Project Summary

Photogrammetry

PROJECT NAME AND LOCATION
LAMP Survey of Port Newark and Elizabeth Marine Terminals Expressrail Facility
Newark, NJ

PERFORMANCE DATA
Total project fee: NA
Project completed in 6 months in August 2004

OWNER INFORMATION
The Port Authority of New York & New Jersey
New York, NY


Bell Jet Ranger – 206 B with Leica RC30 Equipment

KEY PROJECT FEATURES

- Area encompassed approximately 120 acres and over 80,000 linear feet of track alignment.
- Creation of a Low Altitude Mapping (LAMP) Digital Terrain Model (DTM).
- Over 150 photo control targets were needed to control the aerial photography.

Erdman Anthony's Photogrammetric Mapping Group was retained for this multi-task project that involved providing a first order horizontal and vertical control survey throughout the project; providing photo targeting and control for the creation of a Low Altitude Mapping (LAMP) Digital Terrain Model (DTM); providing a topographic survey of railroad track sidings; and providing ACAD2000 mapping and DTM in strict accordance with Port Authority CADD standards. The area encompassed approximately 120 acres and over 80,000 linear feet of track alignment.

The LAMP process was used for the aerial survey and mapping in Phase 2. This phase of the project involved new aerial photography obtained from a helicopter, design of primary photo control network, softcopy aerial triangulation, and 1"=40' planimetric base mapping including a DTM to support vector and digital softcopy design scale base topography. Over 150 photo control targets were needed to control the aerial photography.

The mapping included the complete capture of all surface utility features; buildings, fences, bridges and other structures; railroad tracks, streets, and vegetation. A complete array of break line and point data was required to support the generation of 0.2-foot contours.

Phase 3 required that precise topographic survey of all the railroad tracks within the project boundaries be performed. Over 80,000 linear feet of track was located using our trigonometric observations.

Project was completed by the staff of Erdman Anthony's Photogrammetric Group prior to their formation of **EA Maps, LLC** in 2006.