T·Y·LIN INTERNATIONAL

March 29, 2018

NJ TRANSIT
One Penn Plaza East, 6th Floor
Newark, NJ 07105
Attention: Ms. Maggie Sotolongo

SUBJECT: Construction Management Services for Bay Head Substation- RFP No. 17-008

Dear Ms. Sotolongo,

The T.Y. Lin International (TYLI) team has the experience, expertise, and approach necessary to deliver construction management services that NJ Transit can depend upon. Our success is achieved by tailoring the needs of the project to a carefully developed project approach. In past projects, we were able to form partnerships with in-house staff, the contractor, the public, and the community. We were successful in enforcing the contract, procedures, and looking out for the clients' interests every day. We are ready to take on this responsibility once again for NJ Transit's Bay Head Substation Replacement Project.

TYLI brings the following to NJ Transit.

1. **A team with recent, relevant experience performing significant electrical upgrades to systems that were damaged by Superstorm Sandy. The team has successfully navigated FTA audits on all of our recent Superstorm Sandy projects with no significant findings, interruption of funding, or post-audit meetings needed.**
2. **A team with key members that have extensive experience with both NJ Transit and transit agencies across the region, that offers unique and focused knowledge.**
3. **A technically proficient strategy for construction management services, as presented in this proposal.**

Many of the team members in our proposal are transitioning from Superstorm Sandy projects for New York City Transit. The Joralemon Tube and Cranberry Tube convey subways to Manhattan and Brooklyn. Those projects together were valued well over $100 million in construction. Both projects were similar in scope with repair of three substations included in the contracts.

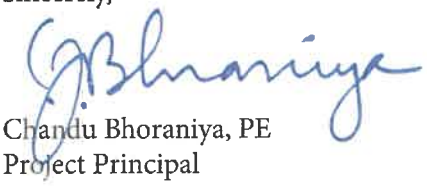
We understand a successful outcome will take responsive personnel that will deliver a high-quality product, on schedule, and within the project budget. Our proposed **Project Manager, Chandu Bhoraniya, PE** has over 33 years of experience in design and construction of transportation projects with the majority of his experience working with NJ Transit and various rail and transit agencies such as NYCT, LIRR PATH and MNR.

Our proposed **Construction Manager, Mahesh Shah, PE** has over 35 years of experience managing all aspects of electrical projects, project management, construction management and planning for agencies and businesses. **Brian Salfelder, PE** our proposed Resident Engineer has over 20 years of experience in the design, management and

construction of transportation and mass transit projects. Our **Rail Operations Coordinator, Nicholas Battista**, has 32 years of railroad electrical experience - 25 years with NJ Transit, 7 years with Amtrak and 4 years with Con Edison in the substation department.

If you have any questions on the attached submittal or require further information, please do not hesitate to contact me at 908.319.8792. The TYLI team looks forward to working with NJ Transit on this critical substation work.

Sincerely,



Chandu Bhoraniya, PE
Project Principal

2. Qualifications of Firm(s)

QUALIFICATIONS OF FIRM

TY Lin International (TYLI) is a full-service, multi-disciplined engineering firm that provides infrastructure planning, engineering design, program management, and construction management services. TYLI is currently ranked nationally #13 among Transportation Design Firms and #12 for Mass Transit firms by Engineering News Record. TYLI provides services to transit authorities, commuter railroads, and private railroad companies. Services include the complete planning, design and construction management of railroad infrastructure including high-speed rail, commuter light rail, freight railways, multi-modal facilities and maintenance yards. Our work has also included the rehabilitation of existing railroads, commuter rail, rapid rail, and light rail systems. In each of these projects, TYLI regularly addresses a variety of critical issues, including public involvement; environmental concerns; construction phasing; coordination among regulatory agencies; right-of-way status; and the evaluation of multi-modal alternatives.

TYLI has assembled a team of professionals with unrivaled relevant experience managing fast tracked federally funded projects. We have very recent relative experience performing construction management services for projects that involve electrical upgrades to systems that were damaged by Superstorm Sandy in New York City. TYLI will be the Prime Consultant and lead the construction management effort in support of NJ Transit with the new Bay Head Substation in Bay Head Yard. The projects our firm has been undertaking will be completed by the spring of 2018, many members of that team are proposed to be transferred as a team to the Bay Head Substation. We will be supported by our subconsultants STV Inc. (STV), Distinct Engineering Solutions Inc. (DESI), and Ashoka Consulting, LLC (Ashoka). The roles of our subconsultant team members are as follows:

STV will provide Systems Engineering inspection services.

Distinct Engineering Solutions (DBE) will provide safety supervision and environmental management and inspection services.

Ashoka (DBE) will provide Scheduling and Cost Estimating services.

All staff designated as full time will be completely dedicated to the project. In addition, we will provide a deep bench of talent from our resource pool that can be used to staff the job to match the demand. When the ebb and flow of work on a particular discipline peaks we can bring on additional inspectors. The same will apply to work that requires multiple shifts or night work.

TYLI BRINGS THE FOLLOWING TO NJ TRANSIT:

1. A team with recent, relevant experience performing significant electrical upgrades to systems that were damaged by Superstorm Sandy. The team has successfully navigated FTA audits on all of our recent Superstorm Sandy projects with no significant findings, interruption of funding, or post-audit meetings needed.
2. A team with key members that have extensive experience with both NJ Transit and transit agencies across the region, that offers unique and focused knowledge.
3. A technically proficient strategy for construction management services, as presented in this proposal.

TEAM QUALIFICATIONS

T.Y. Lin International

Responsibilities: Project Oversight, Scheduling, Inspection

With resources of over 850 professionals nationally and 2,500 globally, T.Y. Lin International (TYLI) is one of the nation's

leaders in delivering construction management, general engineering, systems, and services to transit properties. Our most recent construction management projects include several CM contracts with New York City Transit (NYCT). Similar to the Bay Head Substation rehabilitation, these projects were for rehabilitation of Superstorm Sandy damaged infrastructure and included several substations. The projects included the following:

CM Services for Joralemon Tube Rehabilitation, New York, NY
The project included the rehabilitation of two substations damaged by flooding from Superstorm Sandy.

CM Services for Cranberry Tube Rehabilitation, New York, NY
The project included the rehabilitation of the Cliff Street Substation damaged by flooding from Superstorm Sandy.

CM Services for 4 Circuit Breaker Houses, Manhattan, NY
The project involved the replacement or rehabilitation of Circuit Breaker Houses damaged by Superstorm Sandy.


TYLI completed CM services on the Battery Park Substation.

CM Services for Stillwell Avenue Terminal, Brooklyn, NY
The project involved the rehabilitation of terminal, which was heavily damaged by the tidal surge during Superstorm Sandy.

We are providing services for other agencies such as South Florida Regional Transportation Authority, Miami-Dade Transit (MDT), the New York City Transit Authority (NYCTA), Chicago Transit Authority (CTA), Chicago Metra, TriMet (Portland), Sound Transit, Bay Area Rapid Transit (BART), Muni (San Francisco), and SANDAG (San Diego), as well as multiple transit systems throughout South America and Asia. In addition, we have successfully completed over twenty assignments for NJ Transit under various Task Order Contracts.

STV Incorporated

Responsibilities: Construction Inspection for Systems Engineering

For more than 40 years, STV's Transportation & Infrastructure practice has served the transportation and transit industry, meeting the needs of clients and the traveling public through planning, design, and construction of major transportation projects. STV is consistently ranked among the top consulting firms in the country. Currently, these rankings include:

8th Nationally in Mass Transit & Rail Design – *Engineering News-Record*
12th Nationally in Construction Management – *Building Design + Construction*

STV provides multidiscipline services to all types of railroad systems — commuter, Class I, heavy freight, and light rail. For more than 30 years, STV has played a major role in the design, rehabilitation, and improvement of rail facilities throughout the United States and Canada, including track and power systems, passenger and vehicle facilities, and railcar procurement. STV is currently serving as a valued partner in the NJ Transit's ongoing efforts to recover from the ravaging effects of Hurricane Sandy, serving as program manager and lead design consultant for a 10-firm team providing damage assessment and rehabilitation plans for a train washer replacement, sewer repairs, environmental cleanup, and flood resiliency improvements at the Hoboken Terminal, under the latest of a series of on-call A/E services contracts.

Distinct Engineering Solutions, Inc. (DBE)

Responsibilities: Safety

For their role in the NJ Transit rehabilitation of the Bay Head Substation, Distinct Engineering Solutions, Inc. (DESI) will provide safety services and environmental inspection and management services (if required). DESI is a full service engineering and construction quality and project management firm specializing in design, engineering and construction support. DESI has demonstrated expertise in geotechnical, structural and environmental engineering, construction management and inspections, and environmental consulting. DESI has supported contractors and consulting firms in

managing the infrastructure and building construction process from design, procurement, and construction through closeout and have provided qualified individuals in key positions such as project engineers, environmental managers, field engineers, QA/QC and Safety. DESI is a certified Disadvantaged Business Enterprise (DBE).

Ashoka Consulting, LLC (DBE)

Responsibilities: Scheduling and Cost Estimating

Ashoka is a full service firm specializing in Project & Program Management, Project Controls, Contract Management & Administration and Value Engineering serving in the rail transportation industry and is certified as Disadvantage Business Enterprise (DBE) / Minority Owned Enterprise (MBE) / Small Business Enterprise (SBE). The Firm is dedicated with a wealth of project experience and skills and partners with the client to develop, define, plan, and implement every aspect of project to ensure close monitoring of the contracts that requirements of clients, external agencies, and third parties interests are met, from design, procurement, construction, and close-out phases.

Availability of Staff

The key staff proposed in this RFP will be available throughout the duration of this contract without significant travel and will not be replaced from the project without prior written approval from NJ Transit. We have evaluated the workload for each Team member proposed and determined the approximate number of hours staff members will be available over a 42-month period. We have the capacity to perform all tasks required on this assignment.

Anticipated Workload During the Project

Firm	Team Member	Role	Utilization
T.Y. Lin International	Mahesh Shah	Construction Manager	50%
	Brian Salfelder	Resident Engineer	100%
	Michael Viglianco	Office Engineer	100%
	Bharat Gadara	Civil & Structural Inspector	100%
	Abhishek Purohit	Electrical Inspector	< 50%
	Nick Battista	Rail Operations	< 50%
	Luz Angela Zidziunas	Community Relations	< 50%
	Neil Porto	QA/QC	10%
	Chandu Bhoraniya	Project Principal	10%
STV, Inc.	David Rorer	Building/Systems Inspector	100%
Ashoka Consulting	Keyur Parikh	Scheduler/Estimator	50%
Distinct Engineering Solutions, Inc. (DBE)	Khalid Rashid	Safety Officer / Inspector	50%
	Nancy Wieme	Environmental Inspector	50%

On the following pages, you will find project sheets highlighting our proposed team's relevant experience.

CONSULTANT CONSTRUCTION MANAGEMENT FOR JORALEMON TUBE REHABILITATION

Manhattan & Brooklyn, NY

Firm
T.Y. Lin International

Client
New York City Transit

Dates
2014-2017

Key Team Members
Chandu Bhoraniya, Oversight
Neil Porto, Structural Oversight
Mahesh Shah, Project Manager
Conor Ryan, Engineer
Samuel Charles, Inspector
Jose Delgado, (P/T) Scheduler
Brian Salfelder (P/T), RE Support

TYLI, as managing partner of a Joint Venture, provided Construction Management Services for the Joralemon Tube Rehabilitation. The project is located between Manhattan and Brooklyn and serves the 4 and 5 subway line, which was damaged by the tidal surge during Superstorm Sandy. The project employed a full time staff of 18 to manage this $75 million construction project, with a CM fee of $8 million. We provided complete CM services including Office Engineering for Change Orders, Estimating, Scheduling, Rail Operations planning and Submittal Tracking and Field Engineering for inspection of in-place work.

Project Scope

Repair of electrical and structural facilities damaged from flooding during Superstorm Sandy. The project included the rehabilitation of two substations, one in Manhattan and the other in Brooklyn. The substation work involved new equipment and cables to provide traction power to the trains. Our team formed a productive working relationship with the third rail power department that manage and operate the facility. The difficult task of coordinating the work under live conditions was done with force account support. The substations power several subway lines and disconnecting power was not possible. Our skilled inspectors worked closely with the contractor and end user to develop a safe work plan to allow the work to commence and ultimately be turned over to the end user, fully approved and commissioned. Additional work on the Joralemon Tube included:

- Rehabilitation work along the 7000' length of the Joralemon Tunnel between Bowling Green Station and Borough Hall Station
- The team is involved in the preconstruction, construction and close-out phases of the project, which includes:
- Rehabilitation of two substations in Manhattan and Brooklyn
- Modify Equipment in two Fan Plants

- Replacement of power and communication cables
- Rehabilitation of Pump Rooms and replacement of pumps, check valves and controls
- Removal and replacement of third rail power cables and equipment
- Repair duct banks and mitigate utility penetrations
- Relocate radio antenna
- Repair of the tunnel lining
- Replace 3.2 track miles of tunnel lighting fixtures and new tunnel lighting room
- Repair tunnel lining

Services Provided

The team oversaw the following disciplines: Architectural, Civil/Structural, Electrical Power and Communications from preconstruction through construction and closeout. Performed constructability reviews and provided design solutions with cost savings to the client. Sequencing, staging, and phasing were reviewed to optimize the construction work windows. Safety inspectors were provided during construction. Reports were prepared for construction progress, and weekly and monthly reports were prepared for the client and Federal Agencies. All reports were placed on the network using construction database software. The project site contained ACM and we reviewed and tracked the contractor's compliance with ACM removal. Monthly schedule meetings tracked the baseline schedule and critical path. The commissioning, closeout, and turnover to end users was led by our team.

Highlights

The project was successfully managed by our CM team. Change Orders were kept to a minimum and were largely generated by end-user wish list. The project was managed with safety first. A few minor incidences occurred over the life of the project. The reporting of these items was facilitated by CM Safety.

TYLI provided CM services for the Battery Park Substation. This facility is below State Street in Manhattan.

CONSULTANT CONSTRUCTION MANAGEMENT FOR CRANBERRY TUBE REHABILITATION

Manhattan & Brooklyn, NY

Firm
T.Y. Lin International

Client
New York City Transit

Dates
2014-2017

Key Team Members
Chandu Bhoraniya, Oversight
Neil Porto, Oversight
Brian Salfelder, Project Manager
Mahesh Shah (P/T), Electrical
Jose Delgado (P/T), Scheduling
Khalid Rashid (DESI) Safety
Bharat Gadara, Inspector
Samuel Charles, Inspector
Abhishek Purohit, Inspector

TYLI, as managing partner of a Joint Venture, provided Construction Management Services for the Rehabilitation of the Cranberry Tube. The team was responsible for complete CM services including office and field work for repair of facilities damaged from flooding during Superstorm Sandy. The project is located between Manhattan and Brooklyn and serves the A and C subways and includes 7,117' of tunnel. This project required a full-time staff of 22 and had a fee of $14 million.

Project Scope

The team is involved in the management of the preconstruction, construction and closeout phases of the project. The scope included the rehabilitation of Cliff Street Substation 90. The TYLI team led efforts to provide flood mitigation and resiliency including: installation of pedestrian flood doors within the cellar level, replacement of power and control cables, relocation of communication equipment outside the flood level and the waterproofing of manhole ducts using Roxtec duct sealing solutions.

- Signals, traction power, circuit breaker houses, emergency tunnel exit, and a fan plant
- Demolition and reconstruction of duct banks
- Rehabilitation of pump rooms, install new pumps and controls
- Rehabilitation of fan plants
- Replacement of tracks B1 and B2
- Removal and replacement Communication cable and antenna/radio system
- Traction power negative return and positive jumper

Services Provided

The team provided construction management services, a comprehensive constructability review of the contract documents, and is making recommendations for any changes in the work.

- Constructability reviews and design recommendations that provided significant savings to the client
- Assisting NYCT in organizing overnight and weekend G.O.'s (General Orders) shutdowns for inspections
- Coordinated third party Utility company work under the G.O.
- Document work and verify with the contract documents
- Assist with the qualification hearing for the contractor
- Supervise the contractor during construction
- Manage shop drawing and material submittals
- Assure safety and Quality Control
- Process payments and review and negotiate AWO's

CONSULTANT CONSTRUCTION MANAGEMENT FOR 4 CIRCUIT BREAKER HOUSES

Manhattan, NY

Firm
T.Y. Lin International

Client
New York City Transit

Dates
2014-2016

Key Team Members
Chandu Bhoraniya, Oversight
Neil Porto, Oversight
Mahesh Shah (P/T), Electrical

TYLI, as managing partner of a Joint Venture, provided Construction Management Services for the rehabilitation and replacement of four Circuit Breaker Houses damaged by Superstorm Sandy. The team perfromed a constructability review of 12 CBH's resulting in signifant savings. Four of the CBH's were awarded for construction. The team also identified confined space challenges. The project required seven full-time staff and had a fee of $2.3 million.

Project Scope

The project was done under two contracts with the same contractor in the borough of Bronx in New York City. The CBH's were located in Westchester Yard & Maintenance Facility and 239th Street Yard and Maintenance Shop.

- Architectural improvements including new roofing membrane, applying special coatings on exterior walls, provide dielectric floor coatings and install new stainless steel doors.
- Structural improvements to steel roof beams, and patching cracks in concrete floors and walls.
- Electrical repairs to lighting, heaters, control switches and conduit and wiring
- The work involves management of multiple contractors.
- The Circuit Breaker Houses pose a technical and safety challenge due to the electrical hazard and the proximity to running rail.

Services Provided

The JV team served as an extension of NYCT Staff in the planning and execution of the work:

- Inspection of four circuit breaker houses, in two contracts.
- Development of Constructability Review Reports.
- Planning of inspection and project management logistics in an active rail yard.
- Provide supervision of rehabilitation and new construction work.
- Protection of NYCT electrical facilities.
- Planning for final close-out.

Project Highlights

- Successfully used a work train with a crane to mount a new roof on the CBH. This was an innovative use of NYCT equipment with contractor labor.
- Resolved issues with project designers mitigating potential down time by the contractor.
- Assisted in preparing revisions to contract documents and addenda to packages already released for bid Constructability reviews improved the design drawings, reducing the amount of AWO's.
- Safely worked with DC circuit breakers remaining in service during construction, worked effectively and safely in an active rail yard, all without incedient or impact to rail operations. Reviewed , approved and enforced the safety work plans.

CONSULTANT CONSTRUCTION MANAGEMENT FOR STILLWELL AVENUE TERMINAL

Brooklyn, NY

Client
New York City Transit

Dates
2014-2016

Key Team Members
Chandu Bhoraniya, Oversight
Neil Porto, Oversight
Mahesh Shah, Project Manager
Jose Delgado, Scheduling (P/T)

TYLI, as managing partner of a Joint Venture, provided Construction Management Services for the rehabilitation of the employee facilities, and Police District Office #34 at Stillwell Avenue Terminal. The site was heavily damaged by the tidal surge during Superstorm Sandy. The project employed a full time staff of six with a fee of $3 million, and the team was responsible for complete CM services including office and field work.

Project Scope

- Repair and rehabilitation of facilities damaged during Superstorm Sandy including: Signal Crew Facility, Consolidated Employee Facility, Station Structures Workshop, Lighting Crew Workshop, and Utility Building.
- Inspection of significant rehabilitation work.
- The team was involved in the recovery and resiliency of the following facility elements:
- Architectural, structural, mechanical (HVAC), electrical, plumbing, communications, and instrumentation and controls.
- Site utility work including changing of electrical service cables, work in electrical manholes, and sewer cleaning.
- Provided construction management services, inspection services, engineering review of contract documents, CPM scheduling, and construction closeout.
- Oversaw the work activities, manage, administer and provide inspection services in accordance with NYCT guidelines.
- Assisted NYCT with claims avoidance and notify any additional work order (AWO) through project management software Constructware.
- Coordinated outside agencies such as DOT, Con Edison and DEP.
- Oversaw the safety program during construction.

Project Highlights

Our team suggested changes to improve constructability, thus reducing change orders and improving the project schedule. Suggested changes to improve constructability, thus reducing AWO's and improving the project schedule. We developed Quality Work Plans and Safe Work Plans and ran a safe project with no reportable incidents. The project was kept on schedule with comprehensive and efficient oversight using look ahead CMP schedules. Coordination was critical, we maintained excellent working relationship with Facility Manager and Con Edison to successfully divert temporary power and permanent installation. Interaction with the FTA auditors was successful and we and maintained information critical for reporting.

NJ TRANSIT, ON-CALL A/E SERVICES

Hoboken & Various Locations, NJ

Firm
STV

Client
New Jersey Transit

Dates
2013-ongoing

Since 2003, STV has provided on-call A/E services to NJ TRANSIT under three consecutive contracts. Under the current agreement, which has been extended since initial award in 2013, the firm continues to provide multidisciplinary services for a variety of assignments involving maintenance facilities, bus and rail vehicles, security, and civil track projects. Specific task orders have included:

Hoboken Terminal and Yard Hurricane Sandy Recovery Program

STV's significant familiarity with the Hoboken Terminal and Yard acquired under a number of task order assignments under the previous agreements led NJ TRANSIT to designate STV as a prime design consultant and program manager for Hoboken's Hurricane Sandy recovery efforts under this latest agreement. STV managed the early damage assessment and has overseen a team of 10 subconsultants and in-house staff who have designed a train washer replacement, sewer repairs, environmental cleanup, and flood resiliency improvements at Hoboken.

Early tasks included designs to replace flood-damaged ejector pumps, power supply, controls, and piping for ejector stations 4 and 5, and the refinishing of walls, doors, door frames, windows, window frames, and wood benches. Inside the waiting room are three two-sided wood benches with lighting and heating systems. The hot water-heated fan coil units that serve as bench heaters were severely damaged by the flooding. The firm developed contract documents to replace the damaged units with new cast iron radiators and controls. STV also provided the design of replacement electrical circuits for the benches and receptacles around the waiting room.

PABT Communications Room HVAC Unit Design

Under previous agreements, STV designed security upgrades to the Port Authority Bus Terminal (PABT) Operations Control Center and station including new radio, CCTV, ticket vending machine, variable message sign, and WiFi system installations. Under this agreement, STV is finishing scope put on hold following the renovation and advanced the architectural, electrical, structural, and mechanical plans for installing a 5-ton HVAC within the systems' communications room. Following acceptance of final contract drawings, specifications, and estimates, as well as contractor selection, the firm will provide construction support for the $5 million project.

Hoboken Terminal Structural Damage Assessment and Repairs

Following a 2016, NJ TRANSIT train derailment on Track 5 at Hoboken Terminal, STV responded within two hours to assist NJ TRANSIT in damage and safety assessments. The firm is now developing final designs to repair the damage. As with Hurricane Sandy, STV's extensive knowledge of the Hoboken facility expedited the assessment. STV structural engineers provided shoring recommendations and assisted in establishing a safe perimeter at the site, allowing quick restoration partial service to Tracks 10 through 18 as quickly as possible. In the following days, STV prepared safety zone diagrams to satisfy the system safety certificate required before reopening the station to passenger service.

Project Highlights

STV's 15-year familiarity with the Hoboken Terminal and Yard led NJ TRANSIT to assign STV as prime design consultant and program manager for Hoboken's Hurricane Sandy recovery efforts under this latest agreement. This awareness of the facility's pre-Sandy operations proved to be a significant benefit in efficiently addressing rehabilitation needs and identifying opportunities to upgrade the facility's performance, totaling more than $76 million in construction. Similarly, STV's familiarity with Hoboken allowed our team to provide vital assistance following the September 2016 train derailment that partially collapsed a station canopy and damaged tracks, utilities, a train shed, and a terminal building, leading to full service restoration in just two weeks.

NJ TRANSIT, WEST END SUBSTATION REPLACEMENT STUDY

Jersey City, NJ

Firm
T.Y. Lin International

Client
New Jersey Transit

Dates
2001-2002

Key Team Members
Chandu Bhoraniya

TYLI was part of the team that evaluated environmental constraints as part of the West End Substation project. Within these project limits, NJT proposed to build a substation to support an electrical current to the existing electrical system on Block 609, Lot 6S in Jersey City, Hudson County, NJ. TYLI's scope included: 1.) printouts of the current Region II RCRA Notifiers list and the CEFCLIS list for the study area being investigated; 2.) any additional information held by NJT that would indicate whether the study area or any site in the vicinity of the study area is or has been the site of any hazardous waste or other toxic substances activity or storage; and 3.) information held by NJT regarding the history of the uses of the properties in the study area.

NYCT, CM FOR THE CLARK STREET TUBE REHABILITATION

New York, NY

Firm
STV

Owner
NYC Transit

Dates
2016-Ongoing

As a member of a CCM team, STV is providing construction management (CM) services to fully restore the circa-1919 Clark Street Tube, connecting Clark Street Station in Brooklyn Heights to Wall Street Station in Lower Manhattan via IRT Broadway–Seventh Avenue Line service under the East River, in response to flooding and saltwater corrosion from the Hurricane Sandy storm surge. Rehabilitation activities include structural repairs to bench walls and tunnel concrete lining, the removal and replacement of 750 feet of track on both rails in the tunnel, and the removal and replacement of 240,500 feet of communications cables, as well as emergency telephones and emergency alarms. Mechanical repairs include upgrades to fan plants and pump rooms, as well as the restoration of traction power, signal breaker, and surge protector equipment at the agency's 7th Avenue–West 27th Street Substation in Manhattan, which powers NYC Transit's IRT Broadway–Seventh Avenue Line. Flood mitigation and resiliency design measures aim to improve drainage at the substation, harden and replace pump rooms, and seal cable penetration and splices to prevent water entry in the event of another storm event. The scope also includes cleaning and repainting 12,200 feet of fire standpipe. As part of this CM effort, STV is providing design phase services including monitoring, reviewing, and providing input for constructability reviews for track, systems, and force account disciplines and evaluating proposed remediation plans.

Storm surge flooding from Hurricane Sandy at the tunnel entrances at Wall Street Station in Manhattan and Clark Street Station in Brooklyn caused significant infrastructure damage due to saltwater corrosion. STV's CM services are a critical element in bringing the structural, mechanical, electrical, communications, signals, track, and traction power systems of this essential 1.2-mile artery, linking Brooklyn with Manhattan West Side to a state of good repair.

