpose of this EI is to issue a new Standard Specification Section 621 *Cleaning Culverts, Drainage Structures and Existing Roadside Sections*.

TECHNICAL INFORMATION:

- The cleaning culverts, closed drainage systems, and drainage structures and manhole items are being removed from Section 203 *Excavation and Embankment* and placed into Section 621 *Cleaning Culverts, Drainage Structures and Existing Roadside Sections*. This change will remove an inconsistency in the list of items in Section 203 *Excavation and Embankment*.
- The revised Standard Specification Section 203 *Excavation and Embankment* is being issued concurrently via EI 09-024.
- Design Guidance will be issued separately at a later date.
- An addition to the Construction Inspection Manual (CIM) Section 621 *Cleaning Culverts, Drainage Structures, and Existing Roadside Sections* will be issued separately at a later date.

IMPLEMENTATION:

- The Main Office Design Quality Assurance Bureau will insert these standard specification shelf notes beginning with projects submitted for the letting of May 6, 2010.
- The following contract pay items are approved:

Item 621.01	Cleaning Culverts with Span of 1300 mm or Less
Item 621.02	Cleaning Culverts with Span of More Than 1300 mm
Item 621.03	Cleaning Closed Drainage Systems
Item 621.04	Cleaning Drainage Structures
Item 621.05	Clean, Grade and Shape Existing Roadside Sections
Item 621.11	Cleaning Culverts (Contaminated Material) with Span of 1300 mm or Less

El 09-026 Page 2 of 2

Item 621.12	Cleaning Culverts (Contaminated Material) with Span of More Than 1300 mm
Item 621.13	Cleaning Closed Drainage Systems (Contaminated Material)
Item 621.14	Cleaning Drainage Structures (Contaminated Material)
Item 621.15	Clean (Contaminated Material), Grade and Shape Existing Roadside Sections

TRANSMITTED MATERIALS:

- Standard Specification shelf notes of revised *Section 621 Cleaning Culverts, Drainage Structures and Existing Roadside Sections*. Both metric and U.S. Customary shelf notes are attached.

CONTACT: Questions or comments regarding this issuance should be directed to Randall J. Romer, P.E., of the Geotechnical Engineering Bureau at (518) 457-4714, rromer@dot.state.ny.us.

CLEANING CULVERTS AND DRAINAGE STRUCTURES

Make the following changes to the Standard Specifications dated May 4, 2006:

Page 588, **Delete** SECTIONS 621 AND 622 (VACANT) and **Replace** it with the following:

SECTION 621 – CLEANING CULVERTS, DRAINAGE STRUCTURES AND EXISTING ROADSIDE SECTIONS

621-1 DESCRIPTION

621-1.01 General. This work shall consist of cleaning and keeping clean, existing culverts, closed drainage systems, drainage structures, and existing roadside sections as shown in the contract documents.

621-1.02 Definitions. The following general definitions shall be used in conjunction with this section:

1. **Culvert.** A culvert is defined as an enclosed channel open at both ends carrying water from a stream or water course through an artificial barrier such as a roadway embankment.
2. **Closed Drainage System.** A closed drainage system is a collection system for stormwater runoff that carries water to a discharge point. A closed drainage system consists of enclosed channel(s) closed at either one or both ends by a drainage structure, and may include intermediate drainage structures at junction points.
3. **Drainage Structure.** A drainage structure includes catch basins, manholes, drop inlets, leaching basins and similar structures that collect and/or redirect runoff water.
4. **Materials Removed.** Materials removed have been presumed not to include non-hazardous industrial waste or hazardous waste in accordance with §107-10 *Managing Surplus Material and Waste*.
5. **Clean and Keeping Clean.** Clean and keeping clean is the activity of removing accumulated sediment, debris, and vegetation which impedes the flow of water to maintain a proper drainage path and re-establish the design capacity.
6. **Graded Surfaces.** Grading surfaces entails forming and trimming surfaces to the lines and grades shown in the contract documents.

621-2 MATERIALS. None specified.

621-3 CONSTRUCTION DETAILS

621-3.01. General. Provide appropriate control and discharge practices for all water throughout the cleaning process. Include methods and schedules to be consistent with the soil erosion and sediment control plan in accordance with §209-3.01 *General* and perform all work in accordance with §107-12 *Water Quality Protection*.

621-3.02. Cleaning Culverts. Culvert locations identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.03 Cleaning Closed Drainage System. Closed drainage systems identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in

CLEANING CULVERTS AND DRAINAGE STRUCTURES

accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.04 Cleaning Drainage Structures. Drainage structures identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.05 Cleaning, Grading and Shaping Existing Roadside Section. The Contractor shall remove earth, turf, brush and debris, or provide necessary fill material to restore adequate roadside drainage. Ditches shall be shaped as shown in the contract documents. Material removed shall be disposed of in conformance with the provisions of §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

The Contractor shall protect all fences, markers, culverts, underground structures, utilities and other appurtenances adjacent to the work area. Any damaged facilities and/or disturbed areas shall be replaced in kind at no additional cost to the state.

