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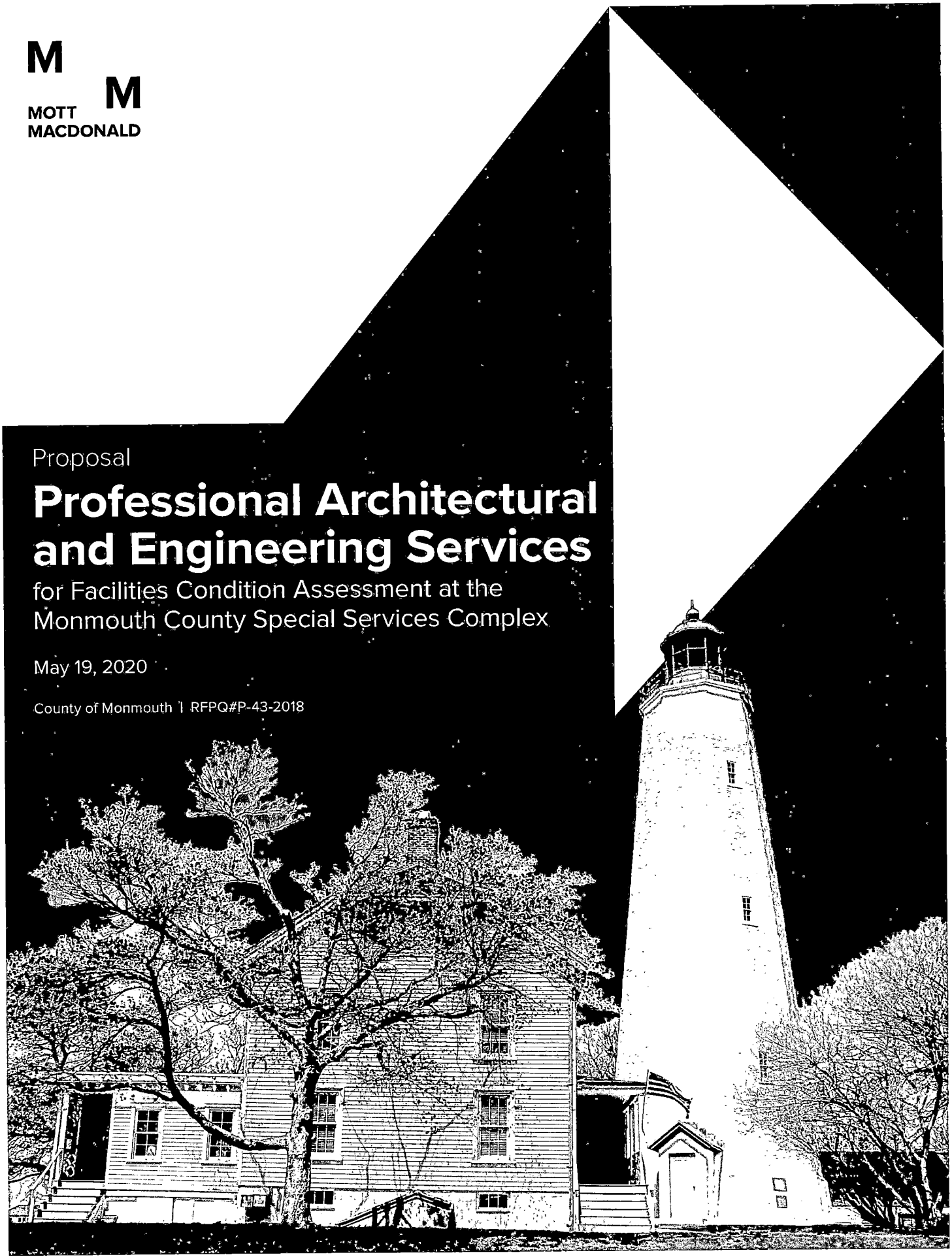
Proposal

Professional Architectural and Engineering Services

for Facilities Condition Assessment at the Monmouth County Special Services Complex

May 19, 2020

County of Monmouth | RFPQ#P-43-2018



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Helen P. Fiore, Director of Purchasing
Division of Purchasing
County of Monmouth
Hall of Records, 3rd Floor
1 East Main Street
Freehold, NJ 07728

Professional Architectural and Engineering Services for a Facilities Condition Assessment at the Monmouth County Special Services Complex
RFP# P-43-2018

Proposal

Mott MacDonald LLC
111 Wood Avenue South
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United States of America

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mottmac.com

May 19, 2020

Dear Ms. Fiore,

Mott MacDonald, LLC is pleased to submit one (1) original, unbound, and four (4) copies of our proposal package to perform Professional Architectural and Engineering services for a Facilities Condition Assessment at the Monmouth County Special Services Complex in the Township of Freehold. Our submission provides the necessary information as outlined in the Request for Proposal to provide a complete facilities condition assessment.

We have assembled a team of highly qualified professionals who are thoroughly familiar with the goals, requirements and guidelines for this project. We are confident in our ability to meet the County's needs and providing our services in a timely and cost-efficient manner.

We wish to thank you for the opportunity to be of service to the County of Monmouth and look forward to working together with you and your staff.

Should you have any questions, please do not hesitate to call me at (201) 499-1087.

Sincerely yours,

Mott MacDonald, LLC

Anthony F. Pedro, PE
Senior Vice President
T 201.499.1087 F 973.376.1072
anthony.pedro@mottmac.com

PROPOSAL CHECKLIST

RFP NO.: P-43-2019

Items required with proposal (Owner's checkmarks) ⇓		Items submitted with proposal (Consultant's INITIALS) ⇓
	A. FAILURE TO SUBMIT ANY OF THESE ITEMS WITH THE PROPOSAL IS MANDATORY CAUSE FOR REJECTION	
X	Proposal (**unbound original**) (four add'l copies requested)	AFP
X	Statement of Ownership	AFP
X	Non-Collusion Affidavit	AFP
X	Iran Disclosure Form	AFP
____	Other:	____
	B. ITEMS PREFERRED WITH THE PROPOSAL, BUT MANDATORY AT THE TIME INDICATED	
X	Copy of the N.J. Business Registration Certificate or other acceptable proof of N.J. Business Registration for Consultant – prior to award of contract	AFP
X	Copy of the N.J. Business Registration Certificate or other acceptable proof of N.J. Business Registration for proposed subconsultant(s) – prior to commencement of work, if applicable	AFP
X	References – deadline set by the County, on notice to the Consultant	AFP
X	Resume(s) – deadline set by the County, on notice to the Consultant.	AFP
____	Other: – deadline set by the County, on notice to the Consultant	____
	C. OPTIONAL ITEM	
X	Equal Employment Opportunity Questionnaire	AFP

PRINT NAME OF CONSULTANT: Mott MacDonald LLC

SIGNED BY: 

PRINT NAME AND TITLE: Anthony F. Pedro, Senior Vice President

DATE: March 12, 2020

COMPLETE & SUBMIT THIS CHECKLIST WITH THE PROPOSAL Rev. 4/2019

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Section 1

Understanding of scope of work and project needs

Understanding of Scope of Work and Project Needs

The County of Monmouth's Department of Public Works & Engineering is seeking a firm to provide comprehensive A-E services to produce a Facilities Condition Assessment of the existing building systems and to provide a feasibility study to determine alternative and future storage needs of the Board of Elections' voting machines at the Monmouth County Special Services Complex.

We offer a diverse mix of expertise and resources in support of County staff. Services required will include a broad range of specialized skills and experience in various disciplines associated with conducting a detailed and thorough facility condition assessment and feasibility study.

Mott MacDonald understands that successful project delivery is founded on core principles of understanding the goals, assigning the right team to meet the goals, effectively planning the work, and managing risks to achieve the goals safely and efficiently. In Figure 2.1-1, we illustrate our keys to successful projects which will be elaborated upon in our proposal. In particular, we place high value on partnership and engagement with project stakeholders, especially the County staff who will be responsible to operate and maintain what gets assessed.

The right team to meet the challenges

Mott MacDonald has performed numerous condition assessments to provide our clients with a "big picture" of the technical and financial construction cost feasibility required for leasing and fitting out properties and for future anticipated rehabilitation.

Work generally requires review of records, site inspections and surveys, identification of work required and preparation of cost estimates for budgeting purposes. Results are presented in a matrix formatted excel spreadsheet and based on our findings, we forecast an anticipated capital renewal budget for each item.

Our team will be an extension of Monmouth County staff.

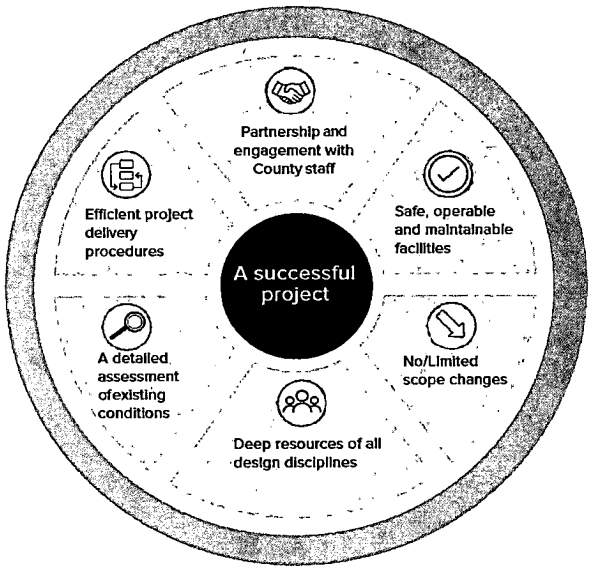

Figure 2.1-1. We recognize that there are several factors, in addition to safety, schedule, budget, and risk that define a successful project.

For over 60 years, we have provided facility condition assessments (FCAs) to help our clients make informed decisions regarding capital planning and budgeting. We have managed the repair, renewal and replacement and compliance at many County facilities. Our clients include Monmouth, Ocean, Middlesex, Cape May, and Atlantic Counties, and various Government and Civic facilities.

Mott MacDonald recently performed FCAs of 12 buildings totalling approximately 1.25 million square feet for the NYC Department of Homeless Services. An assessment was performed of existing conditions, a summary report, and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for the client's future needs and to extend the building's useful life in order to ensure an adequate return on investments were prepared. A report including estimated life expectancies and anticipated replacement costs of the various building components (building roof and envelopes, interior architectural features, structural systems, electrical, HVAC & Plumbing, and Fire Life Safety Systems) was prepared. Recommendations were prioritized based on life safety and estimated life expectancies. Construction documents to repair many of these assessed facilities were prepared.

Commitment to quality

Our approach to quality control and assurance is insistent on the establishment of a comprehensive plan to control it. As a global organization, we believe in the consistent quality of our deliverables; our clients expect the same degree of quality.

Our process embraces the latest QA/QC procedures and not only addresses quality of the design, but also establishes a program to promote quality of conformance and quality of the Project management system.

Mott MacDonald and the entire project team are committed to providing Monmouth County with the highest quality of services. We take the approach that quality control begins even before the Notice to Proceed is issued. It begins once the Project Manager (Peter Bastardo) thoroughly understands the scope of services for the project, and then assigns and dedicates the very best personnel suited to the tasks that are required.

Peter Bastardo will work with a dedicated QAQC Manager, Anthony Pedro whom will ultimately be responsible for establishing and maintaining the Quality Control/Quality Assurance Programs. Any quality procedure or system like our BMS is only useful when it is followed. For Mott MacDonald, in order to ensure quality and achieve success, every member of the project team must do their job.

Project management system

In conjunction with our Information Management platform, Mott MacDonald operates an ISO 9001 approved project management system called STEP, which defines our way of working in detail, covering the flow of information and behavior. STEP is modeled on the PMI Project Management Body of Knowledge (PMBOK) Guide's five process groups, which structure the different project phases to successfully initiate, plan, execute, monitor and control, and close the project. STEP is a web-based portal covering all aspects of a project:

- Information flow and approval
- Quality control and extent of checking
- Document handling and storage
- Approval processes and authority levels
- Changes to scope
- Financial project control
- Customer care and feedback
- Process improvement

Quality control and assurance

Mott MacDonald is ISO 9001-2015 certified. Our Quality Manager will enforce the team's project quality plan and procedure developed under our ISO 9001 certified Business Management System (BMS), which provides processes to help manage and continuously monitor our quality driven services. This enhances the project team's performance by establishing guidelines for project management that will assure that quality inspection documents are available for inspection when requested.

Each task will be subject to QA/QC review by our QAQC Manager and at least one other member of the key Discipline Leads. This review will be from "cover to cover." Other senior management or technical personnel from the Mott MacDonald team's firm members will be added to this review process, as needed.

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Project

Municipal Buildings Assessments

Location

Township of Montclair, NJ

Client

Township of Montclair, Department of Planning and Community Development

Reference

Karen Kadus, Director
(973) 509- 4954
kkadus@yahoo.com

Expertise

Building Improvements
Facility Conditions Assessment

Roofing Systems
Building Envelope
Architectural Improvements
MEP Systems
Fire/Life Safety

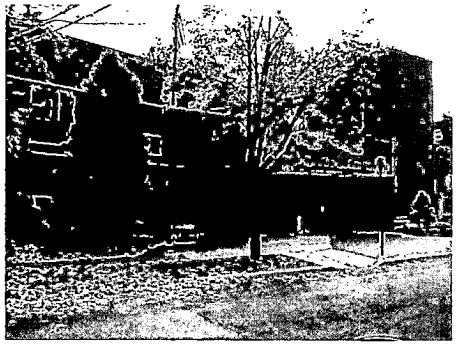
Construction Cost

$6.4 Million estimated cost for identified deficiencies

Mott MacDonald provided a complete field investigation, building systems evaluation and conditions survey for ten municipally-owned buildings in Montclair, NJ including the Town Hall, the Public Safety Building, the Public Works Building, the Water Bureau Building, a homeless shelter, an animal shelter, an inspection station, a former firehouse, a pumping station, and an arena.

The purpose of the project was to provide a complete Physical Needs Assessment of each facility's existing conditions and recommendations as to what repairs and renovations were necessary to make the buildings suitable for the Township's future needs and to extend the buildings' useful life in order to insure adequate return on investments. The report prepared included estimated life expectancies and anticipated replacement costs of the various building components and equipment.

Highlights



- **Building Exterior:**
  Identified conditions that did not allow the building façade and associated appurtenances (i.e. windows, doors, decorative elements, etc.) to function as intended; Identified corrective measures implemented over the next 10 years; Provided a detailed evaluation of the exterior envelope of the building based on a visual inspection utilizing magnifying optical equipment; As required by conditions, performed a survey of the interior of the building to identify the location of all water penetrations and the source of the infiltration.
- **Roofing Systems and Interior Architectural Features:**
  Identified the composition and determined the condition of the existing roofing systems; made recommendations for short and long-term corrective work; and defined all conditions or configurations that were not code compliant or were detrimental to the use of the facility and defined all existing conditions that required remedial work.

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- **Structural Systems:**
  Determined the condition of all observable structural systems, identified all deficiencies that existed, and made recommendations for corrective work accomplished through the use of visual observations and measurements in accessible areas of the building and a façade survey;
- **Electrical Systems:**
  Visually inspected for adequacy and conformance with codes including: existing panels; power and lighting systems; emergency lighting for places of assembly; communication and signal systems; Electrical systems associated with other building systems (i.e. HVAC equipment, vertical transportation equipment, plumbing systems, fire protection systems, etc.); All power panels, splices, and electrical connections to major equipment.
- **Fire Life Safety Systems:**
  Inspected and determined the condition in relation to operation and code compliance of all systems including: fire suppression and fire alarm/detection systems, emergency power systems and exit/emergency lighting systems, fire rated enclosures, exit/fire/smoke doors, and path of egress, emergency communication systems and emergency control systems (e.g. elevator recall, HVAC system controls related to the presence of smoke and/or fire, etc.).
- **HVAC and Plumbing Systems:**
  Surveyed and checked the operational status of all major equipment (e.g. converters, refrigeration equipment, cooling towers, air handling units, pumps, PRV stations, etc.) and primary components thereof (e.g. fans, motors, coils, tubes, filters, controls, chemical treatment systems, etc.), and all associated accessible piping and duct systems with associated appurtenances. Piping and ductwork had been assessed based upon a sampling of locations as opposed to a complete survey. In addition to piping, the physical condition of all fixtures was surveyed. The operational status of minor components (e.g. traps, local valves, etc.) was based upon a sampling; In addition to major HVAC system components, addressed the condition of terminal units, local area controls, etc. throughout the building; HVAC Building Loads: calculated approximate building gross ventilation, cooling, and heating requirements. This allowed for a comparison between installed capacities versus required capacity. The objective was to identify if substantial differences existed between installed capacity and present engineering standards; Major plumbing system components (i.e. pumps, main, and branch piping, main valves, vent lines, tanks, hot water heater/ converters, etc.) were assessed. Performed operational tests and thickness measurements as required in order to assess the condition of system components and to estimate their remaining useful as required as extra work.

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Project

City of East Orange Firehouses FCA

Location

City of East Orange, East Orange, NJ

Client

The City of East Orange Department of Public Works

Reference

Chris Coke, PE Director, Department of Public Works
(973) 266-5163

Expertise

Fire station
Apparatus bays
Equipment maintenance
Vehicle maintenance
Classroom/Training areas
Administrative space
Living quarters
Recreation/dining areas
Multi-disciplined services
Energy efficiency
Egress/Life safety analysis
Space area efficiency
Environmental conditions
Building integrity assessment

Construction Cost

$5,615,000 estimated cost for recommended replacements, repairs and upgrades

Mott MacDonald was retained by the City of East Orange to perform a facilities assessment on their municipally-owned buildings which includes four separate firehouses totaling approximately 80,000 square feet. The firehouses are steel-framed structures with masonry walls and reinforced concrete slabs, each housing its own apparatus room, sleeping quarters and offices, among other spaces.

Opportunity

Many of the facilities owned and operated by the City of East Orange have undergone periodic building systems upgrades since the date of their construction, but due to the fact that these upgrades have not been performed in a systematic fashion, many building components have exceeded their economic life. In order to develop a rational capital planning program, the City of East Orange needs an overall assessment of their facilities condition.

Solution

Mott MacDonald's professional services included an assessment of each facility's existing conditions and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for its intended needs and to extend the buildings' useful life in order to insure adequate return on investments.

Multiple building systems were assessed including the Building Exterior (Roofs, Exterior Walls, Windows, and Doors); Interior Architectural Features; Structural Systems; Landscaping Systems; Electrical Systems; HVAC and Plumbing Systems; and Fire Life Safety Systems.

Outcome

A report was prepared that included estimated life expectancies and anticipated replacement costs of the various building components.