SEPTA, GENERAL ENGINEERING CONSULTANT – CONSTRUCTION MANAGEMENT TERMINAL

Philadelphia (and surrounding locations), PA

Firm
STV

Client
SEPTA (Southeastern Pennsylvania Transportation Authority)

Dates
2013-ongoung

STV has been providing construction management (CM) services to SEPTA since 2013 as part of a multiyear general engineering consultant services agreement to provide construction management for the agency's capital projects throughout the Delaware Valley region.

Our work has encompassed many station and shop facilities, including roof replacement and fire suppression projects. We oversaw the construction of parking lot improvements, new signing, lighting, and passenger amenities; stormwater management improvements; accessibility improvements, including the construction of pedestrian tunnels with stairs and access ramps at the Villanova Station on the Paoli-Thorndale Regional Rail Line. Similar improvements were also undertaken at Secane Station on the Media-Elwyn Line. The Temple University Station was refurbished with new painting and platform coatings.

STV provided full-time project management services to augment SEPTA's own staff in completing the design and developing bid documents for construction of station improvements by outside contractors. Our field staff oversaw construction of a precast parking garage at the Lansdale Station, including construction of office space and associated amenities.

The STV team provided a constructability assessment of the Wayne Junction Rehabilitation project in an effort to identify opportunities for minimizing impacts on the SEPTA system during construction. The team also worked collaboratively to develop a preliminary design of a 13.2 kV power distribution system between the Midvale CHP and Wayne Junction 230kV Substation project.

STV is currently providing CM services for improvements to SEPTA's underground concourses in Philadelphia, many of which are immediately below the City Hall. This work is a combination of structural repairs, architectural treatments, lighting, and floor and wall treatments. The work is staged to minimize disruption to SEPTA's customers, pedestrians, and adjacent commercial establishments.

Project Highlights

STV's depth of CM/CI personnel allowed the firm to fully staff multiple concurrent task order assignments, with field personnel located at each construction site. Additionally, STV provided technical staff to work at SEPTA's headquarters in Philadelphia for both short-term and long-term assignments.

NJ TRANSIT'S SUPERSTORM SANDY RECOVERY PROGRAM, WAYSIDE SIGNALS, POWER & COMMUNICATION RESILIENCY PROJECT

Various Locations, New Jersey

Firm
Ashoka

Owner
NJ Transit

Dates
2015-ongoing

As part of the program management team, Ashoka Consulting LLC provide project management for each of the thirteen program areas for Superstorm Sandy Recovery Program and throughout the full project delivery cycle to acted as co-Project Managers working with NJ TRANSIT Project Managers. Prepared and distributed Weekly Progress Reports. Reviewed and provided comments as required to technical design consultants' Scope of Work (SOW.) Prepared and distributed Monthly Executive Summaries for all program areas. Prepared database of PRINTS ID project information and update monthly in PRINTSAUX, and quarterly in PRINTS. Reviewed and provided comments as required to design consultants' submissions. Reviewed and recommended for approval design consultant invoices. Coordinated NJ TRANSIT staff design reviews and reconcile comments. Assisted in developing contract packaging strategies. Coordinated Force Account planning. Prepared project budget and schedule with data provided by NJ TRANSIT and updated as required. Assisted in writing Board Items for Construction Contracts as per CP4 guidelines.

Additionally, established a file management structure for all Sandy Projects and maintained an official archive. The file management system included, as a minimum, copies of all Sandy Recovery Prime contracts including Program Management Contracts, Design Contracts, Construction Management Contracts, Construction Contracts and updates to these contracts, including change orders, as applicable. Prepared and distributed document control reports as directed. Input and management of NJ TRANSIT's Enterprise Content Management System (ECMS) file management system is required. Provided support by identifying and addressing firewall and security issues that might create opportunities for overlap, duplication, or lapses between the systems, so as to minimize these issues.

Hudson-Bergen Light Rail Signals and Communications Repair

Sections of the Hudson-Bergen Light Rail (HBLR) in Jersey City and Hoboken were inundated with storm surge during Sandy, damaging cabling, catenary poles, switches, signal houses and the HBLR's maintenance facility. This project will replace mainline switches, junction boxes, and communication components; perform repairs at grade crossings; and test signal cable throughout the Sandy affected area for repair and replacement. In addition, a new Central Instrument House (CIH), which controls switch movements, is under construction as part of this project. The new CIH will be built at a higher level in order to be more resilient against future weather events.

Newark Light Rail: Signals and Communication Repair

Sandy resulted in the inundation of many sections of the Newark Light Rail System (NLR), damaging track; signal and communication components; switches; fiber optic and co-axial cables; and electrical wiring. This equipment will be repaired or replaced, which will include resiliency efforts to protect the NLR system from possible future extreme weather events and prevent the loss of equipment by using methods such as

NJTA FACILITIES IMPROVEMENT PROGRAM – TURNPIKE NORTH

Various, NJ

Firm
Distinct Engineering Solutions, Inc.

Client
New Jersey Turnpike Authority

Dates
2013-Ongoing

The New Jersey Turnpike Authority (NJTA) retained Michael Baker Jr., Inc. (Baker) to provide final design services and prepare construction contract documents for the Turnpike North section of its Facilities Improvement Program, which included Maintenance Districts in Hightstown, Elizabeth, Newark, Jersey City and East Rutherford. Many of the NJTA's facilities are 60 years old, dating back to original construction of the roadways. Environmental regulations have to be addressed while accommodating increased maintenance responsibilities and workforce, including environmental remediation at some sites.

Distinct Engineering Solutions, Inc. (DESI) is providing the Baker Team with Environmental Engineering services. Soil and Groundwater Investigations include a review of available data; plan and perform a Preliminary Assessment (PA) and Site Investigation (SI) at three sites; review laboratory results and prepare a Summary Report; identify site-specific staging and demolition plans; review plans, details and the Material Handling Plan prepared by the contractor; coordinate with existing LSRPs; and construction monitoring. Building Hazardous Investigations include evaluation and sampling for asbestos-containing materials (ACM), lead-based paint (LBP), universal waste (UW), poly-chlorinated bi-phenols (PCB), mercury, chemicals stored for maintenance use, etc.; review laboratory results and prepare a Summary Report; identify abatement needs; and construction support. DESI will also provide input on the hazardous materials issues as required for preparation of an Executive Order No. 215 Environmental document and for procurement of regulatory permits.

3. Qualifications of Individuals

QUALIFICATIONS OF INDIVIDUALS

Introduction

The Bay Head Substation Project includes many technical disciplines and requires an exceptionally experienced construction management team that understands the importance of delivering a safe project with quality at the forefront. The team must be thoroughly familiar with NJ Transit operations, and has the technical expertise required to provide leadership in all of the disparate aspects of the project. With that in mind, we have carefully assembled a team of highly qualified staff members who are available to start work immediately, and who will be dedicated to this project for the duration of the contract.

TYLI BRINGS THE FOLLOWING TO NJ TRANSIT:

1. A team with recent, relevant experience performing significant electrical upgrades to systems that were damaged by Superstorm Sandy. The team has successfully navigated FTA audits on all of our recent Superstorm Sandy projects with no significant findings, interruption of funding, or post-audit meetings needed.
2. A team with key members that have extensive experience with both NJ Transit and transit agencies across the region, that offers unique and focused knowledge.
3. A technically proficient strategy for construction management services, as presented in this proposal.

Key Individuals

Chandu Bhoraniya will serve as consultant team's internal Project Principal in charge of project scope, schedule, budget and resources management. Mr. Bhoraniya has over 33 years of experience in design and construction of transportation projects. Majority of his experience is working with NJ TRANSIT and various rail and transit agencies such as NYC Transit, LIRR PATH and Metro North. Recently, Mr. Bhoraniya has been working on several Construction Management projects for NYC Transit. ***These projects involve rehabilitation of Super Storm Sandy damaged infrastructure and include several substations. As a former NJ Transit employee, he understands the railroad operations and needs of various users within the agency.*** Since 1994, Mr. Bhoraniya has completed approximately 20 assignments for the NJ TRANSIT. His experience with NJ Transit, recent and proven record of CM services and his familiarity with NJ Transit requirements makes him the ideal person to manage this project.

Neil Porto will serve as the team's QA/QC lead. Mr. Porto has over 30 years of progressive experience in transportation engineering with a focus on project delivery, quality assurance/quality control, constructability review, project management, civil and structural engineering, and construction management. He has managed complex, multidisciplinary, high-profile projects, such as the rehabilitation of the FDR Drive East 54th Street to East 63rd Street; New York City's High Line Stage 3; the Rehabilitation of the St. George Ferry Terminal; the construction of a new NYCT Station House at West 96th Street Station; and the East River Waterfront Esplanade and Piers, all of which required a formal QA/QC and intensive constructability review. Recently he led Constructability Review for the Cranberry Tube, Rutgers Tube, 12 Circuit Breaker House, and Joralemon Tube projects, directing technical reviews and site inspections, chairing meeting with NYCT's consultant and in-house designers, and authoring and editing the Constructability Reports. He has excellent organizational and communication skills. He is personally committed to Quality, and is an ISO 9001 Certified Quality Assurance Auditor.

Our proposed Construction Manager, Mahesh Shah has over forty-three years of experience managing all aspects of Enterprise-scale electrical projects, including risk assessment, planning and design, construction management, and start up/commissioning. As Construction Manager, Mr. Shah will serve as the point of contact for NJ Transit for all construction management related activities. His specific areas of expertise include design and construction management of low and medium voltage substation power distribution, heating and boiler plant system controls, and lighting layouts. In recent years, Mr. Shah served in the various TYLI management roles providing construction management services for multiple NYCT Superstorm Sandy rehabilitation projects including Joralemon Tunnel, Cranberry/Rutgers Tunnel, Twelve Circuit Breaker Houses and Stillwell Avenue Station Employee Facility and Police Station.

Brian Salfelder will serve as our Resident Engineer. Mr. Salfelder has over 19 years of experience in the design and construction management of infrastructure projects in New York and New Jersey. He most recently has served as project manager for the Construction Management for rehabilitation of New York City Transit's Cranberry and Rutgers Tunnels, which were damaged during Super Storm Sandy. Mr. Salfelder oversaw a team of administrators and inspectors in the rehabilitation of flood damaged Fan Plants, Substations and Track and Power Systems. His responsibilities have included management of the construction inspection team, review and approval of daily inspection reports, change orders, quantity estimates, budget and schedule tracking, preparation of monthly reports, conducting progress meetings, coordination with State and local agencies, environmental permitting, public involvement and overall compliance with the plans and specifications. Mr. Salfelder has identified and resolved project issues in a proactive manner to avoid conflicts and reduce the need for change orders.

Nicholas Battista, our proposed Rail Operations and Flagging lead brings 32 years of railroad experience and has extensive NJ Transit substation experience having spent 25 years with the agency in various roles. Over the last 13 years with NJ Transit he was Manager of Electrical Power Distribution and was responsible for all electrical lines under New Jersey Transit which included all electrical substations, catenary system, signal system, power and light for terminals and bridges. His extensive substation project experience and includes numerous NJ Transit facilities including Hoboken and Henderson Street Distribution Substation, Masson Supply Substation, Building #9 Distribution Substation, MMC Distribution Substation, Kearny Junction Distribution Substation, Aberdeen and Red Bank 230kV Circuit Breaker Replacement and West End 13.2 kV Distribution Substation.

Michael Viglianco, PE will be our Office Engineer and Document Control Specialist. Mr. Viglianco has over 14 years of experience with a broad background in structural and civil engineering, right-of-way acquisition, construction and inspection. He offers extensive experience in construction project management for the rehabilitation and renovation of various facilities in addition to his background in bridge and and building inspections.

ORGANIZATIONAL CHART

CLIN INTERNATIONAL

Construction Management Services for the Bay Hea
RFP No. 17-008

MEMBERS

International (T)
corporated (S)
a Consulting (A) - DBE
t Engineering Solutions(D) - DBE

ull Time Staff are denoted thus *

Project Principal
Chandu Bhorani

Rail Operations Coordinator
Nick Battista (T)

URCES

pector

spector

CHANDU BHORANIYA, PE

Project Principal

Firm

T.Y. Lin International

Education

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

B.S., Civil Engineering, Sardar Patel University, India

Professional Licenses

Professional Engineer #24GE03835500, New Jersey

Mr. Bhoraniya has over 33 years of experience in design and construction of transportation projects. Majority of his experience is working with NJ TRANSIT and various rail and transit agencies such as NYCT, LIRR PATH and Metro North. Recently, Mr. Bhoraniya has been working on several Construction Management projects NYCT. These rehabilitation projects for Superstorm Sandy damaged infrastructure include several substations. As a former NJ Transit employee, he understands the railroad operations and needs of various users within the agency. Since 1994, Mr. Bhoraniya has completed approximately 20 assignments for the NJ TRANSIT. His experience with NJ Transit, recent and proven record of CM services and his familiarity with NJ Transit requirements makes him the best person to manage this project.

NJ TRANSIT, Architectural & Engineering TOC, 2009-2012

Statewide, NJ

Mr. Bhoraniya managed and was in responsible charge of this contract that included seven subconsultants and many technical disciplines. He also served as the client's main point of contact. He prepared and submitted task order proposals, met with NJ TRANSIT and negotiated scope, fee and schedules. For assigned tasks, he supervised all staff and monitored resources. Task orders included preliminary and final design services for the relocation of the existing operations room at Meadowlands Station. Scope included existing conditions survey, geotechnical/environmental investigation, architectural/engineering drawings, and providing technical specifications, special provision and calculations for the construction of the new operations room.

NYCT, Rehabilitation and Resiliency Task Orders, 2013-2017

New York, NY

Mr. Bhoraniya provided project oversight for five task orders under an IDIQ contract for New York City Transit, for the rehabilitation and resiliency of stations, tracks, tunnels and more that were damaged by Superstorm Sandy. Mr. Bhoraniya met with project managers, approved staffing, oversaw safety plans and all aspects of on-site inspection and management. He assured timeliness and accuracy of all administrative paperwork. Mr. Bhoraniya also served as a point of contact for project communications, prepared and submitted invoices, tracked budget and schedule, monitored QA/QC and constructability process. The team managed weekend GO's in order to keep the 24 hour system operating at maximum efficiency. Task Orders to date include:

- Inspection for Greenpoint Tunnel - Inspection team to oversee the removal of existing signal equipment and place new signal equipment in service. $35 million
- Rehabilitation and Resiliency for Stillwell Avenue Terminal - Rehabilitation of the employee facilities and Police District Office #34. $6.9 million
- Rehabilitation and Resiliency for Cranberry Tunnel - Rehabilitation of the Cranberry Tube located between Manhattan and Brooklyn and serving the A and C subways including one substation. $45 million.
- Rehabilitation and Resiliency for Joralemon Tunnel - Rehabilitation of the Joralemon Tube located between Manhattan and Brooklyn and serves the 4 and 5 subway line including two substations. $75 million
- Rehabilitation and Resiliency for 4 Circuit Breaker Houses - Rehabilitation and replacement of four Circuit Breaker Houses. $5 million

CHANDU BHORANIYA, PE CONT.

NJ TRANSIT, Bridge & Rail TOC, 1995-2009
Statewide, NJ

During this period, Mr. Bhoraniya managed several bridge & rail TOC's in a subconsultant capacity. He supervised all staff and monitored resources for all assigned tasks, and was the main point-of-contact. He also served as Technical Lead on several tasks. In addition, prior to joining TYLI, Mr. Bhoraniya served as Lead Bridge Engineer on a bridge & rail TOC in a prime capacity. He was the Technical Lead for a very complicated structural assignment that involved emergency repairs to the tower span truss of the Lowerhack Bridge after it was hit by a barge.

NJ TRANSIT, General Planning TOC, 2003-2006
Statewide, NJ

Mr. Bhoraniya was in responsible charge and managed all tasks on this contract. He coordinated with stakeholders and subconsultants and served as the client's main point of contact. He supervised all staff and monitored resources. Under this TOC, Mr. Bhoraniya completed six tasks, including the conceptual design of a parking structure to handle 2,200 cars at the Hamilton train station in Hamilton Township, NJ; Metro Park Control System Study; Traffic Study Along Pascack Valley Line; Feasibility Study for MOW at Carlstadt Site; Feasibility Study for MOW at Harrison/Kearny Site/Temporary Greenway at Wood Ridge MOW; and Boundary Survey at Wood Ridge MOW.

NJ TRANSIT, River Line Operations & Maintenance Infrastructure Program
Various, NJ

Mr. Bhoraniya managed the project scope, schedule and budget. He coordinated with project stake holders and subconsultants and served as the point of contact for the client. He supervised the staff and monitored the resources. The project included preparation of an RFP for an O&M contract. TYLI examined the current operator's O&M practices and the condition of the River Line's infrastructure and facilities. The analysis of the condition of the line and the O&M practice of the current operator was the basis for NJ TRANSIT to solicit services for a new operator of the River Line in 2012.

NJ TRANSIT, New County Road Grade Separation
Secaucus, NJ

Mr. Bhoraniya was responsible for coordinating all tasks of the project, schedule, quality assurance and budget control for the last phase of the completion of the Secaucus Transfer Station. This project encompassed the complete design of a new grade separation over four railroad tracks and one local road in the Meadowlands swamp near the Secaucus Transfer train station. The project scope included complete design for two bridge structures, retaining walls, drainage structures, approach embankments and ramps. The key project elements included very extensive utility relocations, complex 5-stage construction staging to accommodate highway traffic as well as train traffic, ROW acquisitions, complicated retaining walls and coordination with the railroad and agencies. TYLI facilitated a timely opening of the transfer station.

NJ TRANSIT, Passaic-Bergen Passenger Service Restoration Project
Bergen and Passaic Counties, NJ

Mr. Bhoraniya was responsible for managing TYLI's tasks including topographic and right-of-way surveys, utility engineering, condition inspection of existing bridges, preparing rehabilitation drawings and design of walkways on all nine bridges. The Passaic-Bergen DMU project included the restoration of passenger rail service originally established in the 1930s. The bi-county alignment was approximately 10.2 miles. The preferred alternative consisted of double-tracking most of the right-of-way, 12 new stations, a yard and shop for running repairs, and two park-and-ride facilities.

NJ TRANSIT, Clifton Station Park & Ride
Clifton, NJ

Mr. Bhoraniya was responsible for coordinating all tasks of the project, schedule, quality assurance and budget control. TYLI prepared all of the site/civil construction documents. Tasks included topographic survey, soils investigations, construction plans, drainage, landscaping, utility and municipal coordination, DCA and environmental approvals, specifications, engineer's estimates, and support during construction. Due to an increase in rail commuters utilizing the existing parking facility, NJ TRANSIT initiated a parking expansion aimed at improving overcrowded conditions and to allow for future growth by adding approximately 228 new spaces.

MAHESH SHAH, PE
Construction Manager

Firm
T.Y. Lin International

Education
M.S., Electrical Engineering, Ahmedebad, India, Gujaret University

B.S., Electrical Engineering, Ahmedebad, India, Gujaret University

Certifications & Training
MTA NYC Transit Track Safety Certification, April 2014

Mr. Shah has over 30 years of experience in managing all aspects of Enterprise-scale electrical projects, including risk assessment, planning and design, construction management, and start up/commissioning. His specific areas of expertise include designing and construction management of low and medium voltage substation power distribution, heating and boiler plant system controls, and lighting layouts.

MTA NYCT, Rehabilitation of Stillwell Avenue Employee Facility and Police Station
Brooklyn, NY

As Construction Manager for this $6.9 million project, Mr. Shah was responsible for managing project scope, schedule and budget for the rehabilitation of Stillwell Avenue Terminal Facility which was heavily damaged during Superstorm Sandy. He directed a team for the rehabilitation of the Signal Crew Quarters and Offices, Consolidated Employee Facility, Station Structures and Lighting, Utility Building, and Police District 34. Mr. Shah additionally managed and submitted FTA documentation, arranged and lead meetings with the FTA and assured MTA received maximum reimbursement. As Project Manager, he was also responsible for staff supervision and resource allocation. Mr. Shah served as the single point of contact for the client communications, monitored QA/QC, and ensured timely delivery of the project within budget. He also attended project progress and coordination meetings as appropriate.

MTA NYCT, Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Joralemon Tunnel
Manhattan and Brooklyn, NY

As Construction Manager for this Sandy resiliency project, Mr. Shah guided the Inspection Team members, established expectations and managed records of all ongoing installations. Mr. Shah oversaw all aspects of contractors work, coordinated with NYCT and other entities and processed required paperwork including:

- Worked with NYCT Engineers to obtain approval of submitted documents by Contractor.
- Worked with Contractor, Forte, and consulting Design Engineers to resolve ongoing RFIs.
- Mr. Shah expedited the AWO process, and helped prepare RFP and AWO documents.
- Worked with team to improve their ability to address ongoing issues and Client demands.
- Mr. Shah updated filing system and assured approved submittals were given to field inspectors to review prior to inspecting work by contractor.
- He guided Inspection Team to prepare them for upcoming GOs for assigned tasks, QWP, SWP and provide unified Detailed Reports.
- Mr. Shah followed-up on Redlining for all installation.
- Mr. Shah provided input to manpower scheduling to avoid/reduce Over Time and approved Time sheets of TY Lin Employees and recorded hours spent.
- Mr. Shah, also retained drawings for correct records and oversaw monthly Payment to Contractor.

MAHESH SHAH, PE, CONT.

- He reviewed Contractor's Payment requests and approved partial payments.
- Mr. Shah provided strong opinions to upper management to improve CCM duty and dealt with Clients to satisfy their demands.

MTA NYCT, Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Twelve Circuit Breaker Houses
Manhattan and Bronx, NY

As Construction Manager for this Sandy Resiliency project, Mr. Shah helped contractor prepare As Built Shop drawings, obtain POE numbers for drawings, microfilms, velum and mylar copies. He prepared close-out documents and obtained approvals from various NYCT departments. He also obtained approvals from user groups, power engineering, procurement, commissioning, EED, closeout and law and finance departments. He obtained approvals from NYCT CM for the TYLI/ HMM Joint Venture Consulting Contract Invoices for Expanded Hours and Expenses

MTA NYCT, Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry / Rutgers Tunnels
Manhattan and Brooklyn, NY

As Senior Resident and Electrical Expert for this Sandy Resiliency project, Mr. Shah helped contractors tap electric, prepare as built shop drawings, obtain POE numbers from contract compliance group (power department), and communication division drawings for drawings, microfilms, velum and mylar copies. He prepared close out documents and obtained approvals from various NYCT departments , user groups, power engineering, procurement, commissioning, EED, closeout and Law and Finance Departments. He dealt with the client to satisfy their demands.

New York City Transit Authority Projects
New York City and Boroughs, NY

Individual Experience: Mr. Shah served as an Engineer in the Power Design Subdivision. He designed remote-controlled 13.2 KV & 26 KV above-ground and under-ground substations to supply 625 Volt DC power to the transit system. Requirements included: field survey, study of existing system, preparation of, floor plans, lighting plans, physical layouts and size & selection of switchgears, transformers, hard-wired control panels, power distribution centers, cable and wire. Mr. Shah also reviewed shop drawings for equipment and wiring diagrams per design document.

New York City Housing Authority Projects
New York City and Boroughs, NY

Individual Experience: Mr. Shah held multiple titles with increasing levels of responsibility during his tenure with the NYC Housing Authority, including Electrical Engineer – Administrative Engineer; Chief Electrical Division; and Deputy Director, Energy Department, Technical Services. His accomplishments include:

- As a Manager, Mr. Shah provided extensive administrative coordination, including the development of subcontracting plans; reviewed initial and final proposals submitted by contractors and subs; made recommendations for approval/ disapproval of contractors; analyzed statistical and budgetary data submitted by utility companies; prepared reports pertaining to contractors' performance through regular conferences with supervisory staff; prepared necessary back-up for approval of specific change orders; troubleshot contract problems and resolutions. Also coordinated with Con Edison, AT&T and other city and state agencies.
- Mr. Shah was involved with the upgrade of electrical systems (high and low voltage service entrance equipment, transformers, feeders, sub feeders and power distribution panels), including:
- High voltage transformer service for transformers with askrel oil and replacements.
- Review of shop drawings and design documents on Electrical upgrading contracts prepared by outside consulting engineers. He prepared specifications for electrical equipment to be used in contracts by elevator, heating, ventilation, air-conditioning, and architectural Divisions of NYCHA. He also provided guidance and reviewed in-house electrical design and contract specifications.

NEIL PORTO, PE
QA/QC

Firm
T.Y. Lin International

Education
B.S., Civil Engineering, Cornell University, 1986

Professional Licenses
Professional Engineer #072653, New York, 1995

Professional Engineer #24GE04461900, New Jersey, 2003

Certifications & Training
PANYNJ PATH Roadway Worker Protection, March 2014

MTA NYC Transit Track Safety Training, February 2014

ISO 9000 Internal Auditing, The Quality Improvement Network, April 1999

Mr. Porto has 30 years of progressive experience in transportation engineering, with a focus on project delivery, quality assurance/quality control, constructability review, project management, civil and structural engineering, and construction management. He has managed complex, multidisciplinary, high-profile projects, such as the rehabilitation of the FDR Drive East 54th Street to East 63rd Street, New York City's High Line Stage 3, the Rehabilitation of the St. George Ferry Terminal, the construction of a new NYCT Station House at West 96th Street Station, and the East River Waterfront Esplanade and Piers, all of which required a formal QA/QC and intensive constructability review. He has excellent organizational and communication skills. He is personally committed to Quality, and is an ISO 9001 Certified Quality Assurance Auditor.

MTA NYCT, Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry / Rutgers Tunnels
Manhattan and Brooklyn, NY

As Project Manager for the Construction Management Preconstruction Phase, Mr. Porto directed a staff of 20 discipline specialists in Quality Control and Constructability Review for two major subway tunnels to verify existing conditions and rehabilitation scope, and the development of a constructability report for both tunnels making recommendations for improved contract documents and project logistical planning. Mr. Porto developed a standardized format for documentation and compiled a report of over 500 constructability comments, many of which were implemented in final bid set, saving NYCT over $2M in change orders.

MTA NYCT Sandy Recovery Project, Rehabilitation for 12 Circuit Breaker Houses
Manhattan and Brooklyn, NY

As Project Director for the rehabilitation of Circuit Breaker Houses, damaged during superstorm Sandy, Mr. Porto led the CCM teams in addressing critical issues such as constructability, construction logistics, safety, system integration, and coordination with NYCT Operational and User Groups. He resolved problems in the field as well as coordinated comprehensive technical responses with NYCT design staff at 2 Broadway and NYCT's consultant designers. He worked with contractors to develop Quality Work Plans, Safe Work Plans, look-ahead CPM schedules, and payment breakdown.

