

Response to Request for Proposal

Integrity Oversight Monitoring of Environmental Consultant BEM Environmental Services and its Subconsultants for the Superstorm Sandy Program

Technical Proposal

Prepared for:

New Jersey Transit

Attention:


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I. Cover Letter

Thacher Associates LLC (“Thacher”) is pleased to submit this proposal to provide Integrity Oversight Monitoring of environmental consultant BEM Environmental Services and its subconsultants performing the work described below for the Superstorm Sandy Program (“Project”) to New Jersey Transit (“NJT”). Because of our time-tested and proven methodologies and deep experience in providing nearly identical services to area transit operators, we believe our approach to be the most efficient and cost-effective proposal to prevent, detect, and deter waste, fraud, and abuse on this Project.

A. BEM Environmental Services Task Orders

We understand that the scope of work for the Project is comprised of seven Task Order Assignments issued under NJT’s Task Order Contract # 13-002B which details specific tasks and related subtasks to be performed by BEM Environmental Services:

- NEPA Planning and Scoping (Task Order Assignment No. 2, Rev.1)

We understand that this task order calls for BEM to make an initial assessment of the projects/ target areas identified by NJT that may require documentation to comply with NEPA, and to provide overall programmatic support of this effort. We understand that the main objectives of this assignment are to provide NJT with: A) a roadmap (the structure of which is to be guided by FTA and FHWA rules) for each project determined by NJT to be high-priority, regarding whether the nature of the damages and the restoration and mitigation plans trigger NEPA, Section 106 requirements of the National Historic Preservation Act of 1966 and/or State regulations; and B) a procedural framework for how NJT would develop and implement a NEPA compliance strategy.

- Environmental Project Management (Task Order Assignment No. 2, Rev. 2)

We understand that this task order calls for BEM to provide assistance and support to NJT in environmental program management related to the Superstorm Sandy Recovery and Resiliency Program activities during the period of May 1, 2014 through April 30, 2015. The assistance and support will include an assessment of project areas identified by NJT for documentation, permitting and site remediation compliance, as well as programmatic support. We understand that NJT’s main objectives of this assignment are to develop: A) a roadmap (the structure of which is to be guided by FTA and FHWA rules) for each of the Sandy projects, regarding whether the nature of the damages and the restoration and mitigation plans trigger NEPA, Section 106 requirements of the National Historic Preservation Act of 1966 and/or State regulations; and B) a procedural framework for how NJT would develop and implement a NEPA, historical and permitting compliance strategy. We understand that the ultimate goal is to develop an approach that satisfies the environmental review process, and provides guidance for the federal reimbursement process.

- County Yard/ Delco Lead Facility (Task Order Assignment No. 12)

We understand that this task order involves providing environmental services to NJT for this project to achieve compliance with NEPA and support permitting, property acquisition and remediation efforts. We understand that the environmental services include project management; NEPA, National Historic Preservation Act and Section 4 of the US DOT Act compliance documentation; review of land use permit applications and support for permit approval efforts; conducting pre-construction environmental sampling and due diligence and supporting site remediation efforts; and supporting NJT's public outreach regarding the project.

- Long Slip and Rail Enhancement Project (Task Order Assignment No. 13)

We understand that this task order involves providing environmental services to NJT for this project, consisting of project management; support regarding FTA compliance evaluations; review of applicable federal and state permit application and mitigation requirements; supporting the preparation of permits and mitigation efforts; characterization of site materials for the purpose of identifying needed remediation; review of the LSRP's compliance with the requirements of the DEP's TRSR NJAC 7:26 E, and supporting NJT's public outreach regarding the project.

- Transgrid Traction Power System Project (Task Order Assignment No. 14)

We understand that this task order involves providing environmental services to NJT for this project, to complete the NEPA and other permitting processes. BEM will prepare land use, air permit and site remediation applications. BEM will also provide environmental project management, support regarding the scoping process, and support for NJT's public outreach regarding the project.

- Raritan River Drawbridge Project (Task Order Assignment No. 15)

We understand that this task order involves providing environmental services to NJT for this project, including preparation of NEPA documentation and assistance with all federal and State permit and mitigation requirements. BEM will prepare a site remediation assessment. BEM will also provide environmental project management; and support for NJT's public outreach regarding the project.

- Railroad Signals and Communication Project (Task Order Assignment No. 16)

We understand that this task order involves train control systems on five separate railroad lines, and that BEM's environmental services to NJT for this project include preparation of NEPA documentation; preparation of Section 106 of the Historic Preservation Act documentation; assistance with all federal and State permit and mitigation requirements; support for a site remediation assessment; environmental project management; and support for NJT's public outreach regarding the project.

We reviewed information publicly available about these projects, including Minutes of the NJT Board of Directors' meetings, the NJ Transit Resilience Program website, answers provided in response to questions submitted in connection with this Request for Proposal, as well as the information originally provided with the Request for Proposal to better understand the work to be performed.

B. Our Expertise

Thacher uses its expertise and experience to accomplish its objectives successfully because it utilizes an *Intelligence Driven Approach* that is designed to identify the areas of greatest integrity risk to a Program (both in terms of impact and likelihood of occurrence), understand the controls in place to mitigate those risks, and then focus efforts on those risks that are most likely to occur and have an unacceptable negative impact to a project's schedule, budget or reputation.

Based on our years of experience in the integrity monitoring industry, Thacher understands that our clients have limited resources. While integrity monitors cannot effectively monitor every transaction across the Program, an effective, efficient and targeted risk assessment can focus on those activities or transactions most susceptible to the most damaging risks and make the best use of those limited resources. Importantly, we have substantial experience and many successes, working in collaboration with internal audit departments; this is a standard aspect of many monitorships, such as those that we have been performing for the Port Authority of NY&NJ for more than a decade.

Thacher's knowledge arises from several sources which no other proposer can duplicate, including:

- extensive experience in providing construction monitoring and conducting forensic investigations of construction activities and supporting related litigation keeps us current with means and methods, trends, and new schemes;
- a proprietary database of construction industry information, which has been formed over the course of three decades, and which is updated daily;
- substantial in-house technical expertise, based in part on our unique focus in joining together experienced, qualified and forensically-trained technical experts; and
- unique informants and sources of information - throughout the industry, media, academia, regulatory authorities, and law enforcement agencies - that we have developed in the course of our many years spent conducting investigations, managing integrity monitoring engagements, and solving integrity problems in the construction industry.

C. Our Experience

In addition to our intimate understanding of the risks inherent in transportation and disaster recovery programs, Thacher's time-tested methodologies, and the staff and firm experience performing identical services in almost identical circumstances, are what sets Thacher apart from our

competitors. Designing, implementing and managing large-scale, proactive integrity monitoring protocols for major construction projects is our core competency. There are few, if any, integrity risk management firms with our advanced level of experience and expertise in the field. Perhaps most importantly, we understand how to work as an independent entity and collaborate and calibrate our work with other independent entities and agency decision-makers.

We have performed these engagements on projects with multiple-stakeholders, federal and state-funded projects, and projects requiring compliance with FTA regulations. We have been performing integrity monitoring engagements for major transportation and disaster recovery projects since 2001, beginning with our work on the cleanup of the World Trade Center (“WTC”) site. Since then, we have continued to perform these services for the WTC Transportation Hub, the Moynihan Station Civic and Land Use Improvement Project, the Fulton Street Transit Center and South Ferry Subway Terminal Station, the Metropolitan Transportation Agency’s East Side Access project, Superstorm Sandy Recovery Projects in Perth Amboy, NJ and Elizabeth, NJ for the New Jersey Department of Environmental Protection, and NJ Transit’s Gladstone Line Poles & Foundations Replacement project. Our previous experience in transit and disaster recovery projects will minimize the time and expense required to provide Integrity Oversight Monitoring of environmental consultant BEM Environmental Services and its subconsultants.

II. Qualifications of Individuals

The resumes of our Key Personnel as well as a number of other proposed staff members are included as Exhibit A. Our staff will be assigned to the Project, as required, following our initial assessment of the specific needs and specialty skills required. It is our intention to use some of the same staff that will be working on the Gladstone Line project so as to create organizational efficiencies. Following are our key personnel who would be working on the project:

Joseph A. DeLuca is the Firm’s President. Mr. DeLuca is a co-founder of Thacher and has over 35 years of experience in preventing and detecting fraud, racketeering and corruption. He has had executive management responsibility for our monitoring engagements for the Port Authority, MTA, NYC Department of Investigations and other public and private clients since Thacher was founded in 1996. Mr. DeLuca will provide executive oversight of the project at *no cost* to New Jersey Transit.

His role on Thacher’s projects ensures the quality of deliverables as well as the performance and coordination of our multidisciplinary team. In addition to serving as the executive liaison between Thacher and the agencies for which we work, he also serves as a conduit of intelligence, which is gathered from all Thacher projects and resources and shared with those agencies. He plays a key role in the development and refinement of the integrity risk management and compliance monitoring plans, and in the management teams that oversee the implementation of those plans.

Martin C. Aronchick is a Managing Director at Thacher. Mr. Aronchick will serve as project manager for this engagement. He has developed expertise in the areas that are pertinent to integrity monitoring

assignments through such projects as the WTC Transportation Hub and Memorial, Retail, and Central Chiller Plant Projects. He understands how to achieve success in a wide array of integrity monitoring engagements in a manner that also contributes to the success of the project and avoids interference with the project's progress.

Prior to joining Thacher, he was a member of the Executive Staff of the NYS Organized Crime Task Force and, subsequently, a member of the Executive Staff of Office of Inspector General for the New York City School Construction Authority. In both positions, his responsibilities included designing integrity monitoring assignments as well as supervising the integrity monitors selected by the agencies. At both agencies, he also established and supervised civil enforcement units and designed and supervised criminal investigations. Earlier in his career, Martin was Assistant Chief of the Affirmative Litigation Division in the NYC Law Department, and before that, was a member of the General Litigation Department of NYC law firm Weil, Gotshal & Manges.

Kevin Mullins is Senior Director of Forensic Accounting and Advisory Services at Thacher. He is a Certified Fraud Examiner and has over 13 years of multidisciplinary experience in the accounting industry, specializing in forensic auditing and accounting. He has performed fraud investigations, compliance reviews, cost recovery analyses, and internal control risk assessments. He has overseen various integrity oversight monitoring engagements on behalf of private sector clients as well as local, state, and federally funded agencies.

Chris Ward is Senior Director of Forensic Engineering at Thacher and has over 14 years of experience as a forensic and consulting engineer in projects around the globe. He has served in the roles of engineer as well as environmental and safety specialist working on several integrity monitoring assignments. His clients include New York City Housing Authority, the Governor's Office of Storm Recovery and several Port Authority projects (e.g., the WTC Transportation Hub, Memorial, Retail, Central Chiller Plant, and Sandy Resiliency Task Order One / PATH projects).

He has worked closely with a wide array of senior personnel and is familiar with mass transportation agency policies and procedures. His work has centered on preventing, detecting, and investigating potential change order fraud, falsification of invoices, use of substandard materials, prevailing wage reviews, and violations of environmental and safety mandates. He has also performed audits of contractor compliance with federal grant and loan requirements, such as HUD CDBG-DR, and audits of contractor conformance with environmental and safety requirements.

Steven Mania is the President of Environmental Connection, Inc., (EC), a New Jersey-based firm specializing in environmental investigations, litigation support, integrity monitoring and failure analysis in the tri-state area of New York, New Jersey, Pennsylvania, and beyond. Mr. Mania has more than 30 years of experience in performing these services. In addition to his many accomplishments, when required, Mr. Mania successfully assembled and integrated corporate resources to augment large scale multidisciplinary high profile engagement efforts with others. Mr. Mania and his team of

professionals were instrumental in the design, management and execution of the projects under the firm's purview.

Mr. Mania and EC's team have a well-established, long-standing history of collaborative efforts with Thacher and its key personnel. During the more than 25-year relationship with Thacher staff, Mr. Mania worked on a vast amount of integrity engagements for a number of high profile clients, including the WTC recovery and reconstruction Projects. In line with the IPSIG and Environmental Performance Commitments risk assessments, mitigation design, monitoring and reporting, Mr. Mania has served, and in some instances continues to serve, the NYC School Construction Authority, the NYC Department of Investigation, the NYC Housing Authority and the NY/NJ Port Authority and others.

Jose Velazquez is Director of Forensic Auditing at Thacher. He is a Certified Public Accountant with more than 14 years of accounting and auditing experience across many industries including construction and real estate. Mr. Velazquez is a Certified Fraud Examiner and has provided services including forensic accounting, litigation support, investigative auditing, fiscal and integrity monitoring, regulatory compliance reviews, fraud risk assessments, and internal controls reviews for a wide range of public and private clients. At Thacher, he manages various forensic audits and is responsible for designing and implementing corruption prevention, compliance/business management, and ethics programs.

III. Qualification of Firms and Related Experience

As a result of our successes in integrity monitoring engagements, Thacher has earned a reputation as one of the foremost integrity monitoring firms. Our approach, expertise, and experience described in Section I, has given us a unique understanding of the mission, philosophy, and work practices of the regional transit authorities and provides us a deep knowledge of the companies and stakeholders that will be involved in any future project.

Our DBE partner, Crescent Consulting, Inc. (Crescent), provides a wide range of specialty consulting services to assist construction industry clients in ensuring compliance with AA/EEO, Diversity, Local & Integrity Monitoring Programs. Crescent is certified by New Jersey Transit as a Disadvantaged Business Enterprise (DBE) and their services include MBE/WBE/DBE compliance reviews, policies and procedures reviews/development, risk assessments and reporting for projects ranging from \$1 million to more than \$2 billion.

Crescent's participation on infrastructure and transportation projects include the Tappan Zee Bridge Repair Project, Brooklyn Navy Yard Center at Building 92, and the New Jersey Transit Gladstone Rail Line Poles & Foundations Replacement project, among several others.

As stated previously, our team also includes Steven Mania, President of EC. In its decades of experience providing consulting services to both public and private sector clients, EC has participated in many integrity monitoring engagements, with emphasis on the building sciences, LEED

compliance, geosciences, industrial hygiene, safety, biohazards, and general construction related consulting services for various City of New York agencies and private legal and investigative firms throughout New York, New Jersey and Pennsylvania. EC's services focused on environmental forensic investigations and litigation support, expert witness testimony, contract audits, master contract development, field investigations, software development, training and seminars. Often, EC's efforts are coupled with the client's in-house professionals, including other multi-disciplinary forensic investigators including architects, engineers, attorneys and subject matter experts. EC developed client specific strategies and solutions to identify and deter business practices that might otherwise encourage fraud and corruption. As a result of these efforts, clients have been provided with technical support and evidence to litigate, prosecute and recover hundreds of millions of dollars.

EC has served in various high level advisory capacities on projects ranging from the 1991 SCA's Operation Clean-House to the 2001 WTC recovery and 2006 construction of the World Trade Center. Transportation Hub. In that capacity, EC participated in investigations and monitorship of matters related to organized crime, fraud prevention, environmental compliance, contract compliance, prevailing wage compliance; construction fraud, soil management, laboratory fraud, MBE/WBE fraud and illegal disposal. With its extensive background in environmental sciences, EC's contributions include the analysis of risks, development of risk mitigation strategies, compliance oversight and reporting, including: review of procedures and development of enhancements, design and implementation of corruption prevention programs, cost analysis and monitoring, record review and compliance evaluations. EC's environmental specialists are especially adept in services ranging from environmental, industrial hygiene and integrity risk monitoring to complex forensic investigative analysis and superfund PRP investigations.

A. Related Experience

1. New Jersey Department of Treasury – Superstorm Sandy Recovery Projects

When Governor Chris Christie required the use of integrity monitors on all major Superstorm Sandy reconstruction projects, Thacher was selected to monitor the first two projects assigned, helping set the standard for this important state-wide undertaking. The City of Elizabeth Veteran's Memorial Waterfront Park project involved the rebuilding of the entire waterfront, including the memorial park, the municipal marina and the recreation and boardwalk piers. The City of Perth Amboy project involved the rebuilding of seven areas, including the Promenade at the Old Ferry Terminal, a beachfront promenade, and a fishing pier.

Both projects encompassed performing risk assessments and recommending loss prevention strategies to prevent duplication of benefits, inefficiency, fraud, waste, abuse, malfeasance and mismanagement of funds; determining if appropriate compliance systems and controls related to internal controls, procurement, contracting, compliance, cost eligibility, contract management, invoicing, payment, are in place to comply with applicable State and Federal guidelines and regulations – including compliance with FEMA funding guidelines and regulations - and to test and

monitor control environments. Unique aspects of this work, as well as all post-Sandy work, require the ability not only to look back at work already performed, frequently on a time and materials basis, but also to look forward to work in the process of being completed.

One of the lessons learned, especially because this was New Jersey's first foray into integrity monitoring, was the importance of establishing the role of the monitor. By emphasizing that our role on this project was not to serve as a "cop on the beat," but was instead to ensure transparency and real-time auditability, we garnered significant cooperation with a municipality that was originally hostile to our presence and the need for additional oversight.

2. Port Authority of New York and New Jersey – World Trade Center Transportation Hub

In 2006, the Port Authority of New York and New Jersey selected Thacher to provide integrity monitoring services on the rebuilding of the World Trade Center ("WTC"), then the country's largest construction project utilizing a combination of local, state and federal funding sources. Responding to the concerns about corruption and fraud on this endeavor, Port Authority Commissioners required integrity monitors on all of the large scale projects including the Transportation Hub, the September 11th Memorial and Museum, and the Freedom Tower.

Our work on the WTC Transportation Hub involves monitoring the construction of a \$4.5 billion major mass transit hub and related infrastructure. This engagement began in October 2006 and is still ongoing. It is now in its 11th year; we believe that it is the longest construction integrity monitoring engagement in history.

Our initial mission as integrity monitor was to design and implement a corruption prevention program. We reviewed and assessed the adequacy of corruption controls on all phases of the project to ensure that all transactions were conducted and documented in such a way as to be both transparent and auditable. Based on our review, a corruption prevention program was designed to ensure adequate oversight and monitoring of compliance with those controls.

This engagement is ongoing, and we are continuing to conduct real-time audits of construction activities in the field, desk audits of invoices, change orders and other project documents. During the engagement, we have made numerous recommendations regarding improvements in the areas of purchasing practices, construction processes, project finances, environmental compliance, safety, physical site security, information security, prevailing wage compliance and M/WBE program compliance, many of which have been adopted by the Port Authority.

Lessons learned throughout this project have included the need for intimate familiarity with the processes that regulate significant functions on the project, and the personnel charged with performing those functions – at the agency, CM, GC and trade contractor levels. By developing this familiarity, we have developed an understanding of the project that has made us effective and we

have earned the trust and respect of agency, CM, GC and trade contractor personnel that has given us access and a “voice at the table.”

When Superstorm Sandy struck, our WTC team mobilized immediately to design integrity controls to minimize the possibility of fraud in the massive T&M effort to clean up the site and replace damaged work. That effort was successful in preventing fraud. We have reviewed lump sum and T&M Sandy change order work as parts of our fraud prevention program.

3. Empire State Development Corporation – Moynihan Station

The Moynihan Station Development Corporation, a subsidiary of the New York State Urban Development Corporation (doing business as the Empire State Development Corporation (“ESDC”), retained Thacher to serve as its Integrity Monitor to perform independent oversight and management reporting services in connection with Phase One of the Moynihan Station Civic and Land Use Improvement Project. Phase One of the Project has involved work in the historic James A. Farley Post Office Building, which is owned by the ESDC; the Train Shed of New York Pennsylvania Station, owned by the National Railroad Passenger Corporation (“Amtrak”) and located below the Farley Building; the West End Concourse (the “WEC”) leased by Long Island Rail Road (“LIRR”) from Amtrak; and the passageway connecting the West End Concourse to the 8th Avenue Subway and Penn Station (“the 33rd Street Connector”) operated by MTA New York City Transit (“NYCT”).

Phase One includes two new street level entrances at the 31st and 33rd Street corners of the Farley Building to the WEC; the expansion of the WEC to be approximately double in width and length to service nine of Penn Station’s eleven platforms; new vertical access points (stairs, escalators and elevators) from the expanded WEC to the existing Penn Station platforms; a widened and reconfigured 33rd Street Connector to be compliant with the Americans with Disabilities Act (“ADA”); and a new emergency platform ventilation system for the area of the Train Shed below the Farley Building.

Thacher’s responsibilities have included performance of an integrity risk assessment during which we performed a review of all existing project policies, procedures and processes for vulnerability to fraud, corruption, cost abuse, safety, and/or environmental risks and design and implementation of a corruption prevention program designed to mitigate integrity risks. In addition, Thacher has been tasked with review and monitoring of budgets, including amounts allocated for general conditions, holds, contingencies and allowances; review of the construction manager’s and trade contractors’ records regarding insurance coverage, environmental and safety for compliance with the terms of their contracts and with applicable laws, rules and regulations; review of project costs, and backup documentation thereto, including payment requisitions and change orders, equipment invoices, site logs and trucking manifests for evidence of overbilling; forensic review and oversight; and forensic auditing and investigations and oversight of the project quality management plan.

