# Statement of Qualification for Port Authority Projects



Malick & Scherer, P.C. (M&S), is a multidisciplinary engineering firm providing engineering and surveying services for infrastructure projects throughout New Jersey, New York, and Pennsylvania. The M&S team, consisting of Professional Engineers, Professional Land Surveyors, Environmental Scientists, and highly experienced technical support, has been providing design services to major transit agencies for the past 18 years. Services provided by the firm include civil/site engineering, ecological analysis (wetlands, floodplain, etc.), stormwater management design, structural analysis and design, environmental permitting, grading and drainage design, traffic engineering, roadway design, utility engineering, survey, basemapping and ROW, data collection, and access evaluation. M&S has provided these services on various transit agency projects throughout the northeast corridor, including agencies such as Port Authority of NY & NJ, NJ Transit, SEPTA, AMTRAK, and various metropolitan planning agencies (MPO).

M&S is certified by Port Authority of NY & NJ as a Minority Business Enterprise (MBE).

The following illustrates M&S's experience and expertise on Port Authority of NY & NJ and similar agency projects:

### PANYNJ, Replacement & Upgrade PATH Substation 8 Kearny, NJ

Project involved the replacement and reconstruction of the existing PATH Substation #8 located in Kearny, NJ. The substation provides traction power for track sections between Newark and Journal Square in the PATH system. Responsible for the civil site design, survey, and environmental permits. Prepared Design Criteria Report Summary and Design Report. Performed design of the substation access road, site grading and retaining walls, parking lot layout, security fencing, drainage, and soil erosion design. Environmental permitting includes wetlands delineation, NJDEP LOI submission, Meadowlands Commission, and



Waterfront Development permit. Contract Drawings were produced utilizing AutoCAD in accordance with Port Authority CADD standards. Prepared construction cost estimates and technical specifications. Received Track Safety Training and PA Livelink access.

- ✓ Entire civil/site engineering including grading and drainage design
- ✓ Designed access road, retaining wall, parking layout
- ✓ Wetlands Delineation
- ✓ Plans & Specs prepared in accordance with Port Authority standards
- ✓ Survey & Basemapping

#### PANYNJ, Replacement of PATH Substation 9 Harrison, Hudson County, NJ

Project involves replacement and relocation of the existing PATH (Harrison Street) Substation #9 located in Harrison, NJ. Responsible for performing site design for the project, including preparation of site layout, site grading, cross section, erosion and sediment control plan, site details, and utility identification. Also responsible for performing supplemental field survey.

### Services Performed:

- ✓ Civil Site Design
- ✓ Utility Identification
- Supplemental Field Survey

#### PANYNJ, Port Authority Bus Terminal New York, NY

Development of Maintenance and Protection of Traffic (MPT) plans according to PANYNJ and MUTCD design standards to accommodate various construction operations performed within the Port Authority Bus Terminal. Road closures and detours have been required on multiple levels simultaneously, and have accommodated vehicular traffic flow and pedestrian movements during day and nighttime operations of the terminal. AutoTurn analysis was included to assess bus passage through work zones. All work orders have required a rapid response and coordination with multiple agency and contractor contacts to mitigate delays and expedite construction.

- ✓ Maintenance and Protection of Traffic (MPT)
- ✓ Road Closures and Detours







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# **Ocean City Municipal Airport**

#### Ocean City, NJ

The Ocean City Department of Public Works project involved the reconstructing and upgrading of the existing drainage facility for the Ocean City Airport. The 150 acre airport, which was constructed over a municipal landfill within the tidal flood zone of Peck Bay, was exhibiting signs of distress and failure, especially in the vicinity of existing drainage pipes and inlets. **M&S** was responsible for all civil/site engineering and environmental permitting. **M&S** designed the profiles, grading and cross slopes of the runway, taxiway, infield areas, fuel farm and tie-down area in accordance with the FAA Airport Design



Guidelines (AC 150/5300-13). **M&S** performed an investigation of the existing drainage issues and evaluated the impacts of the high ground water table and fill settlement. Coordination was performed with the municipality and NJDEP to assess the stormwater management requirements and permitting implications of the improvements. A new airport drainage system was designed and detailed in accordance with the FAA standards (AC 150/5320-5B, UFC 3-320-01/AC 150/5320-5C) and in compliance with the municipal and state requirements. Environmental permit applications were prepared and submitted to the NJDEP, and approvals were obtained (CAFRA, Water Quality Certificate, Coastal/Tidal Wetlands, Waterfront Development GP #18, Freshwater Wetlands GP #11).

### Services Performed:

- ✓ Civil/Site Engineering
- Grading & Drainage Design
- ✓ Environmental Permitting
- ✓ **NJDEP Coordination**

# NJ Transit, Northeast Corridor Initiatives Harrison and Kearny, Hudson County, NJ

The project involved examining railroad operations along the Northeast Corridor between Dock Interlocking 8.5 and Swift Interlocking 7.2, and coordinating various projects (Westbound Waterfront Connections, Harrison-Kingsland Branch, Sawtooth Bridges, Portal Bridge, Harrison Station) from multiple agencies that were in various stages of planning and design. NJ Transit's future rail operating requirements and improvements were defined in significant detail so they are accommodated as these projects advance. **M&S** was responsible for all civil design, including grading, drainage systems, access roads, at-grade



crossings, retaining wall geometry, utility relocations, and demolitions. Responsibilities also included preparation of civil features for plan sheets and critical and typical cross sections.

