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<u>STATE</u> <u>OF</u> <u>TENNESSEE</u>

March 28, 2022 January 1, 2021

(Rev. 12-20-23) (Rev. 10-31-24)

# **SPECIAL PROVISION**

# REGARDING

### **ELECTRONIC TICKET DELIVERY SYSTEM**

# **FOR CONCRETE**

# **Description**

This work shall consist of the use of an Electronic Ticket Delivery System (e-ticket) for each load of concrete mixtures delivered to the project site. The e-ticket system shall be compatible with the Department's electronic ticketing portal (HaulHub). If an Electronic Ticket Delivery System is not available, the Department will allow the use of HaulHub through the Department's license.

#### **Construction Requirements**

Provide electronic Certified Plant Technician e-tickets for each load of concrete mixtures that are delivered to the project. Fully integrate the e-ticket system with the load read out scale system used to batch the mixture being delivered. The e-ticket system shall generate individual certified e-tickets to be submitted to the Department's electronic ticketing portal (HaulHub). The e-ticket system shall be designed so data inputs cannot be altered by either the Contractor, subcontractor, producer or the Department.

The system shall be capable of maintaining the data offline due to loss of power or connectivity.

Before delivery of any concrete mixture to the project, confirm that the e-ticket system is compatible with and connected to the Department's electronic ticketing portal (HaulHub). If necessary, create a programming interface to integrate with the Department's e-ticketing portal. Utilize the interface to provide electronic data from the load read out scale system at the material source in a manner that is readable by the Department's e-ticketing portal. HaulHub personnel will be available to coordinate the interface with the Contractor, subcontractor, or producer.

The Department shall utilize HaulHub to make notes on each e-ticket for documentation (e.g., comments, rejection of load). Any loads not meeting requirements of **604.03**, shall be rejected and no payment will be issued.

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As certified e-tickets are generated they shall be received and accessible in HaulHub no later than 5 minutes from when the e-ticket was created. With the initial load, the Contractor's Daily Report of Concrete Inspection shall be submitted electronically as a PDF file to the Engineer. The certified e-tickets shall include the following:

- 1. Date
- 2. TDOT Project Number, TDOT Contract number
- **3.** County
- 4. Class of concrete
- **5.** Approved TDOT concrete mix design number
- **6.** Number of cubic yards
- 7. Load number
- **8.** Truck number
- **9.** Maximum water allowed by design
- 10. Total water added at the plant
- 11. Maximum water allowed to be added on the project
- 12. Water-Cementitious material ratio
- 13. Time Loaded
- 14. Actual and target batch weights of each component including each aggregate, chemical admixture and mineral admixture used. Include the % difference between the actual batch weights and target weights.
- 15. Name of producer's TDOT Certified Concrete Plant Quality Control Technician

### **Method of Measurement**

Utilize an electronic ticket delivery system (e-ticket) for concrete mixtures as specified. If any certified e-tickets are not available to the Engineer, payment may be withheld for the items of work on the monthly estimate.

### **Basis of Payment**

The Department will not directly pay for the electronic ticket delivery system (e-ticket) separately. The contract unit prices for the concrete mixtures that e-tickets are required to be used shall be full compensation for all activities, including materials, equipment, labor, and any incidentals to complete the work as specified.