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Sepetember 21st, 2017

NJ TRANSIT
Procurement Department
One Penn Plaza East, 6th Floor
Newark, New Jersey 07105-2246
Attn: Maggie Sotolongo

RE: NJ TRANSIT's Request for Proposal (RFP) No. 17-007, Construction Management Services for the Hoboken Depot and Henderson Street Substation Rehabilitation Project

Dear Ms. Sotolongo,

NAIK has carefully reviewed the requirements in the referenced Request for Proposal and is pleased to submit a technical proposal for your consideration. NAIK Consulting Group, P.C (NAIK), a multi-disciplined DBE and versatile New Jersey/ New York metro area engineering firm, offers all aspects of Construction Management services, Civil, Utility, Structural, Traffic and Rail Systems Engineering and Surveying. In order to best perform the tasks associated with this challenging project, NAIK has augmented its staff with a team of first-rate sub-consultants and their highly qualified professionals who have the right skill set and relevant experience to see this multi-year project through to a successful completion. ***Our team members have unparalleled experience in NJ/NY metro area rail infrastructure projects, including NJ TRANSIT projects of the size and complexity of this project.*** We have strategically allocated the right resources in the precise number of hours needed to successfully address all Pre-Construction and Construction Phase tasks. Our team has a deep understanding of the work involved in this project based on our NJ TRANSIT project experience and overall professional knowhow. Our expertise has enabled us to develop a comprehensive technical approach that we are confident identifies all key project challenges throughout the project and clearly articulates how we intend to address each issue to ensure a successful project outcome.

Qualifications and Experience of the NAIK Team

NAIK, with over ten-year's experience supplying expert construction management services, has assembled a first-class team of experts with unmatched professional credentials. Our exclusive sub-consultant, ***Burns Engineering (Burns),*** is well known and highly regarded by NJ TRANSIT engineering staff by consistently performing outstanding work on NJ TRANSIT contracts. Burns Engineering, led by Daren Petroski, PE and Jonathan Schimpf, PE, will assist NJ TRANSIT in the key role of expertly and timely technical review of substation equipment submittals, contractor testing and commissioning procedures and coordination of PSE&G activities. ***Envision Consultants, Ltd. (Envision)*** is an established woman-owned disadvantaged business enterprise specializing in state-of-the-art program and construction management services. They are well known by, and well thought of by, NJ TRANSIT for their professional project and construction management services on NJ TRANSIT projects. The highly regarded team of ***Roux Environmental (Roux),*** specialists in environmental engineering/consulting, will bring their in-depth experience with transportation industry clients including NJ TRANSIT, Amtrak and Conrail to this project. Rounding out our team is ***Lynn Drobbin Associates (LDA),*** an acknowledged industry expert on the rehabilitation of historic structures with extensive experience working with architects, engineers and construction managers, including work on a significant number of NJ TRANSIT rail transit projects. In addition, we've included the top firm of Dewberry and Distinct Engineering Services, Inc. (DESI) for as-directed survey and material testing services, respectively. Lastly, as part of our innovative management approach, we've included PRONTOFORMS to the team for expertise in streamlining paper workflows.

Qualifications and Experience of our Personnel

For the key role of ***Construction/Project Manager,*** we propose ***Moe Soliman, PE.*** Moe is well known and trusted by NJ TRANSIT personnel with over 25 years of successful experience working on large and small, complex and straightforward, NJ/NY rail infrastructure projects. Moe has unique insights into all aspects of NJ TRANSIT rail infrastructure projects based on his role as Program Manager for NJ TRANSIT's Super Storm Sandy Projects where Moe worked collaboratively with NJ

TRANSIT Project Management and Infrastructure Engineering Teams. ***During the multi-year, Super Storm Sandy project, NJ TRANSIT saw firsthand Moe's ability to be continually proactive and to work efficiently in high pressure situations and to get desired results.*** Moe's recent NJ TRANSIT experience, combined with work on other local transit projects in the past, makes him uniquely qualified for the key role of Construction/Project Manager.

For ***Resident Engineer,*** we propose **Eli Charchar** who spent 29 years with NJ TRANSIT, most recently as Chief Engineer, Right-of-Way and Facilities. Eli's unparalleled institutional, organizational and procedural knowledge of NJ TRANSIT's operations makes him an ideal candidate for this key, full-time role.

For ***Technical Advisor,*** we propose ***Michael Gaspartich*** who worked at NJ TRANSIT for 32 years, most recently as Deputy General Manager - Infrastructure Engineering. Mike's extensive knowledge of NJ TRANSIT's operations, rail systems, organizational structure, policies and procedures and force account activities will enable him to provide expert technical advice throughout the project. For an additional ***Technical Advisor,*** we propose ***Carlo Settineri*** who has 24 years of specialized substation fit-out experience. Carlo has led the review and approval of shop drawing designs for construction of seven high voltage substations for the MTA-LIRR's East Side Access Expansion Project. Carlo's extensive technical substation experience qualifies him as a skilled subject matter expert.

NAIK certifies that all our key personnel will be employed by NAIK and available for the assignment at Notice-to-Proceed.

Superior Technical Approach

Our technical approach is based on our thorough understanding of all pre-construction and construction phase tasks and draws on our unparalleled collective experience, expertise and knowledge of NJ TRANSIT and other local rail infrastructure projects. ***We fully recognize this project's objectives and overall purpose and we have proposed highly workable solutions that successfully address each project challenge while maintaining a safe work environment at all times.*** We have identified the significant challenges of site access to the Depot Substation work and have provided a number of specific remedies to maximize uninterrupted passenger flow and continuity of rail operations at all times. Options for project staging areas are also presented, along with detailed pros and cons for each option. We have highlighted the importance of skillfully coordinating NJ TRANSIT Force Account resources whenever they are involved in project inspections. These, and other key challenges that could adversely impact the project schedule/budget, have been clearly identified and discussed in-depth throughout our technical proposal. ***Throughout our proposal, we have included "Quick Reviews" that highlight key areas of our team and personnel experience and our innovative technical approach to successfully accomplishing all project requirements.***

We fully understand that the success of this project is a team effort involving NJ TRANSIT and its customers, the Construction Manager, the Designer of Record, the Contractor and all other third-party stakeholders, including the surrounding Hoboken community. NAIK is committed to assisting NJ TRANSIT in successfully coordinating the efforts needed to complete this project on time and within budget, with safety first and foremost. NAIK's unique insight into NJ TRANSIT's overall project objectives, areas of concern and challenging coordination issues formed the foundation of our technical approach. Knowing that we have assembled the right team of experts with wide-ranging relevant experience, as well as recent NJ TRANSIT rail infrastructure project experience, we are confident that NJ TRANSIT will have peace of mind knowing that the NAIK team will successfully address all project challenges. ***We believe that we have assembled the Right Team with the Right Approach that will equal Project Success.***

Should you have questions regarding any aspect of our proposal, please feel free to contact Moe Soliman directly at 646.604.5624, or msoliman@naikgroup.com.

Sincerely,
Naik Consulting Group, P.C.

Sanjay Naik, PE
President

Moe Soliman, PE
Vice President

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- Business Registration Certificate
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- Exhibit 3: DBE forms and affidavits as applicable
- Exhibit 4: Equal Employment Opportunity Requirements
- Exhibit 5: Statement of Joint Venture
- Exhibit 6: Ownership Disclosure Form (PD-ODF-1)
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SECTION 2 - QUALIFICATIONS OF FIRMS

Introduction

Having become thoroughly familiar with NJ TRANSIT's Request for Proposal No. 17-007 for Construction Management (CM) Services for Hoboken Depot and Henderson Street Substations, **NAIK's experienced team of Envision (DBE), Burns Engineering, Roux Associates, and Lynn Drobbin and Associates (DBE) is ready to hit the ground running to fulfill all project requirements.** Our team consists of firms who have successful relevant project experience, in-depth knowledge of NJ TRANSIT operations and the right technical expertise needed to fully understand the complexities and challenges that are bound to occur during the pre-construction and construction phases of this project. Throughout the project our entire team will work proactively and collaboratively with NJ TRANSIT, the Contractor and all stakeholders to provide CM Services that will consistently meet and exceed all NJ TRANSIT project requirements.

NJ TRANSIT will have peace of mind at all times knowing that NAIK has selected a team of highly skilled professionals with relevant experience to successfully work alongside NJ TRANSIT's project team.

Refer to Section 5 of NAIK's proposal submission which contains detailed information regarding our understanding of the project parameters including operational constraints of the Hoboken Yard and Terminal, construction logistics, coordination with other projects, FTA requirements, risks and mitigations, and substation inspection requirements.

Throughout our proposal, we have included "Quick Reviews" that highlight key areas of our team and personnel experience and our innovative technical approach to successfully accomplishing all project requirements

Relevant Experience and Qualifications of our Firm/ Team

Founded in 1997, **Naik Consulting Group, PC (NAIK),** (DBE), has continued to successfully provide comprehensive construction management and technical services to a multitude of City and State Agencies in the New Jersey and New York markets. We have played important roles on many signature projects in the local area involving: Superstorm Sandy Recovery; NYC Transit Subway Expansion; Commuter Railroad Expansion; Pulaski Skyway Reconstruction; and New Jersey Turnpike Widening Program. Other projects include rail stations, airports, public building facilities, street utilities, roadways and runways. We are a premier multidisciplinary firm offering professional services that include: construction management, surveying, systems engineering and

civil, structural, traffic and utility engineering. Our management structure enables decisions to be made in a timely manner, with our team having direct access to the decision-makers at all times, thus eliminating time-consuming layers of red tape.

Our team members have unparalleled experience in NJ/NY metro area rail infrastructure projects, including NJ TRANSIT projects of the size and complexity of this project

NAIK's experience on a wide range of diverse projects has shaped our culture and how we do business. Safety and quality are of paramount importance on every project we undertake and we will bring this mindset to NJ TRANSIT's CM Services for the Hoboken Depot and Henderson Street Substation Projects. Our experienced team of experts has been carefully selected based on their relevant technical experience and knowledge of NJ TRANSIT and other local agency projects. Throughout this assignment, we will abide by NJ TRANSIT's policies, procedures and management structure which will facilitate the building of trust between all project stakeholders including NJ TRANSIT, the local community, the designer of record and the contractors. This is a vital ingredient in keeping the projects on or ahead of schedule and at or below budget. The contractor's productivity and efficiency can be improved, sometimes significantly, when all stakeholders have confidence that deadlines, commitments and agreements will be kept. **NAIK's corporate vision is that trust starts with our leadership team at the top of our organization.**

NAIK Subconsultants

Envision Consultants, Ltd. (Envision), an established Woman-Owned Disadvantaged Business Enterprise, provides expert professional Project and Construction Management Services. They specialize in state-of-the-art Program and Construction Management Services, including CPM scheduling, cost claims avoidance, risk assessment, time impact analysis, cost estimating, document control, GIS, asset management, graphics, and public involvement. Additionally, as an Oracle® Primavera Gold Partner, they are certified to provide software implementation, integration, training, and on-site technical support.

Burns Engineering (Burns), an exclusive sub-consultant, is well known and well regarded by NJ TRANSIT. Burns will bring their in-depth NJ TRANSIT experience, substation engineering technical expertise and experience working closely with local utility providers. Burns has been a trusted advisor to NJ TRANSIT's Chief Electrical Engineer and recently provided valuable engineering support and technical assistance for NJ TRANSIT's Micro Grid Project. Burns possesses superior expertise in power substation construction that will ensure that NJ TRANSIT's interests are protected at all times and that the new substations constructed under these projects will provide decades of reliable service and ease of ongoing maintenance. For the Hoboken projects, Burns, led by Daren Petroski, PE, will provide

timely and expert technical review of substation equipment submittals, inspection and oversight of key substation components, testing and commissioning plans, assistance with PSE&G coordination, oversight of Factory Acceptance Tests (FATs) and review of substation equipment submittals.

Roux Associates (Roux), a firm specializing in the transportation industry for the last 25 years, will be performing Environmental/Hazardous Material Inspection. Roux has been awarded several NJ TRANSIT Task Order Contracts for environmental engineering/consulting over the past 15 years. The firm has worked on more than 90 NJ TRANSIT projects associated with over 60 sites in the Tri-State Area (NJ, NY and PA). Roux has supported NJ TRANSIT on environmental due diligence projects to support construction activities at numerous rail facilities and has experience working at NJ TRANSIT's Hoboken Rail Yard.

Lynn Drobbin Associates (LDA), an established DBE firm, has extensive experience working with architects, engineers and construction managers on the rehabilitation of historic structures. LDA has valuable project skills including the ability to participate in the planning phases of design projects, assist in the writing of specifications and the interpretation of construction documents to ensure that required historic preservation stipulations are adhered to. LDA has successfully completed the rehabilitation, adaptive re-use and ADA compliance for a variety of historic structures including the Rehabilitation of the Hoboken Ferry Terminal, a $120 million, 8-year NJ TRANSIT project, and NJ TRANSIT's $83 million Superstorm Sandy Recovery Program for the Hoboken Terminal and Yard Complex.

NAIK PROJECT TEAM

Naik GROUP

envision
Envision Consultants, Ltd.
Program & Construction Management

Burns

ROUX

Lynn Drobbin & Associates

Quick Review

Our team consisting of expert professionals from NAIK, Envision, Burns, Roux, and LDA possess a wide range of relevant technical expertise and experience with numerous projects in the NJ/NY area. All firms on our team are well known and respected by NJ TRANSIT having performed a wide range of professional construction management services on multiple NJ TRANSIT contracts. Our firms have a consistent record of delivering on promises, maintaining our client's trust and providing quality services time and time again. Our professional references included in Section 4 attest to our high-quality performance on numerous complex projects. From a corporate perspective, our team's commitment to NJ TRANSIT will be to ensure that our professionals have the necessary training, equipment, support services and ongoing management oversight necessary to successfully complete these projects safely, efficiently, on time and on budget to NJ TRANSIT's satisfaction.

	EXPERIENCE	RELEVANT PROJECTS
NAIK	• NJ TRANSIT Experience • Construction Management • Project Management • Quality/Safety Assurance • Coordinating Force -Account Activities • Constructability Reviews • Document Management • Close-Out Activities • **Construction Inspection** • **Systems Engineering**	• Second Avenue Subway: 5 electrical contractors • East Side Access: **Traction power substations** • **Joralemon Tube Rehab: Substation** • **Canarsie Subway Tubes Rehab: Underground power substations** • Bus Terminal Commute Improvement: Prime consultant - CM services
ENVISION	• NJ TRANSIT Experience • Construction Management • Project Management • **CPM Scheduling** • **Cost Estimating** • **Document Control** • Claims Analysis	• **City of Philadelphia On-Call: Substations** • **SEPTA Rehabilitation of Substations Design and Construction Services** • **Wayne Junction Substation Rehabilitation Project**
BURNS	• NJ TRANSIT Experience • Construction Management • Program Management • Value Engineering and Constructability Reviews • **Power Distribution** • **System Start-Up/ Post-Commissioning System Evaluations** • **Factory/On-Site Acceptance Tests**	• **PANYNJ PATH Substation #9 Replacement** • **SEPTA Ambler Substation Rehabilitation** • **NJ TRANSITGRID – Transportation Microgrid to Increase System Resiliency and Reliability** • **NJ TRANSIT, Value Engineering Study for the 30% Design of the Mason and Building 9 Substations**
ROUX	• NJ TRANSIT Experience on over 90 Projects • Environmental Engineering • Environmental Consulting	• Hoboken Rail Yard • Port Morris Rail Yard • Metro Park Station and Lyndhurst Rail Station
LDA	• NJ TRANSIT Experience • Construction Management for Historic Properties	• Hoboken Terminal and Yard Complex Hurricane Sandy Recovery Program • Hoboken Terminal Rehab

The NAIK Team

Naik Consulting Group, PC (DBE)

NAIK, founded in 1997 by Sanjay Naik, P.E., is a certified DBE and an entirely minority-owned and operated multidisciplinary engineering organization. Our continued growth in the highly competitive NJ/NY market is evidence of the value that our clients find in the consistent quality, timeliness and professionalism of our services. We are a 90+ person consulting firm with our corporate office located in Edison, NJ and a satellite office in Manhattan.

As a multidisciplinary engineering, land surveying, and construction management/inspection firm, we offer a full range of professional services including rail systems engineering, structural engineering, civil and site engineering, traffic engineering, land surveying, municipal engineering, land-use planning, bridge engineering/inspection, construction management and inspection services.

NAIK's clients include state and federal transportation agencies and authorities such as NJ TRANSIT, NYSTA; NYSDOT; MTACC, NYCT, LIRR, MNR, TBTA, NYCDDC; PANYNJ; NYCEDC; NYCDOT; NJDOT, NJTA, municipal and county public works departments and private-sector enterprises and contractors. We have also provided services as a sub-consultant to many of the region's top engineering firms. We are proud of our client base and the services we provide and continue to enjoy solid working relationships with them. Due to the consistent quality and professionalism of our work and dedication to our clients, more than 90% of our workload consists of repeat business. This is an overwhelming testament to the high regard they hold upon us. Our quality control policy is based on three critical items: The first is maintaining technical accuracy in all of our project efforts; the second is getting the job done according to the approved schedule; and the third is getting the job done within budget. Our Quality Assurance Plan is always prepared with these three items in mind, however, it is flexible enough to integrate the client's expectations and policies as well. At no time during the project does NAIK take for granted the need to intently focus on meeting the client's needs and providing high quality services.

Envision Consultants, Ltd. (DBE)

Envision Consultants, Ltd. (Envision), an established woman-owned disadvantaged business enterprise, provides professional project and construction management services. The firm specializes in state-of-the-art program and construction management services, including CPM scheduling, cost claims avoidance, risk assessment, time impact analysis, cost estimating, document control, GIS, asset management, graphics, and public involvement. Additionally, as an Oracle® Primavera Gold Partner, it is certified to provide software implementation, integration, training, and on-site technical support. Envision's expertise is deeply rooted in the rail and transit industry. The firm, which has offices in Mullica Hill, NJ (headquarters), New York, NY, and Philadelphia, PA, has worked on station projects for such clients as: NJ TRANSIT, MTA, NYCT, MNR, LIRR, Federal Rail Administration, Federal Transit Administration, AMTRAK, SEPTA, and Delaware River Port Authority, among others.

The NAIK Team

Burns Engineering, Inc.

Burns Engineering, Inc. (Burns) provides a wide range of professional services to railroad and transit clients throughout the country. Burns develops highly customized and responsive solutions in the following areas: traction power systems; signal and communications systems; security systems; track; station/passenger facilities; railroad maintenance facilities; construction management; and project management oversight. The firm's specific areas of expertise include, power distribution, mechanical and electrical engineering, HVAC, civil/stormwater, traction power systems, security systems, signal and communications, fire protection, and structural design. Services have included condition studies, conceptual through final design, value engineering and constructability reviews, construction staging plans, construction management and field support, equipment testing programs and system start-up and post-commissioning system evaluations. Selected systems assignments that the Burns Team has undertaken include NJ TRANSIT's "Transit Microgrid", Super Storm Sandy Recovery of HBLRT, Mason Substation VE Study, Princeton Dinky Service Realignment and Southern New Jersey Light Rail Minson Siding and Extended Temporal Separation.

Roux Associates

Roux Associates (Roux) has specialized in transportation industry assignments for the last 25 years. Their transportation industry clients include NJ TRANSIT, AMTRAK and Conrail. Roux has worked on more than 90 NJ TRANSIT projects associated with over 60 sites in the Tri-State Area (NJ, NY and PA) for NJ TRANSIT Environmental Managers John Geitner, Marty Judd, Jerry Obert, Dan Crowley, Nick Caiazza (retired), Oscar Sandoval, Nick Valente and Dara Callender. With offices on Long Island and Logan Township, NJ and a combined staff of over 180 people, Roux is large enough to handle NJ TRANSIT's project needs, yet small enough to provide cost-effective professional services. Roux will be available to quickly mobilize manpower and equipment, as necessary, to meet the project's needs. More than 60 of their technical staff have had NJ TRANSIT Rail Worker Protection Training. Roux currently has 9 Licensed Site Remediation Professionals (LSRPs) should the site work require these services and to provide support with managing project waste in accordance with applicable waste flow regulations.

Lynn Drobbin & Associates (DBE)

Since 1989, Lynn Drobbin & Associates (LDA) have been involved in architectural history, preservation planning and environmental review. Lynn Drobbin is certified as an Architectural Historian under the Secretary of the Interior's Professional Qualification Standards in the Code of Federal Regulations 36 CFR Part 61. LDA has specialized expertise in the review of transportation related historic resources including ferry terminals, railroad and highway bridges and culverts, rail and subway stations, substations and signal towers, and the expansion, restoration or the establishment of new rail and highway corridors. LDA is certified as a WBE/DBE by many government agencies including Empire State Development, NYC, PANYNJ, MTA, NYCSCA, NJ TRANSIT, NYSDOT, ConnDOT, and others.

Also included as part of the NAIK team for as-directed services are Dewberry, who will provide professional survey crews and equipment and Distinct Engineering Services, Inc. (DESI) who will provide materials testing and special inspections that may be required. Lastly, as part of our innovative management approach we've included PRONTOFORMS to the team for expertise in paperless work-flows.

Team Availability and Workload

Availability of Personnel

Our key personnel will be available to begin work immediately. Each of the key project staff will be committed to the various tasks of this contract. Certified statements regarding availability for all of the firms on the NAIK team are included in Volume 2. **Please see the Organizational Chart and Matrix of Key Staff Availability in Section 3.**

Anticipated Workload

Taking into account existing proposals and active projects, the NAIK team has more than adequate staffing resources available to complete this project on schedule. NAIK's core inspection team will be full-time and fully dedicated to both the Depot and Henderson Substation projects based on our proposed workplan and will not be matrixed to other assignments. Our core team will include the Resident Engineer, Deputy Resident Engineer, Field Inspectors and Office Engineer. The Construction/Project Manager, Technical Advisors, Schedulers, Estimators, Substation Engineers, and technical support staff will participate on a part-time basis in accordance with the nature of those roles. Our part-time staff have sufficient workload capacity to handle the needs of both Substation Projects.

Relevant Experience

Please see matrix of NAIK's team Project Experience and a detailed list of relevant project sheets on the following pages.

Matrix of NAIK's Team Project Experience

Project Phase	Project Elements	NAIK					ENVISION					
		MTA Capital Construction East Side Access Improvement	MTA Capital Construction Second Avenue Subway, Phase I	PANYNJ PA Bus Terminal Quality of Commute Improvement Program	MTA New York City Transit Joralemon Tube Rehabilitation	MTA New York City Transit Canarsie Subway Tube Rehabilitation	SEPTA, A & E Services for Rehabilitation of Substations Design and Construction Services	SEPTA, Wayne Junction Substation Rehabilitation	Amtrak, Program Management Plan - Station Renovations	Amtrak, Stations & Facilities State of Good Repair Assessments	City of Philadelphia, Division of Aviation, MEP On-Call Contract	DRPA PATCO Power Cable and Pole Line Replacement
Pre-Construction	Constructability/Plan Review	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Pre-Award Assistance			✓	✓	✓	✓	✓	✓	✓	✓	✓
	Management Procedures and Document Control			✓	✓	✓	✓	✓	✓	✓	✓	✓
	Project Environmental Management Plan/Due Diligence Plan						✓		✓	✓		
Construction	Construction Management Administration		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Substation Field Inspection	✓	✓		✓	✓	✓	✓			✓	✓
	Substation Equipment Factory Acceptance Testing	✓			✓	✓	✓	✓	✓	✓	✓	
	SCADA	✓										✓
	Video Surveillance Systems	✓	✓						✓	✓		
	Access and Control Systems	✓	✓				✓	✓	✓	✓		
	Rail Systems Integration	✓					✓	✓	✓	✓	✓	✓
	Substation Testing and Commissioning	✓	✓		✓	✓	✓	✓			✓	✓
	Environmental/ Hazardous Material Inspection											
	Rail/Transit Project Schedule Control						✓	✓	✓	✓	✓	
	Rail/Transit Staging and Work Plans			✓	✓	✓	✓	✓	✓	✓		✓
	Construction Document Management			✓	✓	✓	✓	✓			✓	✓
	Change Orders/ Claims Mitigation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Quality Assurance Program			✓	✓	✓	✓	✓	✓	✓	✓	✓
	Project Safety			✓	✓	✓	✓	✓	✓	✓	✓	✓
	Systems Startup/ Commissioning		✓	✓	✓	✓						✓
	Historic Preservation											
Post-Construction	Punch List Inspection/ Coordination		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Project Closeout		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	As-Built Drawings, Warranties, O&M Manuals			✓	✓	✓						✓
	Claims Management		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

PHASE I - SECOND AVE SUBWAY

LOCATION
NEW YORK, NY

AGENCY/OWNER
MTA CAPITAL CONSTRUCTION

DURATION
2002-2016

CONSTRUCTION COST
$4.5 B

REFERENCE

KEY RELEVANCE
- Coordinate Activities of Contractor's Electrical Subs
- Verify Design and Code Requirements
- Inspect Contractor's Completed Work for Scope Compliance
- Led Multiple Inspection Teams
- Prioritize and Coordinate Critical Path Activities
- Monitor Contractor's Extra Work on Time & Material Basis
- Change Order Management

The MTA's new Second Avenue Subway (SAS) line is being built entirely in the borough of Manhattan. When the SAS is complete, it will be 8 miles long and extend from 125th street in Harlem to the Financial District in Lower Manhattan and include a total of 19.5 miles of new track (including storage yards and lay-up tracks) and 16 new subway stations. The SAS is being constructed in four separate and consecutive project phases. Phase 1 of the SAS was constructed at a cost of $4.5B and achieved its highly publicized completion date of December 31, 2016.

NAIK was engaged by MTA Capital Construction (MTACC) to perform a key leadership role in Phase 1 of this historical project by providing skilled project management services and expert technical support. The MTACC was adamant that the contract for Phase 1 stay on schedule and that the SAS be open to the riding public on December 31st, 2016. To this end, NAIK's role in this complex and challenging project involved **coordinating the activities of five different electrical contractors,** focusing on their critical electrical, communications, and life safety system scope across the 63rd, 72nd, 86th and 96th street subway stations. NAIK was primarily involved with three areas of the work: verifying that all of the contractors' work was satisfactorily completed in accordance with the design and code requirements; determining if any completed work required alterations and defining the additional work to be done; and identifying any outstanding critical-path work that remained to be performed. Throughout the project, **NAIK led multiple inspection teams** for each station and analyzed the findings for thousands of work activities.

Separating this voluminous data into clear demarcation lines between the four-separate station fit-out contracts and one tunnel systems contract allowed NAIK to develop individual action plans that outlined steps necessary to ensure that critical work at each location would be performed on schedule so that the overall project deadline would be met. NAIK's action plans gave specific direction to each contractor's project management team on how to prioritize and coordinate critical-path items. NAIK was also frequently called upon to provide **"on the spot" technical direction to the contractors**. Weekly project progress reports were prepared and presented by NAIK to MTACC's President and members of the New York State Governor's staff.

In instances where follow up actions by contractors were required as a result of work considered disputed or "out of scope", NAIK was responsible for monitoring contractor's personnel on a "time and material" basis if the MTACC deemed there was potential for a future contractor claim. NAIK provided valuable assistance to MTACC's staff in **negotiating and settling final change orders** and claims by reviewing all contract packages and providing detailed supporting documentation for either accepting or rejecting change orders and/or claims. At the MTACC's specific request, NAIK has continued providing management and technical support in resolving contractor punch list items.

In spite of the many challenges inherent in a $4.5B construction project performed by multiple contractors working simultaneously at four separate locations, the SAS project was successfully completed and Second Avenue Subway service was fully functional by the project's December 31, 2016 deadline.

EAST SIDE ACCESS

LOCATION
NEW YORK, NY

AGENCY/OWNER
MTA CAPITAL CONSTRUCTION

DURATION
2000-2022

CONSTRUCTION COST
$10 B

REFERENCE

KEY RELEVANCE
- Substation Design Review
- Equipment/Monitoring System's SCADA
- Factory Acceptance Tests
- On-Site Acceptance Tests
- Testing & Commissioning Plans
- Review/Approve As-Built Plans
- Provide Design Clarification
- Respond to RFIs

The East Side Access megaproject (East Side Access) will provide new Long Island Rail Road (LIRR) service to the east side of Manhattan supplementing existing LIRR service to Penn Station on Manhattan's west side and Atlantic Terminal in Brooklyn. MTA's East Side Access is one of the largest transportation infrastructure projects currently underway in the United States with a history that dates back to the 1950's when discussions were first held regarding regional transportation planning. East Side Access encompasses work in multiple locations in Manhattan, Queens and the Bronx and includes more than 8 miles of tunneling.

When completed, East Side Access will serve approximately 160,000 customers a day, providing a faster and easier commute from Long Island and Queens to the east side of Manhattan in a new 8-track terminal and concourse below Grand Central Terminal.

NAIK, as a sub-consultant to the Tri-Venture of WSP/STV/PTG, is playing a key role during the Design and Construction Phases by providing expert professional services in highly specialized and technical discipline areas including **traction power substations**, train control system integration and building security and safety communication systems and integration. NAIK's role covers the following sub-systems and components: substation High Voltage equipment and monitoring systems' supervisory control and data acquisition (SCADA); train signaling; train signaling communications network and software integration; building video surveillance systems (VSS); building access and control systems; and building fire alarm monitoring and command systems.

NAIK's highly specialized and skilled team ensures that the contractor's design and **shop drawing submittals meet the intent of the design drawings** and are successfully integrated across more than thirty different civil, building and systems construction contracts. We are responsible for **developing design solutions for field conditions,** attending/witnessing Factory Acceptance Tests (FATs), presiding over on-site acceptance tests, reviewing and approving contractor's testing and commissioning plans, reviewing and approving contractor's system and sub-system start up plans, reviewing and recommending for approval contractors as-built plans and operations and maintenance plans, providing design clarifications when needed and responding to contractor's request for information.

JORALEMON TUBE REHABILITATION/SUPERSTORM SANDY RECOVERY

LOCATION
BROOKLYN TO MANHATTAN, NY

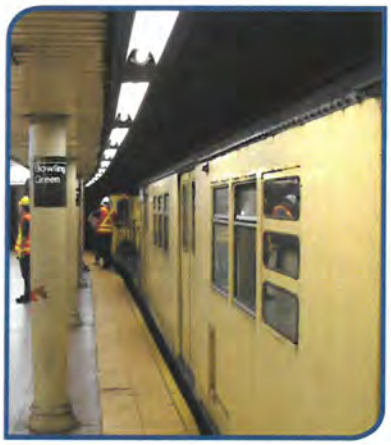
AGENCY/OWNER
NYCT

DURATION
2015-2017

CONSTRUCTION COST
$75 M

REFERENCE

KEY RELEVANCE
- Substation Inspection
- Change Order Management
- Day and Night Inspections
- Review and Approval of Contractor's Means & Methods
- Force Account Coordination
- System Start-Up & Commissioning Review
- Document Management
- Quality & Safety Assurance
- Close-Out Documentation



The 108-year-old, 1.6-mile-long Joralemon Tube which carries subway train numbers 4 and 5 under the East River between Bowling Green in Manhattan and Borough Hall in Brooklyn was heavily damaged as a result of the storm surge that inundated Lower Manhattan during Superstorm Sandy in October 2012. The flooding caused significant damage to duct banks, pumping equipment and electrical components inside the tube.

Temporary repair work enabled the safe return of service to the tube's 195,000 daily riders six days after the storm, however, an exhaustive examination of systems and components determined that the tube was in need of significant, permanent repair, upgrade, and fortification against future storms. This vital project is part of an overall, multi-year effort by NYCT to fix and fortify this key MTA asset and the work is on track for completion in August 2017.

Work includes replacement/ repair/installation/upgrade of: power, communications, and fiber optic cable replacement and upgrade, installation of emergency alarms, emergency telephone systems, and fire extinguishers, tunnel lighting fixtures from Bowling Green Station to Borough Hall, tunnel lining repairs, flood doors and panels, **substation** and tunnel lighting room flood hardening, and improvements to the pump room.

As a subconsultant to the construction management team, NAIK provided three senior electrical engineers who were **responsible for day-time and night-time inspections**, daily inspection reports, review and approval of contractor's means and methods, ensuring the contractor's conformance to NYCT standards, review of shop drawing and submittal, quality assurance, safety assurance, review of as-built documents, requesting and monitoring force account activities**, Con-Edison coordination, system start-up and commissioning review**, document management utilizing Constructware, schedule review, payment item review, **changer order management and close-out documentation.**

CANARSIE SUBWAY TUBES REHABILIITATION

LOCATION
MANHATTAN TO BROOKLYN, NY

AGENCY/OWNER
NYCT

DURATION
2016-2017

CONSTRUCTION COST
$900 M

REFERENCE

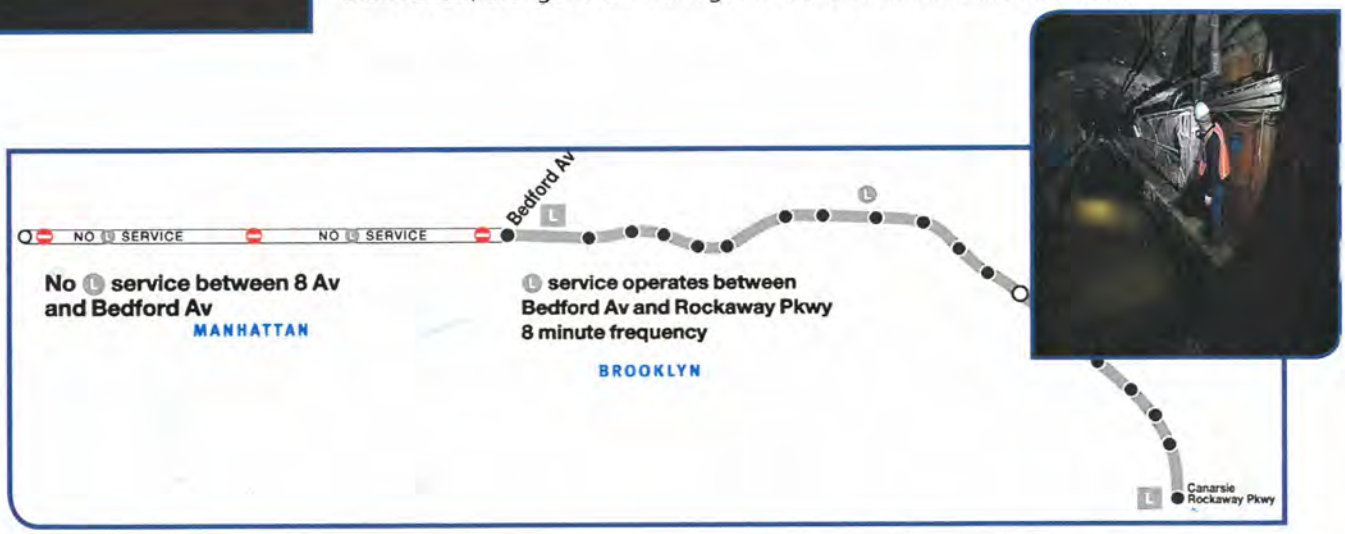
KEY RELEVANCE
- Substation Inspection
- Day and Night Inspections
- Review & Approve Contractor's Means & Methods
- Quality/Safety Assurance
- Review/Approve As-Built Documents
- Force Account Coordination
- System Start-Up & Commissioning Review
- Document Control
- Schedule Review
- Change Order Management
- Close-Out Documentation

The Canarsie Tube, located beneath the East River, runs from the 1st Avenue Station on the L Line in the Borough of Manhattan to Bedford Avenue Station in the Borough of Brooklyn and consists of two under river tunnels (one per track, Track Q1 and Q2). As a result of Superstorm Sandy, the Canarsie Tube was inundated with seven million gallons of brackish water rising up to approximately fifteen feet measured from the low point of the tunnel alignment. The brackish water contained significant levels of salt composites, such as magnesium chloride, sulfates, and hydrogen carbonate, which severely impacted the tunnel structures by corroding the cast-iron ring and/or reinforced steel components. Additionally, the duct banks were damaged and caused the rapid deterioration of critical tunnel equipment, including track ties and fasteners, signal cables, traction power cables, communication systems, central instrument houses, circuit breaker houses, tunnel lighting and flood pumps.

The scope of the project replaces all running tunnel systems under an accelerated 18-month shut down of both Tubes and makes important core capacity upgrades to allow for future increased service growth and to meet ADA accessibility requirements at two adjacent subway stations. This project includes the construction of **two new underground power substations at 14th Street and Avenue B** to increase train throughput from the current 19 trains per hour to 22 trains per hour. New ADA elevators will be added at the First Avenue Station in Manhattan and at the Bedford Avenue Station in Brooklyn.

As subconsultant to the construction management team, NAIK personnel are responsible for **coordinating rehabilitation work for: Electrical/Electronics, Architectural, Civil/Structural, Mechanical, Communications, Circuit Breaker Houses, Signals, Track, Traction Power and Environmental work.**

The NAIK team's general responsibilities include: day-time and night-time inspections, daily inspection reports, review and approval of contractor's means and methods, ensuring that the contractor conforms to NYCT standards, shop drawing and submittal review, quality assurance, safety assurance, review of as-built documents, requesting and monitoring force account personnel, coordinating Con-Edison and NYCDOT participation, review of system start-up and commissioning plans, document management utilizing Constructware, schedule review, payment item review, changer order management and close-out documentation.



BUS TERMINAL QUALITY OF COMMUTE IMPROVEMENT

LOCATION
NEW YORK, NY

AGENCY/OWNER
PANYNJ

DURATION
2016-ONGOING

CONSTRUCTION COST
$90 M

REFERENCE

KEY RELEVANCE
- Prime Construction Management
- Day and Night Inspections
- Review & Approve Contractor's Means & Methods
- Quality/Safety Assurance
- Review of As-Built Documents
- Force Account Coordination
- System Start-Up & Commissioning
- Document Control
- Schedule Review
- Change Order Management
- Close-Out Documentation

The Port Authority of New York and New Jersey (PANYNJ) operates the Port Authority Bus Terminal (PABT), where more than 230,000 people use the facility each weekday. Underway is a $90 million "Quality of Commute" Improvement Program which is designed to enhance and improve the passenger commuting experience at the 65-year-old PABT.

The program consists of immediate and short-term actions to improve building and communications systems and to enhance bus operations to improve service quality and reliability. Key features of the Quality of Commute Improvement Program include restroom enhancements throughout the PABT, overhead signage improvements, supplementary ventilation, CCTV, improvement of cellular and WIFI service and tenant space renovations.

NAIK, as a **Prime consultant, has been providing Construction Management services** at the PABT under our Construction Management and Inspection Services "Call-In" contract since 2016. NAIK plays a crucial role in coordinating project phasing around the PABT's **24/7/365-day operation to ensure minimum disruption to terminal activities.** We coordinate activities between contractors and PABT operations and provide construction management/inspection oversight of building construction including: structural, architectural, plumbing, electrical, HVAC, testing and startup activities.

NAIK's responsibilities include conducting inspections, preparing daily inspection reports, **reviewing and approving contractor's means and methods**, ensuring that the contractor conforms to PANYNJ standards, performing constructability reviews, reviewing shop drawing and submittals, quality assurance, safety assurance, review of as-built documents, Tenant Account Service Requests, system start-up and commissioning review, document management, schedule review, payment item review, punch list inspection, change order management and close-out documentation.

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Program & Construction Management

A & E SERVICES FOR REHABILITATION OF SUBSTATIONS DESIGN AND CONSTRUCTION SERVICES

LOCATION
PHILADELPHIA, PA

CLIENT
SEPTA

DURATION
2016-2019

CONSTRUCTION COST
$125 M

REFERENCE

KEY RELEVANCE
- Prepare Cost Estimate
- Prepare Project Schedule
- Substation Rehabilitation
- Railroad Project

Envision is providing estimates and scheduling for **16 RRD Traction Power Substations** that are currently in need of rehabilitation and, one new station SEPTA required. The scope of work is to provide SEPTA cost estimates for 15% to 50% design phases to upgrade substations to as-new condition. Beyond 50% of the project will be let as a design build to contractors to complete the design and construction. Equipment evaluated includes autotransformers, outdoor and indoor circuit breakers, auxiliary transformers, disconnect switches, low voltage systems, etc. Site visits were made to each station to understand site logistics primarily for getting equipment in and out of the locations. Envision worked with the project team to develop estimates, which coincided with final design requests. Architectural and structural factors were also included in the costing process.

SEPTA is one of only two U.S. transit authorities that operates all four of the major electric-powered modes of transit: regional suburban commuter rail, urban "heavy" rail (subway or metro), interurban "light" rail (streetcars and trolleys), and trolleybuses ("trackless trolleys").

At SEPTA, these electric transit modes are powered by either 12kV AC for its regional rail lines (referred to as the Regional Rail Division, or "RRD") or 630Vdc for its subway, light rail, and electric trolleybus routes (all part of the City Transit Division, or "CTD"). **This particular project's focus is to: a) design upgrades to rehabilitate 16 existing traction power substations (TPSSs) and switching stations that currently provide power to either the RRD or the CTD, some of which were built and commissioned as far back as the 1930's; and b) design one new TPSS at/near the Woodbourne passenger station location.**

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Program & Construction Management

STATIONS & FACILITIES STATE OF GOOD REPAIR ASSESSMENTS

LOCATION
VARIOUS LOCATIONS

CLIENT
AMTRAK

DURATION
2016-2017

CONSTRUCTION COST
VARIES

REFERENCE

KEY RELEVANCE
- Prepare Cost Estimate for 30 Stations and Transit Yards
- Railroad Project

As part of AMTRAK Facilities Standards Policies, each of its facilities must be inspected every five years to assess the integrity and State of Good Repair (SOGR) of the building envelope and systems. These assessments are also done to verify compliance with current codes. AMTRAK facilities include buildings, sheds, canopies, platforms, and other work areas that support railroad operations. Bridges, tunnels, track, electric traction, communication and signals infrastructure are excluded from this endeavor.

Envision' s staff performed cost estimating services for the AMTRAK Southern Division Station Assessment project. Individually prioritized CSI estimates were prepared for 30 stations and yards.

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WAYNE JUNCTION SUBSTATION REHABILITATION

LOCATION
PHILADELPHIA, PA

CLIENT
SEPTA

DURATION
2013-2015

CONSTRUCTION COST
$14 M

REFERENCE

KEY RELEVANCE
- CPM Scheduling
- Develop Baseline Schedule
- Periodic Progress Updates of Contractor's CPM Schedule
- Substation Rehabilitation

The Wayne Junction Substation Rehabilitation Project consisted of the phased replacement and upgrade of the traction power substation distribution catenary system, replacement of the existing 25 Hz single phase 36kV primary and secondary oil filled circuit breakers with new vacuum break switches, replacement of all manual and automatic switches and insulators, replacement of all aerial power bus systems along with the complete replacement of the original power distribution relay control and monitoring system. The existing equipment has remained in continuous operation since it was originally constructed and placed into service. In addition to the electrical system upgrades, the steel superstructure of the substation, on which the distribution system is built, was expanded to include: new walkways, safety rails, and ladders along with being completely sand blasted and refinished.

The project involved a **major overhaul and upgrade of the existing traction power controls and facility** including the replacement of the power distribution system components and controls. The Wayne Junction Substation is the central power source and power distribution point for the SEPTA Regional Rail System. The general construction portion of the project involved the demolition and reconstruction of the storage room addition, the facility windows, doors, and roof complete replacement.

Envision was responsible for CPM scheduling services including the development of the baseline schedule and performing periodic progress updates of the contractor's CPM schedule.

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PROGRAM MANAGEMENT PLAN - STATION RENOVATIONS

LOCATION
NATIONWIDE

CLIENT
AMTRAK

DURATION
2016-ONGOING

CONSTRUCTION COST
$1.5 B

REFERENCE

KEY RELEVANCE
- Prepare Project Schedules for 25 Transit Stations
- Support Development of Master CPM Schedule

The AMTRAK Program Management Plan is for the **renovation of the 529 stations throughout the continental United States** to upgrade these train stations to meet the requirements set forth in American Disabilities Act (ADA) of 1990. This project has an estimated duration of six years with a cost of $1.5 billion.

As the GAC's CPM consultant, Envision prepared schedules and supported the development and maintenance of the Master CPM Schedule. For many projects, the schedule was cost loaded with Primavera P6 client server environment. The Master CPM Schedule included the construction sequence of each station based on plans and specifications, including temporary construction to support the ADA enhancements.

Envision has teamed with George Allen Construction Co. (GAC) as part of the Program Management Plan to enhance **more than 25 stations nationwide**, contributing to the advancement of the following stations:

- Petersburg, VA
- Montpelier, VT
- Windsor Locks, CT
- Jacksonville, FL
- Sebring, FL
- Sanford, FL
- Connersville, IN
- Effingham, IL
- Dillon, SC
- Florence, SC
- Greenville, SC
- Savannah, GA
- Newton, KC
- Independence, MO
- Jefferson City, MO
- Jackson, MI
- Niles, MI
- Holland, MI
- Port Huron, MI
- Fargo, ND
- Rugby/Stanley, ND
- Marshall, TX
- McGregor, TX
- La Junta, CO
- Glasgow/Malta/Harve, MT

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CITY OF PHILADELPHIA, DIVISION OF AVIATION, MEP ON-CALL CONTRACT

LOCATION
PHILADELPHIA, PA

CLIENT
CITY OF PHILADELPHIA

DURATION
2014-2017

CONSTRUCTION COST
TASK ORDER

REFERENCE

KEY RELEVANCE
- Flood Prevention for Substations
- Substation Project
- Project Management Support Services

This On-Call Mechanical and Electrical Engineering (MEP) Services contract is to manage the projects of the Capital Improvement Program at the Philadelphia International Airport and Philadelphia Northeast Airport.

Assignments include design and/or construction engineering services for airfield lighting, terminal lighting, roadway and parking lot lighting, power distribution systems, grounding and bonding, **substation design**, utility distribution, signage, signal systems, traffic signals, ductbanks and manholes, building management systems, LEED design, boilers, chillers, ventilation systems, air conditioning, solar energy systems, SCADA systems, fuel storage and pumping facilities, water and wastewater facilities, compressed air systems, cranes and vehicle lifts, fire protection and life safety systems, propane and natural gas systems, hot water systems, and fire protection systems. An example of tasks includes:

- **Flood Prevention for Substations in Terminal A-East, Cost Estimating** - The On-Call Mechanical and Electrical Engineering Services contract is to manage the projects of the Capital Improvement Program at the Philadelphia International Airport and Philadelphia Northeast Airport. This task is for Flood Prevention for Substations in Terminal A-East
- Terminal D-E Litigation Support, Claims Analysis - Provide litigation support to the airport for issues related to the Terminal D/E project. The task includes reviewing documents relating to the matter responding to attorney requests for information, preparing discovery questions for the assigned attorneys and possible testimony as well as other related activities to support the litigation.
- Project Management Support Services, Project Management - Participating in preconstruction and progress meetings, coordinating with the DOA Project Manager, DOA security and other DOA contractors, providing the DOA Project Managers with **daily verbal and written progress reports, reviewing design documents and providing comments, participating in site inspections, and other associated duties.**

Burns

PANYNJ PATH SUBSTATION #9 REPLACEMENT

LOCATION
HARRISON, NJ

CLIENT
PANYNJ

DURATION
2013-2014

CONSTRUCTION COST
$45 M

REFERENCE

KEY RELEVANCE
- Prepare Basis of Design, Specifications, Contract Drawings and Cost Estimate
- Prepare Design/Build Documents

The existing PATH Substation No. 9 is over 35 years old and nearing the end of its service life. Spare parts are no longer available creating maintenance concerns. The 27kV equipment used for Substation No.9 is presently outdoors and exposed to the elements. The Port Authority's Office of Emergency Management has recommended placing this equipment indoors thereby protecting it from the elements. In addition, the demand for electrical power is anticipated to increase with PATH's purchase of new PA-5 train cars and the subsequent increases in PATH train service.