- ✓ Site Design, Grading & Drainage Design, SWM
- ✓ Access Road Design
- ✓ Retaining Wall Geometry
- ✓ Utility Relocations

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# NJ Transit, Track Repair/Maintenance at Bloomfield & Davenport - Newark Light Rail Newark, NJ

The project involves replacement of ties and undercutting at the Bloomfield and Davenport Light Rail Stations due to evidence of damage and premature degradation of track, ties, frogs, tie plates, fasteners, anchors and switches. **M&S** responsibilities include inspection of the existing drainage system and preparation of an existing conditions drainage assessment report. Additionally, **M&S** is responsible for the soil erosion and sediment control design and preparation of plans, report, and application for certification. Performed topographic surveying



services along the corridor including 3 dimensional locations of cross sections, track alignment, visible surface utilities, overhead catenary system, and station areas working within very strictly limited track access. Also responsible for a drainage feature survey including structures, outfalls, pipe system and ditches within the corridor. Developed digital terrain model and contours of the existing conditions and prepared base mapping.

### Services Performed:

- ✓ Drainage System Inspection
- ✓ Existing Conditions Drainage Assessment Report
- ✓ E&S Plans
- ✓ Survey & Basemapping

### SEPTA, Elywn to Wawa Extension Middletown, PA

Project involves Commuter Service Restoration including the upgrading of an existing station and the construction of a new station, the upgrading of an existing track and the construction of new tracks, and the reconstruction of three bridge structures carrying the R3 Line. Responsible for performing right-of-way, property and topographic survey along a 3.5 mile corridor of SEPTA railroad property, including locations and elevations of stations, rails, parking areas, utilities, Chester Creek and three (3) bridges, including Route 1, along with culverts, borings, and the overhead catenary system. Also responsible for performing



hydrologic and hydraulic analysis (HEC-RAS) of Chester Creek, including four (4) structures, and an in-depth scour analysis (HEC-18) and evaluation of three (3) structures, along with preparation of a scour evaluation report documenting the results of the scour evaluation. Also performed structural design of 9 retaining walls required to stabilize the existing embankment and construction of the new track. Numerous wall types were utilized including soldier pile, tie-back walls, proprietary reinforced earth wall systems, and conventional cast-in-place concrete.

- ✓ Survey, Mapping, ROW
- ✓ H&H & Scour Analysis
- ✓ Structural Design of 9 Retaining Walls

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# SEPTA, Norristown High Speed Line (NHSL) Extension Alternatives Analysis/Draft Environmental Impact Statement King of Prussia, PA

Project involves preparation of an Alternatives Analysis/ Draft Environmental Impact Statement (AA/DEIS) and submission to the Federal Transit Administration (FTA) requesting to begin preliminary engineering for the Norristown High Speed Line Extension serving the King of Prussia area in Upper Merion Township, Montgomery County, Pennsylvania. Responsible for performing an inventory of existing natural environmental conditions in the study area using available data sources, such as GIS databases and agency mapping. Performed a PNDI

request. Verified and augmented inventoried natural environment data collected through additional desktop research and field investigations within 500 feet of the centerline of four (4) alternative alignments including wetlands delineation, hazardous materials, habitat suitability assessment, and natural environment characteristics. Responsible for assisting in the preparation of draft EIS technical memorandums. Also responsible for obtaining traffic data for the entire project area including performing manual traffic counts, automatic traffic recorders (ATR) counts, and the installation of BlueSTATS traffic devices to obtain travel time/speed delay data. Also responsible for utility verification.

### Services Performed:

- ✓ Wetlands Delineation
- ✓ Traffic data collection
- ✓ Utility Verification

# New York Telecomm Partners, John F. Kennedy International Airport AT&T Wireless Site on Building 260 New York, NY

Project involved engineering design and inspection services to initially install and then remove a wireless telecommunications site from Building 260 at JFK International Airport. Project scope included inventory and structural assessment of the existing building, the preparation of Construction Documents, lead paint and asbestos screening, the preparation of a Tennant Alteration Application (TAA), responding to Rider comments from Port Authority, attending the preconstruction meeting and completing final construction inspections/ engineer's punch list.

# New York Telecomm Partners, John F. Kennedy International Airport Distributed Antenna System Upgrade New York, NY

**M&S** worked with New York Telecomm Partners to upgrade the wireless communications system utilized by all private telecommunications carriers at JFK Airport. The project involved engineering design and inspection services to install upgraded equipment on existing Distributed Antenna Systems (DAS) throughout Terminals 1, 2, 3, 4 & 5 of JFK International Airport. Project scope included field verification of as-built and proposed features, the preparation of construction documents, the preparation of a Tennant Alteration Application (TAA), responding to Port Authority Rider comments, preconstruction meetings and construction inspections / engineer's punch list.



