New Jersey Department of Transportation
On-Call General Engineering Services

Various Locations, New Jersey

Naik Consulting Group, P.C. **(NAIK)** provided On Call General Engineering Services for various NJDOT facilities. Services included: Bridge Design, Roadway Design, Utilities Engineering, Traffic Engineering, Highway Lighting, ITS Facilities Design and Surveying Services. Sample projects included:

- **Route 46 Rehabilitation, Mount Olive Township, Netcong Borough, and Roxbury Townships, NJ:** Project followed NEPA Process. Provided geometric design of varying pavement sections; from two lanes, undivided with varying width shoulders and no curb, to four lanes, divided with curb and no shoulders. There are numerous intersecting local and County routes including six signalized intersections, the Netcong Circle and two major interchanges (Interstate Rt. 80 and NJ Route 183) within the project limits. The project consisted of the rehabilitation of the asphalt pavement by milling and overlay. Maintenance & protection of traffic along with Construction Staging were an integral part of this project.

- **Route 1 Local and Express N.B. & S.B. Lanes, MP 45.4 to 47.6, Pavement Resurfacing and Rehabilitation, Essex County, NJ:** Provided engineering services for the rehabilitation of the asphalt pavement, by milling and overlay. The project corridor consisted of approximately two (2) miles of varying width roadway outside Newark Airport. Services also included Quality Control and Maintenance & Protection of Traffic Plans, in accordance with the NJDOT Plans and specifications and procedures.

- **ITS Route 9, Middlesex County, NJ:** ITS for the Route 9 Roadway Rehabilitation project, as part of the Intelligent Transportation System Facilities. Identified and verified the existing fiber optic conduits and junction boxes between MP 115.3 and MP 136.1. **NAIK** oversaw the design into the design plans conduit to serve the NJTA Traffic Management Center (TMC) for future integration with the NJDOT fiber optic system. Also provided replacement of the area weather station at MP 132.8., designed the extension of the Route 9 fiber optic conduit system from MP 136.1 to the Route 9 intersection with Route 1. As part of the conduit design, a directional drill component was provided to install conduit under the NJTA mainline roadway, which required a License to Cross application with the Authority. All work was done in accordance with NJDOT Procedures, MUTCD and Traffic Control details, NJDOT ITS Architecture, NTCIP Standards and ITS Interim Guidelines.

- **ITS Route 21, Chester Avenue Viaduct Rehabilitation, Newark, NJ:** Responsible for the management of project cost, schedule and budget and quality assurance and control for the design plans and identified the location for a CCTV camera on the northern section of Route 21 as part of the upgrade of the existing Route 21 viaduct, including electrical feed access, communication protocols, systems integration along with standard and site specific details, quantities, cost estimate and specifications. All work was done in accordance with NJDOT Procedures, MUTCD and Traffic Control details NJDOT ITS Architecture, NTCIP Standards and ITS Interim Guidelines.

- **Route 35 Over Heards Brook, Woodbridge Township, NJ:** Utility Tasks for in-kind replacement of the concrete culvert. Total of (6) utility companies are located within the project limits. Prepared utility contact letter no. 1 & 2, utility agreements, utility relocation schemes and design – construction plans, utility agreement plans, utility checklists and approval, preparation of specifications (Special provisions), attended meetings with NJDOT PM, and utility owners, prepared "master plan" for the project. Experience with Steps and Procedures with Utility Accommodation Policy and NJDOT Capital Project Delivery Process.

- **Route 35 Over Woodbridge Creek, City of Perth Amboy, NJ:** Utility Tasks for the in-kind replacement of the concrete culvert. Total of five (5) utility companies are located within the project limits. Supervised the preparation of utility contact letter no. 1 & 2, utility agreements, utility relocation schemes and design – construction plans, utility agreement plans, utility checklists and approval, preparation of specifications (Special provisions), attended meetings with NJDOT PM, and utility owners, prepared "master plan" for the project. Experience with Steps and Procedures with Utility Accommodation Policy and NJDOT Capital Project Delivery Process.

- **Route 23 over Pequannock River, Aerial Photogrammetric Survey Services, Essex County, NJ:** Supervision and coordination of all ground control and supplemental field survey tasks and ROW. Responsible for additional survey and base-mapping as required by the Design Engineer. All work was performed in accordance with NJ Surveying Manual including Chapter 7 Photogrammetric Survey, NJDOT ROW Engineering Manual, NJDOT Guidelines for Photogrammetric Mapping, NJDOT survey manual requirements as well as Article 44 Survey Control and Article 51 CADD requirements.

Agency/Owner:
New Jersey Department of Transportation

Construction Cost:
$10.8M

Project Duration:
2009 - 2013