Burns is contracted with the Port Authority of New York and New Jersey to **prepare a basis of design, basic specifications, basic contract drawings and an independent cost estimate for the replacement of PATH Substation No. 9.** Specific disciplines include electrical engineering/traction power, electronics (communications, CCTV, access control, etc.) and civil engineering. Our task is to prepare Design Build contract (Bridging) documents for this replacement including:

- 26.4kV Medium Voltage Switchgear (PSE&G line-up and PATH line-up)
- Traction Power Transformer, AC bus duct and Rectifier
- 800V DC Switchgear, high-speed DC breakers and DC bus duct.
- Auxiliary Power
- UPS system
- Underground Duct Bank System
- SCADA System and Equipment
- Lighting
- Fire Alarm System
- Substation Communications Systems (Communication Infrastructure)
- Security/Access Control System
- CCTV System
- Fiber Optic Cable infrastructure.
- Parcel determination for temporary land acquisition and easement agreements
- Utility Coordination and Relocation
- Storm Water Management Plan
- Sanitary and Water Service Connections

Burns

AMBLER SUBSTATION REHABILITATION

LOCATION
AMBLER, PA

CLIENT
SEPTA

DURATION
2015-2016

CONSTRUCTION COST
$10.6 M

REFERENCE

KEY RELEVANCE
- Consultant for Design/Build Contract Replacement of Traction Power and Control Equipment
- Power System and Traction Power Integrator

SEPTA's Ambler Substation is situated along the Lansdale/Doylestown line as part of the former Reading Railroad system. The traction power system includes 24kV feeders and 12kV trolley circuits connected, within the substations, through 36kV autotransformers. The SEPTA system operates at 25Hz and is supplied from three static frequency converters located in Wayne Junction. Overhead Catenary System (OCS) trolley circuits supplied from Ambler Substation emanates in both directions of the railroad, towards Jenkintown and Lansdale.

Most of the original components were still being used, and were long past their useful life. If this 80-year-old substation were to fail, service could be affected on the Lansdale and Doylestown Lines, causing major disruptions throughout the regional transportation network. The objective of the rehabilitation design **was to replace and renew the existing equipment with modern equipment** complying with current SEPTA standards and operating requirements. The rehabilitation included final design, site work, repainting, procurement, installation, construction, coordination, testing and commissioning.

Burns Engineering, Inc., (Burns), was responsible for the **replacement of all of the traction power and control equipment** in the Ambler Substation under a design-build contract. All new traction power breakers are outdoor rated vacuum breakers. Relay and control improvements incorporated all changes requested by SEPTA. Burns served as the Power System Integrator and Traction Power Integrator as a subcontractor to Carr & Duff, Inc.

Burns

PATCO POWER CABLE AND POLE LINE REPLACEMENT

LOCATION
LINDENWOLD TO CAMDEN, NJ

CLIENT
DRPA

DURATION
2009 - 2013

CONSTRUCTION COST
$28 M

REFERENCE

KEY RELEVANCE
- Engineering Consultant for Design
- Engineering Consultant for Construction Management

With the age of the PATCO system approaching 40 years, the Delaware River Port Authority (DRPA) and PATCO have undertaken a major replacement of the PATCO infrastructure in order to maintain highly reliable commuter train service.

This project replaced the existing 11-mile-long wood pole line in New Jersey with **a new pole line of class 1 fiberglass poles, 26.4KV traction power cables and 2.4KV signal power cables**. Existing signals, communications and 3rd party optical fiber cables were transferred from the old pole line to the new.

Burns was the prime engineering consultant for design and construction management services for the replacement project.

While keeping within **the existing $30 million construction budget, Burns exceeded the project goals** through creative engineering and close cooperation with DRPA/PATCO staff to provide the following:

Replacement of:

- 113,000 ft. of 26.4KV cable
- 113,000 ft. of 2.4KV cable
- 36,000 ft. of 27C signal cable
- 12,000 ft. of communications cable between Broadway Station and Ferry Avenue Station
- 59,000 ft. of fiber optic cable
- 825 fiberglass poles

In addition, the construction phasing of the project was developed to minimize the impact on PATCO operations, while providing contractors with adequate construction windows.

Project received American Council of Engineering Companies of New Jersey 2013 Distinguished Project Award

Burns

TRANSPORTATION MICROGRID TO INCREASE SYSTEM RESILIENCY AND RELIABILITY

LOCATION
NEWARK, NJ

CLIENT
NJ TRANSIT

DURATION
2015-2016

CONSTRUCTION COST
$10.6 M

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Engineering Services
- Design Support
- Procurement Support
- Contract Packaging
- Construction Assistance

The objective of the $577 million NJ TRANSITGRID project, the first of its kind in the United States for public transportation, is to implement a microgrid capable of providing reliable power for core critical transit infrastructure supporting rail systems operated by NJ TRANSIT and other operators of the Northeast Corridor (NEC). The microgrid will be capable of supplying highly resilient power during critical times when the regional electric grid may be compromised due to storms or other events.

Key design components of the **new microgrid include a central, natural gas-fired power plant and associated substations**, transmission/distribution lines to substations that electrify the tracks and operating controls for critical portions of the NJ TRANSIT and the NEC systems, as well as connections to the PJM commercial grid.

Burns is **responsible for evaluating the traction power, signals, and other critical systems** needed to operate trains within the boundary of the TransitGrid. Burns is also responsible for the TransitGrid Transmission and Distribution System Design.

Burns is serving a key role on the design team that is providing owner's engineering services including design, procurement support, contract packaging for the procurement of design-build contracts, and construction assistance to support the development of the NJ TRANSITGRID project.

ROUX

HOBOKEN RAIL YARD

LOCATION
HOBOKEN, NJ

CLIENT
NJ TRANSIT

DURATION
2006-ONGOING

CONSTRUCTION COST
$200,000

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Consultant for Diesel Fuel Soil Contamination at Hoboken Rail Yard
- Soil and Groundwater Investigations

Roux Associates has **performed due diligence soil sampling in advance of NJ TRANSIT 's construction on the new wheel true building and along the Long Slip.** Roux Associates is performing a remedial investigation at the Hoboken AST site which is located at the corner of 18th Street and Marin Boulevard and was historically part of the Hoboken Rail Yard facility. Roux Associates has completed a soil and groundwater investigation to determine the source, nature and extent of diesel fuel contamination associated with a former diesel AST that was used to fuel locomotives. Mr. Richard Starke serves as the project manager and Mr. William Gilchrist serves as the Licensed Site Remediation Professional (LSRP) for the Site. The project is ongoing.

ROUX

METRO PARK STATION AND LYNDHURST RAIL STATION

LOCATION
ISELIN, NJ

CLIENT
NJ TRANSIT

DURATION
2006

CONSTRUCTION COST
$130,000

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Consultant for Worksite Conformance to NJDEP Standards
- Recommend Disposal of Construction-Generated Wastes

Roux Associates has performed **due diligence soil and groundwater sampling in advance of NJ TRANSIT's construction of new high-level platforms at Metro Park and Lyndhurst Rail Stations.** Soil and groundwater sampling results were compared with NJDEP standards and recommendations were provided on the handling of any construction generated wastes. Messrs. William Gilchrist and Richard Starke served as the project manager for the Metro Park and Lyndhurst Rail Station projects, respectively.

ROUX

PORT MORRIS RAIL YARD

LOCATION
LANDING, NJ

CLIENT
NJ TRANSIT

DURATION
2010- ONGOING

CONSTRUCTION COST
$95,000

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Consultant for Diesel Fuel Soil Contamination
- Soil and Groundwater Investigation

Roux Associates is performing a remedial investigation associated with a diesel fuel release. **Roux Associates has completed a soil and groundwater investigation to determine the source,** nature and extent of diesel fuel contamination at the Port Morris rail yard. Roux Associates performed remedial activities at the site and Mr. William Gilchrist serves as the Licensed Site Remediation Professional (LSRP) for the Site. The project is ongoing.

ROUX

MEADOWLANDS MAINTENANCE COMPLEX (MMC)

LOCATION
SECAUCUS, NJ

CLIENT
NJ TRANSIT

DURATION
2000-2010

CONSTRUCTION COST
$350,000

REFERENCE

KEY RELEVANCE:
- NJ TRANSIT Consultant for Petroleum Soil Contamination
- Soil and Groundwater Samplings
- Designed a Free-Product Recovery System

Roux Associates **investigated several areas of petroleum releases and designed a free-product recovery system**. In addition, Roux Associates performed due diligence soil and groundwater sampling in advance of several NJ TRANSIT construction projects within the MMC yard. Mr. William Gilchrist served as the project manager.

Lynn Drobbin & Associates

HOBOKEN TERMINAL AND YARD COMPLEX HURRICANE SANDY RECOVERY PROGRAM

LOCATION
HOBOKEN, NJ

CLIENT
NJ TRANSIT

DURATION
2013-2017

CONSTRUCTION COST
$83 M

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Project
- ADA Compliance
- Historic Preservation Review
- Historic Compliance
- Hoboken Terminal

Lynn Drobbin & Associates (LDA) is **currently conducting the historic preservation review for the remediation, storm damage cleanup and the relocation of the Ferry Operations Suite at Hoboken Ferry Terminal**. Included in the project are 20 subtasks that include storm surge cleanup, demolition and repairs to existing systems, installation of new systems and general cleanup and repairs, as well as the construction of resiliency measures to the various structures and facilities in the Terminal and Yard damaged by the flooding.

Several subtasks required extensive demolition or alteration of significant historic fabric. LDA worked with the project team, NJ TRANSIT and SHPO, to resolve adverse effect issues through design mitigation. LDA and the project team evaluated a series of alternatives for areas that would be impacted such as the removal of historic ceilings with decorative plaster, renovations to the former crew quarters and waiting room to accommodate a relocated flood proof ferry operations suite, and the addition of new ticket windows in the main waiting room. LDA also prepared a set of conditions for each potential adverse effect that achieved a conditional no adverse effect finding from SHPO, avoiding the lengthy Section 106 adverse effect process. LDA coordinated with the SHPO and the local historic commission and reviewed all plans and specs. LDA will be providing construction assistance services.

Lynn Drobbin & Associates

HOBOKEN TERMINAL REHABILITATION

LOCATION
HOBOKEN, NJ

CLIENT
NJ TRANSIT

DURATION
2000-2012

CONSTRUCTION COST
$120 M

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Project
- ADA Compliance
- Historic Preservation Review
- Historic Compliance
- Hoboken Terminal

Lynn Drobbin & Associates (LDA) **conducted the historic preservation review for the Hoboken Ferry Terminal Rehabilitation Project**. The project required Section 106 and Section 4(f) documentation for an adverse effect that was caused by the demolition of the historic headhouses. LDA also prepared a Memorandum of Agreement and Historic American Building Survey (HABS) documentation for the National Register-listed ferry terminal.

The three-phase project consisted of the reactivation of five of the six ferry slips to active ferry operations and the provision of modern ferry docking facilities and passenger waiting and ticketing areas in the original street level Team Concourse. The sixth ferry slip will be preserved for future use as a museum display of an original ferry slip.

The project rehabilitated much of the historic fabric of the Hoboken Ferry Terminal but also required modifications to accommodate the modern ferries currently in use in New York Harbor. LDA worked closely with marine engineers to determine how to adapt the ferry terminal to modern ferry operations. LDA also prepared Section 106 and Section 4(f) documents for the demolition and reconstruction of the north wall of the Ferry Terminal and also assisted in plans to replicate the historic clock tower that formerly rose 225 feet above the terminal and served as a landmark on the Hudson River.

Lynn Drobbin & Associates

NEWARK BROAD STREET STATION CAPACITY CONSTRAINT RELIEF AND ADA IMPROVEMENTS

LOCATION
NEWARK, ESSEX COUNTY, NEW JERSEY

CLIENT
NJ TRANSIT

DURATION
2002-2006

CONSTRUCTION COST
$79.5 M

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Project
- ADA Compliance
- Historic Resource Analysis

In compliance with Section 106 of the National Historic Preservation Act, LDA prepared the alternatives analysis that evaluated various scenarios for capacity constraint relief that required the demolition of the shelter house, third track realignment, the construction of eastbound and a center high level platform, and also the demolition of the Martin Luther King Boulevard Railroad Bridge. The Newark Broad Street Station and the MLK Bridge were listed on the National Registers of Historic Places.

LDA advised on compatible new design and mitigation measures for the construction of high level platforms, ramps, new canopies, a new shelter house and elevators. LDA also prepared a USDOT Section 4f Evaluation Report and Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) documentation of Newark Broad Street Station and the MLK Bridge and the Newark Grade Crossing Elimination Historic District.

Lynn Drobbin & Associates

PERTH AMBOY STATION ACCESSIBILITY IMPROVEMENTS PROJECT

LOCATION
PERTH AMBOY, MIDDLESEX COUNTY, NEW JERSEY

CLIENT
NJ TRANSIT

DURATION
2010-ONGOING

CONSTRUCTION COST
$42 M

REFERENCE

KEY RELEVANCE
- NJ TRANSIT Project
- ADA Compliance
- Design Advisement

In compliance with Section 106, LDA prepared the Project Initiation Letter, Historic Architectural Resource Background Study, and Effects Assessment for an Adverse Effect Report, for ADA improvements at this State and National Register-listed rail station. **LDA conducted a historic survey of the study area and submitted documentation to SHPO for eligibility findings.** LDA also conducted an analysis of the integrity of the Perth Amboy Commercial Historic District, a 300+building district in downtown Perth Amboy.

LDA provided design advisement for compatible new construction of high level platforms, ramps, canopies, four elevator towers, stairways and modifications to the pedestrian overpass and the two bi-level station buildings. LDA prepared an Alternatives Analysis for (8) Center Island HLPs and (5) Side HLPs and a Report for Project Authorization under the New Jersey Register of Historic Places. LDA facilitated SHPO approval at 30% design for this adverse effect project.

SECTION 3 - QUALIFICATIONS OF INDIVIDUALS

Introduction

NAIK has assembled a first-class team of highly qualified professionals with the right level of technical expertise. Our recent, relevant experience includes performing the roles required for successful Construction Management Services on a number of rail infrastructure and construction projects in the NJ and NY Metro Area and at NJ TRANSIT.

Key members of our team have unique, in-depth familiarity with NJ TRANSIT operations, policies, procedures, coordination of force account activities and experience at the Hoboken terminal complex dealing with the catastrophic after effects of Superstorm Sandy. As the Program Manager for NJ TRANSIT's Superstorm Sandy effort, **Moe Soliman, PE,** worked side by side with NJ TRANSIT staff from the outset, carefully working to structure the Program under the FTA's Notice of Funding Allocation (NOFA) Guidelines, securing significant funding awards based on grant applications, leading the near-term emergency response projects, identifying assets with flood risk and initiating preliminary engineering efforts for all of the Sandy Repair and Resiliency Projects including multiple substations.

As former Deputy General Manager, Infrastructure Engineering and Chief Engineer, Right of Way and Facilities, respectively, both **Mike Gaspartich and Eli Charchar** worked tirelessly to restore NJ TRANSIT's physical assets in the aftermath of Superstorm Sandy. **System assets included stations, substations, tracks, signals, bridges, maintenance facilities, yards and catenary lines.** Their tireless efforts, dedication, ingenuity and experience were key factors in bringing NJ TRANSIT's system back up and running within weeks after the unprecedented and catastrophic weather event.

Our Key Personnel will be supplemented by highly qualified personnel performing roles as Technical Adviser, Deputy Resident Engineer, Inspectors, Substation Engineers, Quality/Safety Assurance Manager, Corporate/Quality Control Manager, Project Controls, Document Controls, Technical Submittal Reviewers, and Testing and Commissioning Engineers. **NAIK, Burns, and Roux certify that all our key personnel will be employed and they will be available for the assignment at Notice-to-Proceed**. Certified statements regarding availability for all of the firms on the NAIK team are included in Volume 2.

Relevant Experience and Qualifications of Individuals

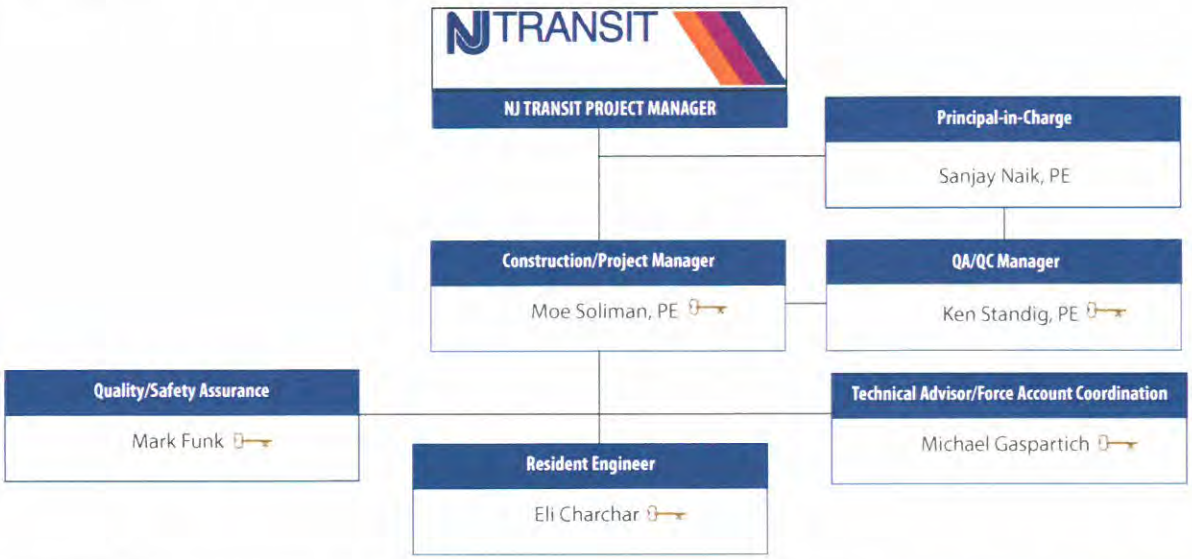
NAIK's team consists of highly qualified key individuals with relevant project experience who have a history of working collaboratively together on NJ TRANSIT and local rail infrastructure projects. **NAIK's Key Personnel possess institutional knowledge second to none,** based on their decades of experience and knowledge working with NJ TRANSIT's Policies and Standard Operating Procedures (SOPs).

NAIK's team of professionals have worked extensively on construction projects of all sizes, complexities and durations. On every project that NAIK undertakes, we rely on our experienced senior leadership team to mentor our designated project staff on how to best plan and execute the three key principles of NAIK's management approach: Proactive Leadership; Adding Value; and Making a Difference. By integrating these three key principles into every project, NAIK has developed rigorous "tried and true" best practices that have consistently led over the years to the successful completion of multiple projects.

NAIK's Management Approach:
- *Proactive Leadership*
- *Adding Value*
- *Making a Difference*

For the key role of Construction/Project Manager, NAIK proposes Moe Soliman, PE. Moe has over 25 years of successful experience in projects of this magnitude and complexity and is well known and trusted by NJ TRANSIT.

Moe possesses an in depth knowledge of all aspects of NJ/NY rail and transit projects. **Moe's background includes the role of Program Manager for NJ TRANSIT's Super Storm Sandy Projects, Construction Manager for NYCT's $2.4 Billion No. 7 Subway Extension to Far West Midtown Manhattan and as Construction Manager for NYCT's $550 Million South Ferry Terminal in Lower Manhattan. NJ TRANSIT and NYCT have seen firsthand Moe's ability to work efficiently in high pressure project situations and to get the desired results time after time.** In addition, Moe is a "hands-on" professional with relevant technical systems knowledge and contractors "means and methods" through his construction manager roles where he was responsible for the construction of 14,000 feet of low vibration track (LVT) utilizing Rhomberg gauge equipment and concrete dispensing systems, special work areas, switch machines, drainage piping, insulated joints, track concrete, 28,000 feet of high and low concrete cable duct benches, and fit-out of traction power substations and circuit breaker houses (CBH), contact rail, 13.2 KV transformers, DC rectifiers and HT switch gear, positive and negative cable feeds, transpositions and installation of control cables, fixed block railroad signal systems, central instrument houses (CIH), signal relay rooms and equipment, code system architecture, programmable logic controllers and wayside signal equipment.



As Resident Engineer, NAIK proposes **Eli Charchar** who spent 29 years with NJ TRANSIT as Chief Engineer, Right of Way and Facilities, making him an excellent candidate for this project. He has unparalleled institutional, organizational and procedural knowledge of all NJ TRANSIT operations. Specifically, Eli has wide ranging and expert knowledge of the Hoboken Terminal and Yard facility giving him comprehensive understanding of the logistical and operational challenges inherent in this complex project. In fact, Eli Charchar, one of our Key Personnel, has authored numerous NJ TRANSIT SOPs and his unmatched expertise will prove invaluable to the success of the Projects.

NAIK is pleased to offer two Key Technical Advisors: **Michael Gaspartich** who had a 32-year tenure with NJ TRANSIT including his role as Deputy General Manager, Infrastructure Engineering giving him a unique combination of both broad and detailed, ground level knowledge of NJ TRANSIT's operations, procedures, rail systems, organization and layout of the Hoboken Yard and Terminal; and **Carlo Settineri,** a power substation engineer with 24 years of experience in maintenance and construction of 13.2kv to 26.4kv power substations. Carlo's relevant experience includes the role of lead design reviewer for the 7 power substations (13.2kv and 26.4kv) currently being constructed for the MTA's East Side Access Project. Carlo's specialized experience with substation fit-outs will make him the go-to subject matter expert who will be called upon for guidance throughout the project.

Mark Funk will fill the critical role of Quality/Safety Assurance Manager. Mark's 24 years of relevant project experience includes implementing QA/QC standards, performing construction inspections to ensure compliance of work with plans and specifications and materials testing. Mark has numerous professional certifications including QA/QC, OSHA and Railroad Worker Protection (RWP).

Quick Review

NAIK's team consists of experienced professionals with relevant NJ TRANSIT and substation experience.

TEAM PERSONNEL	KEY QUALIFICATIONS
Moe Soliman, PE (NAIK)	• 25 years' experience • NJT Sandy Recovery, Program Mgr • No. 7 Subway Ext., Constr. Mgr • South Ferry Subway Station, Constr. Mgr
Eli Charchar (NAIK)	• 29 years with NJ TRANSIT • Chief Engineer, ROW & Facilities • Resident Engineer, CM Dept.
Michael Gaspartich (NAIK)	• 32 years with NJ TRANSIT • Deputy GM, Infrastructure Engineering • Senior Director, Infrastructure Engineering • Hoboken Division Engineer
Carlo Settineri (NAIK)	• 24 years' transit experience • Lead Substation Design Review Eng, MTA ESA • Supt. of Div. Electrical Systems, MTA-NYCT • Substation Commissioning Engineer
Paul Rudderow, PSP (Envision)	• 30 years' Project Controls Exp. • Wayne Junction Electrical Upgrades, SEPTA • Scheduler, NJ TRANSIT Sandy Program • 69th Street Bridge, NJ TRANSIT
Jonathan Schimpf, PE, LEED AP (Burns)	• 12 years' experience • Mason/BLDG Q Value Engineering, NJ TRANSIT • Substation #9 Replacement, PATH • Morton & Lenni Substation Rehab, SEPTA
William Gilchrist PG, LSRP (Roux)	• 30 years' experience • Newton Ave Bus Garage, NJ TRANSIT • Union City Bus Garage, NJ TRANSIT • Port Morris Yard, NJ TRANSIT

Organization Chart

LEGEND

Subconsultants
(E) Envision Consultants, Ltd. (DBE)
(B) Burns Engineering
(R) Roux Associates, Inc.
(L) Lynn Drobbin & Associates (DBE)

Other
(D) Dewberry
(DE) Distinct Engineering Solutions, Inc. (DBE)
(P) Prontoforms

Key Personnel/Resume Included

NJ TRANSIT PROJECT MANAGER

Principal-in-Charge
Sanjay Naik, PE

Construction/Project Manager
Moe Soliman, PE

QA/QC Manager
Ken Standig, PE

Quality/Safety Assurance
Mark Funk

Technical Advisor/Force Account Coordination
Michael Gaspartich

Resident Engineer
Eli Charchar

Deputy Resident Engineer/Sr. Inspector
Naresh Patel, PE

Project Controls

Senior Scheduler/Claims Specialist
Paul Rudderow, PSP (E)

Senior Scheduler
Bruce Betz, CCM, PSP (E)

Senior Cost Estimator
Nicole Johnson, MBA, LEED AP (E)
Hugo Mercado

Document Controls/Contract Admin

Office Engineer
Anita Johnson-Davis (E)

Clerical/Admin
Melissa Black

Special Submittal Reviews/ Testing & Commissioning

Testing and Commissioning Plan Development/ Equipment Startups
Jonathan Schimpf, PE, LEED AP (B)

Substation Equipment Submittal Review
Pansong Zhao (B)

Factory Acceptance Tests/ On-site Equipment Tests
Stanley Muzylowski (B)

Depot/Henderson Inspectors
Louis Noto
Timothy Fortier

Support Services

Constructability
Moe Soliman, PE
Eli Charchar
Michael Gaspartich
Daren Petroski, PE (B)
Carlo Settineri
Ken Standig, PE
Paul Rudderow, PSP (E)
Nicole Johnson, MBA, LEED AP (E)

Survey
Scott Bleeker PLS, CFM (D)

Structural
John Tan, PE

Systems Integration
Krishna Swarnakar

Civil
Andrew Schueller, PE

Geotechnical
Jason Chakin, PE

Power/Electrical
Stanley Muzylowski (B)
Louis Noto
Carlo Settineri

SCADA
Pansong Zhao (B)
Krishna Swarnakar

CCTV/Access & Control
Frank Clancy
Jonathan Schimpf, PE, LEED AP (B)

DCA Coordination/Architecture
Mark Funk

Environmental/ Hazardous Material
William Gilchrist PG, LSRP (R)
John Williams (R)
James Kazanjian, EIT (R)

Paperless Workflows
PRONTOFORMS

Material Testing
Giorgi Khardzeishvili, PE (DE)

Historical Preservation
Lynn Drobbin (L)
Gabrielle Shubert

MATRIX OF KEY STAFF AVAILABILITY

Firm/Name/Proposed Assignment/Location	Current Assignment/ Location	% Available to Project	Available on 10/01/2017	Professional Registrations
NAIK				
Moe Soliman Construction/Project Manager/ NJ	Director of CM/PM/ NY &NJ	50	✓	PE
Eli Charchar Resident Engineer/ NJ	N/A	100	✓	N/A
Michael Gaspartich Technical Advisor/ NJ	N/A	50	✓	N/A
Naresh Patel Deputy Resident Engineer/ NJ	N/A	100	✓	PE
Sanjay Naik Principal in Charge/ NJ	Principal NAIK Consulting Group	33	✓	PE
Ken Standig NAIK Corporate QA/QC/ NJ	NY Office Leader	33	✓	PE
Mark Funk Safety/Quality Eng. & DCA Liaison/ NJ	Middlesex County Fire Academy Facility Rehabilitation	100	✓	NICET IV, NJ Const. Official, OSHA Site Safety Supervisor
Carlo Settineri Substation Engineer/ NJ	East Side Access Substation Engineer /NY	50	✓	N/A
ENVISION				
Paul Rudderow Senior Scheduler/ NJ	NJ TRANSIT PTC & Raritan River Draw Bridge/ NJ	60	✓	N/A
BURNS				
Jonathan Schimpf Testing & Commissioning Lead/ NJ	NJ TRANSIT Lead Traction Power Engineer Micro Grid/ NJ	50	✓	PE
Daren Petroski Systems Engineering/ NJ	National Rail & Transit Leader/ PA	25	✓	PE
ROUX				
Bill Gilchrist Environmental & Hazardous Material Oversight/ NJ	Principal Hydrologist, NJ Region/ NJ	25	✓	PG, LSRP

MATRIX OF NAIK TEAM QUALIFICATIONS -

This matrix illustrates the depth of transit and rail experience of our team members. The disciplines listed correlate to the needs and services to be provided for the RFP.

		Project Management								Project Controls						Construction Services																			Design			
Personnel/Technical Expertise	Years of Experience	NJT Experience	Transit Experience	Const. Management	Agency Coordination	Subcontractor Mgmnt.	Quality Assurance	Safety Assurance	Stakeholder Outreach	Bid Support	Project Controls Reporting	Invoicing and Payment Coordination	Scheduling	Cost Estimating	Claims Management	Document Mgmt.	HT. Substations	SCADA	Power Cut-over Planning	Video Surv. Systems	Access & Control	Testing and Commissioning	Fact. Accept. Testing	Systems Integration	PSEG Coordination	Force Account Coord.	General Bldg Const.	DCA Coordination	Closeout	Environmental Services	Construction Inspection	Contractor Logistics	Historic Preservation	Materials Testing	Constructability Review	Verification Surveying	Utility Relocation	Geotechnical Engineering	Civil Engineering	Structural Engineering	Value Engineering	Utility Design
Management Team																																											
Moe Soliman	25	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓										✓		✓		✓				✓		✓		✓		✓	
Sanjay Naik	30	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓											✓				✓				✓	✓	✓		✓	✓	✓	✓
Ken Standig	40	✓	✓		✓	✓	✓		✓		✓	✓		✓													✓			✓			✓		✓	✓		✓	✓	✓	✓	✓
Key Field Staff																																											
Eli Charchar	30	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓		✓	✓		✓			✓	✓			✓	✓	✓	✓		✓	✓			✓				✓	✓	✓	
Michael Gaspartich	32	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓				✓	✓	✓			✓	✓		✓	✓	✓	✓	✓		✓	✓			✓				✓	✓	✓	
Naresh Patel	23		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓				✓		✓		✓	✓	✓		✓		✓		✓	✓	✓	
QA/QC, Safety/Security & DCA Coordination																																											
Mark Funk	24			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓											✓	✓	✓		✓	✓		✓								
Construction Delivery/ Implementation Team																																											
Louis Noto	40		✓	✓	✓	✓	✓										✓	✓	✓			✓	✓	✓			✓		✓		✓	✓			✓							
Tim Fortier	25			✓		✓	✓	✓				✓	✓	✓	✓	✓											✓		✓		✓	✓		✓	✓		✓				✓	
Paul Rudderow/ E	30	✓	✓	✓						✓	✓	✓	✓		✓		✓	✓	✓								✓		✓		✓	✓			✓						✓	
Nicole Johnson/ E	20		✓	✓						✓	✓	✓		✓	✓		✓	✓	✓								✓		✓		✓	✓			✓						✓	
Hugo Mercado	20	✓	✓	✓						✓	✓	✓		✓	✓		✓	✓	✓								✓		✓		✓	✓			✓						✓	
Bruce Betz/ E	33		✓	✓						✓	✓	✓	✓		✓		✓	✓	✓								✓		✓		✓	✓			✓						✓	
Anita Johnson-Davis/ E	15		✓	✓	✓	✓				✓	✓	✓				✓													✓		✓	✓										
Melissa Black	5		✓													✓													✓													
System Engineering/ Integration/ Testing and Commissioning																																											
Jonathan Schimpf/ B	12	✓	✓														✓	✓	✓			✓	✓	✓	✓		✓				✓	✓			✓						✓	
Daren Petroski/ B	29	✓	✓														✓	✓	✓	✓	✓	✓	✓	✓	✓		✓				✓	✓			✓						✓	
Pansong Zhao/ B	32		✓														✓	✓	✓	✓	✓	✓	✓	✓	✓		✓															
Stanley Muzylowski/ B	8		✓														✓	✓	✓	✓	✓	✓	✓	✓	✓		✓															
Carlo Settineri	43		✓	✓			✓										✓	✓	✓			✓	✓	✓											✓							
Krishna Swarnakar	20		✓				✓											✓				✓	✓	✓											✓							
Frank Clancy	17		✓				✓													✓	✓	✓	✓												✓							
Environmental/ Hazardous Material & Other Support Services																																											
Bill Gilchrist/ R	30	✓	✓																											✓	✓	✓		✓								
John Williams/ R	18		✓					✓																						✓	✓	✓		✓								
James Kazanjian/ R	3		✓																											✓	✓	✓		✓					✓			
Giorgi Khardzeishvili/ DE	20		✓	✓			✓																								✓	✓		✓	✓			✓	✓			
Lynn Drobbin/ L	39	✓	✓																														✓					✓	✓	✓		
Gabrielle Shubert	30		✓																														✓									
Scott Bleeker/ D	26	✓	✓																																	✓						
Andrew Schueller	28	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓											✓			✓					✓		✓		✓		✓	✓
John Tan	28		✓		✓				✓	✓	✓																✓								✓	✓	✓		✓	✓	✓	✓
Jason Chaikin	45		✓		✓				✓	✓	✓																✓								✓		✓	✓	✓			✓

MATRIX OF NAIK TEAM QUALIFICATIONS

Moe Soliman, PE

CONSTRUCTION/PROJECT MANAGER

Mr. Soliman is an accomplished professional with 25 years of experience in administration, management, design and construction of complex commuter rail and rapid transit projects. His successful project delivery efforts for both private and public-sector organizations include: tasks for rail systems design and construction, water and sewer mains, utility relocations and roadway repaving; issues regarding project funding and FTA reporting requirements; managing project controls and contract packaging; participating in strategic planning and alternatives analysis; and accelerated project delivery efforts. Prior to joining NAIK, Moe spent four years with a major A/E firm where he managed several large complex rail and transit projects, eighteen years with MTACC and New York City Transit as Construction Manager, Project Manager, Planning Manager and Project Coordinator and one year with NYCDEP as a Traffic Manager.

EDUCATION

M.S., Construction Management, Polytechnic Institute of Technology, 2008

M.E., Civil Engineering, City College of New York, 1994

BE, Civil Engineering, City College of New York, 1992

PROFESSIONAL REGISTRATIONS

Professional Engineer, Reg. No. 074231, NY, 1997

Professional Engineer, Reg. No. 41000, NJ, 1998

CERTIFICATIONS

Executive Construction Management, Polytechnic Institute of New York University, 2008

Railroad Signal Circuit Design Part I- New York City Transit, 2012

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers (ASCE)

Construction Management Association of America (CMAA)

WORK HISTORY

NAIK (2016-Present)
A/E Firm (2012-2016)
MTA (1994-2012)
A/E Firm (1992-1994)
NYCDEP (1992)

Project Experience

NJ TRANSIT Super Storm Sandy Recovery and Resiliency Program, Newark, NJ: Program Manager: Moe worked closely with NJ TRANSIT's Assistant Executive Director and the project management team on this complex, multi-year project where he strategically planned, managed, and executed the Super Storm Sandy Recovery Program effort valued at $2B. Moe's primary role was to provide strategic program direction and leadership, day to day program/project management oversight, operations management and allocation of staff resources.

MTA Capital Construction South Ferry Commuter Subway Terminal and Intermodal Transit Facility, New York, NY: Construction Manager: Moe oversaw the construction of a federally funded subway station, using state-of-the-art railroad design practices that led to the refinement of standards that are currently in use on the Second Avenue Subway and No. 7 Flushing Line expansion projects. Moe had construction oversight of the steel-reinforced concrete tunnel and station cavern by cut-and-cover method. Daily responsibilities included approving excavation, steel reinforcement and concrete placement logs, supervising the installation of station facility finishes and NYC Transit fare control equipment. Moe coordinated subsurface utility relocations, management of the construction of the architectural glass and stainless steel entrance canopies, the 120,000-square-foot Peter Minuit Plaza and NYC Transit intermodal bus transfer located above South Ferry Station and adjacent to the Whitehall Ferry Terminal.

Metro North Rail Road, Customer Service Initiatives, New York, NY: Project Controls Lead: Moe led the effort to develop this complex project's master schedule and estimate. Moe worked collaboratively with Metro North's project management and production teams to develop the schedule network architecture for over 40 sub-projects and detailed construction schedules and estimates for 30%, 60%, 90% and 100% design level submissions. Moe provided key insights and recommendations on contract packaging options and Force Account Labor projections.

NJ TRANSIT, Positive Train Control System-Wide Upgrade, Newark, NJ: Project Manager: Moe oversaw a team of Advanced Speed Enforcement System (ASES) professionals who provided expert review and assistance to NJ TRANSIT's technical staff during the design, construction and commissioning phases of the Positive Train Control (PTC) upgrade project.

Chicago Transit Authority, Red Purple Line and Blue Line Signal Modernization, Chicago, IL: Senior Project Manager: Moe managed the technical delivery of these two strategic CTA projects - Preliminary Engineering (PE)/Project Development (PD) phase of the Red Purple Modernization (RPM) program and Signal System Renewal on CTA Your New Blue (YNB). Moe provided knowledgeable and experienced staffing resources to meet the challenging design delivery milestones, ensure quality deliverables and adhere to project budgets.

MTA Capital Construction, Systems Contract for the Extension of the No. 7 Train, New York, NY: Rail Systems Construction Manager: Moe managed the fit-out of twin machine bored tunnels and mined station cavern approximately 1.25 miles in length and 120 feet below street level grade. This ongoing project is one of North America's largest and most strategic rapid transit expansions and ties into one of the busiest lines in NYC Transit's Subway System.

LIRR Jamaica Capacity Improvements – Phase I, Jamaica, NY: Constructability Task Lead: This high-profile project includes the construction of a new center island passenger platform, vertical circulation elements, reconfiguration of Johnson Avenue Yard to accommodate the new platform and extensive modifications to interlocking, track and signal systems located throughout LIRR's busiest and most complex station. Working closely with LIRR's engineering and operations staff, Moe prepared complex contract documents and provided strategic planning advice on construction phasing and staging around live railroad operations that would minimally disrupt normal service and facilitate cost-effective implementation of this vital railroad capacity enhancement project.

NYCT Various Locations, NY: Project Manager/Design Management: Moe oversaw all contract administration activities including validating progress payments, extra work, claims, schedule updates and change orders, reviewing safety and quality work plans and performing pre-bid constructability reviews. Moe managed several projects, including the Broadway Avenue Elevated Subway Line Repainting Program, developing a railroad service operating plan for the Reconstruction of the Culver Line Viaduct and providing design management services for the NYC Transit Museum restoration project.

Capital Construction, New York, NY: Project Manager: Moe was responsible for the oversight of all consultant design contracts for the security armouring of NY Penn Station and Throgs Neck and Whitestone Bridges.

NYCT Capital Projects, Various Locations, NY: Planning Manager: Moe advised executive management on infrastructure upgrades and cost-saving investments on highly strategic NYC Transit capital projects. Moe was responsible for concept engineering and alternatives analysis based on revenue generation, agency and regulatory policies, state and federal environmental regulations, system enhancements, technical innovations and economic and physical feasibility. Projects include: Reconfiguration of the Times Square Shuttle; New Stillwell Terminal Facility and Photovoltaic Shed; LaGuardia Airport Subway Access Planning & Engineering Study; Reconfiguration of the East New York Bus Depot Facility; Extension of the IRT Nostrand Avenue Line; Engineering Study to Reconfigure the Atlantic Ave Interlocking in East New York, Brooklyn.

NYCT New York, NY: Project Coordinator: Moe developed technical scopes of work for the design and cost planning of NYC Transit's five-year rolling capital program.

Vollmer Associates, New York, NY: Traffic Engineer: Moe conducted traffic engineering studies required for various environmental analyses and performed equipment testing for electronic toll collection technologies (EZPASS).

Eli Charchar

RESIDENT ENGINEER

EDUCATION

M.S., Civil Engineering, New Jersey Institute of Technology, 1989

B.S., Civil Engineering, Rutgers University,1986

MEMBERSHIPS

- American Society of Civil Engineers
- American Railway Engineering and Maintenance of Way Association
- American National Transportation Quality Consortium
- American Public Transportation Association

WORK HISTORY

Amtrak (2015-Present)

NJ TRANSIT (1986-2015)

US Testing Corporation (1986)

AREAS OF EXPERTISE

- 30 years of diverse Rail Engineering and Construction experience
- In-depth proven experience in managing the design, construction, regulatory, community coordination and close-out of rail projects
- Background emphasis on engineering design and constructability reviews.
- Experience ranging from simple bridge replacements to complex rail projects

Mr. Charchar has over 30 years of increasingly responsible engineering experience in the planning, design, and construction phases of rail engineering and construction projects including project management, controls, risk management, value engineering, and construction, and constructability functions for complex transportation projects around active rail facilities. Eli possesses effective management skills for both design and construction of complex rail and transit projects and has overseen teams of design consultants, construction management consultants and contractors from concept phase to completion of construction. He develops, refines, and adheres to project scope, design parameters, constructability, schedule and budget while directing and reviewing scope, design standards, operational and service needs and constructability. He fully understands the importance of coordination between inter-departmental resources, governmental agencies and multi-disciplinary project teams and effectively maintains ongoing communication with projects designers, construction management team members, contractors, outside agencies, utility owners and the local community. Eli understands that early effective communication between project designers, contractors, utility owners, and NJ TRNASIT's Force Account will ensure the success of this project. Eli is fully aware of NJ TRANSIT's Safety and Operations Rules, NJ TRANSIT's requirements for construction on its right-of-way, NJ TRANSIT's inter-departmental coordination and responsibilities, CFR's, FRA, and other state and federal design and construction requirements. He has in-depth experience in managing the construction of projects requiring force account construction and support services. Responsibilities also included directing construction activities while meeting NJ TRANSIT's staffing, operational and service needs.

Project Experience

NJ TRANSIT Superstorm Sandy Recovery and Resiliency, Newark, NJ: Chief Engineer Right-of-Way and Facilities: Extreme weather events during the 2012's Super storm Sandy exposed vulnerabilities in NJ TRANSIT New Jersey / New York region's transportation. and this Resilience Program focused on vital infrastructure components including tracks, rolling stock, terminals, stations, substation power supplies, signals, communications systems, maintenance and repair facilities, and key infrastructure, such as moveable bridges. Identified target areas and planned the resiliency measures, reviewed designs, and directed consultants' efforts.

NJ TRANSIT ARC Trans-Hudson Express Tunnel (THE Tunnel) Project, Newark, NJ: Chief Engineer: Handled design reviews during the Preliminary Engineering phase. Developed, implemented and reviewed preliminary engineering design and monitored project controls and risks to ensure the successful flow of project activities. Developed and implemented cost benefit methods and procedures; developed and maintained program cost and cost estimates for force account support; construction analysis and breakdowns, prepared order of magnitude cost estimates, and contributed to development of the Program Master Schedule by incorporating design, construction, real estate, procurement, and third-party impacts or constraints.

NJ TRANSIT Main Line Second Track Project, Newark, NJ: Chief Engineer: $40 MM project involved interaction with the construction management staff during design review for civil, track, utility, and structural components and construction support for

installation of two miles of tracks, erection of two single-track through-girder bridges; reconstruction of the Hazel Street Overpass with a new structure; construction of retaining structures; and extensive drainage improvements along the right-of-way.

NJ TRANSIT Newark Broad Street Rail Station Rehabilitations, Newark, NJ: Chief Engineer: $73 MM project included the historic, ADA, and new side and center high level platforms. Handled the internal design reviews and engineering support during construction for this tightly phased project which included a three-track realignment, four steel bridge rehabilitation, and one under-grade bridge replacement in a very busy area of Newark, NJ where roadway traffic, bus service, light rail, and heavy rail converge and transfer.

NJ TRANSIT Atlantic City Brigantine Tunnel Project, Atlantic City, NJ: Chief Engineer: $240 MM project included improvement to the Atlantic City Expressway, an at-grade crossing of NJ TRANSIT's Atlantic City rail Line, and a vehicular tunnel. Handled all project related design and construction activities including all utility relocations, crossing construction, roadway and track reconfiguration and access to the train station and approximately $3MM in force account support.

NJ TRANSIT North Jersey Coast Line Re-electrification Project, Newark, NJ: Chief Engineer: $98 MM prepared and updated project schedules and cost reports. Coordinated contractor's work with NJ TRANSIT force account activities to ensure on time and within budget performance. Supervised and managed contractors and consultants during all project phases from preliminary design submission, construction and project close-out.

NJ TRANSIT Pennsauken Transfer Station, Newark, NJ: Chief Engineer: This $55 MM project included a new transfer station between light rail and heavy rail to handle passenger transfer to and from the Atlantic City Rail Line to the South Jersey Light Rail system. It provided passenger interconnectivity for the NY and Philadelphia traffic. Major parking facilities and bus service were also added. This project interconnected 2 grade separated rail lines. The new station facilities were designed to meet current ADA standards. Project involved roadway, track, and interlocking reconfigurations. Eli was involved in Design and construction reviews, and station platform gap quality control, and project related clearance resolutions.

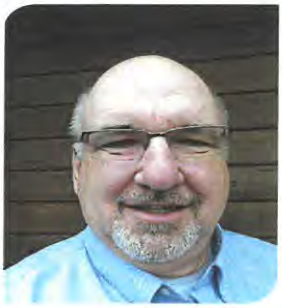
NJ TRANSIT Advanced Speed Enforcement System (ASES) - Positive Train Stop (PTS), Newark, NJ: Project Manager for this $52 MM project. Eli coordinated with the contractor to design, furnish, construct, test and commission an Advance Speed Enforcement System (ASES). The project consisted of both rolling stock equipment modifications and Transponder installation along the Right-of Way. This project included hardware and software modifications to rolling stock and installation of transponders along the right-of-way. Compatibility with other railroads such as AMTRAK, Conrail, and Norfolk Southern was also included in this contract.

NJ TRANSIT Green Brook Flood Control Project, Newark, NJ: Chief Engineer: This $460 MM project was undertaken by the New Jersey Department of Environmental Protection by partnering with the New York District of the Corps of Engineers. NJDEP then partnered with Somerset and Middlesex Counties. The project was supported by the 13 impacted communities and the Green Brook Flood Control Commission. Eli's involvement with this multi-phased project was to handle the permitting, design and construction of all project related facilities within NJ TRANSIT's Right-of-Way which includes 12 major pipe crossings under the Raritan valley Line tracks, pumping station, and a 2 flood gates that closes perpendicular to the tracks during flood events. Responsibilities included generating the Standard Operation Procedures for closure of the flood gate and ensuring that train service is halted, and alternate mode of passenger transportation is provided during flood events. All railroad design and construction activities were handled by Eli.

