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TO:

Director,  
Preliminary Plan

PREL.	FINAL	
PHOTOGRAM.	LANDSCAPE	
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HARRIS	DESIGN	

# ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

**SUPERSEDED BY EB 81-038**  
**EFFECTIVE 8/31/1981**

SUBJECT: **GUIDELINES FOR THE USE OF EARTHWORK ITEMS**

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The following guidelines have been prepared to aid the designers in selecting and detailing the various earthwork items in Section 200, Earthwork, of the 1973 Standard Specifications. Your attention is directed to the definitions in Section 203 and to Figure 100-1 on page 1 of the specification book.

**Item 203.01 Unclassified Excavation and Embankment**

This item should be used in the same manner as former Item 2 (1962).

**Item 203.02 Unclassified Excavation and Disposal**

This item should be used in the same manner as former Item 2A.

**Item 203.03 Embankment in Place**

This item should be used in the same manner as former Item 2B (1962).

**Item 203.04 Select Subgrade**

This is a new payment item. It has no payment item counterpart in the 1962 specification book.

The 1962 specification book had certain requirements under 1. Subgrade Areas, pertaining to maximum allowable particle size and minimum compaction requirements. The cost for this work was included under either Item 2 or 2B. Item 203.04 merely provides for separate payment for these requirements in the subgrade area of an embankment. The designer should clearly communicate the intended use of this item by proper payment lines on the typical sections and cross-sections. A quantity summary table should also be shown in the plans.

Several important factors should be kept in mind:

- The material requirement for the item only specifies suitable unclassified material with a maximum particle size of 6 inches. It does not require a select granular material.

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- The item is to be estimated and used on all embankment sections, both earth and rock, even though the specification book states that a subgrade area is not defined in a rock embankment.
- The designer should not consider this item as providing a course of improved subgrade. In shallow embankment sections, the depth of the item may be variable. No excavation of suitable material should be done to allow placement of this item to a uniform depth, except as required by the standard sheet for earthwork transitions (203-2).
- Generally, the payment lines for this item should be a maximum 2 feet below and parallel to the subgrade surface.

Item 203.05 Select Borrow

This item should be used in the same manner as former Item 2EC (1962).

Item 203.06 Select Fill

This item should be used in the same manner as former Item 2EC-B (1962).

Item 203.07 Select Granular Fill

This item should be used in the same manner as former Item 2EF-B (1962).

Item 203.08 Select Granular Fill, Slope Protection

This item should be used in the same manner as former Item 2SP (1962). Refer to Standard Sheet 203-3.

Item 203.09 Proof Rolling

This is a new payment item. The work under this item was formerly included in Item 2 or 2B. Proof rolling is to be done within the roadway limits (see Figure 100-1).

This proof rolling item should be included in all earthwork contracts unless otherwise recommended by the Regional Soils Engineer.

Item 203.10 Surface Settlement Gages

Item 203.11 Subsurface Settlement Gages

Item 203.12 Settlement Stakes

Item 203.13 Piezometers

These items are new to the Standard Specification book. They should only be used when recommended by the Regional Soils Engineer or the Soil Mechanics Bureau.

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Item 203.20 Select Granular Subgrade

This is a new payment item. Generally, it is to be used for subgrade improvement (undercut backfill) at locations designated by a Soils Engineer. Since this item has specific material requirements and is generally used for frost heave protection or unstable subgrades, it should therefore not be confused with Item 203.04 - Select Subgrade.

Item 203.21 Select Structure Fill

This item should be used in the same manner as former Item 2VJD and 2VJ-E.

The designer is advised that any additional questions on the use of Items in Section 200 should be directed to the Regional Soils Engineer or the Soil Mechanics Bureau.