PANYNJ/PATH Sandy Task Order #10, Communications Work at Tunnels E & F and World Trade Center
New York, NY

As QA/QC Officer, Mr. Porto oversaw the development of QA/QC procedures for TYLI and three subconsultants in the replacement of vital communications facilities in these PATH facilities.

Honolulu Rapid Transit, Design of Stations
Honolulu, HI

As QA/QC Officer, Mr. Porto melded his firms QA/QC procedures into the overall Quality Program for this new transit system for Honolulu and its suburbs. He met

NEIL PORTO, PE, CONT.

with each of four subconsultants to verify and validate their QA/QC procedures, obtained approval of these procedures with the client, and worked with them in implementation of a quality program. He interfaced with the client, program manager and his firm's project manager in assuring that quality designs were produced and documented quality activities under federal funding requirements.

PANYNJ Rehabilitation of Greenville Yards
Jersey City, NJ

As Package Manager for the rehabilitation and reconfiguration of this major intermodal facility, Mr. Porto focused heavily on quality control of project inputs, including topographic, utility and bathymetric surveys, environmental information, field reconnaissance reports, records of adjacent facilities, and other documentation. He supervised the compiling of this information into relevant based documents and a viable scope of work.

NYCT, Rehabilitation of Stillwell Avenue Employee Facility and Police Station
Brooklyn NY

As Project Director for the Consultant Construction Manager Team, Mr. Porto supervised the activities of engineers, inspectors and office staff in the observation and administration of this multidisciplinary contract for Post-Superstorm Sandy restoration of critical building infrastructure at this major employee and police facility. Work includes electrical, HVAC, architectural, structural and site work. Mr. Porto is the chief interface with NYCT Capital Program Manager staff and operational groups.

NYCT, West 96th Street Station ADA Improvements and Rehabilitation
New York, NY

This project rehabilitated a 100 year-old station and constructed a Station House in an expanded center median of Broadway. As Civil/Structural Engineer, Mr. Porto supervised structural and civil engineers for the preparation of contract documents for roadway realignments, construction of the Station House, installation of new elevators and stairs, reconstruction of two track bridges, repairs to all station elements, utility work, and construction of the park plaza.

KHALID RASHID

Safety Officer/Inspector

Firm

Distinct Engineering Solutions, Inc.

Education

Associates of Engineering (Mechanical Power), College of Technology, Lahor Pakistan

Bachelors of Liberal Arts, University Punjab, Lahor, Pakistan, 1990

Certifications & Training

OSHA 500. OSHA Authorized Construction Trainer

OSHA 30 hours

40 Hours Site Safety manager. (Certification) DOB

Construction Site Fire safety Manager. (Certification) FDNY Chapter 14

HAZWOPER 40 Hours

Certified Environmental Specialist (Certification) EPA

Indoor Air Quality Technician (EPA)

Lead Safety For Renovation, Repair and Painting. (EPA)

32 Hours Supported Scaffolding

First Aid Certificate

PMG 123 Training NYCTA

8 Hours Track Safety Training NYCTA

Member, American Society of Safety Engineers

Mr. Rashid has over 10 years of experience in monitoring of capital construction projects with maintaining site safety and quality. He familiar with all phases and elements of project cycle and is an expert on OSHA, DOB, DOT, EPA, NYCTA and other Federal/State laws. He has several years of experience in providing Project Safety Supervision. Mr. Rashid has provided Project Supervision and Site Safety for numerous capital projects and has utilized his expertise in the field of Project Safety Management. He has attended Site meetings, Safety kick off meetings and has successful record in managing overall projects safety. Currently he provides site safety inspections and audits services on NYCTA Cranberry Tube "Sandy" recovery Rehabilitation project and maintaining harmonious owner-consultant-client relations from project inception to completion.

MTA NYCTA Right of Way Work Cranberry Tube Sandy Recovery Rehabilitation Project,
Manhattan, NY

Mr. Rashid's responsibilities include reviewing drawings, Safe Work Plans, Accident Prevention Plans, Submittals and providing recommendations to CCM and CPM accordingly; Providing overall safety inspections on contractor's and subcontractor's work at power on or power off general orders at "Right of Way Work" on various locations; Observing tool box talk delivered by the contractor's safety representatives prior to start of the shift. Make sure proper scope of work related topics are addressed by the CSS. Checking all workers' certifications, verifying PPE, approved vests, composite toe shoes; Identifying any potential hazards during inspections and advising contractor to address; Inspecting confined space activities according to OSHA and NYCTA safety protocols; Coordinating with TSS and RTO Flaggers while working at GO on Tracks; Coordinating with NYCTA cable section, Hydraulics and EMD during access and protection; Tracking the general order limit and making sure no one be violating it; Checking placards issued to the contractors, monitoring air quality and Filling Gas/Diesel fuel powered equipment checklist accordingly; Performing contractor's safety audits and assessments on site and in house; Perform Safety walk through at the end of the GO and ride the test train for safety check; Attending GO coordination meetings, progress meetings and writing daily field reports; Making sure the job is safe and all workers are following NYCTA and OSHA regulations.

New York School Construction Authority, Capital Construction Projects
Various, NY

PS 170, Leon M. Goldstein High School, JHS 57, PS 287, New York

PS 123Q, PS 282, IS 383, IS 291, PS 178, PS 48M, PS 137Q, New York

PS 94 Bronx, PS 61 M. Seward Pk HS M, New York

PS 721 M, New York

IS 223, New York

KHALID RASHID, CONT.

Acting in the capacity of Construction/Project Superintendent for various capital construction projects listed above responsible for implementing site health and safety requirements, evaluating construction drawings, submittals, site safety plans, fire evacuation plans, and accident preventions plans. Other responsibilities include:

- Preparing site specific safety plans, accident prevention plans, job hazard analysis, and accident investigation reports;
- Providing proactive safety strategies for reducing injuries to lower workers compensation costs;
- Conducting safety audits;
- Working with site personnel to comply with relevant OSHA, NYC DOB, NYSCA, DOT, DEP, EPA regulations;
- Inspecting scaffolding, sheds, chutes, cranes, boom machines, and runback structures;
- Inspecting excavations, bracing, shoring, and sloping;
- Inspecting fall protection;
- Attending progress meetings with project stakeholders;
- Preparing daily job reports;
- Filing standpipe, scaffolding, hot work permits; and
- Conducting tool box meetings and safety orientation.

NICHOLAS P. BATTISTA

Rail Operations / Flagging Coordinator

Firm

T.Y. Lin International

Education

Empire Technical School
Computer Science 1982

Certifications & Training

New Jersey Transit
Class A Electrical Employee
1992

Roadway Worker 2014
Patriot Homeland Security Dec. 2010

LSU
Transit Terrorist Training Oct 2011

ABB K-Line breaker
Training Oct 1999

Mr. Battista has 32 years railroad experience, 25 years with New Jersey Transit, and 7 years with Amtrak. He also has 4 years with the utility Con Edison in the Substation Department. With New Transit the last 13 years he was Manager Electrical Power Distribution. His job detailed managing all electrical lines under New Jersey Transit which included all electrical substations, catenary system, signal system, power and light for terminals and bridges. His duties included scheduling and approving any outage with electrical utilities, and with system operations with reference to train movement. Other duties include reviewing any electrical changes to the system, and interacting and installing into the scada system which controls the electrical system. He also managed all controlled electrical shutdowns system wide during all storms.

Substation Experience and Projects

- Sandy Rehab (2012-2015)
- Masson Supply Substation
- Bld #9 Distribution Substation
- MMC Distribution Substation
- Hoboken and Henderson Street Distribution Substation
- Kearny Jct. Distribution Substation
- NJT Aberdeen and Red Bank 230kV Circuit Breaker Replacement (2010)
- West End 13.2 kV Distribution Substation Project (2008)
- Morrisville Yard Substation, Signal, and Catenary System (2004)
- TMAC Project Train and Power Control System (1999- 2003)

NJ Transit, Sandy Rehab Projects

Hoboken, Jersey City, and Kearny NJ

As Manager of the Electrical System for New Jersey Transit, Mr.Battista managed and approved all substation installations with reference to outages, interacting and installing into scada system, field safety, electrical drawing changes, testing procedures for new equipment, and effects on train movement. He also interacted and coordinated with the Electrical Engineering, System Operations, and Safety Departments to ensure all electrical and safety rules were followed.

NJ Transit Aberdeen and Red Bank 230kV Circuit Breaker Replacement

Aberdeen and Red Bank NJ

As Manager of the Electrical System for New Jersey Transit, Mr.Battista managed and approved all substation installations with reference to outages with System Operations and JCP&L, interacting and installing in scada system, and change electrical drawings.

NJ Transit, Sandy Rehab Projects

Hoboken, Jersey City, and Kearny NJ

As Manager of the Electrical System for New Jersey Transit, Mr.Battista managed and approved all substation installations with reference to outages, interacting and

NICHOLAS P. BATTISTA, CONT.

installing into scada system, field safety, electrical drawing changes, testing procedures for new equipment, and effects on train movement. He also interacted and coordinated with the Electrical Engineering, System Operations, and Safety Departments to ensure all electrical and safety rules were followed.

NJ Transit, Morrisville Yard Substation, Signal, and Catenary System
Aberdeen and Red Bank NJ

As Manager of the Electrical System for New Jersey Transit Mr.Battista was heavily involved with layout of catenary system with reference to sectionalizing of electrical disconnect switches, signal system placement to protect train movement, mechanical inspection building isolation switches and control system. Also involved with training and inspection for NJT personal, and installation and testing of scada control points of electrical switchgear.

NJ Transit, TMAC Project Train and Power Control System
Aberdeen and Red Bank NJ

As Manager of the Electrical System for New Jersey Transit, Mr.Battista worked on (TMAC) the new Scada control for the Electrical System and control of Train Movements. He was the principal person responsible for all electrical control points in NJT electrical system, interacting with all the safety electrical rules with reference to lock out tag out, scada tagging, software interlocks, naming of all control points with new system. He also wrote all the procedures for testing the control points, testing with the contractor, approving any changes. He was involved with installation of new control center with hardware placement and testing all screens and projection of electrical network in theatre.

BRIAN SALFELDER, PE
Resident Engineer

Firm
T.Y. Lin International

Education
B.S., Civil Engineering, Virginia Tech, 1997

Professional Licenses
Professional Engineer #24GE04417700, New Jersey, 2003

Certifications & Training
OSHA 30-hr Construction Safety & Health Training #OSHA14-00141, Dec. 2014

MTA/NYCT Transit Track Safety Certification, Feb. 2014

NJSAT HMA Construction Technologist, Jan. 2014

ACI Concrete Construction Special Inspector, Dec. 2013

Rutgers, Traffic Control Coordinator, June 2012

NJ Transit Safety Training, Oct. 2010

Mr. Salfelder has over 20 years of experience in the design and construction management of infrastructure projects in New York and New Jersey. He most recently has served as project manager for the Construction Management of Cranberry and Rutgers Tunnels for New York City Transit. Mr. Salfelder oversaw a team of administrators and inspectors in the rehabilitation of Fan Plants, Substations and Track and Power Systems that were damaged during Hurricane Sandy. His responsibilities have included management of construction inspection team, review and approval of daily inspection reports, change orders, quantity estimates, budget and schedule tracking, preparation of monthly reports, conducting progress meetings, coordination with State and local agencies, environmental permitting, public involvement and overall compliance with the plans and specifications. Mr. Salfelder has identified and resolved project issues in a proactive manner to avoid conflicts and reduce the need for change orders.

MTA NYCT, Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry / Rutgers Tunnels
Manhattan and Brooklyn, NY

Mr. Salfelder was Consultant Construction Project Manager for the Rehabilitation and Resiliency of Cranberry/Rutgers Tunnels. This project was part of NYCT Sandy recovery work and required extensive coordination of contractors and specialists necessary to rehabilitate the extensive damage to these tunnels. The project also included several fan plants which involved extensive coordination of utilities including water and sewer. Mr. Salfelder managed a staff of twelve inspectors and three office engineers, and coordinated all construction and inspection activity including providing oversight for Track outages and coordination with various NYCT departments. Mr. Salfelder served as an extension of MTA while providing real time communications of project status to all stakeholders. Mr. Salfelder conducted meetings with MTA officials, progress meetings with construction managers and contractors, supervised construction activities as per the schedule and ensured that the work was carried out within the budget. In addition he directed all project activities, resolved conflicts and challenges, and coordinated with inter-departmental and other outside agencies. The work consisted of repair to the tunnel lining, duct banks, upper and lower concrete benches, train signal systems, radio antenna cables, replacement of all power cables, communication network including replacement of communication cables, replacement of storm sewer discharge pumps, upgrades to circuit breakers, replacement of the tracks, lead and asbestos abatement, replacement of roofs and facades of buildings, HVAC replacements, installation of fiber optic cables for resiliency, tiling, and epoxy painting of pump rooms and circuit breaker houses.

NYCT, Enhanced Station Initiative Package 3
New York, NY

As part of a Construction Management team, TYLI is providing services for multiple subway stations in New York City Transit's (NYCT) Enhanced Station Initiative (ESI) Program. Mr. Salfelder is serving as Senior Resident Engineer for Package 3 which includes four stations in Manhattan's Upper West Side. He manages the team for pre-construction, construction and closeout services simultaneously. The project includes architectural finishes, structural repair and modifications, electrical (including lighting, communications and technology) and mechanical work, as well as architectural and engineering services and surveying under a demanding accelerated schedule.

BRIAN SALFELDER, PE, CONT'D

Resident Engineering Inspection for the Replacement of the 14th Street Viaduct
Hoboken, NJ

As Resident Engineer, Mr. Salfelder provided oversight to the construction management team on the replacement of the 14th Street Viaduct a non-redundant 1,460 foot, 4 lane structure that is a critical link in the local transportation system. This complicated replacement involved staged construction and extensive coordination with local aerial and underground utilities including water and sewer mains to facilitate the work. The area beneath the structure was converted to public space, including the construction of two open-space areas for public gathering which required upgrading storm water drainage, the construction of ADA compliant sidewalks and crosswalks, installation of a surveillance camera system, and LED architectural and street lighting. Mr. Salfelder's responsibilities included conducting preconstruction and project progress meetings, coordination with County, New Jersey Department of Transportation, Federal Highway Administration – NJ Office, design team, utility companies and local governments, review and negotiation of change orders, review and processing of Contractor's requests for partial payment, review of Contractor's schedule, monitor project budget for both the contract and professional services, preparation of invoices, preparation of federal paperwork for funding reimbursement, preparation of as-built drawings, processing of final payment, review and approval of Maintenance and Operational Manuals for park amenities, overall compliance with the project plans and specifications, and project close out.

Morris County, Replacement of County Bridge No. 1401-160, Woodland Road over the Harmony Brook
Mendham Township, NJ

As Resident Engineer, Mr. Salfelder's responsibilities included preparation of and holding pre-construction meeting, coordination with affected utility companies, preparation of daily inspection reports, recording of contract quantities, coordination of contract omissions / design changes, review of Contractor requests for partial payment, review and negotiation of change orders, involvement of local historical society, community involvement with neighboring property owners and final change order/project closeout. Individual Experience: This project encompassed the replacement of single span concrete slab structure with a prestressed concrete slab beam superstructure on reinforced concrete substructures. The roadway was closed to through traffic and a detour posted. NJDEP Freshwater Wetlands and Stream Encroachment Permits were also required.

Morris County, Repair of County Bridge No. 1400-073, Landing Road Bridge over NJ Transit Railroad
Roxbury Township, NJ

Individual Experience: As Resident Engineer, Mr. Salfelder's responsibilities included preparation of and holding pre-construction meeting, daily site meetings with Contractor and NJ Transit flagman, preparation of daily inspection reports, recording of contract quantities, review of Contractor requests for partial payment, redesign of traffic control on high volume collector, coordination of contract design changes, and final change order/project closeout. Bridge No. 1400-073 had progressed through the scoping phase and was in design with a replacement construction date several years away. The project involved interim repairs of the two span concrete arch structure over NJ Transit railway lines.

Morris County, Replacement of County Bridge No. 1400-164. Stillwater Drive Bridge over Kakeout Brook,
Kinnelon Borough, Morris County, NJ

As Resident Engineer , Mr. Salfelder's responsibilities included preparation of and holding pre-construction meeting, review of shop drawings, preparation of daily inspection reports, recording of contract quantities, review of Contractor requests for partial payment, review and negotiation of change orders, involvement of local lake community, community involvement with neighboring property owners and final change order/project closeout.

MICHAEL VIGLIANCO, EI

Office Engineer

Firm
T.Y. Lin International

Education
BS, Civil Engineering, West Virginia University, 1996

Professional Licenses
Engineer Intern #EI6888, West Virginia, 1996

Certifications & Training
MTA NYC Transit Track Safety Certification, April 2014

Mr. Viglianco has over 17 years of experience with a diverse background in construction and inspection, structural and civil engineering and right-of-way acquisition. Mr. Viglianco has served in the capacities of resident engineer, office engineer and resident inspector, as well as having provided field construction support as a designer engineer working closely with other resident engineers to assist in solving field issues on numerous bridge projects for several state and local agencies. Mr. Viglianco also has experience in construction project management for the rehabilitation and renovation of various residential and commercial properties where he was responsible for the planning and execution of all aspects of construction including the management of work crews, materials, sub-contractors and deliveries. He has also been involved in the structural assessment of several existing buildings and has experience in building and bridge and retaining wall design. He is proficient in multiple CADD platforms, as well as, in the use of several electronic document management platforms.

Rehabilitation of Dodd St and Clark St Bridges
Essex Co., NJ

As Resident Engineer, Mr. Viglianco was responsible for construction management, review of all submittals, construction inspection and documentation, resolution of field issues, review and management of construction schedule and construction documents and supervision the contractor. This pursuit involved design engineering and construction inspection services for the Replacement of the Center Street Bridge over Third River in the Township of Nutley, and the Rehabilitation of Dodd Street Bridge over Second River in East Orange and the Rehabilitation of Clark Street Bridge over Toney's Brook in Glen Ridge. Construction of one of the bridge was done on an accelerated schedule and the bridge was reopened within two months of the start of construction.

Essex County Construction Inspection & Engineering
Essex Co., NJ

As part of TYLI on-call Construction Engineering Inspection contract with Essex County, we provided construction engineering and inspection services for the replacement of the new Millburn Avenue Bridge. In a dual role as Resident Engineer and Office Engineer, Mr. Viglianco was responsible for construction management, review of all submittals, and supervision of/coordination with the TYLI Construction Inspector.

The existing bridge was a four span stone masonry arch that carried Millburn Avenue over the west branch of the Rahway River. The proposed bridge was a two span pre-cast concrete arch structure. The construction was performed in two stages to maintain traffic on the bridge at all times through this busy commercial district. TYLI was responsible for providing full time inspection services, review of shop drawings, responses to RFI's and construction support as needed. TYLI's Inspector closely coordinated with the County Engineer and Contractor throughout the duration of the project to ensure its success. Our Construction Engineering Team oversaw all phases of construction, monitored construction by preparing daily field logs and taking daily photos to help document project progress, they also documented each activity and documented type and quantity of materials. Furthermore, the team

MICHAEL VIGLIANCO, EI, CONT.

closely monitored the Contractor's progress against the approved construction schedule and made recommendations for correcting any slippages assuring on time project delivery. Our team conducted biweekly/monthly progress meetings with the County, construction Contractor, utility companies and other stakeholders took minutes and made note of action items. Our team provided to the satisfaction of Essex County full time continuous construction engineering and inspection services until the completion and acceptance of the construction contract. TYLI provided construction engineering and inspection services for the construction of bridges and culverts throughout Essex County on an as-needed basis for the duration of one year. The scope included monitoring the Contractor's work for substantial conformance with the provisions of the contract, checking the construction for compliance with shop drawings, notifying the County Engineer and contractor in writing of any unacceptable work, monitoring construction progress, reviewing shop/workings drawings, material specifications and other submittals, and providing overall construction administration of the project.

West Street Bridge
Bloomfield Township, NJ

Mr. Viglianco served as Structural Engineers for the project proposed to replace the existing West Street Bridge. The existing structure was a single span concrete encased steel stringer bridge supported on concrete abutments, constructed in 1930. TYLI scope included survey, ROW, mapping, geotechnical engineering, structural design, roadway design, drainage design, permitting, utilities, detour plan, maintenance and protection to traffic, demolition plans, and specifications. Submission of contract documents was made per the county's 2-phase submission process. Scope also included construction engineering and construction inspection. Mr. Viglianco was involved in the field survey of existing conditions, oversight of materials testing consultant's coring operations, assessment of existing abutments, and completion of final design plans for the bridge reconstruction. In addition, he provided construction support and Office Engineering support to the Resident Engineer and reviewed shop drawings.

Replacement of Linden Avenue Bridge over Peckmans River
Verona, NJ

As Structural Engineer on the project, Mr. Viglianco was involved in the field survey of existing conditions, assessment of existing abutments, oversight of materials testing consultant's coring operations, assessment of existing abutments, and completion of final design plans for the bridge reconstruction. In addition, he provided construction support to the Resident Engineer and reviewed shop drawings. This project involved the superstructure replacement of the Linden Avenue Bridge over the Peckman River in Verona, NJ. The new bridge consists of an aesthetically pleasing and economical prestressed concrete adjacent box beam superstructure on reinforced concrete abutments.

South Orange Avenue - Final Design
Millburn and South Orange, NJ

As Structural Engineer on the project, Mr. Viglianco was responsible for finalizing the alignment of the pedestrian bridges, verifying vertical under clearances, quantifying disturbance areas around the bridges, as well as, the design and detailing of bridges, retaining walls, and foundations. Throughout construction he worked closely with the Resident Engineer to resolve field issues and provide construction support, including numerous site visits as required.

TYLI provided final design of structures related to roadway improvements for a 1.6 mile section of South Orange Avenue, which includes realigning and widening the roadway as well as replacement of the existing concrete median. The majority of the work took place within the South Mountain Reservation, which consists of over 2,000 acres of pristine forest containing recreational facilities, historic sites, and an extensive network of hiking and equestrian trails. Furthermore, the unique history of the site makes the South Mountain Reservation Historic District eligible for the National Register of Historic Places under multiple criteria. Our scope included design of three proposed pedestrian bridges to span over the widened South Orange Avenue. All three of the pedestrian structures consisted of precast concrete arch superstructures supported on cast-in-place concrete foundations. The bridges were designed with stone facing and other features such that they contributed to the cultural resources of the area, minimized impacts to the Park, and were aesthetically compatible with the character of the reservation setting.

BHARAT GADARA

Civil & Structural Inspector

Firm

T.Y. Lin International

Education

BSc, Bachelor of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, India, 2002

Certifications & Training

MTA NYC Transit Track Safety Certification, February 2014.

ACI Concrete Construction Special Inspection, Nov. 2013

Asphalt Paving Construction Technologist, NJ Society of Asphalt Technologists, Oct. 2013

ACI Concrete Field Testing Technician, Grade I, American Concrete Institute, June 2013

OSHA 10 Hour Construction Program, Red Vector, Nov. 2013

Construction Management Certificate, 4-day course, Mar 2011

Mr. Gadara has over 14 years' experience in Civil and Structural Engineering and Construction Management for transit projects including significant projects for New York City Transit. Recently he has worked as an inspector on NYCT Cranberry and Rutgers Tunnels.

MTA NYCT Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry / Rutgers Tunnels
Manhattan and Brooklyn, NY

Mr. Gadara was inspector for the constructability review and construction of the Rehabilitation and Resiliency of Cranberry/Rutgers Tunnels. This project was part of the federally funded NYCT Sandy recovery work and required extensive coordination and oversight of contractors and specialists necessary to rehabilitate the extensive damage to these tunnels. Mr. Gadara oversaw the contractors and ensured all construction conformed to plans, specifications and engineering best practices. Work included replacement of damaged tracks, Cliff St. Substation 90, Fan plant equipment and pump room equipment, structural inspections of both the Tunnel Liner and the Duct benches, electrical components and structures in the tunnels including duct banks, fans, communication cables, and traction power.

Sandy Recovery Project, Consultant Construction Management for the Rehabilitation and Resiliency of Joralemon Tunnel, NYCT
Manhattan and Brooklyn, NY

Mr. Gadara was inspector for the constructability review and construction of the Rehabilitation and Resiliency of Joralemon Tunnels. This project was part of the federally funded NYCT Sandy recovery work and required extensive coordination and oversight of contractors and specialists necessary to rehabilitate the extensive damage to these tunnels. Mr. Gadara oversaw the contractors and ensured all construction conformed to plans, specifications and engineering best practices. Work included replacement of damaged tracks, Substation, structural inspections of Fan plants, pump rooms, electrical components and structures in the tunnels including duct banks, communication cables, and traction power.

MTA NYCT Greenpoint Tunnel Signals Construction Inspections
Brooklyn/Queens, NY

Mr. Gadara served as Construction Inspector for oversight of Signal installations on the G Train Tunnel between Brooklyn and Queens, with around-the-clock shifts. He inspected contractor installation of signal work, testing, safety procedures and quality control. Work included placement of 16 & 25 pair communication cable into signal track and case boxes, Megger testing , termination of cables, installation of supports and 1" and 2" galvanized conduits.

Resident Engineering Inspection for the Replacement of the 14th Street Viaduct
Hoboken, NJ

As an office/site engineer for this $54 million bridge/roadway project, Mr. Gadara kept records of RFI's, submittals, shop drawings and change orders using primavera contract management. He performed on-site inspection of construction activities and

BHARAT GADARA, CONT.

ensured that the construction conformed to approved plans, specifications, approved submittals and construction practices. He reviewed contract documents for consistency and compliance with applicable codes and standards, and reviewed, confirmed and modified approved monthly contractor payment applications. Mr. Gadara monitored survey construction progress to confirm percent complete by trades. The Project included replacing the existing 14th street viaduct with 30 spans, 1459 foot long bridge. The viaduct crossed over several local streets and NJ Transit rail track.

PANYNJ Construction Inspection for Dyer Avenue Deck Replacement
New York, NY

Mr. Gadara was part of the TYLI team who provided construction inspection services for the deck replacement of Dyer Avenue Bridge. The work included oversight for deck replacement using precast panels, reconstruction of deteriorated steel components, removal of lead based paint, and repainting of entire structure. This project, over the Amtrak and LIRR tracks at the mouth of Lincoln Tunnel, required extensive coordination with vehicular, pedestrian and rail traffic. Mr. Gadara was part of the team of inspectors who performed inspection in confined spaces, reviewed MPT plans, performed safety inspections, assessed the steel surface after paint removal for SSPC10 specification compliance, looked for any steel damage which was critical and needed to be addressed prior to coating the steel with paint, and assured the proper thickness. TYLI was also responsible for performing QA services for orthotropic deck panels at manufacturer's plant, galvanizing process and concrete pouring of the deck panels.