NJ TRANSIT Woodbine Yard Project, Spring Valley, NY: Project Manager for this joint benefit project between NJ TRANSIT and Metro-North Railroad. $28MM project which consisted of planning, design, and construction of a full-service rail yard in Spring Valley, NY using joint benefit funds between NJ TRANSIT and Metro-North. It included the reconstruction of the yard access, rehabilitating 10 miles of tracks, crossovers and turnouts, pit/pedestal maintenance track, compressed air system, wayside power system, yard lighting, environmental oil water separator, sound walls, and new crew facilities.

Michael Gaspartich

TECHNICAL ADVISOR/FORCE ACCOUNT COORDINATION



Mr. Gaspartich has more than 35 years of diverse railroad operating and engineering experience with NJ TRANSIT and Conrail. Throughout his career, Mike has been focused on providing customers safe and efficient transportation options paying particular attention to safety, fiscal accountability and on-time performance. Major strengths include exceptional engineering concept expertise in the handling of operations and capital projects along with analytical thinking to minimize service disruptions and other incidents and provide the best possible transportation options and alternatives for customers while ensuring the safety of employees and customers at all times.

EDUCATION

Civil Engineering Technology, Ocean County College

TRAINING

Texas A&M Engineering Extension Service (TEEX) Incident Command Training Level 1 and Level 2, 2013

PROFESSIONAL AFFILIATIONS

AREMA

WORK HISTORY

NAIK (2017-Present)

NJ Transit (1982-2015)

AREAS OF EXPERTISE

- 32 years of NJT rail and transit experience
- Familiarity with Hoboken Terminal
- Force Account coordination
- In-depth knowledge of NJT operations and regulations
- Electrical Work
- Ability to read plans and specifications, prepare contract documents and daily reports
- Ability to review plans for constructability and prepare comments
- Ability to review contractor payment requests and prepare comments
- Proficient in Microstation Version 8
- Scansmith
- Preditor Software

Project Experience

NJ TRANSIT Hoboken Division Engineer: Responsible for day to day operations of all Hoboken Division Infrastructure Engineering disciplines, including the Station Department. Coordinated work and all related track outages for the Hoboken Division and System gangs. Responsibilities included safety of all employees and passengers, ensuring compliance to all NJ TRANSIT Standards, Standard Operating Procedures and F.R.A. regulations and developing and implementing maintenance schedules. Responded to any disruption in train service, responsible for 337 union and up to 9 non-union employees all while overseeing a $35,300,000 budget.

NJ TRANSIT Hoboken Division Line Engineer, Structures: Responsible for the development and implementation of maintenance schedules and procedures for the efficient maintenance of the Hoboken Division rail infrastructure. Oversaw the System Wide Gangs and conducted Quality Control inspections and assisted in scheduling track time to complete the work. Interacted closely with the Hoboken community to implement swift resolutions of complaints. Responsibilities included maintenance of 574 bridges, 280 culverts, 96 train stations, along with maintaining six train yards and one major terminal area.

NJ TRANSIT Hoboken Assistant Line Engineer, Structures: Responsible for the development and implementation of maintenance schedules and procedures for efficient maintenance of the Hoboken Division rail infrastructure. Provided technical support to Hoboken Division Forces.

NJ TRANSIT Infrastructure Engineering: Deputy General Manager: Oversaw NJT's entire Infrastructure Engineering Department and ensuring the safe day-to-day operation for NJ TRANSIT's Rail system 24 hours a day, 7 days a week and oversight of an annual budget of approximately $170 million. Responsible for the safe working environment of 800+ employees, of which 100 were non-agreement employees. Interacted closely with the Deputy General Managers of the Transportation and Mechanical Departments for daily operations requirements. Directed the planning, design, estimating, construction, and maintenance of all NJ TRANSIT Rail Infrastructure engineering disciplines. Directed the analysis and condition qualification of NJ TRANSIT's rail infrastructure including substations. Coordinated the planning of capital and maintenance improvement projects. Provided technical expertise and direction, as needed, in the event of

a major incident or failure of NJT Line Operations. Responsible for reviewing and approving in-house and outsourced design work. Communicated with various governmental and community agencies, consultants and other railroads, as necessary.

NJ TRANSIT Infrastructure Engineering: Senior Director: Responsible for ensuring the safety and reliability of NJT's Rail Operations infrastructure including the Engineering Department's maintenance of the entire rail system and oversaw personnel including the Engineering Department's 21 management employees and 520 agreement employees of all disciplines including Signal, Track, Structures, Electric Traction, Stations as well as Work Equipment Departments and work equipment, including Rail Operations non-revenue fleet and heavy vehicles. Oversaw an annual budget of approximately $85,000,000 in Operating funds and an additional $6,000,000 in Capital funds. Responsible for conceptual planning, departmental coordination and problem solving. Worked closely with the Deputy General Managers of the Mechanical and Transportation Departments to provide reliable service and needed improvements to the system. Actively involved in the daily operations of NJT while working within the departmental budget year in and year out. Most importantly, under Mike's watch, the department's injury rates declined for four years straight.

NJ TRANSIT Newark Division Engineer: Responsible for day-to-day operations of all Newark Division Infrastructure Engineering disciplines. Coordinated work and all related track outages for Newark Division and System gangs. Responsible for the safety of all employees and passengers, ensured compliance to all NJT Standards, Standard Operating Procedures and F.R.A. regulations, developed and implemented maintenance schedules, responded to any disruption in train service, responsible for 176 union and 3 non- union employees all while overseeing a $17,400,000 budget.

NJ TRANSIT Principal Project Engineer, Structures: Oversaw the system wide in-house capital construction forces and conducted Quality Control inspections on both the Newark and Hoboken Divisions.

NJ TRANSIT Senior Project Engineer, Structures: Oversaw the system wide in-house capital construction forces and conducted Quality Control inspections on the Hoboken Division.

NJ TRANSIT Agreement Positions: Oversaw in-house field forces within the Structures Department of both Capital Construction and Line Operations.

Mark Funk

QUALITY/SAFETY ASSURANCE MANAGER / DCA COORDINATION/ARCHITECTURE

Mr. Funk has 24 years of construction inspection experience as Project Manager, Resident Engineer and Construction Inspector. Construction Inspection experience includes inspection of various types of rail, highways and roadways, bridge, airport and building construction projects. As Resident Engineer/Project Manager, he has been responsible for monitoring the contractor's performance and preparing all project correspondence. Responsible for review of project plans, shop drawings, scheduling, RFI Management, change management, on-site materials management, construction inspection, review and approval of contractor's payment requests, preparing change orders, monthly updates and estimating.

EDUCATION

B.S., Construction Management, New Jersey Institute of Technology, 1994

A.A.S, Construction Code Enforcement, Atlantic County College, 1992

CERTIFICATIONS

NICET IV Heavy Highway Construction

MTA Track Safety Training Course

QAQC Systems Training, US Army Corps of Engineers

NJ Building Inspector RCS

NJ Construction Official

OSHA 40 Hour

OSHA Site Safety Supervisor

FEMA Disaster Housing Inspector

Troxler Nuclear Density Gauge Operator

NJ SAT

TCCP

WORK HISTORY

NAIK (2014-Present)

TDX Services (2011-2012)

Management Engineering Corporation (2010-2011)

KS Engineering (2009-2010)

Conti Group (2006-2009)

NJ Department of Community Affairs (2005-2006)

Remington & Vernick Engineers (2003-2005)

Urban Engineers (1998-2003)

Site Blauvelt Engineering (1994-1998)

Craig Testing (1993-1994)

Project Experience

NJTA Facilities Improvement Program Central Inventory Facility Construction Services, Woodbridge, NJ: Project Superintendent: Oversee all construction duties for the 65,200 SF Central Inventory Building and 8,600 SF salt dome based on LEED design principles to comply with the Certified Level point systems according to the U.S. Green Building Council's Leadership in Energy and Environmental Design Rating System. Responsibilities include management of all construction activities including testing company's activities, inspections, interactions with the New Jersey Department of Community Affairs (DCA) and complete and overall management of the project and all project personnel.

NJTA Garden State Parkway Troop D, OPS 3471 Bloomfield Barracks and Maintenance Building NJTA Bloomfield, NJ: Construction Inspector/Assistant Resident Engineer: Responsible for inspection and reporting for construction of a new $14.5MM, 25K square foot steel and concrete state police barracks and the demolition of three buildings. Inspected all interior and exterior finishes and site work including earthwork, paving, landscaping, striping, signing, footings, concrete placement for flooring, steel erection, electrical, plumbing and HVAC, fire proofing, sprinkler system, interior finishes, drywall, finish block, paint, ceramic tile, metal roof, window placement and doors, brick veneer and precast façade Performed project administration, review of pre-bid schedule and project budget and estimate, construction inspection to ensure that work complied with plans and specifications, prepared change orders and performed materials testing, reviewed shop drawings, etc.

NJTA Garden State Parkway Demolition of Houses: Various Locations, NJ. Resident Engineer/Project Manager: Project called for the demolition of 4 houses for the expansion and addition of new on and off ramps on the Garden State Parkway. Responsible for overall project administration including conducting weekly project meetings, project scheduling, certifying payroll, reviewing plans, site inspections, preparing daily status reports, preparing pay estimates, taking photos/videos of project progress, estimating and preparing change orders and project closeout activities. All reports were prepared in CapEx.

SJTA Atlantic City Expressway Toll Plaza High Speed EZ Pass and Walkway, Pleasantville, NJ: Resident Engineer/ Project Manager: Project for the construction of high speed EZ Pass and overhead toll plaza including an overhead walkway and the placement of high speed lanes and reconfiguring driving lanes. Responsible for overall project administration including conducting weekly project meetings, scheduling, certified payroll, plan review, inspection, daily status reports, materials testing, preparing pay estimates, photo/video of project progress, preparing change orders and project closeout.

Alaskan Native Corporation Joint Base McGuire – Fort Dix / Lakehurst, NJ: Project Management/Site Manager: Management of multiple, concurrent LEED energy construction projects. Responsibilities included coordination with government contracting officers, review of pre-bid schedule and project budget and estimate, inspections to ensure that work complied with plans and specifications, monitoring and processing change orders and RFIs, payment certifications, conducting job progress meetings, preparation of minutes, and project close out documentation.

NJTA OPS P3230 Guide Rail Improvements, Mainline Signage – George Washington Bridge to Delaware Memorial Bridge Various Locations, NJ: Construction Project Manager: Responsibilities included review of pre-bid schedule and project budget and estimate, materials testing, construction inspection to ensure compliance of work with plans and specifications, review of shop drawings etc. All reports prepared in CapEx.

NJTA Mainline Signage, Various Locations, NJ: Resident Engineer/Project Manager: Responsible for overall project administration including conducting weekly project meetings, scheduling, certified payroll, plan review, inspection, daily status reports, preparing pay estimates, photo/video of project progress, preparing change orders and project closeout. All reports prepared in CapEx.

SEPTA Bridge and Pratt Elevated Section, Philadelphia, PA: Construction Inspector/Resident Engineer/Project Manager: Responsible for overall administration of daily construction, weekly project meetings, scheduling, certified payroll, plan review, inspection, daily status reports, preparing pay estimates, photo/video of project progress, preparing change orders and project closeout.

Pittsburgh International Airport - Lighting Project, Pittsburgh, PA: Project Manager/Resident Engineer: Responsible for overall project administration and coordination, review of pre-bid schedule and project budget and estimate, construction inspection to ensure compliance of work with plans and specifications, monitoring and processing change orders and RFI's, payment certifications, conducting job progress meetings, preparing minutes, etc.

Horseshoe Road Superfund Site: The U.S. Army Corps of Engineers, Sayreville, NJ: QA/QC Systems Manager: Project to rehabilitate the site involved excavation of 170,000-tons of soil, construction of a new railway spur, removal and replacement of 12 acres of contaminated soil and wetlands restoration. Overall duties included implementing QA/QC standards for the project and maintaining close working relationship with the client.

NJ Department of Community Affairs, Atlantic City, NJ: Construction Official - Project Review Department: Reviewed plans for all Atlantic City Casinos including all construction phases to ensure applicable NJAC and IBC codes were met and performed property inspections and interacted with casino personnel during construction.

Miscellaneous Construction Inspector/Resident Engineer/Project Manager Projects: Responsible for the overall project administration including conducting weekly project meetings, scheduling, certified payroll, plan review, inspection, daily status reports, preparing pay estimates, photo/video of project progress, preparing change orders and project closeout for the following listed projects:

- NJTA Garden State Parkway Demo of Houses for Roadway Reconstruction
- Burlington County Bridge Commission River Road Bridge Emergency Bridge Repair

Carlo Settineri

CONSTRUCTABILITY/SUBSTATION SME

Mr. Settineri has 40 years' overall experience, of which 24 years were spent commissioning, installing, quality control, testing and maintenance of traction power systems and substation equipment. 35 years were spent with NYCT performing duties as Superintendent of Division Electrical Systems Maintenance/SCADA, Superintendent of System Operations, Superintendent of Electrical Training, Supervisor of Contract Compliance/ Access and Protection, Supervisor of Test Section for the Power Control Center/Jamaica Yard and Project Manager and Power Maintainer.

EDUCATION

B.B.A., Operations Management, Baruch College/CUNY, 1994

AS, Accounting, New York City Community College, 1979

Certificate, Naval A School, Electronics, Communication/ Navigation Equipment Operator/ Technician, 30 weeks, Millington Naval Air Station, Memphis TN, 1966

WORK HISTORY

NAIK (2015-Present)
Motorola Communication Systems (2007-2008)
New York City Transit (1972-2007)
Bendix Corporation (1966-1972)
New York Telephone Company (1964-1965)

AREAS OF EXPERTISE

- 24 years' work experience with NYCT traction power systems and substation equipment
- Reviewed Design Qualification Tests, Factory Acceptance Tests, Functional Performance Tests, Performance Verification Tests, System Integration Tests and Final Test Results
- Witnessed and approved contractor Performance Testing of new substation equipment
- 5 years' experience as commissioning supervisor for power substation equipment

Project Experience

MTACC East Side Access, New York, NY: Lead Substation Engineer playing a key role during the Design and Construction Phases by providing expert professional services in highly specialized and technical discipline area of our traction power substations. Mr. Settineri's role covers substation High Voltage equipment and monitoring systems' supervisory control and data acquisition (SCADA). Mr. Settineri is responsible for developing design solutions for field conditions, attending/witnessing Factory Acceptance Tests (FATs), presiding over on-site acceptance tests, reviewing and approving contractor's testing and commissioning plans, reviewing and approving contractor's system and sub-system start up plans, reviewing and recommending for approval contractors as-built plans and operations and maintenance plans, providing design clarifications when needed and responding to contractor's request for information.

NYCT, New York, NY: Supervisor of Contract Compliance - Contract Power Equipment Compliance and Training: Responsible for testing, accepting and commissioning all new contractor-installed substation equipment between high tension switch gear up to 600V feeder breakers including: high-voltage switch gear; communication cables; supervisory control equipment; AC and DC circuit breakers; and power rectifiers. Carlo reviewed and advised NYCT Engineering on substation equipment commissioning specifications and submittal requirements. Responsible for reviewing and commenting on contractor's commissioning submittals, including design qualification tests (DQT), factory acceptance tests (FAT), functional performance tests (FPT), performance verification tests (PVT), system integration test (SIT) and final tests (FT) results. Carlo and his staff represented NYCT in the witnessing and approval of contractor performance testing of new substation equipment.

NYCT, New York, NY: Superintendent of Division Electrical Systems, Maintenance/SCADA - Maintenance, Testing and Installation of Equipment: Responsible for oversight of Level I & II supervisors in the maintenance, testing, commissioning and troubleshooting of remote-controlled equipment, including installation of new equipment and removal of obsolete substation /SCADA equipment.

NYCT, New York, NY: Superintendent of Electrical Training - Electrical Training: While managing the training process was responsible for training electrical maintenance supervisors including preparing course curriculum and training

schedule. Training was mandatory for all power division and power distribution personnel on training topics including testing and commissioning procedures for power substation equipment. Augmented existing training material by preparing new course material based on new equipment technologies being installed at NYCT.

NYCT Jamaica Yard, Queens, NY: Maintenance Department Training Supervisor - Power Control Center: Directly supervised 12 employees and 2 training instructors with responsibility to manage the training of the department's electrical maintainer personnel for maintenance and testing of supervisory equipment and cables. Developed the Power Maintenance Department training curriculum that included diagram and schematic interpretation, safety procedures, and AC/DC circuitry theory. Oversaw NYCT's battery crew work for the removal and installation of batteries and solid-state chargers for critical life safety equipment.

NYCT New York, NY: Power Maintainer - Test Section: Responsible for maintenance and testing of supervisory equipment and cables. Worked closely with emergency and maintenance crews to troubleshoot and repair day-to-day system malfunctions and failures.

NYCT New York, NY: Project Manager - Communication Equipment Installation: Responsible for the installation of system-wide communication equipment, quality assurance and oversight activities and coordination of contractor's work-site access at multiple communication equipment rooms throughout NYCT's subway system.

NYCT Brooklyn to Manhattan, NY: Senior Electrical Engineer - Joralemon Tube Rehabilitation/Superstorm Sandy: Recovery Examples of items furnished/removed in field inspections and coordinated between the Contractor and NYCT:

- Negative and positive cables in both tunnels
- Tube shell disconnect switches
- Control, supervisory cables, and negative bus bar at Battery Park Substation
- Fiber optics, copper and radio antenna cables on messengers, and in duct banks along each track
- New sound power telephones and emergency alarm and emergency telephone boxes
- Radio antenna passive devices
- Cables and fiber-optic distribution panels
- Lighting and receptacle systems from Bowling Green Station to Borough Hall Station on Tracks 2 and 3, including conduit and metal gladded (MC) cables
- Emergency battery back-up, dual head emergency lights and emergency exits from tunnel.
- Electrical distribution equipment at Bowling Green Station, Willow Place fan chamber, South Ferry fan chamber and Borough Hall Station

NYCT Rockaway Station Platforms, Queens, NY: Quality Manager: Responsible for Quality Assurance and oversight of station platform rehabilitation projects.

Naresh Patel, PE

DEPUTY RESIDENT ENGINEER/SR. INSPECTOR

EDUCATION

M. S., Civil Engineering,
New Jersey Institute of Technology

B. S., Civil Engineering,
New Jersey Institute of Technology, 1981

PROFESSIONAL REGISTRATIONS

Professional Engineer, New York, 1990

WORK HISTORY

NAIK (2017-Present)
MTA (2007-2017)
NYCT (1994-2007)

AREAS OF EXPERTISE

- 25+ years of local rail and transit project experience
- Multi-disciplined professional experience including Senior Inspector, Deputy RE, RE and CM
- Safety Management
- Quality Management
- Change Management and Contractor Negotiations
- Constructability Reviews
- Value Engineering
- Force Account Coordination
- Project Controls
- Project Schedule Development
- Project Budget Preparation

Mr. Naresh Patel has over 25 years of first-hand contractor/owner experience working on complex rail and transit projects in highly dense operating environments. Through hard work and diligence, he's progressively worked his way up from inspector, senior inspector, deputy resident engineer, resident engineer and construction manager. Mr. Patel's areas of expertise are working on transit system engineering projects involving the construction of: substations, circuit breaker houses, elevators, escalators, pump rooms, track work, tunnel lighting, train signaling, HVAC, life safety smoke and heat evacuation, fire alarms, fire protection, communications systems, sanitary ejectors, installation of new artwork, restoration of historic artwork, fare control, electrical distribution equipment, coordination with power utilities (Con Edison), station lightings and station signage systems. As a "hands-on" construction professional with a lengthy and successful track record, Mr. Patel has been responsible in a direct capacity for all elements of the construction management process including: safety management, quality management, inspections, document/submittal management and work flows, change management and negotiations, acceptance testing, closeout, constructability reviews, value engineering, work plan reviews, force account coordination, project controls and technical resolution of field conditions.

Project Experience

NYCT Contract A- 36137 4/5 Fulton Street Station Rehabilitation and Dey Street Head House ($60 M)& Contract A-36025; Fulton Street Transit Center, Dey Street Concourse Structural Box ($150 M); Contract A-36024: Rehabilitation of Fulton Street (2/3 line) Station and Construct New Entrances at 4/5 Fulton Street Station ($65 M). Coordinated construction issues with various departments and city and state agencies. Negotiated change orders and prepared monthly and final payments. Participated and organized meetings with various departments. On site responsibilities include supervision of daily construction activities and ensuring with contract specification and drawings. Construction of new station, track work, third rail and circuit breaker house and work in power substation, signal work for new tracks and station area.

NYCT Contract C43748, Contract C- 43741 and Contract- 2-02-97041-0-0: Tenant Improvement Work- Phase II for 2 Broadway Building ($90 M, 600,000 square feet floor finishes). Worked on developing budget, scheduling. Prepared contract specifications and drawings including Furniture, TIS and signage contract, monitoring construction activities and performed duties as an acting Construction Manager.

Additional Examples of Relevant Project Experience

- **NYCT Contract C33228: Structural Steel Repair & Painting Brighton Beach Line ($25 M).**
- **NYCT Contract C34585: Structural Steel Repair on Culver Line ($20 M).**
- **NYCT Contract C34535: Structural Roof Replacement in Station Ventilation Areas in Manhattan & Brooklyn ($4 M).**
- **NYCT Contract C43007: Construction of Communication Rooms in Manhattan & Bronx ($10 M).**
- **NYCT Contract C34580-1 & 2: Structural Roof Rehabilitation in Station Ventilators Areas for 11 Stations ($11 M).**
- **NYCT Contract C32328: Construction of Signal Enclosures on Pelham Line ($14 M).**

Ken Standig, PE

QA/QC MANAGER/CONSTRUCTABILITY

Mr. Standig is a seasoned professional with more than 40 years of diverse value and civil engineering experience in major transportation and heavy civil works projects, with expertise in the planning, design, and rehabilitation of roadways, transit, bridges, and infrastructure projects. He has been a team member for a half dozen Value Engineering studies, including NYCOMB, NYSDOT and NPS. Mr. Standig has more than 20 years of experience on transportation, infrastructure, and waterfront projects, including floodwalls for two major transit yards. He has an additional 20 years of experience on flood control and navigation projects, including dams, navigation locks and other hydraulic structures.

EDUCATION

M.S., Civil Engineering, Lehigh University, 1975

B.S., Civil Engineering, Rensselaer Polytechnic Institute, 1973

PROFESSIONAL REGISTRATIONS

Professional Engineer (Civil) NY, Reg. No. 055732, NY, 1978

Professional Engineer (Civil) NJ, Reg. No. 28880, 1983

Professional Engineer (Civil) PA, Reg. No. PE043511R, 1992

MEMEBERSHIPS

ASCE, MENY, CMAA, SAME

ASHE-NY Board of Directors

WORK HISTORY

NAIK (2014-Present)

HDR (2005-2014)

STV (2003-2005)

TAMS Consultants, Inc. (1975-2003)

AREAS OF EXPERTISE

- 40+ overall years of major transportation and civil works projects
- Value Engineering
- Conceptual Design Alternatives
- Technical Oversight for Construction Support Services
- Project Scoping, Preliminary and Final Design
- Project Schedule Development

Project Experience

NJ TRANSIT Penn Station Central Concourse & Hilton Corridor, Manhattan, NY: Principal-in-Charge. Mr. Standig was responsible for a new central concourse and the renovation of the Hilton corridor in Penn Station, New York.

NYCT Flood Mitigation and Resiliency at the 148th Street Yard and Portal, Manhattan, NY: Project Manager for the development of conceptual design alternatives and final design on a fast-track basis for sealing the perimeter of this 8-acre transit yard to resist a Category 2 hurricane, including 12-ft high riverfront seawalls on the Harlem River and new gates or stop logs for the subway tunnel portal. Extensive storm surge and hydraulic analyses was required to determine surge elevations and site drainage requirements. $50M.

NYCT Flood Mitigation and Resiliency at the 207th Street Yard and Portal, Manhattan, NY: Project Manager for the development of conceptual design alternatives and final design on a fast-track basis for sealing the perimeter of this 40-acre transit yard to resist a Category 2 hurricane, including 12-ft high riverfront seawalls on the Harlem River. The $100M project specified the innovative approach of using high strength, waterproof fabric as new gates for the subway tunnel portal. Extensive store surge and hydraulic analyses was required to determine surge elevations and site drainage requirements.

PANYNJ Bayonne Bridge Increase Navigational Clearance, Staten Island, NY to Bayonne, NJ: Quality Assurance Manager for conceptual design, alternatives analysis and environmental screening for several alternatives including bridge replacement, raise the roadway and jack the arch. Subsequently, for preliminary engineering and final design for the "Raise the Roadway" alternative.

Port Newark Container Terminal Redevelopment, Newark, NJ: Principal-in-Charge for the $18 million geotechnical subsurface program and architectural, structural, geotechnical, mechanical, and electrical design for support buildings throughout the terminal in Port Newark, NJ.

LIRR Penn Station Improvements, Long Island Rail Road's Joint Facilities, Manhattan, NY: Project Manager for the multidisciplined design of $85 million in improvements at the nation's busiest commuter rail station serving 250,000 passengers daily.

The design included new and refurbished stairs and escalators for improved platform access; elevators for the elderly and handicapped; expanded concourse areas for improved passenger circulation; air conditioning for the entire concourse; an upgraded electrical distribution system; new architectural finishes and lighting; and a new steel, glass, and masonry street-level entrance pavilion. Critical considerations included minimizing construction impacts on passenger flow and railroad operations. Contract documents were completed on an accelerated 12-month schedule.

NYCT Indefinite Quantities Contract (IQC) for Miscellaneous Engineering Services, New York, NY: Principal-in-Charge for the multidisciplinary task order contract for miscellaneous construction projects throughout the New York City. Services included civil, structural, geotechnical, mechanical, and electrical engineering; architecture; environ-mental studies; surveys; historic design; track work; signals; traction power; and industrial utilities.

PANYNJ Newark International Airport Continental Airlines Terminal C Access Roadways/Bridges, Newark, NJ: Supervising Engineer: Provided technical oversight of construction support services for the bridge structures associated with the $220 million Continental Airlines terminal expansion project at the airport in Newark, NJ. The structures included two bridges carrying vehicular traffic and one bridge designed for aircraft loading. ($220M)

NYSDOT Major Rehabilitation of the Patroon Bridge (I-90 over Hudson River) & I-90/I-87 Interchange, Albany, NY: Quality Assurance Manager for project scoping, preliminary and final design for the rehabilitation/replacement of this vital link in the Capital Region connecting Albany and Rensselaer counties. The Hudson River Bridge is approximately 1,783 feet long and consists of 10 spans. Thel-90/I-787 interchange is a multi-level interchange comprised of six bridges ranging from 250 feet long to 700 feet long consisting of three to eight spans.

NYCOMB Value Engineering Study for Reconstruction of Grand Concourse Bridge over Metro North Railroad and NYCT, Bronx, NY: Structural Consultant for the provision of structural engineering expertise on a Value Engineering team for the review of the $35M reconstruction of the single-span Grand Concourse Bridge over Metro-North's Hudson Line near Yankee Stadium. NYC Transit's No. 4 subway line is located directly below the Grand Concourse Bridge, supported independently in a truss-supported box structure. Mr. Standig focused on structural systems, constructability and staging issues to recommend improvements to the project.

HYDC Hudson Yards Area Scheduling and Engineering Support, New York, NY: Project Manager responsible for developing overall schedules to coordinate the #7 Line Subway Extension, the Javits Convention Center Reconstruction and private developer projects totaling several Billion dollars through 2013. The work includes providing engineering support to HYDC for resolution of construction and scheduling conflicts, and review of constructability approaches for demolition and reconstruction work.

NYCDOT Bus Rapid Transit Station Design Guidelines, New York, NY: Project Manager responsible for the development of city-wide guidelines. The implementation of BRT in NYC as Select Bus Service (SBS) with dedicated bus lanes in most areas will require station platforms as an extension of sidewalks. The scope includes coordinating with MTA New York City Transit, as the BRT operator, to obtain design criteria for vehicle types and controlling dimensions; preferred approach to fare collection; and plans to implement ITS-advanced technology travel data transmission. As part of the scope, design workshop with agency stakeholders were conducted to determine appropriate interaction between station requirements and standard sidewalk features. The platforms will provide ADA access to buses to minimize kneeling, as well as vending machines for advance ticketing and amenities such as bus shelters and seating.

NYCDOT Reconstruction of the 11th Avenue Viaduct North Section over Amtrak, New York, NY: Project Manager responsible for the final design of the complete reconstruction of a 1930s-era, 8-span, steel-framed viaduct, including packaging of adjacent side street bridges in the construction documents. The new structure is composed of a concrete deck on steel stringers, with concrete pier substructure supported on 3-foot-diameter drilled shaft foundations. Required extensive coordination with NYC Transit (#7 Line Extension), the Javits Convention Center, and Amtrak.

Daren Petroski, PE

CONSTRUCTABILITY

Mr. Petroski is a Vice President at Burns Engineering and leads the firm's railroad and transit design and construction services practice. He has over 25 years' experience in the design, estimating and construction management of railroad and transit systems and facilities including overhead contact systems (OCS), traction power substations and signals and communication systems. He has been a project manager since 1994 and has served as an A&E consulting firm discipline manager since 2002. Having worked as a contractor for the first eight years of his career, Daren's field experience gives him a critical insight into the form, fit and function required for the projects he is involved with.

Burns

EDUCATION

Bachelor of Science, Electrical Engineering, Drexel University, 1990

REGISTRATIONS

Professional Engineer: NJ, VA, CD

WORK HISTORY

Burns Engineering, Inc. (2008-Present)

Systra Consulting (1996-2008)

Vanalt (1988-1996)

AREAS OF EXPERTISE

- 25+ years of experience in Rail and Transit Systems and Facilities
- Project and Construction Manager for Railroad and Transit Systems Projects
- Designer for Design/Build Traction Power and Control Equipment Projects
- Power Systems and Traction Power Integrator
- Value Engineering Analysis of NJ TRANSIT Substations
- Develop Project Cost Estimates
- Develop Design/ Build Documentation for Rehabilitation and Reconstruction of Substations

Project Experience

SEPTA Ambler Substation Rehabilitation, Ambler, PA: Principal-In-Charge: Burns designed for the replacement of all the traction power and control equipment in the Ambler Substation under a design-build contract. All new traction power breakers are outdoor rated vacuum breakers. Relay and control improvements incorporated all changes requested by SEPTA. Burns served as the Power System Integrator and Traction Power Integrator as a subcontractor to Carr & Duff, Inc.

NJ TRANSIT Hudson-Bergen Light Rail Transit System Post-Hurricane Sandy Train Control Recovery, Jersey City, NJ: Principal-In-Charge: Burns designed for the replacement of all the traction power and control equipment in the Ambler Substation under a design-build contract. All new traction power breakers are outdoor rated vacuum breakers. Relay and control improvements incorporated all changes requested by SEPTA. Burns served as the Power System Integrator and Traction Power Integrator as a subcontractor to Carr & Duff, Inc.

NJ TRANSIT Value Engineering Study for the 30% Design of the Mason and Building 9 Substations, Newark, NJ: Principal-In-Charge: Burns performed a value engineering analysis of the 30% design documents for the reconstruction/replacement of the Mason and Building 9 Substations at the Meadows Maintenance Complex (MMC). Burns reviewed the project Basis of Design, 30% Design Drawings, cost estimates, design criteria and a Buy America White Paper. The Burns/Jacobs team also met with the Engineering Design Firms and NJ TRANSIT to discuss the project, obtain pertinent background data, and review any other alternative designs that may have been considered.

NJ TRANSIT Atlantic City Brigantine Tunnel Project, Atlantic City, NJ: Chief Engineer: The replacement of PATH Substation No. 9 includes 26.4kV medium voltage switchgear, traction power transformer, 800V DC switchgear, auxiliary power, UPS system, underground duct bank system, SCADA system, lighting, fire alarm system, communications systems, security/access control system, CCTV system, fiber optic cable infrastructure and utility coordination and relocation.

PANYNJ PATH Substation #9 Replacement, Harrison, NJ: Principal-In-Charge: The replacement of PATH Substation No. 9 includes 26.4kV medium voltage switchgear, trac-

tion power transformer, 800V DC switchgear, auxiliary power, UPS system, underground duct bank system, SCADA system, lighting, fire alarm system, communications systems, security/access control system, CCTV system, fiber optic cable infrastructure and utility coordination and relocation.

SEPTA Overhaul of Morton and Lenni Substations, Morton and Lenni, PA. Principal-In-Charge: For the development of design-build bridging documents for the rehabilitation and reconstruction of these substations. The design includes 4,500 KVA, 138 KV to 12 KV transformers; circuit breakers; control, metering and relay panels; bus section potential transformers; current transformers and lightning arrestors; 125 KVA distribution transformers; switches, switch controls and insulators. Burns developed Design-Build bridging documents for the rehabilitation and reconstruction of two substations, which are "loop" fed from the Northeast Corridor's 138kV transmission system at a connection just south of Arsenal Substation, and a connection at Lamokin Substation. The bridging documents were advanced to 50% design and utilized by a design-build contractor to finalize the design and perform the rehabilitation work associated with each substation.

NJ TRANSIT Princeton University Arts & Transit Neighborhood Enabling - "Dinky" Line Realignment, Princeton, NJ: Principal-In-Charge: Burns provided electric traction power design services for this project to shorten and re-align the west end of NJ TRANSIT's Princeton Branch Railroad (a.k.a., "The Dinky"). Burns' design phase effort included preliminary and final design of catenary structures, overhead contact system (OCS), traction power, and bonding and grounding as well as the development of project cost estimates and detailed construction staging plans. Close coordination with NJ TRANSIT occurred during the development of each design submission and at design review meetings.

Delaware River Port Authority PATCO Power Cable and Pole Line Replacement, Lindenwold to Camden, NJ: Principal-In-Charge: Burns was the prime engineering consultant for design and construction management services for this project to replace the existing 11-mile-long wood pole line in New Jersey with a new pole line of class 1 fiberglass poles, 26.4KV traction power cables and 2.4KV signal power cables. Existing signals, communications and 3rd party optical fiber cables were transferred from the old pole line to the new. Burns exceeded the project goals through creative engineering and close cooperation with DRPA/PATCO staff, while keeping within the $30 million construction budget.

Amtrak Zoo to Paoli Transmission Line, Philadelphia to Paoli, PA. Project Manager: For the design of transmission lines between the existing Zoo and Paoli substations. Specific design tasks include replacement of all catenary structures with new structures that will support both the catenary and transmission systems, design of the new 138kV to 12kV traction power substation, design of a redundant 100Hz signal power distribution system and relocation of ancillary facilities including a 34kV PECO distribution line, independent fiber optic network and cellular phone antenna for the 20-mile alignment. Work also includes a full historic, environmental and archaeological analysis as well as a community outreach program. The project involves the design of transmission lines and a totally reconstructed traction power substation between the existing Zoo and Paoli substations along Amtrak's Keystone Corridor. Specific design components include design of a new 138kV to 12kV traction power substation, replacement of all catenary structures with new structures that will support both the catenary and transmission systems, design of a redundant 100Hz signal power distribution system and relocation of ancillary facilities including a 34kV PECO distribution line, independent fiber optic network and cellular phone antenna for the 20-mile alignment. Work also includes a full historic, environmental and archaeological analysis as well as a community outreach program.

PANYNJ PATH Washington Street Powerhouse Substation Relocation, Newark, NJ: Principal-In-Charge: For the assessment of potential locations for the relocation of the existing Washington Street traction power substation. A site selection study was the first step in the process of relocating this substation to allow for redevelopment of the existing Powerhouse building site. Burns evaluated three candidate locations and scoped mechanical, electrical plumbing and fire protection work. Elements included 26.4kV utility service and customer 26.4kV distribution, 13.8kV and 480/277V distribution systems. Additionally, a standby generator, 650VDC traction power rectifier, and 25Hz signal power systems were included. The team also provided a compressed air system, associated cooling towers and house power and lighting.

Jonathan Schimpf, PE, LEED® AP

TESTING AND COMMISSIONING PLAN DEVELOPMENT/ EQUIPMENT STARTUPS

Jonathan, a Project Manager at Burns, has electrical engineering design experience for various types of rail and transit facilities and infrastructure. His technical expertise includes traction power substation design, electrical distribution system design, catenary system design, and project construction oversight. Jonathan also has a significant amount of experience with field data collection and field engineering.

Burns

EDUCATION

B.S., Electrical Engineering, Drexel University, 2007

REGISTRATIONS

Professional Engineer: PA, CD, FL

PROFESSIONAL ASSOCIATIONS

Drexel University College of Engineering Alumni Association

Institute of Electrical and Electronics Engineers (IEEE)

WORK HISTORY

Burns Engineering, Inc. (2005-Present)

AREAS OF EXPERTISE

- Design and Construction Management
- Design for Traction Power and Control Replacement
- Design for Relay and Control Improvements
- Power Systems and Traction Power Integrator
- Develop Design/ Build Documentation for Rehabilitation and Reconstruction of Substations
- Develop Project Cost Estimates
- Detailed Construction Phasing Plans

Project Experience

Delaware River Port Authority PATCO Power Cable and Pole Line Replacement, Lindenwold to Camden, NJ: Electrical Designer: Burns was the prime engineering consultant for design and construction management services for this project to replace the existing 11-mile-long wood pole line in New Jersey with a new pole line of class 1 fiberglass poles, 26.4KV traction power cables and 2.4KV signal power cables. Existing signals, communications and 3rd party optical fiber cables were transferred from the old pole line to the new. Burns exceeded the project goals through creative engineering and close cooperation with DRPA/PATCO staff, while keeping within the $30 million construction budget.

SEPTA Ambler Substation Rehabilitation, Ambler, PA: Technical Advisor: Burns designed for the replacement of all the traction power and control equipment in the Ambler Substation under a design-build contract. All new traction power breakers are outdoor rated vacuum breakers. Relay and control improvements incorporated all changes requested by SEPTA. Burns served as the Power System Integrator and Traction Power Integrator as a subcontractor to Carr & Duff, Inc.

PANYNJ PATH Substation #9 Replacement, Harrison, NJ: Traction Power Engineer: The replacement of PATH Substation No. 9 includes 26.4kV medium voltage switchgear, traction power transformer, 800V DC switchgear, auxiliary power, UPS system, underground duct bank system, SCADA system, lighting, fire alarm system, communications systems, security/access control system, CCTV system, fiber optic cable infrastructure and utility coordination and relocation.

NJ TRANSIT Princeton University Arts & Transit Neighborhood Enabling - "Dinky" Line Realignment, Princeton, NJ: Traction Power Engineer: Burns provided electric traction power design services for this project to shorten and re-align the west end of NJ Transit's Princeton Branch Railroad (a.k.a., "The Dinky"). Burns' design phase effort included preliminary and final design of catenary structures, overhead contact system (OCS), traction power, and bonding and grounding as well as the development of project cost estimates and detailed construction staging plans. Close coordination with NJ Transit occurred during the development of each design submission and at design review meetings.

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to 12 KV transformers; circuit breakers; control, metering and relay panels; bus section potential transformers; current transformers and lightning arrestors; 125 KVA distribution transformers; switches, switch controls and insulators. Burns developed Design-Build bridging documents for the rehabilitation and reconstruction of two substations, which are "loop" fed from the Northeast Corridor's 138kV transmission system at a connection just south of Arsenal Substation, and a connection at Lamokin Substation. The bridging documents were advanced to 50% design and utilized by a design-build contractor to finalize the design and perform the rehabilitation work associated with each substation.

Amtrak Zoo to Paoli Transmission Line, Philadelphia to Paoli, PA: Electrical Engineer for this project involving the design of transmission lines and a totally reconstructed traction power substation between the existing Zoo and Paoli substations along Amtrak's Keystone Corridor. The project involves the design of transmission lines and a totally reconstructed traction power substation between the existing Zoo and Paoli substations along Amtrak's Keystone Corridor. Specific design components include design of a new 138kV to 12kV traction power substation, replacement of all catenary structures with new structures that will support both the catenary and transmission systems, design of a redundant 100Hz signal power distribution system and relocation of ancillary facilities including a 34kV PECO distribution line, independent fiber optic network and cellular phone antenna for the 20-mile alignment. Work also includes a full historic, environmental and archaeological analysis as well as a community outreach program.

PANYNJ PATH Washington Street Powerhouse Substation Relocation, Newark, NJ: Electrical Engineer on this feasibility study to relocate the existing 50 MVA traction power substation to three possible sites. A site selection study was the first step in the process of relocating this substation to allow for redevelopment of the existing Powerhouse building site. Burns evaluated three candidate locations and scoped mechanical, electrical plumbing and fire protection work. Elements included 26.4kV utility service and customer 26.4kV distribution, 13.8kV and 480/277V distribution systems. Additionally, a standby generator, 650VDC traction power rectifier, and 25Hz signal power systems were included. The team also provided a compressed air system, associated cooling towers and house power and lighting.

Amtrak Relocation of Catenary Sectionalizing Switches at PS18 in Pennsylvania Station, New York, NY: Electrical Engineer responsible for arranging the new substation layout and creating detailed phasing drawings on this particularly challenging project, so as to not impact the train operations at this busy transit hub. In order to accommodate the massive Moynihan Station Project at New York Penn Station, thirty-eight catenary sectionalizing and disconnect switches must be relocated from existing underground structure PS-18 in order for the structure to be removed. Burns was awarded this project to survey the site, identify new switch locations, redesign a portion of the 31st Street Substation and create the bridging documents to be used for the solicitation of design/build contractor bids for this project.

SEPTA Elwyn to Wawa Service Restoration, Chester County, PA: Traction Power Advisor on this $40+ million project to extend rail passenger service for three miles between Elwyn and Wawa on SEPTA's R3 regional rail line. Burns is leading the design and implementation of all wayside signal elements required for a fully functional Advanced Civil Speed Enforcement System (ACSES) Positive Train Control (PTC) system including PTC Wayside Encoder Unit (WEU) interface to the existing signaling system as well as Transponder database development. In addition, Burns is responsible for development of the Temporary Speed Restriction (TSR) landmark database which is used as an input to the system vital safety server.

Los Angeles County Metropolitan Transportation Authority Metro Red Line DC Feeder Cable Surface Voltage Investigation, Los Angeles, CA: Electrical Engineer investigating the apparent build-up of voltage on the surface of some of the DC traction power feeder cables in various substations. Jonathan surveyed the effected cables and helped determine the cause of the apparent voltage, as well as recommendations for the mitigation of the perceived problem. Metro was concerned with an apparent voltage build up on DC Feeder cables serving their Red Line and was particularly interested in determining whether the voltage was a safety risk or indicative of other problems on the Red Line. Burns reviewed system drawings, conducted field investigations at four traction power substation locations and examined as-built conditions related to the stray voltage build up.

William B. Gilchrist, PG, LSRP

LEAD ENVIRONMENTAL ENGINEER

ROUX

EDUCATION

B.A., Geology,
Ohio Wesleyan University, 1983

M.S., Geology,
Eastern Kentucky University, 1986

Professional Geologist in Delaware, Pennsylvania, Kentucky and Tennessee NJDEP UST Certification for Subsurface Evaluation

PROFESSIONAL REGISTRATIONS & TRAINING

- NJDEP Licensed Site Remediation Professional (LSRP)
- 40 hour and Supervisors OSHA
- Health and Safety Training
- NJ Transit and Amtrak Rail Safety Training
- Registered Site Manager under NCDENR
- Registered Environmental Consultant Program

WORK HISTORY

Roux Associates (1996-Present)
McLaren (1991-1996)
EEC Environmental (1988-1991)
NJDEP (1986-1988)

AREAS OF EXPERTISE

- 30 years' experience in Environmental Projects
- Soil and Groundwater Sampling for multiple NJ TRANSIT projects
- Design and Implementation of Soil and Groundwater Investigations
- Remedial Investigations
- Vapor Intrusion Investigations

Mr. Gilchrist has 30 years of experience and is Senior and Principal Hydrogeologist with Roux Associates, Inc. (Roux); Supervising Geoscientist with McLaren/Hart Environmental Engineering Corp.; Senior Project Geologist with EEC Environmental Inc.; Senior Geologist with New Jersey Department of Environmental Protection (NJDEP) Bureau of Groundwater Pollution Abatement; Geologist with Texas Oil and Gas Corporation. Conducted state-lead investigative and remedial activities under NJDEP, PADEP, NYSDEC, CTDEP, and IEPA among others. Conducted USEPA- lead investigations under the jurisdiction of RCRA, CERCLA, CWA and TSCA. His technical specialities include design and implementation of soil and groundwater investigations. Management of Property Transfer/Merger/Acquisition projects. Development of ISRA and Act 2 compliance strategies. Preliminary design and supervision of remediation projects. Regulatory coordination and negotiations. Interpretation of Federal and State regulations. Development and implementation of multi-site Phase I and II environmental assessments.

Project Experience

NJ TRANSIT Newton Avenue Bus Garage, Camden, NJ: Project Manager: Coordinated the closure of the following six underground storage tanks (USTs) in 2014: waste oil sump, ATF, antifreeze, emergency generator, motor oil and heating oil. The site is an active bus storage and maintenance garage where an investigation and remediation is being performed. In addition to the recent UST closures a remedial investigation (RI) has included soil and groundwater sampling to investigate releases from several historically removed USTs. In addition to petroleum constituents, chlorinated solvents, specifically trichloroethene (TCE), were also delineated in soil and groundwater that were associated with a historical surface release. A vapor intrusion (VI) investigation was performed in the on-site office building and bus garage. Completion of the RI at the Site is currently being performed.

NJ TRANSIT Union City Bus Garage, Union City, NJ: Project Manager: Historically, the site was a bus maintenance garage. A RI was performed which included soil and groundwater sampling associated with releases from several previously removed USTs. In addition to releases from the former USTs, historical fill material is present on the Site. A technical consultation with the NJDEP confirmed that once the soil and groundwater contamination has been fully delineated a Deed Notice for soils and Classification Exception Area (CEA) for groundwater are appropriate remedial approaches for the Site considering the highly developed nature of the area and future use of the property. The RI Report was submitted to the NJDEP in May 2016.

NJ TRANSIT Port Morris Rail Yard, Landing, NJ: LSRP: The site is an active rail maintenance yard where a spill of diesel fuel occurred with the fueling system. The investigation of the diesel fuel release included soil and groundwater sampling. A Technical Consultation with the NJDEP confirmed that the groundwater investigation should be limited to diesel fuel components related to the diesel fuel release and that the polynuclear aromatic hydrocarbons associated with the railroad fill can be handled under a CEA for groundwater.

NJ TRANSIT Lake Street Bus Garage Site: Project Manager and LSRP: Petroleum releases from historical USTs has impacted soil and groundwater at the Site and downgradient and off-site in Branch Brook Park. A comprehensive soil and groundwater investigation has been performed on the former bus garage property and in the park to delineate the extent of soil and groundwater impact. In addition, a VI investigation has been performed in several nearby residences. Additional bedrock groundwater investigation is required to complete delineation in the bedrock aquifer. A Remedial Action Work Plan (RAWP) was prepared for the former bus garage property for the excavation of source area soils and in-situ treatment of impacted groundwater. Roux received a permit-by-rule to implement the in-situ remedy and is currently implementing the RAWP.