Some highlights of our monitoring efforts to date include:

- conducting QA/QC integrity reviews of hot work procedures, where we noted a number of deficiencies and made recommendations which were adopted by the general contractor; and of asbestos abatement and soil disposal and transportation, where we again noted deficiencies that subsequently were corrected;
- conducting ongoing onsite monitoring of subcontractor activity, which identified an unauthorized substitution of a MBE subcontractor with another subcontractor whose Port Authority certification had been revoked, ultimately resulting in the company's removal from the project; and
- performing a review of the Buy America procedures in place to ensure contractor compliance with contractual obligations. As a result of our review and recommendations, an enhanced oversight program by the construction manager was put into place, and Thacher continues to monitor for any integrity lapses.

4. Metropolitan Transportation Authority – Fulton Street Transit Center & South Ferry Terminal

Thacher was selected by the Metropolitan Transportation Authority (“MTA”) to serve as the integrity monitor in connection with the construction of the MTA’s \$1.4 billion Fulton Street Transit Center and the \$540 million renovation of the South Ferry subway terminal in lower Manhattan. The General Contractors (“GC”) on these projects were two of the largest GCs in the New York metropolitan area, Skanska USA Civil Northeast, Inc. (“Skanska”) and Schiavone Construction Co, LLC (“Schiavone”).

Thacher provided a team of on-site and behind-the-scenes investigators, engineers, auditors, attorneys and analysts to screen contractors (using, among other tools and techniques, our proprietary database of information regarding New York Metropolitan area contractors); ensure compliance by contractors with legal and contractual requirements; verify the bona fides of DBEs employed on the projects and monitor that the DBE firms perform the work with their own staffs, supervision, and finances; and ensure that payments to subcontractors were made on a timely basis and that there was compliance by contractors with federal regulations regarding the composition of the workforce on the projects.

During this project, we were able to employ our sophisticated and well-informed methods of investigating M/W/DBE fraud to secure significant success for the MTA. We worked closely with the Office of the Inspector General for the MTA (“MTA/OIG”) in developing evidence of improper practices regarding the DBE practices of Skanska, Schiavone and a number of their DBE subcontractors on these MTA projects. The MTA/OIG referred the Schiavone investigation to the United States Attorney for the Eastern District of New York. The result was a civil settlement whereby Schiavone agreed to pay forfeiture of \$20 million to the United States and to reimburse the MTA/OIG approximately \$2 million for the cost of its investigation.

The MTA/OIG referred the Skanska investigation to the United States Attorney for the Southern District of New York. In April 2011, Skanska subcontractor Environmental Energy Associates, Inc. and its principals were indicted on federal fraud and conspiracy charges. The indictment charged that Skanska had “effectively self-performed the work...and helped create the appearance that EEA had done commercially useful work on the project.” Although Skanska was not charged in the matter, the firm agreed to pay \$19.6 million to settle the federal investigation into DBE subcontracting practices among contractors in New York City.

5. NJ Transit - Gladstone Line Poles & Foundations Replacement project

The Gladstone Poles & Foundations Replacement Project consists of installing new concrete foundations and steel poles on the Gladstone Branch of New Jersey Transit's (NJT) Morris & Essex Line damaged as a result of Superstorm Sandy. The project is valued at \$13.3 million dollars funded by an FTA award related to the Superstorm Sandy Recovery and Resiliency Program (Emergency Relief Program). Case Foundation Company is the prime contractor and the construction project has a 20% DBE participation goal. Case awarded a subcontract to L&R Construction Company valued at approximately \$2.8 million. L&R is currently certified by the NJDOT to perform steel reinforcement work.

B. Organizational Structure and Availability of Staff

We believe our current capacity is sufficient to provide NJT with the required resources necessary to successfully handle this engagement while simultaneously handling engagements for our other clients. Our previous and current experience handling a number of engagements at once due to the multidisciplinary nature of our team and ability to draw from a deep bench of talent, has evidenced this ability.

Our Director of Operations, Phil Sherman, is responsible for ensuring our proposed staff members have sufficient capacity to perform the required services. Each of the proposed staffers for the Project have sufficient capacity to successfully perform the proposed hours specified in our cost proposal.

The Organizational structure of the team is described in the following section.

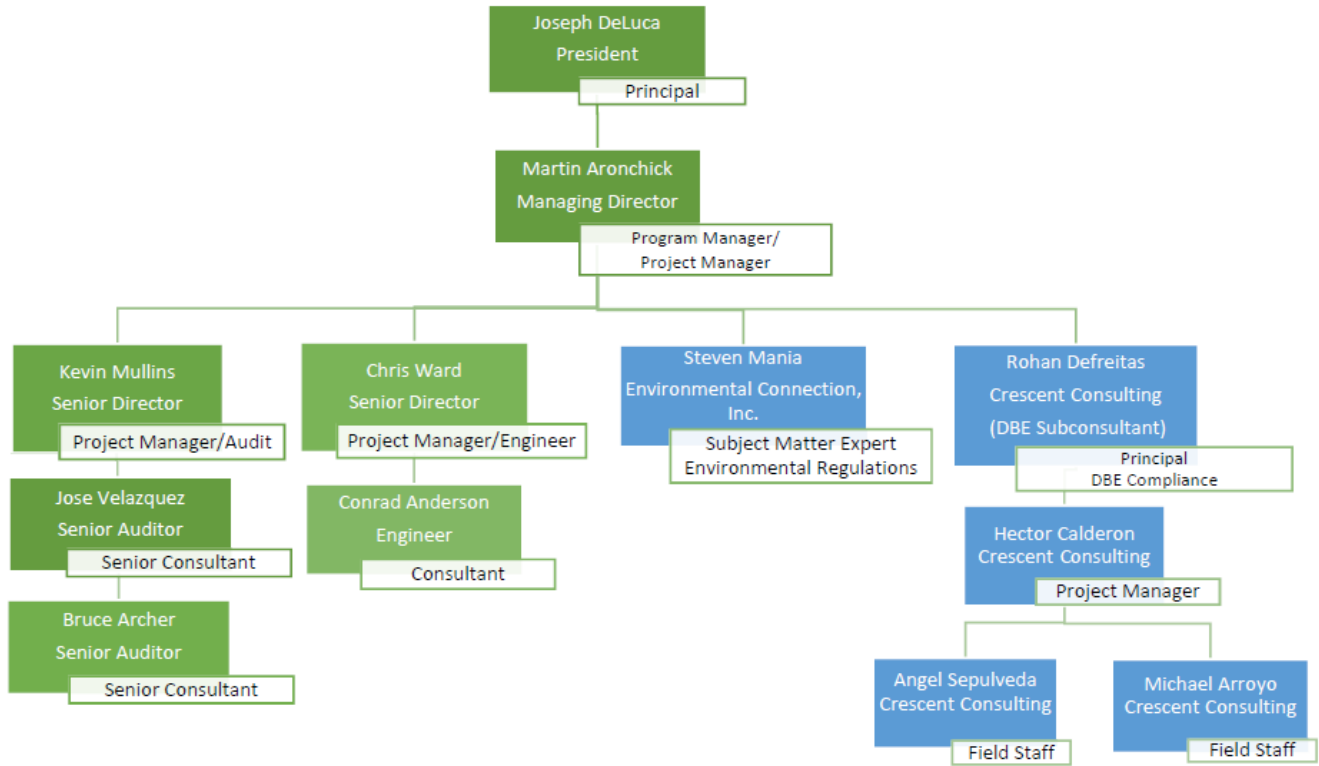
IV. Team Organization/Resource Allocation

The engagement will be managed by Project Manager Martin Aronchick, and will include forensic auditors, forensic engineers, research analysts, and other specialists. Our multi-disciplinary team approach has consistently proven to be successful on a wide array of integrity monitoring engagements. Our practice of maintaining executive oversight by the Firm's principals has enabled us to achieve a high degree of consistency and quality.

Combined, our personnel bring decades of experience in designing and implementing integrity monitoring programs and possess significant experience performing integrity monitoring services on

transit projects. We are confident that by leveraging our multidisciplinary experience and approach, we are uniquely positioned to perform this monitorship with a minimal to no learning curve.

The roles of our DBE partner, Crescent, and of our environmental specialist, Environmental Connection, Inc., are described above in Sections II and III and are further described below in Section VII.



Thacher’s staffing approach is designed to maximize efficiency, leverage existing oversight resources and delegate tasks to the most junior staff level capable of producing quality work product.

Our detailed work plan reflecting the number of person-hours proposed for each Task is attached as Exhibit B (Monitoring Work Plan, Fraud Risk Potential Indicators and Fraud Risk Monitoring Hours Templates from RFP Attachment 7).

V. Technical Section

A. Intelligence Driven Approach

Our proposed approach to the detailed scope of work focuses on practicality and real-world solutions, emphasizing site presence to determine what is actually happening on the project. Our years of

experience in integrity monitoring enable us to target project-specific risks without wasting resources in areas that do not require scrutiny. As we identify problems, we strive to get to the heart of the matter and design solutions to address and prevent integrity issues without burdening the project's progress. We also follow through to ensure that proposed solutions actually work and do not adversely impact project schedules.

Based on our years of experience in the integrity monitoring industry, Thacher understands that our clients have limited resources. We understand that while we cannot effectively monitor every transaction on every project, we maximize our efforts to focus on those activities or transactions most susceptible to risks of fraud, waste, and abuse. Thacher is able to accomplish these objectives successfully, despite our clients' resource limitations, because we employ an *Intelligence Driven Approach* designed to identify the areas of greatest risk to a project (both in terms of impact and likelihood of occurrence), we understand the controls in place to mitigate those risks, and then we focus our efforts on those risks that are most likely to occur and have an unacceptable negative impact to the Project's schedule, budget or reputation.

Our *Intelligence Driven Approach* leverages our longstanding knowledge of the construction industry and its participants – construction managers, general contractors, design firms, trade contractors, specialty contractors, consultants, and the regulatory and law enforcement agencies that operate in that industry. By utilizing our proprietary database of historical industry knowledge, which has been developed and refined over the course of three decades, and which is updated daily, we stay ahead of the latest fraud schemes and trends. We also draw from lessons learned on other similar projects to keep abreast of the current state of the industry.

The information provided by NJT in its February 24, 2017 responses to questions and in Addendum No. 1 has informed our approach to this engagement. The technical approaches described below will seek to identify fraud, waste and abuse in the environmental services provided to NJT by BEM and its subconsultants through a sampling approach, rather than try to monitor BEM's implementation of its compliance program or verify the technical accuracy and completeness of that program.

The June 18, 2018 completion date for the IOM services and the end dates for the seven BEM Task Orders also informs our approach. Since BEM has completed its services under TOA 2 Rev 1 and TOA 2 REV 2, we will be making a retrospective analysis of BEM's completed services, seeking evidence of past fraud, waste and abuse. Given the 2021 end dates for the other five TOAs, we will in the limited term of the IOM engagement seek to quickly identify not only past misconduct, but also potential ongoing or future fraud, waste and abuse so that we can as quickly as possible put in place remedies that will, with respect to these five TOAs, enable NJT to receive the benefit of these solutions until the TOAs are complete.

B. Task A – Monitoring Contractor/Vendor Compliance with Applicable Laws and Contract Requirements

Monitoring contractor and vendor compliance with applicable laws and contract requirements begins with a thorough understanding of the weak points most susceptible to exploitation. This monitoring is conducted through an active, on-site presence of multiple disciplines, including engineering staff, and consists of reviews of documents, payment requests, change orders, invoices and other forms submitted by vendors. Our forensic engineers understand contractor means and methods, and our auditors, and their field reviews maximize the effectiveness of our monitoring efforts. They understand the operational and business needs of keeping a project in motion and plan their activities accordingly. We integrate this review of documentation with intelligence gathered from our multifaceted approach, which includes site visits, investigations, quality assurance and quality control reviews, and product substitution inquiries.

We understand the complex federal, state and local laws and regulations that govern large-scale transit-related construction throughout the region. The federal funding of the Sandy-related resiliency projects creates additional demands because the Program must comply with federal requirements applicable to procurement and other key aspects of the projects, as outlined in FTA's Federal Register notice of funding, to avoid the potential for clawbacks of federal funding. We have substantial experience in monitoring construction projects that have received federal funding from the FTA, FEMA, and HUD including the Moynihan Station, WTC Transportation Hub, and MTA's Fulton Street Transit Center, South Ferry Subway Terminal, and East Side Access Projects and will be able to discharge this function seamlessly.

As the first Integrity monitor assigned by the State of New Jersey under the New Jersey Integrity Monitor Act (A-60), we are familiar with and understand the requirements imposed by that legislation. Moreover, we have substantial experience in monitoring Sandy-related construction costs. We have performed Sandy monitoring for the PANYNJ, including their Sandy clean-up efforts on-site, the City of New York and the State of New York. The State of New Jersey awarded us the first two New Jersey Superstorm Sandy construction monitoring projects. These engagements involved satisfying the applicable FTA Federal Procurement Guidelines and other FTA requirements, as well as the State of New Jersey Treasury requirements. We know these requirements, we know how to satisfy these requirements, and we can accomplish this with little to no learning curve.

In our integrity monitoring capacity, we have evaluated environmental project management including the identification, handling and disposal of more than one million tons of soil from the WTC Transit Hub project. We also evaluated the identification, handling and disposal of thousands of tons of material from the Croton Filtration plant project and from the Ground zero clean-up. Through the course of integrity monitoring we have evaluated NEPA compliance as it related to the rebuilding of the WTC Hub and Memorial through evaluation of compliance with the Environmental Performance Commitments agreed to as part of the EIS negotiations. We have also reviewed the requirements of Section 106 of the Historic Preservation Act as it related to various elements of renovation and

restoration projects for the NYC School Construction Authority, the NYC Housing Authority, the NYC Metropolitan Transit Authority, and various other government agencies.

Thacher is also familiar with various Federal, State and Local air requirements from our monitoring at the cleanup of Ground Zero and the rebuilding of WTC Transit Hub and the Memorial. Throughout the course of our integrity monitoring services we have evaluated the identification of hazardous conditions through the sampling process, the development of remediation strategies to address those conditions and the mitigation and remediation of those conditions in compliance with the Federal, State and local regulations. In addition to these activities, we have evaluated the permitting process undertaken by various agencies to evaluate the process for signs of fraud, waste and abuse.

In addition to the traditional risks identified on all monitoring assignments, some of the particular environmental risks we have identified for the current RFP include general program wide environmental risks (NEPA Planning and Scoping Work Risks and Environmental Program Management Risks) as well as specific environmental project risks. These risks and our approaches for monitoring these risks are described below. Preliminarily, we wish to point out that we would consult with NJT at the outset of the engagement so that our performance of these tasks is focused on prevention of fraud, waste and abuse, and does not extend to monitoring BEM's implementation of its compliance program or to verification of the technical accuracy and completeness of the compliance program.

The environmental risks include the following:

- NEPA Planning and Scoping Work Risks
 - Improper assessment of the applicability of NEPA regarding damaged properties;
 - Failure to comply with NEPA requirements to determine whether a significant environmental impact will require an EIS;
 - Improper development of EIS resulting in noncompliance with NEPA;
 - Failure to determine whether a Categorical Exclusion (CE) is available for consideration;
 - Failure to properly design a roadmap for NJT to define the structure of compliance with FTA and FHWA Rules;
 - Failure to determine whether Section 106 (a) of the Historic Preservation Act of 1966 applies to the program;
 - Failure to take into consideration Section 4 of the DOT laws of 1966 resulting in termination of project approval;
 - Failure to design a procedural framework for how NJT will develop and implement a compliance strategy for Federal, State and local regulations; and
 - Inadequate insurance for the Consultant and or Sub consultants resulting in increased liability for NJT.

In order to monitor these risks, we will examine the details of BEM's contractual obligations under the consulting contract with NJT to provide NEPA Planning and Scoping services. We will determine if those obligations are clearly defined both from a contractual and regulatory perspective. We will also examine the contract for the roadmap provision to design and define the structure of compliance with FTA and FHWA Rules. We will determine if BEM created such a structure and whether that structure creates any potential deficiencies that could lead to fraud, waste and abuse. We will examine the requirements to create a procedural framework for NJT to develop and implement a compliance strategy for the applicable Federal, State and local laws and regulations. We will determine if BEM's procedural framework sets forth the compliance strategy and whether that strategy has been implemented.

We will examine the developed strategy for any deficiencies that could lead to fraud, waste, or abuse. We will also examine the insurance requirements set forth under the NJT contract. We will determine whether BEM and its subcontractors'/sub-consultants' are compliant with those requirements; if they are not compliant, we will determine whether their non-compliance is the result of fraud, waste or abuse. We will also examine the Federal reimbursement requirements and determine whether BEM and its sub-consultants are following those requirements in the execution of their work. If they are not compliant, we will determine whether that is the result of fraud, waste, or abuse.

- Environmental Program Management Risks
 - Improper Environmental assessment of project areas identified by NJT for required permitting, site restoration and remediation compliance;
 - Failure to obtain necessary permits, delaying and jeopardizing completion of the projects;
 - Failure to develop proper remediation plans and approvals for remediation of the sites;
 - Improper disposal of materials from the site resulting in liability for clean-up;
 - Failure to develop roadmap for NJT and each of the projects identified in the RFP regarding NEPA, Section 106 of the HPA, Section 4 of the DOT Act and the State and local regulations;
 - Failure to develop a procedural framework for how NJT will comply with the regulatory requirements; and
 - Failure to develop an approach that satisfies the environmental review process and provides guidance for the federal reimbursement process.

In order to monitor these risks, we will examine the BEM contract and determine the Program Management requirements. We will determine if BEM is compliant with those requirements; if they are not compliant, we will determine whether it is a result of fraud, waste or abuse. We will examine the BEM contract for the specific program management requirements of each project. We will determine if BEM has set up a structural system to manage all of the projects.

We will also examine the particular aspects (i.e. contamination identification, waste handling plans, etc.) of the structural system to determine whether they are compliant with the contract and applicable regulations. If they are not, we will determine whether any deficiencies identified are the result of fraud, waste or abuse. We will examine the procedural framework developed for the NJT to comply with the Federal, state and local laws and regulations. We will determine whether that framework has any deficiencies that could lead to non-compliance with those laws and regulations. We will also review compliance with FTA and FHWA reimbursement requirements and determine if the systems set up by BEM and its sub-consultants are compliant with those requirements. Where compliance deficiencies are discovered, we will examine whether those deficiencies are the result of fraud, waste, or abuse.

- The Individual Project Environmental Risks include:
 - Improper project management regarding NEPA Compliance, Section 106 (a) HPA compliance, Section 4 of the US DOT Act, and State and Local Regulations;
 - Failure to properly review and determine land use requirements and obtain necessary permits;
 - Failure to properly assess environmental conditions at sites resulting in non-compliance with Federal, state and local clean-up requirements;
 - Reliance on improper decisions of LSRPs (Licensed State Remediation Professionals) to address concerns and comply with the NJ DEP requirements;
 - Failure to properly apply for and obtain necessary permits for Air and site remediation
 - Failure to properly monitor the activities of the practices of the 12 subconsultants resulting in fraud, waste and abuse of NJT and Federal funding; and
 - Failure to federal reimbursement for project.

In order to monitor these risks, we will take the following steps:

- We will examine the contractual requirements for each project.
- We will determine if BEM has set up a project management structure to properly comply with those contractual requirements. We will examine the specific regulatory requirements for each project and determine whether the BEM compliance plan has addressed each of those requirements.
- We will examine the BEM individual project management program to determine whether the structural framework to comply the Federal, state and local regulations has been implemented on each of the specific projects.
- We will determine whether the BEM team has taken all of the conditions identified in the contract under consideration in the development of the remediation/mitigation plans to address those conditions.
- We will review whether BEM has an internal process to examine the activities and actions of its sub-consultants, and whether that process identifies deficiencies and provides for

corrective actions to address those deficiencies. We will examine BEM's process for reviewing the submissions of its sub-consultants, looking for internal controls to mitigate integrity risks.

- Where deficiencies are identified, we will determine what type of corrective actions can be implemented to attain compliance, and whether the deficiencies were the result of fraud, waste, or abuse.

C. Task B – Developing and Implementing Integrity Programs

The development and implementation of an integrity program follows the preparation of a full fraud risk assessment (discussed in detail below). Our integrity programs are designed to address known areas of fraud and risk and also contain detailed work plans. Our work plans are then designed to implement the specific methods employed as part of our Integrity Program to mitigate and minimize the identified risks and contain level of efforts (in hours) by each discipline to implement the plan.

Our work plan methodology addresses a key problem in monitorships – how to stretch limited resources in a manner that responsibly discharges what is often a formidably large scope of work for monitorships. A rote response will not generate the needed focus, nor produce a satisfactory approach to integrity monitoring. It certainly will not be responsive to unforeseen problems, even though those unforeseen problems will assuredly crop up, demanding time and attention.

Drawing on its decades of experience preventing, detecting and remediating fraudulent practices in construction-related programs, the team at Thacher has developed Integrity Programs that have saved owners tens of millions of dollars while protecting their reputations and enhancing efficiencies in infrastructure procurement and maintenance programs.