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Project
Facilities Condition Assessment

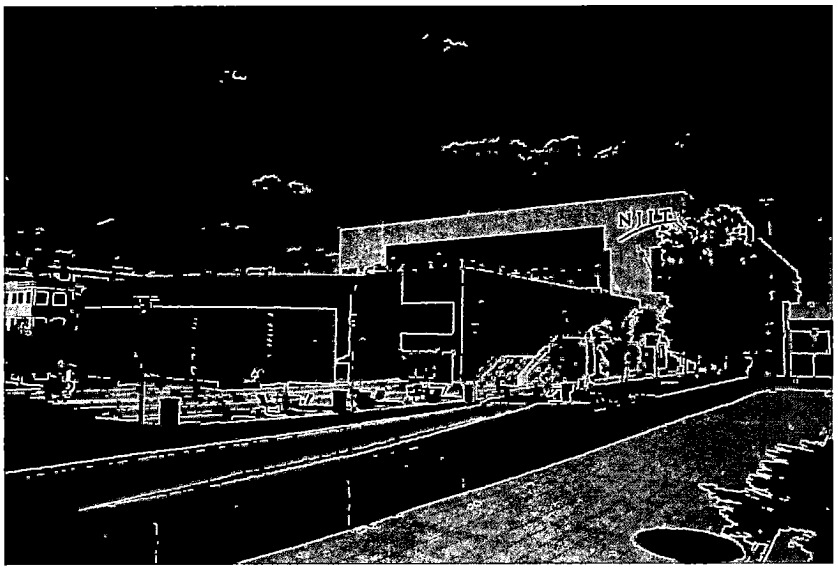
Location
New Jersey Institute of Technology, Newark Campus, Newark, NJ

Client
New Jersey Institute of Technology (NJIT)

Reference
Todd Miller
(973) 596-5509
Todd.k.miller@njit.edu

Expertise
Academic
Laboratories
Administrative Buildings
Conditions assessments
Egress/fire/life safety
Building interior
MEP upgrades
Approximate square footage: *3,200,000*

Construction Cost
N/A
$50-60 Million (deferred maintenance costs)



One of the nation's leading public polytechnic universities, New Jersey Institute of Technology (NJIT) prepares students to be leaders in the technology-dependent economy of the 21st century.

With an enrollment of over 11,400 undergraduate and graduate students, NJIT offers small-campus intimacy with the resources of a major public research university located in the urban community of Newark, New Jersey.

Opportunity
As part of NJIT's *2020 Vision – Strategic Plan* and Capital Renewal Program to increase student academic achievement, support scholarly research, and promote innovation, the University needs to reinvest in their existing facilities beginning with a systematic $80M program to renew dated facilities, mitigate deferred maintenance, and improve the campus reliability and energy efficiency.

Solution
The Mott MacDonald Project Team was tasked with conducting a detailed and thorough facility condition assessment and analysis of the University's facilities, grounds, and miscellaneous structures including an asset inventory, identification of current facility condition deficiencies, recommendations of corrections for all deficiencies, and cost estimates for corrections as well as forecast of future capital renewal costs.

The facilities condition assessment (FCA) was conducted of the entire campus, consisting of 3,200,000 square feet encompassing 33 Buildings.

Specific elements of the FCA included:

- Development of an inventory of building systems, equipment and infrastructure assets of each University property
- Calculations of costs for all identified projects, utilizing an agreed upon published construction and remodeling cost estimating data and format
- Rank and prioritize all projects by priority and anticipated life cycle

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- Prioritized plan to strategically and efficiently reduce the current backlog of deferred maintenance
- Enhance facility planning capabilities and compare conditions amongst university facilities by addressing the highest priority needs for the future
- Recommendations for improving facilities by means of establishing a facility condition baseline for goal setting and progress tracking
- Provide an electronic database using Excel for future use and modification by the University. The electronic database was a means for the University to use to modify and update data after the completion of the project. The information developed during the facility condition assessment was useful to various functions and levels of users within the University

Outcome

This project will assist the University to progress towards its strategic plan of becoming one of the premier polytechnic institutions in the country, renowned for excellence in education.

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Project
NYCDHS Citywide Shelters FCAs

Location
Various DHS residential shelters throughout New York City

Client
NYC Department of Homeless Services (DHS) Division of Capacity Planning & Development (CPD)

Reference
Mr. Anil Wadhwani,
Director of Capital Projects
(718) 688-8555

Expertise
Building Improvements
Residential Facilities
Roofing Systems
Building Envelope
Architectural Improvements

Construction Cost
$55 Million + for identified deficiencies

Project Description

Mott MacDonald provided architectural and engineering design services, on an as needed basis, for various capital and expense renovation projects at adult and family residential shelter sites citywide. DHS maintains approximately 55 homeless shelter sites citywide. DHS undertook construction and renovation projects at various historic structures, ranging from armories to residential brownstones, to ensure that all applicable regulatory codes are met for certificate of occupancy for designated DHS shelters.

Under a term contract with DHS, Facility Condition Assessments (FCAs) of 12 buildings totaling approximately 1.25 million square feet in area were performed. An assessment was performed of existing conditions, a summary report and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for the client's future needs and to extend the building's useful life in order to ensure an adequate return on investments was performed. A report including estimated life expectancies and anticipated replacement costs of the various building components (building roof and envelopes, interior architectural features, structural systems, electrical, HVAC & Plumbing, and Fire Life Safety Systems) was prepared. Recommendations were prioritized based on life safety and estimated life expectancies. Construction documents to repair many of these assessed facilities were prepared. Scoping items and costs are being utilized by DHS for the basis of their Capital Program.

Highlights

- **Pamoja House for the Black Vets for Social Justice, Brooklyn, NY:** $11.0 Million for identified deficiencies: A three-story, 234,050 square foot, 200-capacity adult shelter in a landmarked building - Evaluated the existing New York State violations and identified corrective measures to be implemented. The life safety issues and code violations addressed included replacing the entire roof; providing a defined egress plan and appropriate exit signage and emergency lighting systems; providing extensive tuck pointing to stabilize the brick façade; repairing the boiler room; replacing doors, door frames and hardware with fire-rated assemblies; installing new doors, thresholds and security hardware; installing proper venting in the bathrooms and shower areas; adding support to the roof and ceiling structures; repairing/replacing the existing steam heating system; providing proper ventilation where oil tanks are located; and providing a complete structural assessment. A complete environmental assessment of the building needs established what items needed to be remediated. Local Law 11 inspection was performed.
- **Fort Washington Armory for Project Renewal, New York City, NY:** $3.8 Million for identified deficiencies: A six-story, 431,200 square foot, 200-capacity adult shelter - Evaluated the existing New York State violations and identified corrective measures to be implemented. The life safety issues and code violations addressed included providing a defined egress plan and appropriate exit signage and emergency lighting systems; installing proper venting in the bathrooms; providing extensive tuck pointing to stabilize the brick façade; repairing/ replacing the existing steam heating system; replacing all windows; and installing carbon monoxide detectors.

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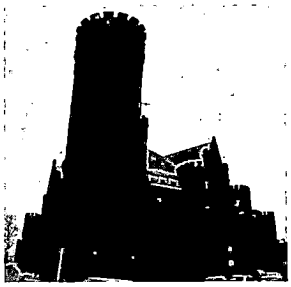

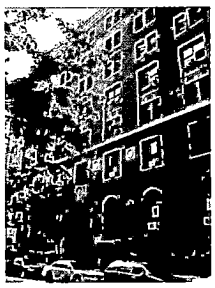

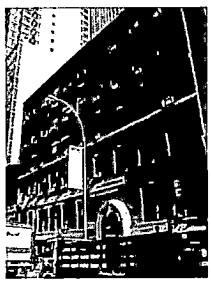

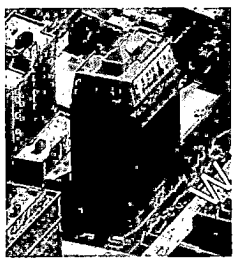

- **Webster House for Volunteers of America, New York City, NY:** $3.5 Million for identified deficiencies: A nine-story, 180,000 square foot, 200-capacity adult shelter - Evaluated the existing New York State violations and identified corrective measures to be implemented. The life safety issues and code violations addressed included providing sprinklers in the dining pavilion; installing guardrails in all corridor windows; modifying handrails/guardrails at each stairwell; and addressing mold remediation in basement.
- **8 East Third Street for Project Renewal on the Bowery, New York City, NY:** $5.5 Million for identified deficiencies: A seven-story, 59,800 square foot, 200-capacity adult shelter in a landmarked building - Evaluated the existing New York State violations and identified corrective measures to be implemented. The life safety issues and code violations addressed included providing a defined egress plan and appropriate exit signage and emergency lighting systems; providing extensive tuck pointing to stabilize the brick façade; installing proper venting in the bathrooms; repairing/ replacing the existing steam heating system; and replacing the passenger and freight elevators. Local Law 11 inspection performed.
- **New Providence Residence for Project Renewal, New York City, NY:** $1.8 Million for identified deficiencies: A six-story, 28,080 square foot, 130-capacity adult shelter - Evaluated the existing New York State violations and identified corrective measures to be implemented. The life safety issues and code violations addressed included providing a defined egress plan and appropriate exit signage and emergency lighting systems; providing extensive tuck pointing to stabilize the brick façade; verifying the venting in the bathrooms are functioning and sized; addressing the lack of fresh air and air exchanges in the dorm areas; adding handrails to egress stairwell; and addressing hold open fire door devices in stairways. Local Law 11 inspection was performed.
- **Regent Family Residence for Volunteers of America, New York, NY:** $15 Million for identified deficiencies: Regent Family Residence, a 17-story, 113,050 square foot, 140-capacity, family shelter for the Volunteers of America (VOA), the operator of the shelter. In summary, there were some serious life safety issues and Code violations that should be addressed immediately as follows: There were numerous life safety issues and Code violations observed with the existing building electrical distribution system. Electrical panels that were investigated and shown to be in extremely poor condition were located in the basement and the small electrical closets found on each floor/corridor. There was varying aspects to how poor the condition was for each of these panels. All of these panels represent an electrical code violation due to the amount of exposed wiring, the inability to properly cover this exposed wiring, and accessibility of the wiring and exposed and energized electrical parts by unauthorized personnel. Additionally, some of the panel still houses their original circuit breakers, which were in very poor to extremely poor condition. Circuit breakers in this condition have the real possibility of no longer being capable of clearing an electrical overload condition, which had the potential of an electrical fire. The entire electrical distribution system was removed and replaced. The emergency and exit sign lighting units did not meet current Code requirements. The existing fire alarm system was not fully functional. Installed all required components to bring the fire alarm system into complete Code compliance.
- **University Family Residence for Volunteers of America, Bronx, NY:** $3.5 Million for identified deficiencies: A five-story, 106,650 square foot, 70-capacity family shelter - Evaluated the existing New York State violations and identified corrective measures to be implemented. Life safety issues and code violations were addressed.

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Project
Ramapo College Facility Condition Assessment

Location
Mahwah, NJ

Client
Ramapo College of New Jersey

Reference
Ronald C. Martucci, P.E.
Director of Facilities and Campus Planning
(201) 684-7758

Expertise
Academic buildings
Multiple buildings and structures
Facility condition assessment
Egress/life safety analysis
Zoning regulation and building code reviews
Detailed facility inspections
Asset inventory of building deficiencies
Recommendations for repair/replacement systems
Cost estimates
Annual and capital renewal & maintenance costs
Facility improvements and upgrades
Multi-disciplined A-E services

Construction Cost
$66.0 Million for identified deficiencies

Ramapo College was established in 1968 as a state-supported, co-educational, four-year College for liberal arts, sciences, and professional studies. The campus totals more than 300 acres with approximately 2,000,000 in building square footage.

Opportunity
As part of the College's Capital Improvement and routine repair and maintenance work, Ramapo requested the professional engineering services of a consultant to assist with various improvement projects.

Solution
Mott MacDonald performed a condition assessment of forty-three (43) campus buildings totalling 957,534 square feet at Ramapo College of New Jersey. Professional services included an assessment of each facility's existing conditions and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for the College's future needs and to extend the buildings' useful life in order to insure adequate return on investments.

Our team assessed the following:

Building Exterior:

- Identified conditions that did not allow the building façade and associated appurtenances (i.e. windows, doors, decorative elements, etc.) to function as intended. Identified corrective measures to be implemented over the next 10 years. Provided a detailed evaluation of the exterior envelope of the building based on a visual inspection utilizing magnifying optical equipment. Performed a survey of the interior of the building to identify the location of all water penetrations and the source of the infiltration.

Roofing:

- Identified the composition and determined the condition of the existing roofing systems. Made recommendations for short and long-term corrective work.

Interior Architectural Features:

- Defined all conditions or configurations that were not code compliant or were detrimental to the use of the facility. Defined all existing conditions that required remedial work.

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Structural Systems:

- Through a façade survey, determined the condition of all observable structural systems, identified all deficiencies and made recommendations for corrective work.

Electrical Systems:

- Visually inspected for adequacy and conformance with codes the following: existing panels, power and lighting systems, emergency lighting for places of assembly, communication and signal systems. Electrical systems associated with other building systems (i.e. HVAC equipment, vertical transportation equipment, plumbing systems, fire protection systems, etc.). All power panels, splices, and electrical connections to major equipment.

Outcome

Reports were prepared that included estimated life expectancies and anticipated replacement costs of the various building components. These reports and spreadsheets are utilized as working documents for Facilities Capital Planning and have been updated by Mott MacDonald several times.

We also completed an update of the College campus which consisted of assessing 44 buildings totalling 1,500,000 SF.

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Project

Cape May County Administration Building FCA

Location

1523 New Jersey State Highway Route 9 North Cape May Court House, NJ 08210

Client

Cape May County Municipal Utilities Authority

Reference

Thomas J. LaRocco, PE
Chief Engineer
609.465.9377

Expertise

Municipal buildings
Environmental conditions
Building integrity assessment

Construction Cost

$1,333,000 + for identified deficiencies

The CMCMUA administration building has an area of 2.72 acres and the existing building is placed approximately 90-feet from Route 9. The building serves as the administration facility for the Cape May County Municipal Utilities Authority.

Opportunity

Mott MacDonald, LLC was retained by the Cape May County Municipal Utilities Authority to perform a Facilities Condition Assessment (FCA) of the Administration Building. Professional services included an assessment of the facility's existing conditions, a comprehensive report, and recommendations as to what repairs and renovations would be necessary to make the building suitable for future needs and to extend the building's useful life in order to insure adequate return on investments and life-cycle optimization.

Solution

Specific elements of the FCA included:

HVAC and Plumbing Systems: (Building Integrity, Environmental Conditions & Energy Efficiency)
The HVAC and plumbing systems were visually inspected for adequacy and conformance with Codes:

- Surveyed and checked the operational status of all major HVAC equipment (e.g. converters, refrigeration equipment, cooling towers, air handling units, pumps, PRV stations, etc.) and primary components thereof (e.g. fans, motors, coils, tubes, filters, controls, chemical treatment systems, etc.), and all associated accessible piping and duct systems with associated appurtenances. Piping and ductwork were assessed based upon a sampling of locations as opposed to a complete survey. In addition to piping, surveyed the physical condition of all fixtures. The operational status of minor components (e.g. traps, local valves, etc.) will be based upon a sampling;
- In order to assess the status of piping systems, additional testing was required to verify conditions such as pipe thickness;
- In addition to major HVAC system components, accessed the condition of terminal units, local area controls, etc. throughout the building. It was

not the intent to survey all of these components in detail, rather a sampling was performed in detail (i.e. 15%-20%) and information from this sampling was used as a basis for projections of the system condition and anticipated required work and;

- Assessed all major plumbing system components (i.e. pumps, main, and branch piping, main valves, vent lines, tanks, hot water heater/converters, etc.). Performed operational tests and thickness measurements as required in order to assess the condition of system components and to estimate their remaining useful as required as extra work.

Electrical Systems (Electrical & Energy Efficiency):
The electrical systems were visually inspected for adequacy and conformance with Codes:

- emergency generators and transfer switches;
- exterior lighting;
- interior lighting;
- high voltage switchgear;
- transformers and main distribution cabling;
- building panels and distribution wiring;
- motor control centers;
- UPS systems.

Fire & Life Safety Systems:
The fire and life safety systems were visually inspected to determine the condition in relation to operation and Code compliance of all systems including:

- fire suppression & detection systems;
- emergency power systems and exit/emergency lighting systems;
- fire rated enclosures, exit/fire/smoke doors, and path of travel;
- emergency control systems (e.g. HVAC system controls related to the presence of smoke and/or fire, etc.).

Reviewed all information that covers the status of existing systems (i.e. test reports, maintenance reports, previous studies, and current life safety inspection reports) in order to determine the operational status of these systems and to determine whether the existing systems meet the requirements of all applicable codes.

Outcome
The report included estimated life expectancies and anticipated replacement costs of the various building components. Interviews with maintenance and other support staff were held to help determine actual and perceived problems.

There were numerous other deficiencies observed at the site inspection walk through. Although not all of these deficiencies are life safety or Code issues, they reduce the quality of life for the employees and may lead to further deterioration of the finishes, components and structure. They were also addressed.

Recommendations were prioritized based on life safety and estimated life expectancies.

MOTT MACDONALD

Section 2

Project approach

Proposed Approach

Project goals

It is our understanding that Monmouth County will be reinvesting in the existing facilities beginning with this systematic Facilities Condition Assessment program to renew dated facilities, mitigate deferred maintenance, and improve the complex reliability and energy efficiency. Our effort outlined below will be utilized to guide Monmouth County in this endeavor.

Mott MacDonald will provide the professional services to conduct a detailed and thorough facility condition assessment (FCA) and analysis of the Special Services Complex including grounds and miscellaneous structures and developing an equipment inventory, site survey, identification of current facility condition deficiencies, recommending corrections for all deficiencies, providing cost estimates for corrections and forecasting future capital renewal cost as delineated in the request document.

Project objectives

The objectives of the proposed FCA are:

- To develop an inventory of building systems, equipment and infrastructure assets of the Complex.
- To calculate the costs for all identified projects, utilizing an agreed upon published construction and remodeling cost estimating data and format.
- To rank and prioritize all projects by priority and anticipated life cycle.
- To provide a prioritized plan to strategically and efficiently reduce the current backlog of deferred maintenance.
- To enhance facility planning capabilities by addressing the highest priority needs for the future.
- To provide an electronic database using Excel for future use and modification by the County. The electronic database will be a means for the County to use to modify and update data after the completion of the project. The information developed during the facility condition assessment will be useful to various functions and levels of users within the County.

TASK 1 - FACILITIES CONDITION ASSESSMENT

Mott MacDonald proposes the following phasing for Task 1:

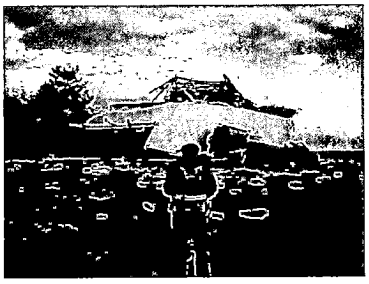
Phase One - FCA Planning

Prior to the on-site facility condition assessment, Mott MacDonald will gather existing Complex asset information, and establish access protocol and scheduling. It has been our experience that a successful FCA requires a thorough understanding of the buildings and systems prior to the actual, on-site, inspection/assessment process. To that end, we propose a single meeting with key facilities management and trades personnel to discuss the Complex's construction, systems, known deficiencies, nuances and future plans. These types of discussions have been instrumental in the development of successful FCA projects recently completed or in progress by Mott MacDonald.

Mott MacDonald will prepare a project memorandum for review which briefly explains the purpose of the assessment, what is to be included in the assessment, and a proposed schedule for the assessment of the Complex.