NJ TRANSIT Meadowlands Garage: LSRP for the closure of several USTs. Also coordinate the completion of the RI for legacy issues at the garage. The RI Report was submitted to the NJDEP in May 2015. Currently serving as the LSRP for the RI NJT-related AOCs which is currently being performed by Roux.

NJ TRANSIT Pennsauken Rail Station, Pennsauken, NJ: LSRP and Project Manager for the closure of a 500-gallon gasoline UST encountered during construction of NJT's Pennsauken Rail Station. An emergency UST removal was performed after registering the UST with the NJDEP. Petroleum-impacted soils were encountered beneath the UST which was excavated. Post-remediation soil samples documented that the soils were successfully remediation. A Response Action Outcome (RAO) was issued for the closure of the UST and soil remediation.

NJ TRANSIT Several Bus Garage Sites, LSRP: USTs were closed in place. Since NJT had extensive leak detection monitoring records documenting that there were no releases associated with the USTs that information was used to eliminate some of the NJDEP guidance recommended sampling. UST Closure/Site Investigation reports identified the deviation from guidance and RAOs were issued for the UST closures.

NJ TRANSIT Phase 2 Environmental Site Assessment (ESA) at two properties in Montvale, NJ: Project Manager for Phase 2 Environmental Site Assessment (ESA) at two properties that were purchased by NJT for development into commuter parking. One of the properties was used as a maintenance shop for a general contractor and included two out-of-service USTs. As part of the Phase 2 ESA the USTs were registered with the NJDEP in order to remove them in accordance with the UST regulations. Both USTs were removed and petroleum- impacted soils were excavated. A groundwater investigation was performed and no contaminants were detected associated with the USTs. Roux received a no further action from the NJDEP for the USTs.

NJ TRANSIT Mercer Bus Garage Trenton, NJ: Project Manager for a Phase 1 and 2 ESA at the former. The bus garage dated back to the 1920s and operated as a bus fueling, maintenance and storage facility. Numerous USTs were identified or were suspected to have been present at the facility. Geophysical techniques, including ground penetrating radar (GPR), were used to evaluate for the presence of the USTs. Numerous USTs and hydraulic lift assemblies were removed. Petroleum- impacted soil was removed associated with several of the tanks; with post-excavation soil samples confirming that exceedances of the NJDEP soil standards had been removed. Soil borings were also completed at other potential areas of concern (AOCs), including an extensive floor drain system, numerous bus lifts, historical coal bins, and pole-mounted transformers. A report was prepared which documented the investigation activities that NJT ultimately provided to prospective buyers of the property.

NJ TRANSIT East Barracks Rail Yard: Project Manager for a soil investigation at the. Roux performed soil sampling along the railroad siding to confirm the presence of polychlorinated biphenyls (PCBs) in soil at the Site. In addition, soil samples were analysed for other parameters to evaluate for the presence of other constituents that may require delineation and/or remediation. Upon completion of the initial soil sampling activities, Roux prepared a RI Report presenting the results of the sampling performed at the Site.

Bios for Additional Project Staff

Sanjay Naik, PE - Principal-in-Charge

Mr. Naik is the founder and President of the Naik Consulting Group, P.C. A 90+ person full-service consulting firm celebrating its 20th anniversary. NAIK's corporate office is located in Edison, NJ and a satellite office is located in Manhattan. He has grown NAIK from a one-man operation in 1997, to just under 100 professionals today. Sanjay brings over 30 years as a leading expert in transportation projects. He works tirelessly with agencies, consultants and governmental authorities to work together to meet the Tri-State region's infrastructure needs. He is recognized by Agency clients as driven, dedicated and insistent on excellence on every project. He is considered a true ally for the industry.

Jason Chaikin, PE - Geotechnical Engineering Lead

Mr. Chaikin has more than 45 years of diverse civil engineering experience in highway, airport engineering, geotechnical, site engineering, and utility/municipal engineering and construction management. He has productive relationships with local agencies including NJ TRANSIT, NJ Economic Development Authority, PANYNJ, NJDOT, NYCT, MTACC, NYCDOT, NYC DEP and NYSDOT. He has managed design projects from proposal development through construction stages. He has faced challenges on urban projects caused by limited infrastructure, poor subsurface soil conditions, complex underground utilities and strict regulatory requirements. He has a solid working relationship with numerous public-sector utility agencies in NJ/NY enabling him to effectively resolve infrastructure issues. As Project Manager under a "Design-Build" contract, he developed preliminary plans for NJ TRANSIT's Hudson Bergen Light Rail Transit System.

Frank Clancy - CCTV/Access & Control Engineering Lead

Mr. Clancy's experience in all aspects of **Access Control, CCTV-Video and in-building RF spans over 17 years**. He has managed projects involving Go on surveys, designing full solutions, takeoffs, BOM and complex production schedules. He was involved in the Implementation of major DVR/NVR/Enterprise solutions utilizing most major camera manufacturers. His experience includes NYCT's Second Avenue Subway.

Timothy Fortier - Inspector

Mr. Fortier has over 25 years of hands-on construction management experience with a heavy emphasis on infrastructure projects. His project experience ranges from transit, utilities, water resources, retail construction across **major disciplines of civil, structural, architectural and MEP**. He is a multi-faceted inspector having been fully responsible for all major CM/RE tasks including safety and quality assurance, inspections, reporting, change order negotiations, problem solving and resolution, document management, estimating, scheduling, staging, constructability and community relations.

Hugo Mercado- Senior Cost Estimator

Mr. Mercado is a versatile, results-driven Civil Engineering/Construction Management professional with exceptional experience in contributing to successful and profitable projects. His broad background includes preparing and reviewing conceptual project budgets, detailed cost estimates, CPM schedules (P3/P6) in Primavera. His **experience includes the NJ TRANSIT Super Storm Sandy Recovery Program** and Maintenance and Expansion of Existing Facilities.

Louis Noto - Inspector

Mr. Noto is an accomplished, proactive engineer with 25+ years of experience in electrical design, installation, testing, commissioning, analysis and project management. He is proficient at readily gathering and translating complex requirements into viable solutions. His extensive educational qualifications include Electro-Mechanical and Electrical Engineering Technology degrees. He is currently working on the **NYCT's Joralemon Tube Rehabilitation/Superstorm Sandy Recovery Project.**

Andrew Schueller, PE - Civil Engineering Lead

Mr. Schueller's technical and management experience on a wide variety of multimillion dollar, large scale transportation and infrastructure projects, primarily in NYC, spans ove 30 years. He has been a technical industry advisor for major transportation agencies including NJ TRANSIT, PANYNJ, NJTA, and NJDOT. His expertise includes preparing comprehensive construction documents including plans, technical specifications and quantity/cost estimates for major **NJ and NY building infrastructure** projects involving stations, facilities, waterfront infrastructure, fabricated and pre-fab building structures. His NJ TRANSIT experience includes the Long Slip Canal Study and Expansion of Convent Station.

Krishna Swarnakar - Systems Integrator

Mr. Swarnakar has over 20 years of transit experience with 10 years in rail systems and 10 years in network Infrastructure. His experience in major transit projects includes systems integration, systems engineering, design and program, project and construction management. His expertise includes cost estimating, bid management, **rail signaling projects, traction power, SCADA systems, fiber optic and wireless systems and rail communications.**

Gabrielle Shubert - Historical Preservation

Ms. Shubert has more than 30 years' experience in arts and culture management, including 24 years as director of the New York Transit Museum. She is a creative leader with a reputation for building one of New York City's most unusual and successful cultural institutions. Ms. Shubert led the growth and development of New York's only museum focused on urban infrastructure and sustainability, increasing attendance, revenue, public profile and educational outreach for the New York Transit Museum.

John Tan, PE - Structural Engineering Lead

Mr. Tan has over 28 years of experience in administration, management, design, inspection and **construction of complex civil / transportation engineering projects** focusing on structural engineering. He has been responsible for performing and managing the analysis, design and preparation of contract plans and specifications on various engineering projects, specifically for railroad and highway bridges. His NJ TRANSIT experience includes Newark Penn and Secaucus Transfer Stations Flood Control Systems and Replacement of the Raritan River Drawbridge.

Bruce Betz, CCM, PSP - Senior Scheduler

Mr. Betz has over 33 years of experience in project controls, **CPM scheduling and construction management of sophisticated projects** throughout the NJ/NY region. He specializes in the preparation and review of CPM schedules (P3/P6) and Claims Analysis. As a seasoned practitioner with professional certifications of construction standards and intimate knowledge of the industry make him a valuable resource to clients for construction dispute resolution and claims analysis assignments. His experience includes SEPTA Substation Rehabilitation.

Nicole Johnson, MBA, LEED AP - Senior Cost Estimator

Ms. Johnson is an accomplished Project Controls Engineer and Project Manager with 19 years of relevant experience in transportation design and construction. She leads the firm's Cost Management Department with excellent technical, analytical, and relationship management skills. Her areas of expertise include: project management, **construction estimating,** procurement, contract negotiations, and dispute resolution. Her experience includes SEPTA Substation Rehabilitation and Amtrak Design/ Build of Four Electric Traction Power Cables (H Cables).

Paul Rudderow, PSP Senior Scheduler/Claims Specialst

Mr. Rudderow, a certified Planning and Scheduling Professional (PSP), has more than 30 years of diversified experience in project controls, **CPM scheduling, and claims analysis consulting**. He has managed project controls groups, served as the onsite project controls supervisor, acted as the owner's representative for estimates and schedules, testified as a schedule analysis expert witness, and performed project manager and site superintendent functions. His NJ TRANSIT experience includes the **Superstorm Sandy Recovery and Resilience Program, the 69th Street Bridge and Roadway Improvements,** and SEPTA Wayne Substation Junction Electrical Upgrades.

Anita Johnson-Davis - Office Engineer

Ms. Johnson-Davis has an impressive background in document control, contract administration, and office management. Her areas of expertise include establishing document guidelines, resolving project issues, providing quality control checks, processing team correspondence and maintaining crucial databases. She is detail-oriented, capable of multi- tasking while working both independently and as part of a project team. She takes pride in being organized and deadline-driven.

Stanley Muzylowski - Factory Acceptance Tests/On-site Equipment Tests

Burns

Mr. Muzylowski has 8 years of experience with electrical engineering design for various types of transit facilities and infrastructure. His technical expertise includes design of traction power substations and electrical distribution systems and the development of project cost estimates. Stan's previous experience working in the construction industry gives him valuable experience with various electrical systems. Relevant project experience includes **PANYNJ PATH Substation #9 Replacement.**

Pansong Zhao - Substation Equipment Submittal Review/SCADA

Burns

Mr. Zhao is an Electrical Engineering Specialist with extensive experience in developing protection and control schematics, design of high voltage breaker control circuits, **substation** protection, control design and construction. Relevant project experience includes: NJ TRANSIT's Transit Grid to Increase System Resiliency and Reliability, Delaware River Port Authority PATCO Power Cable and Pole Line Replacement and SEPTA Ambler Substation Rehabilitation.

John Williams - Environmental Engineer

ROUX

Mr. Williams has 18 years of experience as a field manager including numerous demolition projects where he was responsible for the project's health and safety and management of hazardous wastes generated during demolition activities. He will assist with the identification of building components that require special handling and disposal. He will coordinate the proper management/disposal of any soil, water, asbestos or lead-based paint during the demolition of the existing on-site structures and preparation of the area for new construction.

Lynn Drobbin - Historical Preservation

Lynn Drobbin & Associates

Ms. Drobbin is the founder and President of LDA with 39 years of professional experience in preservation planning and cultural resource analysis. She has a specialized expertise in environmental review for transportation-related projects including rail and highway alignments, railroad and subway stations, ferry terminals, trolley car barns, and railroad bridges. Her NJ TRANSIT experience includes Hoboken Terminal and Yard Complex Sandy Recovery Program and Metro North Penn's Station Access Program.

SECTION 4 - REFERENCES

NAIK Non-NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Joralemon Tube Rehabilitation/Superstorm Sandy Recovery Brooklyn to Manhattan, NY	NYCT [redacted]	2015-August 2017	Mechanical and electrical inspectors responsible for inspecting repair work for MTA-NYCT's Joralemon subway tunnels.
East Side Access Improvement New York, NY	WSP [redacted]	2001-2022	Construction of LIRR Commuter RR Connection to GTC/Rail Systems Integration/ Inspection
Second Avenue Subway New York, NY	AECOM [redacted]	2001-2016	Reconstruction of subway tunnel and stations/CM, Inspection, and Engineering
Canarsie Subway Tubes Rehabilitation Manhattan to Brooklyn, NY	New York City Transit [redacted]	2017-Ongoing	Providing mechanical and electrical inspectors responsible for inspecting repair work for MTA-NYCT's Canarsie subway tunnels that were inundated with brackish water during Super Storm Sandy.
Bus Terminal Quality of Commute Improvement Program (PABT-QOC) New York, NY	PANYNJ [redacted]	2016-Ongoing	Quality of Commute Improvements at the Port Authority Bus Terminal, Construction inspection services, under our CM and Inspection Services Call in Agreement

NAIK NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Replacement of the Raritan River Drawbridge, Perth Amboy and South Amboy, NJ	NJ TRANSIT [redacted]	2016-Ongoing	Providing survey, right-of-way, utility engineering, and miscellaneous support engineering services for the replacement of the Raritan River Bridge.
Critical Asset Survey Bergen County Main, Pascack Valley and Morris and Essex Lines, NJ	NJ TRANSIT [redacted]	2015-Ongoing	Overseeing survey and basemapping services under this NJ TRANSIT Task Order to have survey of critical assets along 4 rail lines.

SECTION 4 - REFERENCES

Envision Non-NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
SEPTA A & E Services for Rehabilitation of Substations Design and Construction Services Philadelphia, PA	HDR Engineers, Inc. [redacted]	2016-2019	Providing estimates and scheduling for 16 RRD Traction Power Substations that are currently in need of rehabilitation and, one new station SEPTA required. The scope of work is to provide SEPTA cost estimates for 15% to 50% design phases to upgrade substations to as-new condition.
SEPTA Wayne Junction Substation Rehabilitation Philadelphia, PA	Carr & Duff [redacted]	2013-2015	Responsible for CPM scheduling services including the development of the baseline schedule and performing periodic progress updates of the contractor's CPM schedule.
City of Philadelphia, Division of Aviation, MEP On-Call Contract Philadelphia, PA	HNTB [redacted]	2014-2017	Providing estimates and scheduling for 16 RRD Traction Power Substations that are currently in need of rehabilitation and, one new station SEPTA required. The scope of work is to provide SEPTA cost estimates for 15% to 50% design phases to upgrade substations to as-new condition.

Envision NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
ASES II Positive Train Control Newark, NJ	NJ TRANSIT [redacted] NJ TRANSIT [redacted]	2012-2016	Responsible for project document control, including developing and maintaining a Records Management System compatible with the NJ TRANSIT's Electronic Content Management System (ECMS). Envision assists with document uploads, development of the Configuration Management Plan, Contract Documents Log, and quality control of all documents to provide an accurate and historical record that can trace decisions made throughout the project's life cycle. Envision is also providing the overall program planning and resource allocation, including review of the implementation schedules, overall program schedule with respect to industry capacity, and NJ TRANSIT's capacity to support construction, ongoing review of project budget and schedules change orders and claims, and ongoing preparation of cost and schedule trend analysis. In addition, all force account work and hours are being tracked in the schedule. The force account activities are required to support the ongoing construction.
Mid-Line Loop North Brunswick, NJ	NJ TRANSIT [redacted]	2014-2015	Responsible for project document control, that includes developing and maintaining a Records Management System, compatible with the NJ TRANSIT's Electronic Content Management System (ECMS) and assisting the project team, including NJ TRANSIT in document uploads. Envision will assist the Project Team in performing other document control tasks including, but not limited to the development of the Configuration Management Plan, Contract Documents Log, and quality control of all documents with the ability to provide an accurate and historical record that can trace decisions made throughout the project's life cycle.

SECTION 4 - REFERENCES

Burns Non-NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
NJ TRANSITGRID Transportation Microgrid to Increase System Resiliency and Reliability Newark, NJ	NJ TRANSIT	2016-2021	Providing design, analysis, calculations, plans, specifications and construction phasing for the replacement of the 15-mile long catenary system in three independent sections, while SEPTA is designing two others.
Delaware River Port Authority PATCO Power Cable and Pole Line Replacement Lindenwold to Camden, NJ	2 Riverside Drive,	2000-2013	Prime engineering consultant for design and construction management services for this project to replace the existing 11-mile-long wood pole line in New Jersey with a new pole line of class 1 fiberglass poles, 26.4KV traction power cables and 2.4KV signal power cables. Burns exceeded the project goals through creative engineering and close cooperation with DRPA/PATCO staff, while keeping within the $30 million construction budget.
Ambler Substation Rehabilitation Ambler, PA	Southeastern Pennsylvania Transportation Authority	2015-2016	Designed for the replacement of all the traction power and control equipment in the Ambler Substation under a design-build contract. All new traction power breakers are outdoor rated vacuum breakers. Relay and control improvements incorporated all changes requested by SEPTA.
Philadelphia Navy Yard Microgrid Design and Implementation Philadelphia, PA	Philadelphia Industrial Development Corporation (PIDC)	2014-2017	A ten-year energy plan shaped the future of cost-effective, sustainable energy and utility infrastructure growth for the Navy Yard. Burns is leading the redesign and modernization of the unregulated electric grid and incorporating smart metering and substation technology, mesh network communications, distributed generation, electric storage, energy efficiency, and bi-directional building-to-grid control strategies.

Burns NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Value Engineering Study for the 30% Design of the Mason and Building 9 Substations Newark, NJ	NJ TRANSIT	2014-2014	Performed a value engineering analysis of the 30% design documents for the reconstruction/replacement of the Mason and Building 9 Substations at the Meadows Maintenance Complex. Burns reviewed the project Basis of Design, 30% Design Drawings, cost estimates, design criteria and a Buy America White Paper.
Princeton University Arts & Transit Neighborhood Enabling - "Dinky" Line Realignment Princeton, NJ	NJ TRANSIT	2011-2014	Provided electric traction power design services for this project to shorten and re-align the west end of NJ TRANSIT's Princeton Branch Railroad (a.k.a., "The Dinky"). Burns' design phase effort included preliminary and final design of catenary structures, overhead contact system (OCS), traction power, and bonding and grounding as well as the development of project cost estimates and detailed construction staging plans. Close coordination with NJ TRANSIT occurred during the development of each design submission and at design review meetings.
Hudson-Bergen Light Rail Transit System Post-Hurricane Sandy Train Control Recovery Jersey City, NJ	AECOM	2012-2015	After Hurricane Sandy in October 2012, the Hudson Bergen Light Rail Transit System (HBLRTS) called upon Burns to help restore three vital control points in their system. Recovery measures included vital logic processor assessment and communications restoration, wayside switch troubleshooting and testing, damage assessment, recovery estimating, and mitigation strategies to avoid future occurrences.

SECTION 4 - REFERENCES

Roux Non-NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Ecolab Former Facility Remedial Investigation Woodbridge, NJ	Ecolab [redacted]	2005-Ongoing	Remedial investigation of a former chemical manufacturing facility being performed under the NJDEP's Industrial Site Recovery Act (ISRA) program. Included the completion of a Preliminary Assessment, Site Investigation and Remedial Investigation and the design, installation and operation of a remedial system for groundwater.
Chemtrade Remedial Investigation Berkeley Heights, NJ	Chemtrade Logistics [redacted]	2005-Ongoing	Remedial investigation of a former chemical manufacturing facility being performed under the NJDEP's ISRA program. Included the completion of a Preliminary Assessment, Site Investigation and Remedial Investigation of the active manufacturing facility. The remedial investigation has included soil and groundwater sampling, including an extensive bedrock groundwater investigation.

Roux NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Hoboken Yard Wheel True Building Construction/ Former AST Hoboken, NJ	NJ TRANSIT [redacted]	2010-Ongoing	Former AST - Remedial investigation of a diesel fuel release associated with the historical Hoboken rail yard's locomotive fueling system. The investigation included the collection of soil and groundwater samples for petroleum constituents. The release is being remediated under the NJDEP's Licensed Site Remediation Professional (LSRP) program.
Lyndhurst Station Pre-Construction Due Diligence Lyndhurst, NJ	NJ TRANSIT [redacted]	2013-2014	Due diligence soil and groundwater sampling performed to assist with the development of construction employee health and safety issues and identify waste management requirements for soil and groundwater generated during construction of a new high-level platform and associated elevator at the rail station.
Port Morris Rail Yard Remedial Investigation of Diesel Fuel Release Landing, NJ	NJ TRANSIT [redacted]	2010-Ongoing	Remedial investigation of a diesel fuel release associated with the yard's locomotive fueling system. The investigation included the collection of soil, groundwater and stream samples for petroleum constituents. In addition, enhanced fluid recovery (EFR) events were successfully used to remediate the free-phase petroleum detected in several wells. The release is being remediated under the NJDEP's Licensed Site Remediation Professional (LSRP) program.

SECTION 4 - REFERENCES

LDA NJ TRANSIT References

PROJECT	CONTACT	DATES	PROJECT DESCRIPTION
Hoboken Rail and Ferry Terminal Rehabilitation Projects Hoboken, NJ	NJ TRANSIT	1992-Ongoing	Worked on various projects at the State and National Register listed Hoboken Railroad and Ferry Terminal for over 25 years; LDA has conducted the design review, demolition and construction supervision and the documentation required for the rehabilitation, adaptive reuse and new construction at the Hoboken Rail and Ferry Terminal, listed on the State and National Registers of Historic Places. This includes the historic review of repairs to timber piles and cast iron and copper features of the train shed and ferry terminal facades, repairs to structural steel, compliance with ADA, code compliance and egress modifications, the rehabilitation of storefront concessions and the main waiting room, the adaptive re-use of the station and ferry terminal, and storm damage repairs and resiliency measures. LDA's work also includes historic documentation for demolition of various structures in the Freight Yard, the Long Slip Canal, the Hoboken Ferry Terminal and Hoboken Railroad Terminal. LDA has been responsible for the preparation of documentation to meet the approvals of the SHPO, ACHP, FTA and the National Park Service.
Perth Amboy Station Accessibility Improvements Project Perth Amboy, Middlesex County, New Jersey	NJ TRANSIT	2010- Ongoing	Conducted an historic survey of the study area and submitted documentation to SHPO for eligibility findings. LDA also conducted an analysis of the integrity of the Perth Amboy Commercial Historic District, a 300+building district in downtown Perth Amboy. LDA provided design advisement for compatible new construction of high level platforms, ramps, canopies, four elevator towers, stairways and modifications to the pedestrian overpass and the two bi-level station buildings. LDA prepared an Alternatives Analysis for (8) Center Island HLPs and (5) Side HLPs and a Report for Project Authorization under the New Jersey Register of Historic Places. LDA facilitated SHPO approval at 30% design for this adverse effect project.
Newark Penn Station Rehabilitation Newark, Essex County, New Jersey	NJ TRANSIT	1987-2017	Worked on projects at Newark Penn Station for over 30 years beginning in 1987 with the supervision of the construction of an FTA-funded $14 million rehabilitation and improvement program for NJ TRANSIT to meet the requirements for a certified rehabilitation under the IRS investment tax credits. LDA reviewed the new construction for security systems, accessibility, air conditioning systems and design for concessions. LDA reviewed all aspects of construction as it pertained to the significant historic elements of the station including review of marble samples, the selection and cleaning of historic marble to re-use in the station; supervision of installation of marble, new terrazzo floors, test patches for cleaning marble and aluminum etc. Subsequent, LDA has reviewed a variety of projects to improve the passenger flow and platform circulation for this intermodal terminal that connects to the Newark Light Rail Line, Newark City Subway, PATH, and buses, as well as NJ TRANSIT and Amtrak trains. LDA's role in the 2015-2017 analysis involved design advisement and the evaluation of impacts for the extension of platforms, the creation of new vertical circulation paths including elevators and stairs, and the reconfiguration of the historic waiting platform rooms to ease congestion.

SECTION 5 - TECHNICAL SECTION

Introduction

Because NAIK has assembled a team of experts in their respective fields with unparalleled in-depth knowledge of NJ TRANSIT operations, combined with extensive experience working on rail infrastructure projects throughout the NJ/NY Metro Area, we are able to offer NJ TRANSIT a comprehensive technical approach that skillfully addresses the multitude of challenges that will arise during these projects. In addition to offering a superior technical approach, we will incorporate our best practices into the day to day activities of our CM team. Our Senior Team of Experts, Moe, Eli and Mike, with their collective experience, knowledge and technical expertise, have a unique and thorough understanding of all project challenges and the technical approaches that the Contractor will most likely propose in their means and methods. Our technical approach has addressed these and all other challenges head-on. Our knowledge of NJ TRANSIT operations and the intricacies of performing work at the large Hoboken Yard and Terminal complex has resulted in a carefully thought out technical approach that proactively identifies all inherent challenges and risks and provides practical solutions that will minimize adverse impacts on the project schedule and budget.

Examples of key challenges that we have identified include: safe and efficient site access and logistics at the Depot Substation; proactive coordination and monitoring of other ongoing Hoboken Yard and Terminal projects; and coordination with NJ TRANSIT Force Account and Inspection resources. Our expert team will assist NJ TRANSIT with evaluating and approving the Contractor's Phasing Plan which will address the site access, staging and logistics issues that we have called out. Our experienced team will proactively monitor all ongoing Hoboken Terminal and Yard projects and activities of outside agencies (PSE&G, DCA, etc.) involved in the project to ensure that there are no breakdowns in coordination that could have an adverse impact on the project. We will immediately bring to NJ TRANSIT's attention any potential coordination issues and recommend proactive measures to successfully deal with them. NJ TRANSIT's force account activities will be skillfully scheduled and monitored on an ongoing basis by our knowledgeable key personnel. Most importantly, we will ensure that all project work is performed in strict conformance with the contract documents. We will efficiently manage the contractor's activities using our day to day best practices so that the work can be safely and efficiently performed while minimizing adverse impacts to NJ TRANSIT's ongoing railroad operations at the Hoboken Yard and Terminal, the riding public and the surrounding Hoboken community.

Relevant Experience and Qualifications

We Know Hoboken Yard and Terminal

NAIK's key personnel include the proposed Construction/Project Manager, Moe Soliman, PE, Resident Engineer, Eli Charchar and Technical Adviser, Mike Gaspartich who all possess an in-depth understanding of the nuances and intricacies of rail/transit project construction and specifically for, the Hoboken Yard and Terminal Complex. Mike and Eli have 62 years of experience at NJ TRANSIT and their knowledge of the facilities, personnel, site access constraints, maintenance requirements, intra-agency stake-holders, third-party/community agreements and operating rules and requirements through the numerous projects and maintenance programs they've managed at Hoboken are unparalleled.

NAIK's team will be Proactive, will "Make a Difference" and will Add Value while supporting NJ TRANSIT throughout the entire project

Moe, Mike and Eli were all extensively involved with Superstorm Sandy's catastrophic aftereffects which exposed the significant threats and vulnerabilities of the equipment and systems located in the Hoboken Yard and Terminal Complex and its critical importance to NJ TRANSIT and regional travel between New York and New Jersey. To address these vulnerabilities and to protect equipment and systems from future storm damage, NJ TRANSIT is undertaking a robust program of fortification and enhancement infrastructure projects within the Hoboken Complex that include:

- Observer Highway Switching House
- Hoboken Terminal Repair and Rehabilitation
- Longslip Canal Fill
- Longslip Platforms and Tracks
- Hoboken Signal Power
- Hoboken Wayside Yard Power
- Hoboken Inclined Switch Board
- Depot Substation
- Henderson Substation

Note: Refer to "Program of Projects at Hoboken Yard and Terminal" on the following page

These Projects face unique challenges including overlapping construction schedules, competition for scarce NJ TRANSIT resources, scheduling of outages, adequate staging space and access constraints. We view these challenges as primary risks to keeping the Hoboken Program of Projects on schedule and on budget. Eli's and Mike's in-depth understanding of the entire Hoboken Transportation Complex and expertise in NJ TRANSIT procedures makes them the ideal leaders to support the Contractor(s) and NJ TRANSIT in finding workable solutions around these challenges. This key team will truly be proactive, will make a difference and will add value while supporting NJ TRANSIT throughout the entire Project process.

We know NJ TRANSIT's Policies and Standard Operating Procedures

Moe worked extensively with NJ TRANSIT's Superstorm Sandy Team providing updates in the PRINT's system and collecting financial data from CPAS. Moe is aware of NJ TRANSIT's funding partners' critical requirement that project expenditures be segregated by funding source in order to effectively track expenditures and to streamline project cost accounting and reimbursement.

Mike led the development of NJ TRANSIT's annual capital and maintenance force account plan and is highly knowledgeable with the complex union labor agreements and rules which are key factors in coordinating Force Account work because they play a significant role in defining the parameters of the work such as: minimum crew sizes, crew structure, flagging requirements, labor rates, hours of work, worker productivity, and division of work with the Contractor.

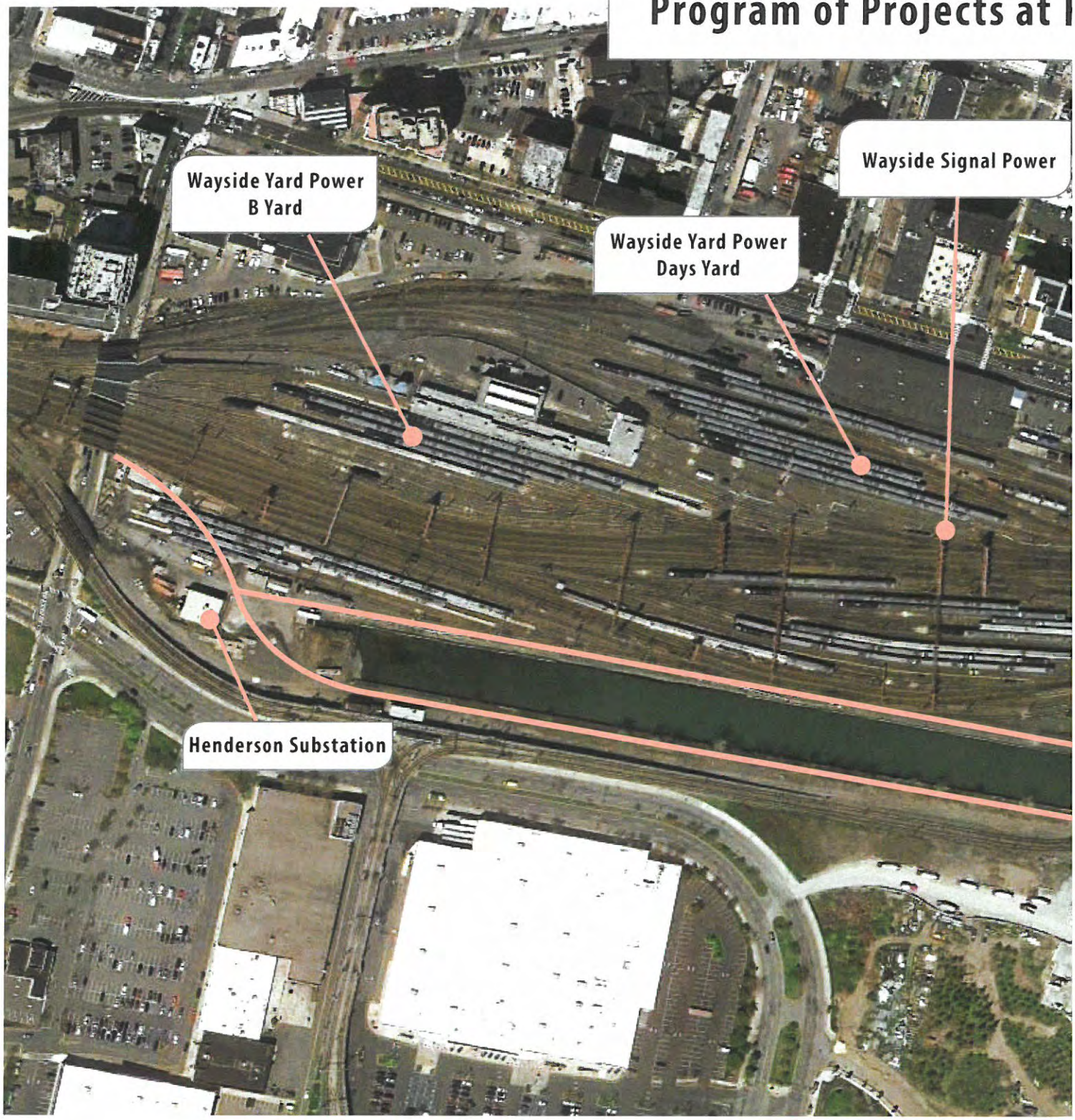
Eli authored multiple SOP's and managed the interdepartmental review and approval process for procedures involving construction safety, construction requirements along the right-of-way, CFR and FRA requirements and other state and federal construction requirements.

Quick Review

The NAIK TEAM provides NJ TRANSIT with four key technical advantages:

- Superior team knowledge of the Hoboken Terminal and Yard
- Superior knowledge of the NJ TRANSIT Sandy Resilience Program federal and state requirements
- Superior knowledge of construction requirements and methodologies in the operating railroad and passenger environment
- Superior knowledge of state-of-the-art substation equipment, controls, installation, testing and commissioning

Program of Projects at I



Project Understanding

Project Background

Hoboken Yard and Terminal is a key transportation hub that is vital to the regional NJ/NY economy since it provides convenient transportation options for tens of thousands of daily customers. As an intermodal transportation facility, Hoboken Terminal provides a number of travel options including: commuter rail service by both NJ TRANSIT and Metro-North with connections to NJ TRANSIT Bus service, PATH subway service, Hudson-Bergen Light Rail service and the NY Waterway Ferry service. Thousands of customers utilize the Hoboken Terminal daily for work and leisure travel, however, Hoboken Terminal is a key transportation hub that also offers alternative Cross-Hudson travel options to customers when other major transportation hubs, such as NY Penn Station, are experiencing service disruptions. Hoboken Terminal often functions as a pressure relief valve for NY Penn Station since Cross-Hudson trips can be completed via PATH and NY Waterway Ferry service providing an alternative way for customers to make trips originating in NJ or upstate NY. From this perspective, it is essential to NJ TRANSIT and the Greater NJ/NY Region that reliable railroad operations be maintained at Hoboken Terminal.

Hoboken Terminal often functions as a pressure relief valve for NY Penn Station

In October 2012, the tidal surge caused by Superstorm Sandy inundated the Hoboken Terminal and Yard resulting in wide-spread damage to NJ TRANSIT's infrastructure. Superstorm Sandy was no typical storm or nor'easter. The storm surge caused a record tidal surge of 9 to 11 feet higher than normal sea level. The flood waters reached as far west as Marin Boulevard submerging much of the Yard. The damage to the Terminal Building and Yard equipment was so severe, that it crippled railroad operations taking NJ TRANSIT weeks before limited service could be restored and months before the return of normal service. Both the Depot and Henderson Substations were severely impacted by the Storm damaging electrical transformers, switch gear, cabling and control and monitoring systems. The corrosive effect of salt water exposure on electrical components was very severe permanently damaging numerous devices. Under a state-wide emergency declaration, NJ TRANSIT rushed to make emergency repairs with in-house and contractor forces but faced a multitude of challenges. First, due to the scale of the Storm and damage, in some instances, a sufficient number of spare parts were not available in NJ TRANSIT's stock, and parts had to be purchased, adding additional lead times for repairs to be completed. In other cases, parts were simply not available and repairs were accomplished by taking parts from other less critical assets located throughout NJ TRANSIT's system. Second, after the initial clean up and repairs were made the equipment was placed back into service, and soon thereafter latent damage to electrical cabling became evident, highlighting the need to closely monitor the effectiveness and adequacy of the initial repairs, straining NJ TRANSIT's limited pool of personnel and resources. Superstorm Sandy exposed the vulnerability of the Hoboken Complex and the importance of rebuilding its critical equipment with resiliency to future storms.

Latent damage to electrical cabling became more evident, highlighting the need to closely monitor the effectiveness and adequacy of the initial repairs

Protecting the Hoboken Complex from future inundation is a major challenge because of its geographic location directly adjacent to the west bank of the Hudson River. Strategies for protecting the entire Terminal and Yard primarily involve two options that include "keeping water out" or "rebuilding" higher. From an overall perspective, both of these strategies require immense financial resources; regional agency coordination and much time to complete. With limited time and resources available, such options are not practical to solve NJ TRANSIT's short-term needs to protect its operations from the next potential storm event. Alternatively, NJ TRANSIT has elected to take a "strategic" approach and maximize the use of limited resources by identifying critical assets that are vulnerable and raising them above an established design flood elevation (DFE is based on best available flood modeling data for the 100-year or 0.2 percent event plus an additional factor of safety of approximately 2.5 feet). This strategic resiliency approach will enable the restoration of normal operations following a future storm event considerably faster than is currently possible, thereby enhancing the overall reliability of the Railroad. In addition, other specific project design features that NJ TRANSIT has elected to incorporate into the Depot and Henderson Substation Projects include: providing redundant power feeds from the commercial power grid and making provisions for temporary power by providing mobile generator docking stations.

Project Funding

Both Depot and Henderson Substations are federally funded under the Public Transportation Emergency Relief Program and Disaster Relief Appropriations Act of 2013 which mandates that funding recipients comply with the regulatory requirements detailed in the Notice of Funding Allocation (NOFA). To meet these requirements, NJ TRANSIT has implemented project management and oversight guidelines to achieve compliance and avoid potential federal reimbursement delays. Major concerns that need to be carefully monitored, and where the expert NAIK Construction Management team can add value, includes:

NJ TRANSIT's strategic resiliency approach will enable the restoration of normal operations following a future storm event considerably faster than is currently possible

- Cost tracking to systematically segregate expenses by Federal, State and Insurance as required by the Project funding plan.
- Project completion on schedule as per approved Federal Funding Grant through our superior knowledge of the Hoboken Complex.
- Ensuring that new work will be constructed to avoid similar damage and repair from future inundation risks.
- Ensuring the Contractor complies with Buy American provisions to prevent disallowance of reimbursement requests.
- Minimizing cost overruns which are the responsibility of NJ TRANSIT.

Construction Logistics and Staging

Construction logistics and staging are always a challenge on commuter rail projects because of the dense urban environment they typically occur in and because of their 24/7/365 days per year operation. Train operations, passenger circulation, de-energizing catenary lines and noise and vibration limitations are just a few of the issues that have to be navigated throughout the construction process. In addition, both the existing Depot and Henderson Substations provide power to key systems throughout the Hoboken Complex that have to remain in operation at all times necessitating carefully executed "cut-over" plans as the new substations are brought "on-line".

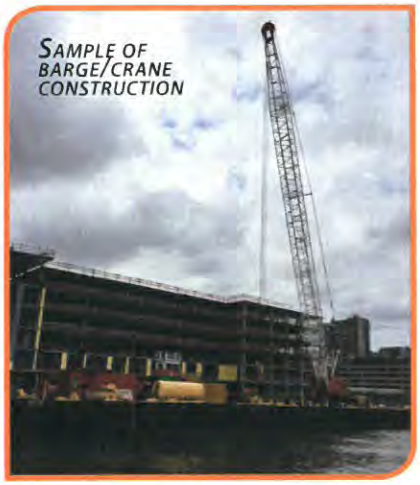
The NAIK team has carefully considered the scope of work for both Projects and has identified a number of significant challenges at both construction locations in the Hoboken Terminal and Yard:

Hoboken Depot Substation

Site Access

The NAIK team has developed a thorough evaluation of site access options and evaluated the pros and cons for each major phase of the Depot Substation Project. The new Depot Substation will be constructed at the existing location of the Pullman Immigrant Building which is situated adjacent to the west bank of the Hudson River. Site access will be limited to:

- ***Roadway access through the Hoboken Terminal Building***: This option is limited by constrained vehicle clearances of 11' height, 10' width, tight vehicle turning radii, vehicle axle load restrictions and restricted hours of operation and extensive flagging requirements.
- ***Track access through the use of layup track # 18:*** This option requires coordination of NJ TRANSIT Rail Ops' for use and de-energizing overhead catenary along track # 17, height clearance limitations, vehicle axle load restrictions, high volume of daytime pedestrian traffic requiring extensive flagging and limited space for material/ equipment handling.
- ***Barge/Crane Access:*** Close proximity to the Hudson River makes use of a crane/barge feasible. The permitting requirements for use of a barge will require review, however this option is advantageous because it would facilitate the handling of large and heavy equipment/material "picks", limited interference with daytime passenger traffic and additional barges for material staging and transportation can be added when needed.



Note: Refer to "Hoboken Depot Substation Site Access Options" on the following page

Coordination with Other Projects

The Depot Substation Project is approximately three-years in duration and will most likely overlap other NJ TRANSIT projects that will be in close proximity to the Depot Substation work site. The repairs to the Hoboken Terminal in the vicinity of tracks 5 and 6 will require coordination for site access, staging/laydown space, Force Account flagging resources and passenger circulation coordination. The Inclined Switch Board Resiliency Project may require coordination with the Depot Substation Project as the Switch Board's electrical distribution panels are currently fed from the existing Depot Substation. Ideally, as the new Depot Substation is constructed, new power feeds could be cut-over to a new Inclined Switch Board saving the need for a secondary cut-over plan.

Note: Refer to "Program of Projects at Hoboken Yard and Terminal" on Page 3.

As the new Depot Substation is constructed, new power feeds could be cut-over to a new Inclined Switch Board saving the need for a secondary cut-over plan

Henderson Street Substation

Site Access

The Project location is accessible from the south along 18th Street and from the west along Marin Blvd. Overhead rail-bridge structures along both 18th Street and Marin Blvd. will limit vertical clearance to approximately 12 feet in height however this should be sufficient to accommodate the use of large and efficient construction equipment.

Contractor Staging and Laydown Space

Unlike the site surrounding the Depot Substation, the site of the abandoned "Boiler House" is adjacent to NJ TRANSIT's Pullman Yard. The Yard is not accessible to the public and there is sufficient space along the site perimeter for the Contractor to stage construction activities.

Note: Refer to "Henderson Substation – Site Access Options" on the following page

Field Office

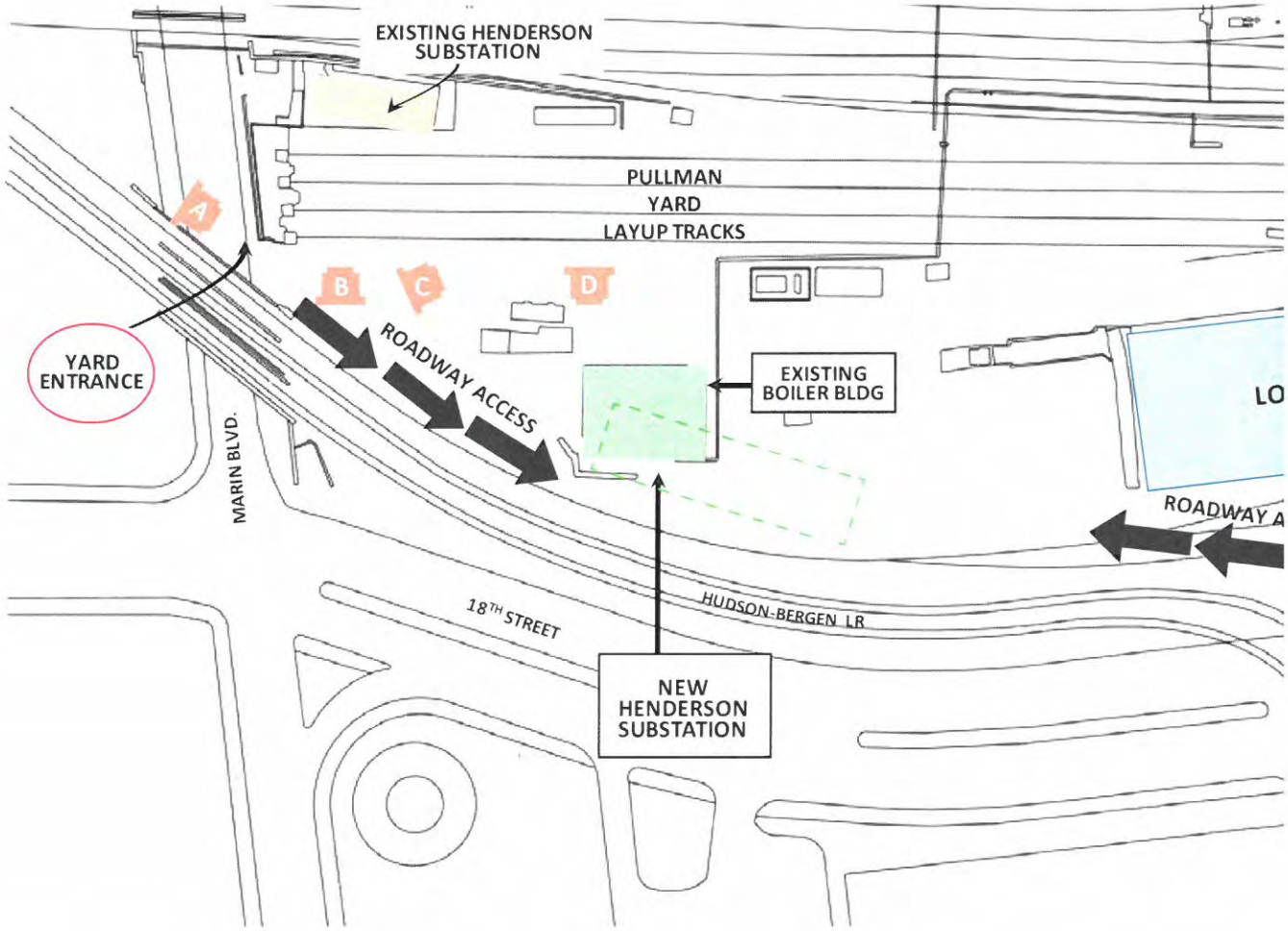
Subsequent to the award of the Henderson Substation Construction Contract by NJ TRANSIT, the NAIK team will coordinate the cost sharing of the Construction Manager's field office between the two separate construction contracts. We anticipate that the cost of the Construction Manager's field office will be split equally between the two Contractor's on a per month basis. Because Henderson Substation will be awarded later and will most likely be completed approximately 6 months after Depot Substation is completed, the NAIK team will coordinate the transfer of full Construction Manager's field office costs and responsibility to the Henderson Substation Contractor.