The focus of our Integrity Programs is on prevention. The core principle underlying their design is that integrity is best achieved not by seeking to “catch cheaters” but rather by ensuring compliance with effective integrity controls that promote transparency, efficiency, and auditability. Execution of such programs involve a two-phased approach: (1) ensuring good controls are in place and (2) monitoring compliance with those controls. It is a fundamental tenet that such controls must never interfere with effective management of the programs and initiatives they are designed to protect.

Our Integrity Programs are supported by melding experts in the construction industry, including forensic accountants, auditors, engineers, analysts, and other specialists on an as-needed basis, into a single integrated team. In conjunction with NJT, Thacher can assist in developing a program to facilitate the reporting of illegal and improper conduct. Examples of program components include:

- **Contract Integrity Provisions:** Thacher can assist in the development of strong contract provisions that, in unique and practical ways, protect the integrity and reputation of our client. Recommendations include a strong “right-to-audit” clause (with a drop down clause to extend the provision to subconsultants); a non-collusive bidding certification; and language

mandating adherence to specifically delineated fair and ethical business practices (with sanctions for violations).

- Code of Ethics: Thacher can assist in the development and dissemination of a Code of Ethics that communicates the ethical standards of our client to all project participants, and sets a tone of zero tolerance of ethical breaches.
- Integrity Hotline: Thacher can implement and manage an integrity “hotline” to accept reports of fraud, waste, and abuse. The hotline is prominently promoted throughout project sites or offices through signage, again creating the ubiquitous message that integrity matters. These signs, as well as similar notices in paycheck envelopes, explicitly describe our clients’ commitment to integrity.
- Training (If Applicable): Drawing on our ample experience from past engagements, we would facilitate “kick-off meeting” presentations and integrity awareness training, defining the applicable standards and expectations. Our integrity awareness training would be tailored to the consultant’s executive and project management teams, administrative and accounting staff, field supervisors, and subconsultants at all tiers, to deliver the strongest possible message that integrity matters on the project. We recommend doing this at the procurement stage, if possible, otherwise promptly following a contract award. We would raise awareness of the integrity standards and oversight mechanisms, including the Integrity Oversight Monitor’s role. The integrity awareness presentations would foster proactive deterrence in discussing “dos and don’ts” along with “lessons learned.”

As with every other aspect of our proposed approach, we plan to leverage other training programs provided, either by NJT or other Integrity Oversight Monitors to avoid duplication and ensure our approach to monitoring BEM is efficient and cost-beneficial.

D. Task C – Conducting Background Checks, Reviews of Documents and Investigations

1. Background Checks

Our substantial experience in screening construction managers, trade contractors, consultants and other firms also satisfies a critical need in any integrity monitoring assignment and sets us apart from our competitors. Thacher has vetted well over 13,000 corporate entities and individuals. We perform these background checks by relying principally upon (1) our own proprietary databases; (2) hundreds of public databases; (3) our team of experienced analysts and researchers who have developed well-honed methodologies for plumbing both the propriety and public databases; and (4) well-placed sources in the areas of government, industry, and the media.

Thacher can develop a protocol to include forms such as a statement of minimum standards of integrity for qualification and a Background Integrity Questionnaire (BIQ) tailored to the specific needs of NJT that elicits all necessary information to permit performance of the vetting process but does not

deter qualified candidates. We can develop a letter or RFP notice from NJT for presentation to all prospective bidders notifying them of the integrity vetting program and notifying them of their obligations under the program. The protocol will also set out the process by which BIQs will be obtained by potential bidders in either hard or electronic form from NJT or Thacher; how completed questionnaires will be delivered to Thacher; and how screens will be tracked and reports forwarded to NJT by Thacher. Upon completion of each screen, Thacher would consult with NJT to evaluate the results, analyze any negative information or special issues, and determine whether there is cause for refusing to enter into a contractual relationship with the selected bidder. Thacher would also identify possible actions that New Jersey Transit could pursue in unclear circumstances.

2. Document Review and Investigations

Our team possesses substantial legal talent to review and understand contractual agreements between NJT, BEM, and its subconsultants. Our team includes forensic engineers, accountants, procurement, environmental and safety specialists, and investigators. We efficiently coordinate this multidisciplinary team's activities so that our work product reflects a synthesized approach and our clients have the right expertise reviewing the appropriate documentation.

On a sampling basis, our forensic auditors, engineers and investigators review areas of concern and our methodologies for reviewing individual documents are described below. The types of documents provided as examples are those most likely to be encountered by the monitor assigned to the Project.

A. Invoices

Risks include commingling, theft (for overbilling), default (after positive cash flow from overbilling or frontloading is exhausted), and delays (via deliberate obfuscation of the work performed to give the impression of greater progress than actually achieved). We determine if the amounts invoiced to NJT accurately reflect the value of services rendered by BEM and its subconsultants.

On a sampling basis, our forensic auditors verify the clerical accuracy of invoices and supporting documentation to ensure that they roll forward properly; that retainage (where applicable) is properly withheld, in accordance with the contract; that the services performed do not deviate from the original proposal; and that related expenses and other cost reimbursable items are properly supported and allowable under the terms of the contract, and that amounts are not being double billed. All of these reviews are supported by the expertise and assessments made by our forensic engineers. This approach serves to act as an effective extension of the NJ Transit Internal Audit Dept. as they perform their required reviews.

B. Change Orders

On a sampling basis, our forensic engineers will review the base scope of work assigned to BEM and its subconsultants, the proposed scope changes, justification for the changes, independent cost estimates, supporting documentation, adherence to policies and procedures, cost reasonableness,

and applicability of cost allocation agreements. These reviews aim to ensure that base scope work is not charged again in the change order and that costs are not inflated. We review various procurement and project management processes for the presence of red flags or suspicious patterns and create a checklist of required documents and proposed procedures. Interviews of consultant staff and NJT personnel are also performed as needed.

On a sampling basis, our forensic auditors and engineers will review change order documents for compliance with procedural requirements. Our forensic auditors and engineers review a sample of the consultant's proposed costs for change orders and compare them to independent estimates prepared by BEM and its subconsultants and/or NJT. We track a sample of change order payments against the budget established for the change order to protect against potential overbilling issues. Through the entire change order review process, our forensic engineers and auditors collaborate and leverage each other's work.

C. Allowances, Contingencies, Acceleration and Holds

Our audits have shown that many times, contractors use contingencies and allowances to cover up mistakes or fund budget deficits in other unrelated areas. Our team reviews the contract, defining conditions in which such funds may be spent. Our forensic auditors examine a sample of supporting documentation for associated costs and our forensic engineers verify whether work billed has been performed. The result is that our team confirms whether budget items are being used as an additional funds source for work outside specified purposes.

D. Bond and Insurance Payments

To ensure that required insurance policies and bonding are in place, our forensic auditors and other staff will review contracts and bonding requirements, then request and review original policies from underwriters. Insurance "certificates" will not be accepted as proof of coverage. Instead, we will spot-check actual policies and riders to ensure that all appropriate legal entities (i.e., subsidiaries) and projects are covered. To ensure policies have been paid, our auditors review original invoices from brokers and spot-review cancelled checks or bank wire confirmations. If policies are paid via installment we will spot-check monthly payments against cancelled checks or bank wires. To ensure proper coverage over the life of the project, we will monitor policy expiration dates. Additionally, our forensic auditors will periodically spot-check policies against adjusted contract values to ensure that additional insurance and/or bonding requirements resulting from new awards, scope changes, or change orders are sufficiently maintained. Our team's key staff all have substantial experience and expertise in conducting and supervising multi-disciplinary investigations involving the full gamut of activities on construction projects. Depending on the nature of the subject matter, the investigation may involve site visits, surveillance, analysis of public records, and analysis of the records of the Project.

E. Task D – Reporting

Keeping NJT informed of any developments during the course of our monitorship is, of course, a priority. Therefore, in addition to providing the same or similar reports to NJT as are required by the Department of the Treasury, we would advocate for regular meetings with NJT staff, where we could provide briefings on our activities, concerns, and findings. We would also advocate, if selected as an overall program manager for all Integrity Monitors, for regular meetings among the monitors and NJT to share information, thereby decreasing duplicative work and increasing the efficiency of the entire program. As the first Integrity Monitor selected under the program administered by the New Jersey Department of the Treasury, as well as the IOM for NJT's Gladstone Line Poles & Foundation Replacement project, we are familiar with departmental reporting protocols, including monthly and quarterly reports. We are also familiar with the duty to go directly to the Attorney General and/or Comptroller in the appropriate instance, with specific types of findings and have already successfully complied with these reporting mandates.

F. Task E – Preparing and Maintaining a Fraud Risk Assessment

In preparing a Fraud Risk Assessment, we follow a multi-step methodology. The initial step begins with utilizing our *Intelligence Driven Approach* and quickly identifying likely schemes that may be risks for BEM and its subconsultants. Next, we identify existing internal controls that provide fraud, waste and abuse opportunity-blocking mechanisms, including a review of any formal written policies and procedures. We interview executive management, operational supervisors, line staff and project participants to learn how they say or believe the system works to protect itself and what risks they believe are most relevant. This process allows us to identify any variations in the understanding of business procedures and internal controls. We ask each of our interviewees to describe the top risks as perceived from their vantage point and may also perform spot audits of specific transactions to test the effectiveness of these control systems to determine whether additional system “disconnects” or red flags may exist.

1. Intelligence Driven Fact-finding

Using the knowledge gained from our *Intelligence Driven Approach*, we are able to perform a risk assessment that also includes information specific to the Project to be monitored; for example, will the Project be required to meet obligations to certain external stakeholders; will the Project involve new offices or divisions specific to disaster recovery; will the Project implement new procedures never before required for otherwise experienced staff.

These data points are analyzed by our multi-disciplinary legal, accounting, engineering, and analyst staff in the context of the specific controls for the Project, concluding in the development of a risk assessment that highlights the areas of greatest risk to the Project and our sponsor. The risk assessment, in turn, provides recommendations for enhanced controls and allows for an informed

and project-specific discussion on devising focused and efficient work plans designed to monitor “weak” points in the Project’s control and compliance matrix.

Our *Intelligence Driven Approach* and detailed risk assessment ensure that our clients will not waste their resources on areas of minimal concern or risk, while maximizing coverage on those risks most likely to derail, delay or embarrass.

2. Identify Existing Controls

We begin the identification of existing controls through a review of applicable federal and state laws and regulations, contract documents, formal written policies and procedures, and RFIs. Typically, we request and review a wide variety of documents including, but not limited to: any formal written project management procedures (project procedures manual) addressing areas such as the procurement and bidding process, billing, accounts receivable and collections, accounts payable and payments, vendor selection and vetting, change orders, contingencies and allowances, time-keeping and reporting.

3. Spot Audits of Specific Transactions

The third phase of our Fraud Risk Assessment involves the spot audit of specific transactions. Based on the intelligence and information gathered during the first two steps, we may choose to review a select number of transactions to compare how the policies or procedures dictate the transaction to occur (and the understanding of the affected staff) to the actual transaction process in order to identify any disconnects or “red flags” that may give rise to an increased integrity risk. We test to see what the parties have done to ensure that the controls are protecting not only the work, but many of the compliance requirements.

4. Develop and Finalize Risk Assessment

While the development of the Fraud Risk Assessment is a process that begins on day one, at the conclusion of identifying the existing controls, interviewing stakeholders and project participants and spot audits of specific transactions, we begin the process of finalizing the Fraud Risk Assessment. This finalization includes close consultation and collaboration with staff from the NJT Internal Audit Department to ensure the prioritization of identified integrity risks and our recommended controls enhancements are practicable and in coordination with NJT’s priorities.

VI. IOM Firm DBE Program Compliance Monitoring of Consultants

Under the guidance and supervision of Thacher, Crescent will perform the tasks associated with assessing compliance by BEM and its subconsultants with DBE Requirements. Compliance with New Jersey Transit’s DBE program requirements involves knowledge of ethics reporting, monitoring, and

verification activities to ensure goals are met. Crescent's approach to monitor compliance with the Race Conscious DBE as established by NJT includes ensuring that our methodology, deliverables, and communication with NJT are of the highest quality. Crescent, a DBE firm with extensive experience providing DBE compliance monitoring and reporting services, will perform specific monitoring activities and ensure communication with NJT to address potential non-compliance in a timely manner to ensure overall engagement intentions remain the primary focus. We will conduct internal quality assurance reviews of all engagement deliverables.

The proposed monitoring program is derived from Crescent's knowledge of diversity reporting and the DBE Program Requirements set forth for this contract. Crescent will monitor, audit and report on BEM's performance against the stated race conscious DBE requirements. Based on Crescent's experience, the primary risks related to DBE program goals include, but are not limited to, the following:

- Falsification of certifications including firm ownership, ethnicity and gender, labor and financial reports;
- Lack of Commercially Useful Function provided the DBE firm(s);
- Lack of timely payments to DBE firms preventing the continuation of work;
- Contract changes excluding DBE participation;
- Changes in DBE firm participation without owner/agency approval; and
- DBE firm kickbacks to prime consultants or acceptance of pass-throughs.

Thacher will provide to NJT written memoranda and reports, as may be required, to ensure successful completion of the tasks specified for this project. These deliverables will detail the specific risks being assessed, integrity oversight monitoring procedures employed, specific documents, and electronic, physical or other information/correspondence reviewed. Thacher will detail key findings and make appropriate recommendations as may be warranted by outcomes pertaining to these activities.

A detailed plan outlining the procedures for assessing the Consultant's performance and compliance with DBE Program requirements is included in Exhibit C (DBE Compliance Work Plan Template from RFP Attachment 7).

VII. DBE Program Requirements for the IOM Firm

Thacher plans to utilize staff from Crescent to meet or exceed the 10% DBE participation goal for this project.

Thacher ensures compliance with DBE requirements through a two-tiered approach. First, the Project Manager, Martin Aronchick, has primary responsibility to track the work performed by DBE firms assigned to the projects through the life of the project to ensure participation requirements are on-track and to ensure the work performed is of sufficient quality. Supporting the Project Manager, and at no cost to the client, is our Director of Operations, Phil Sherman, who is responsible for ensuring appropriate resources are provided to the project and to ensure participation meets the prescribed goals.

VIII. Schedule

Thacher's proposed schedule envisions performing a significant amount of work from inception to produce all required deliverables and reports to NJT by June 2018. A comprehensive schedule outlining our activities responsive to the various tasks prescribed for the BEM Project is attached as Exhibit D.

IX. Quality Assurance Plan

Meeting expectations, requirements and standards begin with a thorough understanding of the integrity risks inherent in the project. We understand the difference between integrity risks and operational risks and we focus on the former. We begin each engagement with a risk assessment, identifying and then prioritizing the integrity risks, their likelihood of occurrence and the impact such a risk would have on the project.

Once the risks are identified, our Project Manager, in coordination with our Directors of Auditing and Engineering, develop comprehensive audit and work plans based upon those risk areas, leveraging any work already being performed by internal audit and other agency departments and/or other assigned monitors. Our plans drill down on those identified risks and direct specific tasks to be performed by each assigned staff member. Staff skill sets are designed to meet the specific skillsets required to successfully execute the tasks. The work plan describes how we will monitor known integrity risks. It also acts as a guide defining tasks to be performed by us, establishes milestones, deliverables and deadlines, creates a time-per-task projection and financial budget, and identifies contingencies. The work plan is instrumental in tracking our deliverables.

Our work plans are not self-executing and require effective communication to remain responsive to our clients' changing needs in fluid circumstances. From our experience we know there is no substitute for the regular communication that is necessary to ensure client satisfaction. Therefore, at the outset of an engagement we meet with our client to discuss expectations and obtain information necessary for devising and revising our work plans. We discuss and resolve any issues that may arise during this process so that we have a meeting of the minds regarding the work we are to perform, in advance of performing the work. We maintain the dialogue initiated at our client kick-off meeting through periodic project update meetings timed and scaled to meet the needs of the individual project.

Implementation of our work plans enable clients to manage costs effectively and contributes to our ability to “set a tone” early in the Project so we can scale back our time commitments and related costs over time. Our work plans create a basis for specific management of project costs in a timely manner. Our professionals use the work plans throughout the month as a basis for measuring whether project costs are being incurred in the manner anticipated. This approach enables us to make adjustments during the month so as to keep the project on budget. Where unexpected tasks and activities arise during the month, the work plans create the basis for an informed discussion with the client regarding prioritization or deferral of tasks so as to keep the engagement on schedule.

As our work progresses, regular and frequent client communications, as desired by the client, ensure that our work is responsive to NJT’s needs. We routinely keep our clients informed of pending work progress and proposed new initiatives. We hold regular meetings and additionally communicate via teleconferences, email, and written work product. Together these communications are a mechanism for knowing whether we are meeting our clients’ expectations. We are mindful of the value of our clients’ time and always seek to communicate in the most efficient manner.

With the tasks defined to the client’s satisfaction in the work plan, our focus then becomes making sure the work is proceeding as planned, and making sure that the team is acting as a coordinated, integrated team rather than as a collection of individuals working in isolation. We maintain fidelity to the work plan and a coordinated, integrated approach through effective communications within the team and within our organization. We employ a scalable approach to project quality control. In an effort to maximize field presence and minimize a management heavy approach, on all engagements we rely on pushing down work to the most appropriate junior level capable of responsibly performing the task and utilizing more senior personnel only to ensure quality.

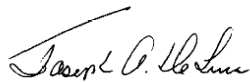
Within the team, we have regular meetings for all personnel, where we collectively report on our activities and all developments that affect the engagement. The team meeting provides a means of ensuring that our activities are coordinated among the members of the team, and that insights and findings from each discipline are shared with and incorporated into the strategies of all other disciplines. This provides for synergy and avoids duplication of efforts. Coordination of the team’s activities and integration of our services are the hallmarks of our day-to-day management of the team. The team’s project manager has primary responsibility to reinforce this approach through ongoing communications with the team’s staff. Thus, work product quality is ensured through redundant supervision systems that maintain personnel accountability and hands-on project management that guarantees that every staff member makes diligent progress in their assigned tasks.

Our Project Manager, Martin Aronchick, will ensure that our assigned professionals have the advantage of our significant institutional knowledge of transit projects performed by Thacher over the past two decades to ensure we provide consistent and quality services on each Work Authorization. He will ensure the sharing of information across all Work Authorization that will bring efficiencies to the Project. At the outset of an engagement, he will ensure that the engagement is staffed with professionals who possess the appropriate background, experience and capacity for the job.

Throughout the life of the Work Authorization, he will provide continued oversight of the Project to ensure that we meet NJT objectives, that we are remaining within budget, and that our monitoring approach is carefully coordinated to enhance our management while avoiding duplication.

X. Conflicts

I, Joseph A. DeLuca, certify that neither Thacher Associates, LLC, nor any of our affiliates or subsidiaries or subconsultants currently provide directly or indirectly construction management or similar or related services that could be in conflict with providing Integrity Oversight Monitoring services to New Jersey Transit under our current Integrity Oversight Monitoring agreement either directly or as a member of a joint venture, partnership, or as subconsultants or subcontractor of any tier.



Joseph A. DeLuca

Exhibit 1



Joseph A. DeLuca

Thacher Associates LLC, New York, NY

1996 – Present

Co-founder and President/Principal

- Created a full service organization that provides corruption prevention/detection services including investigations and research, electronic due diligence, database services, forensic audits, risk assessments, business intelligence, compliance programs and civil prosecutions to public and private sector clients.
- Provide monitoring and oversight programs directly to government agencies or private sector contractors and assist government agencies in the management of Independent Private Sector Inspector General (“IPSIG”) programs.
- As President of the Firm, Mr. DeLuca has shared principal responsibility (with the Firm’s co-founder Thomas D. Thacher) for executive management of all of the Firm’s key integrity monitorships, including Ground Zero, MTA Transit Projects, Scalamandre, the Port Authority of New York and New Jersey’s WTC Transportation Hub, Retail and the National September 11th Memorial monitorships. In this capacity, he has played a key role in the development and refinement of the integrity risk management monitoring plans, and in the management teams that have overseen the implementation of those plans.

Summary:

Co-founder and President of Thacher Associates LLC, Mr. DeLuca is recognized as a leading expert on organized crime and racketeering, with specialized knowledge in the construction and carting industries in New York City. He has lectured around the world on topics of procurement fraud and organized crime, specializing in management of compliance reviews, complex investigations and monitorships.

Education:

Salem College,
Salem, West Virginia
B.S. Criminal Justice/Sociology
1975

Professional Certifications:

Licensed Private Investigator
New York and New Jersey

www.thacherassociates.com

**New York City School Construction Authority
Bronx, NY**

1980 – 1990

Assistant Deputy Inspector General

- Co-founded office along with the Inspector General.
- Conceptualized mission, structure and methods.
- Developed, implemented and staffed the Office of the Inspector General where none had previously existed: from site selection, office design, computer/telephone/security systems purchase, to hiring of attorneys, analysts, investigative engineers and support staff.
- Managed three units central to the agency: research and analysis, intelligence and MIS.
- Supported the Inspector General through problem identification; crime pattern assessments; the collection, storage and retrieval of intelligence; conducting policy and procedure analysis; and developing policy recommendations to protect and improve the integrity of the SCA’s construction process.
- Developed sophisticated structural and systems analysis programs aimed at prevention and detection; an intelligence capability complemented by proactive undercover operations; and a state of the art computer system designed to facilitate the exchange and analysis of information within the agency and with other law enforcement entities.

