



The LiRo Group

Client:

Westchester County
Department of Public Works
148 Martine Avenue
White Plains, NY 10601

Reference:

Paul Summerfield, P.E.

914-285-2565

Total Project Cost:

\$3,000,000

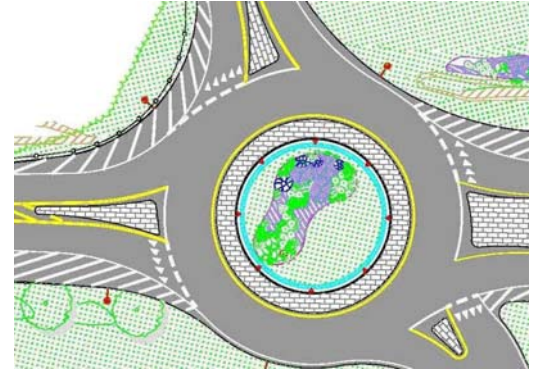
Completion Date: 2004

Project Overview:

LiRo provided design services for improvements to the Rye Lake Road-Access Road intersection to improve safety and traffic flow and to minimize delays to airport traffic. (Westchester County Department of Public Works, 2004, \$3M)

Westchester County Airport Plaza and Intersection Improvements White Plains, NY

LiRo provided design services for improvements to the Rye Lake Road-Access Road intersection to improve safety and traffic flow and to minimize delays to airport traffic. The Airport Access Road extends from NYS Route 120 to the terminal parking area and is the main entrance and exit for passengers, tenants and employees. Rye Lake Road intersects with the access road and extends into Greenwich, Connecticut. Major utility work for the project involved relocating a 12" domestic water line, a 13.2 kV electrical line and a telephone trunk line to route around the airport's fuel farm adjacent to the intersection.



Upon preparation of proposed design alternatives which included a Single-Lane roundabout, a Double-Lane Roundabout & a signalized intersection, a single lane roundabout was recommended by LiRo and accepted by the County as the best fit for the project considering both County & Airport needs and taking into account traffic volumes, vehicle & facility use, safety, ROW considerations, environmental impacts and cost vs. benefit.

Roundabout design followed FHWA publication "Roundabouts: An Informational Guide FHWA-RD-00-067" including various features such as raised splitter islands; raised center truck apron (to accommodate tanker trucks for fuel farm deliveries adjacent to the intersection); center area landscaping, stopping sight distances; approach sight triangles; approach, entry and main roadway speeds; pavement markings, signs, lighting, and drainage.

Critical construction elements included extensive maintenance & protection of traffic & staged construction phasing considering the intersection is the only entry to the terminal and detouring of mainline traffic was not permitted. An added element of design included the center landscaped area surrounded by a low lying, aesthetically pleasing security wall to deter unimpeded access to the fuel farm and terminal area by rogue vehicles during potential terrorist attacks, a concern that was brought to the forefront of design after September 11, 2001.

Various environmental concerns were addressed utilizing the New York State Guidelines for Urban & Erosion & Sediment Control as well as providing supporting technical documentation & coordination for Westchester County during NEPA & SEQR findings & and subsequent compliance.

Key Features:

- Survey and Traffic analysis and roundabout warrant analysis
- 4-Leg, Single Lane Roundabout Design
- Utility relocation
- Major drainage reconstruction, Sediment & Erosion Controls
- Landscaping & Street Lighting
- Pavement design
- Extensive MPT & construction staging, Signage and pavement markings