Coordination with Other Projects

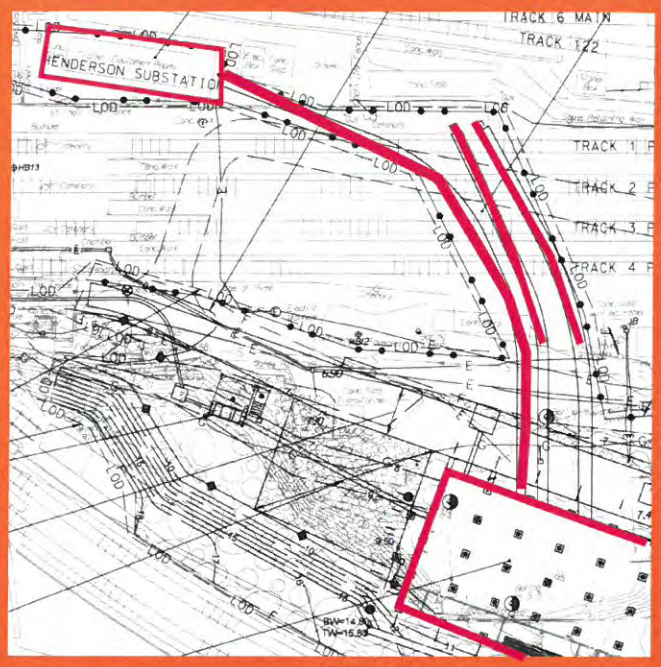
It is anticipated that the Longslip project will commence after the Henderson Substation contract is awarded. It is very likely the Longslip Project will rely on the same site access points and Contractor staging areas as well. The NAIK team will carefully coordinate access and staging with the Longslip construction management team to accommodate the needs of both Projects. Although available space in the vicinity of both Projects is limited, through careful planning, communication and coordination we believe it will be manageable. One option is to dedicate the 18th Street Yard entrance to the Longslip Project and the Marin Blvd. entrance to Henderson Street Substation Project. Similarly, the staging space in the Pullman Yard area can be bifurcated into east and west areas with the east area dedicated to the Longslip Project and the west area dedicated to the Henderson Street Substation Project.

Henderson Substation Site Area

HOBOKEN DEPOT SUBSTATION



QUICK REVIEW *Henderson Substation – Cable Duct-Banks*



As shown in the Henderson Substation bid set, a series of three new reinforced concrete cable duct-banks are to be constructed under the Pullman Yard tracks 1 thru 4. Strategically planning this work may offer opportunities to minimize NJ TRANSIT's Force Account (FA) costs, minimize track outage durations and potentially expedite the overall construction schedule.

Any work occurring on or near NJ TRANSIT's proper will require FA support and in this case representatives from transportation, track, communications and electric traction (ET) will be needed. Accordingly, the associated costs can be quite significant depending on the contractor's means and methods and the duration of the work. Additionally, train crews may be required to relocate train consists to an alternate yard to facilitate weekday work, adding to the overall FA costs. Based on our team's past experience, train consists are only stored in the Pullman Yard during weekdays. During weekends, they are laid up on the Gladstone Line allowing for a short "construction window" in which the contractor could work with minimal impact to Rail Operations.

The NAIK team has reviewed several potential approaches for the construction of the duct-banks including: rerouting around the west-end of the yard, pipe jacking, cast in place and pre-cast duct-banks. Taking into account factors such as: limited availability of laydown space to stage a pipe-jacking operation, long durations that would extend beyond weekends for cast-in-place construction and additional construction cost and undesirable cable bends needed in rerouting around the west-end of the yard, **we recommend the use of pre-cast duct-bank construction as it may be the most economical approach minimizing both NJ TRANSIT's and the Contractor's construction costs and duration.** Since the Pullman Yard tracks are "tie on ballast" construction, they can be easily removed/lifted to allow the contractor to excavate a trench, install pre-cast duct-banks, back-fill and re-install yard tracks in-time for Monday morning service. **The NAIK team will pay close attention to the handling of track spoils so that ballast adjacent to the excavation is not compromised.**

Additionally, pre-cast duct banks can be fabricated to provide the same: structural capacity, cable protection and water-resistance as intended with the cast-in-place system shown in the design. Lastly, pre-cast systems are built with "shear-keys" to prevent shifting or misalignment between adjacent sections assuring proper performance and reliability post-construction.

Construction Schedule

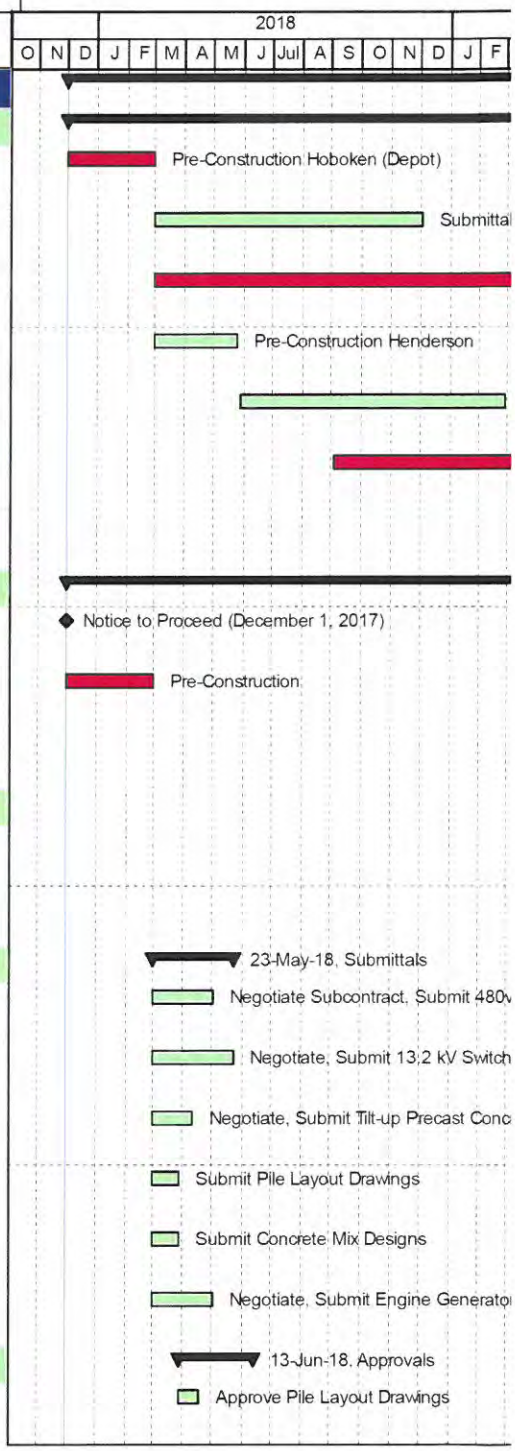
Based on the limited Project schedule information provided in the referenced RFP (17-007) document and associated addendum #3, the Depot and Henderson Substations are planned with a 6-month lag and the start of construction for the Depot Substation occurring on April 17th, 2018 and Henderson Substation occurring on October 5th, 2018. Additionally, as per information provided by NJ TRANSIT, the Depot and Henderson Substation Projects will be procured under two separate construction contract solicitations. Construction durations for both Depot and Henderson Substations are shown as 687 days and 765 days, respectively. However, the RFP document states that the construction duration for the Depot Substation is 900 days (approx. 30 months) with a March 1, 2018 start date. Furthermore, information verbally provided at the pre-proposal meeting instructed proposers to assume 3-months each for both pre-construction and closeout phases. For the purpose of our proposal submission and resource allocation plan, the NAIK team has laid out an overall schedule for the Depot Substation of 36-months broken down into three main phases of 3-months for pre-construction, 30-months for construction and 3-months for closeout. The Henderson Substation schedule has been assumed to be approximately the same overall duration of 36-months and segmented into the same three pre-construction, construction and closeout phases. Since there is a gap of 6-months between the two construction contract awards, the overall length of the construction management contract is estimated to be 42-months in total duration as shown on the attached Project schedules.

Note: Refer to the following pages for preliminary project schedules.

The NAIK team prepared the attached schedules based on our preliminary project knowledge to validate the overall construction duration and sequencing of key activities taking into consideration various "schedule-driving" parameters including: site access and logistics, requirements for continuity of railroad and passenger operations, availability of Force Account resources, coordination with other Hoboken projects, manufacturing, testing and delivery of long lead equipment, onsite testing and commissioning, and DCA and NJDEP inspections. Generally, we believe that the overall construction duration is achievable and there may be opportunities for some schedule improvement. All things being equal between the Depot and Henderson Substation Projects, the location of the new Henderson Substation will be more advantageous to the Contractor with regard to site access and logistics allowing for a potentially shorter construction duration than the Depot Substation. As this is the case, the Henderson Substation's critical path schedule may be driven by the manufacturing, testing and delivery activities, whereas the Depot Substation may be driven by highly constrained site access and logistics during demolition and general building construction phases. As part of the NAIK team's constructability review, we will perform a detailed assessment of the Project schedules prepared by the designer of record (DoR) to validate all of the parameters listed above and assess potential Contractor "means and methods" that could be implemented to maximize Contractor productivity. During the construction phase, and as detailed in Task C5 of our proposal response, the NAIK team will work with the Contractor project management teams to review and approve the baseline schedules and updates to ensure that the Project's remain on schedule and that opportunities to shorten the overall duration, such as: maximizing concurrent activities, strategic sequencing and maximizing productivity, are realized to the benefit of NJ TRANSIT.

New Jersey Transit Hoboken "Depot" and Henderson Street Substations

Activity ID	Activity Name	OD	Start	Finish
New Jersey Transit Hoboken "Depot" and		901	01-Dec-17	25-May-21
Summary		901	01-Dec-17	25-May-21
S1000	Pre-Construction Hoboken (Depot)	62	01-Dec-17	28-Feb-18
S1010	Submittals, Review & Approval Hoboken (Depot)	194	01-Mar-18	03-Dec-18
S1020	Construction Hoboken (Depot)	649	01-Mar-18	01-Sep-20
S1030	Pre-Construction Henderson	62	01-Mar-18	25-May-18
S1040	Submittals, Review & Approval Henderson	194	29-May-18	28-Feb-19
S1050	Construction Henderson	649	04-Sep-18	02-Mar-21
S1060	Project Close Out	60	03-Mar-21	25-May-21
Milestones		901	01-Dec-17	25-May-21
2	Notice to Proceed (December 1, 2017)	0	01-Dec-17	
4	Pre-Construction	62	01-Dec-17	28-Feb-18
448	Project Complete (NTP + xxx days = May 25, 2021)	0		25-May-21
General / Administrative		60	03-Mar-21	25-May-21
446	Punchlist	40	03-Mar-21	27-Apr-21
447	Close Out Documents	60	03-Mar-21	25-May-21
Submittals		60	01-Mar-18	23-May-18
33	Negotiate Subcontract, Submit 480v Switchgear (Hoboken)	45	01-Mar-18	02-May-18
34	Negotiate, Submit 13.2 kV Switchgear (Henderson)	60	01-Mar-18	23-May-18
35	Negotiate, Submit Tilt-up Precast Concrete System	30	01-Mar-18	11-Apr-18
36	Submit Pile Layout Drawings	20	01-Mar-18	28-Mar-18
37	Submit Concrete Mix Designs	20	01-Mar-18	28-Mar-18
38	Negotiate, Submit Engine Generators	45	01-Mar-18	02-May-18
Approvals		77	29-Mar-18	13-Jun-18
61	Approve Pile Layout Drawings	21	29-Mar-18	18-Apr-18

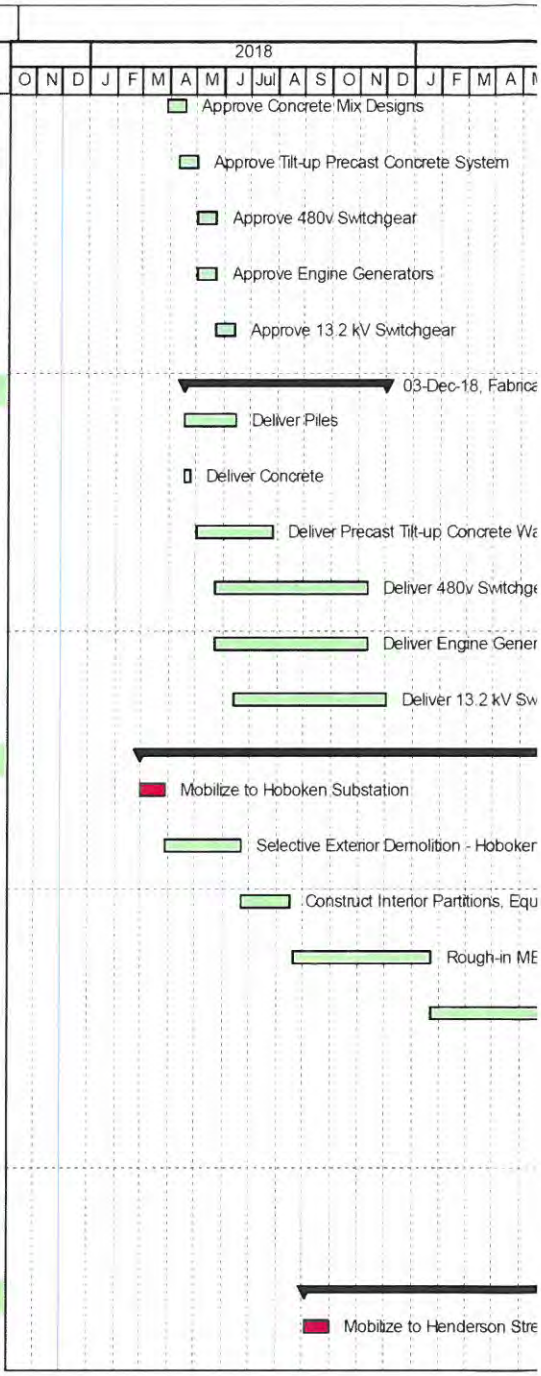


Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

NJT Hoboken - New Jersey Tran
Henderson Street S

New Jersey Transit Hoboken "Depot" and Henderson Street Substations

Activity ID	Activity Name	OD	Start	Finish
62	Approve Concrete Mix Designs	21	29-Mar-18	18-Apr-18
60	Approve Tilt-up Precast Concrete System	21	12-Apr-18	02-May-18
58	Approve 480v Switchgear	21	03-May-18	23-May-18
63	Approve Engine Generators	21	03-May-18	23-May-18
59	Approve 13.2 kV Switchgear	21	24-May-18	13-Jun-18
Fabrication & Deliveries		159	19-Apr-18	03-Dec-18
84	Deliver Piles	40	19-Apr-18	14-Jun-18
85	Deliver Concrete	5	19-Apr-18	25-Apr-18
83	Deliver Precast Tilt-up Concrete Wall System	60	03-May-18	27-Jul-18
81	Deliver 480v Switchgear	120	24-May-18	12-Nov-18
86	Deliver Engine Generators	120	24-May-18	12-Nov-18
82	Deliver 13.2 kV Switchgear	120	14-Jun-18	03-Dec-18
Hoboken "Depot" Substation		620	01-Mar-18	01-Sep-20
111	Mobilize to Hoboken Substation	20	01-Mar-18	28-Mar-18
112	Selective Exterior Demolition - Hoboken Substation	60	29-Mar-18	21-Jun-18
113	Construct Interior Partitions, Equipment Pads, etc - Hoboken Substation	40	22-Jun-18	17-Aug-18
114	Rough-in MEPFP - Hoboken Substation	80	20-Aug-18	22-Jan-19
115	Set 480v Switchgear and Ancillaries - Hoboken Substation	120	23-Jan-19	09-Jul-19
116	Low Voltage (480v) Connections - Hoboken Substation	140	10-Jul-19	21-Jan-20
117	Test & Energize 480v Switchgear - Hoboken Substation	60	22-Jan-20	14-Apr-20
118	Disconnect, Switch Over Existing Loads to 480v Switchgear - Hoboken Substation	100	15-Apr-20	01-Sep-20
119	Complete Hoboken Substation (30 Months Total)	0		01-Sep-20
Henderson Street Substation		620	04-Sep-18	02-Mar-21
201	Mobilize to Henderson Street Substation	20	04-Sep-18	01-Oct-18



Actual Work
Remaining Work
Critical Remaining Work
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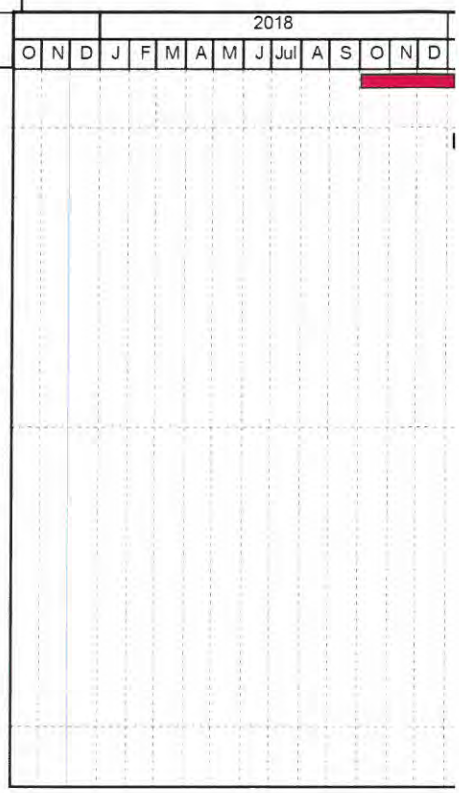
New Jersey Transit Hoboken "Depot" and Henderson Street Substations

Activity ID	Activity Name	OD	Start	Finish
202	Demolish Existing Boiler Building, Grade Site - Henderson Street Substation	40	02-Oct-18	08-Jan-19
203	Install Piles, Pile Caps, Grade Beams - Henderson Street Substation	50	09-Jan-19	19-Mar-19
204	Place Concrete for Slab on Grade - Henderson Street Substation	30	20-Mar-19	30-Apr-19
205	Erect Tilt-up Concrete Structure System - Henderson Street Substation	30	01-May-19	11-Jun-19
221	Pour Pads, Set, Connect Engine Generators - Henderson Street Substation	90	01-May-19	03-Sep-19
206	Construct Interior Partitions, Equipment Pads - Henderson Street Substation	40	12-Jun-19	06-Aug-19
207	Rough-in MEPFP - Henderson Street Substation	70	07-Aug-19	12-Nov-19
208	Set 13.2 kV Switchgear & Ancillaries - Henderson Street Substation	90	13-Nov-19	17-Mar-20
209	High Voltage (13.2 kV) Connections - Henderson Street Substation	110	18-Mar-20	18-Aug-20
210	Test & Energize 13.2 kV Switchgear - Henderson Street Substation	60	19-Aug-20	10-Nov-20
211	Disconnect, Switch Over Existing Loads to 480v Switchgear - Henderson Street Substation	80	11-Nov-20	02-Mar-21
250	Complete Henderson Street Substation (30 Months Total)	0		02-Mar-21



Actual Work
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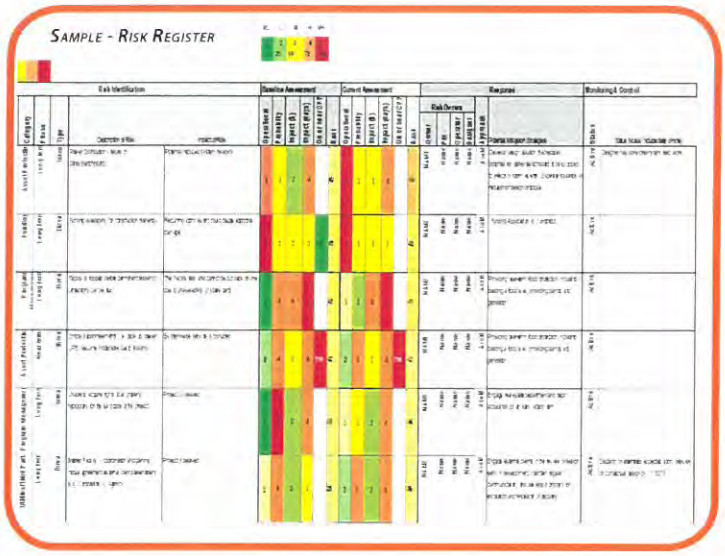
SAMPLE - RISK REGISTER



Major Construction Risks and Mitigations

The NAIK team has identified several of the major risks that could potentially impact the schedule and budget of both the Depot and Henderson Substation Projects with the goal of recommending mitigations that can be implemented early on.

Risk of Inundation During Construction

The risk of tidal inundation at Hoboken Terminal and Yard is persistent as described earlier due to the proximity of the Hudson River and low-lying topography. The Contractor must be mindful of the risk and the NAIK team must ensure that an actionable "storm emergency response project plan" is developed by the Contractor identifying procedures and preparation commencing 96 hours prior to a tidal inundation threat. Components of the plan should include storing onsite material and equipment above the 100-year flood elevation and storing long lead equipment safely off-site until ready for installation at the Project sites.

Hazardous Material Abatement and Contaminated Soil

Hoboken Yard and Terminal were built on fill material and have been historically known to contain hazardous substances. The unforeseen or unanticipated identification of hazardous material must be avoided to ensure the Contractor's schedule is not needlessly interrupted. With that said, the NAIK team will ensure that the Contractor's schedule and work plans make the abatement of the entire work site a priority at the launch of both Projects. The Contractors environmental management plan, the construction managers environmental management plan and suspect material testing must be handled as priority activities.

PSE&G delays new power feeds

The new PSE&G power feeds could potentially delay the construction of the Henderson Substation Project because onsite testing and commissioning of high tension transformers and switch gear cannot be performed without permanent power feeds in place. The NAIK team must support NJ TRANSIT to ensure schedule and design coordination with PSEG through frequent and open lines of communication with PSE&G counterparts.

Unforeseen Site Conditions

Unanticipated underground utilities can significantly impact the Projects schedule performance if discovered during the course of the construction work. This potential risk should be addressed early on while there is still time to mitigate the issue(s) without having to extend the overall Project duration. This being the case, the NAIK team will advise the Contractor to test pit critical locations and verify if a utility conflict exists. If a utility is identified, the DoR and NJ TRANSIT PM will be contacted to develop a utility relocation plan and schedule mitigation strategy.

The Contractor must be mindful of the risk and the Construction Management Team must ensure that an actionable "storm emergency response project plan" is developed by the Contractor identifying procedures and preparation commencing 96 hours prior to a tidal inundation threat

Availability of NJ TRANSIT Force Account (FA) Staff

Throughout NAIK's extensive experience working with local commuter railroad and rapid transit agencies we have seen first-hand the difficulty in coordinating the FA resources to inspect, commission and place in services transit electrical equipment. This is because FA staff are charged with the day to day safety and maintenance of the railroad and that has to be their first and foremost priority to make sure that every rush hour train runs smoothly. As this is the case, activities requiring FA support must have additional time planned to account for the unavailability of FA personnel when needed. Additionally, the Contractor's work must be completed as per the design, verified and tested beforehand to ensure that FA staff do not have to be rescheduled to reinspect or recommission the same work a second time.

Buy American

Both Henderson and Depot Substation Projects are federally funded and must comply with Buy American regulations. Although this requirement is solely on the Contractor as per NJ TRANSIT's General Provisions, the NAIK team must carefully ensure that equipment and material submittals meet the specific requirements spelled out in the contracts as delivery of foreign manufactured equipment will impact the Project completion schedules, particularly with long lead items. Also, given the site access and logistical issues at the Pullman Immigrant Building, any material or equipment to be delivered to the site must be carefully inspected at transportation staging areas before final shipping to the immediate vicinity of the project area to ensure compliance with approved shop drawings, factory testing and safe shipping procedures.

QUICK REVIEW *NJ TRANSIT Flagging Cost Overruns*

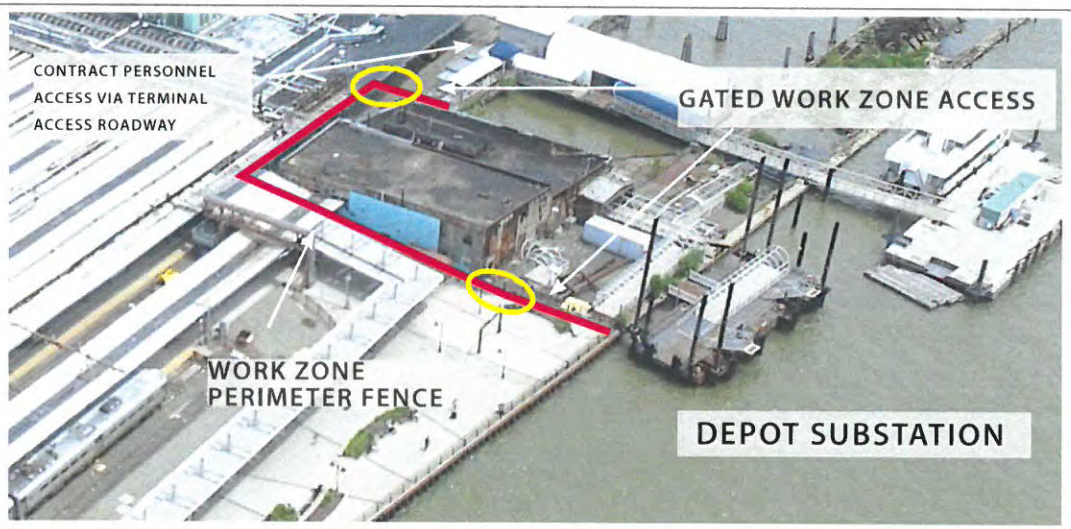
In accordance with the United Transportation Union (UTU) collective bargaining agreement, any work taking place on NJ TRANSIT's railroad proper will require union personnel for flagging and/or construction work supervision. This requirement can substantially add to the aggregate project cost as the annual loaded cost of a single flagman easily exceeds $200K. Depending on the complexity and duration of the project, the flagging budget allocation can be a significant percentage of the overall project cost. In the case of both Depot and Henderson Substation, assuming a single full-time flagger at each location for 2.5 years each, the flagging cost would easily exceed $600K per location - $1.2M combined cost. Possible contractor schedule overruns will, of course, increase the flagging cost on a day for day basis resulting in project contingency drawdown which is normally allocated at only 5% of the overall construction budget.

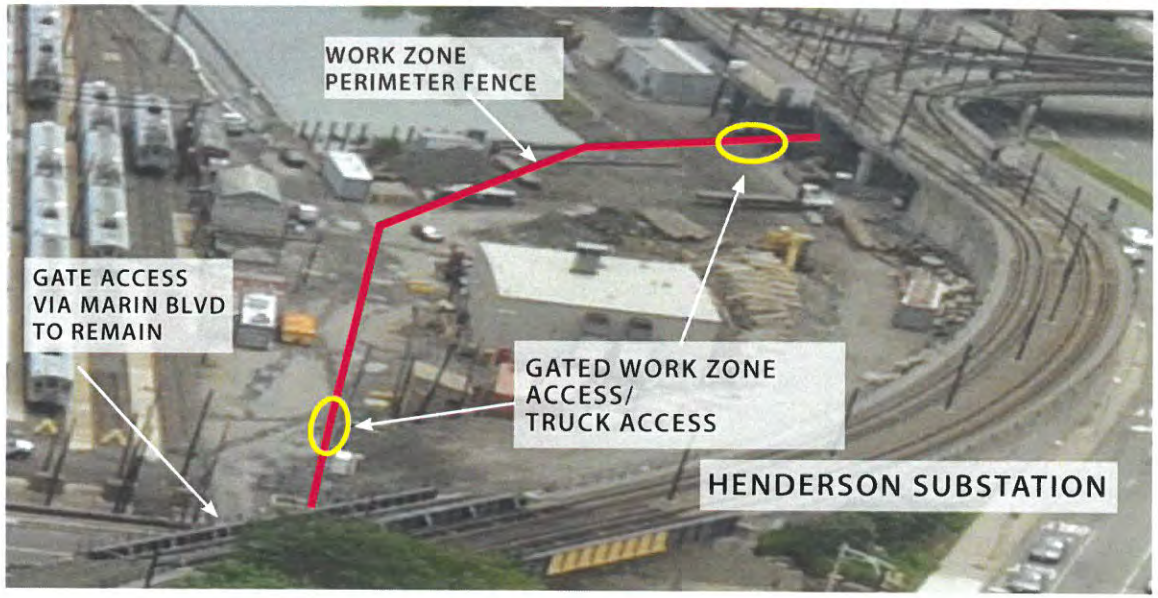
To mitigate this risk and potentially reduce the flagging cost allocation, the NAIK team proposes to collaborate with both Depot and Henderson Substation Contractor's to establish a protected and secured work site perimeter to isolate the work-zones from Railroad Operations at the Hoboken Terminal and adjacent to the Pullman Yard. Based on our key team personnel experience, NJ TRANSIT can potentially negotiate with NJ TRANSIT's Transportation Department (Operations) a reduction for on-site flagging personnel resulting in significant cost savings which can be reallocated to the construction contingency budget. As part of our pro-active approach, the NAIK team has developed preliminary concepts for work site perimeters at both Depot and Henderson Substation locations.

Other factors that should be taken into consideration include contractor employee access and work within the vicinity of NJ TRANSIT's catenary system. Under NJ TRANSIT's General Requirements For Working Within the Right-of-Way", contractors working within, or have the potential of being within 15 feet of high voltage electrified facilities will require the facilities to be de-energized or will need to work under the protection of qualified ET Personnel. The NAIK team would engage NJ TRANSIT's ET Department in discussions on reducing the ET support services without sacrificing safety of employees and evaluate the cost/benefit of any recommendations given. If found beneficial for the overall Projects, then the NAIK team will present a proposal to the ET Chief Engineer for consideration to reduce the overall ET support services budget.

Note: Refer to Figure "Depot and Henderson Substation – Work Site Perimeter" on the following page

Depot and Henderson Substation – Work Site Perimeter





Note:
The work zones shown are the areas where the Contractors will be primarily working and limited or no flagging will be required.
It is understood, that in some instances, the Contractors work will be outside the work zones and flagging will be required for those activities in accordance with UTU requirements.

Long Lead Equipment

Custom built components such as transformers and switch gear are long lead components and can drive the overall duration of the Projects. Because of this, the NAIK team must have a robust plan to oversee the Contractor's and vendors efforts to manufacture long lead items to ensure the timely delivery and successful performance of such equipment throughout the manufacturing cycle.

Permits

All permits are generally the responsibility of the Contractor; however, the NAIK team will diligently and proactively work with both the Contractor and NJ TRANSIT to facilitate: the approval of permits, timely scheduling of inspections, verification that work is constructed as per approved design documents and permit stipulations and final sign-off from the regulatory agencies is acquired.

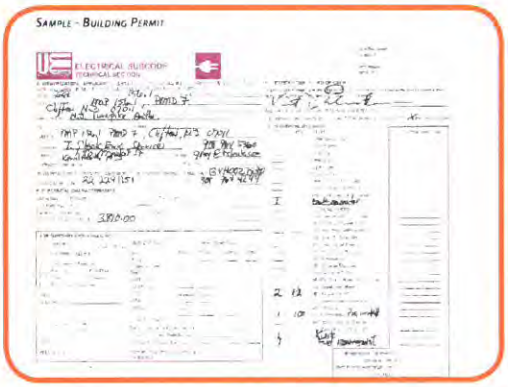
Historic Preservation

The Delaware, Lackawanna & Western Railroad Hoboken Terminal Complex, including the Pullman & Immigrant Building, is listed on the State (SR) and National Registers (NR) of Historic Places. Therefore, it is assumed that all work conducted at Hoboken Terminal has been reviewed in compliance with Section 106 of the National Historic Preservation Act of 1966 and the New Jersey Register of Historic Places Act. It is also assumed that a Memorandum of Agreement and/or a letter issuing project authorization under the New Jersey State Historic Register Act was issued by the NJDEP Commissioner and signed and agreed to by NJ TRANSIT. The scope of work for historic preservation will be guided by the stipulations and mitigation measures as contained in these two documents. All work will be conducted in compliance with the Secretary of the Interiors Standards and Guidelines for Historic Preservation Projects.

The existing abandoned boiler house where the new Henderson Substation will be constructed is not registered as a historic site and should not require review by SHPO.

DCA

DCA building permits for both the Depot and Henderson Substation Projects will be required. The permits will cover the inspection of: structural steel, structural concrete, foundations, building electric, fire protection, fire proofing, and plumbing. In addition, special inspections covering structural steel connections for welding and fasteners will be required. DCA will not be involved in the inspection and sign-off on the high-tension substation equipment or SCADA systems.


SAMPLE - BUILDING PERMIT

Waterfront Development (WFD)

Because of the proximity of the Depot Substation to the west bank of the Hudson River, a WFD permit will be required under New Jersey's Department of Environmental Protection Land Use Regulations. A WFD permit may be required for the Henderson Substation Project given the proximity to the Longslip Canal which may be within 150 feet, however this should have been verified by the designer of record.

Coast Guard

The potential use of barge equipment to facilitate Depot Substation construction is regulated by the US Coast Guard in navigable waterways. The option to use such an approach will be governed by the Contractor's "means and methods" and will have to be secured within NJ TRANSIT's specified construction completion duration.

All permits are generally the responsibility of the Contractor; however, the NAIK team will diligently and proactively work with both the Contractor and NJ TRANSIT to facilitate the approval of permits, timely scheduling of inspections, verification that work is constructed as per approved design documents and permit stipulations and lastly, final sign-off from the regulatory agencies.

Pre-Construction Phase Services

Introduction

NAIK's intent is to hit the ground running from day one of the contract utilizing only those team members required to successfully accomplish Pre-Construction Tasks P1 thru P4 and provide NJ TRANSIT with the required deliverables for each task. During the Pre-Construction phase, our team will focus on establishing a robust Organization and Management Plan outlining the project's specific personnel needs. Our Constructability Review of the 100% design documents will highlight any areas that are unclear or ambiguous that could potentially lead to change orders and/or modifications to the design. We will identify any constructability, or bid irregularities, verify that the overall project(s) duration is correct, uncover any opportunities to reduce construction claims exposure and unnecessary project costs and include these and other recommendations in our written report and oral presentation to NJ TRANSIT. We will assist NJ TRANSIT during the pre-award phase of both contracts related to this Construction Manager assignment by attending pre-bid meetings, site inspections and evaluating Contractor's bids. We will provide written and verbal recommendations/comments, as requested. Our comprehensive CM procedures include essential guidelines for all project activities including inspections, testing, quality assurance/quality control and safety programs. Formalized document control procedures which adhere to NJ TRANSIT Super Storm Sandy protocol will be established to record and log all project correspondence and Contractor submissions. A system will be instituted to monitor all project expenditures prior to NTP of the construction contracts. Details of our management and document control procedures will be included in a Memo to NJ TRANSIT. Lastly, we will develop a Project Environmental Management Plan which strictly complies with EPA, OSHA and Federal, State and local agency's governing both projects. A Memo describing our team's role in the handling and disposal of hazardous construction waste will be prepared for NJ TRANSIT's review and approval.

Hoboken Yard and Terminal Operations and construction methodology is Second to None

The NAIK team is committed to ensuring that all Pre-Construction phase tasks are handled with the utmost attention to detail. Our experience has shown us time and time again that due diligence in timely and expertly addressing all tasks at the earliest stages results in recognizable schedule/budget benefits throughout the project cycle. We've summarized a few of NAIK's Best Practices and proposed "10-Point Quick Start Action Plan" to highlight our in-depth knowhow of the construction management process and NJ TRANSIT requirements.

Task P1- Constructability Review

a. Review Plans, Specs, Cost Estimates and Schedules

Our Construction Manager (CM) will oversee a constructability review team responsible for reviewing all design documents to verify that the Projects, as designed, can be built within the established budgets and schedules. NAIK's' collective team knowledge of the substation Projects, Hoboken Yard and Terminal Operations and construction methodology is second to none. Our Team includes: Moe Soliman, Eli Charchar, Michael Gaspartich, Daren Petroski, Carlo Settineri, Ken Standig, Paul Rudderow and Nicole Johnson.

Prior to scheduling a briefing with all constructability reviewers, NAIK's CM will distribute contract documents and a preliminary version of the Constructability Review - Scope Checklist identifying team members and assigning review areas. If applicable, provide copies of prior design and constructability review comments, responses and current status. Topics to be covered at the briefing include, but are not limited to the following:

1. The scope and status of the design
2. The design criteria under which the designer is working
3. The scope of the constructability review, identifying areas to be included and excluded from the review (e.g. specifications, contract terms and conditions, budgets/estimates, schedule, property constraints, legal issues)

4. Which deliverables are due from the review (e.g. written report, slide presentation, electronic comment database) and assign reviewer responsibilities
5. Establish the timeframe for review completion.

b. Constructability Review of the 100% Design Plans and Specs

NAIK' CM will conduct a constructability workshop and generate a constructability review report containing the following key elements:

1. An Executive Summary.
2. A summary of issues raised, findings and recommendations including, but not limited to: construction challenges; risks, stakeholder coordination; staging; site access; procurement methodology; permits; means and methods and force account availability.
3. A detailed list of review comments sorted by discipline in table form within the report, referencing the applicable drawing or specification.
4. Cost estimate review comments and estimate update based on the most current information.
5. Construction schedule review comments and schedule update based on the most current information.
6. Review team's conclusions.
7. Detailed list of all documents that were reviewed by the review team including title, description, date and any revisions if applicable.

c. Advise NJ TRANSIT of Any Issues and Make Recommendations

Constructability reviews will focus on topics such as construction work site access, laydown areas, design assumptions, construction means and methods, potential bid irregularities/ cross-referencing issues, interface coordination between on-site contracts and other projects, suitability of means and methods, availability of labor and conformance with local work practices, project safety, suitability of proposed materials and equipment, coordination between on-site

Quick Review

NAIK'S Customized 10-Point "Quick Start" Action Plan

1. Assist NJ TRANSIT PM and Procurement Department with analysis of Contractor bids and evaluation of key team members and sub-contractors.
2. Perform Constructability Review to identify any potential schedule or budget concerns as well identifying opportunities to reduce the overall construction duration through innovative "means and methodologies".
3. Prepare PMP's and office engineering activities including: forms; progress reports, file management, file nomenclature, construction management forms, and review the Contractor's file management and work-flow procedures.
4. Prepare CM management best practices (safety, quality, inspection and on-time performance) for review, comment and approval by NJ TRANSIT's Project Manager.
5. Compile list of contractually required submittals including: key personnel, subcontractors, management, technical, schedule, safety and quality and establish due dates. Also designate primary and secondary reviewers from CM, DoR and NJ TRANSIT.
6. Review, comment and approve Contractor's baseline schedule
7. Review, comment and approve the Contractor's payment requisition items units and values and establishing cost accounting system for tracking costs by funding source.
8. Review, comment and approve the work staging plan and coordinate with Hoboken Terminal and Yard Operations Manager.
9. Schedule and conduct kick-off meetings for Management, Safety, Quality, Schedule and Force Account.
10. Review all permit requirements, third-party coordination and schedule/conduct kick-off meetings.

Contractors, clarity of the contract documents for bidding and analysis of contract requirements regarding owner risk and value added to the project.

We have carefully studied the project area and as demonstrated in the project understanding section of our proposal, we have valuable recommendations regarding Contractor means and methods, project phasing and site access. We've done this with the aim of facilitating the Contractor's logistical plans to execute the projects within or below schedule and budget goals.

We have carefully studied the project area and we have valuable recommendations regarding Contractor means and methods, project phasing and site access

Task P2 - Pre-Award Assistance

Our team will provide support services to NJ TRANSIT's PM by attending all Pre-Bid Meetings and site inspections, verifying the accuracy of Contractor's bid by identifying any apparent bid errors and/or omissions, checking the Contractor's prior experience with work of a similar size and scope, verifying compliance with contract requirements, checking qualifications of the Contractor's management team and most importantly, verifying that the "apparent low bid Contractor" is able to successfully complete the project on-time and on-budget.

Task P3 - Management Procedures and Document Control

a. Submit Methodologies for all standard CM procedures

Establishing procedures from the get go and putting them into use is critical to the success and efficiency of the CM's role. This is why the NAIK team will make this an early action as part of our project approach. A key advantage with our team is we already have in current use standard FTA based procedures and forms that will be customized for NJ TRANSIT's specific organizational and project needs. These procedures have been developed over many years and based on best practices utilizing "tried and true" methods. In addition, our entire key team of Eli Charchar, Michael Gaspartich and Moe Soliman have in depth knowledge of NJ TRANSIT procedures through past work so we will not reinvent the wheel but look for streamlining and workflow improvements:

Our Project Management Procedures (PMP) will include, but not be limited to the following sections:

- Constructability Reviews
- Contractor Schedule Reviews, Approvals and Revision
- Construction Safety Requirements
- Field Engineer Responsibilities
- QA/QC During Construction
- Control of Non-Conforming Items
- Implementation of Corrective and Preventive Action
- Stop Work Order
- Document Control and Records Retention
- Work Plan Reviews
- Closeout
- Communications during Emergency and Non-Emergency Situations
- Standard Forms

The PMP will be delivered to NJ TRANSIT for review, and upon approval, distributed to members of the NAIK team, each of who will provide written acknowledgement of receipt and understanding of this "roadmap for success".

Concurrent with the development of the PMP, Mark Funk, our team's Safety Engineer, will prepare a site-specific safety plan and we will ensure that our inspection staff have all proper OSHA and Roadway Worker Protection (RWP) training along with other specific training that may be needed.

b. Formalize Document Control Procedures

This procedure is established to control the method of receiving, checking, recording, filing and distributing project documents in order to ensure that the most current, approved information is being utilized for NJ

TRANSIT construction activities, to define the format required for naming and storing non-CADD documents in the electronic project files and to archive project records for traceability and quality assurance. The scope of this procedure will include naming and storing files containing technical submittals (i.e. shop drawings, cut sheets, samples, O&M Manuals, commissioning plans, etc.), quality management submittals, safety submittals, progress payment requests, schedules, correspondence, progress photos, daily reports, variance reports, non-conformance reports, deficiency reports, meeting minutes, emails, etc.

As described in Task C1d, to interface between the NAIK team's and NJ TRANSIT's filing system, we intend to utilize a secure and external, web-based SharePoint document management platform to manage electronic documents and work-flows between the Contractor, Designer of Record and NAIK.

c. Establish a System to Monitor Project Expenditures

The Office Engineer, along with the CM's support, will track Project Expenditures of the Construction Contract and will be monitored utilizing MS Office Excel, which will track contract amount, payment number, paid to date and next month forecast payment. In addition, we will use this platform as a means to track any approved change order payments and pending change order estimated values. This system will provide a concise report of expenditures to date for all items of work as well as a cost-to-complete for the Projects. The Project Expenditures report will be a working document that can be updated at any time. Before implementation, the Project Expenditures report will be submitted to NJ TRANSIT for review and comment. NAIK's expert team will design the MS Excel file with "Conditional Formatting" to streamline data entry and financial performance review.

NAIK's expert Team will design the MS Excel file with "Conditional Formatting" to streamline data entry and financial performance review

Depot and Henderson Substations are both FTA sponsored Projects with various funding sources including: Federal, State and Insurance and will require cost-tracking by funding source to facilitate independent auditing and timely and efficient cost reimbursement from NJ TRANSIT's funding partners. Accordingly, we will break down costs by funding source ensuring they reconcile with NJ TRANSIT purchase order numbers. As NJ TRANSIT's Super Sandy Program Manager, Moe's team oversaw the development of the FTA approved project management plan and handled cost management which required the separate tracking of various funding sources by federal, state, and insurance.

We will break down costs by funding source ensuring that they reconcile with NJ TRANSIT purchase order numbers

Task P4 - Environmental

a. Develop a Project Environmental Management Plan

Roux has experience working at NJ TRANSIT's Hoboken Rail Yard where they performed due diligence activities to support NJ TRANSIT's construction of the new wheel true building and construction along the Longslip canal. In addition, they are currently performing a remedial investigation under the Licensed Site Remediation Professional (LSRP) program at what is known as the Hoboken AST site located at the corner of 18th Street and Marin Boulevard, which was historically part of the Hoboken Rail Yard. Based on their knowledge of the area it is anticipated that any soil or groundwater generated during the construction activities could be contaminated with low concentrations of metals and polycyclic aromatic hydrocarbons (PAHs) as the result of historic fill material that was used to raise the elevation of land along the waterfront. In addition, the long history of railroad operations may also have contributed other contaminants such as petroleum constituents and PCBs. Consequently, proper management of the soil and groundwater generated during construction activities will be required.

After the completion of a site-inspection which will include all structures within the footprint of the work area, Roux will prepare the Project Environmental Management Plan that will identify the procedures for the proper handling, management and disposal of lead-based paint (LBP), asbestos containing materials (ACM) and concrete during the demolition or renovation of existing buildings or structures during the Projects. The plan will also include the procedures for proper handling, management and disposal of soil and/or groundwater generated during the construction activities. The handling, storage and disposal of the wastes will be in accordance with the applicable USEPA and NJDEP regulations, as well as best management practices and OSHA regulations.

b. Environmental Material Handling Resource

During demolition and construction activities, Roux will have a qualified person available to ensure that contaminated waste materials are being handled in accordance with the Environmental PMP and answer questions regarding the proper handling of environmentally sensitive materials.

ABANDONED "BOILER HOUSE"

ABANDONED "BOILER HOUSE"

Construction Phase Services

Introduction

Once a solid foundation to the Project has been firmly established by NAIK's successful completion of all Pre-Construction tasks, we will commence with performing Construction Phase tasks. All Contractor activities, FA work and third-party utility work will be closely monitored from NAIK's field office located on or adjacent to the Hoboken Complex. Prior to the Contractor's NTP, The NAIK team will conduct a kick-off meeting with NJ TRANSIT, the Contractors, public utilities and other essential project stakeholders. Thereafter and continuing throughout the Project(s), the NAIK team will conduct progress meetings, with representatives from NJ TRANSIT, the Contractor(s) and others, on a bi-weekly, or more frequent basis as requested by NJ TRANSIT. Cost control is of utmost importance in keeping the Projects on budget and the NAIK team will thoroughly review all Contractor(s) invoices, requests for fixed-price and time/material change orders and Contractor claims. The NAIK team will ensure that all Contractor work complies with state and federal labor laws, including payment of prevailing wages. Outreach by the CM team to the surrounding community will commence early on and continue throughout the Project(s). All Project documents will be available on-site at all times and immediately available to NJ TRANSIT. The NAIK team will prepare comprehensive Daily Reports noting all planned and unusual occurrences and monthly progress reports addressing all completed Project activities showing actual vs. planned and upcoming project work and cost. The NAIK team will prepare and submit a comprehensive testing and commissioning program for interim and final acceptance of all systems. The NAIK team will oversee all field and factory acceptance tests to ensure compliance with contract specifications. We understand that NJ TRANSIT will allow a stipend of $10,500 for miscellaneous testing and monitoring where it is not included in the construction contract. The NAIK team is responsible for ensuring that all hazardous construction waste is stored and disposed of in accordance with federal, state and local regulations. NAIK's expert schedulers will review all Contractor's construction CPM schedules using the latest versions of Primavera P6 software to ensure that all schedules and subsequent updates conform to contract requirements and that work sequences support milestones/completion dates/Force Account schedules. The NAIK team will plan monthly schedule meetings for an in-depth review of the Contractor's actual vs. planned adherence to the schedule. We will review the Contractor's initial Work Plans to verify that they are consistent with the construction contract's general provisions (GPs) and review all Contractor submissions thereafter to ensure continued compliance. Shop Drawings/Materials will be processed in an expedited manner logging and tracking dates when submittals are received by NJ TRANSIT and dates when they are returned to the Contractor, including all annotations, such as revise and re-submit included. RFI's will be handled as submittals and included in the log. The detailed Change Order procedure established during the Pre-Construction Phase will be the basis for reviewing, negotiating and granting Change Orders. A log will be established and maintained to record

Quick Review

NAIK's Construction Management Best Practices

- Safety is First and Foremost
- Vigilant Onsite Inspectors
- Get it Right the First-Time
- Take Charge
- Do More with Less
- Develop and Maintain Positive Rapport
- Resolve Issues at the Rank and File Level
- Knowledge of Agency Requirements
- Knowledge of State & Federal Regulatory Requirements

and track all NPCs and CICORs. The NAIK team will coordinate and participate in negotiating all NPCs and CICOR's with a NJ TRANSIT Contracting Officer and PM present. Our experienced team has developed a Quality Assurance/Quality Control program that conforms to NJ TRANSIT and FTA requirements and we will use these as guides throughout the Projects. The importance of Project safety cannot be underestimated. The NAIK team will have a designated Safety Officer with full authority at all times to act on behalf of our team who will be responsible for reviewing the Contractor's safety program and on-site monitoring of construction activities throughout the Projects. NAIK team members will attend NJ TRANSIT safety training. We will conduct periodic safety meetings with NJ TRANSIT and the Contractor's representative to review the project safety and loss prevention program. We understand that our team has the authority to issue a STOP WORK order should the Contractor, or any third-party, act in an unsafe manner that could jeopardize human safety. At the time of Project closeout, our team will determine when the Contractor's work is substantially complete and receive approval from NJ TRANSIT's PM prior to preparing the Contractor's punch list. The NAIK team will determine final completion and provide written notice to NJ TRANSIT's PM that punch list items have been satisfactorily completed and the work is ready for final inspection. Upon prior approval of NJ TRANSIT's PM, we will coordinate any training needed for NJ TRANSIT personnel on the newly installed equipment and systems that the Contractor is contractually obligated to provide.