New York
845 Third Avenue
13th Floor
New York, NY 10022

Newark
1085 Raymond Blvd.
14th Floor
Newark, NJ 07102

1 212.845.7530 (o)
1 212.845.7549 (f)
joe@thacherassociates.com

**New York State Organized Crime Task Force
White Plains, NY****1980 – 1990****Chief Analyst, Construction Industry Task Force**

- Supervised research and analysis component of OCTF's construction industry project which culminated in two published reports to Governor Cuomo, Corruption and Racketeering in the New York City Construction Industry.

Senior Analyst

- Labor racketeering: Headed the analysis team that led to a major prosecution of the Long Island carting industry.
- Participated in and conducted research for Racketeering in Legitimate Industries, a report published by the Rand Corporation, which focused on organized crime control of the Long Island carting industry.
- Commission Case: Played a significant role and assisted in the prosecution of the New York's five Cosa Nostra crime family bosses and underbosses for their control of the City's concrete industry.

New Jersey State Police, West Trenton, NJ**1978 – 1980****Intelligence Analyst**

- Participated in the pilot study of a New Jersey State Police Analysis Unit. Many law enforcement agencies, including FBI, Scotland Yard and the Canadian and Australian Police Departments drew upon the unit's expertise in designing and implementing intelligence analysis components.



Martin Charles Aronchick

Thacher Associates, LLC (A K2 Intelligence Company), New York, NY 1999 – Present
Managing Director/Project Manager

- Supervise integrity monitorship projects.
- Design and implement integrity risk management programs.
- Design strategies to provide intelligence and investigative support for client projects.
- Direct research and investigative functions that provide analytical resources and information for business intelligence.
- Oversee investigations of fraud.

Office of the Inspector General, Bronx, NY 1996 - 1999
New York City School Construction Authority
Counsel for Forfeiture and Affirmative Litigation

- Member of Executive Staff of Inspector General's Office. Jointly investigated criminal activity with federal and state prosecutors.
- Supervise integrity monitorship projects.
- Conducted complex administrative and civil litigation. Directed investigations of financial crimes.
- Supervised investigative auditing firms monitoring integrity of SCA contractors.
- Conduct training in forfeiture and other civil remedies.

New York State Organized Crime Task Force, White Plains, NY 1987 - 1996
Attorney in Charge of Civil Enforcement and Remedies

- Member of Executive Staff of Organized Crime Task Force.
- Created and supervised civil enforcement unit.
- Supervised integrity monitorship projects.
- Conducted all phases of complex civil litigation. Directed investigations of financial crimes.
- Created and taught New York civil forfeiture litigation training course.

New York City Law Department, New York, NY 1983 - 1986
Assistant Corporation Counsel, Affirmative Litigation Division

- Assistant Division Chief, 1986.
- Supervised affirmative litigation seeking recoveries on behalf of City of New York.
- Prosecuted civil RICO treble damages actions arising out of bribery, fraud and other crimes against City of New York.
- Represented City of New York in legislative matters relating to reform of racketeering laws.

Office Weil, Gotshal & Manges, New York, NY 1978 – 1983
Associate, General Litigation Department

Office Honorable Worrall F. Mountain, Associate Justice, Supreme Court of New Jersey
Law Clerk, September, 1977 Term of Court

Education:

Rutgers Law School
Newark, NJ

J.D., June 1977

- Rutgers Law Review
- Notes and Comments Editor, Volume 30, 1976 - 1977

Rutgers College
New Brunswick, NJ

B.A., Political Science, 1972

- Academic Honors
- Phi Beta Kappa, Highest Distinction in Political Science

Admitted to Practice in:

- New York
- New Jersey
- U.S. District Courts,
- Southern and Eastern Districts of New York,
- District of New Jersey

www.k2intelligence.com



Kevin J. Mullins

Thacher Associates, LLC, New York, NY

2010 - Present

Senior Director – Forensic Accounting & Advisory Services

- Supervise staff teams on multitude of forensic accounting and auditing projects, including projects for a wide range of public and private clients.
- Participate as a key member in and oversee project risk assessments and the development of audit approaches and lead teams in implementation of same.
- Assess compliance with internal controls and procedures and issue improvements as necessary.
- Work with client counsel and management to address potential legal and financial risk issues on various projects.
- Lead investigations of suspect entities and individuals for legitimacy and fraud prevention, including on disaster recovery projects.

J.H. Cohn, LLP (Now CohnReznick), Eatontown, NJ

2005 - 2010

Senior Accountant & Auditor

Integrity Monitoring

- Examine records and monitor for errors and fraud on large, high-profile contract work.
- Evaluate contractors and subcontractor billing submissions for reasonableness and completeness.
- Make recommendations to appropriate personnel to assist in bettering the review process as it relates to contractual efficiency and compliance.
- Assist in developing approach and work-plan as it relates to audit procedures performed.
- Identify and investigate variances and discrepancies noted and report to client and various government agencies involved with the project.

Benefits and Collective Bargaining Agreement Compliance

- Performed various procedures to ensure proper reporting and compliance related to the Collective Bargaining Agreement of a major North American professional sports league and players' union.
- Deal specifically with upper management of assigned Teams in reviewing reporting submissions.
- Uncover errors and assist in resolving compliance issues to all parties' satisfaction in a limited amount of time available.
- Perform audits of single and multi-employer benefit plans and ensure that policies and reporting are in compliance with ERISA regulations.
- Uncovered evidence of non-compliance as it relates to the timely remittance of benefit contributions.

Auditing

- In-charge accountant for several audit clients of all sizes in areas such as construction and manufacturing and distribution, performing audits and reviews of financial statements, employee benefit plans, agreed-upon procedures, etc.
- Manage and supervise staff in performing necessary procedures efficiently and within stated deadlines.
- Deal directly with client executive management to discuss and resolve audit and accounting issues and recommend ways to improve reporting and internal controls.
- Perform analyses ensure accounting policies and reporting are in compliance with US GAAP.
- Uncovered fraudulent activities on a large client and developed a set of procedures to address the further risk of fraud during the audit.

Tax

- Participated in year-end tax preparation for several clients, including preparation of Forms 1120, 1120S, 1065, as well as reviewing Forms 5500 for accuracy and ERISA compliance.

Summary:

Certified Fraud Examiner with over 12 years of accounting and auditing experience serving a wide range of public and private clients. Specialties include forensic accounting, investigative auditing, litigation support, integrity monitoring, construction auditing, fraud risk mitigation, disaster recovery claims, internal controls assessments and regulatory compliance.

Education:

Monmouth University
West Long Branch, NJ
BS, Accounting, 2003

Certified Member of the
Association of Certified Fraud
Examiners (ACFE)

www.k2intelligence.com



Christopher Ward

Thacher Associates LLC, New York, NY

**2010 – 2012 &
2014 – Present**

Summary:

An environmental consultant with over 14 years' experience in leading environmental and social due diligence audits to support financial transactions such as mergers and acquisitions and Initial Public Offerings, environmental site assessments, site audits, soil and groundwater remediation.

Education:

University of Plymouth
Plymouth, United Kingdom
BEng(Hons) Civil Engineering, 2003

Professional Memberships:

Participating Member
#1809159 – ASTM International

Professional Certifications:

10-Hour OSHA

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Senior Director

- Audit contractor compliance with HUD Community Development Block Grant – Disaster Recovery (“CDBG-DR”) requirements.
- Act as in-house environmental specialist to support Project Managers and proposals
- Audits licenses and permits held by environmental contractors and personnel as per local, State, and Federal regulations and independently authenticate those licenses and permits
- Conduct spot audits of various environmental activities to ensure that the work is undertaken in accordance with applicable State and Federal rules and regulations
- Conduct spot audits of contractor contract requirements to determine whether contractors have made inappropriate cost savings that are recoverable by not conforming to the contract requirements.
- Conduct reviews of contractor allowance invoices and change orders to ensure that contract requirements are followed and that the allowance invoices and change orders are fair and reasonable. Review supporting documentation for completeness and accuracy and summarize any deficiencies identified together with recommendations for follow-up where necessary.

Atkins China Ltd., Hong Kong S.A.R.

2012 – 2014

Senior Environmental Consultant

- Managed environmental due diligence projects in Australia, Mainland China and Myanmar (Burma) in accordance with ASTM International, World Bank Group and International Finance Corporation Performance Standards, as part of financial investments by international parties. Work stream comprised leading site audits, interviewing stakeholders and government officials and providing technical reports summarizing in-country findings and risks. Technical reports outlined recommendations and estimated costs, where feasible, for implementation of remedial measures at project sites to mitigate risks identified.
- Conducted Equator Principles assessments to support confidential technical due diligence projects in Australia, with a view to identify potential environmental, health and safety and social impacts that could be caused by the construction, development and operation of projects.
- Led independent environmental due diligence projects, Phase I Environmental Site Assessments and Sediment Quality Investigations for a variety of Hong Kong government projects. Provided technical reports summarizing findings to Hong Kong government agencies and responded to comments, where necessary. Reports also identified health and safety risks and hazards to workers and the general public and provided recommendations for safe working conditions.
- Project lead for necessary environmental documents to meet Hong Kong government statutory requirements for the Hong Kong Link Road project. Documentation provided included a Spill Response Plan, Waste Management Plan and Environmental Management Plan.
- Supported Business Development activities across South East Asia in order to develop due diligence and site assessment and remediation opportunities for Atkins.

- Lead for evaluating and pursuing environmental opportunities in the South East Asia region and undertaking risk assessments associated with undertaking work in countries across the region.

GES, Inc., Hauppauge, NY

2008 – 2010

Project Manager

- Oversaw field activities on underground storage tank removal projects for Shell Oil Products US and ExxonMobil Corporation to ensure work was undertaken in compliance with applicable local, state and Federal health and safety and environmental regulations and established company Health and Safety Plans.
- Managed projects as appointed remediation contractor for NYSDEC in Region 1.
- Provided senior technical review of reports to ensure compliance with NYSDEC environmental rules and regulations.
- Supervised a group of three individuals, duties included: workload management, performance reviews and associated administrative tasks.
- Reviewed Health and Safety Plans generated by contractors to ensure compliance with applicable local, State, and Federal health and safety regulations. Stopped on-site work if non-compliance was noted and undertook corrective action to rectify. Involved in Health and Safety investigations as required by oil and gas industry clients.

URS New Zealand, Auckland, New Zealand

2008

Environmental Scientist

- Managed environmental site assessment of Brownfield sites for private sector, chemical and oil industry clients
- Conducted liaison with clients and regulatory authorities for project updates and progression.
- Reviewed technical reports to ensure compliance with environmental rules and regulations

Mobil Oil New Zealand Ltd., Auckland, New Zealand

2006 – 2008

Contract Remediation Project Manager (seconded from MWH New Zealand Ltd.)

- Involved in lease negotiations, equipment sale and purchase agreements, site access agreements, and consenting issues for company sites and company assets
- Liaison with regulatory authorities regarding projects, consent orders and/or permits et al.
- Contracted and managed contractors and environmental consultants and ensured work undertaken complied with New Zealand environmental rules and regulations. Responsible for an annual budget of NZD \$2-\$3 million per year
- Peer reviewed technical reports generated by environmental consultant and contractors
- Conducted unannounced field audits to facilities where site work was being undertaken in order to ensure contractor and consultant compliance with health and safety and environmental rules and regulations.
- Reviewed and approved contractor and consultant invoices, review involved checking invoices for reasonableness and appropriateness and errors or inappropriate time and material claims.
- Reviewed and approved contractor and consultant Health and Safety Plans on behalf of Mobil Oil New Zealand

MWH New Zealand Ltd., Auckland, New Zealand**2006 - 2008**

Environmental Engineer

- Carried out Brownfield site assessments for regulatory agencies on existing sites.
- Carried out field work for underground storage tank removals for Shell Oil New Zealand Ltd.

Hydrock Consultants, Bristol, UK**2004 – 2006**

Geo-Environmental Engineer

- Managed and supervised environmental assessments for government and private sector clients at various Brownfield sites. Oversaw contractors on-site to ensure compliance with Health and Safety, and environmental regulations.

Joynes Pike & Associates, Bristol, UK**2003 – 2004**

Geo-Environmental Engineer

- Managed and supervised environmental assessments for government and private sector clients at various Brownfield sites. Oversaw contractors on-site to ensure compliance with Health and Safety, and environmental regulations.

**RESUME****STEVEN MANIA*****PRESIDENT*****AREAS OF EXPERTISE:**

Mr. Mania is the founder and President of Vertical Technologies, Inc., (VTI), and subsequently acquired its subsidiaries, Contamination Control Engineering, Inc., and Environmental Connection, Inc. Mr. Mania has more than 30 years of experience in comprehensive environmental consulting and management.

In addition to his technical and administrative responsibilities, Mr. Mania is Principal-In-Charge of growth, development, acquisition, budgeting, and quality control for VTI and its associated environmental consulting firms, Environmental Connection, Inc., (EC) and Contamination Control Engineering, Inc., (CCE).

Much of Mr. Mania's efforts are related to projects involving complex and innovative design; specification-contract development and direct project management; environmental auditing; investigations and public presentations; and projects that, due to legal or attorney client privilege issues, are sensitive in nature. Mr. Mania's management and development of project specific integrated teams, program analysis and design resulted in the firm receiving recognition of achievement in a variety of high profile projects.

PROJECT EXPERIENCE:

- Mr. Mania was involved in supervising EC's staff's role as an environmental integrity risk monitor for Thacher Associates on the World Trade Center Reconstruction Project in conjunction with the NY/NJ Port Authority. Mr. Mania's responsibilities included assisting the NY/NJ PA in assuring that all contractors, consultants and vendors complied with the Environmental Performance Commitments (EPCs) required of the project. Mr. Mania worked with the integrity risk team to identify, monitor and resolve environmental risks and program deficiencies.
- In accordance with the Mayor's Directive, Mr. Mania was the overall manager for EC staff's environmental investigation services at Ground Zero during rescue/recovery and clean-up operations. Mr. Mania's involvement revolved around integrity assurance associated with the review and evaluation of remediation protocols, regulatory compliance, and environmental forensics; payment submittal analysis and fraud/corruption investigations relative to Contractors and Consultants working at the site and perimeter structures impacted from the September 11, 2001, attack on the World Trade Center.
- Mr. Mania's experience also includes: Environmental Health and Safety as well as general construction litigation investigations and Contract analysis for the office of the Inspector General under the City of New York, Department of Investigation. Mr. Mania also conducted investigations for various legal firms in New Jersey and New York. Mr. Mania, along with the firm's team of professionals, provides the City of New York, School Construction Authority's Industrial and Environmental Health Division, with environmental, construction and software development and management consulting services aimed at improving the Agency's operating procedures.



- Mr. Mania assisted the City of New York Housing Authority, Office of the Inspector General, (OIG) with its Roofing Contractor investigation. Through Mr. Mania's program development and management, EC provided the analysis of performance on various New York City Housing Authority roof replacement projects. The analytical services were utilized to forensically determine Contract compliance following the completion of the work, and develop supporting documentation to demonstrate findings and present formal reports to the OIG.
- Mr. Mania was integrally involved, from a management perspective, with assisting the State of New Jersey, Department of Human Services, (NJ DHS) with its response to the Haines Building Fire at Trenton Psychiatric Hospital, West Trenton, New Jersey. In this regard Mr. Mania participated in all pertinent site meetings and facilitated the management, in conjunction with the Department of Human Services (DHS) and Division of Property Management and Construction (DPMC) personnel, in coordinating the activity of the Contractors to restore buildings impacted by the fire.
- Mr. Mania was involved as the Principal in charge on integrity risk monitoring efforts for Thacher Associates on the World Trade Center Reconstruction Project in conjunction with the NY/NJ Port Authority, Office of the Inspector General. Mr. Mania's environmental responsibilities included systems analysis, supervision of his team's monitoring compliance with all aspects of environmental and Environmental Performance Commitments (EPCs), with particular emphasis on identifying, monitoring and reporting potential integrity risks and program deficiencies.

EDUCATION:

Mercer County Community College-1987
AAS

CERTIFICATIONS AND ASSOCIATIONS:

During his extensive career in the environmental sciences, Mr. Mania has received certifications of proficiency as follows:

- AIHA, Building Sciences, Building Construction & Moisture Prevention
- Sub-surface Evaluator Certificate of Completion
- Phase Contrast Microscopy NIOSH 582 Certified
- Registered and proficient in the Asbestos Analyst Testing (AAT) Program
- Polarized Light Microscopy (PLM) analysis
- X-Ray Fluorescence Analysis Certified
- OSHA 10 Hour Training
- New Jersey Asbestos Safety Technician
- AHERA Asbestos Project Designer
- AHERA Asbestos Building Inspector and Management Planner

Jose L. Velazquez, Jr., CPA, CFE

Summary:

As a Director of Forensic Auditing Services, Mr. Velazquez brings over a decade of experience providing consulting services to clients in the public sector as well as private industry. Mr. Velazquez leverages his extensive experience in public accounting, forensic analysis, and financial and operational auditing to recommend, develop and/or implement solutions for these organizations to more effectively combat fraud, waste, and abuse.

Education:

Seton Hall University
South Orange, NJ
MSPA, 2004
BSBA, 2002

Professional Certifications:

Certified Public Accountant
Certified Fraud Examiner

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Thacher Associates, LLC, New York, NY

2013 – Present

Director, Forensic Auditing Services

- Perform independent integrity monitoring and regulatory compliance services specific to the Davis-Bacon Act, local prevailing wage rules, and MBE/WBE/DBE regulations and assist in vendor screening, due diligence, and background investigations in connection with public infrastructure, transportation, and heavy/civil construction projects financed by local, state, and federal funds.
- Lead forensic audits, fraud risk assessments, and internal investigations on behalf of clients in the food and beverage, financial services, and insurance industries.
- Review corporate governance initiatives, identify significant risk factors, and assess internal control environments and develop reports for executive committees, boards of directors, and other stakeholders addressing quality of in-house programs designed for anti-bribery and Foreign Corrupt Practices Act (FCPA) compliance.

Rutgers School of Dental Medicine, Newark, NJ

2011 – 2013

Manager, Student Receivables & Cash Collections

- Managed financial operations for professional dental school generating \$30+ million in annual student fees and patient service revenues.
- Improved service efficiency and operational effectiveness by reengineering standard operating procedures, automating tasks and workflows, and implementing electronic health record and patient billing systems.
- Identified and reported internal control deficiencies specific to patient billing and collections practices, student fees and receivables, and grant administration.
- Served as a member of strategic task force formed to assess financial and operational impacts deriving from a state-mandated integration of most of the schools of the former University of Medicine and Dentistry of New Jersey (UMDNJ) into Rutgers University and a concurrent separation of the University Hospital in Newark, to form an independent, standalone medical facility. Provided recommendations regarding communication and outreach initiatives geared towards patients, students, and local community members most affected by the restructuring.
- Drafted policies and procedures to maintain compliance with NJ Medicaid provisions, federal HIPAA and FERPA laws, and other regulatory requirements.

Columbia University, New York, NY**2010 – 2011**

Senior Auditor of Fraud (Office of Internal Audit)

- Led internal fraud investigations and assisted junior staff on scheduled, operational audits and drafted investigation and audit status reports for distribution to the Audit Committee of the Board of Trustees.
- Performed unscheduled audits to test compliance with sponsored project guidelines stipulated by private donation and federal grants from agencies including National Institutes of Health and the National Science Foundation.

Alvarez & Marsal, LLC, New York, NY**2006 – 2010**

Manager, Global Forensics, Disputes, and Investigations (2007 – 2010)

Senior Associate (2006 – 2007)

- Investigated whistleblower claims alleging violations of FCPA provisions by Latin American division of multinational pharmaceutical company.
- Performed internal investigations, provided litigation support services, and examined investment securities trading and other financial transaction data to identify, quantify, and recover assets owed to now-defunct investment bank at the center of largest bankruptcy in US history.
- Reconstructed complex financial transactions to support reports prepared for expert witness testimony in connection with litigation between US-based bank and international food and beverage conglomerate.

**Deloitte Financial Advisory Services LLP
New York, NY****2002 – 2006**

Senior Associate, Forensic & Dispute Services (2004 – 2006)

Associate (2002 – 2004)

- Assisted major U.S. banking client in developing event chronology and analyzing cash movements involving more than \$250 million in embezzled funds resulting in favorable settlement and substantial recovery of funds.
- Provided forensic, investigative, and dispute consulting services tailored to the specific needs of clients in various industries and situations.
- Researched GAAP, GAAS, and SEC regulatory guidance to determine appropriateness of application of accounting principles on purchase price allocation disputes, internal investigations, due diligence reviews and other commercial litigation.
- Managed and coordinated external financial audits for clients in entertainment and financial services industries. Performed quality control procedures for select, higher-risk audit clients to ensure compliance with the Sarbanes-Oxley Act of 2002 and rules of the Public Company Accounting Oversight Board.

Bruce Archer

Summary:

Senior Forensic Accountant at Thacher Associates, LLC specializing in auditing, forensic accounting, investigations, and construction. Prior to joining Thacher Associates, spent 10 years at the New York City Economic Development Corporation and the Metropolitan Transportation Authority. Past assignments include being a fiscal monitor for the WTC cleanup, reviewing NYC \$300M Passenger Terminals renovations billing, and working on the Symbol Technology 2002 financial restatement.

