

I-476 ATC (116225) and I-476 HSR (104821) Project Description

Project Description:

The SR 476 Sec ATC project was let (open bids) for construction in October 2023. The project is implementing Active Traffic Management strategies including variable speed limit and queue detection systems to better manage congestion and improve safety along approximately 14.1 miles of Interstate 476 including at the I-476/I-95 interchange. I-476 Southbound limits are the I-95 interchange at the south end and the northern limit is 0.5 mile north of Exit 13 at SR 30. I-476 Northbound limits extend from the southern limit at the I-95 southbound ramp to I-476 and extend to the northern limit at Marple Road near Exit 9 (West Chester Pike Interchange).

The constructed roadside equipment will be connected to the Regional Traffic Management Center through the existing fiber optic communication system established within the project limits. All facilities will be installed in the existing PennDOT Legal Right-of-Way. Variable speed limits should be operational on I-476 by the end of 2025. Speeds will be dynamically changed based on road, traffic and weather conditions. Warning signs will be used to dynamically display alerts to drivers that congestion and queues are present.

The second project, SR 476 Sec HSR, will provide for the active management of transportation and demand by providing operational improvements on I-476 between the PA 3 and I-95 interchanges, and on I-95 southbound between the I-476 and US 322 interchanges. The project will provide the ability to dynamically manage recurrent congestion based on prevailing and predicted traffic conditions through the following:

- 1) Dynamic lane assignments, shoulder, and junction control improvements. The inside shoulders (median side) of SR 476 will be expanded so they can be used as an additional travel lane from SR 3 to I-95. The shoulders will be dynamically controlled along with the existing travel lanes for opening/closing on a temporary basis in response to increasing congestion or incidents. The work will include upgrade of existing median-side roadway shoulders to a consistent width and pavement thickness, relocation of drainage inlets in some shoulders, traffic signal modifications at interchanges, construction of gantries for signs and ITS devices, removal or upgrade of existing ramp metering devices, expansion of some of the SR 476 Bridges, construction of emergency pull off areas, and providing better access for emergency responders to enter and exit the highway(s) during incidents.
- 2) Adaptive ramp metering will be used to dynamically adjust signals at the interchange ramp entrances to proactively manage vehicle flow from the access ramps to SR 476.