621-4 METHOD OF MEASUREMENT

621-4.01. General. None specified.

621-4.02. Cleaning Culverts. Cleaning culverts will be measured in meters of culvert cleaned, measured along the invert, to the nearest 0.3 meter. Multiple barrel culverts will be measured along each individual barrel.

621-4.03 Cleaning Closed Drainage System. Cleaning closed drainage systems will be measured in meters of pipe cleaned, measured along the invert of the pipe, from the inside wall surface of the drainage structure to the inside wall surface of the next drainage structure, measured to the nearest 0.3 meter.

621-4.04 Cleaning Drainage Structures. Cleaning drainage structures will be measured as the number of drainage structures cleaned.

621-4.05 Cleaning, Grading and Shaping Existing Roadside Section. Cleaning, grading, and shaping existing roadside section will be measured as the number of meters along the edge of the adjacent roadway.

621-5 BASIS OF PAYMENT

621-5.01. General. None specified.

621-5.02. Cleaning Culverts. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work including the cost of managing and disposing of materials used to clean and the materials removed from the culverts. Payment for cleaning culverts will be made only for those facilities designated in the contract documents. Only one payment for each length of

CLEANING CULVERTS AND DRAINAGE STRUCTURES

facility will be made regardless of the number of times it is cleaned.

621-5.03 Cleaning Closed Drainage System. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work including the cost of managing and disposing the materials used to clean and the materials removed from the closed drainage system. Payment for cleaning closed drainage systems will be made only for those facilities designated in the contract documents. Only one payment for each facility will be made regardless of the number of times it is cleaned. Cleaning intermediate drainage structures at junction points within a closed drainage system shall be paid for under its respective item.

621-5.04 Cleaning Drainage Structures. The unit price bid for each shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work including the cost of managing and disposing the materials used to clean and the materials removed from the drainage structures. Payment for cleaning drainage structures will be made only for those facilities designated in the contract documents. Only one payment for each facility will be made regardless of the number of times it is cleaned.

621-5.05 Cleaning, Grading and Shaping Existing Roadside Section. The unit price bid shall include the costs of furnishing all labor, material and equipment necessary to complete the work including the cost of disposing the materials removed from the roadside section and/or fill material to restore the shape.

Payment will be made under:

Item No.	Item	Pay Unit
621.01	Cleaning Culverts with Span of 1300 mm or Less	Meter
621.02	Cleaning Culverts with Span of More Than 1300 mm	Meter
621.03	Cleaning Closed Drainage Systems	Meter
621.04	Cleaning Drainage Structures	Each
621.05	Clean, Grade and Shape Existing Roadside Section	Meter
621.11	Cleaning Culverts (Contaminated Material) with Span of 1300 mm or Less	Meter
621.12	Cleaning Culverts (Contaminated Material) with Span of More Than 1300 mm	Meter
621.13	Cleaning Closed Drainage Systems (Contaminated Material)	Meter
621.14	Cleaning Drainage Structures (Contaminated Material)	Each
621.15	Clean (Contaminated Material), Grade and Shape Existing Roadside Section	Meter

SECTION 622 (VACANT)

CLEANING CULVERTS AND DRAINAGE STRUCTURES

Make the following changes to the Standard Specifications dated May 1, 2008:

Page 606, **Delete** SECTIONS 621 AND 622 (VACANT) and **Replace** it with the following:

SECTION 621 – CLEANING CULVERTS, DRAINAGE STRUCTURES AND EXISTING ROADSIDE SECTIONS

621-1 DESCRIPTION

621-1.01 General. This work shall consist of cleaning and keeping clean, existing culverts, closed drainage systems, drainage structures, and existing roadside sections as shown in the contract documents.

621-1.02 Definitions. The following general definitions shall be used in conjunction with this section:

1. **Culvert.** A culvert is defined as an enclosed channel open at both ends carrying water from a stream or water course through an artificial barrier such as a roadway embankment.
2. **Closed Drainage System.** A closed drainage system is a collection system for stormwater runoff that carries water to a discharge point. A closed drainage system consists of enclosed channel(s) closed at either one or both ends by a drainage structure, and may include intermediate drainage structures at junction points.
3. **Drainage Structure.** A drainage structure includes catch basins, manholes, drop inlets, leaching basins and similar structures that collect and/or redirect runoff water.
4. **Materials Removed.** Materials removed have been presumed not to include non-hazardous industrial waste or hazardous waste in accordance with §107-10 *Managing Surplus Material and Waste*.
5. **Clean and Keeping Clean.** Clean and keeping clean is the activity of removing accumulated sediment, debris, and vegetation which impedes the flow of water to maintain a proper drainage path and re-establish the design capacity.
6. **Graded Surfaces.** Grading surfaces entails forming and trimming surfaces to the lines and grades shown in the contract documents.

