

STATE**OF****TENNESSEE**

October 12, 2020
(Rev. 9-1-21)

January 1, 2021

SPECIAL PROVISION**REGARDING****SPEED FEEDBACK SIGN ASSEMBLY****Description**

This work shall consist of the furnishing, installing and operation of a work zone Speed Feedback Sign Assembly. Equipped with Doppler radar and a LED display, these devices inform motorists of their current speed and/or advisory messages as well as generate data to be used in traffic management strategies.

The purpose of the Speed Feedback Sign Assembly is to provide speed awareness to the motoring public in areas where speed reduction is desired and provide real time information to the Engineer regarding speed and traffic volumes.

Equipment

Speed Feedback Sign Assembly shall meet the following:

1. The LED panel shall be a minimum of 18 inches high and legible at 1000 feet. The display on the LED panel shall be yellow. A placard shall be mounted above or below the feedback display with the legend "YOUR SPEED".
2. The unit shall be radar operated with operational software and capable of recording speed.
3. The LED panel shall have auto brightness/dimming capability.
4. The Speed Feedback Sign Assembly may be trailer mounted or stationary mounted. The unit shall be solar powered and have the ability to operate continuously. It shall be supplemented with a battery backup system.
5. The batteries, when fully charged, shall be capable of powering the display for 20 continuous days with no solar power. The unit shall be capable of being powered by standard 110/120 VAC power source. The battery bank and charging system shall be stored in a lockable, weatherproof and vandal resistant box.
6. The unit shall have a static regulatory speed limit sign attached (R2-1) with minimum dimension of 36 inches x 48 inches.

7. The Speed Feedback Sign Assembly shall be listed on the Department's Qualified Products List No. 44. For project applications that require more than one assembly, the same style of speed feedback sign assembly shall be used.

Construction Requirements

1. The unit shall be located in the advance warning area or within the active work zone but shall not be located after the active work zone. The unit should be placed in area of reduced work zone speed limit.
2. Placement of the unit shall be on the right side of the road unless infeasible or as directed by the Engineer. Placement of signs shall not interfere with the function of roadside devices such as guardrail or terminals.
3. The unit should not be within 500 feet of Advanced Warning Sign or Digital Speed Limit Sign Assembly.
4. The regulatory speed limit sign on the unit shall match the reduced speed displayed on the digital speed limit sign. When the display on the digital speed limit sign is adjusted to the normal speed limit then the speed feedback sign shall be covered or removed so that there are no conflicting speed limits on the project.
5. Coordinate with the Engineer for location of the Speed Feedback Sign Assembly.
6. A data printout of the average vehicle speed and hourly vehicle volume shall be provided to the Engineer weekly.

Method of Measurement

The Department will measure, by Each, the Speed Feedback Sign Assembly, complete in place and accepted, according to the maximum number of Speed Feedback Sign Assemblies required at any given time on the project. Payment will be for the maximum number of assemblies in use with data received at any given time for the duration of the project.

Basis of Payment

The Department will pay for accepted quantities, complete in place, at the contract price as follows:

Pay Item	Description	Unit
712-08.08	Speed Feedback Sign Assembly	Each

Such payment is full compensation to furnish, coordinate, install, maintain, operate, track, monitor, subsequently remove Speed Feedback Sign Assemblies and with the average speed and hourly volume data provided.