Phase Two - On-site FCA

The detailed on-site condition assessment will be conducted for each section of the Complex. The primary goal of the on-site assessment will be to identify all maintenance, repair, and replacement requirements to make the buildings suitable for future needs and to extend the buildings' useful life in order to insure adequate return on investments and life-cycle optimization.



Ocean County inspection that we don't anticipate at Monmouth County

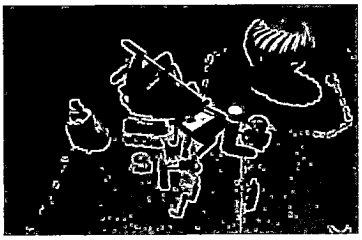
In addition, recommended upgrades and improvements where applicable will be identified. In addition to the guidelines and systems it is the intent to have a total assessment of the entire complex that will address the established guidelines and all major aspects of all systems outlined below, and in the RFP, to document each building asset:

Architectural Systems

Systems to be inspected for deficiencies and expected life expectancy:

- building integrity investigation and infiltration survey: infrared survey of building envelope; building envelope including roofs, exterior walls, doors and windows;

- the roofs survey will include the following:
  - Review available existing construction documents and other historical data related to the existing roofs and building construction. Review all existing drawing records to determine which documents are pertinent to the project;
  - Visual inspection and notation of the flat roofing systems: Existing drainage patterns; Existing debris and overall condition; Existing structural elements and decking;
  - Visual inspection of all flashing and terminations of the roofing systems: Roof penetrations; roof drains, crickets, HVAC equipment, etc.;
  - Verify existing deck slopes and evaluate the existing drainage components' conditions and capacity, as required to determine conformance with Building Code;
  - Visual inspection of the existing exterior adjacent walls;
  - Roof core cuts to determine roof composition and test for the presence of asbestos-containing building materials;



Roof core cut kit

  - Evaluate fall protection in accordance with OSHA requirements, options for equipment close to the roof edge;

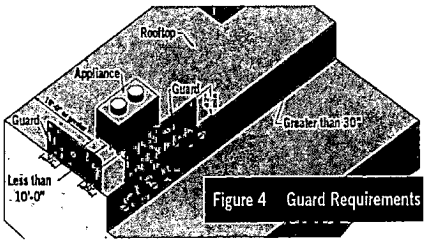


Figure 4 Guard Requirements

- automatic and sectional doors and controls;
- interior walls, ceilings, doors and floors and finishes;
- fixed (built-in) equipment;
- loading dock and;
- ADA compliance.

Structural Systems

- building integrity: determine the condition of all observable structural systems, identify all deficiencies that exist, and make recommendations for corrective work;

- It is assumed that this will be accomplished through the use of visual observations and measurements in accessible areas of the building;
- It is not anticipated that calculations will be required or that probes will be necessary in order to evaluate these systems.

HVAC and Plumbing Systems (Building Integrity, Environmental Conditions & Energy Efficiency)

- water systems: pumps, backflow prevention, hot water heaters and auxiliary equipment and piping and valves;
- drainage and sewer systems: sump pumps and piping and valves;
- steam and condensate systems:
- boilers, boiler feedwater systems, fuel tank monitoring systems, pressure reducing stations, condensate return pumps, chemical addition stations, steam traps and piping and valves;
- compressed air/vacuum systems: compressors, vacuum pumps and piping and valves;
- HVAC systems; chillers;
- air handlers, fans, pumps, split systems, cooling towers, chemical addition systems, package HVAC units, room air conditioners, portable air conditioners, HV units, unit heaters, unit ventilators, fan-coil units, exhaust fans, reheat coils, VAV boxes and ductwork (supply and return);

- Building control systems, BMS, DDC, etc. and;
- plumbing systems: toilet fixtures, sinks and supply and drain piping.

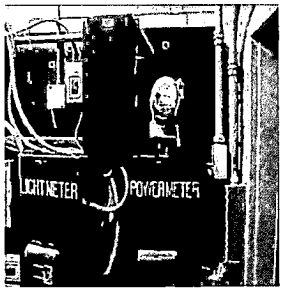
Energy Conservation Feasibility Study

- evaluate options for combined heat and power generation, alternative fuel options, geothermal, gray water reuse, photovoltaic possibilities (roof and ground mounted) and other cost saving possibilities to reduce energy costs to the County.

Electrical Systems (Electrical & Energy Efficiency)

Visually inspect for adequacy and conformance with Codes:

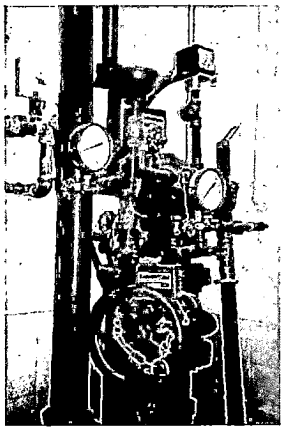
- emergency generators and transfer switches;
- exterior lighting;
- interior lighting;
- high voltage switchgear;
- transformers and main distribution cabling;
- building panels and distribution wiring;
- campus service & distribution;
- education and communications technology;
- motor control centers and;
- UPS systems.



Fire & Life Safety Systems

Visually inspect and determine the condition in relation to operation and Code compliance of all systems including:

- fire suppression systems, fire pumps and piping and valves;
- emergency power systems and exit/emergency lighting systems;
- fire rated enclosures, exit/fire/smoke doors, and path of travel and;

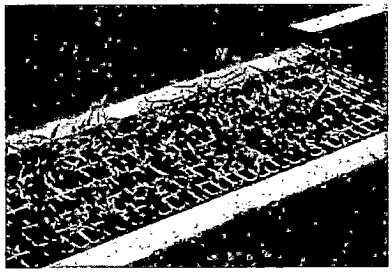


- emergency control systems (e.g. HVAC system controls related to the presence of smoke and/or fire, etc.).

Site/Civil

Visually inspect and determine the condition of the site including:

- roadways, parking lots; sidewalks, walkways, curbing, ramps and pavements;
- existing vs. required parking spaces (code analysis as-built vs. current);
- perform an auto-turn analysis of vehicle access to/from loading dock and site access routes;
- water service and boosters;
- all public utilities;
- landscaping including grounds maintenance and pervious pavements and;
- storm water management and sanitary systems.



Equipment Inventory

- inventory and document the maintainable equipment within each building.

Phase I environmental assessment

The purpose of a Phase I Environmental Site Assessment (ESA) due diligence is to evaluate/assess a property in order to ascertain the presence/absence of environmental concerns in accordance with specified procedures.

The Phase I will be performed in general accordance with ASTM E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Terms referred to in the Scope of Work are as defined in that standard. That standard practice is intended to constitute appropriate inquiry for purposes of the CERCLA innocent landowner defence and to assist the user in developing information about the environmental condition of a property and assessing its environmental condition.

PURPOSE AND OBJECTIVES

The purpose of the ESA is to investigate the property through the tasks described herein in an attempt to ascertain the presence or absence of "recognized environmental conditions." Recognized environmental conditions mean the presence or likely presence of hazardous substances, hazardous wastes and petroleum products on a property under conditions that indicate an existing or past release, or a material threat of their release into structures on the property or into the ground, groundwater or surface water of the property.

The objective of the ESA through the tasks described herein is to note the presence of such conditions or to describe the lack of the same and not necessarily to fully evaluate or estimate the extent of potential contamination associated with these areas. Full evaluation of these areas (if desired) often involves additional investigation and/or sampling and analysis and would be conducted in a second phase of the project.

SCOPE OF WORK

Tasks that we will undertake within the ESA focus on site inspection, interviews, and data gathering and evaluation culminating in production of a Summary Report. These tasks are:

Records Review

Mott MacDonald will review reasonably ascertainable information from standard sources including:

Standard Environmental Records:

- Federal NPL Site List
- Federal CERCLIS List
- Federal RCRA TSD Facilities List
- Federal RCRA Generators List
- Federal ERNS List
- State Environmental Lists

Standard Physical Setting Source:

- USGS Topographic Sheet(s)

Standard Historical Sources:

- Historical aerial photographs
- Other sources, if warranted, such as fire insurance maps, local records.

Site Reconnaissance

Mott MacDonald will conduct a site visit of the property to examine current conditions, general topography and to investigate the presence or absence of areas of recognized environmental conditions such as visually discernible spills or discharges of hazardous substances, storage tanks, drums and containers, potential PCB containing electrical (excluding fluorescent light ballast) and hydraulic equipment, stained soils.

Interviews

Mott MacDonald will attempt to interview the key site owners and any former tenants to obtain information concerning present and past uses of the site and other conditions. In accordance with current ASTM requirements, Mott MacDonald will also provide the ASTM User Questionnaire to the County or other designated parties for their review and completion. As appropriate, Mott MacDonald will provide the information included in the response in the Phase I ESA Report.

Mott MacDonald will attempt to interview local agency officials from the local Health and Building Departments or Fire Department to determine if they are aware of any environmental concerns, complaints or enforcement actions associated with the site and to obtain information concerning present and past uses of the site and recognized environmental conditions.

Report Preparation

Mott MacDonald will prepare a summary report (Phase I ESA Report) describing and documenting our assessment and presenting our conclusions. The report will also locate and describe recognized environmental conditions identified during the assessment or present information describing the lack of the same. Recommendations, if any, will not be provided in the report unless specifically requested by the client.

The potential presence of lead-based paint, asbestos, wetlands, or radon gas will not be considered, and no sampling or analysis is included within this scope of work.

Schedule

Mott MacDonald will provide the Summary Report within four weeks of receipt of written notice to proceed. Please note, however, that certain information, particularly from state and federal agencies, sometimes cannot be obtained within that time frame and thus may not be available for inclusion within the report. Commonly, federal or state agency responses to questions or to requests for appointments to review files can take several weeks up to a few months. Agencies may not schedule or cancel appointments as a result of COVID-19. We will inform the County of these responses and discuss whether a review of an individual file or case is warranted.

Along with Phase Two of the FCA portion of the project we anticipate the following will be performed:

- Site survey to be prepared by a licensed land surveyor to include the entire Complex grounds and to the opposite site of adjacent streets and all existing subsurface utilities and;
- 3D scan the entire complex and prepare a Revit model to be converted into 2016 AutoCAD for deliverable.

Phase Three - Analysis of FCA Information

Mott MacDonald will evaluate the information generated from the condition assessment data to determine trends and comparisons. We will provide an expanded evaluation and analysis providing projections and analyses for the following areas:

- Deficiency costs summarized by building systems;
- Deficiency costs summarized by Priority;
- Deficiency costs summarized by Category;
- Multi-year annual (strategic plan) expenditure forecast and;
- Annual Operating and Maintenance cost.

Life Cycle Analysis for Component Renewal

Deficiency repair or replacement costs will be based on life cycle analysis of each component. These components will be evaluated based on their individual life cycles, determined by an evaluation of the age and condition. The renewal cost for the components will then be computed and identified by renewal year. Mott MacDonald will report the life cycle costs at the component-level.

Multi-Year Strategic (Expenditure) Plan

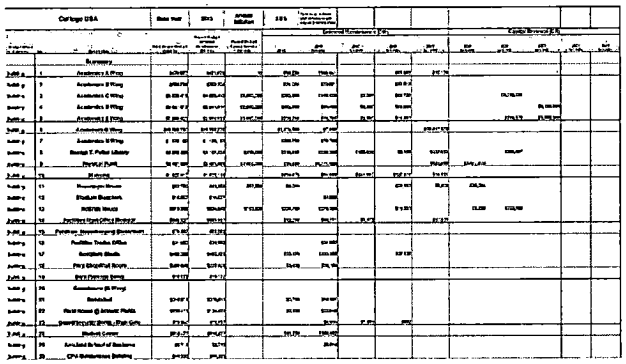
Mott MacDonald's report and associated data spreadsheet will be developed as a ten-year expenditure plan and will be a schedule of all deficiencies and actions required to maintain and repair facilities, including projects developed during the analysis of facility condition information, unconstrained by available funding limitations.

Phase Four - FCA Report & Database Preparation

Using the data collected during the on-site facility condition assessment and analysis phase, we will provide a comprehensive narrative report and database for the entire Complex and site. The report and database will be submitted in accordance with the schedule.

Reporting Capabilities

Each deficiency will be documented and described in narrative form with representative photographs in a comprehensive report including all items in the RFP and a detailed condition/cost estimate matrix. Estimates will be established with current 2020 costs and escalated 3% per year and the matrix will be prepared in excel format for ease of use by the County. The product will be a living document that is easily modifiable when escalation rates or priorities change. See below for a copy of a typical summary sheet from a multi-facility higher education client.



Phase Five - Presentation of Findings

Mott MacDonald will work closely with the County to investigate potential opportunities to accomplish corrective actions through alternative means, such as construction, renovation and alteration projects.

Phase Six - Preparation of Final Report

Mott MacDonald will present the findings through reports, graphs, and charts. The comprehensive findings will also be loaded into an electronic database using Excel for future use and modification by the County. The charts and graphs will provide a visual representation of the condition assessment data in order to assist the County stakeholders in understanding the scope of the funding needs.

Implementation Schedule

The Mott MacDonald team will perform the work under the County's RFP in a timely manner to meet the proposed schedule. We anticipate that the majority of the actual on-site inspections will be

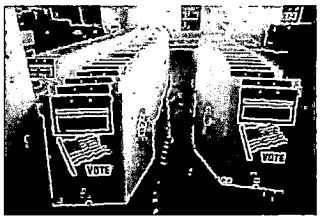
required to be performed during the day without disturbance to the building occupants. However, they might not be in the building with current COVIC-19 restrictions so we may be able to perform this work faster while maintaining CDC required social distancing.

TASK 2 – VOTING MACHINE STORAGE FEASIBILITY STUDY

Mott MacDonald proposes the following phasing for Task 2:

Phase One – Pre-Design and Programming

Concurrent with the FCA process, the Mott MacDonald team will evaluate and gain an understanding of the current and future needs of the Board of Elections for the storage of voting machines. We will study, at a minimum, the feasibility of constructing either a mezzanine level (or second level within the existing high bay spaces) with an elevator or lift, or an industrial storage rack with a mechanized lift that loads and unloads upper shelve(s), for storage of the machines within a smaller footprint, either in the current space or by relocating to another space in the Special Services Complex.



Mott MacDonald will study and propose other options that creatively solve the general problem, which is the desire of the Board of Elections to drastically reduce the net ground floor area required to house the machines. These studies will be accomplished by interviewing end users regarding programmatic needs, and will manifest itself in a written program, schematic plans, and a schematic-stage cost estimate. Phase I will include the following:

- Mott MacDonald will complete a pre-design survey and review all available design documents for the facility. We will document the existing facility proposed project area conditions, gather all required information, current conditions, obtain County of Monmouth requirements, and confirmation of existing room sizes, configuration and access.
- Needs Assessment: Mott MacDonald will meet with Monmouth County representatives to review the proposed project scope, review and summarize the required building functions in the scope of work areas, and will determine the best layout of building spaces to meet the requirements.
- We will inventory the existing work areas in order to develop a comprehensive list, including but not limited to, offices, workstations, break rooms, files, equipment, copy machines, storage areas, and to review the operations of each area for use in determining what needs to be accommodated.
- Meet with the users and Monmouth County Engineering (MCE) to review the current operations and will then utilize this information to establish adjacencies and spatial relationships.
- Prepare a draft summary reports and a final report upon Monmouth County's review and comments.
- Building Program: Upon completion, review and final approval of the Needs Assessment Report, we will then develop the Building Program. The written Building Program will then be submitted to MCE for review, final confirmation, and approval. We will then create diagrammatic/schematic building plans based on these discussions and directives.
- Construction Estimate: Upon completion of the pre-design survey and document review Mott MacDonald will prepare and submit a budgetary order of magnitude construction estimate.

Phase Two – Schematic Design and Documentation

A clear schematic set of documents will show a tangible benefit of reclaimed space from the stored machines, allocated to some currently underserved function. The building's users will be able to understand where the machines will be relocated, what spaces and functions are then affected, and

what function or gain is achieved in the space from which the machines move. The Schematic Design should show how the space will be used during polling, during the balance of the year, and how the transition will happen.

Documentation will describe how machines move between the ground and upper levels, and we will suggest products, such as a mechanical lift or other mechanism. The design will clearly demonstrate its benefits such as increased efficiency in the divisions operations and will outline order of magnitude costs expected to develop and construct the design.

Throughout the schematic design and documentation phase Mott MacDonald will prepare and distribute meeting minutes to attendees and others for review and comment and to prepare and update a project schedule.

We will prepare schematic designs based on the approved building program. Multiple versions and revisions and approvals may be required. With each progressive version more detailed information will be included. The final schematic version will show the relocation of any furniture and office equipment; it will show any required relocation of existing Mechanical, Electrical, Plumbing, Fire Protection systems, and Low Voltage systems.

At the completion of this phase Mott MacDonald will prepare and submit a detailed project construction estimate and a regulatory consideration review.

MOTT MACDONALD

Section 3
Schedule

Project Schedule

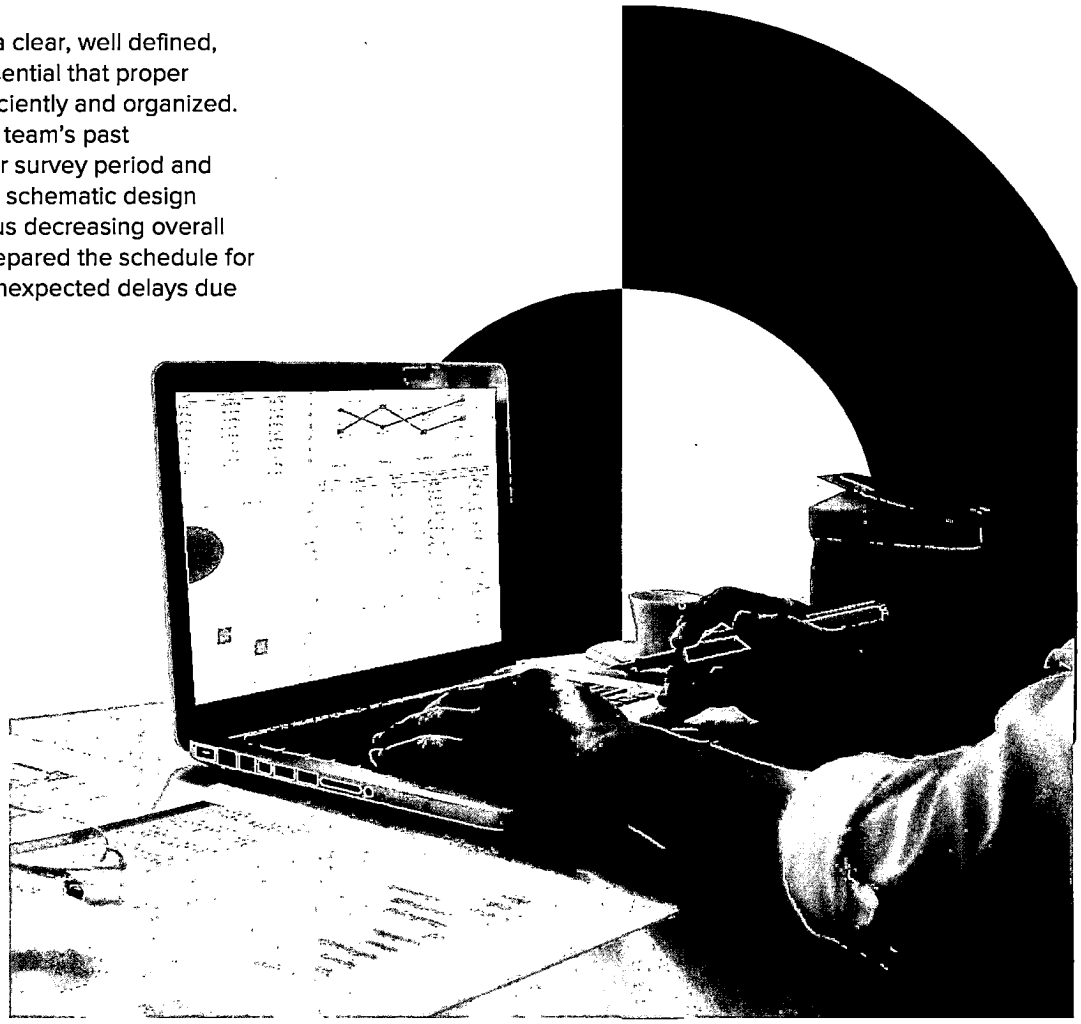
Project success is contingent on a clear, well defined, and adhered to schedule of assessment, programming, schematic design, cost estimating and reviews.