Tren Elecrico
Lima Peru

Tren Elecrico (Lima-Callao) Line-1 is a 12.4 km long rail track project that has a contract value $400 million. This project included two rail lines on elevated viaducts with 12 stations. Mr. Gadara provided engineering services for the design of station canopies (Semicircular steel frames) and miscellaneous station structures. As an Engineer, Mr Gadara was responsible for preparing detailed design and complete sets of structural drawings for station canopies. He provided directions to drafting personnel in preparing design drawings and early stage cost estimate for structural elements. Mr. Gadara ensured that the design and drawings met the required specification and design criteria and coordinated with the contractor and architect for amendment of design, as per constructability issues. He also developed models using 3-D analysis tools like SAP2000, RAM Connections and drafting tools like AutoCAD.

PANYNJ Design and Construction Administration for the World Trade Center Route 9A Underpass
Manhattan, NY

As an engineer during construction, Mr. Gadara engaged in the review and approval of RFI, change orders, shop drawings and submittals. He created bulletins and reviewed specifications, performed field inspections, authorized structural decisions on the field and redesigned structural elements in accordance with existing site structural conditions. Mr. Gadara was provided RFI management document control, value engineering and permit process. He performed project close out, which included a punch list, and reviews of as built drawings. The project included alignment of the proposed southbound temporary bridge which was shifted west to accommodate an access point to the work zone beneath; highway engineering and coordination with the NYSDOT for the temporary roadway shifts to accommodate the work zones; reestablishment of the hydraulic connection of the water channel with the Hudson River; relocation of an existing water main; preparation of logistics plans and detailed phasing of the bridge shift; topographic and utility survey for the design of the river water lines; and overlay of easement data onto existing mapping and creation of geometry data for the revised 48 inch water main routing.

Design and Construction Administration for Coney Island Hospital Addition
Coney Island, New York

As project engineer for this $10 million expansion, Mr. Gadara provided review and approval of RFI, change orders, shop drawings and submittals. He created bulletins and reviewed specifications, performed field inspections and made structural decisions on the field. Mr. Gadara redesigned structural elements in accordance with existing site structural conditions and provided RFI management document control, value engineering and permit process. He also performed the project close out which included a punch list and reviews of as built drawings.

DAVID RORER
Building/Systems Inspector

Firm
STV Incorporated

Education
BS, Electrical Engineering, Point Park College, 1995

Certifications & Training
Pennsylvania Department of Transportation Certified Concrete Field Testing Technician, PA, #5938

Bituminous Field Technician; Northeast Center of Excellence for Pavement Technology (NECEPT), #5938

Federal Highway Administration Security Clearance, #01544

OSHA 30-Hour Construction Safety

OSHA Confined Space Safety (2002)

4-Hour Mobile Crane Safety (1999)

OSHA Excavation Safety (1998)

Mr. Rorer is an engineering specialist with more than 30 years of construction management and inspection experience. He has extensive knowledge of highway, bridge, and tunnel lighting, safety, and communications systems, as well as materials field testing and inspection procedures. Mr. Rorer is skilled in securing required permits, publishing public notifications, and preparing work orders and estimates. He is also experienced at tracking contractor quantities and locations, responding to requests for information (RFIs), reviewing and approving contractor estimates and payrolls, managing force account records, and monitoring site safety.

Route 72 Manahawkin Bay Bridges Improvements, New Jersey Department of Transportation
Strafford Township and Long Beach Island, NJ

Performing construction inspections for a new 2,400-foot-long, 2-lane bridge parallel to the existing Manahawkin Bay Bridge connecting Stafford Township and Long Beach Island, NJ; rehabilitation and widening of the existing steel girder Manahawkin Bay Bridge; and rehabilitation and widening of three trestle bridges. Unique features of this $350 million New Jersey Department of Transportation (NJDOT) project include the replication of the existing Manahawkin Bay Bridge's distinctive "string of pearls" lighting using current technology to improve reliability. Mr. Rorer's responsibilities include wetlands mitigation services for proposed overlooks at Cedar Bonnet Island and basins along Route 72.

SR 0079, SR 0279, SR0022-000 ITS Systems, Pennsylvania Department of Transportation District 11-0
Allegheny County, PA

Supervised the installation and inspection of dynamic message signs, sign structures, fiber optic cable backbone and wireless communication link, and associated construction. Mr. Rorer's responsibilities for this design-build PennDOT intelligent transportation systems (ITS) project included preparing work authorizations and tracking force accounts, attending project control meetings, approving estimates for contractor payments, and instructing field inspection staff.

SR 0079, SR 0279, De-Icing Modification, Pennsylvania Department of Transportation District 11-0
Allegheny County, PA

Supervised modification of de-icing equipment as part of the ITS systems maintenance for Allegheny County roads.

SR 0376 Digital Message Sign Replacement, Pennsylvania Department of Transportation District 11-0
Allegheny County, PA
Oversaw inspections for the replacement of digital message signs on I-376 westbound between the Bates Street and Boulevard of the Allies interchanges, I-79 northbound 1.5 miles south of the Bridgeville interchange, and I-79 northbound 1 mile before the Warrendale interchange. Mr. Rorer's responsibilities for this PennDOT project included obtaining permits, attending project control meetings, reviewing estimates, writing work orders/authorizations, reviewing and responding

DAVID RORER, CONT.

to RFIs from the contractor, supervising daytime and nighttime inspection crews, and monitoring and reporting on work progress. He was also responsible for the opening and closing of roadways, tunnels, and bridges during the course of construction.

SR 0008 Corridor ITS Project, Pennsylvania Department of Transportation District 11-0
Butler County, PA

Supervised and performed inspection of installation of 10 message boards along SR 0008 including GPS synchronization, HAR with radial grounding system, expandable software (ATMS), and PBX dial-up lines.

Pennsylvania State University Airport Improvement Project, Pennsylvania Department of Transportation
State College, PA

Supervised and performed inspection of installation of 10 message boards along SR 0008 including GPS synchronization, HAR with radial grounding system, expandable software (ATMS), and PBX dial-up lines. Responsible for inspection of runway and electrical systems, including RF controls, MALSR rail lighting, radio communication and towers and tower repairs

ABHISHEK PUROHIT

Electrical Inspector

Firm

T.Y. Lin International

Education

MS, Electrical Engineering, University of Bridgeport, Bridgeport, CT

BEE, Gujarat University, India 2007

Certifications & Training

OSHA 30-Hour

OSHA Respirator Safety Certification

Hazard Communication

NYCT Track Safety Certification

Mr. Purohit has over 7 years of engineering experience most recently as a construction and electrical inspector for the rehabilitation of NYCT Cranberry Tunnel rehabilitation project. He has expertise with switchgear, inverters, battery units and UPS systems transfer switches, and control panels.

NYCT, Enhanced Station Initiative Package 3

New York, NY

As part of a Construction Management team, TYLI is providing services for multiple subway stations in New York City Transit's (NYCT) Enhanced Station Initiative (ESI) Program. Mr. Purohit is serving as a Construction Inspector for Package 3 which includes four stations in Manhattan's Upper West Side. The team will provide pre-construction, construction and closeout services simultaneously. Scope items architectural finishes (including painting and signage), structural repair and modifications, electrical (including lighting, communications and technology) and mechanical work, as well as architectural and engineering services and surveying.

NYCT, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry Tunnel

Manhattan and Brooklyn, NY

As Construction Inspector, Mr. Purohit performed inspections of both the Tunnel Liner and the Duct benches along both North and Southbound directions of the tunnel. In addition he inspected reconstruction of Circuit Breaker House #502 in upper Manhattan at Academy Street, Substation#90 at Cliff Street in Lower Manhattan, Fan Plant #6330 under Front Street in lower Manhattan, Fan plant #6332 along the river front at Furman Street in Brooklyn, and Pump Rooms #2078 and #2079 located mid-point of the tube itself. He coordinated with team members and NYCT personnel. TYLI served as Consultant Construction Manager for the Sandy Recovery Rehabilitation and Resiliency of Cranberry Tunnel. The scope of work included construction management and inspection of communications systems, duct banks, traction power, all associated cables, electrical components, tracks and structural liner. Inspections were performed during general orders because of the necessity to keep the subway system operational.

Further Enterprise Solutions

Cherry Hill, NJ

As LTE designer, Mr. Purohit prepared and upgraded new RF data sheets to reflect RF changes such as antenna type and model, electrical/mechanical tilt, antenna height, azimuth, RRH top/bottom, fiber/coax and others. He reviewed site close out package for changes in antenna configurations for planned sites and verified system return loss and distance to fault using Anritsu Sweep masters for T-Mobile. He created RFDS for different antenna configurations per client request and created coverage plots and E911 plots using ASSET and MapInfo as part of a new site design. He updated the necessary databases ASSET, SORT and ELEMENT to bring monitored sites on air.

ABHISHEK PUROHIT, CONT.

DC Group
Minneapolis Minnesota

As Field Engineer, Mr. Purohit performed testing and troubleshooting of UPS, STS and PDU (Uninterruptible Power Supply, Static Switch and Power Distribution Unit) for private companies and governments clients nationwide. He provided training to new engineers on UPS operation and internal hardware, as well as, training clients on emergency UPS operation procedures. He provided technical support for customers on operational and maintenance aspects of the services being provided. He also maintained and serviced uninterruptible power systems, performed preventative maintenance, remedial service, and emergency repair services on various brands of UPS Systems, batteries. Mr. Purohit coordinated, troubleshot and repaired UPS equipment. He decreased system downtime in the event of an emergency by following best practices to deliver effective solutions within 3 hours of incident.

KEYUR PARIKH, P. ENG., PMP

Scheduler / Estimator

Firm

Ashoka Consulting

Education

BE, Civil Engineering, Maharaja Sayajirao University, India, 1988

Professional Licenses

Professional Engineers Ontario (PEO, 100058039, December 2006)

Project Management Professional (PMP), Project Management Institute (PMI, 1417787, June 2011)

Keyur has more than 25 years of experience in project controls, planning and scheduling. He has in depth knowledge and experience in planning, scheduling, cost control, schedule delay analysis, and performance measurement using the earned value management system. He also has experience with multi-million-dollar EPC projects and programs and progressive experience in developing resource loaded schedules in all project phases: project scoping, pre-feasibility, feasibility, detailed engineering, site management, subcontractor management, and coordination. He has excellent leadership, communication, and interpersonal skills and has worked in an integrated Project Management Environment. Keyur has a Bachelor of Engineering degree in Civil Engineering.

MTA Metro North Railroad, Senior Consultant - Capital Program
New York, NY

Working as Project Controls Consultant for Metro North Railroad in New York. As an owner's representative, key responsibilities include, claims analysis, preparation of executive reports, preparation and maintenance of cost/ resource-loaded master schedule for the Capital Program, baseline schedule review and approvals and performing monthly progress reviews on various multi-million dollar projects. Portfolio of the projects currently I am working on are:

- Harmon Shop replacement on Hudson line
- Power and communication restoration on Hudson line (Sandy storm)
- Harlem, Hudson and New Haven lines – station repairs
- Customer Service Information upgrades on Grand Central and outlying stations
- Grand Central elevator replacement

Project Control Specialist Lead
Ontario, Canada

Started as Sr. Planner / Scheduler, promoted to lead role within 3 months. Developed cost engineering methodologies, provided cost engineering expertise for the development of cost engineering related deliverables including S-curves, cost and resource loaded schedules, cost reports showing cost projections, what-if analysis, developing work breakdown structures (WBS), earned value analysis, change management. Ensured adherence to best practices and procedures. Worked hands-on on various projects in different roles and capacities.

Bankable Feasible Study Project for Brazil Potash Corporation

- Established work breakdown structure and cost accounts
- Developed cost and resource loaded schedule
- Updated progress and performed schedule delay analysis
- Managed changes on the project
- Analyzed cost and schedule impacts
- Performed critical path analysis and recommended mitigations

KEYUR PARIKH, P. ENG., PMP, CONT.

JEB Uranium Mill Upgrade Project for Areva

- Managed a team of six schedulers and cost controllers
- Established work breakdown structure and cost accounts
- Monitored cost and schedule baselines
- Studied impact of changes on critical path and advised mitigations

Millennium Uranium Mine Feasibility Study Project for Cameco

- Took over Project Controls when the project was in dire state and company was on verge of losing the project due to lack of proper project controls
- Convinced client to continue with our company, by providing accurate and timely project status reports
- Interacted with the client and project team on a regular base to ascertain proper project controls and reporting

Senior Planner / Scheduler
Ontario, Canada

- Developed and managed the level 4 resource/cost loaded, logic driven CPM Schedule (in Primavera P6) for the construction of shaft sinking project. Estimated cost of the project was close to 600 M dollars.
- Working full-time on site, I tracked daily construction progress to prepare the weekly "three week look-ahead" detailed schedule
- Analyzed impact of delays and changes on the critical path of the schedule, calculated floats, advised mitigations
- Chaired the weekly progress review meeting with client and other stakeholders. Reported to senior management and to team members of weekly progress compared to plan, explained reasons for variation and mitigation plan
- Responsible for presenting schedule section in monthly progress review meetings for the project. Reviewed key milestones and critical path with client and other stakeholders.
- Participated in overall project schedule integration efforts to develop level 1 & 2 project schedule and risk analysis model
- Prepared Time Impact Analysis, Ad hoc "What if" schedule scenarios, and Bid Schedules as needed.

Lead Planner / Scheduler
Ontario, Canada

- Developed work breakdown structure for the schedule providing link with cost control
- Developed and managed the resource loaded, logic driven CPM Baseline Schedule (in Primavera P6) for various projects.
- Tracked daily construction progress for status collection; to prepare the weekly "three week look-ahead" detailed schedule, for the submission of the monthly CPM Schedule
- Reported to senior management and to team members of weekly progress compared to plan, responsible for the quarterly revenue cash flow forecast to the financial group.
- Performed critical path analysis to understand impact of delays in various deliverables and advised mitigations
- Lead a team of Planners/Schedulers to produce quality and accurate work plans and schedules that follow best practices and procedures
- Allocate tools and resources to ensure that planning and scheduling objectives are met
- Obtained Schedule Risk Analysis training and developed Risk analysis procedure manual. Introduced schedule risk analysis to major projects, helping project managers manage schedule related risks

NANCY WIEME
Environmental Inspector

Firm
Distinct Engineering Solutions, Inc.

Education
BS, Civil Engineering, New Jersey Institute of Technology

Training / Certifications
OSHA 10-Hour Construction Safety and Health Training
OSHA 40-Hour HAZWOPER training
NYC DEP Approved Noise Consultant
NYSDEC 4-Hour Soil Erosion & Sediment Control Inspections
4-Hour Supported Scaffold User Training
MTA NYCT Track Safety Training

Ms. Wieme has eight years of demonstrated experience working as an Environmental Engineer performing acoustical, geotechnical, and environmental instrumentation, slope stability analysis, and CADD services. She has experience with installing and monitoring air and noise monitoring, and analyzing the data for Baseline Monitoring Reports. Ms. Wieme also has experience with geotechnical engineering, having collected soil samples, overseen test pit excavation, and analyzed laboratory test results. She has assisted in the preparation and execution of a variety of environmental control plans.

East Side Access, Madison Yard (Contract CM-007), MTA LIRR
New York, NY

Assisted with renewal of several NYCDEP groundwater discharge permits including water sampling, flow calculations and drawing preparation. Performed baseline noise monitoring and assisted in preparation of Baseline Noise Monitoring Report. Using Roadway Construction Noise Modeling (RCNM), and integrated calculations of one-hour Leq noise levels expected at the nearest residential and commercial buildings as part of Noise and Vibration Control Plan.

Second Avenue Subway 72nd Street Station Finishes Project (C-26011), MTACC
New York, NY

As on-site full-time Environmental Manager, assisted in environmental monitoring and inspection of contract work areas and operations for compliance with environmental regulations and specification requirements. Performed regular particulate and noise data collection and prepared daily, weekly, and monthly reporting per requirements and performed calibration of community particulate and noise monitors.

Subway 7-line Extension Site K (C-26511), MTACC
New York, NY

Supported the Project Manager with environmental monitoring and inspection of special equipment. As Staff Engineer, performed data collection for air and noise baseline monitoring and assisted in preparation of Baseline Monitoring Reports, assisted in preparation of Community Air Monitoring Plan (CAMP), Pollution Prevention Plan (PPP), Dust Control Plan (DCP), Soil and Groundwater Sampling and Analysis Plan (SAGSAP), and Spoils Management and Disposal Plan (SMDP).

Subway 7-line Extension Site L (C-26504), MTACC
New York, NY

Performed Special Inspections for concrete placement in the field and at the concrete batch plant to determine compliance with requirements. Assisted with preparation of monthly reports for Special Inspections.

NANCY WIEME, CONT.

Rondout West Branch Bypass Tunnel Contract BT-2, NYCDEP
Newburgh & Wappinger Falls, NY

Scheduled monthly and quarterly water sampling and analyzed groundwater sampling results for comparison to previous sampling events and assisted in preparation and review of water level logger data reports. Performed noise data collection and prepared daily, weekly, and monthly reporting including audio file noise analysis. Coordinated with contractor to identify sources of noise level exceedances, oversaw noise data collection for impulsive noise studies in response to community concerns, and analyzed data collected to determine compliance of construction operations with NYC Noise Code. Used noise-distance decay relationship to identify the sound pressure levels at the nearest residential receptors.

Facilities Improvement Program, NJTA
Various locations, NJ

Assisted in preparing several Environmental Site Assessments (ESAs) for various maintenance facilities along the New Jersey Turnpike and Garden State Parkway for the New Jersey Turnpike Authority.

LUZ ANGELA ZIDZIUNAS, EIT

Community Relations

Firm
T.Y. Lin International

Education
MS, Earth and Environmental Engineering, Columbia University, 2017
BS, Civil Engineering, New Jersey Institute of Technology, 2012

Professional Licenses
Engineer in Training, NJ

Training / Certifications
OSHA 10-Hour Construction Safety and Health Training

Ms. Zidziunas is an Engineer in Training with experience in civil engineering design and construction management. She has a strong background in environmental remediation, managing projects for governmental agencies in New Jersey and New York. She has excellent organizational and communication skills.

NYC DOT, Total Design and Construction Support Services for Rehabilitation of FDR Drive NB Bridge from 42nd St. to E 49th St.
New York, NY

As Assistant Engineer, Ms. Zidziunas provided extensive coordination efforts in the investigative phase of the project that included bridge data collection and assessment of existing conditions through topographic survey, pavement and deck core evaluation, traffic evaluation, and superstructure inspection. She is currently working in the analysis of the data collected during this investigative phase for the preparation of an In-Depth Inspection Report and a Design Approval Document (DAD) that will seek federal funding for the project. Ms. Zidziunas is also part of the structural team that will be developing design alternatives for rehabilitation or replacement of the structure and preparing the preliminary design once an alternative is selected. She also assisted in obtaining permits and various approvals for landside and waterborne inspections from stakeholders such as NYCDOT and the U.S. Coast Guard. Challenges include the coordination of all project tasks among six (6) subconsultant firms and three (3) subcontractor firms that TYLI's team manages as the Prime Consultant for the project.

MTA NYCT, Design for 59th Street Subway Station Rehabilitation
Brooklyn, NY

As Engineer, Ms. Zidziunas provided design assistance for this station improvement design project which included installation of three ADA compliant elevators, the relocation of two existing staircases, the extension of the curb along 4th Avenue and the extension of the existing Northern Mezzanine at the 59th Street Train Station on the R and N lines in Brooklyn. She performed the design of a Maintenance and Protection of Traffic Plan (MPT) to be implemented during construction over two stages. Stage 1 was Daytime/Nighttime for the extension of the existing north mezzanine and the installation of the three new ADA compliant elevators. Stage 2A/2B occurred for the demolition of the two staircases accessing the southbound station and their replacement with one new wider ADA complaint staircase. She prepared CAD drawings showing the staging process, proposed lane configuration, shifting tapers, channelizing devices and required advance warning signs. Challenges included the need to provide an adequate workspace for workers and a clear access to the excavation zone within this already congested roadway and the need to maintain levels of service as close as possible to preconstruction levels to minimize community impacts.

MTA NYCT, Design for Eastern Parkway Station Rehabilitation
Brooklyn, NY

As Engineer, Ms. Zidziunas provided assistance in the design of this station improvement project that included the installation of three ADA compliant elevators, the expansion of an existing staircase, and the extension of the existing Eastern Mezzanine at the Eastern Parkway Train Station on the 2 and 3 subway lines located on Eastern Parkway in front of the Brooklyn Museum in Brooklyn. She

LUZ ANGELA ZIDZIUNAS, EIT, CONT.

performed grading calculations and prepared CAD drawings for the construction of an ADA complaint ramp adjacent to one of the new street to mezzanine elevators. She also performed an analysis of all civil work required to extend the elevator shafts from street level through to the platform level for the presentation of the preliminary design to NYCT. She also coordinated with subcontractors to determine the necessary MPT setup needed to install the elevators and relocate the utilities in the area.

State of New Jersey Board of Public Utilities, Clean Energy Program
New Jersey

Individual Experience: Coordinated and managed engineering activities for energy savings projects in eight local government institutions in New Jersey as part of a team of engineers, architects, consultants, and managers. As the office engineer for the design consultant, Ms. Zidziunas processed submittals and RFIs, updated schedules for engineering design, bidding, and installation phases, and attended kick off and progress meetings.

Metropolitan Transit Authority, Environmental Demolition
Manhattan, NY

Individual Experience: Ms. Zidziunas coordinated the demolition of brick insulating walls and generator concrete pads covered in lead paint at the MTA Cliff St Substation in Manhattan, NY. She processed all the required permits per New York City Department of Health, New York Department of Environmental Protection and Environmental Protection Agency regulations. She prepared reports during the demolition process, prepared quantity listing of materials, prepared schedules and communicated with regulators and supervisors to ensure proper work development.

New York City Housing Preservation and Development NYC HPD, Lead Poisoning Prevention Program
New York, NY

Individual Experience: Managed the remediation of lead paint in residential dwellings as well as the subsequent repair and replacement of elements remediated as part of a $1,500,000 contract. As the engineer, Ms. Zidziunas planned and coordinated the mobilization of workers to each site, prepared quantity listing of materials, prepared changed orders as needed and communicated with inspectors during the remediation process to assure compliance with all regulations.

New Jersey Department of Transportation, Lead and Asbestos Abatement
Ewing, NJ

Individual Experience: Managed the remediation of hazardous materials including lead, asbestos, and mold in large garage warehouses located at NJDOT headquarters. Ms. Zidziunas was in charge of processing the permits required to proceed with the abatement per New Jersey Department of Health, New Jersey Department of Environmental Protection, and Environmental Protection Agency EPA regulations. She also prepared reports during the abatement process, reviewed technical documentation, and prepared change orders.

NYCDDC, HW2CR16B REI Services Citywide Milling
Bronx & Manhattan, NY

As Office Engineer for this task order project, Ms. Zidziunas was responsible for document management including the processing of weekly, bi-weekly and monthly progress reports, daily work notifications and daily milling reports, progress payments, estimated schedules and any other documents as requested by NYCDDC and NYCDOT. She also assisted the Resident Engineer in preparing task orders, field orders, submitting correspondence, and managing the team of field inspectors. The Engineered Capital Improvement project included the milling of sections of existing roadway wearing pavement course to prepare them for resurfacing by others; maintaining suitable gutter line grades and curb reveals to facilitate storm water runoff.

JOSE DELGADO-MARCIA, PE, LEED-AP BD+C, CME

Resident Engineer (Additional Resources)

Firm

T.Y. Lin International

Education

M.S., Construction Management, Stevens Institute of Technology, 2005

B.S., Civil Engineer, University Central America, 1986

Professional Licenses

Professional Engineer #24GE04835600, New Jersey, 2010

Professional Engineer #094193-1, New York, 2014

Certifications & Training

MTA NYC Transit Track Safety Certification, April 2014

Mr. Delgado has over 30 years of experience in the design and construction of building and transportation infrastructure projects in the New York City metropolitan area and Caribbean. His design experience includes site planning and engineering, zoning analysis, storm water management planning and design, highway design, storm and sanitary sewer design, pump station design, utility mapping and design, flood plain mapping waterway improvements. His construction management experience includes constructability reviews, cost estimating, scheduling, value engineering and the management of RFI's and shop drawing/submittals as the engineer of record.

NYCT, IDIQ CCM for Superstorm Sandy Task Orders, Various Projects

New York, NY

- Rehabilitation of Stillwell Avenue Facility; Brooklyn
- Cranberry Tunnel Rehabilitation; Manhattan/Queens
- Rutgers Tunnel Rehabilitation; Manhattan/Queens
- 12 Circuit Breaker Houses; Bronx/Brooklyn/Queens
- Joralemon Tunnel Rehabilitation; Manhattan

As CCM Project Scheduler/Estimator, for these projects, Mr. Delgado evaluated NYCT's and contractor's project CPM schedules to confirm productivity on each individual task, identified critical path for the project, tracked performance and progress, and helped contractors develop recovery schedules and 2-4-6 week look-ahead schedules.

During preconstruction phases, Mr. Delgado evaluated specifications and drawings to ensure that all requirements appeared in the bid set or in addenda. He evaluated contractor bids and detailed cost breakdowns.

During construction, Mr. Delgado reviewed shop drawings, conducted field inspections and prepared field sketches, and served as a resource to contractors in helping to resolve field issues.

Mr. Delgado also assisted in evaluating AWOs for extra work (both financial and schedule analysis), identifying labor, material, and time costs. Mr. Delgado maintained a cost data base for these analyses.

For close-out, he was contact for tracking and evaluation of as-built drawings.

NYCDDC, Construction Management Services for the Renovations at Horizon Juvenile Center

Bronx, NY

Mr. Delgado serves as scheduler for the Horizon House Juvenile Center renovations. Currently, Mr. Delgado is working with the DDC Project Manager and the Design team to create an accurate schedule for design completion, procurement and construction phases of a multi-phase project. As the project progresses, he will update the schedule accordingly and add in any time delays that may occur. He will track any delays due to design questions, weather implications or other unforeseen issues against the original baseline schedule.

JOSE DELGADO-MARCIA, PE, LEED-AP BD+C, CME, CONT.