The NAIK team has a deep understanding of all Construction Phase Tasks and the roles and responsibilities of its team members to successfully accomplish each task. We have developed a comprehensive technical approach that ensures that all tasks are expertly and timely performed by the right team members during the appropriate stages of the Projects. We understand that all projects are unique, yet in some cases, they also contain core tasks that are universal to projects of this type. Where we have identified similarities, we are modelling our approach based on our expertise and successful past project experience.

The NAIK team has a deep understanding of all Construction Phase Tasks and the roles and responsibilities of its team members

Task C1- Construction Management Administration

a. Mobilization at Construction Site

The Contractor's mobilization phase commences when the NJ TRANSIT issues the Notice of Award (NOA) to the Contractor at which time the Contractor must assemble resources to launch the project within the contract terms and conditions. Key activities during this period include locating and establishing a project office, approval of key Contractor staff, approval of sub-contractors, and submission and approval of: management, administrative, safety, quality and schedule submittals. Immediately following NOA, the NAIK team will coordinate with the Contractor to establish a project office and furniture/equipment fit out. Concurrently, we will work with the Contractor to ensure timely compliance with the contract submittal requirements to assure the smooth start-up of the Project construction phase.

NAIK will mobilize construction phase personnel on an as-needed basis in conjunction with the overall construction schedule, with the approval of NJ TRANSIT. While the mobilization phase is underway and the Project office is being prepared, NAIK will temporarily utilize our well-equipped and nearby NY and Edison offices for our CM operations.

The NAIK team will work with the Contractor to ensure timely compliance with contract submittal requirements to assure the smooth start-up of the Project

Communications with the field staff will be established using a commercial cellular and email capable telephone and/or two-way radio system subject to the approval of NJ TRANSIT. Should two-way radios be required using special frequencies used by NJ TRANSIT personnel, NAIK will provide compatible equipment for use by the CM team.

b. Work Coordination

The NAIK team will continuously monitor and coordinate the work performed at the Hoboken site with NJ TRANSIT Force Account (FA) resources to minimize unnecessary delay and inefficiencies to this project that could result in unproductive downtime and, if required, request approval from NJ TRANSIT to utilize NJ TRANSIT designated lay down areas for delivery and storage of material and equipment.

NAIK team can truly add significant value to NJ TRANSIT with Eli and Mike's deep institutional knowledge of NJ TRANSIT procedures regarding FA request lead times, crew requirements, labor agreements and scheduling of resources

This is an area where the NAIK team can truly add significant value to NJ TRANSIT with Eli and Mike's deep institutional knowledge of NJ TRANSIT procedures regarding FA request lead times, crew requirements, labor agreements and scheduling of resources. Additionally, their relationship with NJ TRANSIT's user groups will assist in coordinating there "buy-in" and project acceptance at substantial completion.

c. Force Account Assistance

The NAIK team understands the importance of requesting FA assistance in a timely manner so that internal NJ TRANSIT review and approval is received prior to requested dates. We will monitor the Contractor's requests for FA assistance on an ongoing basis and, if necessary, advise NJ TRANSIT of any changes to original requests due to changes to the project schedule and/or work activities.

d. Document Control

As an early action item, the NAIK team will establish formal document control procedures for the Contractor's submittals including receiving, checking, recording, filing and distributing all Project documents to ensure that the most current and approved NJ TRANSIT construction activities documentation is being utilized. Our team will define the correct format required for naming and storing non-CADD documents in the electronic project files and to systematically archive project records for traceability, auditability and quality assurance purposes.

To foster an efficient and seamless interface between the NAIK team's and NJ TRANSIT's filing system, we intend to utilize a secure and external, web-based SharePoint document management platform to manage electronic documents and work-flows between the Contractor, Designer of Record and NAIK

NAIK Team's Knowledge of NJ TRANSIT Filing System and ECMS

The NAIK team is highly experienced and thoroughly familiar with NJ TRANSIT's document management processes and the existing structure in place for the Superstorm Sandy Resilience Program. We are thoroughly familiar with NJ TRANSIT's file management system, referred to as "Enterprise Content Management System" (ECMS) and its established work breakdown structure (WBS) and file naming nomenclature. NJ TRANSIT has recently permitted web-based access by third-party consultants/contractors to the system for electronic filing and document retention.

NAIK Approach

To foster an efficient and seamless interface between the the NAIK team's and NJ TRANSIT's filing system, we intend to utilize a secure and external, web-based SharePoint document management platform to manage electronic documents and work-flows between the Contractor, Designer of Record and NAIK. The same filing folder structure and nomenclature will be used for tracking all project correspondence, Requests-for-Information (RFIs), reports, test results, shop drawings, and all other project related documents to allow seamless interface and electronic file uploads to NJ TRANSIT's ECMS. We will upload all project documents that require NJ TRANSIT's review, approval and/or are designated for retention to NJ TRANSIT's ECMS. Hardcopies of all documents will be available for review and audit in NAIK's Project office.

Content uploaded to ECMS will include, but not be limited to: technical submittals (i.e. shop drawings, cut sheets, samples, O&M

manuals, commissioning plans, etc.); quality management submittals; safety submittals; progress payment requests, variance reports; non-conformance reports; deficiency reports; meeting minutes; emails, etc.

As-built/ Redline Drawings

An important aspect of the NAIK team's approach to "getting it right the first time" is maintaining a red-line set of drawings in our Project office that will be checked and compared on a daily basis to the "in-situ" Project conditions to ensure that the Project's design intent is being met. Any authorized field conditions that alter the construction project will be accurately documented. Unapproved construction changes will be brought immediately to the attention of the Contractor's personnel for discussion and correction, if required. Our goal is to alert the Contractor of construction non-conformances as they arise to avoid any potential for schedule delay. We will keep NJ TRANSIT's PM apprised of all non-conformance issues and resulting corrective actions, if required and if any preventive measures were undertaken to prevent future reoccurrence. By maintaining a log of red-line drawing updates and descriptions throughout the course of the construction cycle at the project's completion our team will be able to easily certify the accuracy of all as-built drawings.

Cost Tracking

Despite the fact that this project is predominantly funded through an FTA Disaster Recovery Grant, certain costs will be funded by insurance payments and/ or by the State of New Jersey and, therefore, must be tracked separately for reimbursement by the correct funding partner. This cost tracking task is of vital importance to NJ TRANSIT to ensure that reimbursement applications are not delayed or rejected due to accounting and/or cost reconciliation errors. Our team will meticulously support this effort by structuring our time-keeping system to code all project activities by funding sources as they occur.

Paperless Workflows (PRONTOFORMS)

Paperless Workflows can significantly improve the productivity of the CM staff through the use of portable tablet devices by simplifying routine administrative and document control tasks. Other key features of the system include earned value and schedule updates by importing "meta-data" entered on daily work reports to the approved baseline schedule. This approach will streamline monthly payment requisition review and schedule actualization.

Paperless Workflows can significantly improve the productivity of the CM staff through the use of portable tablet devices by simplifying routine administrative and document control tasks

With the approval of NJ TRANSIT's PM, we intend to implement a paperless document management workflow system on both Substation Projects to seamlessly interface with our SharePoint document management system. The NAIK team will continue to utilize standard NJ TRANSIT reporting formats which can be seamlessly exported to NJ TRANSIT's ECMS document retention system.

e. Project Meetings

Project meetings include weekly review meetings, monthly progress meetings, schedule reviews, change order reviews, design clarification (RFI) meetings, etc. NJ TRANSIT's format for Meeting Minutes will be used to record discussions and action items at Project Meetings. All attendees will receive a copy of the meeting minutes.

The NAIK team will maintain a rolling log of action-items to verify their satisfactory follow up. The action-items log will, identify ball-in-court (BIC), date opened, date closed, status and final disposition.

f. Community Relations

The NAIK team will support NJ TRANSIT's PM in addressing community relations issues that arise during construction, including noise, safety, odor, operations, accidents, delays, disturbances or other issues which could negatively affect the adjacent community. The NAIK team will keep a record of all community inquiries in a "Community Inquiry Log" with the name, contact information, date/time, nature of the inquiry and any other pertinent information.

The sensitivity of public relations and responses to community inquires by NJ TRANSIT cannot be

overstated. The NAIK team will, therefore, promptly notify NJ TRANSIT's PM when inquiries are received and instruct all personnel on our team that no formal or informal responses to community inquiries and/or complaints should be made. All responses made will be by direction and authority of NJ TRANSIT's PM, or Community Affairs representatives. All members of our team will be instructed to be courteous, respectful and professional at all times and to be especially mindful of issues that could arise during challenging and/or hostile situations. In the event that a safety risk is brought to the attention of our team, we will immediately commence an investigation and take prompt and appropriate action, including stopping any activity deemed to risk the welfare of the general public, employees of the Contractor, NJ TRANSIT or NAIK team. These matters will be handled with utmost discretion, understanding that preserving NJ TRANSIT's brand and positive image is a top priority.

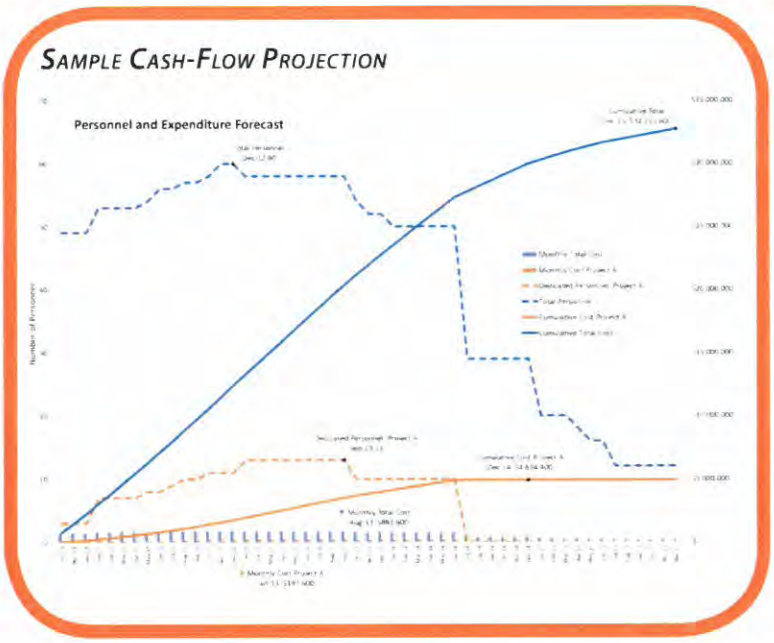
g. Cost Control

The NAIK team will regularly monitor schedules actual percentage of work complete and percentage of budget spent and review any deviations to the baseline. We will determine workable methods to reduce expenses and budget overages and mitigate/eliminate future Contractor claims. Approvals will be received before any time and material work is performed and related Notice of Pending Change Orders (NPC) and/or change orders will be monitored and submitted in a timely fashion for final approval.

As discussed in sub-section C1d Document Controls, we believe there is an opportunity to enhance and streamline cost management through the use of PRONTOFORMS and tablet devices.

h. Labor Relations Assistance

The NAIK team will monitor the Contractor's work at all times to ensure strict compliance with applicable state and federal labor laws. The Contractor's certified payroll, which is included with invoices, will be checked to verify that prevailing wages are being paid. All Contractor reports will be reviewed to ensure that they comply with NJ TRANSIT's Affirmative Action Program regarding Disadvantaged, Women, and Small Business Enterprises. We will monitor the status of mandatory Safety and Railroad training and certifications for workers so that all available workers are eligible to work.



i. Record Keeping

Under the general leadership of our experienced Office Engineer, Nicole Johnson, the NAIK team will maintain current record copies of all contracts, drawings, specifications, samples, catalogue cuts, test results, RFIs, change order, NPCs, etc. on-site utilizing NJ TRANSIT'S ECMS system. A daily activity log that includes labor, material and equipment delivery and work efforts will be prepared. All project records will be immediately available to NJ TRANSIT. Our technical, non-clerical staff will maintain hard cover daily job diaries for each contract to record all work in detail that has been accomplished, number and work classification of personnel utilized by the Contractor and force account units, construction equipment in use, material deliveries, weather conditions, material shortages, tests, labor disputes, general observations, force account flag protection units and, any unusual circumstances which occurred during each day.

SAMPLE - PROGRESS REPORT

PROGRESS REPORT

"Insert Project Photo"

Project Name		***Project No.***	
Contractor		***Contract No.***	
Month/Yr.		***Report No.***	
Date Submitted		***Construction Manager***	*Naik Consulting, PC.*

j. Project Progress Reports

The NAIK team will prepare and transmit directly to NJ TRANSIT's PM a monthly, or more frequent, progress report for review and comment. The format of the progress report will be customized to NJ TRANSIT PM's specific requirements. The report shall include, as a minimum, actual vs. planned progress, progress schedule analysis summary, Contractor payments to date, decision and/or resolution logs, summaries of contract modification, construction management fees paid to date, forecasted work and cost for the next period, status of critical issues and status of M/WBE Utilization.

SAMPLE - DAILY CONSTRUCTION REPORT

DAILY CONSTRUCTION REPORT

Project Name									
Filename			Date:						
Gen. Contractor			Shift:						
Sub-Contractor			M	T	W	TH	F	SAT	SUN
Track Outage Track#									
Work Train Qty:		Flagmen Qty	Temperature						

List of Activities/Task Performed:	
List Contractor and Subs Resources:	
Labor	
Equipment	
Materials	
Job Site Safety Analysis:	

Description of work activities being monitored by the field engineer and performed by the Contractor

Scheduled work for the day: working to schedule? Y or N, Location and progress of work being performed

Daily Quantities:

Reason why contractor is not working to schedule

Remarks: Include directions received, instruction given to Contractor, accidents, Contractor requests or any significant item that warrants attention by supervision:

Field Engineer	Print Name:		Signature & Date
Resident Engineer	Print Name:		Signature & Date

Task C2 - Inspection/ Testing

a. On-site Inspections

The NAIK Team's inspectors will perform all required inspections on a daily basis to ensure work is being performed in accordance with contract drawings and specifications. The inspectors provide daily reports and maintain daily diaries. The Designer of Record will oversee highly specialized work and all deviations and remedial measures will be well documented. Inspections will conform to the requirements of: NJ TRANSIT's PMP, Hazardous Material Handling, Storage and Disposal PMP, DCA and NJDEP (SHPO and CAFRA).

QUICK REVIEW

Historic Preservation Inspection

The NAIK Team services will include inspection of work or conducted near significant historic fabric and in significant areas that will be altered due to the programmatic changes that will be made to the Pullman & Immigrant Building to adapt it to its new use as a substation. The primary areas that would require historic preservation guidance during Construction Management include:

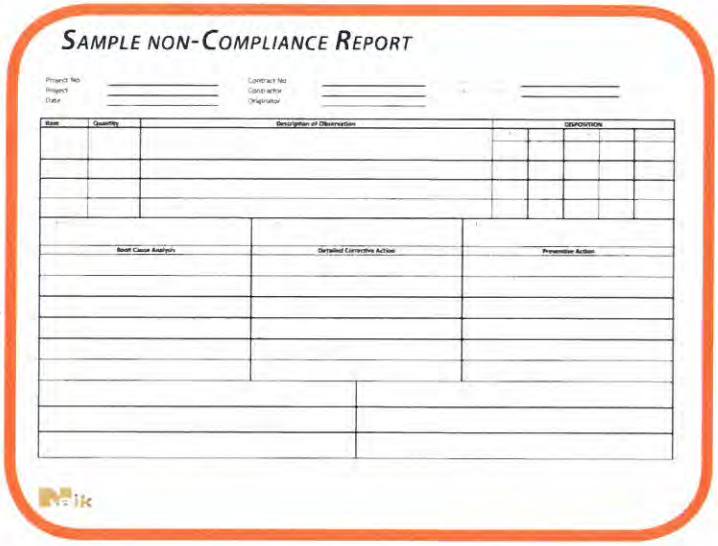
1. Exterior Elevations
2. Interior Fabric
3. Historic Fixtures
4. Site Plan Alterations
5. Identification of Suitable Salvage Items

CM Services for Historic Preservation will include:

1. Response to construction document questions
2. Construction Assistance to Replace/ Repair Historic Elements (if left in situ)
3. Assistance in determinations of proper cleaning methodologies for significant historic fabric
4. Construction Assistance
   - Materials Selection
   - Test Panels
   - Salvage
   - Reassembly of Historic Fabric etc.
5. Change order reviews
6. Expedited Review of Project Changes with NJT and SHPO
7. Reviews of Reasonable Alternatives/ Products/Methodologies
8. Discovery During Demolition
9. Coordination with NAIK, NJ TRANSIT and SHPO
10. Response to questions and comments
11. Review of SHPO conditions with NJT and Naik
12. Consultation and required submissions to SHPO

b. Non-Compliant work

Integral to our proactive and best practices approach, we will utilize a rigorous and proven process to minimize, or entirely prevent, the occurrence of non-compliant Contractor work. We will track and implement corrective measures in the event non-conforming work is discovered by either the Contractor, or our own inspection Team. The proactive identification and management of non-compliant work falls under Key QA/QC procedures - "Control of Nonconforming Conditions, Corrective and Preventive Action".



SAMPLE NON-COMPLIANCE REPORT

Project No
Project
Date

Contract No
Contractor
Originator

Item	Quantity	Description of Observation	DISPOSITION			

Root Cause Analysis	Detailed Corrective Action	Preventive Action

The following proven and rigorous processes are key elements of our team's approach to identifying and addressing non-compliant work:

Contractor's Quality Control Plan

At the outset of the project, we will thoroughly review the Contractor's Quality Control Plan to ensure that all Contractor's resources, project management procedures and internal controls are in place so that the design intent will be met and non-compliant work avoided. Despite our best efforts, non-compliant work is inevitable in complex construction projects. The Contractor's QC Procedures should contain viable processes for continuously checking and validating that contract requirements are being met which facilitates the Contractor's early identification and documentation of non-compliant work. The Contractor is responsible for identifying and executing timely and workable corrective measures. Our Quality Manager will routinely audit the Contractor to verify that all approved corrective measures are being implemented.

Identification and Tracking of Deficiencies

As part of our Quality Assurance process, we compare the Contractor's work to approved shop drawings and technical submittals. All non-conformances will be logged in a Non-Conformance report (NCR) and immediately transmitted to the Contractor for corrective measures. Instances of non-compliant work will be immediately reported to our CM team to determine if the non-conforming work should be temporarily halted until corrective measures are implemented. We will inform NJ TRANSIT's PM of any non-compliant work and what our recommended action is. If necessary, we will enforce stop work orders and prevent work for the specific activity from progressing until approved corrective measures are completed.

We will track and implement corrective measures in the event non-conforming work is discovered by either the Contractor, or our own inspection team

Corrective Measures

Our CM and the Designer of Record (DoR) will review and approve the Contractor's proposed corrective measures. Acceptable corrective actions may include: re-work, repair, use as is (UAI), return to vendor (RTV) and scrap. Corrective measures and Contractor disposition will be tracked and tagged as "outstanding" until the corrective measures have been satisfactorily completed and closed.

Root Cause Analysis (RCA) and Preventative Action

We recommend that the Contractor perform a Root Cause Analysis (RCA) of all

We recommend that the Contractor perform a Root Cause Analysis (RCA) of all non-conformances and identify and document any deficiencies in their Quality Control Process that may have contributed to the non-conformance

non-conformances and identify and document any deficiencies in their Quality Control Process that may have contributed to the non-conformance. The NCR will document the results of the RCA and establish preventive measures going forward to avoid recurrences. Conclusions of the RCA will form the basis for preventive actions for future activities.

c. On and Off-site Inspection and Testing

The NAIK Team will provide competent staff to oversee required on-site inspections including: general building, DCA special inspections, Historic Preservation materials; and manufacturers equipment testing. The NAIK team will also provide competent inspection staff to travel to off-site locations to inspect key Project components including: substation transformers and switchgear and Historic Preservation architectural building components for the Pullman-Immigrant building. Travel to off-site locations will be included in our cost proposal under "out-of-pocket" expenses and will follow comply with Federal Acquisition Regulations (FAR) for transportation, lodging, meals, and incidental expenses.

Task C3 - Testing

a. Field Tests

The NAIK Team will ensure that all Substation, SCADA, CCTV and Access Control equipment is properly tested at several stages throughout the Projects. In the early stages of the construction phase, the Contractor will submit prospective manufacturers' equipment to the DoR for review. It is important that the DoR review each piece of equipment from not only the technical perspective, both also consider the adequacy and sufficiency of the manufacturer's testing procedures. As the CM, the NAIK team will track each submittal and verify that the DoR has reviewed the technical data as well as the manufacturers' proposed Factory Acceptance Test (FAT) procedures and the Site Acceptance Test (SAT) procedures. No piece of equipment shall be considered approved until it is reviewed and approved by the DoR from both the technical and testing standpoints.

The NAIK team will track each submittal and verify that the DoR has reviewed the technical data as well as the manufacturers' proposed FAT procedures and the SAT procedures

Site Acceptance Tests (SATs)

After successful completion of the FAT's, the equipment will be packaged and shipped as arranged by the Contractor. It shall be the Contractor's responsibility to ensure the safety and well-being of all equipment after shipment. It is the purpose of the SAT's to verify that equipment was not damaged during packaging, shipment or storage. Within seven (7) days of installation, the Contractor and/or Manufacturer shall perform the DoR approved site tests of each piece of equipment, under witness of the DoR, CM and NJ TRANSIT. The NAIK team will verify that the approved test procedures are properly followed, and will review, along with the DoR, the resultant test reports for approval.

The NAIK team will verify that the approved test procedures are properly followed, and will review, along with the DoR, the resultant test reports for approval

b. Manufacturer's Testing

Factory Acceptance Tests (FATs)

Hoboken Depot and Henderson Substations will require both commercially available equipment and custom-built equipment. Commercially available equipment includes such things as cable, conduit, low-voltage panelboards, surveillance cameras, card readers, computer workstations, etc. For this equipment, it shall suffice to review the factory-prepared test reports. Custom-built equipment, however, require more project oversight. Such pieces of equipment include medium-voltage transformers and switch gear. For these, the NAIK team will witness the FAT's together with the DoR and NJ TRANSIT to ensure that the DoR approved test procedures are properly followed. Only after the FAT's are completed, reviewed and approved, will the equipment be cleared for packaging and delivery.

c. Testing and Commissioning Program

Commissioning Tests

The FAT's and the SAT's verify that each piece of individual equipment meets or exceeds the project requirements. The final tests ensure that all of the pieces of equipment properly interface with each other and into the system as a whole. Unlike all previous tests, these Commissioning Tests will not be prepared by the Manufacturer, but by the NAIK team. After all installed equipment has successfully passed the SAT's, the Contractor will perform the Commissioning Test under witness of the DoR, CM and NJ TRANSIT. The Commissioning Tests will verify proper operation between system components and proper interface with NJ TRANSIT's supervisory control and date acquisition (SCADA) network.

Unlike all previous tests, these Commissioning Tests will not be prepared by the Manufacturer, but by the NAIK team

d. Testing and Monitoring Allowance

Distinct Engineering Solutions Inc. and Roux Associates have been included as part of the NAIK team to provide special testing and inspections, if and when required and, as directed by NJ TRANSIT's PM. Special Inspections or Testing may include, but are not limited to: structural welding and fasteners, fire proofing, concrete strength or hazardous material verification. The NAIK team will include a $10,500 out of pocket allowance for testing as directed by NJ TRANSIT's PM.

e. Land Surveying Team

Dewberry has been included as part of the NAIK team and will provide a fully equipped survey team and they will be at the immediate disposal and part of the CM team. The Survey team will consist of field and office personnel experienced in using the latest technology including: Conventional Survey with reflectorless total stations and 3D laser Scanning. Dewberry is familiar with performing field survey verification, evaluating project survey controls and utilizing the best possible methods for obtaining accurate data.

Task C4 - Environmental

a. Stockpile Contaminated Material

During the construction activities, should contaminated media (soil or groundwater) be encountered, as noted. The NAIK team will make sure that the material is handled and stored on-site properly with NJ TRANSIT's concurrence. The Contractor is responsible for hazardous material sampling however the NAIK team can provide independent sample testing under the testing allowance subtask noted C3(d). With the approval of NJ TRANSIT, the NAIK team will sample the suspected contaminated media for waste characterization analysis. Upon receipt of the waste characterization results if the material is deemed contaminated and not suited for reuse on the Site (with NJ TRANSIT's concurrence) NJ TRANSIT will be notified that the material must be properly disposed in accordance with the Project Environmental Management Plan.

b. Comply with Federal, State and Local Regulations

The NAIK team, along with our subconsultant, Roux Associates, will ensure and ascertain that handling of any contaminated material by the Contractor is conducted in strict compliance with all Federal, State and local regulations. Upon discovery of any contaminated material, the NAIK team will immediately notify NJ TRANSIT and recommend the appropriate action to follow, in accordance with the Project Environmental Management Plan submitted under Task P4 of the Pre-Construction Phase.

The NAIK team, along with our subconsultant, Roux, will ensure and ascertain that handling of any contaminated material by the Contractor is conducted in strict compliance with all Federal, State and local regulations

Task C5 - Schedule Control

a. Review all Construction CPM Schedules

At the outset of both Depot and Henderson Substation Projects, the Contractor's baseline schedule will be thoroughly reviewed by the NAIK team to ensure structural integrity, strict conformance to NJ TRANSIT's CPM schedule specifications and verification that it has been prepared in accordance with the following best practices guidelines:

1. Scope of work represented in Work Breakdown Structure (WBS)
2. Meaningful activity code structure
3. Proper project calendars
4. Activity description that enables quantification of effort and evaluation of progress
5. Inclusion of all procurement and delivery, submittals and approvals, construction commissioning and closeout items.
6. Realistic duration
7. NJ TRANSIT Force Account/facility coordination activities (when required)
8. Activity sequencing and logic including lags and leads
9. Open ended activities
10. Use of mandatory and discretionary milestones
11. Non-contractual constraints
12. Reasonableness of total float/critical path(s)
13. Reasonableness of longest path(s)
14. Reasonableness of cost loaded schedule (if required by specification)
15. Reasonableness of resource loaded schedule (if required by specification)
16. Completeness of narrative report

Following completion of the baseline schedule review, the NAIK team will prepare a comprehensive Narrative Report with findings and recommendation for either acceptance, or resubmission of the baseline schedule. If necessary, this process will be repeated until the initial baseline schedule is accepted by NJ TRANSIT.

The NAIK team will additionally require the Contractors to submit up-to date working schedules with 2-week and 6-week look ahead activities so that the CM and NJ TRANSIT can plan for upcoming Contractor activities that may require internal/external coordination and for the efficient scheduling of CM inspection staff. This approach will permit the CM to identify early preparatory activities that must be submitted and approved prior to the commencement of the activity.

Claims Avoidance

A key element of claims avoidance is real-time documenting and incorporating issues to existing schedules to create an accurate and documentable history of changes and events that have the potential to delay the schedule. As an integral part of our claims avoidance effort we will ensure that an accurate as-built schedule is created and proactively maintained via the schedule update process. During regular monthly updates, we will not only report actual start and finish dates, but also ensure that the current schedule accurately reflects the current approved project by incorporating changes in the form of added activities and fragnets that occur on the Project, whether unforeseen or planned. By correctly interfacing the added activities, or fragnets, a more realistic project completion date can be forecast which will avoid unsubstantiated delay claims.

A key element of claims avoidance is real-time documenting and incorporating issues to existing schedules to create an accurate and documentable history of changes and events that have the potential to delay the schedule

Accurate project documentation is essential to avoiding and/or mitigating claims. By utilizing ECMS to the fullest extent with up-to-date project documentation, the following activities will take place:

1. The record keeping system will be periodically evaluated to ensure that all elements of contract administration and actual performance are being

The importance of maintaining accurate project records cannot be overemphasized as these records are the principal source of evidence for verifying that the Contractor has conformed to contract requirements

documented for posterity. The importance of maintaining accurate project records cannot be overemphasized as these records are the principal source of evidence for verifying that the Contractor has conformed to contract requirements.

2. Field supervisors/inspectors will maintain accurate daily reports which will accurately document weather, actual performance, problems encountered, written and/ or oral directives received, field conditions encountered, visitors, labor and equipment records.

3. Maintenance of accurate ECMS records of submittal/approval cycles for all shop drawings and material samples, etc., Requests for Information (RFI's), Notice of Proposed Change (NPC), Change Orders and progress payment.

4. Time impact analyses will be prepared for all change orders expected to involve delay and/or cost impact.

5. A log of all change orders from initiation to final settlement will be maintained.

6. An accurate record of all meeting minutes in chronological/sequential order will be maintained.

By meticulously maintaining projects documents as described above, the NAIK team will avoid/mitigate claims to the greatest extent possible.

b. Review and Approve Monthly Schedule

Schedule Updates

In order to maintain accurate monthly schedules, it is important to have a firsthand knowledge of progress at the project sites. To accomplish this, our scheduler will visit the Project sites on a monthly basis, or more often if necessary where progress, or lack thereof, will be tracked. We will actively participate in all schedule review/progress meetings and strongly encourage joint schedule update meetings. Each schedule update will be an accurate reflection of the actual progress made during the previous month. Once the Contractor submits an updated schedule, it will be compared to the Narrative Report and any future changes, or documented delays will be highlighted.

The update will be reviewed/analyzed utilizing Oracle Primavera P6, Schedule Analyzer Pro (SA Pro), or Claim Digger software to assess the integrity of the schedule and the updated schedule compared to the baseline and/or previous updates. The review/analysis will include, as a minimum:

- Changes to durations, relationships, constraints and milestones (not allowed without prior consent)
- Missing actual start and actual finish dates
- Realistic percent complete and remaining duration
- Changes in total float
- Accuracy and reasonableness of critical path
- Out-of-sequence progress and need to re-sequence activities
- Comparison of actual costs to Earned Value (if required)
- Evaluating the need for a Recovery Schedule if contract completion date is at risk
- Accuracy of narrative report

Following the review/analysis of the schedule update, our team will prepare a report summarizing the findings and recommend either acceptance, or resubmission and document the revisions required.

Recovery Schedule

If the schedule update shows significant schedule delays, NJ TRANSIT may request that the Contractor mitigate the delay and submit a formal Recovery Schedule. The Contractor's accelerated schedule must be accomplished by deploying additional resources, or performing concurrent work, resulting in shorter durations and/or changed sequencing of activities. The goal is to return the schedule to its approved baseline, contractual completion date.

The NAIK team will carefully review the Recovery Schedule to verify that all reasonable options to compress the schedule and opportunities to accelerate the schedule have been included. We will actively participate in recovery schedule meetings with the Contractor where delay mitigation measures will be discussed.

Time-Impact Analysis

To verify the impact of an unforeseen or planned, change activity on the project completion date, the Contractor will be required to submit a Time-Impact Analysis (TIA). The Contractor may also be required to submit a recovery schedule, as discussed above, which will detail how the lost time will be recovered/minimized.

The Contractor's TIA and requests for extension of time will be analyzed for reasonableness to verify that these requests are consistent with the objective of avoiding or minimizing delay claims. If required, to assist in negotiations with the Contractor, the NAIK team will prepare an independent TIA to identify the extent of the impact and suggest appropriate solutions.

c. Plan and Conduct Monthly Schedule Meetings

The NAIK team will conduct monthly schedule meetings as stated in the RFP on or about the 25th of each month. The meetings are for joint review and agreement on job progress and subsequent submittal of an updated progress schedule. Minutes of the meeting shall identify open action items, current status, date opened, date closed, and how they have been closed. Ongoing schedule issues will be discussed and action plans developed in real-time that will serve as interim remedies to potential schedule issues. If deemed necessary, the NAIK team will request additional meetings to review schedule impacts, workaround plans, and Contract Modifications. In addition, we will coordinate separate meetings with NJ TRANSIT's PM to review and discuss potential schedule impacts. The NAIK team's scheduling meetings will cover topics including:

- Clarification of the WBS and other pertinent requirements and processes at the schedule meeting kick-off.
- Review of Baseline and Revised Baseline Schedules incorporating any logic, cost and timing and duration resulting from approved changes
- Review and required adjustments of Contractor's updated schedule that actualizes completed activities and percent completion for partially completed activities for both General and Subcontractors scope (major subcontractors should be in attendance for the scheduling meetings as required)
- Contractor's Recovery Schedule as a result of insufficient job progress

Task C6 - Staging and Work Plans

a. Construction Staging Plans Submitted by the Contractor

The Contractor's staging and site-specific work plans (WP's) should clearly demonstrate the Contractor's technical approach and "means and methods" to constructing the Projects. Because NJ TRANSIT's top priority is to provide safe and reliable transportation for their customers, the Contractor's means and methods for all project phases must clearly demonstrate how construction activities will be seamlessly integrated within NJ TRANSIT operations. Examples of construction activities include, but are not limited to:

customer circulation; train operations; maintenance operations; coordination with other on-site projects; and railroad support operations. NAIK employs a number of exceptionally qualified railroad professionals who have spent their entire careers in railroad operations, maintenance and construction activities. We understand that NJ TRANSIT's key mission is safe and efficient service operations and that these operations, without exception, take precedence over construction activities. With that in mind, our culture and approach to these projects will be to emphasize the importance of working closely with the Contractor to implement and maintain effective staging and work plans to support NJ TRANSIT's key objectives of safety, uninterrupted operations, construction efficiency and on time and on budget Project performance.

b. Review All Construction, Installation or Other Work Plans

The format and narratives of all Work Plans (WP's) will be agreed upon between the Contractor and NAIK team prior to commencement of any major work activity. The NAIK Team will encourage the Contractor to bundle up the Site-Specific Work Plans for the project early on and send them to NJ TRANSIT for approval so not to delay work during construction activities.

Submittal due dates for WPs will be established within thirty (30) calendar days from the Notice to Proceed (NTP). Additional site-specific and/or activity-specific activities that take place throughout the Projects also require preparation and approval of WPs. The NAIK team will perform its initial review of WPs within ten (10) calendar days of receipt and will coordinate comments, responses and input from NJ TRANSIT's PM and Rail Operations group within thirty (30) calendar days. NAIK personnel will coordinate comments and approval of activities that may impact rail and/or customer operations with NJ TRANSIT Operations. Our highly-experienced leadership team of Eli Charchar and Michael Gaspartich have unmatched experience and relationships working with NJ TRANSIT Operations and they will use their expertise to successfully coordinate and expedite the review, comment and approval of the WP's. Our goal is to quickly complete our reviews to maximize the Contractor's productivity. WP's will be recorded in our Project Submittal log and coded as WP submittals for ease of tracking, sorting and reviewing.

The NAIK team will encourage the Contractor to bundle up the Site-Specific Work Plans for the project early on and send them to NJ TRANSIT for approval so not to delay work during construction activities

Timing of Work Plans and Readiness Reviews

The NAIK team will require that the Contractor, without exception, submit WP's prior to commencement of planned work activities. We will not authorize work to commence without an approved WP. As a best practice, prior to commencement of major activities, we suggest holding readiness review meetings with the Contractor, CM and NJ TRANSIT Operations staff to review all requirements of the WP.

Content of Work Plan

Based on our Team's understanding of the Project's major work scope we recommend that WP's be prepared, but not limited to, the following activities:

- Survey Control
- Geotechnical Instrumentation
- Hazardous Waste Operations
- Temporary Power and Fire Protection Facilities
- Worksite Safety Requirements
- Temporary Erosion and Sedimentation Controls
- Noise Controls and fence/barrier installation
- Excavation Support System
- Decking Fabrication & Installation Tieback Anchors
- Earth Work
- Initial Ground Support Installation
- Maintenance and Support of Utilities
- Utility Relocation and Restoration for Each Utility
- Landscaping
- Cast In-Place Concrete Work
- Water-stops & Waterproofing

- Masonry
- Architectural Finishes
- Structural Steel Erection
- Roofing
- Hollow Metal Doors and Frames
- Emergency Exit Doors
- Overhead Roll-Up Doors and Grilles
- Gypsum Board
- Acoustical Treatments
- Painting
- Installation of Signs, Signing and Edge Lights
- Plumbing
- Sump Pumps
- Fire Protection Systems
- HVAC Equipment
- Electrical Installations
- High Voltage Power Substation Equipment
- Electrical Controls and Instrumentation
- Cathodic Protection

Task C7 - Shop Drawings and Material Approval

a. Expedite the Processing and Review of Shop Drawings and Materials

Shop drawings are provided by the Contractor to expand, verify, or complete the information provided by the Designer on the plans or in the specifications. These may include catalog cuts, manufacturer's standard drawings and details, fabricators' detailing, equipment performance characteristics, operating and maintenance manuals, etc. Working drawings are provided by the Contractor to indicate means and methods of construction and design and description of temporary works including, sheeting, shoring, underpinning, temporary construction loads, etc. Material samples certifications, etc. are provided by the Contractor to indicate conformance with contract requirements, NJ TRANSIT's standards and descriptions of finishes or to provide a selection for final choice by the Designer.

The contract drawings, specifications and general conditions will indicate the shop and working drawing, sample submittals and administrative submittals required of the Contractor. As an early action, the NAIK team will independently prepare a log of all required submittals and estimated due dates to verify the accuracy of the Contractor's submittal log and proposed schedule submission dates. The NAIK team will ensure that our list and the Contractor's submittal list concur for a smooth review process as the Project progresses.

As an early action, the NAIK team will independently prepare a log of all required submittals and estimated due dates to verify the accuracy of the Contractor's submittal log and proposed schedule submission dates

The NAIK team will maintain a Submittal Log indicating each submittal's unique identification number, title, date of receipt from Contractor, reviewer, date forwarded to reviewer, date received back from reviewer, status (i.e., approved, approved as noted, revise and re-submit, or rejected) and date returned to Contractor. Submittals will be coordinated with the Designer of Record and where there is more than one reviewer, additional columns will indicate date sent to and received from each reviewer. "Re-submittals shall have the original identification number with the suffix "A", "B" or "C" indicating each re-submittal.

b. Review all Submissions for Contract Conformance

The NAIK team will review each submittal within 3-days of receipt to confirm that the submittal is in accordance with contract requirements before transmitting to NJ TRANSIT and/or to the Designer of Record. If not acceptable, the submittal shall be returned to the Contractor with a letter of transmittal indicating the deficiencies in the submittal. The NAIK team will track and expedite the review process of all submittals and provide notification to relevant parties when the review process is exceeding, or is likely to exceed, the scheduled 21-day review period. To this end, we will maintain a "submittal aging report" to track overdue submittals and submittal review

We will maintain a "Submittal Aging Report" to track overdue submittals and submittal review cycle

cycle. Submittals will be returned to the Contractor within 2-days from receipt by the Designer of Record. Submittal progress will always be an agenda item at Progress Meetings with all parties kept informed and updated.

c. Prevent Installation of Material or Equipment not Approved or Certified

The NAIK team will ensure that work is not performed without approved shop or working drawings or material samples. On completion of the work, a copy of all submittals shall be included in the Contract records. As stated in Task 6, the NAIK team will accomplish this by conducting weekly Contractor coordination meetings to review 2-week and 6-week look ahead schedule and approved submittals necessary for the work to commence. We will instruct the Contractor not to commence any activity where submittal review and approval have not been completed. If the Contractor performs work without the necessary approved submittals, they will be instructed to stop and NJ TRANSIT PM will be promptly notified.

d. RFIs

From time to time, the Contractor may request information in addition to the information provided in the contract documents or for clarification. These Contractor requests will be logged and tracked by the NAIK team. Prior to the commencement of construction, the Contractor should be instructed to use Request for Information (RFI) forms for all information or clarification requests with each RFI numbered in consecutive order and RFI review cycle shall be in accordance with the contract documents. The NAIK team will remind the Contractor that RFI's cannot be used to request changes to the work or to offer savings through different materials, processes, or procedures. A request for information or clarification may result in a change, which will be processed via a Request for Proposal submitted by the Contractor or through a Proposal Request initiated by NJ TRANSIT's PM.

Upon receipt of an RFI, the NAIK team will review to determine the responding party. The NAIK team will track and expedite the RFI to ensure a timely response. We will forward the response to the Contractor along with any additional instructions generated by the response. The NAIK team will maintain an RFI Log which lists the RFI in increasing numerical order, describes the nature of the RFI, indicates the date of receipt, documents the dates to and from the Designer of Record, records the date of response returned to Contractor and notes any changes or other instructions generated by the RFI. The NAIK team will maintain an "RFI aging report" to track outstanding RFI responses. The RFI Log will be reviewed at Progress Meetings to ensure that processing of RFIs does not impede the progress of the work.

SAMPLE - RFI LOG

LOG RFI LOG

Project No. _____ Contract No. _____
Project _____ Contractor _____

RFI #	Current Status	Priority	Request Description	Assigned To	Date Requested	Date Required	Date Responded	Days Overdue	Notes
001	[illegible]	Expedited	[illegible]	Project Manager	[illegible]	10/16/15			
002	[illegible]	Critical	[illegible]	Architect	[illegible]	10/16/15			
		Standard							

SAMPLE OF NAIK CHANGE ORDER WORK - 2ND AVENUE SUBWAY STATUS OF ADDITIONIAL WORK ORDERS

C-26012
(SC)

CONFIDENTIAL

| | | |

Contracting Officer and PM. The Contractor's proposed cost and schedule impact will be compared to our cost/price analysis and negotiations will continue until agreement can be reached and a Change Order issued by NJ TRANSIT's Contracting Officer. If ongoing work is affected by the NPC or CICOR, we will monitor all labor, equipment and materials involved and any delays incurred. In some cases, for safety, for maintenance of the project schedule and/or to avoid significant additional cost, it may be necessary for the Contractor to proceed with Change Order work prior to agreement on cost/schedule and execution of the Change Order. In those instances, upon approval from NJ TRANSIT's PM and Contracting Officer, the Contractor shall be notified in writing to proceed with the changed work. We will continuously monitor the Contractor's work and maintain time and material records until the change order work is complete and these records will be used while negotiating the Change Order.

The NAIK team will continuously monitor the Contractor's work and maintain time and material records until the change order work is complete

Task C9 - Quality Assurance and Quality Control

a. Develop and Maintain a QA/QC Program

NAIK and our sub-consultants will develop a QA/QC program that complies with all Quality Assurance and Quality Control requirements of this contract including the following FTA key elements:

1. Organization, Staffing and Responsibilities
2. Submittal Management, Control of Documents and Document Changes
3. Receiving, Handling, Storage and Control of Materials and Equipment
4. Subcontractor and Supplier Control and External Audits
5. Inspection and Test Plan (I & TP)
6. Control of Construction Processes
7. Control of Measuring and Testing Equipment
8. Control of Nonconforming Conditions, Corrective and Preventive Action
9. Quality Records and Documentation
10. Contractor's Internal Audit
11. Training
12. Statistical Analysis
13. Design Process Control

Our experienced Quality Assurance Manager, Mark Funk, will assume the lead in ensuring that the Contractor complies with all project requirements. Quarterly audits will continuously monitor the Contractor's performance. Our team will prepare and submit quarterly reports documenting the Contractor's performance and any corrective measures taken to ensure full compliance to NJ TRANSIT's PM. The NAIK Team will keep NJ TRANSIT's PM informed of any issues that could negatively impact the final acceptance of the project.

Our experienced Quality Assurance Manager, Mark Funk, will assume the lead in ensuring that the Contractor complies with all project requirements

Task C10 - Project Safety

a. Attend Safety Orientation Class

Our staff who perform construction inspections will wear personal protective equipment (PPE) at all times as required, be safety trained and take periodic refresher training to remain current with best industry practices. At a minimum, all our construction management staff will be certified in NJ TRANSIT Railroad Worker Protection (RWP) and 10-hour OSHA requirements prior to the commencement of their Project assignments. Additional training, such as fall protection, scaffold training, electrical safety training, etc., will be taken on an as- needed basis. Our underlying principle is that all our personnel are ultimately responsible for a safe project. Towards that end, our entire construction management team will work collaboratively at all times to ensure that the Contractor, without exception, executes an approved safety program and maintains a safe work site.

b. Designate a Safety Officer

We firmly believe that "Safety is First and Foremost" and that a safe project is an on-track Project. Safety is a commitment that we always take very seriously for the health and well-being of our employees, the Contractor, the general public and for the success of our business. Mark Funk will be assigned as the Contractor Safety Officer to oversee all Project safety activities for both Depot and Henderson construction contract.

The NAIK team firmly believe that "Safety is First and Foremost" and that a safe project is an on-track Project

c. Review Contractor's Safety Programs

The NAIK team, led by the Safety Officer, will ensure that the Contractor, a week in advance of the start of any work, submits a safe work plan (SWP) for each primary work activity in accordance with the current Look-Ahead Work Schedule. Work will NOT be allowed to proceed until the SWP is accepted by the Safety Officer and a presentation of the SWP is made to the satisfaction of the Safety Officer by the Contractor's Safety Engineer and or the Competent Safety Person.