Crucial to the project is the schedule.
Our goal in planning the project schedule is to anticipate and mitigate any potential delays or negative impacts to meeting the County's goal.

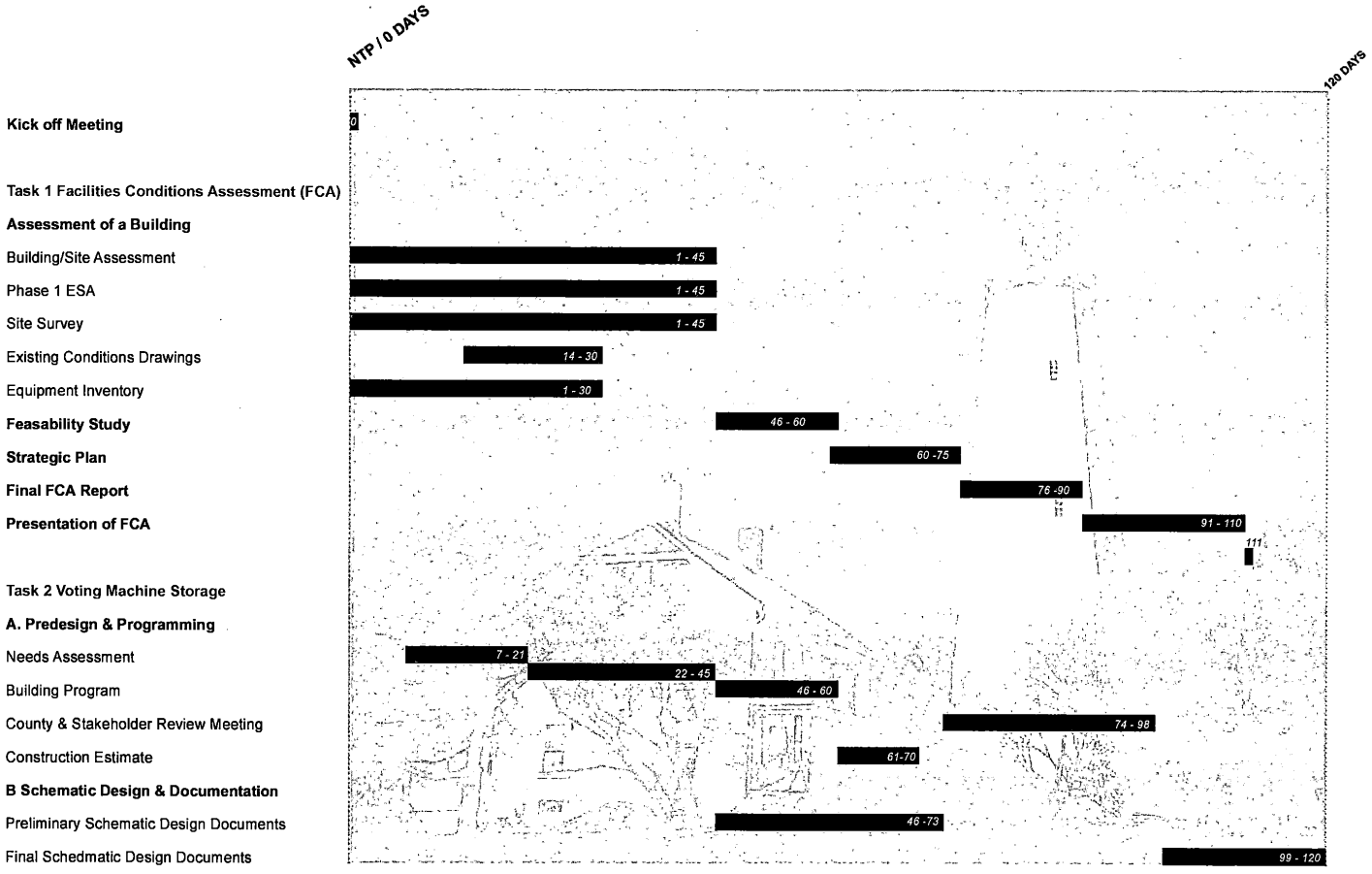
Mott MacDonald, LLC's strategy is to follow the scope of work as demonstrated in the project schedule bar chart.

Our team has completed similar projects and we feel that the 120-day project duration is adequate. We recommend bi-weekly meetings/conference calls with the major stakeholders, so all parties are aware of the progress and direction. Therefore, the County reviews of deliverables will expeditious as the content will be well known and understood.

Project success is contingent on a clear, well defined, and adhered to schedule. It is essential that proper documentation be conducted efficiently and organized. Our familiarity with FCA's and the team's past experience will afford us a quicker survey period and may lessen the programming and schematic design phase for the voting machines thus decreasing overall project duration. However, we prepared the schedule for the full 120 days in the event of unexpected delays due to the COVID-19 pandemic.



Project Schedule



MOTT MACDONALD

Section 4

- Organizational Chart
- Resumes

MOTT MACDONALD

Project Manager
Peter M. Bastardo, AIA, LEED AP

Project Principal
Robert K. Fritz, AIA, RRC, RWC, LEED AP BD+C

QAQC Manager
Anthony F. Pedro, PE, LEED AP

Architecture
Dale L. Haney, AIA

Building Envelope
Christopher Klammer

Landscape Architecture
Jason R. Harkins, LLA

Structural Systems
Todd R. Heacock, PE

Mechanical & Fire Protection Systems
Michael LaPilusa, PE

Colum P. Keough, PE, LEED AP, CFPS
Fire Protection Engineer

Electrical Systems
Igor Bondar, PE, LEED AP

Site/Civil
Joseph J. Koehler, PE

Surveying
William A. DiBartolo, Jr., PLS

Environmental Assessment
Kevin E. Koch, PE, LSRP

MOTT MACDONALD

Peter M. Bastardo, AIA, LEED AP

Personal summary

Education:

Bachelor of Architecture, Drexel University, 2009

Mercer County College, 1995-1997

Registrations:

Registered Architect
NJ, AI01901700, 2012
NY, 038933, 2016

NCARB Certification, #83232, 2016

Leadership in Energy and Environmental Design Accredited Professional

Professional memberships:

American Institute of Architects

Mr. Bastardo is a Project Manager with over 20 years of experience in Architectural project work. He has been involved in the preparation of schematic, design development, and construction documents for educational, municipal, institutional, residential, libraries and restaurant design. He has shown full capabilities in managing, coordinating, and reviewing of design drawings.

Mr. Bastardo has extensive knowledge of construction, educational, and correctional facilities building codes particularly for the State of New Jersey. He has extensive experience conducting facility condition assessments particularly for large educational complexes.

He possesses excellent interpersonal skills including the ability to effectively lead project teams, the ability to communicate effectively orally and in writing, and the ability to establish and meet deadlines.

Selected projects

Facility Condition Assessment for the Fire Training Facility; Sussex County Community College, Newton, NJ: Project Manager – provided a comprehensive investigation and functional analysis of City Fire Service Buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies.

Facility Condition Assessments for Ramapo College of New Jersey, Mahwah, NJ: Project Manager – provided a comprehensive investigation and functional analysis of the College Campus buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies.

Facility Condition Assessments for the New Jersey Institute of Technology, Newark, NJ: Project Manager – provided a comprehensive investigation and functional analysis of Campus Academic and Residential buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies.

Facility Condition Assessments, Montclair Cooperative School, Montclair, NJ: Project Manager for the facility condition assessments of the Main Building and Annex Building on the Montclair school campus. On-site survey of existing conditions, preparation of report and estimates, and report outlining building systems deficiencies and remediation efforts including associated costs were provided.

Lacrosse Field Study, Sussex County Community College, Newton, NJ: Project Manager - Provided an analysis of existing site conditions and preparation of design documents to renovate an existing maintenance yard into a new athletic field. A facility condition assessment of an existing chapel building to determine its applicability for reuse as an indoor practice area was also provided.

Facility Condition Assessment for Four East Orange Firehouses, City of East Orange, Essex County, NJ: Project Manager – provided a comprehensive investigation and functional analysis of City Fire Service buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies.

Feasibility Study of the Consolidation and Relocation of City Governmental Services for the City of Pleasantville, Atlantic County, NJ: Project Manager – provided a comprehensive investigation and functional analysis of City Services culminating in the proposal for a combined 37,000 square foot facility to house all Government businesses. Programmatic spaces included Municipal Services, Police, Fire, and Courtroom functions.

Building B-C Renovation Study, Sussex County Community College, Newtown, NJ: Project Manager - provided site investigations, preliminary planning documents, report preparation and cost estimates for the feasibility study to upgrade an academic building. The scope of work involved adding a central HVAC system to the third floor; an evaluation of the exterior envelope; replacement the third-floor windows; and a study of the north entrance for ADA access.

DOT Headquarters Complex Restroom Renovations, NJ Division of Property Management & Construction, NJ Department of Transportation, Ewing, NJ: Architectural Project Manager responsible for developing drawings, specifications, cost estimates and providing services during construction to rehabilitate all the restrooms in several office buildings at the NJ Department of Transportation (DOT) Headquarters Complex. Work included conducting a survey of all existing restrooms to investigate the feasibility of replacing the wall- mounted

toilets with floor mounted toilets and the installation of electric flushometers, faucets, hand dryers and a sink garbage disposal in each restroom. A study to upgrade the cafeteria restrooms as male and female locker rooms with shower facilities was also evaluated.

Proposed DOT Winter Yard, NJ Division of Property Management & Construction, NJ Department of Transportation, Old Bridge, NJ: Project Manager for a feasibility study for the NJ Department of Transportation's (DOT) proposed winter yard in Old Bridge. The yard would consist of a fabric covered salt storage structure to store up to 50,000 tons of road de-icing salt, a truck scale and associated operator house, a four-bay storage building, and a generator to back up the entire site.

Renovate Bellevue Diversion Center, Bellevue Men's Shelter, NYC Department of Homeless Services, NY: Project Manager - provided constructability review of proposed design documents. Design services included on-site investigation and survey for the complete renovation of the existing Bellevue Diversion Center, a 250,000 SF nine-story intake and assessment shelter building for men. The center consists of compliant offices, waiting areas, and restrooms for clients and staff.

Additions and Alterations to the Point Pleasant Police/Municipal Facility, Borough of Point Pleasant, Point Pleasant, NJ: Project Manager - provided development of complete project documentation from feasibility studies to the construction documentation of a 6,500-square foot addition and alteration to and existing municipal building. Programmatic spaces included Police and Courtroom functions.

Alterations to School Building No. 25, Elmira Correctional Facility Institute, NYS Department of Corrections Services, NYS Office of General Services, Elmira, NY: Project Manager - provided development of complete project documentation from feasibility studies to the construction documentation of a 9,000-square foot alteration to an existing prison facility building.

Additions and Alterations to Freehold Township Elementary Schools, Freehold Township Board of Education, Freehold, NJ: Project Manager - provided complete project development from feasibility studies to construction documentation of 40,952 square feet of alterations and additions to four existing school buildings.

New Construction of Freehold Township K-5 Elementary School, Freehold Township Board of Education, Freehold, NJ: Project Manager - provided complete project development from feasibility studies to construction documentation for an 88,000-square foot new elementary school.

Repair Squadron Operations for C130J, Connecticut Air National Guard at Bradley International Airport, East Granby, CT: Provided construction administration services for the renovation of a 21,800 SF existing Squadron Operations facility to accommodate space for flight engineers and load masters and the consolidation of Aircrew Performance Element/Life Support Function to accommodate the mission of the 103rd Airlift Wing. Functional requirements included offices, administrative spaces, training briefing/debriefing rooms, and mission planning. Work involved relocating interior walls, modifying structure to install new more appropriately sized exterior windows, utility systems, communications, fire protection, fire alarms, new interior finishes, and domestic solar hot water systems.

New Building F, Sussex County Community College, Newton, NJ: Project Manager - Provided preliminary designs and construction cost estimates for the construction of a new four-story, 17,400-square foot classroom building to accommodate up to 12 classrooms of 800 square feet each together with ancillary faculty-student meeting spaces.

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Robert K. Fritz, AIA, RRC, RWC, LEED AP BD+C

Personal summary

Education:

B of Architecture,
New Jersey Institute
of Technology, 1988

Registrations:

Registered Architect

NJ, 11686, 1991
NY, 24987-1, 1995
CA, 28658, 2001
PA, 404582, 2008
AL, 7103, 2012
FL, AR97794, 2015
MD, 19210, 2017

National Council of Architectural Registration Boards (NCARB Certified)

Leadership in Energy and Environmental Design (LEED) Accredited Professional Building Design + Construction, 2009

Registered Waterproofing Consultant (RWC): 0020, 2006

Registered Roof Consultant (RRC): 0613, 2008

Certified Solar Roofing Professional (CSRP), Roof Integrated Solar Energy: 2013

Professional memberships:

American Institute of Architects

RCI, Institute of Roofing, Waterproofing & Building Envelope Consultants

International Code Council

Mr. Fritz is a Senior Vice President and Principal Project Manager and oversees a wide-range of multi-disciplined design projects including transportation facilities, military facilities, municipal facilities, educational facilities, and residential buildings. He has 30 years of comprehensive experience in all aspects of buildings and facilities project design. He is responsible for project design and administration, feasibility studies, consultant coordination and construction documents preparation. Mr. Fritz has a focused interest in maintenance master planning, including roofing/waterproofing and building envelope and window diagnostic investigations, analysis reports and repair or replacement phasing and implementation design packages. He also has extensive experience with building codes and life safety code compliance analysis.

In addition, Mr. Fritz has served as Program Director/Project Director/Manager/Architect on numerous Term Contracts for various State and Local agencies involving new construction, renovation, alteration, or rehabilitation projects.

Selected projects

Municipal Buildings Assessment, Township of Montclair, Montclair, NJ: Project Manager for the complete building systems evaluation and conditions survey for ten municipally-owned buildings to assess what repairs and renovations would be necessary to make the buildings suitable for the Township's future needs and to extend the buildings' useful life in order to insure adequate return on investments.

Facilities Condition Assessment, New Jersey Institute of Technology (NJIT), Newark, NJ: Project Principal for a campus-wide facility condition assessment and analysis of its facilities, grounds and miscellaneous structures at the university including developing an asset inventory, identification of current facility condition deficiencies, recommending corrections for all deficiencies, providing cost estimates for corrections, and forecasting future capital renewal cost.

Facility Condition Assessment for the Fire Training Facility; Sussex County Community College, Sussex County, NJ: Comprehensive investigation of the building culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies. Preparation of construction documents for repairs.

Facility Conditions Assessment, Ramapo College of New Jersey, Mahwah, NJ (NJ SHPO Opinion): Project Manager for the performance of a conditions assessment of forty-three (43) campus buildings totaling 957,534 SF. Work involved an assessment of each facility's existing conditions and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for the College's future needs and to extend the building's useful life in order to insure adequate return on investments. Buildings evaluated included the original historic mansion and gate house.

Feasibility Assessment and Building Reuse Space Planning Study, NJ Division of Property Management & Construction, NJ Department of Transportation (DOT) Bordentown Training Facility, Bordentown, NJ: QAQC Manager for the space planning and the development of a conceptual floor plan for three industrial buildings to be repaired and reconfigured for DOT use for training operations, storage, and office space. The space will be reconfigured to obtain a Certificate of Occupancy for reuse.

Facility Conditions Assessments, Various Homeless Shelters for the NYC Department of Homeless Services (DHS), New York City, NY: Program Director in charge of performing facility condition assessments of 12 city-owned DHS adult and family residential shelters located throughout New York City. The assessment included surveys of existing conditions, life safety issues and code violations, determination of deficiencies, and preparation of a summary report with recommended corrective measures. Recommendations were prioritized based on life safety and estimated life expectancies.

Facility Condition Assessment, Cape May County Municipal Authority Administration Building, Cape May Courthouse, NJ: Project Director for the assessment of the building's existing conditions. A summary report and recommendations as to what repairs and renovations were necessary to assure the building was suitable for future needs. The report included estimated life expectancies and anticipated replacement costs of the various building components.

Facility Condition Assessment for Four East Orange Firehouses, City of East Orange, Essex County, NJ: Project Director for providing a comprehensive investigation and functional analysis of the City's Fire Service buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies.

Ocean County Office Building, Ocean County Board of Chosen Freeholders, Toms River, NJ: Project Principal for the design of a new 100,000 square foot, multi-story commercial office building complex in Toms River. The new building is expected to be sized to accommodate existing County offices helping to streamline government operating functions and address growth capacity.

Ocean County Judicial Master Plan, Ocean County Board of Chosen Freeholders, Toms River, NJ: Project Principal, planner and designer for the planning and schematic design of a new 120,000 square foot, multi-story Courthouse building complex in Toms River. The new building is expected to be part of the Justice Complex that will consolidate dispersed judicial functions into a single complex helping to streamline government operating functions.

Assessment and Modernization of 80 Claremont, Union Theological Seminary (National, State & LPC Landmark), Columbia University, NY: Program Director responsible for the assessment of existing conditions of major building systems and complete design renovation to replace deficiencies. The buildings, some of which are 100 plus years old gothic style historic buildings included residential halls: Dickinson Hall, Knox Hall, and McGiffert Halls, 80 Claremont and a small portion of the Cellar of the Coffin Administration Building.

Conditions Assessment Surveys, Dormitory Authority State of New York, CUNY John Jay College of Criminal Justice, New York, NY: Program Director/Project Manager responsible for physical conditions assessment of North Hall and the Haaren Building to determine any deficiencies and the probable source of those deficiencies. A DASNY database was also implemented compiling an inventory of all these deficiencies. Work also included an egress/life safety analysis.