Thacher Associates knows integrity. We pioneered the field of integrity risk management and are the industry leader in eliminating fraud, waste and abuse in the construction sector and beyond. We bring accountability, transparency, and most importantly, integrity, to your business to protect your reputation and your bottom line.

www.thacherassociates.com

Thacher Associates, LLC, New York, NY, April 2016 - Present

Senior Forensic Accountant

- Develop audit plans and test procedures for a government agency's internal audit group.
- Perform audits, risk assessments, and internal control reviews.
- Direct research and analytical resources and information for business intelligence.

New York City Economic Development Corporation, New York, NY, June 2008 - April 2016

Senior Internal Auditor

- Reported on the agency's internal control, year-end financial statements, and fraud cases.
- Led engagements on the agency's \$4.7 Billion Capital Program Portfolio.
- Obtained several hundred thousand in contract and construction reimbursements due to audit findings.
- Implemented department upgrades in risk evaluation, SAS 99 documentation, and database analysis.

BST & Co. CPAs, LLP, New York, NY, November 2006 - July 2007

Staff Accountant

- Performed audits for clients in the real estate, construction, and manufacturing fields

Marks Paneth, LLP, New York, NY, February 2004 - August 2006

Semi Senior in the Litigation Support Group

- Audited real estate and non-profit clients and completed forensic engagements and Sarbanes-Oxley assessments.

KPMG US, LLP, New York, NY, January 2001 - January 2004

Senior Associate in the Investigation and Integrity Advisory Services Practice

- Engagements included financial restatements, class-action lawsuits, and World Trade Center cost monitoring.

**Metropolitan Transportation Authority, New York, NY, February 1998 -
December 2000**

Senior Associate in the Investigation and Integrity Advisory Services Practice

**New York City Housing Authority, New York, NY, December 1995 - February
1998**

Investigative Auditor in the Inspector General Office

Education

Lehman College, CUNY, New York, NY, B.S., June 1995

Conrad J. Anderson

Education:

New Jersey Institute of
Technology
Newark, NJ
B.S., Engineering 2006

Professional Certifications:

Engineer In Training Certificate
OSHA 10
OSHA 4 Hour Scaffold
NYCT Track Training

Thacher Associates LLC, New York, NY

Forensic Engineer

2015 - Present

2012 - 2013

Participate in integrity compliance monitoring engagements on large, New York City capital construction projects to test for fraud, waste and abuse and for compliance with all applicable local, state and federal laws, rules and regulations. Projects include the Staten Island Expressway Renovation Project, the NYCHA Bond B Renovation Project, the Moynihan Station Renovation Project and several affordable housing renovation projects under the HPD and HDC. Activities include:

- Ensuring integration of project controls at designated construction sites
- Conducting site observations of workers and activities being performed
- Reviewing invoices and change orders against site observations
- Conducting Minority, Women and Disadvantaged Business Enterprise, Davis-Bacon compliance and Prevailing Wage compliance checks and investigations
- Arranging and conducting interviews of employees of all levels from companies involved with assigned matters

Pyramid Lighting, Mount Vernon, NY

2014 - 2015

Project Estimator

- Provide lighting bid pricing to Distributors, Architects and Designers based on available specifications and drawings
- Provide technical and logistical assistance to customers

Global Marine Construction Supply, Roslyn, NY

2011- 2012

Estimating Consultant

- Completed structural steel and timber takeoffs for contractors
- Provided direction for fabricators based on available contract drawings

McLaren Engineering Group, West Nyack, NY

2007- 2011

Marine\Structural Engineer

- Completed steel, concrete, aluminum and timber structural design, analysis and calculations for waterfront facilities
- Supervised rehabilitation and new construction projects in the field
- Acted as Owner's Representative for rehabilitation work in Battery Park City
- Performed tower crane inspections and monitored crane jumps and removals
- Consulted as a mobile crane Plan Examiner for NYC Department of Buildings
- Monitored and managed field work such as installation of marine fenders, concrete pours and repairs and pile driving
- Produced schematic cost estimates for large-scale capital projects
- Performed quality assurance construction inspections and general condition inspections

- Composed reports, permits, technical specifications and feasibility studies for clients and official agencies
- Processed payment requisitions and change order requests

New York City Transit, New York, NY

2006- 2007

Assistant Civil Engineer

- Completed contract drawings using Bentley Microstation
- Assisted with design and scope development for subway rehabilitation projects
- Performed quality site inspections for overhead subway lines and Staten Island Railway stations
- Performed in field surveys in preparation for future construction projects



Rohan DeFreitas

Principal

SUMMARY

Rohan DeFreitas has over 20 years of management experience with Affirmative Action (AA), Equal Employment Opportunity (EEO), Supplier Diversity Initiatives, Government Affairs, and Community Relations. Mr. DeFreitas' experience and knowledge of the construction industry has allowed Crescent to successfully manage over 100 projects resulting in over \$2 billion in contracts being awarded to Disadvantaged, Minority, Women and Local Businesses.

EDUCATION

Fredonia State University

Bachelor of Arts in Business Management, Minor in Economics

PROFESSIONAL AFFILIATIONS AND ACHIEVEMENTS

Division of Housing and Community Renewal MWBE Advisory Committee- Member

National Hispanic Business Group- Board Member

NYS Chapter Association of Minority Contractors- Member

Association Minority Enterprises of NY- Member

NY/NJ Minority Purchasing Council Construction Committee- Board Member

Competitive Edge- Board Member

Goldman Sachs- Supplier Diversity Advisory Committee- Member

EXPERIENCE

MTA East Side Access

Moynihan Station Phase 1- Integrity Monitor

Yankee Stadium Area Redevelopment - Cityworks, Bronx, NY

World Trade Center Building 2,3,4 - New York, NY

Bronx Mental Health Campus Redevelopment Project- Bronx, NY

Brooklyn Academy of Music; The Fisher Building and Harvey Theater

The Related Companies - Gateway Retail Centers, Bronx Terminal Market and Brooklyn Gateway Retail Center

Mr. DeFreitas co-founded Crescent Consulting in 2001 with his partner Mr. Luis Segarra. His role includes Public Affairs and Community Outreach, Business Development and the day-to-day management of the company. He is also responsible for creating Crescents' management services profile for the various governmental requirements as well as the reporting procedures and methods used on a project by project basis. Mr. DeFreitas provides Executive Oversight on all projects, in order to ensure success for the client and Crescent. Key responsibilities include but are not limited to utilizing comprehensive knowledge of labor compliance and program management methodologies to plan, execute, and finalize project objectives with staff; keep clients apprised of issues that are likely to affect the construction project; develop strategies and solutions to address pending issues and work with project managers to design and implement actions necessary to respond to newly enacted legislation and regulations; oversee quality control throughout the project; assist clients with resolution of subcontractor disputes including meetings with trade union representatives and the administration of project labor agreements; serve in a leadership capacity with minority supplier and key economic development organizations to improve economic development for the Small, Disadvantaged, Veteran, Minority and Women business communities.



Hector Calderon

Company Project Executive

SUMMARY

Mr. Calderon is a Senior Executive with over thirty years management and supervisory experience with a focus on Diversity Initiatives. Mr. Calderon possesses extensive experience in providing Disadvantaged, Minority and Women-Owned Business Enterprises (D/M/WBE), Local Community Initiative and Employment oversight on public and private sector projects. He is responsible for projects that require a great deal of administrative oversight and interaction with the monitoring agency.

EDUCATION

Hunter College

Bachelor of Business Management

PROFESSIONAL AFFILIATIONS AND ACHIEVEMENTS

Recipient of Lifetime Achievement Award for Minority and Women Programs (2012)

Recipient of Arthur Pearl Roth "Trailblazer" Award (2008)

Recipient of Public Advocate Award (2007)

Member of several government led M/WBE Advisory Boards (City of Yonkers, Women Re-build & Opportunity Downtown NY)

Chair Competitive Edge Conference (2007)

Former Board Member-Regional Alliance for Small Contractors and Caribbean Cultural Center

NYS Liaison for Martin Luther King Observance and Agency Food Bank Coordinator (12 years)

World Trade Center-First Responder.

EXPERIENCE

Tappan Zee Bridge- Independent Monitor for NYS Thruway Authority

MWBE and EEO Oversight

Moynihan Station Phase 1- Integrity Monitor

MWBE and EEO Oversight

M/WBE Program Field Compliance Review Consultant for NYC Department of Small Business Services

Investigation of MWBE Certification

Multiple Sites- Labor Compliance Monitor for NYC Housing Development Corporation and NYC Housing Preservation and Development Agencies

EEO Oversight

MTA East Side Access- Project Prevailing Wage Monitor

EEO Oversight

In his capacity as the Project Executive, Mr. Calderon works in accordance with City and State agencies assisting contractors/subcontractors achieve their goals and requirements set forth by monitoring agencies. This responsibility requires continuous communication with the contractors, in which he informs the firms of their obligations and requirements under the various programs, alerts the firms of any deficiencies, and rectifies their reports as needed. He maintains statistics to monitor the effectiveness of the program and manages the difficulties encountered in attaining and maintaining compliance while achieving transparency.

Within his daily management, Mr. Calderon performs a variety of tasks efficiently and in a timely manner. He uses his existing relationships with Business and Community Organizations, Public Officials, Community Boards, and Employment Agencies to discuss project goals, contracting and employment opportunities, and the referral process. He ensures M/WBE participation by analyzing the preparation of bid list for inclusion of M/WBE firms in Professional Services, General Condition items, Exterior and Interior Trades, Site Work and Maintenance. He assists Prime Contractors with lists of second and third tier Minority and Women Businesses for subcontracting and supplier opportunities. During construction, Mr. Calderon collects and analyzes the Monthly Employment Utilization Reports, Monthly Contractor Payment Release Reports and Monthly M/WBE Contractor Compliance Reports for each contractor on the project. After his review of the documents, he recommends EEO procedures related to Local, Minority and Women participation in the workforce on a trade-by-trade basis within the skilled, unskilled and entry-level positions. In addition, he conducts random site visits to verify contractors and sub-contractors on site, performs worker head counts, and collects daily worker sign in sheets. Based on the document information, he develops a Monthly Executive Summary Report, summarizing all activity in the areas of Outreach Efforts, Union Liaison assistance, Newly Awarded M/WBE Contracts, Workforce Compliance and Project Site Visits. He uses these reports to meet with clients, project managers, contractors and small businesses as needed.



Angel Sepulveda
Field Investigator

SUMMARY

Mr. Sepulveda has 12 years of construction experience and concentrates his efforts as Field Investigator in his role at Crescent. He conducts Construction Site Visits and Audits on Prevailing Wage projects to ensure reporting accuracy, consistency in payroll documents versus actual check distribution, and sign-in sheets. He issues and updates wage rate schedules as necessary, tracks and reports on payment of restitutions, errors and other labor violation issues. Mr. Sepulveda tracks the utilization of subcontractors on site; and conducts spot check health and safety inspections in accordance with OSHA regulations. He interviews employees, establishing integrity of job classifications, wages, union affiliations, and pay schedules. He reports investigation results to the Project Executive, and government agencies by database, and or written reports.

EDUCATION

Apex Technical School
900 HR Air Conditioning and Refrigeration Certification

EXPERIENCE

EAST SIDE ACCESS

Mr. Sepulveda conducts field investigations as required. In various jobs, he is responsible to conduct employee interviews to gather information on job classification, wages, verify employee's proof of identification, union affiliation, etc. Mr. Sepulveda reviews weekly and monthly employment utilization reports for accuracy and ensure timely submittals. In addition, he reviews and ensures that union remittance reports are submitted, as required.

Mr. Sepulveda also audits and reviews certified payroll records to determine conformity with the prevailing wage determination requirements, job classification and hours worked. He analyzes the Prevailing Wage Worksheet for each Contractor, conducts site visits to interview workers, reviews and analyzes the Certified Payroll Records submitted by all contractors for conformity with Payroll Record Submission requirements, and completes the Close-Out reporting. He notifies all contractors employing Apprentices on this project to submit Apprentice Certification Letters.

1351 BOSTON ROAD: BRONX, NY

Mr. Sepulveda is currently one of our assigned Field Investigator who is assigned to the 1351 Boston Road Integrity Monitoring project. In this capacity, he assists the Project Executive with the following responsibilities; Construction Site Visits and Audit Strategies – inclusive of ensuring workers perform their tasks within their relevant job classification, verifying workers on site are listed within the project payroll. Documentation audit by creating a computerized database which will further be provided to the office of HDC/HPD. Flagging and resolving noncompliance and construction quality monitoring.

NEW YORK CITY HOUSING DEVELOPMENT CORP. - QUADRANT V

Throughout this project, Mr. Sepulveda oversaw the required monitoring functions of the NYC HDC Quad V Project, his duties encompassed the following; Weekly collection, maintenance and archive of payroll records, timecards daily work records, timesheets, fringe benefits records, apprentice certifications and other supporting documents, reports and all correspondences during the life of the project. He also issued and updated wage rate schedules as necessary including all modifications, corrections, escalations or reductions to wage rate schedule issued for the project.



Michael Arroyo
Field Investigator

SUMMARY

Michael Arroyo has over 16 years of management experience with Affirmative Action (AA), Equal Employment Opportunity (EEO), and Diversity Initiatives in the construction industry. Mr. Arroyo is a Senior Project Manager and responsible for the day to day management of the AA/EEO and DBE Compliance requirements on various projects. He is the Key contact on the various City, State and Federal government agencies, as well as, various Community Initiative Programs.

EDUCATION

State University of New York, Albany
Bachelor of Arts in Communications

LICENSES/ CERTIFICATIONS

U.S. Dept of Labor - Occupational Safety & Health Administration -NY
Certification in Site Safety Training

EXPERIENCE

Moynahan Station - Independent Monitor

Tappan Zee Bridge- Independent Monitor

Mr. Arroyo worked as part of the Independent Monitoring on the Moynahan Station and Tappan Zee Bridge regarding use of utilization of Minorities and Women in the workforce and the payment prevailing wages to the workers on projects. Mr. Michael Arroyo was responsible for conducting field audits and investigations for the Prevailing Wages and Workforce monitoring portion of the contract. Throughout the site visits, Mr. Arroyo verified the following information for Prevailing Wage compliance: Prevailing Wage notices are clearly posted, Workers perform tasks within their relevant job classification, Workers on site are listed within the project payroll, Identification of workers listed on project payroll by reviewing valid government issued identification cards, and Hourly rate of pay, fringe benefits, duties as well as tools/equipment used, etc.

Reconstruction of Route 9A, Peekskill, NY

Crescent managed the New York State EEO/AA, Prevailing Wage and DBE Compliance. The project achieved 10% compliance on the DBE requirement and 40% compliance for Workforce participation. Additionally, Crescent provided the documentation tracking and monitoring of Davis Bacon Prevailing Wage requirements for the entire workforce within the Route 9A project. Crescent maintained and submitted Monthly Compliance Reports to the NYS Dept. of Transportation (DOT) and utilized the DOT EBO system for tracking workforce data. Mr. Arroyo performed random site visits to verify contractors and sub-contractors on site and managed worker head counts and collected daily sign in sheets. While at the jobsite, he also conducted employee interviews to gather information on job classification, wages, employee proof of identification, union affiliation, etc.

Exhibit 2

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: **IOM Services for BEM Environmental,**
Contract No. **14-033** IOM Firm: **Thacher Associates LLC** Date: **March 8, 2017**

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Grant Management	A.1	Falsified Application Documents	L/H	N/A - this risk category relates to NJT's internal processes and not specifically to prime and sub consultants on the projects for which NJT is seeking Integrity Oversight Monitoring services.	L/H	N/A
Grant Management	A.2	Falsified Reporting	L/M	The Eisner Amper Program-Wide Risk Assessment identifies the areas of significant risk beginning with the Procurement risk category (beginning at C.1.1). To the extent NJT requires IOM services specific to this risk category, TA will modify its work plan on an as-requested/as-needed basis.	L/M	N/A
Grant Management	A.3	Budget Manipulation	M/L		M/L	N/A
Disbursement	B.1	Payment Charged to Incorrect Grant Code	M/L	N/A - this risk category relates to NJT's internal processes and not specifically to prime and sub consultants on the projects for which NJT is seeking Integrity Oversight Monitoring services.	M/L	N/A
Disbursement	B.2	Billing Schemes	L/M	The Eisner Amper Program-Wide Risk Assessment identifies the areas of significant risk beginning with the Procurement risk category (beginning at C.1.1).	L/M	N/A
Procurement - Contractor bid frauds	C.1.1	Bid Suppression	H/M	Bid rigging schemes among prospective bidders include colluding to limit the number of bidders, steering bids to selected consultant(s) or inflating the contract price. Initial selection of consultant(s) to receive bids is limited to a list of favored firms when there is a much larger pool that can complete the work.	H/M	Determine whether the non-winning bidders are retained via subcontracts for potential payoff of bid rigging scheme.
Procurement - Contractor bid frauds	C.1.2	Complementary Bidding	H/M			Contact firms that were solicited but did not bid to find out why they did not bid.
Procurement - Contractor bid frauds	C.1.3	Bid Rotation	H/M			Check ownership and affiliations of competitors to determine if there is shared ownership, past joint ventures, or an ongoing and repeated consultant/subconsultant relationship.
Procurement - Contractor bid frauds	C.1.4	Unbalanced Bids	H/M			Review supporting documentation for potential red flags of bid rigging schemes.
Procurement - Conflicts of interest	C.2	Conflicts of Interest	H/M	There may be a financial or other incentive (e.g., the existence of a long-term business relationship or a direct or indirect financial ownership interest) to steer work to favored consultant(s).	H/M	Conduct reviews of bidders lists to determine whether they represented a legitimate pool of consultants. Contact firms that were solicited but did not bid to find out why they did not bid. Check ownership and affiliations of competitors to determine if there is shared ownership, past joint ventures, etc.
Procurement - Bribery / kickbacks	C.3	Bribery/Kickbacks	H/M	Improper influence over the vendor selection process, due to kickbacks or inappropriate relationships especially in sole-sourced projects.	H/M	Review vendor selection procedures for control weaknesses and compliance during selection process. Review ANY sole sourced contracts for award process.
Procurement - Contract frauds	C.4.1	Rigged Specifications	M/M	Bundle contract or work packages to favor particular consultant(s). Specifying proprietary means and methods or materials to limit consultant pool.	M/M	Review contract RFP documentation, related contract documents, questions submitted during procurement, minutes from procurement meetings and consultant proposals to identify any red flags that may require follow up. Procedures for C.4.1 - C.4.4 are performed concurrently.
Procurement - Contract frauds	C.4.2	Manipulation of Contract Terms	M/M	Scope and contract language written to favor a specific consultant for the work. Setting of unrealistic/unnecessary technical or operational requirements to limit consultant pool.	M/M	
Procurement - Contract frauds	C.4.3	Intentionally Vague Scope Definition	H/H	Scope written in such a way to dissuade certain consultants from bidding on the work due to the risk of obtaining the contract and then being able to perform the scope for the price submitted.	M/M	
Procurement - Contract frauds	C.4.4	Unreasonable Prequal Requirements	M/M	Setting of unrealistic/unnecessary technical or operational requirements to limit consultant pool. Qualifications established in the RFP documentation may set thresholds for items like years of experience or number of projects completed of similar scope and size at high levels in order to narrow bid pool to favored consultant(s). This can severely limit consultant bid pool resulting in higher pricing and potentially steered contracts.	M/M	
Procurement - Bid Information Frauds	C.5.1	Leaked Bid Information	H/M	Prospective consultants may be privy to information that would lead to unfair advantages in the bidding process or at the BAFO stage. Estimates are prepared and reconciled by NJT estimators prior to the receipt of the bids which creates possible opportunity for improper disclosure.	H/M	Review bid opening documentation and verify that NJT representatives were present and that proper procedures were followed. If bids were received late, obtain justification or interview procurement staff regarding the reasoning. Review procurement correspondence to ensure all bidders received the same information, at the same time throughout the procurement process.
Procurement - Bid Information Frauds	C.5.2	Accepting Late Bids	M/M	The use of BAFOs, and in some cases multiple BAFOs, increases the opportunity for information to be leaked. Estimates not reconciled in a timely manner may be influenced by bids. Acceptance of a late bid opens the door for a consultant to revise its price after other bidders' pricing has been obtained.	M/M	Review established bid receipt and opening procedures to ensure they provide sufficient detail and have been consistently followed. Look for potential red flags, such as: bids being accepted after the due date/time without notifying NJT; bid envelopes have not been maintained; bids have been accepted in envelopes that have not been date/time stamped; bid envelopes have been stamped "received" at the bid opening rather than when received; and bid comparison sheets have not been prepared at bid openings and distributed to attendees.