Other key elements of the Contractor's Safety Program that we will expect include:

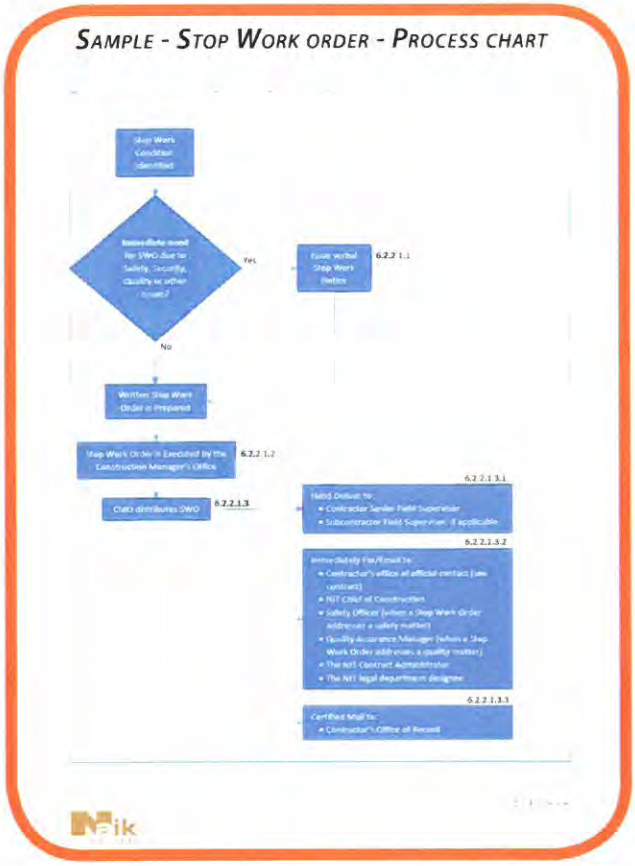
- Conducting safety meetings and "tool box talks" to maintain staff awareness of potential safety risks and hazards
- Reviewing safety performance on progress reports and meetings and maintaining a safety log of all construction management and Contractor staff with:
  - Names
  - Relevant safety certifications and expiration dates
  - Photo copies of certifications
  - Contact information
  - Employee emergency contact information
  - Visibly posting contact phone numbers for emergency responses
- Maintaining a safety incident and "near-miss" log

d. Issue STOP WORK ORDER for Unsafe Work

When it comes to Project Safety, the NAIK team will not allow any short cuts or take any chances. We have a very prescriptive and robust Stop Work Order procedure and will authorize the suspension of the Contractor's work activities if unsafe work is being performed in an unsafe manner, being performed without an approved SWP or is not in compliance with the SWP. Our mantra is to err on the side of caution when it comes to worker, passenger and employee safety. If unsafe work is observed, the Contractor's Safety Officer will be notified and expected to implement immediate corrective measures.

NAIK's mantra is to err on the side of caution when it comes to worker, passenger and employee safety

All members of our team will be authorized to stop the work when an imminent safety risk is observed and NJ TRANSIT's PM will be notified immediately of such incidences.



e. Direct Visitors at the Site

Visits to the Project sites are to be expected throughout the course of the contract. Accordingly, it is important to have an enforceable Site Visit Protocol in place to:

- Acquire approval for the visit from NJ TRANSIT's PM
- Document visitors for record keeping
- Control the dissemination of Project related information
- Provide sufficient time to schedule visits
- Allow the NAIK team the opportunity to comment on the proposed visits so as not to conflict with any scheduled critical processes
- Providing time for the NAIK team Safety Officer to assess safety issues, make preparations, secure appropriate Personal Protection Equipment (PPE) and schedule personnel to escort the victors

The NAIK team will coordinate these procedures with the Contractor as part of the project mobilization phase and once approved by NJ TRANSIT's PM ensure that both the Contractor's staff and NAIK staff are knowledgeable in their requirements. All visitors will be required to sign-in and sign-out with the NAIK construction management office as part of the procedure. The NAIK team will escort the site visit team.

Task C11 - Project Closeout

a. Determine Substantial Completion

Substantial Completion (SC) is defined as the date when construction is sufficiently completed in accordance with contract documents and as modified by all change orders agreed to by both parties, when NJ TRANSIT may occupy and/ or utilize the project for its intended use. SC also signals the start of any applicable warranties provided by the Contractor. The date of commencement of warranties for items on the punch list will be the date of final payment, unless otherwise agreed upon.

The NAIK team will become thoroughly familiar with the closeout procedures at the outset of the project and will manage the project to comply with closeout procedures in mind. Both Eli Charchar and Michael Gaspartich are experts in NJ TRANSIT's closeout process and requirements through their combined 62 years of experience. In addition, Mark Funk is a licensed code official with the State of New Jersey and worked for DCA as a subcode official for 5 years. Mark will lead our closeout effort with DCA as he is highly versed in the process/procedures of obtaining TCO/CO's. From Mark's vast experience he knows the top priorities for obtaining and expediting TCO/CO's applications are subcode inspector sign-off and accurate filing of TCO/CO application.

To assist in expeditiously executing the closeout process, we will prepare a closeout checklist which includes all of NJ TRANSIT's contract requirements during the pre-construction phase of the Projects. When the Contractor notifies the NAIK team that the Project is substantially complete, we will initiate closeout procedures by verifying that the Contractor has met the requirements utilizing our checklist. The NAIK team will consult with NJ TRANSIT's PM with our recommendation regarding the Contractor's request to declare substantial completion.

During the last stages of the Contract, a punch list will be prepared which lists all work, or corrective action, that must be completed prior to Project acceptance and to assess if the Contractor has achieved SC.

b. Coordinate Correction and Completion of Remaining Work

A copy of the punch list will be submitted to NJ TRANSIT's PM and updated monthly. The NAIK team will perform the final inspection in the presence of NJ TRANSIT's PM. We will establish a specific date for SC and prepare a letter signed by NJ TRANSIT's Contracting Officer notifying the Contractor of this date.

c. Determine Final Completion

When punch list items are fully resolved the NAIK team will advise NJ TRANSIT's PM and DoR and schedule the final inspections. Once final inspections are satisfactorily completed and NJ TRANSIT's PM has provided concurrence, we will secure and transmit the following items including, but not limited to:

- Complete set of as-built drawings
- O&M Manuals
- Applicable material and equipment certifications, affidavits, guarantees and warranties.
- Reconciliation of all pay quantities, including base contract and change order work.
- Preparation of the Final Change Order.
- Final release of liens from the Contractor.
- Final pay application.

The NAIK team will certify in writing that all work has been completed in accordance with the plans and specifications and, that final estimates of payment to the Contractor is correct.

The NAIK team will certify in writing that all work has been completed in accordance with the plans and specifications

d. Advise NJT PM when NJDCA issues all TCOs/COs

The NAIK team will advise NJ TRANSIT's PM in writing when the local building authority issues all TCOs/COs, and all Building Systems (Lighting, heaters, fire alarm, fire suppression, power, HVAC, plumbing, etc.) and Communications systems have been tested, approved and are ready to be placed into service in accordance with the Testing and Commissioning Plan noted under Task C3, sub-section (c). We will also assist in the preparation of plans for initial start-up of operations and provide support to the NJ TRANSIT before and after initiating operation.

e. Coordinate and Participate in Weekly Start-Up Meetings

The NAIK team will schedule weekly Start-Up Meetings for NJ TRANSIT personnel and meaningfully participate with the NJ TRANSIT PM to coordinate activities with the Contractor. Eli and Michael's working relationships with NJ TRANSIT's Operations and Maintenance groups will be invaluable in coordinating and streamlining this phase of the Projects. We are acutely aware that NJ TRANSIT's Operations and Maintenance staff's primary responsibility is for the day to day operation of the Railroad and that must take precedence over Startup Activities. As this is the case, we will make our team and the Contractor available to meet at their convenience.

Eli and Michael's working relationships with NJ TRANSIT's Operations and Maintenance groups will be invaluable in coordinating and streamlining project closeout

f. Coordinate Training by Equipment and Systems Manufacturers

The NAIK team will work with NJ TRANSIT to schedule requisite training for the station systems, which will include coordinating with the Contractor for distribution of training materials 5-days in advance and recording of the training sessions as specified. The NAIK team will review the training material and consult with NJ TRANSIT's PM regarding the quality and suitability of the documents. Training of NJ TRANSIT personnel will only be scheduled upon concurrence from NJ TRANSIT's PM to do so.

LIST OF DELIVERABLES BY TASK

PRE-CONSTRUCTION PHASE TASKS		DELIVERABLES
Task P1	Constructability Review	Memo detailing comments on design plans, specifications and schedules (10 copies). This report shall be submitted within ten (10) business days from the task request. The submission of the memo will be followed by an oral presentation/dialog to explain and to receive and respond to comments and questions from NJ TRANSIT regarding the memo/report.
Task P2	Pre-Award Assistance	Written and verbal recommendations and/or comments
Task P3	Management Procedures and Document Control	Memo or memo series detailing the information in a, b and c above (3 copies)
Task P4	Environmental	Memo detailing environmental implementation schemes (3 copies)

CONSTRUCTION PHASE TASKS		DELIVERABLES
Task C1	Construction Management Administration	Document control logs Meeting minutes as required Meeting log Inquiry & complaint log Cost account records Construction cost to date and projection Construction management fees to date and projection Force account summary and cost Outline of filing system Submittal of as-built drawings Daily job diaries NJDCA inspection log/reports Project progress reports Project Schedule analysis summary Project photographs
Task C2	Inspection	N/A
Task C3	Testing	Testing plans/programs Testing/Monitoring/Survey information as required.
Task C4	Environmental	Recommendation memos as appropriate
Task C5	Scheduled Control	Contractor's CPM Reviews Project construction schedule and updates Impact analyses and extension of time reviews, as necessary
Task C6	Staging and Works Plans	Construction Staging Plans reviews and comments
Task C7	Shop Drawings and Material Approval	Document control sheets Contractor submittal log RFI Review/response log
Task C8	Change Orders	Change Order File containing COR's, NPC's and Change Order Status Log and materials developed in "a." above (i.e. estimates, quotes, price analysis, cost analysis, negotiation plan, take-offs, schedule back-up, records of negotiations and settlement, etc.)
Task C9	Quality Assurance and Quality Control	Written QA/QC Program
Task C10	Project Safety	STOP WORK ORDER if applicable Accident reports Safety checklist Minutes of Safety Meetings Visitors log
Task C11	Project Closeout	Certificate of Substantial Completion Punch List and subsequent updates Monthly punch list status report Contractor's Certificate of Completion NJDCA TCO/CO report Affidavit of payment Record drawings

SECTION 6 - TEAM ORGANIZATION/RESOURCE ALLOCATION

Introduction

NAIK and all members of our team have extensive and successful experience working on both NJ TRANSIT and other local transit projects. We are able to draw on this valuable experience to correctly staff all activities throughout the Projects. Our intent is to strategically allocate the right resources from our team of highly qualified professionals in the precise number of hours needed to effectively address all Pre-Construction and Construction tasks. We understand the importance of staffing the jobs correctly from day one of the CM contract. Our team will ramp up and level off as the projects progress and construction activities are underway. In some cases, staff assignments may vary depending on project activities. As construction activities are completed and close-out activities begin, staff levels will decrease as appropriate. NJ TRANSIT will have full confidence knowing that our experienced professionals have been skillfully deployed throughout the projects to maximize their ability to successfully deal with issues as they arise so that both projects are delivered on time and within budget.

We understand the importance of staffing this job correctly from day one of the contract

Team Organization/Resource Allocation Matrices

Included in this Section 6, is NAIK's team organization chart showing the reporting and contractual relationships of all firms included in the proposal. Also included is NAIK's organization and staffing chart showing the organization of key personnel by name, title and reporting relationship. A matrix of man-hours by firm showing, by task, the total man-hours for the entire team and separately for each firm is included, as well as and man-hours allocated to DBE firms. Lastly, we have included a detailed matrix of man-hours by individuals showing, for each project staff member, the number of man-hours proposed for each task.

Construction Schedule

Based on the limited Project schedule information provided in the referenced RFP (17-007) document and associated addendum #3, the Depot and Henderson Substations are planned with a 6-month lag and the start of construction for the Depot Substation occurring on April 17th, 2018 and Henderson Substation occurring on October 5th, 2018. Additionally, as per information provided by NJ TRANSIT, the Depot and Henderson Substation Projects will be procured

under two separate construction contract solicitations. Construction durations for both Depot and Henderson Substations are shown as 687 days and 765 days, respectively. However, the RFP document states that the construction duration for the Depot Substation is 900 days (approx. 30 months) with a March 1, 2018 start date. Furthermore, information verbally provided at the pre-proposal meeting instructed proposers to assume 3-months each for both pre-construction and closeout phases. For the purpose of our proposal submission and resource allocation plan, the NAIK team has laid out an overall schedule for the Depot Substation of 36-months broken down into three main phases of 3-months for pre-construction, 30-months for construction and 3-months for closeout. The Henderson Substation schedule has been assumed to be approximately the same overall duration of 36-months and segmented into the same three pre-construction, construction and closeout phases. Since there is a gap of 6-months between the two construction contract awards, the overall length of the construction management contract is estimated to be 42-months in total duration.

Quick Review

NAIK has assembled a first-rate team based on a matrixed staffing plan where our personnel will be responsible for handling multiple assignments across Pre-construction and Construction Phases while maximizing the efficient use of resources.

Reporting and Contractual Relationships

Teaming allows NAIK to bring NJ TRANSIT the right individuals to deliver the specific needs of these Projects. NAIK will manage the following subconsultant firms: Envision Consultants, Ltd. (Envision), Burns Engineering, Inc. (Burns), Roux Associates (Roux), and Lynn Drobbin Associates (LDA). The team organization chart below details the reporting and contractual relationships of our team. The organization and staffing chart on the following page details the organization of key personnel by name, title and reporting relationship. All firms and key personnel proposed will be available throughout the duration of the contract.

Team Organization Chart

Organization and Staffing Chart

LEGEND

Subconsultants
(E) Envision Consultants, Ltd. (DBE)
(B) Burns Engineering
(R) Roux Associates, Inc.
(L) Lynn Drobbin & Associates (DBE)

Other
(D) Dewberry
(DE) Distinct Engineering Solutions, Inc. (DBE)
(P) Prontoforms

Key Personnel

NJ TRANSIT PROJECT MANAGER

Principal-in-Charge
Sanjay Naik, PE

Construction/Project Manager
Moe Soliman, PE

QA/QC Manager
Ken Standig, PE

Quality/Safety Assurance
Mark Funk

Technical Advisor/Force Account Coordination
Michael Gaspartich

Resident Engineer
Eli Charchar

Deputy Resident Engineer/Sr. Inspector
Naresh Patel, PE

Project Controls

Senior Scheduler/Claims Specialist
Paul Rudderow, PSP (E)

Senior Scheduler
Bruce Betz, CCM, PSP (E)

Senior Cost Estimator
Nicole Johnson, MBA, LEED AP (E)
Hugo Mercado

Document Controls/Contract Admin

Office Engineer
Anita Johnson-Davis (E)

Clerical/Admin
Melissa Black

Special Submittal Reviews/ Testing & Commissioning

Testing and Commissioning Plan Development/ Equipment Startups
Jonathan Schimpf, PE, LEED AP (B)

Substation Equipment Submittal Review
Pansong Zhao (B)

Factory Acceptance Tests/ On-site Equipment Tests
Stanley Muzylowski (B)

Depot/Henderson Inspectors
Louis Noto
Timothy Fortier

Support Services

Constructability
Moe Soliman, PE
Eli Charchar
Michael Gaspartich
Daren Petroski, PE (B)
Carlo Settineri
Ken Standig, PE
Paul Rudderow, PSP (E)
Nicole Johnson, MBA, LEED AP (E)

Survey
Scott Bleeker PLS, CFM (D)

Structural
John Tan, PE

Systems Integration
Krishna Swarnakar

Civil
Andrew Schueller, PE

Geotechnical
Jason Chakin, PE

Power/Electrical
Stanley Muzylowski (B)
Louis Noto
Carlo Settineri

SCADA
Pansong Zhao (B)
Krishna Swarnakar

CCTV/Access & Control
Frank Clancy
Jonathan Schimpf, PE, LEED AP (B)

DCA Coordination/Architecture
Mark Funk

Environmental/ Hazardous Material
William Gilchrist PG, LSRP (R)
John Williams (R)
James Kazanjian, EIT (R)

Paperless Workflows
PRONTOFORMS

Material Testing
Giorgi Khardzeishvili, PE (DE)

Historical Preservation
Lynn Drobbin (L)
Gabrielle Shubert

Matrix of Man-Hours by Firm, by Task

All Firms	
Task	**Total Hours**
P1-Constructability Review	500
P2-Pre-Award Assistance	660
P3-Management Procedures and Document Control	1280
P4-Environmental	360
C1-Construction Management Administration	9452
C2-Inspection	10960
C3-Testing	2064
C4-Environmental	960
C5-Schedule Control	2440
C6-Staging and Work Plans	6204
C7-Shop Drawings and Material Approval	6984
C8-Change Orders	1200
C9-Quality Assurance and Quality Control	2880
C10-Project Safety	2880
C11-Project Closeout	960
Total	**49784**

Naik Consulting Group	
Task	**Total Hours**
P1-Constructability Review	340
P2-Pre-Award Assistance	500
P3-Management Procedures and Document Control	800
P4-Environmental	0
C1-Construction Management Administration	6452
C2-Inspection	8840
C3-Testing	240
C4-Environmental	0
C5-Schedule Control	0
C6-Staging and Work Plans	6204
C7-Shop Drawings and Material Approval	4224
C8-Change Orders	600
C9-Quality Assurance and Quality Control	2880
C10-Project Safety	2880
C11-Project Closeout	480
Total	**34440**

Burns Engineering	
Task	**Total Hours**
P1-Constructability Review	80
P2-Pre-Award Assistance	80
P3-Management Procedures and Document Control	0
P4-Environmental	0
C1-Construction Management Administration	0
C2-Inspection	1920
C3-Testing	1824
C4-Environmental	0
C5-Schedule Control	0
C6-Staging and Work Plans	0
C7-Shop Drawings and Material Approval	0
C8-Change Orders	0
C9-Quality Assurance and Quality Control	0
C10-Project Safety	0
C11-Project Closeout	0
Total	**3904**

Matrix of Man-Hours by Firm, by Task (cont'd.)

Envision Consultants, Ltd.	
Task	**Total Hours**
P1-Constructability Review	80
P2-Pre-Award Assistance	80
P3-Management Procedures and Document Control	480
P4-Environmental	0
C1-Construction Management Administration	3000
C2-Inspection	0
C3-Testing	0
C4-Environmental	0
C5-Schedule Control	2440
C6-Staging and Work Plans	0
C7-Shop Drawings and Material Approval	2760
C8-Change Orders	600
C9-Quality Assurance and Quality Control	0
C10-Project Safety	0
C11-Project Closeout	480
Total	**9920**

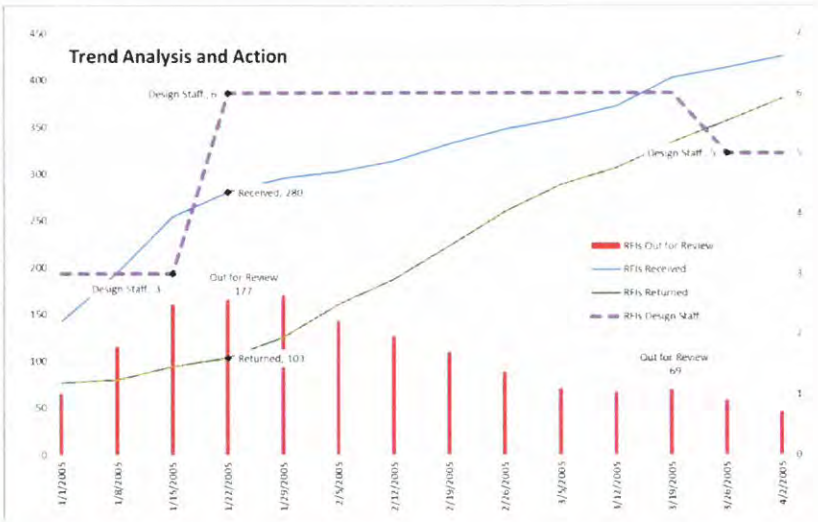
Roux Associates, Inc.	
Task	**Total Hours**
P1-Constructability Review	0
P2-Pre-Award Assistance	0
P3-Management Procedures and Document Control	0
P4-Environmental	360
C1-Construction Management Administration	0
C2-Inspection	0
C3-Testing	0
C4-Environmental	960
C5-Schedule Control	0
C6-Staging and Work Plans	0
C7-Shop Drawings and Material Approval	0
C8-Change Orders	0
C9-Quality Assurance and Quality Control	0
C10-Project Safety	0
C11-Project Closeout	0
Total	**1320**

Lynn Drobbins & Associates	
Task	**Total Hours**
P1-Constructability Review	0
P2-Pre-Award Assistance	0
P3-Management Procedures and Document Control	0
P4-Environmental	0
C1-Construction Management Administration	0
C2-Inspection	200
C3-Testing	0
C4-Environmental	0
C5-Schedule Control	0
C6-Staging and Work Plans	0
C7-Shop Drawings and Material Approval	0
C8-Change Orders	0
C9-Quality Assurance and Quality Control	0
C10-Project Safety	0
C11-Project Closeout	0
Total	**200**

Percentage of Manhours Allocated to DBE Firms

DBE Man-Hours Breakdown			
Firm	**Total Hours of Each Firm**	**Is DBE?**	**Percent of Total Hours**
Naik Consulting Group	34440	Yes	69.18%
Envision Consultants, Ltd.	9920	Yes	19.93%
Burns Engineering	3904	No	7.84%
Roux Associates, Inc.	1320	No	2.65%
Lynn Drobbin & Associates	200	Yes	0.40%
Total Hours	**49784**	**Total DBE Percent**	**89.51%**

Sample Resource Leveling and trend Analysis



Matrix of Man-Hours by Individuals

Number of Man-Hours Proposed by Individual and Task							
Firm	Individual	Classification	P1-Constructability Review	P2-Pre-Award Assistance	P3-Management Procedures and Document Control	P4-Environmental	C1-Cor Mai Adr
Naik Consulting Group	Soliman, M.	Construction Manager	80	60	60	0	
	Charchar, E.	Resident Engineer	80	200	200	0	
	Black, M.	Administrative Specialist	60	0	180	0	
	Mercado, H.	Senior Estimator	0	0	0	0	
	Gaspartich, M.	Technical Advisor	40	0	0	0	
	Settineri, C.	Senior Substation Engineer	40	0	0	0	
	Standig, K.	QA Manager	40	0	0	0	
	Tan, J.	Support Services	0	0	0	0	
	Swarnakar, K.	Support Services	0	0	0	0	
	Schueller, A.	Support Services	0	0	0	0	
	Chakin, J.	Support Services	0	0	0	0	
	Noto, L.	Chief Inspector	0	0	0	0	
	Clancy, F.	Support Services	0	0	0	0	
	Funk, M.	QA Manager	0	0	120	0	
	Shubert, G.	Sr. Consultant	0	0	0	0	
	Patel, N.	Deputy Resident Engineer	0	240	240	0	
	Naik, S.	Project Principal in Charge	0	0	0	0	
	Fortier, T.	Senior Inspector	0	0	0	0	
Burns Engineering	Petroski, D.	Sr. Consultant	40	0	0	0	
	Muzylowski, S.	Senior Systems Engineer	0	0	0	0	
	Zhao, P.	Systems Engineer	0	0	0	0	
	Schimpf, J.	Senior Substation Engineer	40	80	0	0	
Envision Consultants, Ltd.	Johnson-Davis, A.	Document Control Manager	0	0	480	0	
	Rudderrow, P.	Senior Scheduler	40	80	0	0	
	Betz, B.	Senior Scheduler	0	0	0	0	
	Johnson, N.	Senior Estimator	40	0	0	0	
Roux Associates, Inc.	Gilchrist, B.	Senior Hydrogeologist	0	0	0	120	
	Williams, J.	Environmental Engineer	0	0	0	240	
	Kazanjian, J.	Site Remediation Professional	0	0	0	0	
Lynn Drobbin & Associates	Drobbin, L.	Sr. Consultant	0	0	0	0	
Total			500	660	1280	360	

SECTION 7 - QUALITY ASSURANCE PLAN

Introduction

An effective quality assurance/quality control (QA/QC) program provides demonstrable evidence that all elements have been constructed and are functioning to the design intent. NAIK's team is responsible for the QC of tasks we perform directly, such as inspections, schedule reviews and submittal tracking. We will also be responsible for QA related to the QC performed by contractors under our supervision. This includes overseeing and auditing documentation of inspections, non-conformance reports, testing and similar tasks.

Ken Standig, PE will be providing corporate oversight for the NAIK CM team to ensure that we and our sub-consultants are in compliance with our internal quality control procedures for specific tasks under our direct supervision and will report his findings, corrective actions and overall performance rating to NAIK's Principal-in-Charge Sanjay Naik, PE and Project Manager, Moe Soliman, PE. Mark Funk will lead the QA oversight effort along with NAIK's construction inspection team for the work that the Contractors and their sub-contractors are performing under their direct supervision and he will report his findings, corrective measures and performance rating to NAIK's Project Manager, Moe Soliman.

NAIK's team will be proactive in identifying issues to prevent their unchecked growth

Mark Funk has 24 years in the practice of construction management and has been responsible for implementing effective QA plans on a multitude of projects of similar size, scope and complexity. Mark is passionate about the quality control process because he knows, based on first-hand experience, the difference it can make in delivering projects to the client's satisfaction. Mark will be handling quality assurance for both Depot Substation and Henderson Substation construction contracts. Mark will follow-up with the Project Manager and Resident Engineer regarding corrective actions that may be required.

He will develop a project specific quality assurance management plan during the pre-construction phase and implement the QA process, provide day to day quality oversight, review and comment on the contractor's quality submittals and work-plans and perform quarterly contractor and sub-contractor quality control audits during the construction phase. During the post-construction phase, he will ensure that punch list resolution and final acceptance, training and finalization of the documentation required for future maintenance and issue tracking are managed in accordance to the quality management plan.

NAIK's QA/QC Best Practices

Our QA/QC team will support NJ TRANSIT to administer its project management procedures for the implementation of the contractor's quality plan, special inspections, operations and maintenance data submissions, and testing, commissioning, system integration and acceptance procedures. We will be an effective partner to you; we are strongly committed to the overall quality process in project delivery as this philosophy is strongly entrenched in our own corporate policy and culture.

In addition, our team will be proactive in identifying issues to prevent their unchecked growth. The proposed use of our paperless workflow system (PRONTOFORMS) will support the efforts of NJ TRANSIT and NAIK to identify potential problems earlier and prevent unnecessary delays to critical tasks. While there is no substitute for trained eyes to guarantee quality, technology can ease reporting and make the information gathered in the field more accessible and usable by the project management team and leverage field inspection efforts to provide better oversight and trend analysis. By supporting NJ TRANSIT with accurate and timely reporting, actively partnering with contractors and assertively managing potential claims, the effects of such concerns on the construction budget and schedule will be minimized.

Key Elements of NAIK's Quality Assurance Plan

NAIK's quality assurance plan will address the following:

- Organization, staffing and responsibilities
- Submittal management, control of documents and document changes
- Control of non-conforming conditions, corrective and preventive action
- Subcontractor and supplier control and external audits
- Inspection and Test Plan (I & TP)
- Receiving, handling, storage and control of materials and equipment
- Control of measuring and testing equipment
- Quality records and documentation
- Contractor's internal audit
- Training and start-up
- Statistical analysis
- Control of construction processes
- Design process control
- Document non-conforming work, and job progress with photos
- Video the project prior to all work beginning and at regular intervals to document existing conditions and conditions during transition periods

Quality Assurance Plan

We will prepare and submit a quality assurance plan (QAP) that details our specific roles and responsibilities for this Project. The QAP includes the following items:

- Project Quality Policy
- Quality Assurance Interfaces
- Terms and Definitions
- Qualifications, Orientation, Training & Certification
- CM's Quality Assurance Plan
- Documents and Data Control
- CM's General Responsibilities
- Contracts/Procurement Control
- Preparation, Control and Revision of the Quality Plan
- Surveillance, Audit, and Corrective Action
- Quality Assurance Organization
- Quality Assurance Documentation
- CM's General Organization
- Site Construction Quality Control
- Quality Assurance/Quality Control Responsibilities
- Shop Manufacture/Fabrication Quality Control

We understand that a structured and comprehensive quality program must be incorporated as part of an overall project control approach at the onset of construction activities to ensure that quality practices, testing, documentation and record keeping are integral to the project's success. Project controls and document control are vital elements in NAIK's quality program that will be a focus from day one.

Project controls and document control are vital elements in NAIK's quality program that will be a focus from day one

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-1
COST AND FEE FIRM RECAP - TEAM SUMMARY (HOBOKEN DEPOT & HENDERSON STREET)

FIRM	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
Naik Consulting Group	32052	$ 1,993,752.00	$ 2,161,227.17	$ 4,154,979.17	$ 353,173.23	$ 140,000.00	$ 4,648,152.40
Burns Engineering	1920	$ 77,996.80	$ 113,464.28	$ 191,461.08	$ 16,274.19	$ 6,000.00	$ 213,735.28
Envision Consultants, Ltd.	8540	$ 379,267.10	$ 392,882.79	$ 772,149.89	$ 65,632.74	$ 2,000.00	$ 839,782.63
Roux Associates, Inc.	300	$ 10,680.00	$ 18,476.40	$ 29,156.40	$ 2,478.29	$ 2,000.00	$ 33,634.69
Lynn Drobbin & Associates	200	$ 17,284.00	$ 22,992.91	$ 40,276.91	$ 3,423.54	$ 1,000.00	$ 44,700.44
TOTAL	43012	$ 2,478,979.90	$ 2,709,043.55	$ 5,188,023.45	$ 440,981.99	$ 151,000.00	$ 5,780,005.44

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-2
COST AND FEE TASKS RECAP - TEAM SUMMARY (HOBOKEN DEPOT & HENDERSON STREET)

TASK	DESCRIPTION	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	11,018	$ 600,000.00	$ 644,628.00	$ 1,244,628.00	$ 105,793.38	$ 113,000.00	$ 1,463,421.38
C2-Inspection	Inspection	6,920	$ 446,164.00	$ 487,898.83	$ 934,062.83	$ 79,395.34	$ 1,000.00	$ 1,014,458.17
C3-Testing	Testing	1,920	$ 77,996.60	$ 113,464.28	$ 191,461.08	$ 16,274.19	$ 27,000.00	$ 234,735.28
C4-Environmental	Environmental	300	$ 10,680.00	$ 18,476.40	$ 29,156.40	$ 2,478.29	$ 2,000.00	$ 33,634.69
C5-Schedule Control	Schedule Control	1,700	$ 96,485.60	$ 99,949.43	$ 196,435.03	$ 16,696.98	$ 2,000.00	$ 215,132.01
C6-Staging and Work Plans	Staging and Work Plans	5,148	$ 386,496.00	$ 418,961.66	$ 805,457.66	$ 68,463.90	$ -	$ 873,921.57
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	8,208	$ 394,056.00	$ 421,846.46	$ 815,902.46	$ 69,351.71	$ -	$ 885,254.17
C8-Change Orders	Change Orders	600	$ 33,181.50	$ 34,372.72	$ 67,554.22	$ 5,742.11	$ -	$ 73,296.32
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	2,880	$ 178,560.00	$ 193,559.04	$ 372,119.04	$ 31,630.12	$ 6,000.00	$ 409,749.16
C10-Project Safety	Project Safety	2,880	$ 178,560.00	$ 193,559.04	$ 372,119.04	$ 31,630.12	$ -	$ 403,749.16
C11-Project Closeout	Project Closeout	1,440	$ 76,800.00	$ 82,327.68	$ 159,127.68	$ 13,525.85	$ -	$ 172,653.53
TOTALS		43,012	$ 2,478,979.90	$ 2,709,043.55	$ 5,188,023.45	$ 440,981.99	$ 151,000.00	$ 5,780,005.44

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-3
COST AND FEE FIRM RECAP - TEAM SUMMARY (HOBOKEN DEPOT)

FIRM	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
Naik Consulting Group	16126	$ 1,002,876.00	$ 1,087,257.98	$ 2,090,133.98	$ 177,661.39	$ 70,000.00	$ 2,337,795.37
Burns Engineering	960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10	$ 3,000.00	$ 106,867.64
Envision Consultants, Ltd.	4270	$ 189,633.55	$ 196,441.39	$ 386,074.94	$ 32,816.37	$ 1,000.00	$ 419,891.31
Roux Associates, Inc.	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15	$ 1,000.00	$ 16,817.35
Lynn Drobbin & Associates	200	$ 17,284.00	$ 22,992.91	$ 40,276.91	$ 3,423.54	$ 1,000.00	$ 44,700.44
TOTAL	21706	$ 1,254,131.95	$ 1,372,662.63	$ 2,626,794.58	$ 223,277.54	$ 76,000.00	$ 2,926,072.12

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-4
COST AND FEE TASKS RECAP - TEAM SUMMARY (HOBOKEN DEPOT)

TASK	DESCRIPTION	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	5,508	$ 300,000.00	$ 322,314.00	$ 622,314.00	$ 52,898.69	$ 56,500.00	$ 731,710.69
C2-Inspection	Inspection	3,660	$ 237,724.00	$ 261,949.87	$ 499,673.87	$ 42,472.28	$ 1,000.00	$ 543,146.14
C3-Testing	Testing	980	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10	$ 13,500.00	$ 117,367.64
C4-Environmental	Environmental	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15	$ 1,000.00	$ 16,817.35
C5-Schedule Control	Schedule Control	850	$ 48,242.80	$ 49,974.72	$ 98,217.52	$ 8,348.49	$ 1,000.00	$ 107,566.01
C6-Staging and Work Plans	Staging and Work Plans	2,574	$ 193,248.00	$ 209,480.83	$ 402,728.83	$ 34,231.95	$ -	$ 436,960.78
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	4,104	$ 197,028.00	$ 210,923.23	$ 407,951.23	$ 34,675.85	$ -	$ 442,627.09
C8-Change Orders	Change Orders	300	$ 16,590.75	$ 17,186.36	$ 33,777.11	$ 2,871.05	$ -	$ 36,648.16
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06	$ 3,000.00	$ 204,874.58
C10-Project Safety	Project Safety	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06	$ -	$ 201,874.58
C11-Project Closeout	Project Closeout	720	$ 38,400.00	$ 41,163.84	$ 79,563.84	$ 6,762.93	$ -	$ 86,326.77
TOTALS		21,706	$ 1,254,131.95	$ 1,372,522.23	$ 2,626,654.18	$ 223,285.60	$ 76,000.00	$ 2,925,919.78

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-5
COST AND FEE TASKS RECAP BY FIRM (HOBOKEN DEPOT)

FIRM: **Naik Consulting Group**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 110.74%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	4 008	$ 240,000.00	$ 260,160.00	$ 500 160.00	$ 42 513.60	$ 56,500.00	$ 599 173.60
C2-Inspection	Inspection	3.460	$ 220,440.00	$ 238,956.96	$ 459 396.96	$ 39,048.74	$ -	$ 498 445.70
C3-Testing	Testing	-	$ -	$ -	$ -	$ -	$ 10 500.00	$ 10,500.00
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	2.574	$ 193,248.00	$ 209 480 83	$ 402 728.83	$ 34 231.95	$ -	$ 436 960.78
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	2 724	$ 141,828.00	$ 153 741 55	$ 295 569.55	$ 25 123.41	$ -	$ 320 692.96
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1.440	$ 89,280.00	$ 96,779 52	$ 186 059.52	$ 15 815.06	$ 3,000.00	$ 204 874.58
C10-Project Safety	Project Safety	1 440	$ 89,280.00	$ 96,779 52	$ 186 059.52	$ 15 815.06	$ -	$ 201 874.58
C11-Project Closeout	Project Closeout	480	$ 28,800.00	$ 31,219 20	$ 60 019.20	$ 5 101.63	$ -	$ 65 120.83
TOTALS		16,126	$ 1,002,876.00	$ 1,087 117.58	$ 2 089 993.58	$ 177 649.45	$ 70 000.00	$ 2 337 643.04

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ATTACHMENT B-5
COST AND FEE TASKS RECAP BY FIRM (HOBOKEN DEPOT)

FIRM: **Burns Engineering**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 145.47%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -	$ -	$ -
C3-Testing	Testing	960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10	$ 3,000.00	$ 106,867.64
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -	$ -	$ -
TOTALS		960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10	$ 3,000.00	$ 106,867.64

ATTACHMENT B-5
COST AND FEE TASKS RECAP BY FIRM (HOBOKEN DEPOT)

FIRM: **Envision Consultants**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 103.59%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	1,500	$ 60,000.00	$ 62,154.00	$ 122,154.00	$ 10,383.09	$ -	$ 132,537.09
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -	$ -	$ -
C3-Testing	Testing	-	$ -	$ -	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	850	$ 48,242.80	$ 49,974.72	$ 98,217.52	$ 8,348.49	$ 1,000.00	$ 107,566.01
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	1,380	$ 55,200.00	$ 57,181.68	$ 112,381.68	$ 9,552.44	$ -	$ 121,934.12
C8-Change Orders	Change Orders	300	$ 16,590.75	$ 17,186.36	$ 33,777.11	$ 2,871.05	$ -	$ 36,648.16
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	240	$ 9,600.00	$ 9,944.64	$ 19,544.64	$ 1,661.29	$ -	$ 21,205.93
TOTALS		4,270	$ 189,633.55	$ 196,441.39	$ 386,074.94	$ 32,816.37	$ 1,000.00	$ 419,891.31

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ATTACHMENT B-5
COST AND FEE TASKS RECAP BY FIRM (HOBOKEN DEPOT)

FIRM: **Roux Associates**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 173.00%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -	$ -	$ -
C3-Testing	Testing	-	$ -	$ -	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15	$ 1,000.00	$ 16,817.35
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -	$ -	$ -
TOTALS		150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15	$ 1,000.00	$ 16,817.35

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-5
COST AND FEE TASKS RECAP BY FIRM (HOBOKEN DEPOT)

FIRM: **Lynn Drobbin & Associates**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 133.03%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	200	$ 17,284.00	$ 22,992.91	$ 40,276.91	$ 3,423.54	$ 1,000.00	$ 44,700.44
C3-Testing	Testing	-	$ -	$ -	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -	$ -	$ -
TOTALS		200	$ 17,284.00	$ 22,992.91	$ 40,276.91	$ 3,423.54	$ 1,000.00	$ 44,700.44

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P1-Constructability Review **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Gaspartich, M.	Technical Advisor	0	$ 98.00	$ -
Settineri, C.	Senior Substation Engineer	0	$ 65.00	$ -
Standig, K.	QA Manager	0	$ 50.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Patel, N.	Deputy Resident Engineer	0	$ 62.50	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL – SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P3-Management Procedures and Document Control **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Funk, M.	QA Manager	0	$ 56.00	$ -
Patel, N.	Deputy Resident Engineer	0	$ 62.50	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C1-Construction Management Administration **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	588	$ 50.00	$ 29,400.00
Charchar, E.	Resident Engineer	1440	$ 80.00	$ 115,200.00
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Patel, N.	Deputy Resident Engineer	720	$ 62.50	$ 45,000.00
Naik Doc Cont	Document Control Manager	1260	$ 40.00	$ 50,400.00
TOTAL ESTIMATED HOURS		4008		

TOTAL SALARY (BARE COST)		$ 240,000.00
OVERHEAD @ 108.40% OF BARE COST		$ 260,160.00
SUBTOTAL -- SALARY + OVERHEAD		$ 500,160.00
FIXED FEE @ 8.5% OF BARE COST		$ 42,513.60
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 4,000.00	
Document Mgmt Software Licence and Data Storage ($1250/mo X 42/mo)	$ 52,500.00	
TOTAL DIRECT EXPENSES		$ 56,500.00
TOTAL THIS TASK		$ 599,173.60

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C2-Inspection **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	720	$ 80.00	$ 57,600.00
Noto, L.	Chief Inspector	1440	$ 59.00	$ 84,960.00
Funk, M.	QA Manager	480	$ 56.00	$ 26,880.00
Shubert, G.	Sr. Consultant	0	$ 60.00	$ -
Patel, N.	Deputy Resident Engineer	720	$ 62.50	$ 45,000.00
TOTAL ESTIMATED HOURS		3360		

TOTAL SALARY (BARE COST)		$ 214,440.00
OVERHEAD @ 108.40% OF BARE COST		$ 232,452.96
SUBTOTAL -- SALARY + OVERHEAD		$ 446,892.96
FIXED FEE @ 8.5% OF BARE COST		$ 37,985.90
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 484,878.86

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C3-Testing **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Settineri, C.	Senior Substation Engineer	0	$ 65.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 108.40% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
As-Directed Testing	$ 5,250.00	
As-Directed Land Surveying	$ 5,250.00	
TOTAL DIRECT EXPENSES		$ 10,500.00
TOTAL THIS TASK		$ 10,500.00

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C6-Staging and Work Plans **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Gaspartich, M.	Technical Advisor	990	$ 98.00	$ 97,020.00
Noto, L.	Chief Inspector	792	$ 59.00	$ 46,728.00
Patel, N.	Deputy Resident Engineer	792	$ 62.50	$ 49,500.00
Naik Doc Cont	Document Control Manager	0	$ 40.00	$ -
TOTAL ESTIMATED HOURS		2574		

TOTAL SALARY (BARE COST)	$ 193,248.00
OVERHEAD @ 108.40% OF BARE COST	$ 209,480.83
SUBTOTAL -- SALARY + OVERHEAD	$ 402,728.83
FIXED FEE @ 8.5% OF BARE COST	$ 34,231.95
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 436,960.78

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C7-Shop Drawings and Material Approval **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Noto, L.	Chief Inspector	792	$ 59.00	$ 46,728.00
Patel, N.	Deputy Resident Engineer	792	$ 62.50	$ 49,500.00
Naik Doc Cont	Document Control Manager	1140	$ 40.00	$ 45,600.00
TOTAL ESTIMATED HOURS		2724		

TOTAL SALARY (BARE COST)		$ 141,828.00
OVERHEAD @ 108.40% OF BARE COST		$ 153,741.55
SUBTOTAL -- SALARY + OVERHEAD		$ 295,569.55
FIXED FEE @ 8.5% OF BARE COST		$ 25,123.41
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 320,692.96

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C8-Change Orders **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Mercado, H.	Senior Estimator	0	$ 55.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 108.40% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C9-Quality Assurance and Quality Control **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	360	$ 80.00	$ 28,800.00
Funk, M.	QA Manager	1080	$ 56.00	$ 60,480.00
TOTAL ESTIMATED HOURS		1440		

TOTAL SALARY (BARE COST)		$ 89,280.00
OVERHEAD @ 108.40% OF BARE COST		$ 96,779.52
SUBTOTAL -- SALARY + OVERHEAD		$ 186,059.52
FIXED FEE @ 8.5% OF BARE COST		$ 15,815.06
DIRECT EXPENSES		
Itemize		
Travel	$ 3,000.00	
TOTAL DIRECT EXPENSES		$ 3,000.00
TOTAL THIS TASK		$ 204,874.58

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C10-Project Safety **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	360	$ 80.00	$ 28,800.00
Funk, M.	QA Manager	1080	$ 56.00	$ 60,480.00
TOTAL ESTIMATED HOURS		1440		

TOTAL SALARY (BARE COST)	$ 89,280.00
OVERHEAD @ 108.40% OF BARE COST	$ 96,779.52
SUBTOTAL -- SALARY + OVERHEAD	$ 186,059.52
FIXED FEE @ 8.5% OF BARE COST	$ 15,815.06
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 201,874.58

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C11-Project Closeout **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	240	$ 80.00	$ 19,200.00
Naik Doc Cont	Document Control Manager	240	$ 40.00	$ 9,600.00
TOTAL ESTIMATED HOURS		480		

TOTAL SALARY (BARE COST)		$ 28,800.00
OVERHEAD @ 108.40% OF BARE COST		$ 31,219.20
SUBTOTAL -- SALARY + OVERHEAD		$ 60,019.20
FIXED FEE @ 8.5% OF BARE COST		$ 5,101.63
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 65,120.83

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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P1-Constructability Review **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Petroski, D.	Sr. Consultant	0	$ 95.48	$ -
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C2-Inspection **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Muzylowski, S.	Senior Systems Engineer	0	$ 34.44	$ -
Zhao, P.	Systems Engineer	0	$ 40.60	$ -
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C3-Testing **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Muzylowski, S.	Senior Systems Engineer	400	$ 34.44	$ 13,776.00
Zhao, P.	Systems Engineer	400	$ 40.60	$ 16,240.00
Schimpf, J.	Senior Substation Engineer	160	$ 56.14	$ 8,982.40
TOTAL ESTIMATED HOURS		960		

TOTAL SALARY (BARE COST)		$ 38,998.40
OVERHEAD @ 145.47% OF BARE COST		$ 56,732.14
SUBTOTAL -- SALARY + OVERHEAD		$ 95,730.54
FIXED FEE @ 8.5% OF BARE COST		$ 8,137.10
DIRECT EXPENSES		
Itemize		
Travel		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 103,867.64

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P1-Constructability Review **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
Johnson, N.	Senior Estimator	0	$ 74.21	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL – SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P3-Management Procedures and Document Control **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	0	$ 40.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize:		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C1-Construction Management Administration **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	1500	$ 40.00	$ 60,000.00
TOTAL ESTIMATED HOURS		1500		

TOTAL SALARY (BARE COST)		$ 60,000.00
OVERHEAD @ 103.59% OF BARE COST		$ 62,154.00
SUBTOTAL – SALARY + OVERHEAD		$ 122,154.00
FIXED FEE @ 8.5% OF BARE COST		$ 10,383.09
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 132,537.09

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C5-Schedule Control **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
Betz, B.	Senior Scheduler	240	$ 76.47	$ 18,352.80
VanWagen, L	Scheduler	610	$ 49.00	$ 29,890.00
TOTAL ESTIMATED HOURS		850		

TOTAL SALARY (BARE COST)		$ 48,242.80
OVERHEAD @ 103.59% OF BARE COST		$ 49,974.72
SUBTOTAL -- SALARY + OVERHEAD		$ 98,217.52
FIXED FEE @ 8.5% OF BARE COST		$ 8,348.49
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 1,000.00	
TOTAL DIRECT EXPENSES		$ 1,000.00
TOTAL THIS TASK		$ 107,566.01

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C7-Shop Drawings and Material Approval **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	1380	$ 40.00	$ 55,200.00
TOTAL ESTIMATED HOURS		1380		

TOTAL SALARY (BARE COST)		$ 55,200.00
OVERHEAD @ 103.59% OF BARE COST		$ 57,181.68
SUBTOTAL -- SALARY + OVERHEAD		$ 112,381.68
FIXED FEE @ 8.5% OF BARE COST		$ 9,552.44
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 121,934.12

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C8-Change Orders **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Moreno, A	Estimator	225	$ 49.00	$ 11,025.00
Johnson, N.	Senior Estimator	75	$ 74.21	$ 5,565.75
TOTAL ESTIMATED HOURS		300		

TOTAL SALARY (BARE COST)		$ 16,590.75
OVERHEAD @ 103.59% OF BARE COST		$ 17,186.36
SUBTOTAL -- SALARY + OVERHEAD		$ 33,777.11
FIXED FEE @ 8.5% OF BARE COST		$ 2,871.05
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 36,648.16

