



PENNSYLVANIA TURNPIKE

CHALLENGE

WITH THOUSANDS OF DAILY TRAVELERS, THE PENNSYLVANIA TURNPIKE REQUIRES A CONTINUOUS PARTNER TO HELP MAINTAIN AND KEEP THE ROADWAY AT TOP EFFICIENCY.

SERVICES

- Alignment Studies
- Bridge Analysis and Design
- Design/Build
- Environmental Assessment and Planning
- Erosion and Sediment Control
- Hydrologic and Hydraulic Modeling and Design
- Intelligent Transportation Services
- Interchange Justification Studies
- Lighting Design
- Limited Access and Highway Design
- Project Management
- Public Involvement
- Survey and GPS
- Toll Facilities
- Traffic Control and Maintenance Plans
- Wetland Permitting and Mitigation

AWARDS



OUTSTANDING HIGHWAY DESIGN AWARD:
MON-FAYETTE EXPRESSWAY
American Society of Highway Engineers (ASHE),
Pittsburgh Chapter

PENNSYLVANIA TURNPIKE

The Pennsylvania Turnpike is recognized as the first American “superhighway.” With a design modeled after Germany’s 100-mph autobahns, it officially opened for service on October 1, 1940.

initial project limits were from Middlesex, located west of Harrisburg, to Irwin, east of Pittsburgh, a distance of 160 miles. Today, the Pennsylvania Turnpike, a highway stretching 514 miles across the state and an integral part of the nation’s interstate system.

The Pennsylvania Turnpike was developed to decrease travel time between Harrisburg and Pittsburgh. The

LONG-STANDING PARTNERSHIP

For nearly 30 years, the Pennsylvania Turnpike Commission (PTC) has turned to ms consultants for comprehensive transportation studies and design engineering services. ms has helped the PTC maintain and improve the turnpike for the thousands of vehicles that use it each day.

Fulton County, located in the south-central part of Pennsylvania.

Since that time, the firm has provided comprehensive engineering services for various improvements to the turnpike. Below are some highlights.

ms first began working on Pennsylvania Turnpike projects with the rehabilitation of two bridges in

MON-FAYETTE EXPRESSWAY

One of the largest projects was the Mon-Fayette Expressway. This 17-mile, \$475 million segment of toll road extends from I-70 in Washington County north to S.R. 51 in southern Allegheny County.

- Nine new bridges and culverts that included two dual mainline bridges and a prestressed concrete circular pipe
- Stormwater plans
- Erosion and sediment pollution control plans;
- Highway lighting plans
- Pavement marking plans
- Traffic control plans

The award-winning Mon-Fayette Expressway project included:

- Preliminary plan preparation of 11,300 feet of the expressway
- 13,000 feet of ramps at a diamond interchange
- 2,700 feet of side road construction

ALLEGHENY RIVER BRIDGE REPLACEMENT

As a sub-consultant to the FIGG Engineering Group, ms also worked on the Allegheny River Bridge replacement project. This was a complex bridge replacement project that required highway, structure, traffic and environmental services.

1.8 mile section of the Pennsylvania Turnpike mainline between milepost 47.2 and 49.0.

This section was widened to six lanes with minor realignment, phased so traffic was maintained at all times. Included in the improvements was the reconfiguration of the Allegheny Valley Interchange ramps.

The associated roadway approach work includes a

PENNSYLVANIA TURNPIKE RECONSTRUCTION

The \$113+ million total reconstruction of seven miles of the Pennsylvania Turnpike mainline between milepost 31.0 and 38.0 included widening the existing 10-foot median to a 50-foot median to accommodate two additional lanes.

Also included in the widening effort were:

- Improvements to non-standard horizontal and vertical curves
- Improvements for the eastern portion of the Warrendale Toll Plaza.
- Replacement of four overhead bridges
- Replacement/widening of all mainline structures
- Retaining walls
- Stormwater management
- Drainage
- Traffic control for phased construction
- Right-of-way acquisition
- Construction services

I-95/I-276 INTERCHANGE

The I-95/I-276 Interchange project in Bucks County, PA is part of a project undertaken by the PTC to make a direct connection between I-95 and I-276.

Because of this, the project also required mindful coordination efforts with PennDOT Engineering District 6-0.

This section is unique in that it is the only one within the project that is entirely outside the turnpike system.

The I-95/I-276 project is currently in progress.

SECTION 55C2

Currently in progress, the first component of 55C2 will be a new, four-lane highway with a 60-foot median along the Southern Beltway mainline, state Route 0576. It will include:

A second part of 55C2 includes relocating more than 11,000 total feet of road. The project will also include roundabout, providing efficient traffic operations with a smaller footprint—less pavement, less maintenance, less operation costs—and ultimately a safer intersection.

- Approximately 9 million cubic yards of total earthwork excavation
- 71,000 feet of concrete pavement
- 10 ramp alignments
- Six box culverts
- Four bridge structures
- One interchange exit
- Widening a three-mile stretch of I-79

When complete, the project will reduce congestion, provide safer travel, and help the environment by reducing emissions at the roundabout.