

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
USE OF ELECTRONICALLY TRANSMITTED WEIGH TICKETS FOR SCHEDULE WORK

May 28, 2025

SECTION 109 – MEASUREMENT AND PAYMENT of the Specifications is amended as follows:

Section 109.01(a) –General is replaced with the following:

General: Work specified in the Contract will be measured by the Engineer in accordance with U.S. Standard Measure. The methods of measurement and computations to be used to determine quantities of material furnished and work performed will be those generally recognized as conforming to good engineering practice.

Specific methods of measurement shall be as indicated in the specific Section for the Contract item.

Longitudinal measurements for surface area computations will be made along the surface, and transverse measurements will be the surface measure shown on the plans or ordered in writing by the Engineer. Individual areas of obstructions with a surface area of 9 square feet or less will not be deducted from surface areas measured for payment.

Structures will be measured in accordance with the neat lines shown on the plans.

Items that are measured by the linear foot will be measured parallel to the base or foundation upon which they are placed.

Allowance will not be made for surfaces placed over an area greater than that shown on the plans or for any material moved from outside the area of the cross-section and lines shown on the plans.

When standard manufactured items are specified and are identified by weights or dimensions, such identification will be considered nominal. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

Electronic ticket systems shall record and show all the same information required on a printed weigh ticket and meet the requirements herein. The Contractor shall provide electronic weigh tickets via the Department's electronic weigh ticket portal. The system software and hardware shall be designed so that data inputs from scales cannot be altered. The Department representative is responsible for marking loads as delivered, after confirming the material is correct and on-site.

Electronic ticketing will be required for asphalt plant mixtures, but optional for all other materials.

Section 109.01(b) – Measurement by Weight is replaced with the following:

Measurement by Weight: Materials that are measured or proportioned by weight shall be weighed on accurate scales as specified in this Section. When material is paid for on a tonnage basis, personnel performing the weighing shall be certified by the Department and shall be bonded to the Commonwealth of Virginia in the amount of \$10,000 for the faithful observance and performance of the duties of the weighperson required herein. The bond shall be executed on a form having the

exact wording as the Weighpersons Surety Bond Form furnished by the Department and shall be submitted to the Department prior to the furnishing of the tonnage material.

The Contractor shall have the weighperson perform the following: for asphalt plant mixtures, electronic weigh tickets shall be provided. Electronic weigh ticket systems shall record and show all the information shown in Table I-A. Non-asphalt plant mixture materials measured by weight may be provided via printed ticket that records and shows all the information shown in Table I-B or through the Department electronic ticketing portal; maintain sufficient documentation so that the cumulative tonnage and distribution of each lot of material, by Contract, can be readily identified; and submit by the end of the next working day a summary of the number of loads and total weights for each type of material by Contract.

Trucks used to haul material shall be equipped with a cover suitable to protect the material and to protect the traveling public.

The truck tare to be used in the weighing operation shall be the weight of the empty truck determined with full tanks of fuel and the operator seated in the cab. The tare weight of trucks shall be recorded to the nearest 20 pounds. At the option of the Contractor, a new tare may be determined for each load. When a new tare is obtained for each load, the requirement for full tanks of fuel will be waived.

Net rail shipment weights may be used for pay quantities when evidenced by railroad bills of lading. However, such weights will not be accepted for pay quantities of materials that subsequently pass through a stationary mixing plant.

Scales shall conform to the requirements for accuracy and sensitivity as set forth in current edition of the NIST Handbook No. 44 for Specification Tolerances and Requirements for Commercial and Weighing Devices. Scales used in the weighing of materials paid for on a tonnage basis shall be approved and sealed in accordance with the requirements of the policies of the Bureau of Weights and Measures of the Virginia Department of Agriculture and Consumer Services, or other approved agencies, at least once every six months and upon being moved. Hopper and truck scales shall be serviced and tested by a scale service representative at least once every six months. Hopper scales shall be checked with a minimum 500 pounds of test weights and truck scales shall be checked with a minimum 20,000 pounds of test weights.

Copies of scale test reports shall be maintained on file at the scale location for at least 18 months, and copies of all scale service representative test reports shall be forwarded to the Department.

The quantity of materials paid for on a tonnage basis shall be determined on scales equipped with an automatic export, whether via the Department eTicketing portal or a printer. Truck scales shall export the net weight and either the gross or tare weight of each load. Hopper scales shall export the net weight of each load. The weigh ticket shall also show the legal gross weight for material weighed on truck scales and the legal net weight for material weighed on hopper scales.

