

CHAPTER 6

LUMP SUM, SQUARE YARD & TRUCK MEASURED ITEMS REVIEW

6.1 PURPOSE

To delineate the District Final Estimates Office (DFEO) reviewing procedure for each item of work performed to ensure accuracy, completeness, and compliance with the Contract Documents.

6.2 PROCEDURE

6.2.1 ITEMS OF GENERAL CONSTRUCTION OPERATIONS

The order in which the specific items on a contract are reviewed depends on the project and the preference of the individual doing the reviewing. These procedures will generally follow the order in which the items of pay are described in the ***Standard Specifications***. The details for final checking items in the first section of this chapter may be arranged in three categories according to their unit of measure.

- (A) Some Lump Sum Items are: Mobilization, Maintenance of Traffic, and Detours.
- (1) Does the proposal include a separate item of payment for these operations? If not, they are included for payment under other scheduled items of the overall contract where no separate payment will be made for them.
 - (2) If the final contract amount is different from the original contract amount, check the contract files for a Work Order (WO) or Supplemental Agreement (SA) or other authorization of lump sum adjustment.
 - (3) Material used in the construction of detours or maintenance of traffic lump sum shall not also be measured or paid for under any pay item. (***Section 9-2 of the Standard Specifications***)
 - (4) Were the dimensions (scope) used for bidding the contract revised, resulting in an increase or decrease in cost to the Contractor which would require an adjustment? (***Section 9-3 of the Standard Specifications***)

- (5) Verify that all materials designated to remain the property of the Department and used by the Contractor during construction have been returned and stored as directed by the Project Administrator (PA).
 - (6) Check that charges for items not returned (signs, bridges, pipe culverts, etc.) have been reflected in the final estimate, when applicable.
- (B) Truck Measured Items (volume or weight): Some examples of these pay items are Commercial Materials for Driveway Maintenance, Calcium Chloride for dust control, and sandbagging.
- (1) Check the authorization by the PA for the material used in construction.
 - (2) Verify the manufacturer's certified capacity decal attached to each side of the truck.
 - (3) Ensure that the truck measurement forms verify the quantity change due to sideboard addition. ([See Figure No. 6-1, and 6-1a](#)).
 - (4) Check the Tabulation Forms:
 - (a) Compare the truck number to the truck capacity.
 - (b) Trucks with volume changes are assigned new numbers and properly counted.
 - (c) Compare the **Manual Summary** in the **Computation Book** to ensure that all required tickets are included in the summary.
 - (d) Computerized summary shall be checked for keypunch errors and error messages in output, and that all output is included in a folder along with all required tickets, and referenced in the **Computation Book**.
- (C) Square yard items: An example of some square yard pay items are Artificial Coverings and Performance Turf.
- (1) Check plans and documents for authorized limits of construction.
 - (2) Spot check station to station calculation of length and width or verify field-chained dimensions from final measurement field book, the Final Measured miscellaneous form or latitude and departure sheet. ([See Figure No. 6-2](#)).

Plan quantity items should not be measured, only changes are to be documented and measured.

- (3) Spot check the mathematics of the area calculations and the transfer of the summary to the **Computation Book**.
- (4) Be sure additional temporary erosion control features are paid for as unforeseeable work in accordance per **Section 104 of the Standard Specifications**.

6.2.2 Clearing and Grubbing Construction Site

Items of clearing and grubbing, removal of trees, stumps, buildings, structures, equipment, and flexible pavement for the preparation of the overall project site are covered in this section.

(A) Clearing and Grubbing (Lump Sum):

- (1) This item is usually checked after the surface, base, and stabilization have been finalized.
- (2) Check plans thoroughly for change in limits.
 - (a) Grade changes increasing and decreasing lateral limits of construction.
 - (b) Beginning or end of project changes from original contract.
 - (c) Lateral ditches or outfall structures that was added or deleted.
- (3) Check SA's for lump sum adjustment of original quantity.
- (4) A lump sum pay item may be adjusted without a Work Order or Supplemental Agreement only where the Original Plan Quantity (OPQ) for a lump sum pay item is based solely on secondary units and is expressed in those secondary units in the plans; the adjusted lump sum dollar amount is equal to:

$$\frac{\text{OPQ} + \text{change in OPQ}}{\text{OPQ}} \times \text{Original lump sum \$ amount.}$$

Note: The original quantity as shown in the plans must be verified by the PA and corrected, if necessary, before any adjustment is made.

- (5) When it is apparent that items such as Maintenance of Traffic, Grading, etc., have been included in the lump sum price for clearing and grubbing, any adjustment in the final lump sum price shall be negotiated and documented by a Work Order or Supplemental Agreement.
- (B) Clearing and Grubbing Borrow Areas:
- (1) For borrow pits and material pits, do not perform any clearing and grubbing to within three (3) feet inside the right-of-way line. (**Section 110-2 of the Standard Specifications**)
 - (2) If the Contractor has substituted pits, pay either the area actually cleared and grubbed or the area shown in the plans for the corresponding borrow area, whichever is smaller.
 - (3) Haul routes shall not be included in area for payment.
 - (4) Clearing and grubbing required only for the purpose of obtaining stabilizing material or sand clay will not be paid for separately.
 - (5) Alteration of plan quantities should comply with conditions per **Section 4-3 of the Standard Specifications**.
 - (6) No separate payment will be made for clearing and grubbing borrow areas required to be furnished by the contractor.
- (C) Removal of Existing Structures (Lump Sum):
- (1) Changes in quantities are generally documented by a Work Order or Supplemental Agreement, if secondary units are not provided in the plans.
 - (2) Check plans and source records for possible duplication of area for payment under clearing and grubbing item.
 - (3) For partial removal, check replacement dimensions and calculation for comparison.
 - (4) Check salvage tickets/invoices for material delivered to maintenance.