NJ Transit, Meadowlands Station Operations Room Relocation
Secaucus, NJ

Mr. Delgado served as Engineer for this design project that was under a General Engineering A/E contract with NJ Transit. TYLI provided preliminary and final design services for the relocation of the existing operations room at Meadowlands Station. Mr. Delgado compiled utility information with survey data, designed the relocation of existing utilities which included 4" sanitary sewer lines and 1" water lines. He designed site elements including grading, sidewalks, ADA ramp and project control baselines. Mr. Delgado prepared construction drawings and specifications for the bidding process and submission to Department of Community Affairs of State of New Jersey, and coordinated design with other project disciplines. Overall TYLI responsibilities included an existing conditions survey, geotechnical/environmental investigation, architectural/engineering drawings, including technical specifications, special provision and calculations for the construction of the new operations room. TYLI was also responsible for all design, procurement and construction schedules, construction cost estimates, and assisting NJ Transit with the contractor submittal list.

PANYNJ, Design and Construction Administration for World Trade Center Route 9A Underpass
Manhattan, NY

As Project Engineer, during construction, Mr. Delgado performed field inspections and made structural decisions in the field. He was responsible for construction support which included the review and approval of RFI, shop drawings and submittals, creating bulletins, the review and approval of change orders, RFI management control, creating and reviewing specifications, attending construction meetings and performing field inspections. Mr. Delgado did the close-out of the project, including the punch list and the review of as-build drawings. He prepared 3 different alternatives for alignment and vertical profile for the 48" water main and prepared construction documentation which included specifications and drawings in order to submit to NYCDEP and NYCDOT for their approval.

NYCT Greenpoint Tunnel Signals Construction Inspections
Brooklyn and Queens, NY

Mr. Delgado served as Construction Inspector for oversight of Signal installations on the G Train Tunnel between Brooklyn and Queens, with around-the-clock shifts. He inspected contractor installation of signal work, testing, safety procedures and quality control. Work included placement of 16 & 25 o.r. communication cable into signal track and case boxes, Megger testing, termination of cables, installed of supports, 1" and 2" galvanized conduits. TYLI was contacted by NYCT and requested to assemble a team of inspectors, which they did and were on the job within 24 hours. In addition to inspection the TYLI Team was responsible to call-on and call-off for G.O.s and assured the area secured before the contractor accessed the track. They documented the G.O. and kept records of all "piggy backers" and flaggers. The project was completed within the requested accelerated time.

Co-Urban S.A., DE CV.
El Salvador, Central América

Mr. Delgado performed work on many projects for this company as a Senior Engineer/Project Manager in the construction department. His responsibilities included: the establishment and maintenance of a field office; interpretation of Contract Documents, Plans and Specifications; preparation and maintenance of schedule for the project; preparation of daily reports, accident reports and monitoring of extra work; preparation of CashFlow reports for the projects; draft backcharges using AutoCad System; dealing with inspectors, subcontractors and field labor; made budget and estimates for the projects; gained experience in site work, managing, estimating, scheduling and subcontractor coordination.

Mr. Delgado also performed the following tasks: development of cost estimates, attended client meeting-days or nights and control work progress meetings; preparation of reports, specs, plans and instructed drafters; preparation of budget and documentation for bidding; and preparation of financial statements.

CONOR RYAN

Electrical Inspector (Additional Resources)

Firm

T.Y. Lin International

Education

B.S., Industrial and Systems Engineering, Binghamton University, 2014

Training / Certifications

OSHA 30-Hour

NYCT Track Safety Training

NYCT PMG 123

MTA OIG Fraud Prevention Training

Mr. Ryan has over three years of experience providing engineering and inspection services. He has been an instrumental team member on multiple NYCT construction management projects. In his roles he has generated field reports, assured quality control, and produced, analyzed, and processed change orders requests. He has devised and implemented time saving processes and maintained excellent communication with clients.

NYCT, Consultant Construction Management for the Rehabilitation and Resiliency of 12 Circuit Breaker Houses
Manhattan and Brooklyn, NY

As construction inspector for this $5 million project, Mr. Ryan inspected wiring replacement efforts ensuring the contractor adhered to NYCT requirements. He also inspected the placement of a new standing seam roof at each Circuit Beaker House. TYLI served as Consultant Construction Managers and provided an inspection team for the rehabilitation and resiliency of 12 circuit breaker houses that were damaged during Superstorm Sandy. This project included many challenges including live electricity at the circuit breaker houses and the third rail. Inspectors needed to observe the contractors that did the rehabilitation of the facilities including roofs and replacement of electrical wiring to the circuit breakers.

NYCT, Consultant Construction Management for the Rehabilitation and Resiliency of Joralemon
Manhattan and Brooklyn, NY

As construction engineer, Mr. Ryan performed Structural inspections of both the Tunnel Liner and the Duct benches along both north and southbound directions of the tunnel. He coordinated repair work with team members, contractors, and NYCT personnel. TYLI served as Consultant Construction Manager for the Sandy Recovery Rehabilitation and Resiliency of Joralemon Tunnel. The scope of work included construction management and inspection of communications systems, duct banks, traction power, all associated cables, electrical components, tracks and structural liner. Inspections and contractor work was predominantly performed during General Orders because of the necessity to keep the subway system operational. During these General Orders, Mr. Ryan worked as the Engineer-In-Charge, coordinating the simultaneous efforts of upwards of 200 people to facilitate repair work.

Mr. Ryan was also responsible for producing weekly General Order summary, and NYCT flagging impact reports to record contractor progress, as well as any impact or delay to that work. He also created and maintained Work Train, Manpower, and NYCT Services tracking logs throughout the project in order to quantify expended resources, and project future needs.

NYCT, Consultant Construction Management for the Rehabilitation and Resiliency of Cranberry Tunnel
Manhattan and Brooklyn, NY

As construction inspector, Mr. Ryan performed Structural inspections of both the Tunnel Liner and the Duct benches along both north and southbound directions of the tunnel. He coordinated with team members and NYCT personnel. TYLI served as Consultant Construction Manager for the Sandy Recovery Rehabilitation

CONOR RYAN, CONT.

and Resiliency of the Cranberry Tunnel. The scope of work included construction management and inspection of communications systems, duct banks, traction power, all associated cables, electrical components, tracks and structural liner. Inspections and contractor work was predominantly performed during General Orders because of the necessity to keep the subway system operational.

New York City DEP, Various Projects
New York, NY

As a construction Project Management Intern, Mr. Ryan generated field reports to assess progress on various DEP projects, and to ensure that contractors were meeting previously agreed upon construction goals and milestones. Primarily focused on the Newtown Creek upgrade project, as well as the Manhattan Pump Station Emergency Generator project, he worked with senior project managers to produce, analyze and process change order requests set to remedy unexpected issues that occurred during construction and facility maintenance stages. In addition, he reviewed contractor invoices to verify information for accuracy and completion.

SAMUEL CHARLES

Civil/Structural Inspector (Additional Resources)

Firm

T.Y. Lin International

Education

BS, Civil Engineering, NJ Institute of Technology, 2008

AS, Engineering, Essex County College, 2005

Training / Certifications

Secure Access Worker Certification (SWAC)

ACI Concrete Field Testing Technician Grade

MTA LIRR Roadway Worker Protection Training

AMTRAK Contractor Orientation A-US-NJ-1115-00841

MTA NYC Transit Track Safety Certification

NYC 4-Hour Supported Scaffold User Certificate

OSHA 30-Hour Construction Safety and Health

OSHA 10-Hour OS&H Training Course in Construction Safety & Health

Mr. Charles has over 8 years of experience in structural Engineering and construction support services. His experience includes construction support and inspection on bridges, railways and projects such as roadway widening and drainage improvements. He is certified as an ACI Grade 1 Concrete Field Testing Technician and has solid training in concrete testing, steel inspection, monitor backfill and compaction, asphalt testing, retaining wall inspection, check liquid and plastic limits, organic and moisture content run perimeter tube test and run proctor.

NYCT, Cranberry & Rutgers Tunnel Rehabilitation

New York, NY

Mr. Charles was inspector for the constructability review and construction of the Rehabilitation and Resiliency of Cranberry/Rutgers Tunnels. This project was part of the federally funded NYCT Sandy recovery work and required extensive coordination and oversight of contractors and specialists necessary to rehabilitate the extensive damage to these tunnels. Mr. Charles oversaw the contractors and ensured all construction conformed to plans, specifications and engineering best practices. Work included replacement of damaged tracks, electrical components and structures in the tunnels including duct banks, fans, communication cables, and traction power.

NYCT Joralemon Tunnel Rehabilitation CCM

New York, NY

Mr. Charles was inspector for the Rehabilitation and Resiliency of Joralemon Tunnel. Mr. Charles oversaw the contractors and ensured all construction conformed to plans, specifications and engineering best practices. Work included replacement of damaged tracks, electrical components and structures in the tunnels including duct banks, communication cables, and traction power.

NYCT, Second Avenue Subway

Manhattan, NY

TYLI provided construction management services for Phase I of the Second Avenue Subway project in Manhattan, including verification survey services and utility inspection / management as part of ongoing construction / tunneling efforts. The area of concern is the Phase I limits. As an office engineer and assistant to the Resident Engineer, Mr. Charles was responsible to process all requests such as General Order, Request for Information, work train, flagging, piggyback and Access and Protection received from the contractor. He had to make sure that (CPM) Construction Project Management received those requests either by fax or email in a timely manner following by phone confirmation. Both hard copy and electronic are filed and forwarded to appropriate parties. Additionally, Mr. Charles reviewed all requested monthly payment from the contractor; make sure all forms are signed and contract number is mentioned in each subcontractor request (no rubber stamp), all DBE and WBE are listed and appropriate forms are provided. He also wrote scope of work for change order. Furthermore, as a field engineer, he oversaw the contractor's daily activities such as CMU wall construction, service carrier, duct, conduit, framing installation and also have to make sure that the contractor followed the specs and contract drawings while performing the work. Such job involved extensive reading knowledge of contract drawing.

SAMUEL CHARLES, CONT.

14th Street Viaduct Replacement
Hoboken, NY

Mr. Charles served as Field Inspector and Office Engineer for this $48 million Hudson County project that included the replacement of the existing 14th Street Viaduct, which was a 31 span structure 1,460 feet in length. The new bridge consists of an eight span, 1,177-foot long structure consisting of multi-steel girders. The lower portions of the existing viaduct were replaced with a retained earth section by eliminating first 8 spans of existing bridge towards the east side. As part of design team, TYLI provided structural engineering services and designed bridge abutments, retaining walls and a pedestrian underpass at Clinton Street. As an office engineer and field inspector, Mr. Charles was responsible for providing inspection services, observing the contractor's work closely and making sure they are in accordance with the plans and requirements. In addition, Mr. Charles was responsible for recording RFI's, submittals, shop drawings using Primavera, change orders, item summary sheets binder, file organization, wage rate forms, monthly summaries of contractor payroll.

NYCT, CCM for Subway Action Plan Drainage Clean-out
New York, NY

Mr. Charles has served as Construction Inspector for the ongoing fast-track system wide track drainage clean-up project that is part of an Executive Order from Governor Cuomo. TYLI is overseeing contractors and will be engaged during construction and close-out phases. The ongoing work includes scheduling service diversions and associated activities, and requires constant coordination with NYCT subway departments and the contractor. The team is also responsible for reporting and payment processing. The project and schedule is aggressive with 7 overnight shifts and 24/7 team availability.

NYCT, Enhanced Station Initiative Package 3
New York, NY

As part of a Construction Management team, TYLI is providing services for multiple subway stations in New York City Transit's (NYCT) Enhanced Station Initiative (ESI) Program. Mr. Charles is serving as Inspector for Package 3 that includes four stations in Manhattan's Upper West Side. Scope items architectural finishes (including painting and signage), structural repair and modifications, electrical (including lighting, communications and technology) and mechanical work, as well as architectural and engineering services and surveying.

MICHAEL FREEMAN

System Inspector (Additional Resources)

Firm
STV Incorporated

Education
Computer Science, Union College

Training / Certifications
Track Safety Training - NYC Transit, Long Island Rail Road, Metro-North Railroad, NJ TRANSIT

Mr. Freeman has more than 25 years of experience in the field of electronic systems including RF, digital, and analog communications, closed-circuit television (CCTV), access and control and target hardening, and fare collection. His expertise encompasses all facets of communications systems for the transportation industry including bus, subway, light rail, commuter rail, and facilities. Mr. Freeman is adept at the design, development, purchase, testing, and configuring of numerous technologies such as synchronous optical networking (SONET); asynchronous transfer mode (ATM); LENEL access control systems; variable message signs; and radio frequency identification (RFID) for use in transportation rolling stock, non-revenue vehicles, stations, field locations, right-of-way, control centers, back offices, and computer environments. He also has experience contracting and managing fiber optic contractor installations, maintenance, test activities and electrical distribution systems (AC and DC). In addition, Mr. Freeman is a skilled in providing contract negotiations that culminate in successful agreements.

Capital Construction/LIRR East Side Access Harold Interlocking, Metropolitan Transportation Authority
New York, NY

This project is a $295 million infrastructure improvements package to ease congestion at the Harold Interlocking in Queens, NY, a critical part of the $8 billion East Side Access project, by extending Long Island Rail Road (LIRR) service to historic Grand Central Terminal in Midtown Manhattan. This construction package includes bored tunnel approach structures, three bridges, cut-and-cover tunnels, extensive earthwork, retaining structures, and utility relocations under and through the LIRR main line in Queens. The structures have been designed to meet full E-80 design loadings. Assigned to the GEC as an Engineering Technician Mr. Freeman supported project activities for this $10 billion dollar MTA CC project designing low and medium voltage electrical and traction power substation distribution. Mr. Freeman was instrumental in the timely review of contractor submittals for equipment and material assuring compliance with associated specifications and design criteria. As a liaison with Con Edison representatives Mr. Freeman coordinated the utility's power from the service entry point to the powered devices complete. Mr. Freeman designed the ductbank systems for LIRR' s traction power substations "G02" and "C08" which are currently either under contract or being constructed.

Integrated Electronic Security System Deployment, New York City Transit
New York, NY

Designed the intrusion detection system and directed the installation of more than 1,200 CCTV cameras throughout New York City's 5. Locations included subway, bus, data centers, and office facilities. The system, based on a LENEL access and control system, uses the client's SONET, ATM, and dense wave division multiplexing network. Mr. Freeman also participated on the design-build team for a 3,000-sf NYCT security control center in Brooklyn, N.Y. He provided the NYCT Division of Security with a proof-of-concept radio solution that utilized EF Johnson radio equipment for their communication needs from the from the security control headquarters to security personnel in the field. Mr. Freeman also designed and managed the incorporation of NYCT's legacy Simplex Grinnell system into the LENEL system

MICHAEL FREEMAN, CONT.

Security Task Order Contract, Metropolitan Transportation Authority
New York, NY

Directed numerous site and security system assessments and directed upgrades and repairs throughout the five boroughs of New York City as part of a task order contract. Mr. Freeman supervised tasks including assessments, maintenance, and upgrades to the New York City Transit Authority's dense wave division multiplexing (DWDM) security network. He managed contractor budgeting, scheduling, and documentation, and coordinated activities between contractors and the client. Mr. Freeman was also responsible for procuring equipment necessary for the successful completion of tasks.

Harlem River Lift Bridge Hardening, Metro-North Railroad
New York, NY

Designed and supervised the installation and deployment of analytic cameras and LENEL regional access and control devices on the Harlem River Lift Bridge. The devices were required to protect the railroad right-of-way, all entrances and exits, and the electrical substations in use at the bridge. The design included eight high security roll-up doors at the substations that provided railroad traction power. Working on the bridge spanning the Harlem River during the winter, Mr. Freeman conducted testing to develop a baseline and re-commission a previously failed installation. He coordinated contractor and in-house testing and technical services.

Project Meadows Maintenance Complex Pilot Project, NJ TRANSIT
Kearny, NJ

Developed and implemented a pilot project to investigate the feasibility of location-based tracking. The proof-of-concept study included RFID tags, GPS, and real-time location system technologies for possible deployment on NJ TRANSIT's rail passenger cars and locomotives. The goal of the project was to recommend a technology that would provide the agency with the capability of locating their rail vehicles by "train consist" in the yard and mainline operation. Mr. Freeman deployed GPS- and RFID-based technology by overseeing the installation and configuring the devices using a mesh radio network and was successful in meeting the client's requirements for the pilot.

Newark City Subway Modernization, NJ TRANSIT
Newark, NJ

Designed, developed, and managed the implementation of numerous system improvements for the subway system, replacing the 1945-era system with state-of-the-art technology while maintaining system operations. Upgrades included new ticket vending machines, LCD variable message signs light railcar ORBITAL passenger counters with wireless fixed Intranet wide area networks, CCTV, remote elevator control, a fiber optic backbone, and synchronous optical networking SONET network, public address system, and human interface device (HID) access control systems. Mr. Freeman was responsible for system design and management of the installation of networking and security upgrades. He coordinated all project activities for transportations, operations, safety, and NJ TRANSIT's Light Rail Control Center. Mr. Freeman also participated in negotiating impacts to labor agreements for the system implementations.

Electric Systems and Statewide Fare Collection Project, NJ TRANSIT
Various Locations, NJ

Responsible for the design and implementation of numerous electronic system fair collection upgrades throughout New Jersey for NJ TRANSIT bus and rail systems. Mr. Freeman managed the $1.1 million design and testing of 2,500 bus LED spotter displays and the $21 million fare collection upgrades. He designed and managed the implementation of local and long haul fiber optic backbone network for the Newark City Subway CCTV system.

T·Y·LIN INTERNATIONAL

March 22, 2018

NJ TRANSIT
Procurement Department
One Penn Plaza East
Newark, NJ 07105

Re: Construction Management Services for Bay Head Substation – RFP No. 17-008

To Whom It May Concern:

T.Y. Lin International (prime) certifies that all key personnel listed in this proposal are currently employed by the firm, except for Nicholas Battista. Mr. Battista has committed to becoming an employee of TYLI if awarded this contract. All staff identified will be assigned to service the project in the manner prescribed.

Sincerely,

Chandu Bhoraniya, PE
T.Y. Lin International
Vice President

March 1 2018

NJ TRANSIT - Office of Procurement
One Penn Plaza East, 6th Floor
Newark, NJ 07105-2246

Reference: Key Personnel Certification for RFP No. 17-008

To Whom It May Concern:

STV Incorporated (STV) certifies that the key personnel proposed for the Construction Management Services for Bay Head Substation are presently employed by our firm and will be assigned to this contract in the manner prescribed within this proposal. We also understand that any key staff substitutions are subject to NJ TRANSIT's approval, and confirm that firm officers will be readily available to negotiate with NJ TRANSIT during the negotiation period.

If you have any questions, please contact me at [redacted]

Sincerely,

STV Incorporated

William C. Brooks, PE
Vice President

AN EMPLOYEE-OWNED COMPANY PROVIDING QUALITY SERVICE SINCE 1912 | 997 LENOX DRIVE, SUITE 102
LAWRENCEVILLE, NEW JERSEY 08648-2317
(609) 530-0300 FAX: [redacted]

ASHOKA CONSULTING LLC
402 MAIN STREET, # 317
METUCHEN, NEW JERSEY 08840
[redacted]

March 9, 2018

RE: Key Personnel Certification for NJ TRANSIT Request for Proposal No. 17-008, Construction Management Services for Bay Head Substation

Dear Ms. Jones,

Ashoka Consulting LLC (ACL) is pleased to submit the resume of Mr. Keyur Parikh as a Scheduler for the subject Request for Proposal. Mr. Parikh will be on board, and will be assigned to the project in the manner prescribed in the proposal upon contract award.

Should you have any questions or require additional information, please feel free to contact me. Thank you and I look forward to working with you and your team in the near future.

Sincerely,

//Indra Nayee//

Indra Nayee
President

DISTINCT ENGINEERING SOLUTIONS, INC.

425 Old Georges Road North Brunswick, NJ 08902
Ph. (732) 658-1052 [redacted] www.distinct-esi.com
Specializing in Civil, Geotechnical, Environmental Engineering and Construction Inspections

March 6, 2018
DESI Project #18052

RE: Key Personnel Certification for DESI Staff, NJ Transit RFP No. 17-008, Construction Management Services for Bay Head Substation

To Whom It May Concern:

Distinct Engineering Solutions, Inc. (DESI) (subcontractor) certifies that the key personnel listed in this proposal are currently employed by the firm and will be assigned to service the project in the manner described.

Yours truly
Distinct Engineering Solutions, Inc.

Ram Tirumala, P.E.
President

4. References

REFERENCES

T.Y. Lin International

NON-NJ TRANSIT

MTA NYCT
[redacted]
Program Manager
2 Broadway
New York, NY 10004
[redacted]
CCM for Cranberry and Rutgers Tubes Rehabilitation
2014-2017

NYCDOT
[redacted]
Project Manager
59 Maiden Lane, 36th Fl
New York, NY 10038
[redacted]
TD/CSS for FDR Drive NB Bridge E42nd St to E49th St
2016-2019

MTA NYCT
[redacted]
Associate Project Manager
2 Broadway
New York, NY 10004
[redacted]
CCM for Joraleman Tube Rehabilitation
2014-2017

NJ TRANSIT

NJ Transit Corp.
[redacted]
Program Manager
One Penn Plaza East
Newark, NJ 07105
[redacted]
New County Rd Grade Separation, Secaucus, NJ
2000-2004

NJ Transit Corp.
[redacted]
Senior Director
One Penn Plaza East
Newark, NJ 07105
[redacted]
Passaic-Bergen Passenger Restoration, Hawthorne to Hackensack, NJ
2005-2009

NJ Transit Corp.
[redacted]
Project Manager
One Penn Plaza East
Newark, NJ 07105
[redacted]
Gladstone Line Catenary Poles Replacement – Phase II
2013-2015

STV Incoporated

NON- NJ TRANSIT

SEPTA
[redacted]
Program Manager, Engineering, Maintenance and Construction Division, Rail Facilities
1234 Market Street
Philadelphia, PA 19107
[redacted]
SEPTA GEC Construction Management
2013-Ongoing

LiRo Engineers for MTA NYCT
[redacted]
Project Manager
111 Wall St., Rm. 501
New York, NY 10006
[redacted]
MTA NYCT, Clark Street Tube Rehabilitation
2016-Ongoing

Chicago Transportation Authority (CTA)
[redacted]
Project Manager
567 West Lake, Chicago, IL 60661
[redacted]
Chicago Transportation Authority (CTA) CM Services
2008 – 2016

NJ TRANSIT

NJ Transit Corp.
[redacted]
Project Manager
One Penn Plaza East
Newark, NJ 07105
[redacted]
Hoboken Terminal and Yard Hurricane Sandy Recovery Program
2013-Ongoing

NJ Transit Corp.
[redacted]
Project Manager
One Penn Plaza East
Newark, NJ 07105
[redacted]
Term Contract for A/E Services (Contract 09-086C)
2009-2012

NJ Transit Corp.
[redacted]
Senior Project Manager
One Penn Plaza East
Newark, NJ 07105
[redacted]
69th Street Grade Separation
2009-2018

Ashoka

NON-NJ TRANSIT

WSP PB/STV JV for MTA
[redacted]
Project Control Manager
77 Water Street, Suite 1601, New York, NY 10005
([redacted]
Consultant Design Services for Phase 2 of the Second Avenue Subway
2015-Ongoing

NJ TRANSIT

HNTB Corporation for NJ Transit
[redacted]
Program Director
2 Gateway Center, Ste. 1203, Newark, NJ 07102
[redacted]
NJ Transit's Superstorm Sandy Recovery Program Wayside Signals, Power & Communication Resiliency Project
2015-Ongoing

Distinct Engineering Solutions

NON- NJ TRANSIT

MTA Capital Construction
[redacted]
Vice President Quality
150 Meadowland Parkway, 3rd Fl
Secaucus, NJ 07094
[redacted]
MTA CC - 2nd Avenue 86th Street Station, New York, NY
2013-2017

MTA Capital Construction
[redacted]
Program Manager
360 West 31st Street, Suite 1510
New York, NY 10001
[redacted]
MTA CC – No. 7 Subway Extension Ventilation Building Site K and Site L , New York, NY
2010-2013

Kiewit
[redacted]
Project Engineer
150 Greenwich Street
New York, NY 10007
[redacted]
PANYNJ – Goethals Bridge Replacement, Elizabeth, NJ and Staten Island, NY
2012-2019

NJ TRANSIT

NJ Transit Corp.
[redacted]
One Penn Plaza East
Newark, NJ 07105
[redacted]
Palisades Tunnel Construction
2010-2011

5. Technical Section

PROJECT UNDERSTANDING

The T.Y. Lin International (TYLI) team **brings the following to NJ Transit:**

1. **A team with recent, relevant experience performing significant electrical upgrades to systems that were damaged by Superstorm Sandy. The team has successfully navigated FTA audits on all of our recent Superstorm Sandy projects with no significant findings, interruption of funding, or post-audit meetings needed.**
2. **A team with key members that have extensive experience with both NJ Transit and transit agencies across the region, that offers unique and focused knowledge.**
3. **A technically proficient strategy for construction management services, as presented in this proposal.**

We have the technical expertise, the construction management experience on similar projects, and have developed the approach necessary to deliver construction management services that NJ Transit can depend upon. We understand that successful construction management of the project will be founded on tailoring the needs of the project to a carefully developed project approach. This will involve working in partnership with NJ Transit's in-house staff, the contractor, the public, and the community, while enforcing the contract, following proper procedures, and looking out for the clients' interests every day. We are ready to take on this responsibility for New Jersey Transit's Bayhead Substation Project.

In this section of the proposal, we identify and discuss the unique aspects of this project and identify critical issues and solutions, such as:

- The Substation is located in an active rail yard and the proposed generator is adjacent to the tracks and safety must be the first priority. Avoidance of trains and in-service electrical power is paramount. We will focus considerable efforts to providing a safe, efficient work environment, with staff experienced in managing transit work.
- The rail yard is adjacent to environmentally sensitive areas, including Twilight Lake and 33 acres of wetlands enclosed within the track loop used to turn the trains around. NJDEP permits have been obtained for the project and wetland mitigation is required and has been designed. Led by our environmental specialist, we will ensure that the contractor adheres to all of the conditions of the permit and that wetland mitigation is constructed in accordance with the plans and specifications.
- The work is adjacent to a commuter corridor with commuters arriving and departing throughout the day. Keeping the riding public safe is a top priority. Our team will ensure there is a plan to keep commuters and construction separated.
- The project required construction of a new duct bank beneath the existing tracks. We understand the rail yard cannot be closed for the performance of this work. Hence, we will facilitate the necessary coordination with the yardmaster and the dispatcher at the Rail Operations Center in Kearny to stage the work while maintaining the functionality of the rail yard at all times. With Nick Battista, with over 30 years of experience in railroad operations and flagging on our team, we are well positioned to facilitate the needed coordination.
- The contractor's staging area will be on-site within NJ Transit right-of-way. We understand that space limitations will make this a challenging working arrangement requiring heavy coordination with rail yard personnel. Again, Nick Battista will lead the coordination effort for this work.
- We understand the construction will be carried out within and in close proximity to a residential neighborhood in Bay Head. We will be very sensitive to the needs of the community, especially by enforcing local noise time restrictions.
- Bay Head rail yard is a historic site. Context sensitive design elements have been incorporated into the design of the two new building structures based on input from the NJ Transit and the State Historic Preservation

Office (SHPO) demand. We will ensure the craftsmanship provided conforms to the requirements of the plans and specifications.