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C11-Project Closeout **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	240	$ 40.00	$ 9,600.00
TOTAL ESTIMATED HOURS		240		

TOTAL SALARY (BARE COST)		$ 9,600.00
OVERHEAD @ 103.59% OF BARE COST		$ 9,944.64
SUBTOTAL -- SALARY + OVERHEAD		$ 19,544.64
FIXED FEE @ 8.5% OF BARE COST		$ 1,661.29
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 21,205.93

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: P4-Environmental **FIRM:** Roux Associates, Inc.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Gilchrist, B.	Senior Hydrogeologist	0	$ 66.55	$ -
Williams, J.	Environmental Engineer	0	$ 44.98	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 173.00% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C4-Environmental **FIRM:** Roux Associates, Inc.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Kazanjian, J.	Site Remediation Professional	150	$ 35.60	$ 5,340.00
TOTAL ESTIMATED HOURS		150		

TOTAL SALARY (BARE COST)		$ 5,340.00
OVERHEAD @ 173.00% OF BARE COST		$ 9,238.20
SUBTOTAL -- SALARY + OVERHEAD		$ 14,578.20
FIXED FEE @ 8.5% OF BARE COST		$ 1,239.15
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 1,000.00	
TOTAL DIRECT EXPENSES		$ 1,000.00
TOTAL THIS TASK		$ 16,817.35

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-6
PERSONNEL TEAM DETAIL (HOBOKEN DEPOT)

SUB-TASK: C2-Inspection **FIRM:** Lynn Drobbin & Associates

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Drobbin, L.	Sr. Consultant	200	$ 86.42	$ 17,284.00
TOTAL ESTIMATED HOURS		200		

TOTAL SALARY (BARE COST)		$ 17,284.00
OVERHEAD @ 133.03% OF BARE COST		$ 22,992.91
SUBTOTAL -- SALARY + OVERHEAD		$ 40,276.91
FIXED FEE @ 8.5% OF BARE COST		$ 3,423.54
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 1,000.00	
TOTAL DIRECT EXPENSES		$ 1,000.00
TOTAL THIS TASK		$ 44,700.44

ATTACHMENT
STAFFING SCHEDULE BY FIRM

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK P3 HOURS	TASK C1 HOURS	TASK C2 HOURS	TASK C3 HOURS
Soliman, M.	Construction Manager	$ 50.00	0	0	0	588	0	0
Charchar, E.	Resident Engineer	$ 80.00	0	0	0	1440	720	0
Black, M.	Administrative Specialist	$ 30.00	0	0	0	0	0	0
Mercado, H.	Senior Estimator	$ 55.00	0	0	0	0	0	0
Gaspartich, M.	Technical Advisor	$ 98.00	0	0	0	0	0	0
Settineri, C.	Senior Substation Engineer	$ 65.00	0	0	0	0	0	0
Standig, K.	QA Manager	$ 50.00	0	0	0	0	0	0
Tan, J.	Support Services	$ 93.70	0	0	0	0	0	0
Swarnakar, K.	Support Services	$ 96.15	0	0	0	0	0	0
Schueller, A.	Support Services	$ 80.00	0	0	0	0	0	0
Chakin, J.	Support Services	$ 73.25	0	0	0	0	0	0
Noto, L.	Chief Inspector	$ 59.00	0	0	0	0	1440	0
Clancy, F.	Support Services	$ 62.00	0	0	0	0	0	0
Funk, M.	QA Manager	$ 56.00	0	0	0	0	480	0
Shubert, G.	Sr. Consultant	$ 60.00	0	0	0	0	0	0
Patel, N.	Deputy Resident Engineer	$ 62.50	0	0	0	720	720	0
Naik, S.	Project Principal in Charge	$ 50.00	0	0	0	0	0	0
Naik Doc Cont	Document Control Manager	$ 40.00	0	0	0	1260	0	0
TOTALS			0	0	0	4008	3360	0

CORPORATION
SAL NO. 17-007

B-7
M (HOBOKEN DEPOT)

FIRM: _____

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C6 HOURS	TASK C7 HOURS	TASK C8 HOURS	TASK C9 HOURS	TASK C10 HOURS
Soliman, M.	Construction Manager	$ 50.00	0	0	0	0	0
Charchar, E.	Resident Engineer	$ 80.00	0	0	0	360	360
Black, M.	Administrative Specialist	$ 30.00	0	0	0	0	0
Mercado, H.	Senior Estimator	$ 55.00	0	0	0	0	0
Gaspartich, M.	Technical Advisor	$ 98.00	990	0	0	0	0
Settineri, C.	Senior Substation Engineer	$ 65.00	0	0	0	0	0
Standig, K.	QA Manager	$ 50.00	0	0	0	0	0
Tan, J.	Support Services	$ 93.70	0	0	0	0	0
Swarnakar, K.	Support Services	$ 96.15	0	0	0	0	0
Schueller, A.	Support Services	$ 80.00	0	0	0	0	0
Chakin, J.	Support Services	$ 73.25	0	0	0	0	0
Noto, L.	Chief Inspector	$ 59.00	792	792	0	0	0
Clancy, F.	Support Services	$ 62.00	0	0	0	0	0
Funk, M.	QA Manager	$ 56.00	0	0	0	1080	1080
Shubert, G.	Sr. Consultant	$ 60.00	0	0	0	0	0
Patel, N.	Deputy Resident Engineer	$ 62.50	792	792	0	0	0
Naik, S.	Project Principal in Charge	$ 50.00	0	0	0	0	0
Naik Doc Cont	Document Control Manager	$ 40.00	0	1140	0	0	0
TOTALS			2574	2724	0	1440	1440

Naik Consulting Group

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C11 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @110.74%	TOTAL LABOR COST
Soliman, M.	Construction Manager	$ 50.00	0	588	$ 29,400.00	$ 31,869.60	$ 61,269.60
Charchar, E.	Resident Engineer	$ 80.00	240	3120	$ 249,600.00	$ 270,566.40	$ 520,166.40
Black, M.	Administrative Specialist	$ 30.00	0	0	$ -	$ -	$ -
Mercado, H.	Senior Estimator	$ 55.00	0	0	$ -	$ -	$ -
Gaspartich, M.	Technical Advisor	$ 98.00	0	990	$ 97,020.00	$ 105,169.68	$ 202,189.68
Settineri, C.	Senior Substation Engineer	$ 65.00	0	0	$ -	$ -	$ -
Standig, K.	QA Manager	$ 50.00	0	0	$ -	$ -	$ -
Tan, J.	Support Services	$ 93.70	0	0	$ -	$ -	$ -
Swarnakar, K.	Support Services	$ 96.15	0	0	$ -	$ -	$ -
Schueller, A.	Support Services	$ 80.00	0	0	$ -	$ -	$ -
Chakin, J.	Support Services	$ 73.25	0	0	$ -	$ -	$ -
Noto, L.	Chief Inspector	$ 59.00	0	3024	$ 178,416.00	$ 193,402.94	$ 371,818.94
Clancy, F.	Support Services	$ 62.00	0	0	$ -	$ -	$ -
Funk, M.	QA Manager	$ 56.00	0	2640	$ 147,840.00	$ 160,258.56	$ 308,098.56
Shubert, G.	Sr. Consultant	$ 60.00	0	0	$ -	$ -	$ -
Patel, N.	Deputy Resident Engineer	$ 62.50	0	3024	$ 189,000.00	$ 204,876.00	$ 393,876.00
Naik, S.	Project Principal in Charge	$ 50.00	0	0	$ -	$ -	$ -
Naik Doc Cont	Document Control Manager	$ 40.00	240	2640	$ 105,600.00	$ 114,470.40	$ 220,070.40
TOTALS			480	16026	$ 996,876.00	$ 1,080,613.58	$ 2,077,489.58

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-7
STAFFING SCHEDULE BY FIRM (HOBOKEN DEPOT)

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK C2 HOURS	TASK C3 HOURS
Petroski, D.	Sr. Consultant	$ 95.48	0	0	0	0
Muzylowski, S.	Senior Systems Engineer	$ 34.44	0	0	0	400
Zhao, P.	Systems Engineer	$ 40.60	0	0	0	400
Schimpf, J.	Senior Substation Engineer	$ 56.14	0	0	0	160
TOTALS			0	0	0	960

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STAFFING S

Burns Engineering

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @145.47%	TOTAL LABOR COST
Petroski, D.	Sr. Consultant	$ 95.48	0	$ -	$ -	$ -
Muzylowski, S.	Senior Systems Engineer	$ 34.44	400	$ 13,776.00	$ 20,040.36	$ 33,816.36
Zhao, P.	Systems Engineer	$ 40.60	400	$ 16,240.00	$ 23,624.82	$ 39,864.82
Schimpf, J.	Senior Substation Engineer	$ 56.14	160	$ 8,982.40	$ 13,066.97	$ 22,049.37
TOTALS			960	$ 38,998.40	$ 56,732.14	$ 95,730.54

ATTACHMENT B-7
STAFFING SCHEDULE BY FIRM (HOBOKEN DEPOT)

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK P3 HOURS	TASK C1 HOURS
Johnson-Davis, A.	Document Control Manager	$ 40.00	0	0	0	1500
Rudderrow, P.	Senior Scheduler	$ 84.57	0	0	0	0
Betz, B.	Senior Scheduler	$ 76.47	0	0	0	0
Moreno, A	Estimator	$ 49.00	0	0	0	0
VanWagen, L	Scheduler	$ 49.00	0	0	0	0
Johnson, N.	Senior Estimator	$ 74.21	0	0	0	0
TOTALS			0	0	0	1500

FIRM: En

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C5 HOURS	TASK C7 HOURS	TASK C8 HOURS	TASK C11 HOURS	TOTAL HOURS
Johnson-Davis, A.	Document Control Manager	$ 40.00	0	1380	0	240	3120
Rudderrow, P.	Senior Scheduler	$ 84.57	0	0	0	0	0
Betz, B.	Senior Scheduler	$ 76.47	240	0	0	0	240
Moreno, A	Estimator	$ 49.00	0	0	225	0	225
VanWagen, L	Scheduler	$ 49.00	610	0	0	0	610
Johnson, N.	Senior Estimator	$ 74.21	0	0	75	0	75
TOTALS			850	1380	300	240	4270

vision Consultants

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @103.59%	TOTAL LABOR COST
Johnson-Davis, A.	Document Control Manager	$ 40.00	$ 124,800.00	$ 129,280.32	$ 254,080.32
Rudderrow, P.	Senior Scheduler	$ 84.57	$ -	$ -	$ -
Betz, B.	Senior Scheduler	$ 76.47	$ 18,352.80	$ 19,011.67	$ 37,364.47
Moreno, A	Estimator	$ 49.00	$ 11,025.00	$ 11,420.80	$ 22,445.80
VanWagen, L	Scheduler	$ 49.00	$ 29,890.00	$ 30,963.05	$ 60,853.05
Johnson, N.	Senior Estimator	$ 74.21	$ 5,565.75	$ 5,765.56	$ 11,331.31
TOTALS			$ 189,633.55	$ 196,441.39	$ 386,074.94

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-7
STAFFING SCHEDULE BY FIRM (HOBOKEN DEPOT)

Roux Associates

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P4 HOURS	TASK C4 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @173.00%
Gilchrist, B.	Senior Hydrogeologist	$ 66.55	0	0	0	$ -	$ -
Williams, J.	Environmental Engineer	$ 44.98	0	0	0	$ -	$ -
Kazanjian, J.	Site Remediation Professional	$ 35.60	0	150	150	$ 5,340.00	$ 9,238.20
TOTALS			0	150	150	$ 5,340.00	$ 9,238.20

NEW JERSEY TRANSIT CC
REQUEST FOR PROPOSA

ATTACHMENT E
STAFFING SCHEDULE BY FIRM (

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL LABOR COST
Gilchrist, B.	Senior Hydrogeologist	$ 66.55	$ -
Williams, J.	Environmental Engineer	$ 44.98	$ -
Kazanjian, J.	Site Remediation Professional	$ 35.60	$ 14,578.20
TOTALS			$ 14,578.20

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-7
STAFFING SCHEDULE BY FIRM (HOBOKEN DEPOT)

Lynn Drobbin & Associates

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C2 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @133.03%	TOTAL LABOR COST
Drobbin, L.	Sr. Consultant	$ 86.42	200	200	$ 17,284.00	$ 22,992.91	$ 40,276.91
TOTALS			200	200	$ 17,284.00	$ 22,992.91	$ 40,276.91

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-8
COST AND FEE FIRM RECAP - TEAM SUMMARY (HENDERSON STREET)

FIRM	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%	DIRECT EXPENSES	TOTAL COST
Naik Consulting Group	15926	$ 990,876.00	$ 1,074,109.58	$ 2,064,985.58	$ 175,523.77	$ 70,000.00	$ 2,310,509.36
Burns Engineering	960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10	$ 3,000.00	$ 106,867.64
Envision Consultants, Ltd.	4270	$ 189,633.55	$ 196,441.39	$ 386,074.94	$ 32,816.37	$ 1,000.00	$ 419,891.31
Roux Associates, Inc.	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15	$ 1,000.00	$ 16,817.35
Lynn Drobbin & Associates	0	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL	21306	$ 1,224,847.95	$ 1,336,521.32	$ 2,561,369.27	$ 217,716.39	$ 75,000.00	$ 2,854,085.66

ATTACHMENT B-9
COST AND FEE TASKS RECAP - TEAM SUMMARY (HENDERSON STREET)

TASK	DESCRIPTION	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ XXX.XX%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	5,508	$ 300,000.00	$ 322,314.00	$ 622,314.00	$ 52,896.69
C2-Inspection	Inspection	3,260	$ 208,440.00	$ 225,948.96	$ 434,388.96	$ 36,923.06
C3-Testing	Testing	960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10
C4-Environmental	Environmental	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15
C5-Schedule Control	Schedule Control	850	$ 48,242.80	$ 49,974.72	$ 98,217.52	$ 8,348.49
C6-Staging and Work Plans	Staging and Work Plans	2,574	$ 193,248.00	$ 209,480.83	$ 402,728.83	$ 34,231.95
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	4,104	$ 197,028.00	$ 210,923.23	$ 407,951.23	$ 34,675.85
C8-Change Orders	Change Orders	300	$ 16,590.75	$ 17,186.36	$ 33,777.11	$ 2,871.05
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06
C10-Project Safety	Project Safety	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06
C11-Project Closeout	Project Closeout	720	$ 38,400.00	$ 41,163.84	$ 79,563.84	$ 6,762.93
TOTALS		21,306	$ 1,224,847.95	$ 1,336,521.32	$ 2,561,369.27	$ 217,716.39

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COST AND FEE TASKS RECAP - TEA

TASK	DESCRIPTION	MAN HOURS	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	5,508	$ 56,500.00	$ 731,710.69
C2-Inspection	Inspection	3,260	$ -	$ 471,312.02
C3-Testing	Testing	960	$ 13,500.00	$ 117,367.64
C4-Environmental	Environmental	150	$ 1,000.00	$ 16,817.35
C5-Schedule Control	Schedule Control	850	$ 1,000.00	$ 107,566.01
C6-Staging and Work Plans	Staging and Work Plans	2,574	$ -	$ 436,960.78
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	4,104	$ -	$ 442,627.09
C8-Change Orders	Change Orders	300	$ -	$ 36,648.16
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1,440	$ 3,000.00	$ 204,874.58
C10-Project Safety	Project Safety	1,440	$ -	$ 201,874.58
C11-Project Closeout	Project Closeout	720	$ -	$ 86,326.77
TOTALS		21,306	$ 75,000.00	$ 2,854,085.66

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-10
COST AND FEE TASKS RECAP BY FIRM (HENDERSON STREET)

FIRM: **Naik Consultin**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @110.74%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	4,008	$ 240,000.00	$ 260,160.00	$ 500,160.00	$ 42,513.60
C2-Inspection	Inspection	3,260	$ 208,440.00	$ 225,948.96	$ 434,388.96	$ 36,923.06
C3-Testing	Testing	-	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	2,574	$ 193,248.00	$ 209,480.83	$ 402,728.83	$ 34,231.95
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	2,724	$ 141,828.00	$ 153,741.55	$ 295,569.55	$ 25,123.41
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06
C10-Project Safety	Project Safety	1,440	$ 89,280.00	$ 96,779.52	$ 186,059.52	$ 15,815.06
C11-Project Closeout	Project Closeout	480	$ 28,800.00	$ 31,219.20	$ 60,019.20	$ 5,101.63
TOTALS		15,926	$ 990,876.00	$ 1,074,109.58	$ 2,064,985.58	$ 175,523.77

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TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	4,008	$ 56,500.00	$ 599,173.60
C2-Inspection	Inspection	3,260	$ -	$ 471,312.02
C3-Testing	Testing	-	$ 10,500.00	$ 10,500.00
C4-Environmental	Environmental	-	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	2,574	$ -	$ 436,960.78
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	2,724	$ -	$ 320,692.96
C8-Change Orders	Change Orders	-	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	1,440	$ 3,000.00	$ 204,874.58
C10-Project Safety	Project Safety	1,440	$ -	$ 201,874.58
C11-Project Closeout	Project Closeout	480	$ -	$ 65,120.83
TOTALS		15,926	$ 70,000.00	$ 2,310,509.36

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ATTACHMENT B-10
COST AND FEE TASKS RECAP BY FIRM (HENDERSON STREET)

FIRM: **Burns Engine**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @145.47%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -
C3-Testing	Testing	960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -
TOTALS		960	$ 38,998.40	$ 56,732.14	$ 95,730.54	$ 8,137.10

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TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -
C3-Testing	Testing	960	$ 3,000.00	$ 106,867.64
C4-Environmental	Environmental	-	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -
TOTALS		960	$ 3,000.00	$ 106,867.64

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ATTACHMENT B-10
COST AND FEE TASKS RECAP BY FIRM (HENDERSON STREET)

FIRM: **Envision Consı**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @103.59%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	1,500	$ 60,000.00	$ 62,154.00	$ 122,154.00	$ 10,383.09
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -
C3-Testing	Testing	-	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	850	$ 48,242.80	$ 49,974.72	$ 98,217.52	$ 8,348.49
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	1,380	$ 55,200.00	$ 57,181.68	$ 112,381.68	$ 9,552.44
C8-Change Orders	Change Orders	300	$ 16,590.75	$ 17,186.36	$ 33,777.11	$ 2,871.05
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	240	$ 9,600.00	$ 9,944.64	$ 19,544.64	$ 1,661.29
TOTALS		4,270	$ 189,633.55	$ 196,441.39	$ 386,074.94	$ 32,816.37

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TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	1,500	$ -	$ 132,537.09
C2-Inspection	Inspection	-	$ -	$ -
C3-Testing	Testing	-	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -
C5-Schedule Control	Schedule Control	850	$ 1,000.00	$ 107,566.01
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	1,380	$ -	$ 121,934.12
C8-Change Orders	Change Orders	300	$ -	$ 36,648.16
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -
C11-Project Closeout	Project Closeout	240	$ -	$ 21,205.93
TOTALS		4,270	$ 1,000.00	$ 419,891.31

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ATTACHMENT B-10
COST AND FEE TASKS RECAP BY FIRM (HENDERSON STREET)

FIRM: **Roux Associ**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @173.00%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -
C3-Testing	Testing	-	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -
TOTALS		150	$ 5,340.00	$ 9,238.20	$ 14,578.20	$ 1,239.15

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TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -
C3-Testing	Testing	-	$ -	$ -
C4-Environmental	Environmental	150	$ 1,000.00	$ 16,817.35
C5-Schedule Control	Schedule Control	-	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -
TOTALS		150	$ 1,000.00	$ 16,817.35

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ATTACHMENT B-10
COST AND FEE TASKS RECAP BY FIRM (HENDERSON STREET)

FIRM: **Lynn Drobbin & A**

TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @133.03%	SUBTOTAL	FIXED FEE @ 8.5%
P1-Constructability Review	Constructability Review	-	$ -	$ -	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -	$ -	$ -
C3-Testing	Testing	-	$ -	$ -	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -	$ -	$ -
TOTALS		-	$ -	$ -	$ -	$ -

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TASK	DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT EXPENSES	TOTAL COST
P1-Constructability Review	Constructability Review	-	$ -	$ -
P2-Pre-Award Assistance	Pre-Award Assistance	-	$ -	$ -
P3-Management Procedures and Document Control	Management Procedures and Document Control	-	$ -	$ -
P4-Environmental	Environmental	-	$ -	$ -
C1-Construction Management Administration	Construction Management Administration	-	$ -	$ -
C2-Inspection	Inspection	-	$ -	$ -
C3-Testing	Testing	-	$ -	$ -
C4-Environmental	Environmental	-	$ -	$ -
C5-Schedule Control	Schedule Control	-	$ -	$ -
C6-Staging and Work Plans	Staging and Work Plans	-	$ -	$ -
C7-Shop Drawings and Material Approval	Shop Drawings and Material Approval	-	$ -	$ -
C8-Change Orders	Change Orders	-	$ -	$ -
C9-Quality Assurance and Quality Control	Quality Assurance and Quality Control	-	$ -	$ -
C10-Project Safety	Project Safety	-	$ -	$ -
C11-Project Closeout	Project Closeout	-	$ -	$ -
TOTALS		-	$ -	$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P1-Constructability Review **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Gaspartich, M.	Technical Advisor	0	$ 98.00	$ -
Settineri, C.	Senior Substation Engineer	0	$ 65.00	$ -
Standig, K.	QA Manager	0	$ 50.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Patel, N.	Deputy Resident Engineer	0	$ 62.50	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P3-Management Procedures and Document Control **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	0	$ 50.00	$ -
Charchar, E.	Resident Engineer	0	$ 80.00	$ -
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Funk, M.	QA Manager	0	$ 56.00	$ -
Patel, N.	Deputy Resident Engineer	0	$ 62.50	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 110.74% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C1-Construction Management Administration **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Soliman, M.	Construction Manager	588	$ 50.00	$ 29,400.00
Charchar, E.	Resident Engineer	1440	$ 80.00	$ 115,200.00
Black, M.	Administrative Specialist	0	$ 30.00	$ -
Patel, N.	Deputy Resident Engineer	720	$ 62.50	$ 45,000.00
Naik Doc Cont	Document Control Manager	1260	$ 40.00	$ 50,400.00
TOTAL ESTIMATED HOURS		4008		

TOTAL SALARY (BARE COST)		$ 240,000.00
OVERHEAD @ 108.40% OF BARE COST		$ 260,160.00
SUBTOTAL -- SALARY + OVERHEAD		$ 500,160.00
FIXED FEE @ 8.5% OF BARE COST		$ 42,513.60
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 4,000.00	
Document Mgmt Software Licence and Data Storage ($1250/mo X 42/mo)	$ 52,500.00	
TOTAL DIRECT EXPENSES		$ 56,500.00
TOTAL THIS TASK		$ 599,173.60

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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C2-Inspection **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	720	$ 80.00	$ 57,600.00
Noto, L.	Chief Inspector	1440	$ 59.00	$ 84,960.00
Funk, M.	QA Manager	480	$ 56.00	$ 26,880.00
Patel, N.	Deputy Resident Engineer	720	$ 62.50	$ 45,000.00
TOTAL ESTIMATED HOURS		3360		

TOTAL SALARY (BARE COST)	$ 214,440.00
OVERHEAD @ 108.40% OF BARE COST	$ 232,452.96
SUBTOTAL -- SALARY + OVERHEAD	$ 446,892.96
FIXED FEE @ 8.5% OF BARE COST	$ 37,985.90
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 484,878.86

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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C3-Testing **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Settineri, C.	Senior Substation Engineer	0	$ 65.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 108.40% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
As Directed Testing	$ 5,250.00	
As Directed Land Surveying	$ 5,250.00	
TOTAL DIRECT EXPENSES		$ 10,500.00
TOTAL THIS TASK		$ 10,500.00

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C6-Staging and Work Plans **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Gaspartich, M.	Technical Advisor	990	$ 98.00	$ 97,020.00
Noto, L.	Chief Inspector	792	$ 59.00	$ 46,728.00
Patel, N.	Deputy Resident Engineer	792	$ 62.50	$ 49,500.00
TOTAL ESTIMATED HOURS		2574		

TOTAL SALARY (BARE COST)		$ 193,248.00
OVERHEAD @ 108.40% OF BARE COST		$ 209,480.83
SUBTOTAL -- SALARY + OVERHEAD		$ 402,728.83
FIXED FEE @ 8.5% OF BARE COST		$ 34,231.95
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 436,960.78

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C7-Shop Drawings and Material Approval **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Noto, L.	Chief Inspector	792	$ 59.00	$ 46,728.00
Patel, N.	Deputy Resident Engineer	792	$ 62.50	$ 49,500.00
Naik Doc Cont	Document Control Manager	1140	$ 40.00	$ 45,600.00
TOTAL ESTIMATED HOURS		2724		

TOTAL SALARY (BARE COST)		$ 141,828.00
OVERHEAD @ 108.40% OF BARE COST		$ 153,741.55
SUBTOTAL -- SALARY + OVERHEAD		$ 295,569.55
FIXED FEE @ 8.5% OF BARE COST		$ 25,123.41
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 320,692.96

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C8-Change Orders **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Mercado, H.	Senior Estimator	0	$ 55.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 108.40% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C9-Quality Assurance and Quality Control **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	360	$ 80.00	$ 28,800.00
Funk, M.	QA Manager	1080	$ 56.00	$ 60,480.00
TOTAL ESTIMATED HOURS		1440		

TOTAL SALARY (BARE COST)		$ 89,280.00
OVERHEAD @ 108.40% OF BARE COST		$ 96,779.52
SUBTOTAL -- SALARY + OVERHEAD		$ 186,059.52
FIXED FEE @ 8.5% OF BARE COST		$ 15,815.06
DIRECT EXPENSES		
Itemize		
Travel	$ 3,000.00	
TOTAL DIRECT EXPENSES		$ 3,000.00
TOTAL THIS TASK		$ 204,874.58

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C10-Project Safety **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	360	$ 80.00	$ 28,800.00
Funk, M.	QA Manager	1080	$ 56.00	$ 60,480.00
TOTAL ESTIMATED HOURS		1440		

TOTAL SALARY (BARE COST)	$ 89,280.00
OVERHEAD @ 108.40% OF BARE COST	$ 96,779.52
SUBTOTAL -- SALARY + OVERHEAD	$ 186,059.52
FIXED FEE @ 8.5% OF BARE COST	$ 15,815.06
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 201,874.58

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C11-Project Closeout **FIRM:** Naik Consulting Group

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Charchar, E.	Resident Engineer	240	$ 80.00	$ 19,200.00
Naik Doc Cont	Document Control Manager	240	$ 40.00	$ 9,600.00
TOTAL ESTIMATED HOURS		480		

TOTAL SALARY (BARE COST)		$ 28,800.00
OVERHEAD @ 108.40% OF BARE COST		$ 31,219.20
SUBTOTAL -- SALARY + OVERHEAD		$ 60,019.20
FIXED FEE @ 8.5% OF BARE COST		$ 5,101.63
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 65,120.83

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P1-Constructability Review **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Petroski, D.	Sr. Consultant	0	$ 95.48	$ -
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL – SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C2-Inspection **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Muzylowski, S.	Senior Systems Engineer	0	$ 34.44	$ -
Zhao, P.	Systems Engineer	0	$ 40.60	$ -
Schimpf, J.	Senior Substation Engineer	0	$ 56.14	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 145.47% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-12
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C3-Testing **FIRM:** Burns Engineering

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Muzylowski, S.	Senior Systems Engineer	400	$ 34.44	$ 13,776.00
Zhao, P.	Systems Engineer	400	$ 40.60	$ 16,240.00
Schimpf, J.	Senior Substation Engineer	160	$ 56.14	$ 8,982.40
TOTAL ESTIMATED HOURS		960		

TOTAL SALARY (BARE COST)		$ 38,998.40
OVERHEAD @ 145.47% OF BARE COST		$ 56,732.14
SUBTOTAL -- SALARY + OVERHEAD		$ 95,730.54
FIXED FEE @ 8.5% OF BARE COST		$ 8,137.10
DIRECT EXPENSES		
Itemize		
Travel	$ 3,000.00	
TOTAL DIRECT EXPENSES		$ 3,000.00
TOTAL THIS TASK		$ 106,867.64

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P1-Constructability Review **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
Johnson, N.	Senior Estimator	0	$ 74.21	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL – SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P2-Pre-Award Assistance **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P3-Management Procedures and Document Control **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	0	$ 40.00	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 103.59% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C1-Construction Management Administration **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	1500	$ 40.00	$ 60,000.00
TOTAL ESTIMATED HOURS		1500		

TOTAL SALARY (BARE COST)		$ 60,000.00
OVERHEAD @ 103.59% OF BARE COST		$ 62,154.00
SUBTOTAL -- SALARY + OVERHEAD		$ 122,154.00
FIXED FEE @ 8.5% OF BARE COST		$ 10,383.09
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 132,537.09

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C5-Schedule Control **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Rudderrow, P.	Senior Scheduler	0	$ 84.57	$ -
Betz, B.	Senior Scheduler	240	$ 76.47	$ 18,352.80
VanWagen, L	Scheduler	610	$ 49.00	$ 29,890.00
TOTAL ESTIMATED HOURS		850		

TOTAL SALARY (BARE COST)		$ 48,242.80
OVERHEAD @ 103.59% OF BARE COST		$ 49,974.72
SUBTOTAL -- SALARY + OVERHEAD		$ 98,217.52
FIXED FEE @ 8.5% OF BARE COST		$ 8,348.49
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 1,000.00	
TOTAL DIRECT EXPENSES		$ 1,000.00
TOTAL THIS TASK		$ 107,566.01

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C7-Shop Drawings and Material Approval **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	1380	$ 40.00	$ 55,200.00
TOTAL ESTIMATED HOURS		1380		

TOTAL SALARY (BARE COST)	$ 55,200.00
OVERHEAD @ 103.59% OF BARE COST	$ 57,181.68
SUBTOTAL -- SALARY + OVERHEAD	$ 112,381.68
FIXED FEE @ 8.5% OF BARE COST	$ 9,552.44
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 121,934.12

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C8-Change Orders **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Moreno, A	Estimator	225	$ 49.00	$ 11,025.00
Johnson, N.	Senior Estimator	75	$ 74.21	$ 5,565.75
TOTAL ESTIMATED HOURS		300		

TOTAL SALARY (BARE COST)		$ 16,590.75
OVERHEAD @ 103.59% OF BARE COST		$ 17,186.36
SUBTOTAL -- SALARY + OVERHEAD		$ 33,777.11
FIXED FEE @ 8.5% OF BARE COST		$ 2,871.05
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ 36,648.16

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C11-Project Closeout **FIRM:** Envision Consultants, Ltd.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Johnson-Davis, A.	Document Control Manager	240	$ 40.00	$ 9,600.00
TOTAL ESTIMATED HOURS		240		

TOTAL SALARY (BARE COST)	$ 9,600.00
OVERHEAD @ 103.59% OF BARE COST	$ 9,944.64
SUBTOTAL -- SALARY + OVERHEAD	$ 19,544.64
FIXED FEE @ 8.5% OF BARE COST	$ 1,661.29
DIRECT EXPENSES	
Itemize	
TOTAL DIRECT EXPENSES	$ -
TOTAL THIS TASK	$ 21,205.93

NEW JERSEY TRANSIT CORPORATION
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ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: P4-Environmental **FIRM:** Roux Associates, Inc.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Gilchrist, B.	Senior Hydrogeologist	0	$ 66.55	$ -
Williams, J.	Environmental Engineer	0	$ 44.98	$ -
TOTAL ESTIMATED HOURS		0		

TOTAL SALARY (BARE COST)		$ -
OVERHEAD @ 173.00% OF BARE COST		$ -
SUBTOTAL -- SALARY + OVERHEAD		$ -
FIXED FEE @ 8.5% OF BARE COST		$ -
DIRECT EXPENSES		
Itemize		
TOTAL DIRECT EXPENSES		$ -
TOTAL THIS TASK		$ -

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-11
PERSONNEL TEAM DETAIL (HENDERSON STREET)

SUB-TASK: C4-Environmental **FIRM:** Roux Associates, Inc.

TECHNICAL STAFF				
STAFF PERSON/ CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	ESTIMATED HOURS	HOURLY RATE	TOTAL SALARY
Kazanjian, J.	Site Remediation Professional	150	$ 35.60	$ 5,340.00
TOTAL ESTIMATED HOURS		150		

TOTAL SALARY (BARE COST)		$ 5,340.00
OVERHEAD @ 173.00% OF BARE COST		$ 9,238.20
SUBTOTAL -- SALARY + OVERHEAD		$ 14,578.20
FIXED FEE @ 8.5% OF BARE COST		$ 1,239.15
DIRECT EXPENSES		
Itemize		
Miscellaneous	$ 1,000.00	
TOTAL DIRECT EXPENSES		$ 1,000.00
TOTAL THIS TASK		$ 16,817.35

ATTACHMEN1
STAFFING SCHEDULE BY FIRM

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK P3 HOURS	TASK C1 HOURS	TASK C2 HOURS	TASK C3 HOURS
Soliman, M.	Construction Manager	$ 50.00	0	0	0	588	0	0
Charchar, E.	Resident Engineer	$ 80.00	0	0	0	1440	720	0
Black, M.	Administrative Specialist	$ 30.00	0	0	0	0	0	0
Mercado, H.	Senior Estimator	$ 55.00	0	0	0	0	0	0
Gaspartich, M.	Technical Advisor	$ 98.00	0	0	0	0	0	0
Settineri, C.	Senior Substation Engineer	$ 65.00	0	0	0	0	0	0
Standig, K.	QA Manager	$ 50.00	0	0	0	0	0	0
Tan, J.	Support Services	$ 93.70	0	0	0	0	0	0
Swarnakar, K.	Support Services	$ 96.15	0	0	0	0	0	0
Schueller, A.	Support Services	$ 80.00	0	0	0	0	0	0
Chakin, J.	Support Services	$ 73.25	0	0	0	0	0	0
Noto, L.	Chief Inspector	$ 59.00	0	0	0	0	1440	0
Clancy, F.	Support Services	$ 62.00	0	0	0	0	0	0
Funk, M.	QA Manager	$ 56.00	0	0	0	0	480	0
Shubert, G.	Sr. Consultant	$ 60.00	0	0	0	0	0	0
Patel, N.	Deputy Resident Engineer	$ 62.50	0	0	0	720	720	0
Naik, S.	Project Principal in Charge	$ 50.00	0	0	0	0	0	0
Naik Doc Cont	Document Control Manager	$ 40.00	0	0	0	1260	0	0
TOTALS			0	0	0	4008	3360	0

CORPORATION
SAL NO. 17-007

Γ B-12
(HENDERSON STREET)

FIRM: _____ I

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C6 HOURS	TASK C7 HOURS	TASK C8 HOURS	TASK C9 HOURS	TASK C10 HOURS	TASK C11 HOURS
Soliman, M.	Construction Manager	$ 50.00	0	0	0	0	0	0
Charchar, E.	Resident Engineer	$ 80.00	0	0	0	360	360	240
Black, M.	Administrative Specialist	$ 30.00	0	0	0	0	0	0
Mercado, H.	Senior Estimator	$ 55.00	0	0	0	0	0	0
Gaspartich, M.	Technical Advisor	$ 98.00	990	0	0	0	0	0
Settineri, C.	Senior Substation Engineer	$ 65.00	0	0	0	0	0	0
Standig, K.	QA Manager	$ 50.00	0	0	0	0	0	0
Tan, J.	Support Services	$ 93.70	0	0	0	0	0	0
Swarnakar, K.	Support Services	$ 96.15	0	0	0	0	0	0
Schueller, A.	Support Services	$ 80.00	0	0	0	0	0	0
Chakin, J.	Support Services	$ 73.25	0	0	0	0	0	0
Noto, L.	Chief Inspector	$ 59.00	792	792	0	0	0	0
Clancy, F.	Support Services	$ 62.00	0	0	0	0	0	0
Funk, M.	QA Manager	$ 56.00	0	0	0	1080	1080	0
Shubert, G.	Sr. Consultant	$ 60.00	0	0	0	0	0	0
Patel, N.	Deputy Resident Engineer	$ 62.50	792	792	0	0	0	0
Naik, S.	Project Principal in Charge	$ 50.00	0	0	0	0	0	0
Naik Doc Cont	Document Control Manager	$ 40.00	0	1140	0	0	0	240
TOTALS			2574	2724	0	1440	1440	480

Naik Consulting Group

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @110.74%	TOTAL LABOR COST
Soliman, M.	Construction Manager	$ 50.00	588	$ 29,400.00	$ 31,869.60	$ 61,269.60
Charchar, E.	Resident Engineer	$ 80.00	3120	$ 249,600.00	$ 270,566.40	$ 520,166.40
Black, M.	Administrative Specialist	$ 30.00	0	$ -	$ -	$ -
Mercado, H.	Senior Estimator	$ 55.00	0	$ -	$ -	$ -
Gaspartich, M.	Technical Advisor	$ 98.00	990	$ 97,020.00	$ 105,169.68	$ 202,189.68
Settineri, C.	Senior Substation Engineer	$ 65.00	0	$ -	$ -	$ -
Standig, K.	QA Manager	$ 50.00	0	$ -	$ -	$ -
Tan, J.	Support Services	$ 93.70	0	$ -	$ -	$ -
Swarnakar, K.	Support Services	$ 96.15	0	$ -	$ -	$ -
Schueller, A.	Support Services	$ 80.00	0	$ -	$ -	$ -
Chakin, J.	Support Services	$ 73.25	0	$ -	$ -	$ -
Noto, L.	Chief Inspector	$ 59.00	3024	$ 178,416.00	$ 193,402.94	$ 371,818.94
Clancy, F.	Support Services	$ 62.00	0	$ -	$ -	$ -
Funk, M.	QA Manager	$ 56.00	2640	$ 147,840.00	$ 160,258.56	$ 308,098.56
Shubert, G.	Sr. Consultant	$ 60.00	0	$ -	$ -	$ -
Patel, N.	Deputy Resident Engineer	$ 62.50	3024	$ 189,000.00	$ 204,876.00	$ 393,876.00
Naik, S.	Project Principal in Charge	$ 50.00	0	$ -	$ -	$ -
Naik Doc Cont	Document Control Manager	$ 40.00	2640	$ 105,600.00	$ 114,470.40	$ 220,070.40
TOTALS			16026	$ 996,876.00	$ 1,080,613.58	$ 2,077,489.58

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-12
STAFFING SCHEDULE BY FIRM (HENDERSON STREET)

Burns I

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK C2 HOURS	TASK C3 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST
Petroski, D.	Sr. Consultant	$ 95.48	0	0	0	0	0	$ -
Muzylowski, S.	Senior Systems Engineer	$ 34.44	0	0	0	400	400	$ 13,776.00
Zhao, P.	Systems Engineer	$ 40.60	0	0	0	400	400	$ 16,240.00
Schimpf, J.	Senior Substation Engineer	$ 56.14	0	0	0	160	160	$ 8,982.40
TOTALS			0	0	0	960	960	$ 38,998.40

S1

Engineering

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	INDIRECT LABOR COST (OVERHEAD) @145.47%	TOTAL LABOR COST
Petroski, D.	Sr. Consultant	$ 95.48	$ -	$ -
Muzylowski, S.	Senior Systems Engineer	$ 34.44	$ 20,040.36	$ 33,816.36
Zhao, P.	Systems Engineer	$ 40.60	$ 23,624.82	$ 39,864.82
Schimpf, J.	Senior Substation Engineer	$ 56.14	$ 13,066.97	$ 22,049.37
TOTALS			$ 56,732.14	$ 95,730.54

ATTACHMENT B-12
STAFFING SCHEDULE BY FIRM (HENDERSON

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P1 HOURS	TASK P2 HOURS	TASK P3 HOURS	TASK C1 HOURS
Johnson-Davis, A.	Document Control Manager	$ 40.00	0	0	0	1500
Rudderrow, P.	Senior Scheduler	$ 84.57	0	0	0	0
Betz, B.	Senior Scheduler	$ 76.47	0	0	0	0
Moreno, A	Estimator	$ 49.00	0	0	0	0
VanWagen, L	Scheduler	$ 49.00	0	0	0	0
Johnson, N.	Senior Estimator	$ 74.21	0	0	0	0
TOTALS			0	0	0	1500

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STREET)

FIRM: E

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C5 HOURS	TASK C7 HOURS	TASK C8 HOURS	TASK C11 HOURS	TOTAL HOURS
Johnson-Davis, A.	Document Control Manager	$ 40.00	0	1380	0	240	3120
Rudderrow, P.	Senior Scheduler	$ 84.57	0	0	0	0	0
Betz, B.	Senior Scheduler	$ 76.47	240	0	0	0	240
Moreno, A	Estimator	$ 49.00	0	0	225	0	225
VanWagen, L	Scheduler	$ 49.00	610	0	0	0	610
Johnson, N.	Senior Estimator	$ 74.21	0	0	75	0	75
TOTALS			850	1380	300	240	4270

:nvision Consultants

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @103.59%	TOTAL LABOR COST
Johnson-Davis, A.	Document Control Manager	$ 40.00	$ 124,800.00	$ 129,280.32	$ 254,080.32
Rudderrow, P.	Senior Scheduler	$ 84.57	$ -	$ -	$ -
Betz, B.	Senior Scheduler	$ 76.47	$ 18,352.80	$ 19,011.67	$ 37,364.47
Moreno, A	Estimator	$ 49.00	$ 11,025.00	$ 11,420.80	$ 22,445.80
VanWagen, L	Scheduler	$ 49.00	$ 29,890.00	$ 30,963.05	$ 60,853.05
Johnson, N.	Senior Estimator	$ 74.21	$ 5,565.75	$ 5,765.56	$ 11,331.31
TOTALS			$ 189,633.55	$ 196,441.39	$ 386,074.94

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-12
STAFFING SCHEDULE BY FIRM (HENDERSON STREET)

Roux Associates

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK P4 HOURS	TASK C4 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @173.00%
Gilchrist, B.	Senior Hydrogeologist	$ 66.55	0	0	0	$ -	$ -
Williams, J.	Environmental Engineer	$ 44.98	0	0	0	$ -	$ -
Kazanjian, J.	Site Remediation Professional	$ 35.60	0	150	150	$ 5,340.00	$ 9,238.20
TOTALS			0	150	150	$ 5,340.00	$ 9,238.20

ATTACHMENT I
STAFFING SCHEDULE BY FIRM (I

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TOTAL LABOR COST
Gilchrist, B.	Senior Hydrogeologist	$ 66.55	$ -
Williams, J.	Environmental Engineer	$ 44.98	$ -
Kazanjian, J.	Site Remediation Professional	$ 35.60	$ 14,578.20
TOTALS			$ 14,578.20

NEW JERSEY TRANSIT CORPORATION
REQUEST FOR PROPOSAL NO. 17-007

ATTACHMENT B-12
STAFFING SCHEDULE BY FIRM (HENDERSON STREET)

Lynn Drobbin & Associates

STAFF PERSON OR CLASSIFICATION	PROJECT TITLE OR DISCIPLINE	HOURLY RATE	TASK C2 HOURS	TOTAL HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @133.03%	TOTAL LABOR COST
Drobbin, L.	Sr. Consultant	$ 86.42	0	0	$ -	$ -	$ -
TOTALS			0	0	$ -	$ -	$ -

Summary

Firm	Henderson Total	Hoboken Total	Grand Total
Naik Consulting Group	$ 70,000.00	$ 70,000.00	$ 140,000.00
Burns Engineering	$ 3,000.00	$ 3,000.00	$ 6,000.00
Envision Consultants, Ltd.	$ 1,000.00	$ 1,000.00	$ 2,000.00
Roux Associates, Inc.	$ 1,000.00	$ 1,000.00	$ 2,000.00
Lynn Drobbin & Associates	$ -	$ 1,000.00	$ 1,000.00
Total	$ 75,000.00	$ 76,000.00	$ 151,000.00

Summary

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ 56,500.00	$ 56,500.00	$ 113,000.00
C2-Inspection	$ -	$ 1,000.00	$ 1,000.00
C3-Testing	$ 13,500.00	$ 13,500.00	$ 27,000.00
C4-Environmental	$ 1,000.00	$ 1,000.00	$ 2,000.00
C5-Schedule Control	$ 1,000.00	$ 1,000.00	$ 2,000.00
C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	$ 3,000.00	$ 3,000.00	$ 6,000.00
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ 75,000.00	$ 76,000.00	$ 151,000.00

Naik

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ 56,500.00	$ 56,500.00	$ 113,000.00
C2-Inspection	$ -	$ -	$ -
C3-Testing	$ 10,500.00	$ 10,500.00	$ 21,000.00
C4-Environmental	$ -	$ -	$ -
C5-Schedule Control	$ -	$ -	$ -
C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	$ 3,000.00	$ 3,000.00	$ 6,000.00
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ 70,000.00	$ 70,000.00	$ 140,000.00

Burns

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ -	$ -	$ -
C2-Inspection	$ -	$ -	$ -
C3-Testing	$ 3,000.00	$ 3,000.00	$ 6,000.00
C4-Environmental	$ -	$ -	$ -
C5-Schedule Control	$ -	$ -	$ -
C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -

C9-Quality Assurance and Quality Control	$ -	$ -	$ -
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ 3,000.00	$ 3,000.00	$ 6,000.00

Envision

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ -	$ -	$ -
C2-Inspection	$ -	$ -	$ -
C3-Testing	$ -	$ -	$ -
C4-Environmental	$ -	$ -	$ -
C5-Schedule Control	$ 1,000.00	$ 1,000.00	$ 2,000.00
C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	$ -	$ -	$ -
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ 1,000.00	$ 1,000.00	$ 2,000.00

Roux

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ -	$ -	$ -
C2-Inspection	$ -	$ -	$ -
C3-Testing	$ -	$ -	$ -
C4-Environmental	$ 1,000.00	$ 1,000.00	$ 2,000.00
C5-Schedule Control	$ -	$ -	$ -

C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	$ -	$ -	$ -
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ 1,000.00	$ 1,000.00	$ 2,000.00

LDA

Task	Henderson Total	Hoboken Total	Grand Total
P1-Constructability Review	$ -	$ -	$ -
P2-Pre-Award Assistance	$ -	$ -	$ -
P3-Management Procedures and Document Control	$ -	$ -	$ -
P4-Environmental	$ -	$ -	$ -
C1-Construction Management Administration	$ -	$ -	$ -
C2-Inspection	$ -	$ 1,000.00	$ 1,000.00
C3-Testing	$ -	$ -	$ -
C4-Environmental	$ -	$ -	$ -
C5-Schedule Control	$ -	$ -	$ -
C6-Staging and Work Plans	$ -	$ -	$ -
C7-Shop Drawings and Material Approval	$ -	$ -	$ -
C8-Change Orders	$ -	$ -	$ -
C9-Quality Assurance and Quality Control	$ -	$ -	$ -
C10-Project Safety	$ -	$ -	$ -
C11-Project Closeout	$ -	$ -	$ -
Total	$ -	$ 1,000.00	$ 1,000.00