621-2 MATERIALS. None specified.

621-3 CONSTRUCTION DETAILS

621-3.01. General. Provide appropriate control and discharge practices for all water throughout the cleaning process. Include methods and schedules to be consistent with the soil erosion and sediment control plan in accordance with §209-3.01 *General* and perform all work in accordance with §107-12 *Water Quality Protection*.

621-3.02. Cleaning Culverts. Culvert locations identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.03 Cleaning Closed Drainage System. Closed drainage systems identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in

CLEANING CULVERTS AND DRAINAGE STRUCTURES

accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.04 Cleaning Drainage Structures. Drainage structures identified in the contract documents shall be cleaned. Materials removed shall be disposed of in accordance with §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

It is not guaranteed that placement of surplus materials of spoil will be allowed within the right of way. Additionally, disposal of turbid water generated via the cleaning process shall be subject to appropriate environmental regulations.

621-3.05 Cleaning, Grading and Shaping Existing Roadside Section. The Contractor shall remove earth, turf, brush and debris, or provide necessary fill material to restore adequate roadside drainage. Ditches shall be shaped as shown in the contract documents. Material removed shall be disposed of in conformance with the provisions of §203-3.02 B. *Disposal of Surplus Excavated Materials*. Removal of contaminated material shall be disposed of in accordance with Section 205 *Contaminated Soil*.

The Contractor shall protect all fences, markers, culverts, underground structures, utilities and other appurtenances adjacent to the work area. Any damaged facilities and/or disturbed areas shall be replaced in kind at no additional cost to the state.

621-4 METHOD OF MEASUREMENT

621-4.01. General. None specified.

621-4.02. Cleaning Culverts. Cleaning culverts will be measured in linear feet of culvert cleaned, measured along the invert, to the nearest foot. Multiple barrel culverts will be measured along each individual barrel.

621-4.03 Cleaning Closed Drainage System. Cleaning closed drainage systems will be measured in linear feet of pipe cleaned, measured along the invert of the pipe, from the inside wall surface of the drainage structure to the inside wall surface of the next drainage structure, measured to the nearest foot.

621-4.04 Cleaning Drainage Structures. Cleaning drainage structures will be measured as the number of drainage structures cleaned.

621-4.05 Cleaning, Grading and Shaping Existing Roadside Section. Cleaning, grading, and shaping existing roadside section will be measured as the number of linear feet along the edge of the adjacent roadway.

621-5 BASIS OF PAYMENT

621-5.01. General. None specified.

621-5.02. Cleaning Culverts. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work including the cost of managing and disposing the materials used to clean and the materials removed from the culverts. Payment for cleaning culverts will be made only for those facilities designated in the contract documents. Only one payment for each length of facility will be made regardless of the number of times it is cleaned.

CLEANING CULVERTS AND DRAINAGE STRUCTURES

621-5.03 Cleaning Closed Drainage System. The unit price bid shall include the cost of all labor, materials, and equipment necessary to satisfactorily complete the work including the cost of managing and disposing the materials used to clean and the materials removed from the closed drainage system. Payment for cleaning closed drainage systems will be made only for those facilities designated in the contract documents. Only one payment for each facility will be made regardless of the number of times it is cleaned. Cleaning intermediate drainage structures at junction points within a closed drainage system shall be paid for under its respective item.

621-5.04 Cleaning Drainage Structures. The unit price bid for each shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work including the cost of managing and disposing the materials used to clean and the materials removed from the drainage structures. Payment for cleaning drainage structures will be made only for those facilities designated in the contract documents. Only one payment for each facility will be made regardless of the number of times it is cleaned.

621-5.05 Cleaning, Grading and Shaping Existing Roadside Section. The unit price bid shall include the costs of furnishing all labor, material and equipment necessary to complete the work including the cost of disposing the materials removed from the roadside section and/or fill material to restore the shape.

Payment will be made under:

Item No.	Item	Pay Unit
621.01	Cleaning Culverts with Span of 50 in. or Less	Linear Foot
621.02	Cleaning Culverts with Span of More Than 50 in.	Linear Foot
621.03	Cleaning Closed Drainage Systems	Linear Foot
621.04	Cleaning Drainage Structures	Each
621.05	Clean, Grade and Shape Existing Roadside Section	Linear Foot
621.11	Cleaning Culverts (Contaminated Material) with Span of 50 in. or Less	Linear Foot
621.12	Cleaning Culverts (Contaminated Material) with Span of More Than 50 in.	Linear Foot
621.13	Cleaning Closed Drainage Systems (Contaminated Material)	Linear Foot
621.14	Cleaning Drainage Structures (Contaminated Material)	Each
621.15	Clean (Contaminated Material), Grade and Shape Existing Roadside Section	Linear Foot

SECTION 622 (VACANT)