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: **IOM Services for BEM Environmental,**
Contract No. **14-033** IOM Firm: **Thacher Associates LLC** Date: **March 8, 2017**

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Procurement - Bid Information Frauds	C.5.3	Improper Disqualification	M/M	Consultant(s) proposal(s) not accepted or disqualified for reasons not in line with established procurement procedures to inappropriately steer award to a favored consultant(s).	M/M	Review any rejected or disqualified proposals and reasoning supporting the decision. Interview procurement staff regarding reasoning.
Procurement - Bid Information Frauds	C.5.4	Unjustified Sole Source Contracts	H/M	BEM may collude with NJT procurement managers in exchange for consideration in the form of payments or incentives from BEM for the purpose of overbilling, duplicative billing, failure to process returns, failure to demand rebates scheduled, or involvement in shell company billing schemes.	M/M	Review consultant and vendor procurements (where applicable) for indications of sole sourcing. If sole sourcing is identified, review invoices and disbursement records to consultant or vendor for unusual or inconsistent payment activity or other indications of bribery or kickback schemes.
Task Order Contractors (TOC's)	D.1	Bribes/ Kickbacks	H/H	Documents may be falsified in concert between BEM and NJT procurement manager(s) to obtain authorization, allowing the creation of shell companies and/or fictitious invoices.	M/M	Vet selected subconsultants and suppliers (where applicable). Search TA proprietary database and perform expanded review of suspected or known problem contractors/consultants and vendors/suppliers.
Task Order Contractors (TOC's)	D.2	Falsifying Records	M/M	Front Loading: BEM may assign inflated amounts to line items within the schedule of values that are expected to be completed in earlier periods. This may result in payment applications indicating percentages of completion that are excessive and not commensurate with the actual value of the construction in progress or units delivered. Secondary risks include the possibility of BEM depleting cash reserves before substantial completion of the project, which could result in default, or more likely, fictitious or excessive change orders. Contractually required documentation that has not been produced or is otherwise missing could be an indicator that BEM has purposely withheld the required documents in order to conceal inappropriate activity and/or to avoid filing false documents.	M/M	Periodic attendance at pertinent meetings to monitor control effectiveness, compliance with processes in place and identify and discuss issues arising and effecting payment based on work completion; cross check with consultant and NJT, and final requisition review. Verify that all work product has been transferred to NJT prior to paying subconsultant if additional work is pending. Review contract provisions regarding required requisition supporting documentation. Review approved requisitions and supporting documentation for compliance.
Task Order Contractors (TOC's)	D.3	Conflicts of Interest	H/M	Non-disclosed affiliate relationships may exist between BEM and second-tier subconsultants, which may result in conflicts of interest or self-dealing. Inappropriate relationships may exist between BEM employees and subconsultant employees which may be exploited for financial gain at the expense of NJT. BEM employees may exploit an inappropriate relationship by approving work not yet performed, accepting work that is subpar, noncomforming, or non-compliant, etc.	H/M	Obtain and review NJT questionnaires for consultants, subconsultants and vendors to gain an understanding of possible affiliate relationships. Consider interviewing principals, employees, or accounting personnel of consultants and subconsultants, as warranted, to ascertain accuracy of affiliate relationships. Other potential procedures may include: Performing background checks, reviewing resumes of key people in positions to pay invoices or approve work (to see if they worked for any of the subconsultants they are overseeing) or conducting further investigation of disclosed relationships identified in questionnaires supplied during the prequalification process.
Task Order Contractors (TOC's)	D.4	Schedule Manipulation	M/M	Schedule submittals include artificial constraints or manipulated logic to show unobtainable milestone completion. Intentional schedule manipulation may be used as a tactic to coerce NJT to approve extensions of time to achieve critical dates or risk significant cost overruns. BEM may create schedule updates that work to their own financial/timing benefit and that of subconsultants, at the expense of NJT. The demands of the desired completion date could result in BEM and subconsultants manipulating schedule to support claims.	H/H	Periodic review of claims and change orders (if applicable). On-site monitoring of construction progress and comparison to reported progress to ensure accuracy of all scheduling data. Interview project managers from NJT and BEM to get insights on how schedule is progressing.
Task Order Contractors (TOC's)	D.5	Change Order Manipulation	H/H	Refer to expanded section on Change Orders (detailed below)	H/H	Refer to expanded section on Change Orders (detailed below)
Outsourced Programs	E.1	Duplicate Billings	H/H	BEM may include unallowable, duplicate, and/or unpaid invoices in payment applications submitted to NJT.	H/H	Review supporting documentation including invoices, receipts, and payroll records for possible duplication of work; spot check payments to subconsultants and vendors; if necessary, conduct payment confirmation procedures on select vendors and suppliers. Perform spot checks for items included in requisitions from BEM to NJT to test for duplicate submission of charges. Additional procedures (where appropriate) will follow the methodology discussed in the Change Orders section of this work plan.
Outsourced Programs	E.2	Cost Shifting	H/H	Refer to sections of the work plan referring to Change Orders and QA/QC potential fraud schemes.	H/H	Additional procedures (where appropriate) will follow the methodology discussed in the Change Orders and QA/QC section of this work plan.
Disadvantaged Business Enterprise (DBE) - False Submission	F.1.1	False Certification Documentation	H/H	DBE subconsultants may not be a bona-fide and the certification applications may not have been scrutinized or the subconsultant was falsely certified as a DBE.	H/H	Conduct background research on all DBE subconsultants. Conduct office visit to subconsultant(s) headquarters and interview owner and other key personnel to determine whether the firm is operating legitimately and performing a CUF. Review NJ and federal databases of certified contractors. Review ownership and other financial documentation for DBE subconsultants and compare to DBE application materials submitted to NJT to ensure there were no misrepresentations which could have resulted in subconsultant(s) receiving a DBE certification where they should not have.

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: IOM Services for BEM Environmental,
Contract No. 14-033 IOM Firm: Thacher Associates LLC Date: March 8, 2017

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Disadvantaged Business Enterprise (DBE) - False Submission	F.1.2*	False Compliance Documentation	H/H	DBE subconsultants may be obtaining goods and services from second-tier subconsultants without the prior consent or approval from NJT.	H/H	Review Participation plans, monthly statements of Payments, examine subconsultant invoices. Conduct background research on selected DBE subconsultant firms. Review NJ and federal databases of certified contractors. Refer to Enhanced Work Plan for DBE Compliance for additional, detailed procedures.
Disadvantaged Business Enterprise (DBE) - False Submission	F.1.2*	False Compliance Documentation	H/H	BEM may improperly report DBE participation credits for the value of goods and services provided by other subconsultants from which BEM may procure during the life of the project(s).	H/H	Review payments received by BEM from NJT and compare to DBE subconsultant(s) invoices and requisitions and to ensure disbursements issued by BEM comply with prompt payment provisions. After DBE subconsultant(s) complete scope of work, review final invoice and verify work has been satisfactorily performed prior to BEM issuing retainage payment (where applicable). Through on-site observations, interviews with workers from BEM and DBE subconsultants, site-visit to DBE subconsultants' company offices and reviews of invoices, requisitions, purchase orders, payments to vendors/suppliers, and payments to DBE subconsultants to ensure that the company is performing a Commercially Useful Function (CUF). Refer to Enhanced Work Plan for DBE Compliance for additional, detailed procedures.
Disadvantaged Business Enterprise (DBE) - False Submission	F.1.2*	False Compliance Documentation	H/H	BEM may intentionally file required forms containing false or fraudulent information.	H/H	Review all required contract filings including: Form A - First Tier DBE Utilization, Form A1 - Bidder/Proposer Solicitation and Contractor Information, Form A2 - Non-DBE Sub Utilization, Form B - Intent to Perform as a DBE Sub, DBE Good Faith Effort Form (If applicable), NJ UCP DBE Certification & NAICS Code Verification form, Form E - DBE's Monthly Payment Report. Request supporting documentation from BEM to verify accuracy and appropriateness of contents of the required filings. Conduct independent reviews and contact other subconsultants as necessary. Refer to Enhanced Work Plan for DBE Compliance for additional, detailed procedures.
Disadvantaged Business Enterprise (DBE) - False Submission	F.1.2*	False Compliance Documentation	H/H	BEM may improperly report DBE participation credits in relation to the project(s) for the use of other subconsultants with whom BEM may have entered into side agreements or other undisclosed arrangements (unrelated to the project(s) subject to monitoring).	H/H	Review DBE subconsultants' contracts, scope of work, and payment received to ensure that appropriate credits are being taken for the work completed, and that the amounts paid to DBE subconsultants are representative of the scope of work and the work completed to date, as presented on Form E. In the event that changes in the contract status between NJT and BEM or between BEM and DBE subconsultant result in prime not meeting the DBE participation requirements, perform reviews of all related outreach and good faith efforts activities conducted by BEM. Refer to Enhanced Work Plan for DBE Compliance for additional, detailed procedures.
Disadvantaged Business Enterprise (DBE) - False submission	F.1.3	False or Manipulated DBE Pricing	H/H	DBE contract value may not be consistent with the scope of work to be performed. Similarly, DBE subconsultant proposals or invoices may be inflated for the sole purpose of meeting the DBE participation goals.	H/H	Review scope of work of all DBEs along with any of their major suppliers / vendors and compare to values reflected in independent cost estimates as well as sampling means to ensure that the contract value is representative of the scope of work to be completed Review DBE contract and pricing and compare to detailed scope of work in contract. Compare pricing of detailed work items to independent estimate to highlight potential flags areas needing further review. Review DBE's actual contract costs and expenditures related to their scope.
Disadvantaged Business Enterprise (DBE) - Pass-Through	F.2	Pass-Through	H/H	DBE subconsultant may receive a subcontract award as a DBE despite not being financially independent (i.e., a captive DBE). DBE subconsultant may not be performing a commercially useful function. Additionally, BEM may be using DBE subconsultant as a pass through entity.	H/H	Conduct select office visits to review records and interview key personnel. Review NJ's certification files on select firms to assess DBE firm's financial independence. Conduct periodic inquiries to review work performed and interview workers, to confirm that DBE is performing a commercially useful function. Examine, on a spot basis, invoices, purchase orders, payments to DBE subconsultants, and payments to DBE subconsultants' suppliers to ensure no pass-through activities are occurring. Coordinate with CUF review procedures. Review invoices and certified payroll reports from DBE subconsultants (where applicable) to ensure they are acting independently from prime consultant and performing a CUF whereby they direct their own scope of work and manage their own day-to-day operations.

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: **IOM Services for BEM Environmental,**
Contract No. **14-033** IOM Firm: **Thacher Associates LLC** Date: **March 8, 2017**

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Disadvantaged Business Enterprise (DBE) - Fronting	F.3	Fronting	H/H	Although subconsultants may be certified as DBE firms, there is a risk that DBEs may serve as a 'front' for non-DBE firms. DBEs may be controlled by another non-DBE firm or individual.	H/H	Conduct select office visits to review records and interview key personnel. Review NJ's certification files on select firms to assess firm's financial independence. Verify authenticity of DBE Ownership and DBE supervision of work being performed. Review transactions for suspicious disbursements and transactions. Review invoices and certified payroll reports from DBE subconsultants to ensure they are acting independently from BEM.
Disadvantaged Business Enterprise (DBE) - Compliance Monitoring	F.4	DBE Compliance Monitoring	H/H	<u>See the attached DBE Compliance Monitoring Enhanced Work plan</u>	H/H	<u>See the attached DBE Compliance Monitoring Enhanced Work plan</u>
Change Orders	G.1	False Submissions	M/H	BEM and/or subconsultants may include fictitious invoice costs for non-priced items – potentially, with falsified supporting documentation.	M/H	Ensure that any time, materials, or equipment billed are appropriately supported with T&M tickets and other legitimate documentation such as invoices, receipts, payroll records, etc.; ensure that all change order work was approved by the appropriate oversight personnel in the field as well as by NJT.
Change Orders	G.2	Cost Shifting	H/H	Contingency funds (i.e. allowances) may be utilized by BEM for purposes other than what is specified by the contract, for items covered under the base scope and/or without approval from NJT.	H/H	Monitor contingency fund usage for contractually defined activities and owner approval. Perform reviews and on-site monitoring of allowance / contingency work and conduct worker headcounts (where applicable).
Change Orders	G.2	Cost Shifting	H/H	BEM may request and obtain approval for change orders reflecting items or work that is included as part of the base scope of work. In the case of lump sum contracts apply, improper field work tickets/orders may be issued; BEM may not issue credits for additional charges billed under change orders that were included within the base contract.	H/H	Periodically review change orders for out of scope validation. Sample change orders that could be considered as being within the base scope of work against expected deliverables. Determine method used to separately track actual costs expended for later capture into approved amounts. Sample process of tracking time, material and equipment tickets and distinct segregation of Change Order work vs. Base Scope work. Compare observations for extra work to what subsequently gets recorded and billed via consultant invoices.
Change Orders	G.3	Cost Inflation	H/H	Prime consultant submits and receives approval for change orders for additional work caused by consultant errors, design errors, inefficiencies.	H/H	Verify that proper credit has been received for duplicate and corrective work. Ascertain the responsible party for payment of fines and violations issued by third party for consultant errors.
Change Orders	G.3	Cost Inflation	H/H	BEM may embed unallowable, duplicate, and/or unpaid invoices within change order billings included in subsequent payment applications submitted to NJT.	H/H	Review change orders for proper oversight and approval by appropriate parties. On a spot basis, review supporting documentation such as time logs, invoices, receipts, and payroll records and review for possible duplication of work already performed or billed in earlier requisitions/invoices; spot check payments to subconsultants and vendors; if necessary, conduct payment confirmation procedures on select vendors and suppliers.
Change Orders	G.3	Cost Inflation	H/H	BEM may collude with subconsultants and vendors to include invoices for work not performed or items not delivered (or subsequently misappropriated).	L/M	Review extra work billing procedures and perform spot testing. On a selected basis, review invoices for delivery location; match invoices to delivery tickets and sign-offs. If potential issues are suspected, possibly send confirmations to selected vendors to confirm billings, delivery locations and pricing.
Change Orders	G.3	Cost Inflation	H/H	For fixed price change orders, estimates by BEM or subconsultants may not be independent or work may ultimately not be performed. Insiders may relay estimate information to BEM before BEM derives its own estimate. BEM estimates may be received before estimate reconciliation meetings are held. BEM's estimates may be used for internal estimate reconciliation in order to fast-track NJT's approval of the change order.	M/M	Review a sample of change orders to ensure those over a specified threshold have been independently estimated. Compare a sample of approved change order amounts against independent estimates for reasonableness. On a spot basis, verify prices and quantities independently for reasonableness.
Change Orders	G.3	Cost Inflation	H/H	Due to schedule demands, BEM may be directed to proceed with work prior to formal change order approval and/or with inadequate oversight which could lead to inflation of time and materials costs.	H/H	Review sample of time logs invoices against deliverable to determine if effort reflected in time logs is supported by on site staffing (where applicable) and deliverable outputs. On a spot basis, compare staffing from time logs to payrolls by name for the dates charged. On a spot basis, review documentation supporting labor, material & equipment costs.

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: IOM Services for BEM Environmental,
Contract No. 14-033 IOM Firm: Thatcher Associates LLC Date: March 8, 2017

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Change Orders	G.3	Cost Inflation	H/H	BEM may apply inappropriate and/or duplicate overhead & profit mark-up to change orders and receive approval from NJT (e.g., for change orders, work to be performed by subconsultants, or several layers of mark-up could be applied to the cost).	H/H	Periodic review of change orders approved for payment on contracts for inappropriate application and/or duplicate overhead charges or profit mark-up.
Change Orders	G.4	Scope Manipulation	M/H	Change order work may commence before an independent estimate has been submitted. As additional work is proposed, BEM may slow production rate to optimize compensation for work performed prior to receiving approval for the change order.	M/H	Audit a sample of change orders which started as time/materials but later agreed upon as a lump sum. Determine method used to separately track actual costs expended for subsequent capture into approved amounts. Ascertain if conditions under which work can proceed prior to approval have been codified and review sample of such instances for compliance.
Claims Management	H.1	Overpayment of Settlement Amounts	L/M	BEM may submit disruption, delay and/or cumulative impact claims for errors and inefficiencies caused by BEM or its subconsultants even though they may have been negotiated at a lower rate or ultimately withdrawn.	L/M	Anticipate potential claims issues by attending progress meetings, observing worksite activities and interviewing consultant and subconsultant personnel. If a claim is submitted, review basis for the claim and interview relevant parties. Use time logs, work papers, and other documentation to assess validity of claims.
Claims Management	H.2	Fraudulent Settlement Bases	L/M	Failure to respond to notice of potential delay may lead to unintended waivers, which could be exploited by BEM	L/M	Where applicable, to avoid liens, ensure that partial lien waivers and certifications of payment to consultants are obtained for each payment. At the end of the project, ensure that final lien waivers are obtained. Request and review accounts payable vendor report from consultant and match to lien waivers.
Payroll	N/A	Violation of Prevailing Wage requirements	N/A	In the event trade work is determined necessary, certified payroll reports may not be reviewed regularly for prevailing wage compliance. Non-compliance with Davis-Bacon Act/NJ Labor Laws would allow a contractor/sub-contractor an unfair advantage in bidding; and could involve the commission of related criminal conduct including falsification of records, filing false documents with government agencies, tax evasion, money laundering, larceny and bribery.	L/M	Conduct periodic reviews of contractor/subcontractors certified payrolls for compliance with prevailing wage requirements; conduct on-site prevailing wage interviews and send prevailing wage interview letters to workers; during interviews notify workers of Fraud Hotline; conduct office visits to contractor/subcontractors to review payroll registers and check disbursements; compare information to what is reported on the certified payrolls and union benefit remittance forms. If union issues are noted follow-up with union benefit fund to insure proper payments were made.
Payroll	N/A	Incomplete or Inaccurate Documentation	N/A	Incomplete or inaccurate payroll documentation could be an indicator of potential fraudulent activity. Missing documentation such as daily field tickets, timesheets, sign-in sheets, certified payrolls, employment utilization reports or cancelled checks may be a red flag. Inconsistencies or discrepancies among various payroll documents (e.g., hours worked not lining up) could be an indicator that manipulation of documents is occurring.	M/L	On a periodic basis, perform spot comparisons between all payroll records including daily field tickets, timesheets, sign-in sheets, certified payrolls and employment utilization reports. Conduct office visits to contractor/subcontractors to review company payroll registers and cancelled checks, and compare information to what is reported on the site records and certified payroll reports.
Insurance	N/A	N/A	N/A	BEM and subconsultants may not maintain the minimum insurance required under the contract, or make fraudulent representations that the policies exist. Insurance policies may lapse before the work is completed.	L/H	Request and review insurance policies from contractor and subs to verify existence, and test for compliance with contractual requirements. Request proof of payment for policies and note expiration dates for future follow up. If necessary, confirm coverages with insurance companies.