Campus-Wide Conditions Assessment Surveys, Baker Field Campus, Columbia University, New York, NY: Project Manager for the performance of a campus-wide survey and assessment of the utilities and infrastructure, buildings and campus grounds and overall building code compliance. ADA accessibility and database of the capital renewal, annual renewal and maintenance costs were provided.

Feasibility Study for Additional Occupants, General Services Administration, Alexander Hamilton US Customs House (National & LPC Landmark), Bowling Green, New York, NY: Project Manager/Architect assigned to analyze the impact and feasibility of leasing the vacant space on several floors of the US Customs House building. Work included code analysis, ADA accessibility standards, compiling the maximum allowable occupancy for each floor per NFPA 101 Life Safety Code requirements, egress capacity for exit stairs and an elevator traffic study.

Modernization of Ruggles Hall, Columbia University, New York, NY: Program Manager responsible for conditions assessment, master planning, zoning analysis, building code analysis and feasibility study for the renovation of a suite-style residence hall.

Various Building Improvements, Department of Public Works, Division of Trenton Water Works, City of Trenton, Trenton, NJ: Project Director for providing various upgrades and improvements consisting of roof repair/replacements, HVAC upgrades, security upgrades, and lighting repairs to several Public Works facilities including the Trenton Water Filtration Plant/Mechanical Dewatering Building and the Distribution System Complex Buildings. An analyses and cost evaluation to install solar panels on the roofs totaling 106,000 SF were also provided. Work included conducting site surveys, preparing conditions assessment reports, preparing preliminary drawings, permitting, and construction phase services.

Investigation and Assessment of the Functional and Environmental Performance of the Astoria Pool, NYC Office of Management & Budget & NYC Department of Parks & Recreation, Astoria, NY: Engagement Manager/QAQC responsible for providing a pre-scoping study, investigation and assessment of the functional and environmental performance of the Astoria Pool facility. The study identifies cost-effective opportunities for capital improvements that ensure long-term environmental compliance while maintaining or improving functionality of the facility.

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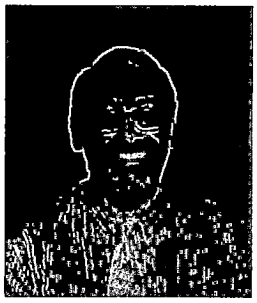

Anthony F. Pedro, PE, LEED AP

Personal summary

Education:

BS, Civil Engineering, New Jersey Institute of Technology, 1988

Registrations:

NCEES Certified Professional Engineer

Professional Engineer

PA #PE084832, 2016
CT #0031503, 2020
NY #093068, 2013
NJ #24GE03790500,1993

Leadership in Energy and Environmental Design (LEED) Accredited Professional, 2008

OSHA Hazardous Waste Site Operations

As Senior Vice President and Area Manager, Mr. Pedro is responsible for the overall project management, including budgeting, scheduling, and QA/QC for the firm's multi-disciplined vertical and horizontal construction projects. Mr. Pedro's 30 years of engineering experience encompasses all project phases, from the preliminary design and permitting stages through the construction management stage. He has performed project management/coordination services including contractor coordination, budget management, schedule maintenance, and engineering consultant liaison. He has served as corporate representative and expert witness at local planning and zoning board meetings, and plant representative at other public and governmental functions. He has also been involved in the ISO 14001 certification process, serving as a lead auditor in that endeavor.

Mr. Pedro is currently the Manager-in-Charge of several Engineering and Architectural Services Term Contracts for various Federal, State and Local Governments as well as several educational clients including Rutgers University State of New Jersey, Ramapo College of New Jersey, The College of New Jersey, and Union County College.

Selected projects

Facility Condition Assessment for the New Jersey Institute of Technology, Newark, NJ: Project Director-in-Charge of providing a comprehensive investigation and functional analysis of Campus Academic and Residential buildings culminating in a technical report identifying deficiencies and suggested remediation with associated costs for construction to repair the deficiencies. The assessment included 37 buildings totalling approximately 3,200,000 SF.

Facility Conditions Assessments, Ramapo College of New Jersey, Mahwah, NJ: Project Director-in-Charge of a project that involved performing a conditions assessment of forty-three (43) campus buildings, totalling 957,534 square feet, for Ramapo College. Work included visual inspections to identify all deficiencies which required renewal, renovation, replacement or upgrading as capital projects. An assessment of each facility's existing building systems' conditions and recommendations as to what repairs and renovations would be necessary to make the buildings suitable for the College's future needs and to extend the buildings' useful life in order to insure adequate return on investments. The major building systems included the building envelope, roofing systems, interior architectural features, structural systems, electrical systems, HVAC and plumbing systems, and fire suppression/detection systems.

VA CFM VISN 8 Facility Conditions Assessment (FCA) Updates, VA Office of Construction & Facility Management (CFM), VA Medical Centers in Florida and San Juan, Puerto Rico: Project Director-in-Charge of performing structural inspections including seismic vulnerability evaluations at various VA Medical Centers for the purpose of updating the VA's existing FCAs.

Facility Condition Assessment, The Library of the Chathams, Chatham Borough, Morris County, NJ: Project Director for the assessment of the library's existing conditions. A summary report and recommendations as to what repairs and renovations were necessary to assure the building was suitable for future needs. The report included estimated life expectancies and anticipated replacement costs of the various building components.

Feasibility Assessment and Building Reuse Space Planning Study, NJ Division of Property Management, NJ Department of Transportation Bordentown Training Facility, Bordentown, NJ: Project Director for a feasibility assessment and building reuse space planning study to convert three existing warehouse buildings for use by the DOT for training operations, office space, equipment storage, and vehicle storage.

Multiple Assignments including Facility Conditions Assessments – NYCDHS Family Shelters, NYC Department of Homeless Services (NYCDHS), New York City, NY: Program Director-in-Charge of various renovation, alteration, or rehabilitation projects at family shelter sites, citywide. Services include feasibility studies, conditions assessments, design, code compliance, correction of existing deficiencies, emergency response efforts, historic preservation, construction phase services, and coordination with the Landmarks Preservation Commission, Department of Buildings, and various City agencies. Projects have ranged from steam leak repairs, sewer line replacements, HVAC systems, electrical upgrades, fire alarms, roofing and building envelope systems.

Essex County Parking Deck Assessment, Essex County Department of Public Works, Essex County, NJ: Project Director-in-Charge of the performance of a preliminary assessment and site investigation on a parking lot that services the New Courts Building/Hall of Records Complex for the purpose of constructing a three-level parking deck facility over an existing parking lot.

Facility Improvement Assessment NJ Division of Property Management & Construction, NJ Department of Corrections, Albert C. Wagner Youth Correctional Facility, Chesterfield Township, NJ: Civil Engineer responsible for performing an existing conditions investigation and site evaluation of the Correctional Facility's building systems to identify deficiencies, required building and security improvements for the facility's capital improvement plan. The sites evaluated included all parking area locations, drainage, curbing, barrier-free access, site lighting, gates, fencing, and paving.

Investigation and Assessment of the Functional and Environmental Performance of the Astoria Pool, NYC Office of Management & Budget & NYC Department of Parks & Recreation, Astoria, NY: Responsible for providing a pre-scoping study, investigation and assessment of the functional and environmental performance of the Astoria Pool facility. The study identifies cost-effective opportunities for capital improvements that ensure long-term environmental compliance while maintaining or improving functionality of the facility.

Investigation & Assessment of the DSNY Brooklyn Districts 13 & 15 Garage, NYC Office of Management & Budget & NYC Department of Sanitation (DSNY), Brooklyn, NY: Project Director for a feasibility study working with DSNY and all applicable zoning regulations to determine the actual configuration; the number of accessory off-street parking spaces and small DSNY vehicles including mechanical brooms and maintenance vehicles, truck wash area and repair stations; personnel areas and office spaces complete with locker rooms and other support spaces for staff; a fueling station for DSNY vehicles; and a salt storage facility.

Transfer Station Upgrade, Cape May County Municipal Utilities Authority, Cape May, NJ: Prepared Engineering Alternative for improvements to the existing transfer station and assisted in preparation of the Engineering Alternative Assessment Plan. Responsible for fueling station, fuel tanks, and wastewater holding tanks installed at the transfer station facility.

Sandy Hook Resiliency Repairs (Design-Build), National Park Service, Fort Hancock Gateway National Recreation Area, Sandy Hook, NJ: QAQC Manager in charge of the design services for the repairs/modifications of the impacted buildings and appurtenant building systems to support a park-wide hazard mitigation effort. Flood-resiliency efforts include relocating critical building systems above the FEMA advisory base flood elevation. An important part of the project includes submission and approval of all design work with the New Jersey State Historic Preservation office (SHPO).

Natural Gas Pipeline Routing Study, Confidential Client, Ocean, Monmouth, Middlesex, Union, and Somerset Counties, NJ: Coordinated the development and implementation of a Regional Routing Study consisting of evaluating approximately 1,500 square miles for viable utility routes. Developed comparative cost estimate spreadsheets and evaluation process attribute tables. Responsibilities also included evaluating and ranking alternatives for a preferred corridor recommendation during desktop study, and leading field reconnaissance teams in performing preliminary windshield surveys.

Underground Storage Tank (UST) System Improvements, Monmouth County Board of Chosen Freeholders, Freehold, NJ: Performed survey, site plan preparation, and coordination of construction observation for project encompassing 11 sites. Developed final design for UST systems, fueling facilities, and environmental protection systems. The project included the removal of 21 tanks, removal and installation of 13 tanks, and the upgrade/retrofitting of five tanks.

Repair Squadron Operations for C130J, Connecticut Air National Guard at Bradley International Airport, East Granby, CT: Project Director-in-Charge of providing design and construction administration services for the renovation of a 21,800 SF existing Squadron Operations facility to provide space for flight engineers and load masters and the consolidation of Aircrew Performance Element/Life Support Function to accommodate the mission of the 103rd Airlift Wing. Functional requirements included offices, administrative spaces, training briefing/debriefing rooms, and mission planning. Work involved relocating interior walls, modifying structure to install new more appropriately sized exterior windows, utility systems, communications, fire protection, fire alarms, new interior finishes, and domestic solar hot water systems.

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Dale L. Haney, AIA

Personal summary

Education:

B.A. Architecture with Honors, Pratt Institute, 1993

Pratt Institute, Rome, Italy, 1991

Registrations:

Registered Architect
NY- 031055, 2006
NJ - AI01642400, 2000
PA - RA403303, 2005

National Council of Architectural Registration Boards (NCARB Certified) 111657, 2004

Memberships:

Member of American Institute of Architects (AIA)

Mr. Haney is a Senior Project Manager with close to three decades of experience in design and construction consulting, engineering coordination, project management, and construction administration experience in healthcare, institutional, commercial, higher education, and luxury home buildings. His government experience includes projects for the Veterans Administration and various branches of the Military. He has proven experience as a skilled coordinator of different disciplines throughout the development of the project, ensuring efficient execution of the design and technical objectives.

Projects Mr. Haney have been involved with include renovations, restorations, inspection reports, historic preservation, and adaptive reuse in addition to large scale, fast-tracked construction, with budgets up to $30 million. Dale's experience with programming and space planning requirements include program development, design and design development, and space and schematic furniture plans including Furniture, Fixtures and Equipment (FF&E). He utilizes strong interpersonal and organization skills to manage multiple projects simultaneously. He works very closely with the Clients and understands any operational issue they may experience by working closely with the end users, facility managers, and board of directors which all lead to a successful completion of the project.

Selected projects

Facility Conditions Assessments, Various Homeless Shelters for the NYC Department of Homeless Services, New York City, NY: Project Manager for conducting various facility conditions assessment of 12 buildings (totaling approximately 1.25M square feet in area) of homeless shelter sites throughout New York City. Complete building systems evaluations and conditions surveys were performed to assess what repairs and renovations would be necessary to make the buildings suitable for future needs and to ensure applicable regulatory codes are met. Life safety issues and code violations were addressed.

Green Homes Building Studies for US Department of Housing & Urban Development, Rutgers, The State University of New Jersey, Bronx, NY: Project Manager in charge of an investigation of building envelopes for two low income buildings located in the Bronx. The project was part of a study funded by the US Department of Housing & Urban Development in which Rutgers will be testing the efficacy of a mobile Light Detection and Ranging (LIDAR) and thermal image scanning device, invented by a Rutgers University Engineering Professor, for identifying deficiencies in existing buildings. Provided an assessment of the building envelope systems performed by visual inspections utilizing an infrared camera. The findings were documented in a report and presented to the US Department of Housing & Urban Development.

Graduate Housing Feasibility Study, Princeton University: Performed site surveys, inspection and code evaluation for the Graduate Housing apartment complex. The building was sited with several fire and egress issues. The resolution, proposed by another architectural firm, eliminated apartments and the interpretation of the code provided to the DCA was not accepted as meeting the intent of the code. Prepared a report addressing the DCA's concerns and an egress design that reworked the floor plans and did not eliminate any apartments. Further developed complex construction scenarios for implementing the changes without the full evacuation of the building.

Scope Development Study for Two Future Full Service Animal Shelters, NYC Office of Management & Budget & NYC Department of Health & Mental Hygiene, Queens & Bronx, NY: Project Manager responsible for the preparation of a scope development study, report preparation, and detailed cost estimating to identify borough wide animal welfare needs and also to provide location and other analysis appropriate to assist the City in locating and acquiring property suitable to the operation of full service adoption and animal holding facilities in each borough.

VA Hospital Buildings #1, #2, #5, #6, #7, #8 and #11, Department of Veterans Affairs, East Orange Campus of the VA New Jersey Health Care System, East Orange, NJ: Performed site surveys, inspections and evaluation of exterior façades on several campus buildings. Performed selective invasive investigations to determine underlying cause or premature failures. Provided a forensic report indicating scope and extent of damaged areas which included details and methods for remediation and/or replacement. Prepared an order of magnitude construction cost estimate for fiscal planning.

Miscellaneous Assignments, Various Adult Homeless Shelters for the NYC Department of Homeless Services, New York City, NY: Project Manager/Architect in charge of several renovation projects for DHS Adult Homeless Shelters throughout New York City. Work included providing building code compliance, design, and construction phase services to renovate several Adult Homeless Shelters throughout New York City. Projects included: Steam Leak Repairs, Fort Washington Armory; Sewer Line Replacement, Veterans Single Room Occupancy; Office of Temporary & Disability Assistance Violations – Pamoja House, Renovation Assessment of the Park Slope YMCA; and Front Center Intake Office – Air Conditioning & Ventilation Systems, Bedford Avenue Armory.

Hurricane Sandy Emergency Response & Recovery Services, Borough of Mantoloking, Brick Township, NJ: Project Architect - provided assistance to the borough in evaluating the structural damage to the homes and other buildings in the community affected by Hurricane Sandy. Over 500 buildings and residences were inspected and assessed for infrastructure repairs.

Re-Occupy Zone A - NYC Department of Homeless Services High Priority Response Services, Various Homeless Shelters, New York City, NY: Project Manager/Architect provided emergency response inspections to evaluate several damaged residential properties in the aftermath of Hurricane Sandy. In order for these properties to be considered safe and structurally sound for re-occupancy, certain items needed to be inspected, assessed and certifications filed with the NYC Dept. of Buildings including addressing the following items: no standing water within the building; the building must be structurally sound; all required life/safety systems including fire alarms, sprinklers, standpipes, carbon monoxide/smoke detectors are intact and in good working order; building must have electrical power for all required life/safety systems.

AMOG Building 3422 Renovation, Department of the Air Force, McGuire Air Force Base, Wrightstown, NJ: Project Manager for the 5,000 SF renovations to the existing AMOG Building 3422. Building Evaluation, Life Cycle and Design studies for a Storage and Office space renovation. Building was abandoned on a remote section of the base and we were tasked to understand the distress of the building and its components and make recommendations if the building was a viable space for the desired office and storage spaces. Concept plans and elevations, evaluation reports and cost estimates were presented to the users. Coordination of Mechanical, Electrical and Plumbing disciplines and controlled conformance to base standards.

911 Emergency Communications Center, Somerset County Administration Building, Somerset County, Somerville, NJ: Project Manager/Architect and Construction Administration to design and construction of the expansion of the existing Emergency Communications Center used by the County's Office of Emergency Management. The expansion provided an additional 1,050 square feet of Call Center 911 dispatch space and another 1,050 square feet of space dedicated for future use for conference rooms and offices. Architectural work involved a new raised flooring and interior design throughout the existing and new areas. New HVAC systems, gas-powered emergency generator, power and controls for HVAC system, lighting, and fire detection systems were provided.

Exterior Renovation & Evaluation, Iron Gate Condominiums, Woodbridge, NJ: Project Architect and Construction Administrator for the exterior renovation of a 48-unit Condominium Complex. The project involved life cycle evaluations of the buildings' facades, windows, decks, and concrete walkways. Based on the evaluations, construction documents for the needed repairs and modernization of the exterior were prepared. The renovation included the exterior of the buildings with more maintenance friendly products. Windows were replaced in most units with more energy-efficient rated windows.

TFI-cNAF Beddown Facility, Pennsylvania Air National Guard, 201st Red Horse Squadron at Horsham Air Guard Station, Horsham, PA: Project Architect for the complete renovation of Buildings 345 & 346 (41,800 SF) for the Component Numbered Air Force (cNAF) Warfighting Headquarters mission including Air Force Forces (AFFOR) with specialized Compartmental Information Facility (SCIF) requirements. Work included the relocation and the extensions of interior walls, floors and ceilings, fire sprinklers, electrical and communications systems, HVAC, architectural features, ceilings, lighting anti-terrorism requirements, parking and landscaping; security alarms, specialty communications support and SCIF requirements and code compliance improvements. Functional spaces of the facilities include administration, communications shop and storage, classrooms and training rooms, secure operations floor space and SCIF areas.

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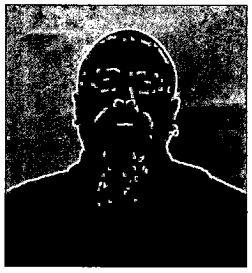

Christopher Klammer

Personal summary

Education:

Bachelor of Architecture, New Jersey Institute of Technology, 1998

AS- Architecture, Mercer County Community College, 1994

Registrations:

National Council of Architectural Registration Boards

Architectural Experience Program (AXP)

Architectural Registration Exam (ARE) in progress

Mr. Klammer is a Senior Project Manager with 20 years of experience in the architectural design of buildings including new construction, additions, and renovations as well as roofing systems and exterior building repair, fire and life safety systems, anti-terrorism force protection (ATFP) upgrades, and comprehensive interior design systems. Other duties have included providing floor planning, furniture systems layout, schematic design, feasibility studies/site surveys, conditions assessments, planning and design charrettes, construction inspection and field investigative work, construction documents/drawing coordination, and computer aided design drafting systems. Additionally, Mr. Klammer has cost estimating experience in MCACES and has participated in Anti-Terrorism Design Standards & Implementation Program Training.

Mr. Klammer has been the Project Manager or Lead Architectural Designer on numerous projects for educational facilities, healthcare, municipal, military, and the Federal Government.