- Lastly, we will ensure the contractor makes a good faith effort to meet the DBE goal, and will closely monitor the billing to ensure compliance.

The Bay Head Substation Project includes many technical disciplines and requires an exceptionally experienced construction management team that understands the importance of delivering a safe project with quality at the forefront. That team must be thoroughly familiar with NJ Transit operations, and has the technical expertise required to provide leadership in all of the disparate aspects of the project. With that in mind, we have carefully assembled a team of highly qualified staff members who are available to start work immediately, and who will be dedicated to this project for the duration of the contract.

We understand a successful outcome will take responsive personnel that will deliver a high-quality product, on schedule, and within the project budget. Our proposed management team consists of **Project Manager, Chandu Bhoraniya, PE,** with over 27 years of leadership experience, the majority which has been spent managing projects with NJ Transit as an employee or as a consultant; **Construction Manager, Mahesh Shah, PE** with over 43 years of experience with all aspects of electrical projects, project management, construction management and planning for agencies and businesses. Our **Resident Engineer, Brian Salfelder, PE** has over 20 years of engineering design and construction management chiefly in the transportation and transit infrastructure market. Our **Rail Operations Coordinator, Nicholas Battista**, has 32 years of railroad electrical experience - 25 years with NJ Transit, 7 years with Amtrak and 4 years with Con Edison in the Substation Department. Our **QA/QC Manager will be Neil Porto, PE**, with over 30 years of progressive experience in transportation engineering, with a focus on project delivery, quality/assurance quality control, constructability review, project management, civil and structural engineering, and construction management.

WE UNDERSTAND THE PROJECT

This project, located at the Bay Head Train Yard, generally consists of the replacement of storm-damaged electrical equipment with new equipment constructed at a higher elevation to prevent damage from future flooding. Existing substations, medium voltage equipment, transformers, and low voltage switchgear were damaged from submergence in contaminated salt water due to Superstorm Sandy. The Bay Head Train Yard is at the southern terminus of the North Jersey Coast Line. The Bay Head Yard has two 34.5kV electrical substations, the General Service Substation, which has been decommissioned, and the Layover Power Substation, which is currently servicing the entire electrical distribution system at the Bay Head Train Yard. The Project will generally proceed as follows:

1. The existing General Service Substation will be demolished while the Layover Power Substation remains in service to maintain continuous operation of the Bay Head Yard.
2. A new building to house the new substation will be built where the General Service Substation was located. The new 5000 kVA substation will replace both existing substations, including transformers, switchgear and other electrical equipment.
3. When the new substation is fully operational, the electrical loads will be sequentially shifted from the Layover Power Substation to the new substation. Once all loads are successfully transferred over to the new substation, the Layover Power Substation will be decommissioned and demolished.
4. A new building to house a new standby generator will be built where the Layover Power Substation was located. Once the new standby generator system is fully operational, the existing generator in the compressor building will be removed from service.

The new substation will be supplied by either of two separate 34.5 kV feeds from JCP&L to provide redundancy. All new equipment will be constructed a minimum of 2.5 feet above the base flood elevation (BFE). A new duct bank will be constructed under the tracks to supply power to the wayside power systems at the layover area. The Project includes all

demolition, architectural, structural, geotechnical, electrical, HVAC, fire protection, and plumbing work specified on the contract drawings and specifications.

WE UNDERSTAND THE CM ROLE

We know that the CM team must become more than just a document manager in the Bay Head Substation project. We must lead the effort and work side-by-side with the NJ Transit Project Management, operations staff and consultant designer, to facilitate construction and help to avoid delays and change orders to save NJ Transit time and money. Services will cover the full range of pre-construction activities, from mobilization to submitting our CM methodologies, formalizing our procedures for document control and tracking project expenditures, to construction management, progress payments and closeout phase.

Safety briefing at Cliff Street Substation, NYCT Cranberry Tube Rehabilitation

During construction, we understand that the following tasks are our responsibility and we will administer them:

- Safety Monitoring - To assure the safety and health of personnel and the protection of property. Assure that the Contractors follow safe work practices in accordance with industry standards and abide by all Federal and State safety regulations.
- Monitor existing operations at the station and yard while work progresses. Ensure commuter access is not interrupted.
- Construction Supervision - Provide full-time continuous construction inspection services including monitoring the Contractor's work for strict conformance with the provisions of the contract documents and approved shop drawings. We will maintain daily job reports and include descriptions and measurements of work progress for each Item, work force present, specific problems encountered, corrective actions taken, construction equipment, material deliveries, weather conditions, material shortages, tests, labor disputes, general observations, and all other information pertinent to the execution of the Construction Contract.
- Claims Avoidance –Throughout the project we will proactively endeavor to minimize all claims for additional time and costs and other contractual liability issues. This effort will start in the preconstruction phase, when we will review the plans and specifications and identify inconsistencies in methods of payment and other potential conflicts, so that issues can be resolved before they become problems. In the event of Contractor claims, we will assist NJ Transit through the process and provide all relevant information making full use of our rigorous Document Control Process.
- Project Coordination - Continuous communication and coordination with all project participants and the contractors to ensure that everybody knows the current status of ongoing work. Utilization of web based construction management software (ECMS) to organize project documentation and communicate with the project team.
- Maintaining Project Schedule - Assure all the prerequisites are in place so that work proceeds in an efficient manner and sequenced to complete work activities as defined in the construction documents. Assure that feasible baseline construction schedules are developed and that accurate updates are prepared on a monthly basis.
- Quality Assurance - Verify that all work is completed as required by the contract documents. Develop the Project Specific Quality Management Plan (PSQMP) and ensure that it is adhered to.
- Strict Compliance of Established Codes and Industry Standards – Ensure that the work is being performed in accordance with the latest versions of codes and industry standards cited in the Contract Documents.
- Systems Integration and Interface Coordination - Ensure that the switch over gets adequately coordinated with the operations control center to perform work in an orderly manner. All temporary work, staging and cutovers shall be

planned such that there is no impact to operations.

- Issue Resolution – Anticipate, identify and resolve field issues in an expeditious manner.
- Community Relations – Minimize or eliminate any possible disruptions to the surrounding community.
- Flagging Coordination

IN SUMMARY

The TYLI Team has assembled a currently available, fully qualified team with a deep understanding, extensive knowledge, hands-on experience and proven track record, to address both the technical aspects of the constructability review, along with the logistical and planning issues inherent in a multidisciplinary construction project such as this. We are ready to mobilize the necessary expertise to focus on the unique aspects of the Bay Head substation, the rail yard, train station and the operational and stakeholder constraints inherent in rehabilitation of active rail facilities in a residential neighborhood within a beachfront tourist destination. As outlined in Sections 2 and 3 of this proposal, T.Y. Lin International possesses an unsurpassed, comprehensive understanding of the work involved through experience gained from decades of transit work and a successful record of completing relevant projects, most recently the Cranberry Tunnel, the 12 Circuit Breaker Houses, Joralemon Tube, and the Greenpoint Tunnel inspections.

TECHNICAL APPROACH

We are fully aware of the requirements of this project and have successfully executed these tasks in the past. What follows is our understanding of the tasks that will comprise the scope of our Construction Management services.

CONSTRUCTION PHASE

TASK C1 - CONSTRUCTION MANAGEMENT ADMINISTRATION

The TYLI Team has been assembled specifically for this this project and most team members are coming off recent and relevant projects. As evidenced by our organizational chart, our Team consists of an experienced management team that is thoroughly familiar with construction projects of this type, with NJ Transit operations and contains the technical experts required to lead the various disparate disciplines to successful completion.

Mobilization

The TYLI Team will mobilize THE NEXT DAY following notice-to-proceed and will involve the following initial activities:

- Familiarization with Project Requirements, staff and work site
- Review of plans and specifications. Identify inconsistencies in methods of payment and other potential conflicts, so that issues can be resolved before they become problems.
- Coordination with NJ Transit's Operations Groups
- Interdisciplinary coordination
- Prepare and submit to NJ Transit our methodologies for CM procedures
- Formalize our project specific document control procedures
- Formalize project specific system for monitoring project expenditures

The field staff will be located at an on-site office facility provided by the Contractor as part of the construction contract. We will ensure the facility can accommodate all of our field staff plus two NJ Transit personnel assigned to the project as well as being fully equipped with the specified/appropriate office equipment (telephone, fax, computers, copier/printer, etc.). All of our field staff will be supplied with mobile phones to facilitate communications as well as for safety purposes.

Management Procedures

It is critical to the success of the project to establish, implement and maintain a Construction Management Work Plan throughout the duration of the Project. The Construction Management Work Plan (CMWP) will establish protocols for

successfully managing the project, how the team will operate, communication among the parties, quality control, safety, inspection procedures and document control.

The CMWP is used corporate-wide, but will begin to get tailored to the project at notice-to-proceed with input and concurrence from NJ Transit. It will be a 'living' document such that it will retain the flexibility to grow and evolve to suit the needs of the project as it progresses, while incorporating any lessons learned. Specifically the Construction Management Program will include the following:

- **Staffing Plan**: The staffing plan will include the organizational chart for each substation, which defines the roles of the project team members and management structure. In additional it will include the responsibilities for each of the staff roles and the timeline for their involvement.
- **Communication Plan:** The communication plan will provide the contact information for every project staff member. It will identify the key points of contact for the management team, for the various discipline leaders, stakeholders and NJ Transit project leadership.
- **Project Specific Quality Management Plan:** All tasks under this contract will be subject to our rigorous quality control. For this contract involving construction of substations on NJ Transit properties, a project specific quality management plan (PSQMP) will be developed based on a combination of TYLI's Rail Line of Business Quality Assurance Plan framework and TYLI's Facility Line of Business Quality Assurance Plan framework. The PSQMP will define the controls and processes necessary to maintain quality in all Construction Management activities throughout the duration of the project.
- **Safety Plan:** The Project Specific Safety Plan will endeavor to maintain a safe and injury/illness free workplace. The safety plan will be available in the field office at all times. Compliance with the Safety Plan and all items contained therein is mandatory for all TYLI Team staff working on the project. The authorization and responsibility for enforcement has been given primarily to Safety Officer/Inspector. It is TYLI policy that accident prevention be a prime concern of all employees, including the safety and well-being of TYLI Team staff, owner, stakeholders and contractor, as well as the prevention of damage to property and equipment.
- **Cost Control Plan:** This plan will address the method for tracking and forecasting of expenditures, the value of work completed to date, and the value of work still be performed. The Cost Control Plan will address the process for developing and issuing monthly cost control reports. The Cost Control Plan will also include the procedure for reviewing and approving Contractor's invoices and partial payments, liquidated damages, etc.
- **Document Control Plan:** The Document Control Plan will address formalized procedures for receiving, logging and tracking all project correspondence and submittals. Anticipated submittals include shop drawings, working drawings, catalogue cuts, material certifications, RFI's, value engineering proposals, non-conformance reports, regular CPM schedule updates, subcontractor approvals, as-built information, etc.
- **Testing Control Plan:** The Testing Control Plan will identify all testing required for the project, including testing of materials fabricated in the plant or constructed at the site, and testing for all installed equipment. The testing control plan will also identify the procedure for the various testing required and the threshold for acceptable results. The Plan will also incorporate

Work Coordination

The TYLI Team understands the importance of coordinated work activities for meeting the schedule and staying within budget. This means that proper planning and sequencing of activities is critical, as is monitoring of the progress of these activities to ensure that the schedule is adhered to in order to avoid delays.

Planning includes ensuring that timely material deliveries are made, that staging areas are equipped to receive deliveries in advance of the delivery, long lead items are identified and ordered with sufficient advance notification, and shop drawings

are prepared, reviewed and approved in proper order to allow sufficient time for fabrication. We will communicate regularly with the contractor to identify and monitor adherence to milestone dates for material deliveries to ensure they are achieved.

In addition, we will monitor the progress of the Contractor's work, and if and where acceleration is needed to stay on schedule we will recommend the appropriate additional man-power be assigned. Based on our experience, timely fabrication and delivery of materials by vendors is also critical to meeting the schedule. We will stay abreast of vendor progress for deliveries to help ensure delivery milestones are achieved.

When Contractor's activities require track occupancy or fouling, the TYLI Team will arrange weekly meetings (2 weeks in advance of the work) with the Contractor and the appropriate NJ Transit personnel to review the Contractor's work plan, so that all parties have a clear understanding of their the responsibilities, the work that will be done, the timeframe for the work, and the track usage required. Approval of the Contractor's work plan, with all agreed to modifications incorporated, must be obtained by NJ Transit prior to track usage. During construction of the work, the TYLI Team will ensure that the Contractor performs all work in strict accordance with the approved construction work plans.

Finally, the construction of a 2nd 34.5 kV JCP&L service to the facility will be essential to the energizing of the completed substation. We will carefully monitor the progress of this outside work as our project progresses and provide any necessary coordination.

Force Account Assistance

We will meet with the appropriate NJ Transit personnel (i.e. – Project Manager and Force Account managers) to discuss and identify work items which may be performed as Force Account work to best suit the needs of the project in terms of schedule and cost, which will not conflict with work performed by the Contractor. We will coordinate with the Contractor to incorporate the Force Account work items in the construction schedule and work plans.

New Jersey Transit Electricians will be involved with protecting contractors while working, and will also be involved when we are transferring the load centers from the old Layover Substation to the new substation. Flagging will be required to protect personnel and equipment when building the new generation building, proposed duct bank, conduit track crossings, wayside power platforms, etc. due to the close proximity of the tracks as well as any activities requiring movement of persons, equipment of materials near or across tracks.

Document Control

The Document Control process lies at the heart of our quality management system. We understand that Document Control in a construction site is a very critical process and not setting it up properly before the start of the project could have significant implications throughout the course of the project. It is a quality management procedure that is given the utmost attention in our organization. Our document control process will be submitted to NJ Transit for approval prior to the start of construction and implementation.

Every construction project is a big pile of information and data; the purpose of the document control is to organize, store and distribute the information and data correctly and on time to the people who need them on or off site. For this project we will assign a highly experienced Document Control Specialist (DCS) to take charge of this effort. Our DCS will be granted access to the NJ Transit Document Control System (NJTDCS) (i.e. - eCMS Construction Management Software) for archiving all project documents, including all correspondence, construction submittals, and contract documents, including all addenda, in accordance with NJ Transit CP&P document control procedures. Also included will be all change orders, operation and maintenance manuals, training, records, inspection & test reports, contractor payments, schedules, purchase orders and agreements, equipment testing and acceptance records, samples and other construction related documents. Our DCS will upload documents to NJTDCS on a daily basis to ensure it remains current (but in no case greater than one week). If requested by NJ Transit, our DCS will visit the NJ Transit office to assist with processing of uploaded documents.

Documents that will be tracked, at a minimum, include the following:

- All project correspondence (including conversation memos and emails)
- Construction drawings, marked up on a daily basis to reflect as-built conditions
- Shop drawings (including all submittals up to and including approved versions)
- Catalogue cuts
- Requests for Information (RFI's)
- Test results
- Inspectors daily job reports
- Monthly progress reports
- All other reports
- Photos and photo logs
- Baseline schedule and updates
- Permits
- Project Specific Quality Management Plan
- Safety plans
- Contract drawings and specifications
- Changes of plans
- Addenda
- Meeting minutes
- Quantity calculations for payment
- Contractor's invoices
- Financial data
- Shop drawing log
- RFI log
- Meeting log

Cliff Street Substation meeting with end user.

At project completion we will compile and finalize all project documents, hard copy and electronic, stored on electronic media approved by NJ Transit, for reconciliation with NJTDCS.

The specific goals of our Document Control process are the following:

1. All project documents must be readily available at a moment's notice to the management team and NJ Transit.
2. Every document will have a unique code number for easy identification and traceability.
3. All site personnel should have easy access to every single document relevant to their job, such as approved shop drawings associated with the work the contractor will be performing, at any given time. If people on site do not have access to the document that they need in order to proceed, they cannot work or they will work without any controlled documentation.
4. People on site should always be informed immediately if there are changes to any document (and especially on drawings). There has to be a system/way of informing the relevant persons when there is a new revision of a drawing, when there has been a Field Change on a design or when the method or materials are changed.
5. A system must be established for marking up the changes between the current and the previous revision of drawings and documents (clouds, bubbles, different colors etc). Staff should be able to identify what has been changed immediately.

6. Once approved, the new revision of any document should immediately supersede the previous revision.
7. There must be only one source – for the TYLI Team it will be the Office Engineer who will serve as the Document Control Specialist – for document distribution for the project. It will be made clear to all personnel that any document that comes from any other source (circulated through emails, given by hand in meetings or elsewhere) is simply not valid and shouldn't be used on site.

Project Meetings

Regular meetings are an important aspect of the project as they allow face-to-face discussion and coordination regarding the various work activities to be performed. They also bring the different kinds of expertise the project requires into the same room, allowing for productive interaction.

The TYLI Team will conduct bi-weekly (or more frequent) progress meetings and special meetings as required. These meetings will focus on key issues and discuss progress, problems and resolutions, and the contract progress schedule. The purpose of these meetings is to ensure the proper coordination of upcoming work, monitoring scheduled progress, updating the CPM network diagrams, monitoring equipment and material deliveries, and most importantly, detecting schedule slippage at an early stage and developing recommended corrective action to be taken in support of project milestones.

Other meetings of involved participants will be scheduled on a case-by-case basis when necessary to address specific issues including:

- Difficult installations/works
- Safety
- Schedule
- Utility coordination
- Ensuring that requisite work quality is achieved
- Minimizing the impact of construction on the project environment and community
- Addressing any other issues or problems affecting the success of project

Accurate minutes will be recorded for each meeting to report the date, time, location, purpose, participants, discussions, and conclusions/agreements. When appropriate, the minutes will also include action items specifying the recommended courses of action and time frames agreed to by the meeting participants. The participants will review the minutes, and copies will be distributed to the Attendees and responsible parties for follow-up as appropriate. Meeting notes to be issued within the required time frame and clearly identify action required and the party responsible to complete the action.

Open items will be tracked to assure timely completion and if resolution is not achieved the issue will be elevated in accordance with the project partnering agreement.

Specific project meetings to be held include the following:

1. **Preconstruction Meeting:** The initial focus will be at the Preconstruction Meeting to ensure that NJ Transit, the Contractor, Utility companies and Design Engineer are all on board as to the estimated contract duration, environmental concerns, key contact personnel, historical concerns, staging and general approach to the project. At or prior to this meeting the Contractor should submit all his proposed sources of materials, Health and Safety Plan and a Construction Schedule for review and approval. At this meeting it is important to discuss the submission and review protocols for shop drawings and procurement of long lead items to ensure milestones are met and completion before or at the scheduled completion date and that any other potential causes of delay are identified and addressed. Utility schedules along with coordination with the Contractor will be established so that delays are not incurred.

2. **Bi-weekly Progress Meetings:** Progress meetings will be held every 2 weeks or more frequently if required. The purpose of the progress meetings will be to discuss status of construction progress, technical issues, Contractor's two-week look ahead and schedule updates, and upcoming milestones, etc. We will take a proactive approach to discussing any potential construction or schedule issues with the Contractor at these meetings before they develop, which can prevent delays and head off claims before they have a chance to occur.
3. **Project Schedule Meetings:** Schedule meetings will be held monthly and scheduled to occur on or about the 25th day of the month. This meeting will include review of the Detailed Project Schedule in relation to progress of partially completed work activities and completed work, and Project percent complete shall be established. In addition, upcoming milestones and any need to accelerate progress and devote additional resources toward any of the activities will also be discussed. Subsequent to the meeting, the contractor shall update the Project Schedule based on established progress and, along with the monthly Narrative Report, submit to the CM Team as part of its payment application. Schedule meetings may be added to the agenda of (every 2nd) Bi-weekly Progress Meeting to save time.
4. **Pre-Track Outage Meetings:** When Contractor's activities require track occupancy or fouling, the TYLI Team will arrange weekly meetings with the Contractor and the appropriate NJ Transit personnel to review the Contractor's work plan, so that all parties have a clear understanding of their the responsibilities, the work that will be done, the timeframe for the work, and the track usage required. Approval of the Contractor's work plan, with all agreed to modifications incorporated, must be obtained by NJ Transit prior to track usage.
5. **If no outages are imminent, we will hold monthly meetings** with the Yard Master and Maintenance to keep them appraised of the work; their cooperation is one of the keys to the success of the project.
6. **Safety Briefings:** The Safety Officer/Inspector or his designee will hold regular safety briefing to review the planned work for the day and any special safety precautions that should be observed, or to reinforce routine safety practices. Safety Briefings will be especially important prior to electrical work taking place.
7. **Other Meetings:** Other meetings to be held include: utility coordination meetings to ensure the utility companies install/move their facilities in a timely fashion in accordance with the needs of the contract; safety kickoff meeting to be held prior to the start of construction to reinforce safety protocols; pre-installation meetings in advance of complex or difficult installations; and other special meetings as issues dictate.

Project Controls

Cost Control

The TYLI Team Cost Control measures will begin before construction even starts, during the Preconstruction Phase as part of our constructability review. Our constructability review will seek identify any inconsistencies in methods of payment and other potential conflicts, so that they can be addressed with the Designer, NJ Transit and the Contractor at the start of the project. The intended result of addressing potential issues up front is fewer RFI's, fewer field orders, a smaller number of change orders and, hopefully, no disputes, claims or legal action.

During the construction the TYLI Team will measure all Contract pay items of work, review Contractor invoices and recommend payment for the same within five (5) calendar days. We will also maintain cost records for work performed under Change Orders either by unit cost or time and materials basis.

Throughout the project we proactively endeavor to minimize all claims for additional time and costs and other contractual liability issues. In the event of Contractor claims, we will assist NJ Transit through the process and provide all relevant information making full use of our rigorous Document Control Process to identify relevant project decisions made and positions held by the parties involved, in relation to the time history of the project and the dispute. Finally, we will provide our recommendation for the resolution of all contractual liability claims.

Change Order Control

We Understand the Change Order Process – and, more importantly, how to minimize it. Change Orders can have serious impacts on project budget and schedule. Moreover, the process of identifying Change Orders and negotiating the costs

to address them can put stress on the relationships between the NJ Transit/CM Team and the contractor and lead to loss of productivity. Thus reducing Change Orders is a critical aspect in maximizing the efficiency of the Project Team and maintain project schedule and budget. The Constructability Review phase is the ideal time for a thorough examination of the contract documents to greatly reduce the risks of Change Orders arising during construction.

A timely response to contractor requests for information, as well as answering general correspondence, are important Construction Management functions that are particularly effective for maintaining the schedule and minimizing claims. To assure that this is accomplished, all incoming correspondence from the contractor is tracked on a database to record the date of receipt, the subject, the person for action, and the date of response. Using this system, we can assure that all contractors' letters are responded to as expeditiously as possible.

On major construction projects involving significant interface with existing conditions such as this one there is the possibility for a number of claims to be asserted by the contractor. Recognizing the contractor's contractual and legal right to pursue the recovery of costs attributable to valid change orders and claims, the TYLI Team will apply methods and procedures to minimize the impact of claims through prompt and equitable resolution. In cases where claims have no apparent merit, the TYLI Team will provide the means to defend NJ Transit's position with facts supported by pertinent documentation and technical analysis. Our team will provide complete documentation and tracking of all disputes from identification through resolution. The records will include descriptive details of the dispute, actions initiated for resolution, determination of resolution and supporting information such as time sheets, meeting minutes, photographs, etc. We utilize a system called the "Problem File" (P-File) to record and document all problems, evaluations and resolutions.

For additional discussion on Change Orders please refer to Construction Phase Task C8 – Change Orders further along in this section of the proposal.

Schedule Control

A critical aspect of the management of a contract is monitoring and controlling the contractor and the associated subcontractors. The baseline schedule for the contract will be reviewed for compliance with contract terms and sufficient level of detail to allow proper monitoring of work completion. Activity logic and duration will be reviewed to assure that it meets the project requirements and that sequencing and resource loading is practical and achievable.

Schedule updates will be monitored on a monthly basis and appropriate steps will be taken to ensure timely completion of the project. We will review the monthly schedule updates for accuracy and schedule logic. Activity durations, percent complete, start dates and completion dates will be verified. The following reports will be prepared and distributed by the TYLI Team on a monthly basis:

- Monthly critical path analysis and progress on critical path activities
- Updated project schedule with progress
- Record and reporting of monthly cost information
- Evaluate schedule changes and impacts
- Monthly written narrative report

Issues will be identified and work around or alternate plans developed for review by the contractor and NJ Transit. The TYLI Team will initiate implementation of corrective actions required to maintain the overall construction completion deadline.

Record Keeping

In accordance with our Document Control Plan, the TYLI Team will maintain a copy of all project documents at the site, including contract drawings and constructions specifications, project correspondence, shop drawings and material submittals, safety plans, photos and inspectors' daily job diaries. Please refer to the Document Control write-up above for a discussion of our document control process and a listing of the documents, at a minimum, that will be included in our record keeping.

Among the many benefits of diligent record keeping is the memorializing of the decisions made throughout the life of the project by the various parties involved, as well as the positions the various parties may have taken. These decision documents may be in the form of emails, conversation memos, meeting minutes, letters, approved shop drawings or responses to RFI's, among others. Understanding the history of the decisions made, and the reasons for them, throughout the course of the project can bring clarity in the event of disputes and help to avoid claims.

Progress Reports

The TYLI Construction Manager submit five (5) copies of Monthly Progress Reports, or more frequently if required, to NJ Transit. Each Progress Report will identify the percent complete in terms of actual construction progress, in terms of money, and in terms planned progress. The Report will also include the planned work for the next period.