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: IOM Services for BEM Environmental,
Contract No. 14-033 IOM Firm: Thacher Associates LLC Date: March 8, 2017

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Environmental	N/A	NEPA Planning and Scoping Work	N/A	<p>General risks include:</p> <ul style="list-style-type: none"> - Improper assessment of the applicability of NEPA regarding damaged properties, this includes missing properties that should be included and properties that don't require NEPA (falsely charging for the unnecessary services); - Falsely determining that NEPA requirements and a significant environmental impact will require an EIS, resulting in charges for services that are not necessary; - Improper development of EIS which resulted in noncompliance with NEPA and subsequently results in additional costs to correct improper development of EIS, resulting in improper charges for services and additional costs to correct errors; - Failure to determine whether a Categorical Exclusion is available for consideration, resulting in unnecessary additional costs involved in developing the EIS; - Failure to determine whether Section 106 (a) of the Historic Preservation Act of 1966 applies to the program resulting in additional charges to correct the errors and false charges for an erroneous conclusion; - Failure to take into consideration Section 4 of the DOT laws of 1966 resulting in termination of project approval resulting in additional costs to correct problem and charges for work that was not adequately performed; - Inadequate insurance for the Consultant and or subconsultants resulting in increased liability for NJT. 	M/H	Evaluate the consultants' application of the NEPA requirements for the damaged properties to determine whether all necessary properties were included and whether properties that did not require compliance with NEPA were included to charge for unnecessary services. Examine whether all applicable exceptions or exclusions were utilized to avoid the production of an EIS and reduce the necessary costs involved. Conduct reviews of BEM's work product performed over the past few years to determine whether compliance was appropriately undertaken or whether contractual requirements were manipulated to increase costs improperly. Evaluate the insurance requirements and compliance with those requirements was achieved by the consultant and the subcontractors and subconsultants.
Environmental	N/A	Environmental Program Management	N/A	<p>General risks include:</p> <ul style="list-style-type: none"> - Improper Environmental assessment of project areas identified by NJT for required permitting, site restoration and remediation compliance; - Failure to obtain necessary permits, delaying and jeopardizing completion of the projects; - Failure to develop proper remediation plans and approvals for remediation of the sites; - Improper disposal of materials from the site resulting in liability for clean-up; - Failure to develop roadmap for NJT and each of the projects identified in the RFP regarding NEPA, Section 106 of the HPA, Section 4 of the DOT Act and the State and local regulations; 	M/H	<p>Confirm that BEM has setup robust policies and procedures to comply with contract and regulatory requirements. Confirm that similar plans have "flow down" provisions and are enforced on BEM subconsultants.</p> <p>Review BEM's work product for compliance with contract and applicable rules and regulations.</p>
Environmental	N/A	Individual Project Management	N/A	<p>General risks include:</p> <ul style="list-style-type: none"> - Improper project management regarding: <ul style="list-style-type: none"> - NEPA Compliance - Section 106 (a) HPA compliance - Section 4 of the US DOT Act - State and Local Regulations - Failure to properly review and determine land use requirements and obtain necessary permits; - Failure to properly assess environmental conditions at sites resulting in non-compliance with Federal, state and local clean-up requirements; - Reliance on improper decisions of LSRP's to address concerns and comply with the NJ DEP requirements; - Failure to properly apply for and obtain necessary permits for Air and site remediation; - Failure to properly monitor the activities of the practices of the 12 subcontractor/sub consultants resulting in fraud, waste and abuse of NJT and Federal funding. 	L/H	<p>Confirm that BEM has setup robust policies and procedures to comply with contract and regulatory requirements. Confirm that similar plans have "flow down" provisions and are enforced on BEM subconsultants.</p> <p>Review BEM's work product for compliance with contract and applicable rules and regulations.</p>
Environmental	N/A	Corruption Among Site Inspectors, Environmental Monitors, Testing Labs and Disposal Facilities	N/A	<p>General risks include:</p> <ul style="list-style-type: none"> - Improper disposal approvals, improper oversight of process, and fraudulent testing and classification of soils. - Improper handling of contaminated materials results in increased costs for cross contamination of materials and the necessary remediation. - Increased costs for cleaning up contaminated materials from non-permitted facilities and proper disposal at permitted facilities. 	L/M	<p>Evaluate oversight decisions and determine if they are in compliance with contract, regulatory and agency-specific requirements.</p> <p>Sample documentation provided by various entities to determine compliance with Contract, NJ Policies and Procedures and regulatory requirements.</p> <p>Conduct investigations based upon field intel developed.</p>
Environmental	N/A	Site Contamination Improper Clean-Up Fraudulent Charges Billing for Services not Rendered	N/A	<p>Lack of compliance with spill prevention and clean-up procedures may result in site contamination.</p> <p>Failure to clean site properly may result in spread of site contamination.</p> <p>Contaminated waste may be transported or disposed of illegally.</p> <p>Overcharges for labor, improper clean-up, transportation and disposal of contaminated waste is also a risk.</p>	L/M	<p>If the event of an incident, conduct spot field inspection and verify compliance with the reporting and clean-up requirements.</p> <p>Evaluate invoices and compare with field observations; evaluate hourly charges, transportation charges and disposal costs.</p>

**New Jersey Transit Corporation-Fraud Risk
Monitoring Work Plan**
Project Name: IOM Services for BEM Environmental,
Contract No. 14-033 IOM Firm: Thatcher Associates LLC Date: March 8, 2017

Risk Category	Program Wide Risk Ref.	Program Wide Fraud Scheme Description	Program Wide Likelihood/ Impact	Potential Fraud Risk Description and Application to this Project	Likelihood / Impact (This Project)	Monitoring Procedures (Modify to address the risks identified for this project.)
Environmental	N/A	Illegal Disposal of Soils/ Use of Uncertified or Unqualified Haulers	N/A	Illegal disposal of soils at non-permitted facilities may result in potential liabilities to NJT for clean-up costs. Haulers may not have proper licenses/certifications/permits to haul soil.	M/M	Review supporting documentation to verify that materials are going to the appropriate facility. Conduct field inspections of soil disposal operations on site as well as field visits to disposal facilities to verify compliance with project requirements. Perform, on a spot basis, audit review of past soil disposal documentations to determine compliance. Verify hauling company has required licenses/certification/permits to haul the specific classified soil.
QA/QC	N/A	Quality & Inspection Misrepresentation of Completion of Contract Requirements	N/A	BEM and subconsultants may install or utilize material and/or perform work that is inferior to project specifications. Required testing and inspections may not be performed as required (e.g., concrete field testing, rebar inspections, casing installations). Footing depths may not be made to specifications as a means of saving on construction costs.	M/H	Site visits to spot check work during construction and compare to contract drawings and specifications. Check invoiced items to owner against material and equipment in spec for conformity. Perform QA/QC integrity checks in order to ensure the contractual requirements are being met.
QA/QC	N/A	Quality & Inspection Collusion/ Illegal Gratuities/ Conflict of Interest/Product Substitution/ Deficient or Defective Work	N/A	Quality Assurance personnel may receive kickbacks or other consideration from BEM in exchange for approval of substandard materials or poorly performed work. BEM and subconsultants may collude with Site Manager or QA personnel to approve (or ignore) deficient or defective work or treat rectification as extra work.	L/M	Spot check for affiliations between QA firm and subs being monitored. Periodic review of inspection reports for proper signoffs and that inspector was actually on site the day the work was supposedly inspected. Spot check compliance with specifications and QA/QC requirements through field observations and records review.
Safety	N/A	Misrepresentation of Critical Project Information	N/A	BEM and subconsultants may fail to report or may falsify safety-related incidents.	L/L	Spot check of the Safety contractor records and daily site reports to ensure reporting consistency between accidents and reportable incidents. Periodically review reports of safety inspectors.
Safety	N/A	Fraudulent Licenses or Certifications	N/A	Construction workers fraudulently obtain technical certifications, licenses or training and use these to perform specific work, obtain a greater rate of pay or gain access to a specific site. In addition to the obvious integrity breach, potentially unqualified or untrained workers may be performing hazardous work. This significantly increases the potential for serious accidents and/or catastrophic loss.	L/M	Perform periodic reviews to verify licenses and certifications. Conduct further investigation of any suspicious credentials discovered during periodic reviews.
Safety	N/A	Drug and Alcohol (Substance Abuse) Presence	N/A	Impaired workers can create hazardous situations leading to reportable incidents or workplace accidents. This may give cause for ethics investigations or increase exposure to loss claims for all parties involved.	L/M	During site surveys identify signs of substance abuse (paraphernalia, containers, odors, etc.).

Draft

New Jersey Transit Corporation

Project Name: BEM Environmental Services Contract No. 14-033 IOM Firm: Thacher Associates Date: 03/08/2017

Potential Fraud Indicators

This list of potential fraud indicators may not be all inclusive. Additional indicators of fraud should be added based on risk associated with the project being monitored. *Thacher note: Other indicators of fraud are added below in bold and italics.*

Project: BEM Environmental Services

IOM: Thacher Associates

1) Time Overcharging
a) Unauthorized alterations to timecards and other source records.
b) Billed hours and dollars consistently at or near budgeted amounts.
c) Timecards filled out by supervisors, not by employees.
d) Photocopies of timecards where originals are expected.
e) Inconsistencies between consultant's labor distribution records and employee timecards.
f) Frequent adjusting of journal entries with descriptions such as changed wrong "work order" or "contract number."
g) Labor charges inconsistent with contract progress.
h) Personnel files that cannot be found or "found" after a delay.
i) Lack of clear audit trail to verify propriety of labor charges.
<i>j) billing for environmental services not qualified to perform</i>
<i>k) Billing for environmental services (e.g. sampling) that are not performed</i>
<i>l) billing more time for environmental service than the consultants actually worked</i>
<i>m) failing to provide environmental service and billing time for it</i>
<i>n) Missing signatures or required notarizations on documentation.</i>
2) Conflicts of Interest
a) Unexplained or unusual favoritism shown to a particular contractor or consultant.
b) NJ TRANSIT official disclosing confidential bid information to a contractor or assisting the contractor in preparing a bid.
c) Employee having discussions about employment with a current or prospective contractor or consultant.
d) Close socialization with and acceptance of inappropriate gifts, travel, or entertainment from a contractor.
e) Vendor or consultants address being incomplete or matching employee's address.
f) NJ TRANSIT official leasing or renting equipment to a contractor performing contract work.
g) Contracting or purchasing employee lives beyond his or her means.
h) Contracting employee fails to file Conflict of Interest or Financial Disclosure forms.
i) Employee declines promotion from a procurement position.
<i>j) Environmental subcontractors'/sub-consultants' having relationship to main consultant and failure to disclose it.</i>

<i>k) Environmental Consultant having family relationships with sub-consultants and steering business to them.</i>
<i>l) Main consultant hiring sub-consultants'/subcontractors based on previous beneficial relationships.</i>
<i>m) Financial or other incentive, whether directly or indirectly, to steer work toward favored consultant(s)</i>
3) Kickbacks
a) Unexplained or unreasonable limitations on the number of potential subcontractors contracted for bid or offer.
b) Continuing awards to subcontractors with poor performance records.
c) Non-award of subcontract to lowest bidder.
d) "No-value-added" technical specifications that dictate contract awards to particular companies.
e) Non-qualified and/or unlicensed subcontractors working on prime contracts.
f) Poor or no established contractor procedures for awarding of subcontracts through competition.
g) Kickback amount is passed back to NJ TRANSIT.
h) Lack of separation of duties between purchasing, receiving and storing.
i) Purchasing employees maintaining a standard of living exceeding their income.
<i>j) Environmental subcontractors providing financial benefits to main consultant to obtain the work on project</i>
<i>k) Allowing unqualified subcontractors'/sub-consultants' to work on project for financial benefit.</i>

4) Quality Control Testing
a) Contractor insisting on transporting quality control (QC) samples from the construction site to the lab.
b) Contractor not maintaining QC samples for later quality assurance (QA) testing.
c) Contractor challenges results or attempting to intimidate QA inspectors who obtain conflicting results.
d) Photocopies of QC test results and/or associated records (i.e. chain of custody), where originals are expected.
e) Alterations or missing signatures on QC test results.
f) Contractor employees regularly taking or labeling QC samples away from inspector oversight.
g) Laboratory test reports are identical to sample descriptions and test results, varying only date and lot number tested.
h) Test results cannot be found or have been destroyed.
i) Test results are lost then "found" after delay.
<i>j) Test results are fabricated or tests are taken from same location and made to represent another location</i>
5) Materials Overcharging
a) Discrepancies between contractor provided quantity documentation and observed data, including yield calculations.
b) Refusal or inability to provide supporting documentation.
c) Contractor consistently loading job materials into equipment, away from inspector oversight.
d) Truck weight tickets or plant production records with altered or missing information.
e) Photocopies of quantity documentation where originals are expected.
f) Irregularities in color or content of weight slips or other contractor documents used to calculate pay quantities.
g) No receiving report for invoiced goods.
h) Unusually high volume of purchases from one vendor.
i) Invoiced goods cannot be located in inventory or accounted for.
<i>j.) Documents for invoiced materials do not indicate project or indicate a different project.</i>
<i>k.) Charging for clean fill materials while providing non-clean fill or contaminated fill materials.</i>
<i>l.) Providing inferior equipment required for remedial action strategy, (i.e. monitoring equipment, ventilation equipment, etc.)</i>

6) Disadvantaged Business Enterprise (DBE) Fraud

- a) DBE owner lacking background, expertise, or equipment to perform subcontract work.
- b) Employees shuttling back and forth between prime contractor and DBE-owned business payrolls.
- c) Business names on equipment and vehicles covered with paint or magnetic signs.
- d) Orders and payments for necessary supplies made by individuals not employed by DBE-owned business.
- e) Prime contractor facilitated purchase of DBE-owned business.
- f) DBE owner never present at job site.
- g) Prime contractor always uses the same DBE.
- h) Financial agreements between prime and DBE contractors.
- i) Joint bank accounts (Prime/DBE).
- j) Absence of written contracts.

k) DBE workers being supervised by prime contractor personnel***l) Falsified documentation******m.) DBE acting as a pass through or utilizing non-DBE subcontractors/subconsultants*****7) Bid Rigging and Collusion**

- a) Unusual Bid Patterns: too close, too high, round numbers, or identical winning margins or percentages.
- b) Different contractors making identical errors in contract bids.
- c) Bid prices dropping when a new bidder enters the competition.
- d) Rotation of winning bidders by job, type of work, or geographical area.
- e) Losing bidders hired as subcontractors.
- f) Apparent connections between bidders: common address, personnel, or telephone numbers.
- g) Losing bidders submitting identical line-item bid amounts on non-standard items.
- h) Persistent high prices by all bidders.
- i) Joint venture bids by firms that usually bid alone.
- j) Losing bids do not comply with bid specifications or only one bid is complete and other bids are poorly prepared.

k) Placing unreasonable requirements on bidders in order to qualify them to do business***l) Noncompetitive pricing between firms or between affiliated companies***

8) Product Substitution
a) Any mismarking or mislabeling of products and materials.
b) Contractor restricting or avoiding inspection of goods or services upon delivery.
c) Contractor refusing to provide supporting documentation regarding production or manufacturing.
d) Photocopies of necessary certification, delivery, and production records where originals are expected.
e) Irregularities in signatures, dates, or quantities on delivery documents.
f) High rate of rejections, returns, or failure.
g) Test record reflecting no failures or a high failure rate but contract is on time and profitable.
h) Unsigned certifications.
i) Contractor offers to select samples for testing programs.
j) Supplier entertains on provider gratuities to inspection personnel.
<i>k) Contractor arranging for deliveries outside of working hours</i>
<i>L) Contractor uses gray market or inferior products</i>

9) Bribery
a) Other government inspectors at the job site notice a pattern of preferential contractor treatment.
b) NJ TRANSIT official has a lifestyle that exceeds his or her salary
c) Contract change orders lack sufficient justification.
d) Oversight officials socialize with, or have business relationships with, contractors or their families.
e) Involvement of an unnecessary middleman or broker.
f) Contracting employee declines promotion to a non-procurement position.
g) Contracting employee insists contractors use a certain subcontractor or broker.
h) Keen interest by a contracting employee in the award of a contract on purchase order to a particular contractor or vendor.
<i>i) Main consultant insisting on sub-consultants/subcontractors using particular insurance brokers for insurance</i>
<i>j) Main consultant allowing sub-consultants/subcontractors to provide inferior work products for financial gain</i>
10) Debris Removal
11) False Claims
a) False load tickets.
b) Inflated costs or double billing for work.
c) False or altered invoices.
d) False labor costs or payroll padding.
e) False pick-up locations for ineligible debris.
<i>f) False environmental injury claims related to testing contaminated areas, monitoring remediation work</i>
<i>g) False claims for specialty insurance costs that were not actually obtained by sub-consultants/subcontractors</i>
<i>h) Lies about paying subcontractors for services.</i>
<i>i) Inaccurate load capacities posted on trucks.</i>
<i>j) Lies about contractual compliance regarding environmental deliverables</i>
<i>k) Lies about regulatory compliance with environmental regulations, Federal, state and local.</i>

12) Bribery

- a) Payments to influence contract award.
- b) Payments for selection as subcontractor.
- c) Payments during performance to ignore problems.
- d) Payments to overstate debris volumes or weights.
- e) Payments to write load tickets.
- f) Payments from property owners to select dump site.

g) Payments from sub-contractors'/subcontractors to overlook non-compliant work

h) Payments from sub-consultants'/subcontractors to allow fictitious submittals to the NJT, FTA and FHWA

13) Conflicts of Interest

- a) NJ TRANSIT official has dollar interest in contractor.
- b) Contractor hires relative of contracting official.
- c) Subcontractor/sub-consultant hires relative of main consultant.***

Exhibit 3

New Jersey Transit Corporation
DBE Compliance Work Plan
Project Name: IOM Services for BEM Environmental Contract No. 14-033 IOM Firm: Thacher Associates LLC Date: March 8, 2017

Step #	Risk Category	DBE Program Requirement (per IOM Services RFP)	Review/ Monitoring Procedures (Modify as needed for this project and the risks identified)	DBE Compliance Auditing Staffing Hours										
				Frequency of Task Performance	Partner/ Principal/ Director	Program Manager	Project Manager	Subject Matter Expert	Supervisor/ Senior Consultant	Consultant	Associate Staff	Admin. Support	Total Hours	
1	IOM Firm DBE Program Compliance Monitoring of Contractors	Prompt payment of Invoices	<p>Confirm whether clause in subconsultant agreement(s) reflect(s) required language acknowledging that prompt payment will be issued to DBE subconsultants no later than 10 days following Prime consultant's receipt of payment from NJT.</p> <p>Confirm with NJT the dates of payment disbursements issued to Prime consultant and compare to payment receipt dates reported by Prime to determine average days of "payments in transit".</p> <p>Compare payment receipt dates reported by Prime consultant to disbursement dates of payments issued to subconsultant(s) to determine whether Prime issued prompt payment (i.e., within 10 days of receipt of funds from NJT). Determine whether the disbursement dates indicated by Prime consultant align with the Prime Contractor's DBE Payment Certification (Form E) and DBE Subcontractor Monthly Payment Report (Form E2) filings submitted to NJT for the corresponding period(s).</p> <p>Obtain and review copies of the front and back of cancelled checks reflecting details of disbursements made to subconsultant(s). Note and report to NJT any discrepancies indicating possible non compliance with prompt payment of invoices requirement.</p>	Monthly			5.0				20.0			25.0
2	IOM Firm DBE Program Compliance Monitoring of Contractors	Prompt payment of retainage	<p>Where applicable:</p> <p>Upon satisfactory completion of work by DBE subconsultant(s), verify that any remaining open items have been delivered to and properly approved by Prime consultant and NJT.</p> <p>Review documentation provided by Prime to determine whether retainage release authorizations have been issued by NJT.</p> <p>Confirm whether retainage payments issued to subconsultant(s) were disbursed within 15 days of receipt of authorization for release.</p> <p>Confirm whether contract clause in subconsultant agreement(s) reflect(s) required language acknowledging that payment will be issued to DBE subcontractors no later than the prescribed number of days following satisfactory completion of the accepted scope of work.</p> <p>Obtain and review copies of the front and back of cancelled checks reflecting details of retainage release payment issued made to subconsultants. Note and report to NJT any discrepancies indicating possible non compliance with prompt payment of retainage requirement.</p>	One Time (Upon Completion of Work)			5.0				10.0			15.0
3	IOM Firm DBE Program Compliance Monitoring of Contractors	Commercially Useful Function	<p>Perform office or on-sit observations of work, prepare and submit proprietary CUF Checklist (or other approved form approved by NJ Transit) with results of observations.</p> <p>Conduct interviews of employees of the prime consultant and subconsultant(s)</p> <p>Review DBE subconsultant(s) documentation including invoices to prime consultant, work logs, invoices from second-tier subconsultants, purchase orders, and payments issued by DBE subconsultant(s) to third parties in connection with the work (where applicable).</p>	Monthly		5.0	15.0				41.0			61.0
4	IOM Firm DBE Program Compliance Monitoring of Contractors	Pass-Throughs	<p>Examine invoices from subconsultants and compare to amounts invoiced to prime consultant for indicators of potential pass through activity.</p> <p>Conduct visits to business offices/locations of DBE subconsultant(s) to assess the possibility of DBE firms and non DBE firms sharing addresses, observe business operations, and determine whether other pass through indicators may be evident.</p> <p>Interview DBE personnel and managers as necessary to follow up on any concerns related to potential pass through activities. Compare actual deliverables provided to Prime consultant with work identified on the DBE Utilization (Form A) - submitted with the DBE proposals. Determine whether pass-through activity is evident based on comparisons of expected deliverables to actual deliverables.</p>	Monthly		5.0	15.0				20.0			40.0

New Jersey Transit Corporation
DBE Compliance Work Plan
Project Name: IOM Services for BEM Environmental Contract No. 14-033 IOM Firm: Thacher Associates LLC Date: March 8, 2017