Selected projects

Feasibility Assessment and Building Reuse Space Planning Study, NJ Division of Property Management & Construction, NJ Department of Transportation (DOT) Bordentown Training Facility, Bordentown, NJ: Project Manager for the space planning and the development of a conceptual floor plan for three industrial buildings to be repaired and reconfigured for DOT use for training operations, storage, and office space. The space will be reconfigured to obtain a Certificate of Occupancy for reuse. The exterior of the buildings, including windows, doors, roofs, and brickwork, were damaged and were repaired or replaced.

Evaluation of 29 Building Envelopes, Township of Hamilton, Hamilton, NJ: Project Manager, provided comprehensive on-site inspections of the building envelope and roofing systems for a total of 29 structures at the Township's Water Pollution Control's Main Plant and pumping stations. Work involved a complete facility conditions assessment, testing, report preparation, aerial infrared surveys, and preparation of cost estimates for each noted deficiency and repair and/or replacement item.

Investigation of Water Infiltration through Exterior Windows, General Services Administration, Silvio Mollo Federal Office Building, New York, NY: As Project Manager, responsible for investigating the existing conditions of the parapet walls, roof membrane, exterior walls, flashings, joints, window frames, etc., to identify the water infiltration problems into the US Attorney's office on the 8th floor of the building. Provided recommendations for repair/replacement systems.

Investigation of Roof Leaks, 42nd Floor Roof, General Services Administration, Jacob K. Javits Federal Office Building, 26 Federal Plaza, New York, NY: As Project Manager, investigated the water leaks into the federal offices located on the 41st Floor. Utilized a thermal imaging camera to trace the path of the water infiltrating the skylight systems. Also prepared a report, made recommendations for repair and/or replacement systems, and prepared cost estimates.

Plaza Walkway & Building Exterior Survey, General Services Administration, James M. Hanley Federal Building & US Courthouse, Syracuse, NY: Performed a study of the existing conditions of the building façade, plaza, and walkways around the federal building and the courthouse annex. A report was prepared describing the existing conditions, evaluating repair options, and providing recommendations for repair or replacement.

Drill Floor Roof, NYC Department of Homeless Services, Pamoja House Historic Armory, Brooklyn, NY: Roof replacement and masonry repairs of the historic Pamoja House, a three-story, 234,050 square foot, 200-capacity adult shelter in a landmarked building. Provided a complete facility conditions assessment to evaluate the existing violations and identified corrective measures to be taken.

Physical Conditions Survey and Assessment of Baker Field Campus, Columbia University, New York, NY: Performed a campus-wide survey and assessment of the utilities and infrastructure, buildings, and campus grounds. Responsible for database of the capital renewal, annual renewal, and maintenance costs.

OASAS Starhill Treatment Residential Facility Feasibility Study, Dormitory Authority State of New York, Bronx, NY: Provided a feasibility study and an assessment of the entire residential treatment facility's interior, exterior, and roofing systems repairs and upgrades.

OASAS Veritas Therapeutic Residential Facility Feasibility Study, Dormitory Authority State of New York, New York, NY: Provided a feasibility study and total assessment of the existing conditions of the building to determine the modifications required to renovate the facility.

Conditions Assessment Surveys and Design, Dormitory Authority State of New York, John Jay College of Criminal Justice, New York City, NY: Project Manager for the physical conditions assessments of North Hall and the Haaren Building of John Jay College to determine the existing conditions and deficiencies of major buildings' systems, mechanical and electrical systems and preparing construction documents to correct those deficiencies. Provided architectural assessments, and ADA and building code compliance.

6th Floor Conference Center Build-Out Feasibility Study, General Services Administration, Jacob K. Javits Federal Office Building, 26 Federal Plaza, New York, NY: Project Manager for a feasibility study for the conversion of an existing 6th floor cafeteria (11,000 square feet) to a multi-purpose conference center. The study included design narrative and cost estimates for a building systems evaluation (Architectural, Life/Safety Systems, HVAC, Sprinklers & Electrical). An asbestos abatement and demolition design for the existing spaces were also provided. The study analyzed the use of the demolished area as a new Conference Center.

Skyline Windows Relocation Feasibility Study for Columbia University, Skate Key Building, Bronx, NY: Provided an assessment to design the renovation of an existing roller skating rink to accommodate the new offices and shop areas for a window fabrication shop.

Fire Escape Repairs, Greystone Psychiatric Hospital, Morris Plains, NJ Division of Property Management & Construction, Morris County, NJ: Project Manager for the design to repair damaged members of the exterior egress stairwell, replace undersized angle sub-framing and handrails and priming/painting the fire escape with high-build epoxy coatings.

Roof and Door Replacement, NJ Division of Property Management & Construction, Morris Regional Day School, Morristown, Morris County, NJ: Project Manager for the project to provide consulting services to repair and replace the existing roof and emergency doors located at the school. Construction documents, preliminary and final, were provided.

Tramburg Roof Replacement, NJ Division of Property Management & Construction & NJ Juvenile Justice Commission, Johnstone Campus, Bordentown, Burlington County, NJ: Project Manager to provide consulting services to replace the existing 25,000 square foot roofing system, coping, flashings on the existing youth correctional facility located at the Johnston Campus. Construction documents, preliminary and final, were provided.

Egress/Life Safety Renovations (Phases II thru IV), Dormitory Authority State of New York, North Hall, John Jay College of Criminal Justice, New York City, NY: Assistant Project Manager for providing field investigation, schematic design, and construction documents for the egress renovations of North Hall Phases II, III, and IV which involved immediate life-safety issues, including corridor construction, ADA renovations, cafeteria egress renovations, egress modifications, doors and hardware, fire sprinklers, and security screen replacements. Provided life/safety repair design, and ADA and building code compliance.

Health and Safety Improvements, Keansburg Borough Schools District, Joseph C. Caruso Elementary School and Port Monmouth Road School, Keansburg, NJ: Evaluated the condition of the existing roof systems including emergent and secondary conditions at both schools and provided design to replace the roofing systems. Work also involved providing construction observation to install the new roof. Reviewed contractor's RFI's and provided clarifications, revisions, etc., as required.

Emergent Condition-Roof Replacements, New Jersey Schools Development Authority, Joseph Caruso Elementary School and Port Monmouth Road Elementary School, Keansburg, NJ: Roofing Systems; evaluated the existing roofing system assess the overall condition and composition and prepared construction documents to replace the roofing system.

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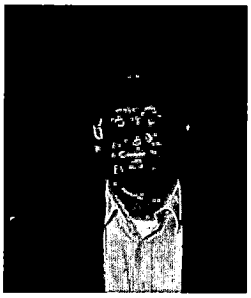


Jason R. Harkins, LLA

Personal summary

Education:

BS, Landscape Architecture, Rutgers University, 2005

AA, Computer Information Systems, DeVry University, 2000

Registrations:

Licensed Landscape Architect NJ #21AS00109800, 2011

Registered Landscape Architect

NY #002572-1, 2016
PA #LA003194, 2016

Mr. Harkins has developed considerable professional experience over the past 15 years in landscape architecture, site planning, and master planning. He has been involved in a wide range of projects including municipal park and recreation planning and design, private, commercial, and residential site development, and wetland restorations for both private and governmental clients. Mr. Harkins has been responsible for all project design stages, from concept design through construction documentation, as well as construction oversight, and the preparation of high-quality plan and three-dimensional presentation graphics.

Mr. Harkins serves as Project Manager and Lead Designer for projects of varying sizes, ranging from active recreation facilities to passive parks, courtyards, playgrounds, bike/pedestrian trails, and streetscapes, as well as Stormwater Best Management Practices (BMPs) and pond dredging projects. These projects include site layout, grading, drainage, utilities layout, landscaping, and site/accent lighting design, as well as Soil Erosion and Sediment Control Plans. His expertise includes the design and incorporation of green stormwater infrastructure (GSI) elements into landscape architecture/site design projects to provide potential environmental and stormwater quality and quantity benefits as well as define spaces and enhance the aesthetics of projects. His designs incorporate various green elements such as rain gardens, bio-retention swales, engineered wetlands, and tree trenches in ways that enhance the design as integral project components. Mr. Harkins has also been responsible for large-scale GSI planning involving the tributary analyses, site planning, and geotechnical investigations necessary to determine appropriate locations for GSI solutions prior to detailed design.

Mr. Harkins has created various types of print and electronic exhibits for use in presentations to municipal planning and zoning boards which have been instrumental in achieving the approval of multiple projects. These exhibits have included aerial site location maps and overlays, proposed site layout and landscape plan renderings, and digital three-dimensional simulations of proposed site improvements and the anticipated visual impacts of the project.

Selected projects

Municipal Lighting Expert, Clinton Township, Hunterdon County, NJ: Serving as lighting expert to the Planning and Zoning Boards. Responsible for reviewing development plans for conformance with local ordinances with respect to exterior lighting.

Congressman Donald M. Payne Plaza, Essex County, Newark, NJ: Prepared conceptual through final design plans and specifications and performed part-time construction oversight for the $1.2 million renovation of an existing 30-year old plaza located within the Essex County Courthouse Complex. The new plaza includes granite seating, decorative concrete paving, ornamental fencing and handrails, accessible ramp, shade tree plantings, decorative lighting, and a significant water feature.

Veterans Memorial Park, Essex County, Newark, NJ: Prepared conceptual through final design plans and specifications, and performed part-time construction oversight, for the development of a new $3.5 million 3-acre park on the site of the former County Courthouse parking garage. The new park represents a significant grayfield to beneficial use project.

Vailsburg Park Renovations, Essex County, Newark, NJ: Prepared plans and specifications for $1.4 million of renovations and improvements to this historic park, which was originally designed by the Olmsted Brothers landscape architecture firm and constructed in the 1920s. Proposed improvements and renovation work was designed to be sensitive to the original design. Work included reconstruction of the existing basketball court, rehabilitation of six baseball fields, rehabilitation of ornamental metal fencing, the installation of a masonry sign, installation of decorative pathway lighting, establishment of a tree pruning and maintenance program, and repairs to the children's playground.

Open Space Program Environmental Investigations, Middlesex County Improvement Authority (MCIA), Various Sites, Middlesex County, NJ: Performed land use evaluation and prepared related mapping for lot yield analysis of various sites in support of the MCIA's On-Call Engineering Open Space Program. Provided Geographic Information System (GIS) services and site constraints assistance with lot yield, wetlands, and due diligence projects.

Trumbull Street Park, Trumbull Street Flood Control Project, City of Elizabeth, Union County, NJ: Responsible for site design, including site layout, grading, and landscaping/lighting, for the park portion of the Trumbull Street Flood Control Project. The park

includes a large rain garden split up by pathways that direct users through the rain gardens, enhancing the neighborhood aesthetics and providing an educational green infrastructure installation for the City.

Wanaque Avenue Streetscape Project, Pompton Lakes Borough, Passaic County, NJ: Prepared construction plans, site lighting design, and specifications, performed full-time construction oversight, and assisted in the preparation of Federal funding applications in accordance with NJDOT standards for streetscape improvements. The $1.3 million project includes new concrete sidewalks and curbing, accented by decorative interlocking concrete pavers. New site amenities include LED decorative street lights, decorative benches and trash receptacles, and tree plantings.

Park Improvements/Pond Management, Brookside Park, Scotch Plains, Union County, NJ: Project Manager for the preparation of contract documents necessary for dredging of the existing nearly 1+ acre pond as well as an irrigation system for the park's baseball field. Project also included the preparation of Flood Hazard Area permitting, dam inspection, and wetlands investigation.

Lincoln Park Dog Park, City of Jersey City, Hudson County, NJ: Prepared plans and assisted with specifications for the construction of a new dog park. Enclosed by a 6-foot perimeter fence, the dog park offers 18,000 sf of space, a double-gate entrance system with dog leash hooks, a water fountain for dogs and their owners, bright colored fire hydrants, sitting areas, and tree plantings. The dog park's surface is a combination of compacted gravel and synthetic turf used at high traffic areas such as entrances and the drinking fountain.

Colonial Park Spray Park, Somerset County, NJ: Project Manager and Lead Designer for the preparation of concept plans through construction documents for a new spray park within Colonial Park. The spray park will provide a large area with water spray elements, along with shade areas for caregivers. The design incorporates rain gardens and permeable pavers and stormwater Best Management Practices (BMPs) to address stormwater quantity and quality.

High and Alden Street Park, City of Orange Township, Essex County, NJ: Responsible for conceptual through final site design, landscape/lighting design, and the preparation of construction documents for this new active/passive recreation facility. The new park will include a synthetic turf multipurpose field with sports lighting, walking trail and a stretch of porous asphalt pavement, and extensive landscaping including native riparian buffer plantings.

Essex County Riverfront Park, Essex County/Essex County Board of Chosen Freeholders, Newark, NJ: Responsible for the detail landscape design and site lighting design. Preparing specifications and assisting with the design of synthetic turf fields for this new $7.6 million 12-acre riverfront park along the Passaic River.

Quitman Street Playground Development, City of Newark, Essex County, NJ: Prepared conceptual through construction plans and specifications, performed part-time construction oversight, and assisted client with the participatory design phase for the reconstruction of an existing 12,000 sf playground. Project highlights include a performance stage, outdoor classroom, rain garden; a wheelchair accessible ramp to access the playground, and play elements geared toward special needs students.

Colonial Park Conceptual Master Plan, Somerset County, NJ: Prepared conceptual designs and ranges of construction costs for the design of various new active and passive recreation facilities. New facilities include the development of newly-acquired properties as active recreation facilities offering soccer fields, ball fields, cricket pitches, multi-purpose fields, and associated parking, along with pedestrian walking paths and connections to existing park facilities. The design of these recreation facilities focused on maintaining a balance between the recreational needs of the community and preserving the pastoral nature of the site and its surroundings.

Nat Turner Park Development, Trust for Public Land, Newark, NJ: Prepared site lighting design, and performed part-time construction oversight for the development of this 8.5 acre Brownfield site. Elements incorporated into the $4.8 million park design include a lighted multi-sport synthetic turf field, running track, playground, water spray/play area, landscaping, pathways, and other amenities.

MOTT MACDONALD

Michael LaPilusa, PE

Personal summary

Education:

Bachelor of Science, Mechanical Engineering, Fairleigh Dickinson University, New Jersey, 1988

Registrations:

Professional Engineer:

NJ #24GE04474900 – 2004

NY #101408-01 – 2019

CO #0057188 – 2020

Certifications:

Construction Quality Management for Contractors – US Army Corps of Engineers Training Course, 2016

Professional memberships:

American Society Heating Refrigerating & Air Conditioning Engineers (ASHRAE)

Mr. LaPilusa is a Vice President and Principal Project Manager with over three decades of mechanical and plumbing engineering experience representing a broad variety of projects including water/wastewater, industrial, transportation, municipal, and correctional facilities, housing, office buildings, education and training facilities, medical centers and hospitals, and governmental facilities. His project experience includes assignments on projects as large as $225 million and his design and project management experience aggregates in excess of over $175 million in total constructed value. Involvement includes design, project management, coordination, estimating, and construction phase services. He has worked on projects as large as entire Plant Upgrades for the NYC Department of Environmental Protection Wastewater Treatment Plants and as small as an HVAC system design for a school classroom.

Mr. LaPilusa is currently responsible for overseeing the firm's Mechanical Engineering Department. This includes HVAC, Plumbing, and Fire Protection engineering activities. Responsibilities include engineering technical support & guidance, project management, QA/QC, manpower scheduling, project budget monitoring, project scheduling, and client liaison.

Selected projects

Renovations to Mid-State Correctional Facility, New Jersey Division of Property Management & Construction & New Jersey Department of Corrections, Wrightstown, NJ: Mechanical Project Manager for performing an existing conditions investigation of the Mid-State Correctional Facility's building systems including mechanical and fire safety systems and providing design documents to renovate the multiple wing and dormitory complex. The project included the design of a new central building management system to monitor and control all new units. All existing HVAC equipment was replaced. Air conditioning was provided the Cell Blocks and Dormitory Wings. Existing plumbing vents were extended through the new attic space and out of the roof. New temperature control valves were provided for each shower. New potable water and sanitary utilities provided for the Guard Tower. New sprinkler system was provided for the entire facility. Phasing of the project was provided for continued operation of the facility.

Building Automation System, Social Security Administration Office, General Services Administration, Joseph P. Addabbo Federal Building, Jamaica, NY: Department Head responsible for designing an upgrade of the Building DDC-based control system. Work included upgrades to the building controls, upgrade of the 24-hour dedicated computer room chiller plant to digital controls, and incorporation of new controls into the existing Building Automation System. The identified systems were upgraded from pneumatic to digital control and then incorporated into the existing Building Automation System. Provided design services and documents including investigation of system requirements and existing conditions, development of existing and new I/O points list, specifications, cost estimates, documentation, block diagrams and design drawings.

Facility Improvement Assessment NJ Division of Property Management & Construction, NJ Department of Corrections, Albert C. Wagner Youth Correctional Facility, Chesterfield Township, NJ: Project Engineer responsible for performing an existing conditions investigation and site evaluation of the Correctional Facility's building's mechanical, plumbing and fire protection systems to identify deficiencies required for the facility's capital improvement plan.

NJ Department of Transportation (DOT) Headquarters Complex Restroom Renovations, NJ Division of Property Management & Construction, Ewing, NJ: Mechanical Engineer for the study to renovate all the restrooms in several office buildings at the NJDOT Headquarters Complex. Work included conducting a survey and assessment of the existing HVAC systems. A study to upgrade the cafeteria restrooms as male and female locker rooms with shower facilities was evaluated.

New York Power Authority - Energy Services Program, Boiler Replacement and Building Automation System Upgrade, Adam Clayton Powell Jr., State Office Building, Harlem, NY: Mechanical Design Engineer responsible for central boiler plant, heating, and replacement of pneumatic control valves for the 1000+ terminal heating and cooling units within the 19-story building; Responsible for design, coordination, contract drawings, specifications, addendums, conformed contract documents, responses to RFIs, shop drawing review, change order preparation, and field support.

MCUA New Warehouse Building, Middlesex County Utilities Authority (MCUA), Middlesex County, NJ: Mechanical Engineer responsible for the site investigations, design, and construction phase services for the construction of a new boiler building and new warehouse storage building for the MCUA.

Somerset County Recycling Building Fire Protection Survey, Wastewater, Somerset County Division of Engineering, Somerville, NJ: Project Manager responsible for oversight field investigations and fire alarm testing. Reviewed the dry system controls for code compliance. Surveyed the entire building and produce as-built drawings showing existing conditions. Prepared revised drawings showing the revised piping arrangement and provided phase-oriented construction drawings as necessary.

Regional Garage Facilities and Data Communication Tower, Ocean County Board of Chosen Freeholders, Manchester Township, NJ: Project Manager - HVAC and Plumbing Lead, new construction of garage facility. Work included Mechanical, Plumbing & Fire Protection construction documents, specifications, general services including permitting and project management.

River Road Wastewater 2017 Plant Improvements, North Hudson Sewage Authority, Hoboken, NJ: Technical Review for surveying the site for existing conditions to replace boiler plant in Administration Building and remove existing odor control systems from Trickling Filters and replace with exhaust fans. Confirmed capacity of new boiler plant and Trickling Filter fans. Prepared contract drawings and specifications showing demo and new work.