The monthly report will include an executive summary of the project status with regard to budget and schedule, the status of all change orders and potential change orders, work done on a time and material basis, an analysis of the critical path on the construction schedule and its relationship to upcoming milestone dates, amount paid to Contractor date and amount paid to the CM Team to date, and finally, an update of community concerns.

The Progress Report will also include photographic records of progress from the past month, as well as any issues or unusual circumstances that may have been encountered in the field. All photos will be imprinted with the date of the photo.

Outreach

Community Relations: As directed by NJ Transit, we will respond to questions and complaints regarding the construction received from the community, including property owners, NJ Transit users, residents and officials. We will keep a log of all inquiries and responses, including dates for each event.

Labor Relations Assistance: The TYLI Team will set up a procedure for the Contractor to submit certified payrolls for our review. The vehicle will likely be through the Contractor's monthly invoices. We will review the payrolls to ensure that prevailing wages are being paid. We will also ensure that all work being performed is in accordance with State and Federal Labor Laws.

Task C2 - Inspection

Site Staffing and Roles

Coordination of the day-to-day activities will be executed by our Resident Engineer (RE) who will lead the Construction Inspection Teams and provide the one-to-one link with the prime contractors performing the work. Recognizing the specialized nature of the electrical inspections, we are assigning an Electrical Engineer Inspector to specifically monitor the electrical work.

The inspection staff will provide the RE with specific information regarding the detailed performance of the work of the contractor and subcontractors. The inspection staff will ensure that all work conforms to the applicable codes, specifications, and drawings. The Office staff will support each Construction Inspection Team and will track contractor submittals and direct them through the proper channels, and document meeting minutes and other essential correspondence.

Other Teams will provide specialized inspections and administrative assistance for such issues as construction logistics, quality control, overall safety, environmental civil engineering, cost control and analysis, scheduling, systems engineering/ inspection and system integration.

We will approach this Task C2 as oversight and support of the work, serving as support to, as opposed to "doing" the work. We realize that for this project to be successful the contractor must be viewed and treated as a partner, not an adversary. We clearly appreciate the benefits of utilizing and relying upon an experienced contractor to actually perform the work. Our selection of field-proven construction personnel to oversee the coordination of the work of the contractor is based on

our extensive experience with large complex construction projects.

Inspection Services

A most important aspect of inspection services is to provide highly detailed inspection of the contractor's work necessary to assure to NJ Transit that the work conforms to all of the requirements of the construction contract documents and permits, including applicable referenced codes and standards.

The TYLI Team will schedule inspection activities to support the project schedule. The inspectors assigned to the work will monitor the labor, materials, equipment and techniques (means and methods) used during construction. The inspector will advise the contractor of any materials or equipment which has not been approved before it's installed, ideally before it is even shipped or off-loaded. The inspector will notify the Contractor immediately of any construction/installation that does not meet the requirements of the contract; followed by formal notification to the Contractor from the Resident Engineer within 24 hours. If corrective action is not taken by the contractor, our on-site Project Manager will advise NJ Transit's Project Manager of the non-conforming condition and obtain NJ Transit's concurrence on the recommended course of action. If a Stop Work notice is issued we will enforce it by not allowing any further work associated with the non-compliant work to proceed, until such time as the Contractor has corrected the work or defended his position to the satisfaction of NJ Transit. Work will be allowed to proceed when NJ Transit issues a directive lifting the Stop Work order.

Any and all non-conforming or unacceptable work will be reported on the Daily Inspector Record of Work and a log will be maintained to document completed corrective actions, in accordance with the contract requirements.

Job Site Reports

The Inspector Daily Record of Work will document work performed and inspected. Any deviations from the contract documents will be noted on a non-conformance report and on the non-compliant work log in accordance with the Quality Assurance Plan. These items will be tracked to assure correction/resolution. In addition, items of incomplete work will be noted in a punch list which will be maintained through the duration of the contracts. Items will be added and deleted from the running punch list as work progresses. As the contract nears completion, this punch list will be used as the basis of the substantial completion punch list for the contract. In addition, the Project Manager will prepare a daily summary progress report for accurate tracking of work progress.

The project files will include all correspondence, shop drawings, catalogues cuts, design drawings, contract and specification, including all addenda. Also included will be all change orders, operation and maintenance manuals, training, records, inspection & test reports, contractor payments, schedules, purchase orders and agreements, equipment testing and acceptance records, samples and other construction related documents. All documents will be filed in accordance with our approved Document Control Process.

Job Photographs

The Resident Engineer (RE) will supervise the taking of progress photos by the construction contractor in addition to taking photos as needed for Construction Management documentation. The TYLI Team site staff will take photographs during the course of construction to document general activities as well as unusual events. Our field inspection staff will document conditions on daily inspection reports and with complete photographs. Other important activities will be documented through site photographs including existing field conditions, demolition, site housekeeping conditions, disputed work items, etc. All photos will be digitally stamped with the time and date of the photo. Documentation of such activities through photographs will be beneficial in any actions, questions, complaints or disputes, which may arise later. The cataloging of photos will be performed in accordance with our Document Control Process and maintained at the field office.

CM Daily/Routine Activities

- Report to and be directly responsible to the NJ Transit PM and serve as an extension of NJ Transit's CM division.
- Conduct biweekly progress meetings with NJ Transit, Contractor, Design Engineer, utility companies, and

other stake holders. Detailed minutes will be prepared and copies distributed, as required.

- Act as liaison between representatives of the utility companies and the Contractor and coordinate utility progress meetings, if necessary.
- Review and recommend for approval the Progress Schedule Updates. Monitor the adequacy of the Contractor's progress as compared to his schedule, use of his personnel and equipment, and the availability of necessary materials and supplies. If we determine that the Contractor's operations or procedures may lead to a delay, we will notify the Contractor and the NJ Transit PM in writing immediately of that determination and provide recommendations for remediation of such a delay. Solutions may include modification to means and methods or increasing manpower or equipment utilization, such that progress can be accelerated and milestone dates and targets can be achieved.
- Provide to the satisfaction of NJ Transit, full-time continuous construction engineering and inspection services until the completion and acceptance of the construction contract by NJ Transit. These services will involve monitoring work for strict conformance between each item of the Contractor's work and the provisions of the contract documents.
- Check construction for compliance with shop drawings. We will take the necessary actions to prevent incorporation of materials and equipment that have not been properly approved and certified.
- Maintain daily job reports and include descriptions and measurements of work progress for each Item, work force present, specific problems encountered, corrective actions taken, construction equipment, material deliveries, weather conditions, material shortages, tests, labor disputes, general observations, and all other information pertinent to the execution of the Construction Contract.
- Take daily photographs depicting progress. Additional photographs will be taken of unusual or critical items and/or to document claims, accidents, or other unusual occurrences. Photos will be logged, catalogued and transmitted to NJ Transit upon project completion.
- We will verify location of all structural support members, including pile layout, foundation corners, column grid lines, building corners, shear walls and load bearing walls. We will also verify floor elevations.
- Confirm that all manufacturers' tests required under the Construction Contract specifications have been performed before any material or equipment is incorporated in the work.
- Notify the Contractor in writing of any and all unacceptable work or material and report promptly to the NJ Transit PM any items of work or material that fails to conform to the construction contract plans and specifications.
- Utilize all resources at our command to affect completion of the Construction Contract by the date set by those documents. We will proactively act to the degree possible to prevent delays resulting from the Contractor's operations. We will monitor that all of the forms, provisions and requirements from the Contract Documents are completely satisfied by the Contractor.
- Review and recommend for payment the Contractor's monthly invoices. Verify Contractor's estimate of work completed for each Pay Item in accordance with the method of payment specified in the Contract Documents and against the Resident Engineer's own measurements and calculations of work completed.
- In concert with the invoices, prepare monthly cost control reports indicating the value of work constructed and the value of work remaining, project cost-to-date and forecasted project cost-to-complete, and comparison of project cost-to-date against original estimated cost. Back-up data will be provided with each report.
- Compile and maintain all pertinent project data including monthly and final estimates, daily reports, as-built calculations and plans, photographs of various phases of the construction, correspondence files, reports of job conferences, test reports, shop drawings, purchase orders, materials deliveries and other submissions, addenda, change orders, supplemental drawings, and other project related documents. We will submit these documents

and files, clearly labeled after completion of the project, to NJ Transit at a time and location to be determined by NJ Transit.

- Prepare and recommend for approval all Construction Contract Change Orders and supplementary agreements. Maintain cost accounting records with respect to portions of the work to be performed by change orders on a time and materials basis and/or unit cost basis. Prepare time and material cost estimates for any changes resulting from Construction Contract revisions. Negotiate prices with the Contractor for changes resulting from design or Contract revisions and recommend negotiated prices for approval.
- Monitor the Contractor for compliance with local, state, and federal laws, ordinances, regulations, requirements, precautions, orders and decrees.
- In the event that interpretation of the meaning and intent of the plans and specifications becomes necessary during construction, consult with the NJ Transit PM and Design Engineer and arrange a meeting if necessary. We will transmit the final interpretation to the Contractor.
- Monitor the Contractor's attainment of the Project Disadvantaged Business Enterprise (DBE) Goal.
- Report immediately to NJ Transit any labor disputes or other issues which may threaten to cause a work stoppage. Provide consultation to NJ Transit on ways to prevent or resolve such issues.
- Record in a log, investigate and answer all complaints and inquiries from property owners, citizens and officials. Refer unresolved complaints, with recommendations, to NJ Transit.
- Enforce Stop Work notice promptly, until directed otherwise by NJ Transit.

Task C3 - Testing

Testing Program

The TYLI Team will be on-site to oversee all field tests to ensure all materials conform to the specifications, that all equipment is in compliance with the project requirements, and to verify and approve the quality and workmanship of the installations. In addition, we will review lab test results carried out by appropriately certified laboratories. We will also verify that proper testing of equipment has been performed, with satisfactory results achieved, in accordance with the specifications prior to equipment delivery to the site and/or installation.

For the following Items, equipment will be tested prior to delivery to the site:

- Unit Sub-station (at the manufacturing site as Approved by the NJ Transit PM), It will be tested prior to delivery of the Unit Sub-station at the site.

For the following equipment and Items Certified Test Reports will be required:

- Fiber Optic / SCADA System after installation is complete
- Certified Test reports for Cables

For the following equipment and Items Certified Test Reports will be required:

- Fiber Optic / SCADA System after installation is complete
- Certified Test reports for Cables

For the Following equipment, Testing will be performed during or after installation is complete:

- Control equipment functional test at the site for HVAC
- Lighting System – Illumination Levels
- Pumping System & Controls
- Concrete Samples – Samples will be taken During Construction and tested for required Strength, air content and unit density.

Coordination for Testing

All testing will be performed by approved independent testing labs, certified for the respective area being tested. The tests will be coordinated with Contractor & Subcontractors and JCP&L, if required. Where NJ Transit personnel need to be present for any off site testing at least 60 days' advance notice will be provided. The TYLI Team will witness all field tests to ensure the equipment and materials comply with the specifications, and time, location and acceptance reports of the test will be recorded.

Commissioning

The commissioning begins early and should include Warranty Oversight. The commissioning of equipment is an important link to "State of Good Repair". The TYLI Team places great importance in working with NJ Transit on finalizing the contractor's testing plan, procedures and NJ Transit acceptance criteria.

Start Up Testing

The final objective of NJ Transit will be to operate and maintain the newly constructed equipment and systems after the project is completed. Accordingly, proper attention must be devoted to testing and start-up activities early in the project planning and throughout the construction phase. A complete family of test procedures, warranties, operating manuals, as-built drawings, and performance accounts must be available prior to final testing and acceptance. The TYLI Team will maintain an accurate record of testing and documentation status of each system and/or equipment.

As the Construction Manager, the TYLI Team will become involved with the contractor's start-up and testing activities at the project's inception. The contract documents will be reviewed for start-up and testing requirements and start-up support. When appropriate, recommendations for changes will be made. Reasonable time frames for final acceptance and start-up activities will be established in the initial project construction schedule. Predecessor activities will include all prerequisite tests, submittals, certifications, manufacturer's information and operations and maintenance manuals. By tracking this activity in detail and establishing the criteria early in the project, we can preclude 'fatal flaws' in the final stages of the project.

We will review the contractor's plans, procedures, and test results and will monitor the test to verify performance. The following types of tests may be performed:

- Qualification tests
- Verification tests
- System tests
- Integrated system tests
- Equipment functional tests

The results of the start-up testing, in conjunction with a final inspection, will be used as a basis for establishing a punch list for final acceptance of the construction contract. We will work closely with NJ Transit during this phase and provide guidance/assistance as needed. All outstanding non-conformance and other unresolved issues will be concluded at this time.

Operator and Maintenance Personnel Training

The TYLI Team is prepared to assist NJ Transit in the preparation of a comprehensive training program, which we understand is paramount to NJ Transit operations and maintenance staff. Initial operations of rehabilitated facilities can create disruption if the personnel are not properly trained for the use and maintenance of the new systems and equipment. Our Team is experienced in the start-up/training aspects of major facilities and will provide NJ Transit with the expert assistance necessary to assure a smooth effective transition from existing facilities to the new facilities.

An effective training program is required to bring NJ Transit personnel to a level of operating proficiency and maintenance expertise which allows efficient unassisted operation of the equipment and systems. Our RE will assume the lead role for

this important task. He will work closely with equipment manufacturers' representatives and the construction contractor during initial equipment checkout and start-up. During development of the training outlines and programs, our RE will consult with equipment suppliers to assure the outlines are complete and sufficient for implementation.

Task C4 - Environmental

As indicated environmental report included in Addendum 2, soil and groundwater sampling has confirmed the presence of petroleum contamination, likely due to the presence of historic fill in the area. When contaminated materials such as contaminated soil or groundwater, asbestos containing materials (ACM) or lead based paint (LBP) are found on site, we will immediately notify NJ Transit and make a recommendation on appropriate actions to follow, including notification procedures as well as an action plan to manage contaminated materials. Our on-site environmental inspector will monitor and enforce the contractor's strict compliance with Federal, State and Local regulations throughout the duration of the project. Management of contaminated materials may include the following primary elements:

Selection of a Temporary Storage Area

The TYLI Team will work with NJ Transit to identify a temporary storage area (or have an area pre-selected), in relative proximity to the work area, that will be dedicated for staging contaminated material.

Regulatory Requirements:

Contaminated material management would be performed in accordance with applicable federal, state and local regulations based on the nature of the contamination (e.g. petroleum contaminated soil [PCS], historic fill, etc.)

Testing

The contaminated material will be sampled and tested to determine the nature and characterization of the contaminants. Cost for testing will be paid from an allowance in the construction contract.

Pre-Work Submittals:

The Contractor performing contaminated material management would be required to provide the CM Team with:

- Health and Safety Plan: The Contractor shall employ a Certified Industrial Hygienist or Certified Safety Professional to prepare a Health and Safety Plan to meet all OSHA requirements.
- Training Certificates: The Contractor shall provide evidence that all employees handling contaminated materials are qualified in handling and disposing of the material and have current 40-hour HAZWOPER training.
- Material Management Plan: The Contractor would be required to provide our CM Team with a written plan for managing the contaminated materials which would require, at minimum, the following elements:
    - Waste Characterization Details
    - Disposal Facility Details
    - Transporter Qualifications and Permits
    - If backfilling is required, the proposed source of certified clean backfill or laboratory analytical data suggesting that the proposed backfill source is clean.
    - Proposed Schedule for completing all elements of the contaminated material management.

Disposal:

The TYLI Team will ensure the contaminated material is stored, handled, transported and disposed of in accordance with local, state and federal regulations. We will document contaminated material management tasks and prepare a final report document. This report would include, for example, copies of sampling and analytical data, disposal certificates, transportation bills of lading, and any other relevant information to confirm and record that the materials were handled and disposed in accordance with applicable regulations.

Task C5 - Schedule

The schedule is more than a project deliverable. It is a tool for managing the project, controlling contractor activities and resources and maintaining focus on the end date of construction while resolving obstacles to timely completion.

The TYLI Team has already begun our review of the project schedule, during the Proposal Phase, with an analysis of the schedule showing long lead time items. We have identified key constraints for the project:

1. Demolition of the existing general service substation, including demolition of the existing foundation, and construction of the new Bay Head Substation building, including installation of the concrete filled cylinder piles, is most likely the critical path of that location.
2. Procurement of electrical system components must be expedited to the extent possible to help meet the schedule.
3. The construction of the new 34.5 kV JCP&L service to the new facility will be essential to the energizing of the completed substation. We must carefully track the progress of this outside work as our project progresses.

During Pre-Construction Phasethe TYLI Team will conduct a thorough review of the project schedule, as developed by NJ Transit, their design consultant, and/or the contractor, as appropriate. We will examine:

- Durations of tasks, based on productivity rates
- Phasing strategy
- Relationships between tasks and overall schedule logic
- Achieving interim and final milestones
- Long lead-time items
- Project constraints

Critical to this evaluation is identification of submittals and lead times for review, possible resubmission and approval, so that work can be implemented.

During the Construction Phase the TYLI Team will fully utilize the schedule to manage and control the project. This will include:

1. Review of contractor's baseline and progress CPM schedules for completeness, logic, phasing strategy, identification of critical path, thorough breakdown of subtasks, and work breakdown structure (WBS). Our experienced scheduler will utilize the latest version of Priamavera P6 for his analysis. Reviews will be completed within 7 days, but in all cases less than 14 days. Our review comments and recommendations will be initially submitted to the NJ Transit PM.
2. Confirmation of validity of NJ Transit force account work
3. Tracking of submittals, cross referenced to our submittal matrix
4. Corroboration of contractor's claimed progress with actual field records from our inspection staff.
5. Development of 2-4-6 week look ahead schedule for staff planning, coordination of NJ Transit User Group inspections and sign-offs and operational issues.

On a monthly basis, we will meet with each contractor's superintendent and scheduler to review our comments on their monthly schedule update. We will produce a monthly schedule analysis and report, and identify obstacles and issues that would adversely impact timely completion of the project. This report will include:

- Monthly critical path analysis
- Progress on critical path activities
- Summary bar chart schedule for task completion
- Review interim milestone activities
- Monthly cost information and contractor resource analysis.
- Schedule changes and impacts

- Written narrative report

Following circulation of this report and concurrence by NJ Transit, we will meet with the contractor to discuss a recovery schedule, if necessary, look ahead to potential obstacles and their resolution, and development of "work around" or alternate plans developed for review by our senior management and NJ Transit. The TYLI Team will initiate implementation of corrective actions required to maintain the overall construction completion deadline.

Task C6 - Staging / Work Plans

The contractor is required to prepare and submit Construction Staging Plans to the CM Team within 30 calendar days of Notice to Proceed. We understand the staging/work plans must take into account the flow and sequencing of the various work items, and their ability to dovetail with the overall construction schedule will be instrumental to the overall success of the project. We will review the Staging/Work Plans in coordination with NJ Transit Rail Operations, the Design Engineer and the contractor and make appropriate recommendations to ensure that they are consistent with the requirements of the construction documents, can be constructed in accordance with the Safety, and have minimum impact on railroad operations.

Understanding each type of interdisciplinary work and it's relation to the overall construction contract will help to eliminate staging challenges and prevent changes that impact progress. Each staging work plan will be considered for impacts to overall project flow and sequencing.

In general, securing staging areas for the storage of materials, construction equipment, filed offices and marshalling of supplies is the responsibility of the contractor. However, for any areas designated by NJ Transit within their ROW for the contractor's staging purposes, we will coordinate their use within the designated limits.

The TYLI Team is quite familiar with staging for replacement of electrical systems, having served as the Construction Manager for several recent similar projects:

- For the NYC Transit Joralemon Tube Rehabilitation Sandy Super Storm project, among many major items for various types of systems, staged and coordinated the removal and replacement of 3200 Ampere Negative Bus, that was corroded due to damage caused by Superstorm Sandy.
- The Bus removal and replacement at Battery Park State Street Substation was completed without any problems in transferring all existing cables and new cables to the new Bus. The operation required load considerations, accurate measurements, temporary flexible Bus connections, ACM support removal and replacements, temporary and permanent supports.
- We as the CM team obtained cooperation from the Contractor and Bus manufacturer, along with the Station superintendent, Construction Project Manager (CPM), Design Consulting Engineers, NYC Transit Corrosion Section, Test Section, Third Rail Operations, and Contract Compliance unit. This was completed with utmost safety and strict time constraints.
- At Willow Place Substation we are presently performing a similar task with a larger Negative Bus having a different configuration. We anticipate installation completion by the end of August 2017.

Task C7 - Shop Drawing / Material Submittal Review

During the Pre-Construction phase we will establish a protocol that provides an expeditious process for submission of various submittals including but not limited to shop drawings, RFI, Material substitution, and their review and approval by the NJ Transit's Design Engineer. We will develop and maintain a Shop Drawing and Material Submittal Log and an RFI Log to accurately track the status of all construction submittals. We understand that if submittals require multiple review cycles it can severely impact the construction schedule and we will therefore coordinate with the Design Engineer and Contractor to attempt to resolve any issues quickly to prevent repetitions and delay. The review of outstanding submittals will be discussed at the bi-weekly and monthly project meetings.

The construction submittal review process will generally proceed as follows:

- We will receive all construction shop drawings and material submissions, log in the submittals, and review them for conformance with the contract. Within 3 calendar days we will distribute to NJ Transit for Design Engineer review, or to the Utility where appropriate. Although 3 calendar days are permitted for our review, we will strive to distribute all submittals within the same day received. If the submittal does not conform to the contract requirements it will be rejected and logged as such.
- Design Engineer review of submittals may take up to 21 calendar days. For any submittals which are approaching this threshold we will contact the Design Engineer to check on the status of the submittal and to remind them of the review schedule. In the event any submittal review exceed 21 calendar days we will notify the NJ Transit PM.
- When Design Engineer's review is completed, we will review any comments, log in the status of the submittal, and distribute to the Contractor within 2 calendar after receipt. Again, we will strive to distribute all submittals within the same day we have received them.
- Submittal logs will be monitored on a continuous basis. For submittals requiring multiple Design Engineer reviews we will take a proactive role to understand the issue and coordinate between the Design Engineer and Contractor and to help reach a resolution quickly and avoid project delays.
- We understand that any party can generate a Request for Information (RFI), which is often used to seek clarification on design intent or to receive direction for an unexpected condition. We will receive all RFI's, make sure the appropriate form is utilized, generate an RFI number, log the RFI in to the RFI Log, and distribute to the appropriate party. We will track the RFI response for timeliness and content.

Task C8 – Change Orders

Change Orders

After contract award, contract changes may be required due to items such as scope of work changes, specification or drawing revisions, changes in labor rates, or price adjustments. These changes will be reviewed and, if approved, will be formalized as part of the contract. An early warning system will be used to identify conditions that could lead to a change order or claim.

Change orders are typically initiated due to field conditions or by the result of design improvement. For change orders due to field conditions, the contractor and the Construction Manager along with NJ Transit PM will jointly investigate and review the need for a change order. **NJ Transit's PM will have the sole discretion as to whether a Notice of Proposed Change (NPC) or Contractor Initiated Change Order Request (CICOR) shall be issued.** The contractor will prepare a cost estimate for the additional work and submit it to the Construction Manager for review.

Within five (5) calendar days our Construction Manager will review the contractor's change order submission (NPC or CICOR), determine its validity, perform a cost analysis and prepare a recommendation for the NJ Transit PM, for approval. Where work is in progress and the schedule would be potentially impacted, the NJ Transit PM will be advised and, upon approval, the work will continue and Time and Material Records kept until an approval of the change order is received. We will participate in negotiations with the contractor and NJ Transit. **We understand that only the NJ Transit Contracting Officer is authorized to direct the contractor to proceed with the additional work.**

Claims Avoidance Administration

The TYLI Team staff will initiate review, resolution and response to contractors' requests for interpretation of the Contract Documents. We will consult with the NJ Transit PM and Design Engineer for resolution of all questions involving Contract interpretation, which cannot be resolved between the TYLI Team and the contractor.

A timely response to contractor requests for information, as well as answering general correspondence, are important Construction Management functions that are particularly effective for maintaining the schedule and minimizing claims. To assure that this is accomplished, all incoming correspondence from the contractor is tracked on a database to record the date of receipt, the subject, the person for action, and the date of response. Using this system, we can assure that all contractors' letters are responded to as expeditiously as possible.

Delays, Claims and Disputes

On major construction projects, particularly those that involve significant interface with existing conditions and operations, it is likely that there will be a number of claims asserted by the contractor. Claims and change orders have become the administrative vehicle whereby owners and contractors may equitably allocate the impact costs of events, which occur outside of the scope of the contract. Recognizing the contractor's contractual and legal right to pursue the recovery of costs attributable to valid change orders and claims, the TYLI Team will apply methods and procedures to minimize the impact of claims through prompt and equitable resolution. In cases where claims have no apparent merit, the TYLI Team will provide the means to defend NJ Transit's position with facts supported by pertinent documentation and technical analysis. When there is credibility to a claim, we will lay out the facts leading to our conclusion and discuss the same with the NJ Transit PM.

The TYLI Team is fully aware of the importance of maintaining proper documentation. Our team will provide complete documentation and tracking of all disputes from identification through resolution. The records will include descriptive details of the dispute, actions initiated for resolution, determination of resolution and supporting information such as time sheets, meeting minutes, photographs, etc. We utilize a system called the "Problem File" (P-File) to record and document all problems, evaluations and resolutions (this will include the log of all NPC's and CICOR's). A unique P-file number and file is established when a problem is identified. All subsequent correspondence, meeting notes or other actions related to the issue are copied to the appropriate P-file. If the resolution to the problem is disputed by the contractor, the file is readily available and provides convenient access to all documentation about the issue.

Task C9 - Quality Assurance / Quality Control

Quality control and assurance is everyone's responsibility on the project including the contractor, inspection team and the material suppliers. TYLI Team will set the tone of the quality by initiating the dialogue with the contractor, reviewing the contractor's quality control and assurance plan (QAP). We will ensure that the QAP is in accordance with the contract documents. Our designated Quality Assurance Manager will create checklists and provide continuous guidance to our inspection staff to ensure the contractor is following his own QAP. The documentation for all material certifications prior to its installation will be maintained on the site. Periodic audits of contractor's procedures, our internal processes, and documentation will be performed by our Quality Manager to determine the compliance with the contract documents.

Non-conformances will be communicated as soon as they are known. Corrective actions will be required by the contractor as soon as practical. All non-conformances and their disposals will be documented, distributed to appropriate personnel. TYLI Team will have periodic conversation with the contractor to avoid repetition and new non-conformances during the project life cycle. Final punch lists and its corrections will also be documented as required by the contract.