Step #	Risk Category	DBE Program Requirement (per IOM Services RFP)	Review/ Monitoring Procedures (Modify as needed for this project and the risks identified)	DBE Compliance Auditing Staffing Hours										
				Frequency of Task Performance	Partner/ Principal/ Director	Program Manager	Project Manager	Subject Matter Expert	Supervisor/ Senior Consultant	Consultant	Associate Staff	Admin. Support	Total Hours	
5	IOM Firm DBE Program Compliance Monitoring of Contractors	All Contract Deliverables	<p>Review information reflected in Form A filings and verify that participation percentage calculations are supported by the information reflected in billing invoices received from Prime consultant and subconsultant(s).</p> <p>Review DBE subconsultant(s) information on Form A 1 Bidder Solicitation & Contractor Information and verify accuracy by comparing to DBE certification filings, Biznet website information, and Federal SAM database for DBEs.</p> <p>Review Form A2 – Non DBE Subcontractor Utilization to identify any potential overlaps in scope of work and dollar values between DBE subconsultant(s) and non DBE subconsultant(s).</p> <p>Compare details on Form B – Intent to Perform as a First Tier DBE to Form A –First Tier DBE Utilization Plan and DBE subcontract(s) and purchase order(s).</p> <p>In the event that the prime consultant does not meet the DBE goal, review Form D Good Faith Effort and verify information provided with respect to firms solicited by the Prime.</p>	Monthly			8.0				24.0			32.0
5	IOM Firm DBE Program Compliance Monitoring of Contractors (Continued)	All Contract Deliverables	<p>Verify whether all DBE subconsultant(s) are actively certified to perform the scope of work as described in the subcontract(s) / purchase order(s) and that the business description and/or any applicable industry code(s) under which each DBE is certified is in line with the scope of work being performed.</p> <p>Review Form E – Contractor's Monthly DBE Payment Report & Payment Certification Voucher and compare information reported to supporting documentation including subcontract(s) / purchase order(s), invoices, payments to subconsultant(s) and verify accuracy of calculations (percentage complete, participation percentage, and participation credit for suppliers).</p> <p>Review Form E2 – DBE's Monthly Payment Report and supporting information and compare to information obtained during prompt payment reviews. Verify accuracy of calculations and participation credit on Forms A, E and E2 for suppliers to assess or identify red flags with respect to utilization credit. Verify that information reported for original subcontract amount, change order amount, total of monthly invoices submitted, total of monthly payments received, life to date total of payments received, and percentage of work complete are in line with anticipated results.</p>	Monthly			8.0				44.0			52.0
6	IOM Firm DBE Program Compliance Monitoring of Contractors	Award versus spend	<p>Review DBE subconsultant(s) invoices to prime consultant, payments from prime consultant, and DBE subconsultant(s) invoice and time log details and cash receipts reports and compare to information reported in Form E – Contractor's Monthly DBE Payment Report & Payment Certification Voucher.</p> <p>Verify that award amounts reported on Form E – Contractor's Monthly DBE Payment Report & Payment Certification voucher are consistent with subcontract agreement(s).</p>	Monthly			5.0				18.0			23.0
7	IOM Firm DBE Program Compliance Monitoring of Contractors	Actual DBE work performed matches credit	<p>Review detailed scope of work contained in DBE subconsultant(s) / purchase order(s).</p> <p>Review scope of work of any second tier subconsultant(s), suppliers or fabricators to the DBE subconsultant to determine whether appropriate credit is being claimed.</p> <p>Where applicable, compare values for DBE scope of work between independent cost estimates and total billings for reasonableness.</p> <p>Observe work performed at business locations and offices site work to ensure that DBE subconsultant(s) (and not the prime or a non DBE lower tier sub) is performing scope of work detailed in subcontract agreements.</p>	Monthly			5.0				18.0			23.0
8	IOM Firm DBE Program Compliance Monitoring of Contractors	Reporting non compliance in weekly reports to NJT Internal Audit	<p>Discuss preliminary findings of non compliance with NJ Transit Internal Audit.</p> <p>Report non compliance on Weekly IOM Consultant Report.</p> <p>Draft memo detailing non compliance and provide all supporting documentation as directed by NJT Internal Audit.</p>	Weekly		5.0	15.0				12.0			32.0

New Jersey Transit Corporation
DBE Compliance Work Plan
 Project Name: IOM Services for BEM Environmental Contract No. 14-033 IOM Firm: Thacher Associates LLC Date: March 8, 2017

Step #	Risk Category	DBE Program Requirement (per IOM Services RFP)	Review/ Monitoring Procedures (Modify as needed for this project and the risks identified)	DBE Compliance Auditing Staffing Hours										
				Frequency of Task Performance	Partner/ Principal/ Director	Program Manager	Project Manager	Subject Matter Expert	Supervisor/ Senior Consultant	Consultant	Associate Staff	Admin. Support	Total Hours	
9	IOM Firm DBE Program Compliance Monitoring of Contractors	Written requests and approvals for the addition or removal / replacement of a DBE firm	When applicable: Review requests to obtain an understanding of events leading to the change/removal of a DBE Firm. Determine whether the nature of requests to remove/replace a DBE firm may involve factors that could be indicative of non compliance.	As Needed										0.0
10	IOM Firm DBE Program Compliance Monitoring of Contractors	Good faith effort on contract(s) being monitored including change orders / revisions	Where applicable: Determine whether the prime consultant is at risk for not meeting or is actually not meeting the DBE participation goals. Review information reflected on Form D – Good Faith Effort and perform independent verification to validate information reported on Form D. Review Form E – Contractor's Monthly DBE Payment Report & Payment Certification and assess whether change order approvals may trigger or actually cause Prime to fall below prescribed DBE participation goals.	As Needed										0.0
11	IOM Firm DBE Program Compliance Monitoring of Contractors	Evidence of payment to prime consultant by NJ TRANSIT, and the DBE by prime consultant	In conjunction with compliance review procedures specific to prompt payment provisions (above), note and report to NJT any instances where supporting documents are not timely, incomplete, or otherwise unavailable for review.	Monthly			5.0				12.0			17.0
12	IOM Firm DBE Program Compliance Monitoring of Contractors	Other relevant data as required by NJ Transit	Where applicable: Specific procedures will be determined in accordance with the specific tasks or deliverables requested by NJT.	As Needed										0.0

Total 0 15 86 0 0 219 0 0 320

DBE Sub-consultant Hours	0	0	56	0	0	214	0	0	270
Net Prime Hours	0	15	30	0	0	5	0	0	50
Total Hours	0	15	86	0	0	219	0	0	320

Exhibit 4

BEM - IOM Services Schedule

Mar-17 Assumed IOM Start

ACTIVITY	MONTH															
	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18
TA TASKS and DELIVERABLES**																
Business/Site Visits (Includes site and agency meetings, scope reviews, etc.)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Develop/Maintain/Update Fraud Risk Assessment																
Develop and Maintain Reporting Mechanisms	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Conduct Background Screens	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Procurement Reviews	•	•	•	•												
Invoices / Payments Reviews	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Change Order Reviews	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bond & Insurance Payment Reviews	•	•	•	•												
DBE Compliance Reviews	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Weekly Status Reports																
Monthly Status Reports	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Quarterly Report (A-60 & FTA)		Δ			Δ			Δ				Δ			Δ	

** Preliminary Schedule - To be adjusted based upon Fraud Risk Assessment and Finalized Detailed Work Plans

- Δ Quarterly
- X Monthly
- As Scheduled
-
 Weekly

Exhibit 5

**14-033 IOM Services for the BEM Environmental Services
Addendum No. 1 – February 24, 2017**

NJ TRANSIT replaces the chart provided on page 8 of the RFP dated January 24, 2017 with the following list of BEM Systems, Inc.'s Subconsultants for the contract which the Work Authorization applies.

I. CONFLICT OF INTEREST

IOMs shall not be a firm or an affiliate thereof involved in Superstorm Sandy Program Management or in the design, preparation or delivery of NJT Resiliency Program contracts, task orders, projects and programs. The IOM firm should provide NJT at the time it submits its proposal any anticipated or potential or suspected conflicts that it may incur during the projected course of a Work Authorization. The Consultant and subconsultants for the contract which the Work Authorization applies are as follows:

AKRF, Inc. (New York, New York)
Amy S. Greene Environmental Consultants, Inc. (Flemington, NJ)
Chemtech Consulting Group, Inc. (Mountainside, NJ)
First Environment, Inc. (Boonton, NJ)
Gannet Fleming, Inc. (Newark, NJ)
Jersey Boring & Drilling Co., Inc. (Newark, NJ)
Naik Consulting Group, P.C. (Edison, NJ)
PARS Environmental, Inc. (Robbinsville, NJ)
Paul Carpenter Associates, Inc. (Florham Park, NJ)
Richard Grubb and Associates, Inc. (Cranberry, NJ)
Subsurface Environmental Technologies, Inc. (Pennington, NJ)
InGroup Networking, Inc. DBA/InGroup, Inc. (Rochelle Park, NJ)
Radin Consulting, Inc. (Newark, NJ)
The Calladium Group, LLC (Brooklyn, NY)
Rubicon Environmental, LLC (Bethlehem, PA)
Joel Soden (Brooklyn, NY)

The IOM firm shall certify as part of its proposal that neither it nor any of affiliates or subsidiaries or sub-consultants currently provides directly or indirectly construction management or similar or related services that could be in conflict with providing IOM services to NJT under its current IOM agreement either directly or as a member of a joint venture, partnership, or as a subconsultants or subcontractor of any tier. An IOM firm, or its affiliates, or subsidiaries, or sub-consultants which during the course of this engagement responds to a procurement or enters into a joint venture, partnership or sub-contract relationship of any tier to provide directly or indirectly construction management or similar or related services to NJT that could be in conflict with providing IOM services to NJT shall be subject to appropriate action by NJT with respect to any then active Work Authorizations, in the event a conflict is found to have arisen by such action on the part of the IOM or its affiliates subsidiaries, or subconsultants as determined within the sole discretion of NJT.

NJT will determine whether a particular IOM firm has a conflict on a case-by-case basis. The IOM firm is required to consult with NJT where there is concern on the part of the IOM firm that a conflict may exist. NJT's determination regarding any question(s) of conflict of interest shall be final.

**14-033 IOM Services for the BEM Environmental Services
Addendum No. 1 – February 24, 2017**

**ACKNOWLEDGMENT OF RECEIPT
OF ADDENDUM NO. 1**

Acknowledgement is hereby made of the receipt of Addendum No. 1, dated February 24, 2017, containing information for the above project.

This acknowledgement is made by the Proposer, if an individual; by a partner, if a partnership; or an officer of the corporation, if a corporation.

The undersigned acknowledges receipt of Addendum No. 1.

(Name of Firm) Thacher Associates

(Signature) Joseph Allen

(Title) President

(Date) March 7, 2017

**NJ TRANSIT Contract No. 14-033D
Integrity Oversight Monitoring Services
Work Authorization No. 2
BEM Environmental Services for the Superstorm Sandy Program**

Attachment B – Cost Proposal

NJ TRANSIT Contract No. 14-033
 Integrity Oversight Monitoring Services - BEM
 Attachment 5 - Cost Proposal - Revised After Fraud Risk Assessment

Firm Name: Thacher Associates LLC

Risk Category	Staffing Category	Partner/Principal/Director	Program Manager/Project Manager	Subject Matter Expert	Subconsultant - Principal	Subconsultant - Project Manager	Supervisor/Senior Consultant	Consultant Associate/Staff	Subconsultant - Administrative Support	Totals
	Hourly Billing Rate	\$ -	\$ 250.00	\$ 200.00	\$ 225.00	\$ 175.00	\$ 137.50	\$ 137.50	\$ 100.00	
Fraud Risk Assessment	Hours	-	10.50	-	-	-	-	-	-	10.50
	Amount	\$ -	\$ 2,625.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,625.00
Grant Management	Hours	-	7.00	-	-	-	8.00	22.00	-	37.00
	Amount	\$ -	\$ 1,750.00	\$ -	\$ -	\$ -	\$ 1,100.00	\$ 3,025.00	\$ -	\$ 5,875.00
Procurement	Hours	-	10.50	-	-	-	12.50	32.00	-	55.00
	Amount	\$ -	\$ 2,625.00	\$ -	\$ -	\$ -	\$ 1,718.75	\$ 4,400.00	\$ -	\$ 8,743.75
Disbursements (Includes Subcontractors)	Hours	-	95.00	160.00	-	55.00	106.00	101.00	20.00	537.00
	Amount	\$ -	\$ 23,750.00	\$ 32,000.00	\$ -	\$ 9,625.00	\$ 14,575.00	\$ 13,887.50	\$ 2,000.00	\$ 95,837.50
Disadvantaged Business Enterprise (DBE) Fraud	Hours	-	24.00	-	-	40.00	-	-	30.00	94.00
	Amount	\$ -	\$ 6,000.00	\$ -	\$ -	\$ 7,000.00	\$ -	\$ -	\$ 3,000.00	\$ 16,000.00
Change Orders	Hours	-	28.00	-	-	-	41.00	12.50	-	81.50
	Amount	\$ -	\$ 7,000.00	\$ -	\$ -	\$ -	\$ 5,637.50	\$ 1,718.75	\$ -	\$ 14,356.25
Project-wide Activities	Hours	-	175.00	5.00	-	-	12.00	12.00	-	204.00
	Amount	\$ -	\$ 43,750.00	\$ 1,000.00	\$ -	\$ -	\$ 1,650.00	\$ 1,650.00	\$ -	\$ 48,050.00
	Total Hours	-	350.00	165.00	-	95.00	179.50	179.50	50.00	1,019.00
Total \$ Amount		\$ -	\$ 87,500.00	\$ 33,000.00	\$ -	\$ 16,625.00	\$ 24,681.25	\$ 24,681.25	\$ 5,000.00	\$ 191,487.50

Total Direct Cost	191,487.50
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Total Travel Cost	-
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GRAND TOTAL	191,487.50
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**NJ TRANSIT Contract No. 14-033D
Integrity Oversight Monitoring Services
Work Authorization No. 2
BEM Environmental Services for the Superstorm Sandy Program**

Attachment C – DBE Forms

NON-DBE SUBCONTRACTOR UTILIZATION - FORM A2

Directions: To be completed by any Bidder/Proposer/Prime for "all" subs including suppliers participating on this contract.

Bidder/Proposer Prime Name: Thacher Associates LLC Project Title: Integrity Oversight Monitoring Services for the BEM Environmental Services for the Superstorm Sandy Program / Contract 14-033D

Date: December 11, 2018

Prime Contract Value: \$191,652.50

Name, Address and Telephone # of all Subcontractor/Subconsultants	FEIN #	Provide Detailed Scope of Work to be Performed	Dollar Amount of Subcontractor/Sub-consultant Work (\$) Awarded	Percentage of Subcontract or Work (%)
Environmental Connection, Inc 5 Penn Plaza, Suite 1972 New York, NY 10001	[REDACTED]	Assist with analysis of risks, development of risk mitigation strategies, compliance oversight and reporting, including: review of procedures and development of enhancements, design and implementation of corruption prevention programs, cost analysis and monitoring,	\$ 33,000	17.22 %
		record review and compliance evaluations specifically as related to environmentally sensitive matters	\$	%
			\$	%
			\$	%
			\$	%
Must provide a detailed scope of work; one-word descriptions are not acceptable.		TOTALS	\$ 33,000	17.22 %

First Tier DBE UTILIZATION - FORM A

Integrity Oversight Monitoring Services for the BEM Environmental Services for the
 Project Name: Superstorm Sandy Program

NJT Contract No: 14-033D

Assigned DBE Goal %: 10 NJT Procurement Specialist: Taishida Chapman

Contract Value (\$): \$191,652.50

First Tier DBE must perform at least 51% of its subcontract value if subcontracting to a Second -Tier DBE or Non-DBE. Do not count Non-DBE portion toward the goal.

Name, Address and Telephone # of DBE Subcontractor/Subconsultant	Provide Detailed Scope of Work to be Performed (Identify all suppliers)	Dollar Value of Subcontract/Sub-consultant Work (\$) Awarded	Percentage of Subcontract Work (%)
Crescent Consulting Associates, Inc 2 Stowe Road, Suite 3A Peekskill NY 10566 (914) 788-9244	Perform site visits and office visits to interview DBE employees and management, and to review documents, to ensure that DBE subcontractors are legitimate DBEs and that they are performing a commercially useful function (CUF).	\$21,652	11.29 %
			%
			%
			%
			%
For DBE suppliers, show original subcontract value multiplied by 60% (\$2,000*60%=\$1200). For DBE portion of work, subtract Non-DBE portion of work from original subcontract value.	TOTALS	\$ 21,652	11.29 %

The undersigned will enter into a formal agreement with the DBE(s) listed in this schedule conditioned upon execution of a contract with NJ TRANSIT for the above referenced project. The undersigned understands that removal/replacement of the DBE(s) listed is **NOT PERMISSIBLE** for any reason (pre or post-award), without submitting a written request to the Office of Business Development and receiving **WRITTEN APPROVAL** from the Office of Business Development. Failure to obtain written approval shall result in the breach of contract and subject to corrective action to be determined by NJ TRANSIT.

Company Name: Thacher Associates LLC

Authorized Signature: 

Company Address: 845 Third Avenue, 15th Floor, New York, NY 10022

Print Name: Michael Carroll

Title: Managing Director

Federal Tax ID #: 

Prime Contractor's DBE Liaison Officer: Erin Longbothum

Company Tel #: (212) 845-7500

Date Signed: December 11, 2018

BIDDER SOLICITATION & CONTRACTOR INFORMATION - FORM A1

Integrity Oversight Monitoring Services for the BEM Environmental Services for the
 Project Title: Superstorm Sandy Program / Contract 14-033D

Date: December 11, 2018

Prime Contractor/Consultant: Thacher Associates LLC

Telephone #: (212) 845-7500

Complete the information below for Bidder/Proposer/Prime(s) working on this project. Use Page 2 for all subcontractors/subconsultants

	Bidder/Proposer/Prime	Bidder/Proposer/Prime	Bidder/Proposer/Prime
Company's Full Name	Thacher Associates LLC		
Address	845 Third Avenue, 15th Floor		
City and State	New York, NY		
Zip	10022		
County	New York		
Phone	(212) 845-7500		
Fax	(212) 845-7549		
E-mail	elongbothum@k2intelligence.com		
Owner	K2 Intelligence, Inc.		
Date Established	11/16/1996		
Date Certified	N / A		
Ethnicity	N / A		
Gender	N / A		
Certification Status: DBE or Non-DBE	Non-DBE		
Federal Tax ID # / SSN #			
Annual Gross Receipts: A - Less than \$500K B - \$500K to \$1M C - \$1M to \$2M D - \$2M to \$5M E - \$5M and over indicate the letter that applies	E		
Primary NAICS Code:	541611		

BIDDER SOLICITATION & CONTRACTOR INFORMATION - FORM A1

Integrity Oversight Monitoring Services for the BEM Environmental Services for the
 Project Title: Superstorm Sandy Program / Contract 14-033D

Date: December 11, 2018

Prime Contractor/Consultant: Thacher Associates LLC

Telephone #: (212) 845-7500

COMPLETE THE INFORMATION BELOW FOR "ALL" FIRMS INCLUDING SUPPLIERS SOLICITED; INCLUDING THOSE THAT WILL WORK ON THIS PROJECT.

	Subcontractor/Subconsultant	Subcontractor/Subconsultant	Subcontractor/Subconsultant
Company's Full Name	Crescent Consulting Associates, Inc.	Environmental Connection, Inc.	
Address	2 Stow Road Suite 3A	120 North Warren Street	
City and State	Peekskill, NY	Trenton, New Jersey	
Zip	10566	08608	
County	Westchester	Mercer	
Phone	(914) 788-9244	609-392-4200	
Fax	(914) 788-9214	609-392-1216	
E-mail	rdefreitas@crescentconsult.com	Smania@vtihq.com	
Owner	Rohan DeFreitas / Luis Segarra	Steven Mania and Rolland Jones	
Date Established	2001	1983	
Date Certified	DBE Certified 2005		
Ethnicity	African American / Hispanic	Diversified (Staff)	
Gender	Male / Male	Male	
Certification Status: DBE or Non-DBE	DBE	Non-DBE	
Federal Tax ID # / SSN #			
Annual Gross Receipts: A - Less than \$500K B - \$500K to \$1M C - \$1M to \$2M D - \$2M to \$5M E - \$5M and over indicate the letter that applies	D	D	
Primary NAICS Code:	8742	541620	

INTENT TO PERFORM AS A 1ST TIER DBE - FORM B

The Bidder/Proposer/Prime is prohibited from completing any portion of this form and directing the DBE to sign a blank form.

DIRECTIONS: DBE(s) listed on the Form A must complete all information on this form.

Thacher Associates, LLC.

Crescent Consulting Associates, Inc.

Name of Bidder/Proposer/Prime:

Name of DBE Firm:

Integrity Oversight Monitor Services for the BEM

Project/Contract Name: Environmental Services for the Superstorm Sandy Program IFB/RFP Contract Number: 14-033D

Does the undersigned DBE (Answer Accordingly):

Intend to perform subcontract work in connection with the above-mentioned project as a Joint Venture? Circle one. (Yes or No) No

Intend to subcontract any portion of its scope of work to a DBE(s)? Circle one. (Yes or No) No
If yes, DBE Sub-Primes must complete and submit Form AA. At what percent? %

Intend to subcontract any portion of its scope of work to a Non-DBE(s)? Circle one. (Yes or No) No
If yes, must complete and submit Form AA2. At what percent? %

The undersigned will perform the following described work on the above-referenced project: (Provide a detailed description of the type of work you will perform on your subcontract. Attach a copy of quote approved and signed by Bidder (optional)).

Perform DBE office investigation services, which includes, but is not limited to, interviewing DBE management and staff to confirm the legitimacy of DBE firms and ensure that the Commercially Useful Function "CUF" requirements are being adhered to and that the DBEs are performing their contracted scope of work on the project. Also, assist with other investigation and audit tasks as needed.

Dollar Value of DBE Subcontract: \$ 21,652

Total Quantity/Units (if applicable): Per Unit Cost (if applicable): \$

The undersigned based the above scope of work and subcontract value on detailed project specs received from the Bidder contractor named above. Circle one. (Yes or No) Yes

The Prime Contractor projected the following commencement and completion date for such work as follows:

DBE Contract Start Date: 12/11/18 DBE Contract Completion Date 6/30/22

The undersigned DBE will enter into a formal agreement for the above work with the Prime Contractor conditioned upon execution of a contract with NJ TRANSIT. As a DBE subcontractor, I will cooperate with the certification, compliance and monitoring process set forth by NJ TRANSIT. I attest that I will perform at least 51% of my subcontract with my own workforce for the referenced project.

Signature of 1st Tier DBE: Luis Segarra Date: 12/11/18 Title: Principal/CFO
Print Name: Luis Segarra Telephone #: (914) 788-9244

Failure to adhere to these instructions or the falsification of any information on this form shall result in breach of contract and subject to the appropriate penalties to be determined by NJ TRANSIT.