Harmon Yards Shop Replacement Phase V, MTA/Metro-North Railroad, Croton-Hudson, NY: Project Manager responsible for HVAC, Compressed Air, Plumbing and Fire Protection disciplines for the replacement of a 260,000 sf maintenance shop building in two stages, a Support Shop Building, and a Recycle Facility. The shop remained in operation during the construction. Services included Facility Review Report, Facility Assessment/Evaluation, Design Definition Report, Performance Design Criteria, 10% Design Development, Efficiency Analysis, Risk Assessment, Industrial Report, Operational Impacts and Phasing, Demolition, Designs, Bid Phase Services, Construction Phase Services.

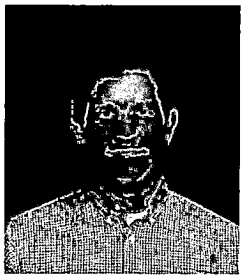
Administration Building Rehabilitation – Superstorm Sandy Recovery Project, Passaic Valley Sewerage Commission (PVSC), Newark, NJ: Mechanical Engineering Department Head responsible for the overview of the design and implementation of the Mechanical, Plumbing and Fire Protection systems for the design and construction phases of the rehabilitation of the Administration Building, which was flooded by the storm surge from Super Storm Sandy and was rendered uninhabitable when flood waters filled the basement and approximately four feet of the first floor. Project included architectural, electrical, process, and HVAC. The building office layout was modified to better fit the current administrative functions while maintaining to the extent possible funding eligibility from FEMA. The final design provides for moving of electrical controls and equipment to a penthouse structure located on the roof of the existing building and using heat exchange using treated effluent to heat and cool the building.

Building Management System Replacement, Building 52, NYS Office of General Services, Sing Sing Correctional Facility, Ossining, NY: Senior Control System Engineer responsible for design and implementation of DDC- based building management system replacement throughout the Sing Sing Correctional Facility. Developed Scoping Document for project requirement; coordinated with facility personnel to establish system requirements and current system issues; performed site inspection and evaluation of existing equipment and systems; and developed Program Report indicating recommended scope of replacement and available options for both capital cost and energy savings.

Steam System Improvements – Phase IV, VA Hudson Valley Health Care System, VA Montrose Campus, Montrose, NY: Project Manager for the design of the steam supply heat and hot water systems for two building mechanical rooms. The work involved surveying and assessment of existing conditions and the design to remove and install new high-pressure steam piping. Phasing plans during construction were developed.

Various Building Improvements, Department of Public Works, Division of Trenton Water Works, City of Trenton, Trenton, NJ: Department Head responsible for the evaluation of HVAC and controls systems and to provide the most cost-effective design for the repair or replacement of these HVAC and control systems in the Plant and Admin buildings. Construction documents provided.

MOTT MACDONALD



Colum P. Keough, PE, LEED AP, CFPS

Personal summary

Education:

BS, Mechanical Engineering, Manhattan College, 1990

Registrations:

Professional Engineer

NJ #24GE04117200,1998

NY #094333, 2014

Leadership in Energy and Environmental Design (LEED), 2006

Certified Fire Protection Specialist (CFPS), 2018

Professional memberships:

Society of Fire Protection Engineers (SFPE)

Mr. Keough's over 25 years of expertise is in the design and construction of mechanical systems for a variety of facilities, including water and wastewater treatment and pumping facilities, administrative, vehicle maintenance, and materials handling facilities, and rail and airport passenger terminals. He has designed heating, ventilation, and air conditioning (HVAC), plumbing, and fire protection and suppression systems.

Mr. Keough's design phase responsibilities include the preparation of construction drawings, cost estimates, contract specifications, and equipment selection. He also provided construction phase engineering services, including shop drawing review, processing contract change orders, and construction inspection.

Selected projects

DOT Headquarters Complex Restroom Renovations, NJ Division of Property Management & Construction, NJ Department of Transportation, Ewing, NJ: Plumbing Engineer responsible for developing plumbing design drawings and specifications and providing services during construction to rehabilitate all the restrooms in several office buildings at the NJ Department of Transportation (DOT) Headquarters Complex. Work included conducting a survey of all existing restrooms to investigate the feasibility of replacing the wall- mounted toilets with floor mounted toilets and the installation of electric flushometers, faucets, hand dryers and a sink garbage disposal in each restroom. A study to upgrade the cafeteria restrooms as male and female locker rooms with shower facilities was also evaluated. Sprinklers also replaced.

PVSC Administration Building Rehabilitation – Superstorm Sandy Recovery Project, Passaic Valley Sewerage Commission (PVSC) Administration, Newark, NJ: Provided plumbing and fire protection design and construction services for the rehabilitation of the Administration Building, which was flooded by the storm surge from Super Storm Sandy and was rendered uninhabitable when flood waters filled the basement and approximately four feet of the first floor. The project involved the modernization of the entire 33,000 SF administration building including the Director's Office, Commissioner's Meeting Room, and the Chief Administrative Office.

Somerset County Recycling Center, County of Somerset, Somerville, NJ: Fire Protection Engineer, provided design and construction services for a complete redesign and replacement for the building dry pipe sprinkler system.

Regional Garage Facilities and Data Communication Tower, Ocean County Board of Chosen Freeholders, Manchester Township, NJ: Plumbing and Fire Protection Engineer for the new construction of garage facility. Work included Mechanical, Plumbing & Fire Protection construction documents, specifications, general services including permitting and project management.

Wastewater Treatment Plant Process Improvements, Ocean County Utilities Authority, Ocean County, NJ: As Project Engineer, designed plumbing and fire protection systems for the new FOG processing facility. A foam water sprinkler system was provided.

MCUA New Warehouse Building, Middlesex County Utilities Authority (MCUA), Middlesex County, NJ: Project Engineer responsible for the sprinkler and plumbing design and construction phase services for the construction of a new boiler building and new warehouse storage building for the MCUA.

Fire Suppression Systems, Somerset County Recycling Center, Building F, County of Somerset, Somerville, NJ: Fire Protection Engineer, provided design and construction services for a complete redesign and replacement for the building dry pipe sprinkler system.

APM Terminals Control Operations Building Renovation, APM Terminals Elizabeth LLC, Marine Terminals, Elizabeth, NJ: Plumbing and Fire Protection Engineer for the modernization and renovation of a 68,000 Control Operations Building (COB) to relocate the Marine Operations Building (MOB) functions and staff into the COB. Provided engineering design for plumbing and fire protection systems. Involved with the surveying of the building, preparing facilities assessment report, and the cost estimate.

Port Newark Container Terminal, Port Newark, NJ: Designed fire protection and plumbing systems for administration and vehicle maintenance buildings at the Port Newark container terminal.

Southport Marine Terminal Complex Development, Philadelphia Regional Port Authority, Philadelphia, PA: Project Engineer, provided plumbing and fire protection systems for the renovation of a World War II Naval Seaplane Hangar into an auto processing facility. Involved with the surveying of the hangar building, preparing preliminary design documents, calculations, cost estimate, and coordinating the design with the Philadelphia Fire Department.

Fire Protection Valve Numbering System, Ramapo College, Mahwah, NJ: Provided site survey and created numbering system for all the fire protection valves serving the 300-acre campus, with 40 buildings (educational, residential, and administrative).

Gas Line and Kitchen Repairs, NYC Department of Homeless Services (NYCDHS), New York City, NY: Provided plumbing and fire protection engineering design for renovations to buildings that house several homeless families. Renovations included natural gas line repairs, sewer line investigation, and sprinkler modifications.

Repair Bachelors Enlisted Quarters & Construct Laundry Room, Bldg. 2003, (Design-Build), Marine Corps Base Quantico, Quantico, VA: Provided design and construction phase services for the installation of new sprinkler systems for the entire building. Work also included the installation of new plumbing systems both water supply and sanitary drains, for the design of repairs and upgrades to Building 2003 to support ongoing and continued use as a barracks. The project also included the construction of a laundry room.

Repair of Supply Warehouse Building 310, Pennsylvania Air National Guard at Horsham Air Guard Station, Horsham, PA: Project Engineer for the renovation of an existing supply building warehouse and administrative area. The existing sprinkler and plumbing systems were modified to accommodate converting the existing warehouse space into additional office space and the construction of a vault in the warehouse.

Repair Building 312 – Bay 3 Renovation (Design-Build), Naval Support Activity Mechanicsburg, PA: Plumbing and Fire Protection Engineer for the full conversion of a 20,000 SF abandoned administrative space in the south-center fire bay of Building 312 into a fully modern office facility.

Replace HVAC, Bldg. 212 Vessel Traffic Center / Sector Command Center US Coast Guard, Fort Wadsworth, Staten Island, NY: Provide code compliance repairs consisting of fire protection and fire suppression systems design for the renovation of Building 212.

Croton Water Treatment Plant, New York City Department of Environmental Protection (NYCDEP), Bronx, NY. Provided design services during construction for plumbing and fire protection contracts. Reviewed shop drawings submittals and prepared contract change orders. Coordinated inspections and testing of fire suppression systems with NYC Fire Department.

East Terminal Facility Phase 1, Port Authority Panama City, Panama City, FL: Project engineer for plumbing and fire protection for the design and construction services for the new 250,000 square foot warehouse facility. The warehouse is used for paper storage; which required a sprinkler system designed for Extra Hazard Occupancy and a fire pump.

Truck Wash Building - Retaining Wall and Shoreline Repairs, Confidential Client, New Jersey Terminal Facility, Newark, NJ: Engineer responsible for providing fire protection and plumbing design for a replacement truck wash building.

AES Battery Storage, Various Locations, AES Energy LLC: providing building code review and construction services for the fire protection systems serving battery storage buildings.

East Side Access, Grand Central Terminal, MTA/ NYC Transit Authority, Manhattan, NY: Designed fire protection and plumbing systems for a new passenger station and a fire standpipe system in train tunnels and ventilation structures for East Side Access at Grand Central Terminal.

Fire Protection System, American Airlines Terminal, The Port Authority of New York & New Jersey, John F. Kennedy International Airport, Jamaica, NY: Project Engineer for the design of a new fire protection system at the American Airlines terminal.

United Airlines Cargo Facility, The Port Authority of New York & New Jersey, John F. Kennedy International Airport, Jamaica, NY: Designed plumbing and fire protection systems for a new cargo facility for United Airlines.

Continental Airlines Global Gateway, Terminal C, The Port Authority of New York & New Jersey, Newark Liberty International Airport, Newark, NJ: Designed terminal fire protection and plumbing systems for Continental Airlines' Global Gateway in Terminal C. Provided construction phase services.

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MACDONALD

Igor Bondar, PE, LEED AP

Personal summary

Education:

BS, Electrical Engineering, Engineering College Kharkov, Ukraine, 1982

Registrations:

Professional Engineer

NJ #24GE05050300, 2013
NY #088199-1, 2010
CT #PEN.0032240, 2017
PA #PE083506, 2015
TX #126102, 2017
DC #PE909069, 2017
WV #021027, 2014

NCEES National Council of Examiners for Eng & Surv #49699, 2012

LEED® Accredited Professional, 2009

NCQLP Lighting Certified, 2011

OSHA Confined Space Entry

Mr. Bondar is a Principal Project Manager with over 30 years of experience in electrical design and construction inspection for governmental, commercial, industrial, institutional, transportation, and residential projects. His background includes new design and major upgrades to power, medium and low voltage distribution systems, grounding, lightning protection, security, lighting, fi re alarm systems and emergency power. He has been responsible for evaluation and analysis of diff erent systems, load studies, power and lighting calculations, power coordination, cost estimates, surveys and quality control. Mr. Bondar has also participated in the design of various project types including offices, hotels, hospitals, museums, restaurants, telecommunication facilities, educational facilities, military installations, aircraft hangars and maintenance shops, vehicle maintenance facilities, fueling facilities, and parkway and street lighting projects.

Selected projects

Facilities Conditions Assessment, Ramapo College of New Jersey, Mahwah, NJ: Project Engineer responsible for performing a conditions assessment survey of 43 campus buildings totaling 957,534 square feet. Existing panels, power and lighting systems, emergency lighting for places of assembly, communication and signal systems, electrical systems associated with other building systems (i.e. HVAC equipment, vertical transportation equipment, plumbing systems, fire protection systems, etc.), all power panels, splices, and electrical connections to equipment were visually inspected for adequacy and code conformance.

Adult Homeless Shelters Renovations, NYC Department of Homeless Services, New York, NY: Project Engineer for several renovation projects. Provide building code compliance, design, and construction phase services to for steam leak repairs at the Fort Washington Armory, sewer line replacement at the Veterans Single Room Occupancy, Office of Temporary and Disability Assistance Violations at Pamoja House, renovation assessment of the Park Slope YMCA, and air conditioning and ventilation systems at the Front Center Intake Office, Bedford Avenue Armory.

Electrical Upgrade - Regent Family Residence, NYC Department of Homeless Services (NYCDHS), New York, NY: Project Manager for an assessment of the existing electrical conditions and design of replacement systems to upgrade the life safety issues and correct the code violations facing the Residence. Work included replacement of existing panels, power and lighting systems, emergency lighting, communication and signal systems, electrical systems associated with other building systems, and all power panels, splices, and electrical connections to major equipment.

Electrical Systems Facility Condition Assessment - Fort Washington Armory, NYC Department of Homeless Services (NYCDHS), New York, NY: Project Engineer and Technical Reviewer for an assessment of the existing electrical conditions including power, lighting, emergency lighting, communications systems, and associated electrical systems for HVAC, vertical transportation, fire protection, etc., of a 1,400-bed men's homeless shelter. Prepared a summary report and made recommendations as to the necessary repairs and renovations to make the historic building, a former New York Army National Guard Armory, suitable for the City's future needs and to extend the buildings' useful life in order to ensure adequate return on investments.

HVAC Upgrades Phase I (FCA and Master Plan), Wilmington VA Medical Center, US Department of Veterans Affairs, New Castle County, DE: Project Engineer for the performance of a facilities condition assessment of the electrical systems and development of an HVAC master plan to replace the aging HVAC systems throughout the medical facility.

Conditions Assessment, Villa Maria Academy Convent, Pelham Bay, NY: Project Engineer for the preparation of a Maintenance Master Plan Study of the existing conditions and recommendations for the replacement of the building's electrical and fire life safety systems.

Arc Flash Study, Ramapo College of New Jersey, Mahwah, NJ: Project Manager and Lead Engineer for the complete assessment of the facility's electrical system, including medium voltage distribution and 480/277V, 208/120V panels and equipment. Responsibilities included project management, coordination of discipline teams, detailed review of the design, and final QA/QC. Project included load flow analysis, short circuit study, and arc flash analysis.

Electrical System Upgrade and Arc Flash Study, Edgecombe Correctional Facility, NYS Office of General Services, New York, NY: Project Manager and Lead Engineer for the electrical design for the replacement of all branch panels throughout the electrical system. Responsibilities included project management, coordination of discipline teams, detailed review of the design, and final QA/QC. Project included load flow analysis, short circuit study, and arc flash analysis.

Social Security Administration (SSA) District Office Entrance Lobby Expansion, Joseph P. Addabbo Federal Office Building, General Services Administration, Jamaica, NY: Project Engineer for a pre-design survey and preparation of design documents of the lighting systems for the renovation and construction of a new entrance area for the general public at two existing storefronts of the Social Security Administration (SSA) District Office.

Ambulatory Surgery Suite Renovation, James J. Peters VA Medical Center, US Department of Veterans Affairs, Bronx, NY: Project Engineer for a preliminary study and design and life safety code analysis and review to renovate the second floor Ambulatory Surgery Suite. Electrical work included modifications to existing power distribution, fire alarm system, telecommunications, public address system, lighting upgrades, and new fire alarm devices.

Installation of Supplemental Cooling/Heating Units, Social Security Administration (SSA) District Office, Joseph P. Addabbo Federal Office Building, General Services Administration, Jamaica, NY: Technical Reviewer for the feasibility study and electrical design to install two water boilers and an independent heating system to supply hot water from these boilers to baseboard radiators and ceiling mounted air handling units servicing the building and storefront lobbies, including a health unit, day care center, and main lobby.

Starhill Treatment Facility, NYS Office of Alcohol and Substance Abuse Services, Dormitory Authority State of New York, Bronx, NY: Technical Reviewer responsible for performing a feasibility study and a conditions assessment, including cost estimates, for all of the building's electrical systems repairs and upgrades, including power, lighting, emergency lighting, emergency generator, communications, and signal systems.

Chemical Laboratory Improvements and Roof Repairs, Dormitory Authority State of New York, Ingersoll Hall, Brooklyn College, Brooklyn, NY: Project Engineer for a facility assessment and a pre-design report to improve the existing conditions of several Chemistry Research Laboratory rooms. Work included a laboratory safety analysis and design of the upgrade of the power distribution system serving several laboratory rooms.

Renovation of Hangar 2251 - 87th Air Mobility Command at Joint Base, McGuire-Dix-Lakehurst, McGuire Air Force Base, US Department of the Air Force (USAF), Wrightstown, NJ: Project Engineer for a feasibility study of the existing electrical systems to repair and alter the aircraft hangar to accommodate a Consolidated Tools Kit (CTK) distribution center (industrial facility) or a C-17 aircraft hangar. Work involved alterations to upgrade the existing hangar to meet current codes and standards, including electrical power, interior and exterior lighting, emergency lighting, public address system, closed-circuit television (CCTV), and telecommunications and fire alarm upgrades.

Combined Arms Collective Training Facility Master Planning and Feasibility Study - Camp Edwards, Massachusetts Army National Guard (MAARNG), Barnstable County, MA: Project Engineer responsible for analyzing the electrical and telecommunications loads required for the master planning and feasibility study for a proposed Combined Arms Collective Training Facility.

Judge Chagares' Chambers, US Post Office and Court House, Peter W. Rodino, Jr. Federal Office Building, General Services Administration, Newark, NJ: Project Engineer for providing field investigations, design, and construction phase services for the renovation of Judge Chargares' chambers. Work included new lighting systems, power distribution, emergency battery back-up, and telecommunications.

Underground Fuel Oil Tank System Compliance Upgrade, Martin Luther King, Jr. US Courthouse, General Services Administration, Newark, NJ: As Project Engineer, performed a study of existing conditions and provided electrical design associated with the upgrade of the existing tank systems for code compliance.

MOTT MACDONALD

Todd R. Heacock, PE

Personal summary

Education:

MS, Structural Engineering, Northeastern University, 1980

BS, Civil Engineering, Rutgers University, 1976

Registrations:

Professional Engineer

NJ #24GE02983900, 1984
NY #065706-1, 1989
PA #PE039598R, 1989
CT #PEN.0021977, 2000
MA #31033 (Structural), 1982
RI #PE.0008163, 2004
MD #30812, 2004
CA #C39071 (Civil), 1984
NE #E-9909 (Structural), 2000

Professional memberships:

American Concrete Institute

Mr. Heacock's over 40 years of expertise is in facility structural design, covering a wide range of commercial, educational, pharmaceutical, health care, hospitality, institutional, industrial, and residential buildings. His project management responsibilities include coordinating, supervising, and providing quality assurance/quality control for the services provided by teams of architects, structural engineers, mechanical/plumbing/ electrical engineers, and geotechnical engineers, as well as designers, drafters, and field inspectors.