If the automatic export becomes inoperative, the weighing operation may continue for 48 hours provided satisfactory visual verification of weights can be made and submitted in the same format and manner as required for printed or electronic weigh tickets and the District Materials Engineer is immediately notified. The written permission of the District Materials Engineer shall be required for the operation of scales after 48 hours of the automatic export becoming inoperative.

Delays due to poor GPS satellite reception, loss of cellular coverage, or any other technical or mechanical issues with an electronic weigh ticket system software, hardware, or other components will not be considered as a basis for entitlement to any form of adjustment or time extension. The Engineer may reject material at any time if electronic weigh tickets become unavailable or fail to provide appropriate and correctly formatted information at the time the weigh tickets are

transmitted, which must be prior to the material arriving on the job site. To ensure positive identification of the material in the event of lost connectivity, each truck driver shall be able to provide all identifying ticket information upon delivery of that load.

If there is no connectivity on-site as determined by the Department representative, printed tickets shall be transmitted in addition to electronic tickets submitted to the portal. In this event, tickets should still be submitted through the Department eTicketing portal so that the printed tickets can be reconciled with the portal.

If significant discrepancies are discovered in the recorded and displayed weight in electronic tickets, the ultimate weight for payment will be calculated based on volume measurements of the materials in place and unit weights determined by the Engineer, or by other methods deemed appropriate to protect the interests of the Commonwealth.

TABLE I-A

Required information for asphalt plant mixture material weigh tickets

Fields	Attribute	Format
Required	Date and time at Scale	
	Ticket Number	
	Plant Name	Text
	Customer Name	
	Product Description	State Mix ID Description
	Size and Type of Material	
	Product Code	State Mix ID Code
	Contract Number	
	State Project Number	
	Supplier	
	Load No.	
	Daily Total	Total of that product delivered to that project for the day
	Hauler	
	Truck Number	
	Gross Weight	
	Tare Weight	
	Net Weight	
	Weighmaster	
	UPC	
	Route/Location/Crew	
	Lot Number	
If Applicable	Purchase Order Number	
	Mix Design Number	

TABLE I-B

Required information for printed non-asphalt plant mixture material weigh tickets

Fields	Attribute
Required	Date and time at Scale
	Ticket Number
	Plant Name
	Product Description
	Size and Type of Material
	Product Code
	Contract Number
	State Project Number
	Supplier
	Load No.
	Daily Total
	Hauler
	Truck Number
	Gross Weight
	Tare Weight
	Net Weight
	Lot Number
	Weighmaster
	UPC
If Applicable	Route/Location
	Purchase Order Number
	Mix Design Number

Section 109.01(c) – Measurement by Cubic Yard is replaced with the following:

Measurement by Cubic Yard: Material that is measured by the cubic yard, loose measurement or vehicular measurement, shall be hauled in approved vehicles and measured therein at the point of delivery. Material measured in vehicles, except streambed gravel, silt cleanout, or other self-consolidating material will be allowed at the rate of 2/3 the volume of the vehicle. The full volume of the vehicle will be allowed for streambed gravel. Such vehicles may be of any size or type acceptable to the Engineer provided the body is of such shape that the actual contents can be readily and accurately determined. Unless all approved vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating the specific approved capacity. Each vehicle shall be loaded to at least its water level capacity.

When approved by the Engineer in writing, material measured by the cubic yard may be weighed and such weights converted to cubic yards for payment purposes. Factors for conversion from weight to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before they are used.

When concrete is provided, the Contractor shall provide a printed or electronic ticket that includes the quantity and the information from Table I-C and meets the requirements herein. If the Contractor selects electronic ticketing for cubic yard pay items, then the Contractor shall provide electronic tickets via the Department's electronic ticketing portal.

TABLE I-C

Required information for concrete tickets

Field	Attribute	Format
Required	Date and time at Scale	
	Ticket Number	
	Plant Name	Text
	Customer Name	
	Product Description	State Mix ID Description
	Product Code	State Mix ID Code
	Contract Number	
	State Project Number	
	Supplier	
	Load No.	
	Daily Total	
	Hauler	
	Truck Number	
	UPC	
Available to be filled out on-site	Gallons of Water Added	
	Air Entrainment Add Mixture	
	Retarding Add Mix	
	Plasticizer [High Range Water Reducer]	
	Accelerator	