- (5) Leaving part of a structure shown to be removed or finding greater amounts than shown in the plans may necessitate an adjustment. Adjustments are usually made by a Work Order or Supplemental Agreement.
- (D) Removal of Existing Pavement (Square yard):
- (1) Check special provisions, general notes, plans and soil survey to verify pavement type. Generally, removal is limited to rigid pavement, sidewalk, slope pavement, ditch pavement, curb and gutter, etc. Occasionally, removal of flexible pavement is set up as a pay item. This is done through the use of a special pay item number.
 - (2) Check plans and source records for areas such as footings, foundations, etc., that are to be included in clearing and grubbing.
 - (3) Delineate areas of removal on final plans to reveal possible overlaps or omissions.
 - (4) Cross check with other replacement items such as sidewalk, curb and gutter, and traffic separators to confirm final pay areas.
 - (5) Check final measurements and calculations as recorded in the final measurement field book, miscellaneous Tabulation forms, or latitude and departure sheets. ([See Figure 6-2](#))
 - (6) Check PA's verification of increased or decreased quantities in the computation book.
 - (7) The **Daily Work Report** may be useful when an item is shown on original plans to be removed, but no quantity is shown for removal. These records are not acceptable for final pay purposes.
 - (8) Retaining walls, drainage structures and flexible pavement are specifically not included in the work covered under removal of existing pavement. (**Section 110-7 of the Standard Specifications**)

6.3 LIST OF FIGURES FOLLOWING THIS CHAPTER

Figure No. 6-1Truck Measured Sketch Sample
Figure No. 6-1aTruck Measured Sketch Sample
Figure No. 6-2.....Final Measurement “Miscellaneous” Sample

Figure 6-1

TRUCK NO. _____ FIN. PROJECT ID _____
 CONTRACTOR _____
 CHECKED BY _____ DATE _____
 MEASURED BY _____ DATE _____

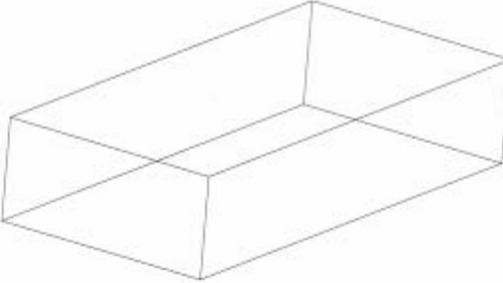
A. Certified Capacity provided by Contractor Subarticle (9-1.5) _____
 B. The example below is for verification purposes of the truck body capacity **only**.
 C. Sideboards Added _____
 D. Compare B to A _____

CASE I

A. Certified Capacity _____

Verification practice by field staff

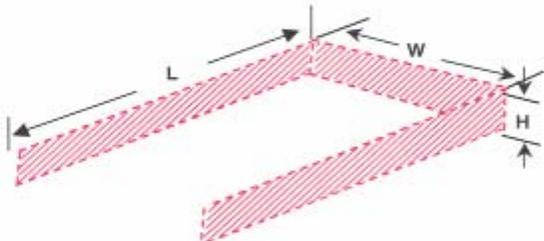
B. Truck Body Measure (L x W x H) x .98 = _____



D. Acceptable

YES NO

C. Sideboard Added (L x W x H) = _____



A + C = NEW TRUCK CAPACITY _____

Figure 6-1a

TRUCK NO. _____ FIN. PROJECT ID _____
 CONTRACTOR _____
 CHECKED BY _____ DATE _____
 MEASURED BY _____ DATE _____

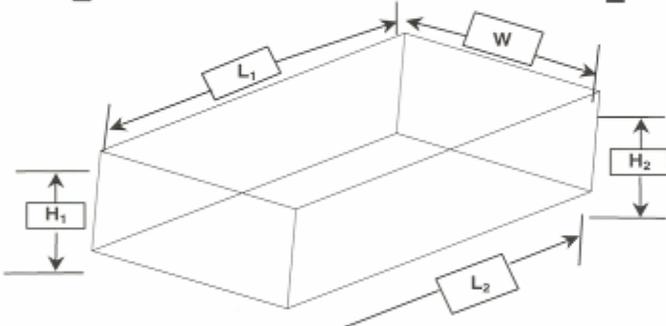
A. Certified Capacity provided by Contractor Subarticle(9-1.5)
 B. The example below is for verification purposes of the truck body capacity **only**.
 C. Sideboards Added
 D. Compare B to A

CASE II

A. Certified Capacity _____

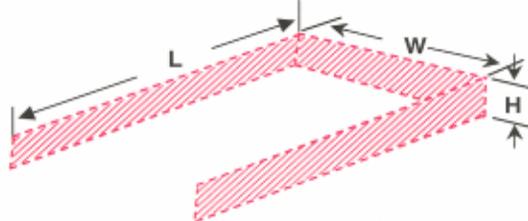
Verification practice by field staff

B. Truck Body Measure $\left[\left(\frac{L_1 + L_2}{2} \right) \times \left(\frac{H_1 + H_2}{2} \right) \times W \right] \times .98 =$ _____



(L x W x H) = _____

C. Sideboard Measure _____



D. Acceptable
 Yes No

A + C = NEW TRUCK CAPACITY _____

Figure 6-2

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
FINAL MEASUREMENTS "MISCELLANEOUS"

700-050-61
CONSTRUCTION
12/07
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