Task C10 – Project Safety

The TYLI Team recognizes the importance of safety on this project, especially given that the majority of the work will take place at a functioning substation and within an active train yard. Following safety protocols will not only protect construction personnel but also NJ Transit's customers, employees and property.

We have therefore designated a full-time Safety Officer/Inspector who will have full authority to ensure that all work is performed in accordance with accepted safe practices and in accordance with State and Federal regulations for safety. The Safety Officer/Inspector will review and monitor the Contractors' Work Plans to ensure that appropriate safety practices will be employed and any potentially unsafe conditions are addressed prior to execution of the work.

The TYLI Team and Safety Officer/Inspector will ensure that all employees assigned to this project including our subcontractors and the Contractors' workers adhere to the donning of the necessary safety equipment which will include hard hats, safety shoes and glasses, and high visibility traffic safety vests.

We will work with the Contractor to develop procedures for safely accommodating visitors to the construction sites. All visitors must first be directed to the CM Office, where they will receive instructions on site safety, proper personal protective equipment and an escort.

Safety Inspections

To ensure that the construction contractor is successfully implementing safe work practices, periodic audits of the construction site will be conducted by the Safety Officer/Inspector. The audits will focus on adequate training of personnel, record-keeping, appropriate safety equipment, and a walk through of the site to identify any unsafe or non-compliant conditions.

The TYLI Team will look for unsafe/non-compliant conditions as part of their regular duties and document the finding in their daily inspection reports. In the event the Contractor performs, or is about to perform, any operation in an unsafe manner with the potential to cause imminent harm to any persons, the TYLI Team will issue a Stop Work Order. We will prepare a detailed report documenting and justifying the issuance of the Stop Work Order. The Stop Work Order would not be lifted until such time as the Contractor has corrected the unsafe condition, to the satisfaction of our Safety Officer/ Inspector and NJ Transit.

For all significant or complex activities we will have the contractor prepare and submit a job hazard analysis (JHA). A JHA is a technique to identify the dangers of specific tasks in order to reduce the risk of injury to workers. When the contractor understands what the hazards are, they can reduce or eliminate them before the opportunity for anyone to get hurt presents itself. We will perform a thorough review of the JHA.

Task C11 - Project Close-out

As contractual dates for completion of contract milestones come due, the TYLI Team will review the work under each contract and advise NJ Transit as to the status of substantial completion of the Work. When TYLI Construction Manager, with concurrence from NJ Transit, has determined that substantial completion has been achieved, we will schedule inspections with NJ Transit and the Contractor. Based upon these inspections, the construction manager will provide an updated punch list of unfinished, unacceptable or incorrect work.

Certificates of Substantial Completion will be prepared, and with the NJ Division of Community Affairs (NJDCA) Certificates of Occupancy and punch list attached, will be submitted for approval to the TYLI Team project manager, NJ Transit and the Contractor. Final approval will then be obtained by the NJ Transit PM. Documentation

The TYLI Team will work with the contractor to schedule completion of the punch list. We will then coordinate any required re-inspection or demonstration activities with NJ Transit and the Contractor, and will record the disposition of all punch list items to ensure follow-up. We will also provide any necessary documentation related to assessment of Liquidated Damages.

In addition to the Contractor's requirements for completion of construction activities, punch lists will include site cleanup, equipment start-up, turnover of all materials, equipment and documentation required by the contract, and independent computation of all final payment quantities.

The TYLI Team will also coordinate with the Contractor and NJ Transit to ensure the Contractor has provided the necessary training to all NJ Transit personnel for all equipment or systems installed, as required by the construction contract.

Closeout Schedule

Prior to the scheduled completion of a contract, the scheduling engineer will prepare a detailed schedule for contract close-out. With input from the PM and RE and other project staff, he will review the contract documents and interface with the lead inspectors to develop a comprehensive schedule for all activities necessary to close the contract. The schedule will be distributed and updated monthly to clearly identify progress toward close-out. The RE will remind the contractor as required to assure that as built drawings, final shop drawings, final test reports, training necessary for NJ Transit personnel, etc., are provided to support contract completion. All documentation will be assembled for turnover to NJ Transit.

To assist NJ Transit in achieving an efficient completion and turn over process, the TYLI Team will:

- Verify and document completion of equipment and systems test and start-up.
- Obtain record and transmit to NJ Transit all deliverables required from the contract, including keys, manuals, record drawings, maintenance stocks etc.
- Prepare, update and issue punch lists to the contractors and work with contractors to schedule completion duties for all activities in a timely manner.
- Submit to NJ Transit a complete register of guarantees, warranties, affidavits, releases, liens and other waivers and assist in securing these items from the contractor.
- Assist NJ Transit in obtaining warranty service on all equipment; coordinate the performance of corrective work with the contractor and the NJ Transit's personnel.
- Verify contractors' compliance with all Federal State, City and other laws, codes, etc., and assure correction of any non-compliance.
- Verify NJ Transit receipt of insurance policy statements as required by the contract, and monitor the submittal of policy updates.

Technical Competence

T.Y. Lin International and the proposed team have decades of combined relevant experience providing transportation and construction management services for numerous area agencies including the NJDOT, NJ Turnpike Authority, MTA, NYC Transit, Port Authority of NY&NJ and NYCDOT.

a. Successful Projects of a Similar Scope

Rehabilitation of Four (4) Circuit Breaker Houses (NYCT)

TY Lin International, as the joint venture lead, provided Consultant Construction Management (CCM) Services for the rehabilitation and replacement of four Circuit Breaker Houses damaged by Superstorm Sandy. The team provided the constructability of 12 CBH's, and 4 were awarded for construction. The CBH's are located in the Westchester Yard and Maintenance Facility and 239th Street Yard and Maintenance Shop, and posed a technical and safety challenge due to the electrical hazard and the proximity to running rail. The rehabilitation included architectural improvements, structural improvements, and vital electrical repairs. The team served as an extension to NYCT staff providing inspection services, constructability review reports, logistics planning, contractor supervision, and close-out.

Battery Room at Cliff Street Substation which was a part of the rehabilitation of the Cranberry Tube .

Joralemon Tube Rehabilitation

The T.Y. Lin International, serving as the joint venture lead, provided Consultant Construction Management (CCM) Services for the Joralemon Tube Rehabilitation. The project is located between Manhattan and Brooklyn and serves the 4 and 5 subway line, which was damaged by the tidal surge during Superstorm Sandy. The project scope included repair of facilities damaged from flooding from Superstorm Sandy, rehabilitation work along the 7000' length of the Joralemon Tube between Bowling Green Station and Borough Hall Station including lining, lighting, power and communication cables, rehabilitation of two substations, and replacement of power and communication cables. The team is involved in the preconstruction, construction and close-out phases of the project.

Cranberry Tube Rehabilitation

T.Y. Lin International, serving as joint venture lead, provided Consultant Construction Management (CCM) Services for the Rehabilitation of the Cranberry Tube. The project is located between Manhattan and Brooklyn and serves the A and C subways. The tube was damaged by the tidal surge during Superstorm Sandy. The project scope includes repair of facilities

damaged from flooding, rehabilitation work along the 7,117 length of the Cranberry Tube, rehabilitation of electrical substations, signals, traction power, circuit breaker houses, emergency tunnel exit, and a fan plant. The team is involved in the management of the preconstruction, construction and closeout phases of the project; and provided a comprehensive constructability review of the contract documents, and made recommendations that provided significant savings to the client. Additionally the team assisted NYCT in organizing overnight and weekend G.O.'s (General Orders) shutdowns for inspections and coordinated third party Utility company work under the G.O.

Stillwell Avenue Terminal

T.Y. Lin International, as the joint venture lead, provided Consultant Construction Management (CCM) Services for the rehabilitation of the employee facilities, and Police District Office #34 at Stillwell Avenue Terminal that was heavily damaged by the tidal surge during Superstorm Sandy. The project scope included repair and resiliency rehabilitation of the signal crew facility, consolidated employee facility, station structures workshop, lighting Crew workshop, and utility building. The team provided construction management services, inspection services, engineering review of contract documents, CPM scheduling, and construction closeout.

Railroad Operations

Nick Battista will serve as our Rail Operations lead. He has 32 years of railroad experience and has extensive NJ Transit substation experience having spent 25 years with the agency in various roles. Over the last 13 years with NJ Transit he was Manager of Electrical Power Distribution and was responsible for all electrical lines under New Jersey Transit, including Hoboken and Henderson Street Distribution Substations.

Proposed Rail Operations Coordinator, Nick Battista was previously responsible for electrical lines under New Jersey Transit substations.

Interaction with NJ Transit

Coordination with New Jersey Transit Rail Operations will be led by our Rail Operations Coordinator, Nick Battista. As an employee of NJ Transit, Mr. Battista worked with the Electric Traction Department and Rail Operations for the past 25 years. Coordination will be performed with reference to outages, procedures, safety concerns, and scheduling with the utilities (JCP&L).

Outages

Outages in general can be either Catenary Outage or Track Outage or both; however, since the North Jersey Coast Line is not electrified south of Long Branch only track outages will be required at Bay Head. Outages are required when the Contractor will need to foul the track, and, given the close proximity of the proposed construction to the tracks, including the construction of an underground duct bank below many of the tracks, managing outages will be a critical issue regarding the success of the project. Outages are requested at weekly outage meetings with NJ Transit Rail Operations. Outage durations must correspond to train operations so as not impede normal train traffic.

Flagging

The contractor will require NJ Transit flagging when work operations will be in close proximity to the tracks. Flagging will be requested from NJ Transit Rail Operations with at least 24 hours advance notice for short duration track outages.

6. Team Organization / Resource Allocation

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

COST AND FEE FIRM RECAP - TEAM SUMMARY

FIRM	MAN HOURS	TOTAL DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD)	SUBTOTAL	FIXED FEE	DIRECT EXPENSES	TOTAL COST
T. Y. LIN (PRIME CONSULTANT)	19844	0	0	0	0	0	$0.00
STV	6121	0	0	0	0	0	$0.00
ASHOKA CONSULTING	2461	0	0	0	0	0	$0.00
DISTINCT ENG SOLUTIONS	4060	0	0	0	0	0	$0.00
TOTAL	32486	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Total % DBE Mhrs: 20%

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

COST AND FEE FIRM RECAP - TEAM SUMMARY

Sub-Project:	Bayhead Substation							
TASK NO.	TASK DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD)	SUBTOTAL	FIXED FEE	DIRECT EXPENSES	TOTAL COST
Task P1	Constructability Review	0	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C1	Construction Management Administration	4,540	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C2	Field Inspection	20,258	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C3	Testing	120	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C4	Environmental	1,080	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C5	Project Control	120	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C6	Staging and Work Plans	680	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C7	Shop Drawings and Material Apporval	380	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C8	Change Management	700	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C9	Quality Assurance and Quality Control	444	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C10	Project Safety Management	2,944	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
Task C11	Project Closeout Management	1,220	$0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
TOTAL (ALL FIRMS)		**32,486**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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COST AND FEE FIRM RECAP - TEAM SUMMARY

Firm: T. Y. LIN (PRIME CONSULTANT)

TASK NO.	TASK DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 150.728%	SUBTOTAL	FIXED FEE @ 10%	DIRECT EXPENSES	TOTAL COST
Task P1	Constructability Review	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C1	Construction Management Administration	4,540	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C2	Field inspection	11,496	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C3	Testing	120	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C4	Environmental	80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C5	Project Control	120	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C6	Staging and Work Plans	680	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C7	Shop Drawings and Material Apporval	380	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C8	Change Management	700	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C9	Quality Assurance and Quality Control	444	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C10	Project Safety Management	144	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C11	Project Closeout Management	1,140	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL (T. Y. LIN (PRIME CONSULTANT))		19,844	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Firm: STV

TASK NO.	TASK DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 146.530%	SUBTOTAL	FIXED FEE @ 10%	IRECT EXPENSE	TOTAL COST
Task P1	Constructability Review	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C1	Construction Management Administration	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C2	Field inspection	6,121	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C3	Testing	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C4	Environmental	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C5	Project Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C6	Staging and Work Plans	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C7	Shop Drawings and Material Apporval	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C8	Change Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C9	Quality Assurance and Quality Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C10	Project Safety Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C11	Project Closeout Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL (STV)		6,121	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Firm: Ashoka Consulting

TASK NO.	TASK DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 129.000%	SUBTOTAL	FIXED FEE @ 10%	DIRECT EXPENSES	TOTAL COST
Task P1	Constructability Review	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C1	Construction Management Administration	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C2	Field inspection	2,381	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C3	Testing	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C4	Environmental	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C5	Project Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C6	Staging and Work Plans	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C7	Shop Drawings and Material Apporval	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C8	Change Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C9	Quality Assurance and Quality Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C10	Project Safety Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C11	Project Closeout Management	80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL (Ashoka Consulting)		2,461	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Firm: DISTINCT ENG SOLUTIONS

TASK NO.	TASK DESCRIPTION	TOTAL MAN HOURS PER TASK	DIRECT LABOR COST	INDIRECT LABOR COST (OVERHEAD) @ 161.910%	SUBTOTAL	FIXED FEE @ 10%	DIRECT EXPENSES	TOTAL COST
Task P1	Constructability Review	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C1	Construction Management Administration	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C2	Field inspection	260	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C3	Testing	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C4	Environmental	1,000	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C5	Project Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C6	Staging and Work Plans	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C7	Shop Drawings and Material Apporval	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C8	Change Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C9	Quality Assurance and Quality Control	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C10	Project Safety Management	2,800	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Task C11	Project Closeout Management	0	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL (DISTINCT ENG SOLUTIONS)		4,060	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

COST AND FEE FIRM RECAP - TEAM SUMMARY

TASK: TASK P1 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	0	$0.00	$0.00
M. Viglianco	Office Engineer	0	$0.00	$0.00
Brian Salfelder	Resident Engineer	0	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

PERSONNEL TEAM DETAIL

TASK: TASK C1 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	200	$0.00	$0.00
M. shah	Construction Manager	500	$0.00	$0.00
M. Viglianco	Office Engineer	3000	$0.00	$0.00
Brian Salfelder	Resident Engineer	800	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	40	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		4540		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C2 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	100	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	4200	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	4590	$0.00	$0.00
N. Battista	Rail Operations	440	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	1063	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	1063	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		11496		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C3 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	0	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	40	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		120		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C4 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	0	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		80		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C5 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	40	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		120		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C6 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	200	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	400	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		680		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C7 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	200	$0.00	$0.00
Brian Salfelder	Resident Engineer	100	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	40	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		380		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C8 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	60	$0.00	$0.00
M. Viglianco	Office Engineer	600	$0.00	$0.00
Brian Salfelder	Resident Engineer	40	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		700		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C9 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	4	$0.00	$0.00
M. shah	Construction Manager	0	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	0	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	0	$0.00	$0.00
N. Porto	QA/QC	400	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		444		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C10 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	0	$0.00	$0.00
M. shah	Construction Manager	40	$0.00	$0.00
M. Viglianco	Office Engineer	40	$0.00	$0.00
Brian Salfelder	Resident Engineer	40	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	24	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		144		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C11 **FIRM:** T.Y. LIN INTERNATIONAL

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
C. Bhoraniya	Project Manager	20	$0.00	$0.00
M. shah	Construction Manager	60	$0.00	$0.00
M. Viglianco	Office Engineer	510	$0.00	$0.00
Brian Salfelder	Resident Engineer	510	$0.00	$0.00
B. Gadara	Civil/Struct Inspector 2	0	$0.00	$0.00
N. Battista	Rail Operations	40	$0.00	$0.00
N. Porto	QA/QC	0	$0.00	$0.00
Luz Zidziunas	Community Relations	0	$0.00	$0.00
Abhisek Purohit	Electrical Inspector	0	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		1140		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

COST AND FEE FIRM RECAP - TEAM SUMMARY

TASK: TASK P1 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C1 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C2 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	6121	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		6121		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C3 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C4 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C5 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C6 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C7 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C8 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C9 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C10 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C11 **FIRM:** STV

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
David Roger	Building/Systems Inspector	0	$0.00	$0.00
Michael Freeman	Systems Inspector	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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COST AND FEE FIRM RECAP - TEAM SUMMARY

TASK: TASK P1 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C1 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C2 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	2381	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		2381		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C3 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
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PERSONNEL TEAM DETAIL

TASK: TASK C4 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C5 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C6 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C7 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C8 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C9 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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PERSONNEL TEAM DETAIL

TASK: TASK C10 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C11 **FIRM:** ASHOKA CONSULTING

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
Keyur Parikh	Schedule/Cost	80	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		80		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
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COST AND FEE FIRM RECAP - TEAM SUMMARY

TASK: TASK P1 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
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PERSONNEL TEAM DETAIL

TASK: TASK C1 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C2 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	200	$0.00	$0.00
Nancy Wieme	Environmental	60	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		260		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C3 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C4 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	1000	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		1000		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C5 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C6 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C7 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C8 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C9 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C10 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	2800	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		2800		

NJ TRANSIT CORPORATION
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

PERSONNEL TEAM DETAIL

TASK: TASK C11 **FIRM:** DISTINCT ENG. SOLUTIONS (DESI)

TECHNICAL STAFF				
Staff Person/ Classification	**Project Title or Discipline**	**Estimated hours**	**Hourly rate**	**Total Salary**
K. Rasheed	Project Safety	0	$0.00	$0.00
Nancy Wieme	Environmental	0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
		0	$0.00	$0.00
TOTAL ESTIMATED HOURS		0		

NJ TRANSIT
CONSTRUCTION MANAGEMENT SERVICES FOR
BAY HEAD SUBSTATION
RFP NO. 17-008

STAFFING SCHEDULE BY FIRM

Firm			Tasks												Total Hours	Total Direct Labor cost	Indirect Labor Cost (overhead)	TOTAL LABOR COST
			P1	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11				
			MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS	MHRS			
T.Y. LIN INTERNATIONAL																		
Employee Name	**Project Title or Discipline**	**Hourly Rate**															**@ 150.728%**	
C. Bhoraniya	Project Manager		0	200	0	0	0	0	0	0	0	4	0	20	224	$0.00	$0.00	$0.00
M. shah	Construction Manager		0	500	100	40	40	40	40	40	60	0	40	60	960	$0.00	$0.00	$0.00
M. Vigliarco	Office Engineer		0	3000	40	40	40	40	40	200	600	40	40	510	4590	$0.00	$0.00	$0.00
Brian Salfelder	Resident Engineer		0	800	4200	0	0	40	200	100	40	0	40	510	5930	$0.00	$0.00	$0.00
B. Gadera	Civil/Struct Inspector 2		0	0	4590	0	0	0	0	0	0	0	0	0	4590	$0.00	$0.00	$0.00
N. Battista	Rail Operations		0	0	440	40	0	0	400	40	0	0	24	40	984	$0.00	$0.00	$0.00
N. Porto	QA/QC		0	40	0	0	0	0	0	0	0	400	0	0	440	$0.00	$0.00	$0.00
Luz Zidziunas	Community Relations		0	0	1063	0	0	0	0	0	0	0	0	0	1063	$0.00	$0.00	$0.00
Abhisek Purohit	Electrical Inspector		0	0	1063	0	0	0	0	0	0	0	0	0	1063	$0.00	$0.00	$0.00
Jose Delgato	Resident Engineer 2														0	$0.00	$0.00	$0.00
Samuel Charles	Civil/Struct Inspector 2														0	$0.00	$0.00	$0.00
Total (T.Y. LIN)			0	4540	11496	120	80	120	680	380	700	444	144	1140	19844	$0.00	$0.00	$0.00
STV																		
Employee Name	**Project Title or Discipline**	**Hourly Rate**															**@ 146.530%**	
David Roger	Building/Systems Inspector		0	0	6121	0	0	0	0	0	0	0	0	0	6121	$0.00	$0.00	$0.00
Michael Freeman	Systems Inspector		0	0	0	0	0	0	0	0	0	0	0	0	0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
Total (MM)			0	0	6121	0	0	0	0	0	0	0	0	0	6121	$0.00	$0.00	$0.00
ASHOKA CONSULTING																		
Employee Name	**Project Title or Discipline**	**Hourly Rate**															**@ 129.000%**	
Keyur Parikh	Schedule/Cost		0	0	2381	0	0	0	0	0	0	0	0	80	2461	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
Total (M&S)			0	0	2381	0	0	0	0	0	0	0	0	80	2461	$0.00	$0.00	$0.00
DISTINCT ENG. SOLUTIONS (DESI)																		
Employee Name	**Project Title or Discipline**	**Hourly Rate**															**@ 161.910%**	
K. Rasheed	Project Safety		0	0	200	0	0	0	0	0	0	0	2800	0	3000	$0.00	$0.00	$0.00
Nancy Wieme	Environmental		0	0	60	0	1000	0	0	0	0	0	0	0	1060	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
															0	$0.00	$0.00	$0.00
Total (DESI)			0	0	260	0	1000	0	0	0	0	0	2800	0	4060	$0.00	$0.00	$0.00
TOTAL (ALL)			0	4540	20258	120	1080	120	680	380	700	444	2944	1220	32486	$0.00	$0.00	$0.00

7. Quality Assurance Plan

QUALITY ASSURANCE PLAN

The T.Y Lin International (TYLI) team has been performing Construction Management and Construction Inspection services for major agencies for many years and has developed a detailed understanding of quality during construction. Quality is built in the construction and needs to be maintained throughout the process. The TYLI team is well qualified and experienced in such construction and is aware of the pitfalls and how to avoid/correct them by providing daily inspections, suggesting a better way to accomplish the work in the most efficient manner, and performing quality assurance testing when required.

Our quality control/assurance will start with our understanding of the contract requirements including the materials requirements, NJ Transit and other governing standards. We will review the contractor's quality control plan and ensure that the contractor adheres to the contract requirements and his own quality control plan. TYLI inspectors will be on site when the contractor is working and will ensure that the work is being carried out in compliance with the contract specifications and industry standards. We will witness the contractor's on-site testing of materials, demand the material certifications and "Buy America" certifications for all steel included in the work. We will not allow the contractor to install any material that does not meet the contract requirements and have no certification.

Led by our QA/QC Manager, we will develop a Project Specific QA/QC Plan (PSQAP), conforming NJ Transit and Federal Transit Administration standards, and submit to NJ Transit for approval. This PASQP will be strictly followed by all our team members including our subconsultants throughout the duration of the project to maintain the quality of TYLI work as the Construction Management Team for the client. Our QA/QC Manager will develop audit plans and checklists to be utilized by audit personnel on a quarterly basis during the life of the project. The QA/QC Manager will ensure adherence to the quality work plan by the contractor and inspection protocols by our own inspectors. The QA/QC Manager will review the contractor's Quality Control/Assurance Plan (QAP) for the following minimum items to address the project quality:

Identification of the contractor's Representative responsible for monitoring and controlling the adherence to the QAP.

- Quality System
- Testing procedures, equipment and reporting formats
- Document Control including filing of certifications
- Monitoring the subcontractors and vendors quality, reports and certifications
- Procedures, instructions, and controls for each item of work
- Procedure for reporting and addressing non-conformance
- Actions to be taken to avoid repeated non-conformance
- Independent audits and related training program for workers

To be effective in building a quality project, the responsibility lies with the contractor and extends through the CM Team and the owner. In planning activities, the contractor is required to review the contract documents, specifications, standards, procedures and other approved work documents to identify specific activities requiring inspection or verification, or warranting special attention. The planning process allows the incorporation of quality control activities within the project schedule rather than an afterthought of add-on quality control.

Within this framework the TYLI team will focus on the following major quality control/assurance program tasks:

- Review the contractor's Quality Work Plan.
- Based on the contract requirements and the contractor's Quality Plan, develop a comprehensive inspection plan for all items of work.
- Provide the team of inspectors with proper tools and guidance prior to performing the inspection.

- Conduct a surveillance of the contractor's activities for compliance with the contract documents, workmanship, and his own QAP.
- Perform monthly audits and utilize quarterly checklists to document the audits.
- Monitor materials including the material certifications, contractor's inspection and testing, handling, and installation procedures for compliance with the contract documents.
- Perform required independent verification testing and inspections.
- Identify non-conforming/unsatisfactory work/items, and work with the contractor to resolve the issues and have him make correction to bring the non-conforming items in conformance.
- Create and maintain accurate records of all non-conformance and notify the owner as required by the contract.
- Verify that the laboratory used by the contractor possesses all required certifications and licenses as required by the contract documents.
- Verify that the contractor's QAP identifies all shop tests and inspections required at fabrication facilities and identifies those tests which are required to be witnessed by NJ Transit or TLYI representatives.
- Advise NJ Transit if the TYLI team feels that additional verification testing is desirable for quality assurance for a particular item of work with reasons.
- Record and maintain the daily account of all work completed by the contractor with notation of any non-conformance and its disposition.
- Conduct final inspection of all work with the representatives of NJ Transit prior to final acceptance.
- Collect and provide all documentation including all material certifications, as built drawings, manuals and warranties as required by the contract.

Task Comparison Summary								
Independent Cost Estimate			TY Lin		Total Cost Difference	Total Cost % Variance	Labor Hr. Difference	Labor % Variance
Task	Total Amt/Task	Hrs/Task	Total Amt/Task	Hrs/Task				
C1	$900,806.50	6,649	$1,123,480.93	7,600	$222,674.43	24.72%	951	14.30%
C2	$1,104,098.60	7,558	$1,060,368.19	7,620	-$43,730.41	-3.96%	62	0.82%
C3	$52,245.60	358	$90,356.29	580	$38,110.69	72.95%	222	62.01%
C4	$31,724.00	216	$53,195.00	500	$21,471.00	67.68%	284	131.48%
C5	$178,544.30	967	$135,632.99	900	-$42,911.31	-24.03%	-67	-6.93%
C6	$195,570.10	1,273	$167,074.42	1,070	-$28,495.68	-14.57%	-203	-15.95%
C7	$33,611.60	228	$70,658.61	490	$37,047.01	110.22%	262	114.91%
C8	$136,120.60	863	$69,997.86	540	-$66,122.74	-48.58%	-323	-37.43%
C9	$74,606.40	504	$109,983.95	840	$35,377.55	47.42%	336	66.67%
C10	$62,651.60	428	$59,264.82	460	-$3,386.78	-5.41%	32	7.48%
C11	$37,096.80	224	$119,337.47	840	$82,240.67	221.69%	616	275.00%
Totals	**$ 2,807,076.10**	**19,268**	**$ 3,059,350.53**	**21,440**	**$ 252,274.43**	**8.99%**	**2,172**	**11.27%**