Selected projects

Parking Garage Condition Survey, Nassau County Medical Center, East Meadow, NY: Project Manager and Engineer-of-Record for the condition survey of a 5-level cast-in-place concrete parking structure, approximately 272,000 sf in area. Provided design of a temporary shoring system to maintain safe usage of the garage during rehabilitation.

Structural Condition Surveys, Port Authority of New York/New Jersey, Various Sites, NY and NJ: Project Manager and Engineer-of-Record for the annual contract to perform periodic structural condition surveys of airport facilities, hotels, hangers, warehouses, and terminals. Developed specifications for repairs and/or alterations for observed issues.

Building Assessment, Delta Dental, Parsippany-Troy Hills, NJ: Prepared a comprehensive assessment of the building envelope, including the roof, precast concrete façade elements, and windows. Performed a condition assessment of structural, mechanical, electrical, and plumbing components in the 3-story office building. Site features were examined and an environmental assessment and historical information search was performed.

Public Safety Building @ Federal Business Centers, Edison Township, Middlesex County, NJ: Project Manager and Engineer-of-Record for the design of a single story, 20,000 SF building housing the township's Police, Fire Department, and Emergency Management Services (EMS). Design utilized a steel-framed superstructure, metal panel façade, and footing foundations.

City Hall Reconstruction, Town of Goshen, Orange County, NY: Project Manager and Engineer of Record for the reconstruction of the 3-story 18th and 19th century historic building, while preserving and strengthening exterior brick walls and towers. Interior spaces were refitted to accommodate town offices and meeting rooms. The project included an addition behind the original building, doubling the floor area or the facility. The façade and scale of the addition matched the architecture of the original building.

Municipal Building, Lavallette Borough, Ocean County, NJ: Engineer-of-Record for the design of a 12,000 sq ft two-story building, replacing the original municipal building which was destroyed in SuperStorm Sandy. Building contains municipal offices, police, and the post office. Foundation was raised and deigned for new FEMA flood elevations. Design utilized a steel-framed superstructure, masonry façade, and pile foundations.

Office Building Renovation, International Flavor and Fragrances, New York, NY: Project Manager and Engineer-of-Record for the structural and mechanical/electrical restoration of 7th, 8th, and 9th floors of a 9-story building. The project involved determination of existing concrete floor slab load capacity, extensive alterations and reinforcement of the existing concrete structure, and complete replacement of the building façade.

New Campus Facilities, Drew University, Madison, NJ: Provided structural engineering services for the University's Library, Physics, and Archives buildings. In addition, a new sports and recreation facility was designed, including a field hockey field and renovations to the existing building.

Busch Campus Housing, Rutgers University, Piscataway, NJ: Project Engineer for multiple student dormitory buildings, between 4-stories and 10-stories in height, accommodating 1,200 students. The design consisted of precast concrete construction with footing foundations.

Fidelco Office Building Lobby Expansion, Newark, NJ: Project Manager and Engineer-of-Record for the 3,500 sq ft lobby addition for an existing 17-story office building. The addition is steel framed, bearing on piers and footings. Design was integrated with existing building utilities, including an electric substation.

Powerhouse Stack Replacement and Building Upgrades, NJ Division of Property Management & Construction and NJ Department of Human Services, Woodbine Developmental Center, Woodbine, Cape May County, NJ: Structural Engineer involved in the project to replace the 75-foot high smokestack in the powerhouse of the Woodbine Developmental Center, a residential treatment and rehabilitation center for developmentally

disabled men. The project involved demolishing the existing powerhouse smokestack and replacing it with a new system that will serve three boilers in the powerhouse. The project also replaces the existing windows and repairs existing structural cracks. The performance of stack testing and the filing of an air permit application with the New Jersey DEP were also provided.

Student Residence Hall, Montclair State University, Essex County, NJ: Engineer-of-Record for the 8-building complex, including buildings up to 8-stories in height, housing 2,000 students. Project included new student dining facility. Design utilized precast concrete construction with footing foundations.

Correctional Facility, Hudson County, South Kearny, NJ: Project Manager and Engineer-of-Record for the 5-story, 90,000 sq ft addition to the existing correctional facility. The dormitory-style facility houses 400 inmates, and includes a new kitchen for the entire facility. The design utilized concrete flat plate construction and pile foundations.

Correction Center, Essex County, Newark, NJ: Project Manager and Engineer-of-Record for the 1,014 precast-concrete-cell, 4-level prison in three modules. The design included planning for a future fourth module, adding 512 cells. The 4-story central services building is framed in structural steel and is founded on piles.

MOTT MACDONALD

Joseph J. Koehler, PE

Personal summary

Education:

BS, Environmental Engineering, Tri-State University, 1975

Registrations:

Professional Engineer NJ #24GE03387600, 1989

OSHA Hazardous Waste Site Operations

OSHA Hazardous Waste Site Ops. Supervisor

OSHA Confined Space Entry

As a member of the Environmental Management Division, Mr. Koehler has been involved in a wide variety of civil and environmental engineering projects. The majority of his over 40 years of experience has been in the project management and design and construction of groundwater and soil remediation systems, facility site design, demolition of large buildings, underground and above ground fuel facilities, and solid waste facilities, including transfer stations, landfills, and recycling facilities. He has also participated in the design and construction of recreational facilities, as well as sanitary/storm sewer separations, sanitary and domestic water facilities, and pump station projects, and large demolition projects. His responsibilities include all project phases, from initial field studies, to the preparation of plans, specifications, and bid documents, and construction management. Mr. Koehler's responsibilities include project management of on-site activities, site Health and Safety, QA/QC coordination of all field activities, and report preparation. He has extensive experience in managing construction, contract administration, and resolving problems in the field.

Mr. Koehler has extensive experience in the design and construction of parks and athletic facilities. His experience ranges from multi-field county parks to athletic renovations for Board of Education facilities. He is familiar with all aspects of design, stormwater management, permitting, and construction services.

Mr. Koehler's solid and hazardous waste management experience includes site investigations, remedial design, and civil engineering design. He has experience in the evaluation and design of non-hazardous sanitary landfills, and has participated in the design of landfill closures and site interim remediation projects. Mr. Koehler is knowledgeable in all Federal and State Regulations related to groundwater remediation, site planning, and solid waste and recycling facility design and construction requirements. His solid waste experience includes site selection studies, cap designs, and construction management. He has also participated in a number of solid waste transfer station and recycling facility sitings and design.

Mr. Koehler has been involved in other engineering projects, including the design of sanitary/storm sewer separations, design of water line repairs/replacements, design of road grading and roadway rehabilitation, and preparation of bid proposals.

Selected projects

Site Feasibility Investigation Services, New Jersey School Development Authority (NJSDA), Various Locations, NJ: Provided engineering support and assisted with the preparation of drawings and specifications for demolition work associated with site feasibility and environmental site closure services for more than 30 primary and secondary schools. Investigations have included site investigations, environmental screening, geotechnical investigations, wetland investigations, air quality analysis, EIS evaluation, asbestos management, asbestos abatement, building demolition, water and sewer utility assessments, location of wetlands, flood hazard areas, and water bodies presence of historic and archeological resources, soil and/or groundwater contamination, and permitting.

Irvington Elementary School Demolition, New Jersey School Development Authority (NJSDA), Essex County, NJ: Project Manager for the preparation of plans and specifications and for the demolition of the school in order to construct a new elementary school at the site. The project also included a site feasibility investigation for the existing school. The site feasibility investigation included an environmental assessment, an Environmental Screening Report (ESR), and a Preliminary Assessment (PA) Report. Following the PA, an environmental Site Investigation (SI) was conducted of both properties. The scope of work also included Hazardous Building Materials (HBM) Surveys at both structures slated for demolition, as well as surveys for asbestos containing materials (ACMs), lead-based paint and lead-containing paint, and universal wastes. It also included oversight of the abatement of HBM and site demolition activities.

Marlboro Hospital Demolition, New Jersey Department of Treasury Division of Property Management and Construction (DPMC), Monmouth County, NJ: Project Manager for the preparation of construction documents for the demolition of 90 structures on a 400-acre facility. The work included site plans including site survey, utility report and existing utility drawings,

soils report, regulatory report, proposed utilities drawing, landscaping drawing, stormwater control, and specifications, as well as construction management and design of three miles of new sanitary and water services.

Environmental Consulting, Greystone Park Psychiatric Hospital, Marlboro Psychiatric Hospital, NJDEP Blue Acres Project, Essex County, NJ: Provided project management and engineering support for the preparation of specifications for the removal of asbestos and hazardous materials in several buildings involved in the redevelopment of the sites. The projects consisted of a Preliminary Assessment, Site Investigation, several phases of Remedial Investigation, Remedial Action Workplan, asbestos containing material (ACM) surveys and abatement, lead-based paint surveys, hazardous building material surveys, and microbial (mold) surveys. Prepared plans ans specifications for the demolition of the buildings.

Manchester Garage Complex, Department of Public Works and County Data Center, Ocean County, Manchester, NJ: Project Manager for the site and building design of six buildings, including a 20,000 sf garage and office building, two 4,000 sf storage buildings, a salt storage barn, a sweepings and asphalt storage building, and a 2,000 sf data building that will serve as a backup facility for the County's communications infrastructure. The design includes site work design, including grading, utilities, stormwater control, and permitting. The building design includes structural, architectural, electrical, plumbing, and HVAC, designed using REVIT 3D modeling.

Essex County Department of Public Works and Buildings, On-Call Environmental Services, Essex County, NJ: Provided engineering support and assisted with the preparation of specifications for various asbestos management services, lead based paint surveys, and mold and other indoor air quality surveys.

Underground Storage Tank (UST) Upgrades, Replacements, and Removals, Monmouth County, NJ: Project Engineer for design and construction services for 23 USTs. The project consisted of 19 tank removals, 10 tank replacements, and five tank upgrades. All the new tanks and upgrades were installed with new tank management and monitoring systems that could be polled from one location. The project was brought in under budget.

Materials Processing and Recycling Facility, Monmouth County, Tinton Falls, NJ: Project Manager for the design of a $20 million, 170,000 sf solid waste recycling facility. Responsibilities included the coordination of the site layout and utilities, architectural, electrical, plumbing, HVAC, and fire protection bake system design. The project also included the submittal and approval of all environmental and building permits.

Athenia Park Recreation Complex, City of Clifton, Passaic County, NJ: Lead Designer and Engineer-of-Record for the design and construction documents and construction oversight for a new multi-use sports complex on a former Brownfield site. The park includes two full-size synthetic turf soccer fields, a youth-size synthetic turf soccer field, a walking/jogging path, concession/restroom building, sports lighting, parking, and bio-retention basins.

Former Manufactured Gas Plant (MGP), Public Service Electric and Gas Company, Paterson, NJ: Provided field oversight for a remedial action at this complex former MGP site. The project required excavation of wet contaminated sediments adjacent to the Passaic River. Approximately 13,000 tons of material were excavated from the site. Dewatering of the excavation by freeze-wall techniques was utilized. Management of wet excavation spoils was required. Excavated spoils were contaminated, and therefore required special handling and testing in accordance with applicable State and Federal regulations.

Joseph C. Caruso Elementary School Bridging Document Assistance, New Jersey School Development Authority (NJSDA), Keansburg, NJ: Project Manager for the preparation of bridging documents which included site plans including site survey, utility report and existing utility drawing, soils report, regulatory report, proposed utilities drawing, landscaping drawing, stormwater report and design, and specification review for the construction of a new elementary school at the site. The work also included assistance with the bidding phase and construction assistance.

MOTT MACDONALD

Kevin E. Koch, PE, LSRP

Personal summary

Education:

MS, Civil Engineering, New Jersey Institute of Technology, 1984

BS, Civil Engineering, New Jersey Institute of Technology, 1981

Registrations:

Professional Engineer NJ #24GE03034600, 1984

Licensed Site Remediation Professional NJ #591320, 2012

NJDEP UST License - All Categories NJ #0011224, 1992

OSHA Hazardous Waste Site Operations

OSHA Confined Space Entry

Professional memberships:

American Society of Civil Engineers

Chi Epsilon

Mr. Koch's responsibilities are in the areas of hydrogeologic and hazardous waste remedial investigations, environmental impact statements (EIS)/ environmental assessments, design and construction, industrial site evaluations, environmental site audits, and wastewater and water supply facilities evaluation, design, and construction. He supervises personnel within the firm's Environmental Management Division, managing projects related to the Industrial Site Recovery Act (ISRA), Underground Storage Tanks, Spill Compensation and Control Act, the Water Pollution Control Act, the National Environmental Policy Act (NEPA), the Resource Conservation and Recovery Act (RCRA) regulations, Brownfields regulations, New Jersey Executive Order 215, New York State/City Environmental Quality Review Act (SEQRA/CEQRA), and Phase I Environmental Site Assessments. These projects include on-site inspections/investigations, assessment of environmental impacts, development and implementation of sampling plans (soil and/or groundwater), development and implementation of site remediation plans (soil and/or groundwater), analyzing implement ability and cost effectiveness of remedial alternatives, development of closure plans, interfacing with various regulatory (local, state, and federal) agencies and obtaining various permits (air, NJPDES, etc).

Mr. Koch's project responsibilities include all project phases, from initial field studies to the preparation of plans, specifications, preliminary design, permitting, bid documents, and construction management. He is involved in the development of site-specific/project-specific scope(s) of work, and supervision and scheduling of all aspects of project activities, including subconsultant coordination and continual client contact. He has represented clients at public meetings and has provided testimony for municipal boards and regulatory agencies, as well as in private litigation matters.

Selected projects

Licensed Site Remediation Professional (LSRP) Services, Marlboro Camp Facility, New Jersey Department of the Treasury, Division of Property Management and Construction (NJDPMC), Monmouth County, NJ: Responsible for the evaluation of environmental concerns related to underground storage tanks (USTs) at the 60.69-acre site, which had been used as a prison camp and an operational dairy farm. The property had been vacant since at least 2009. To evaluate environmental conditions related to USTs, a review of available files from Federal, State, and local agencies occurred as well as a site reconnaissance. It was concluded that soil and groundwater impacts remain at the site and a UST that was taken out of service remains on the property. A remedial investigation was developed to further evaluate groundwater and soil impacts.

Demolition and Site Restoration, Marlboro Psychiatric Hospital, New Jersey Department of the Treasury, Division of Property Management and Construction (NJDPMC), Monmouth County, NJ: Program Director for the preparation of plans and specifications for the demolition of all buildings, structures, and roads at the former psychiatric hospital. The project included a survey of the entire site to identify and quantify all buildings, tunnels, structures, roads, and paved areas to be demolished or restored. All utilities were documented, including steam, gas, electric, sanitary, stormwater, and water. All buildings/structures were surveyed by a team of architects and engineers to document the existing conditions and to identify opportunities for salvage and/or recycling. System components as well as architectural components were assessed for possible reuses. Additionally, the presence of asbestos containing materials (ACM), lead-based paint (LBP), and universal waste were evaluated.

Regional Sewer System, Manasquan River Regional Sewerage Authority, Monmouth County, NJ: Designed and prepared plans and specifications for interceptor sewers and force mains for a regional sewer system. Reviewed contractor shop drawings and assisted in office coordination. Evaluated existing utilities and potential conflicts with interceptor sewer alignment.

Demolition and Site Restoration, NJDEP Sandy Blue Acres Acquisition Program, New Jersey Department of the Treasury, Division of Property Management and Construction (NJDPMC), Various Sites, NJ: Project Director for demolition design and construction administration services under a 5-year term contract to support the NJDEP Sandy Blue Acres

Acquisition Program and other statewide demolition projects. Services include preliminary site investigations, project scoping documents, preparation of designs and bid specifications, development of specifications for the proper removal and disposal of hazardous materials, compliance with all environmental statutes and regulations, project outreach participation, coordination with Federal, State and/or local officials, quality control/assurance, cost estimating, bid support, construction administration and oversight, and project closeout.

RCRA Closure Plan and ECRA Compliance, S.S. White Company, Holmdel, NJ: Project Manager for the preparation and implementation of a RCRA closure plan for a dental equipment, instruments, burs, and dental materials manufacturing facility. The plan addressed the closure of two above ground hazardous waste storage pads and two underground hazardous waste storage tanks. In addition, an investigation was conducted to evaluate a drainage ditch and other areas potentially impacted by the storage facilities. Concurrently, an overall environmental investigation of the site occurred in compliance with New Jersey's ECRA regulations. This investigation included filing necessary forms, developing and implementing a soil sampling plan to evaluate impacts from hazardous substance storage areas, and preparing summary reports (for both ECRA and RCRA) presenting remedial alternatives.

Environmental Consulting, Greystone Park Psychiatric Hospital, New Jersey Economic Development Authority, Parsippany, NJ: Overall Project Director and responsible for QA/QC of the activities and reports prepared for project. The project consisted of environmental consulting services during the redevelopment of the site into a modern psychiatric hospital. Services have included preliminary assessment, site investigation, several phases of remedial investigation, Remedial Action Workplan (RAW), asbestos containing material (ACM) surveys and abatement specifications, oversight of ACM abatement activities, lead-based paint surveys, Hazardous Building Materials (HBM) Surveys, and a microbial (mold) survey.

Phase I Site Assessments, Confidential Client, Various Sites, NJ, NY, CT, RI, and MA: Supervised pre-acquisition assessments of numerous properties including a wide variety of solid waste and energy (fuel oil) businesses. Tasks performed include site inspections, contact with representatives of state, regional, local, and private regulatory agencies, and review of historical data sources (aerial photograph sets, Sanborn Fire Insurance Maps, historical topographic maps), site plans, construction drawings, utility system information, and regulatory databases. Each individual project resulted in the preparation of a summary report describing the site and site area, historical uses, and identifying recognized environmental conditions/areas of potential environmental concern.

Phase I Environmental Assessment, NJ Transit Corp., Bloomfield and Belleville, NJ: Project Manager responsible for the preparation of a Phase I environmental assessment of four properties. One or more of these properties is being considered for a new base facility of light rail vehicles. Project included visual inspection of the sites, review of historical aerial photographs and fire insurance maps, contact with state and local regulatory agency officials, review of NJDEP and USEPA documents, and interviews with personnel knowledgeable on the sites.

Environmental Site Assessments, Chubb-Bellemead Development Corp., Roseland, NJ: Project Manager for the performance of environmental site assessments for various office/commercial buildings. Assessments have included sampling of on-site soils for priority pollutant analysis, on-site materials for asbestos, precision testing of USTs, thorough site inspections, review of past uses, contact with local, state, and federal agencies to determine the presence of environmental concerns, review of historical aerial photographs, and preparation of summary reports upon findings.

Environmental Risk Assessments, Consulting Services, Inc., Various Sites and States: Project Manager for the performance of environmental risk assessments of industrial facilities located in eight states. Industrial operations assessed included landfills, wastewater and RCRA treatment facilities, fertilizer, explosive, and plastics manufacturers, an activated carbon regenerator, a petroleum distributor, and a low-level radioactive waste disposal facility. The general scope of work included site inspections, review of process operations, evaluation of existing operations and associated permits, interviews with management personnel, contacts with regulatory agencies, review of environmental files, review of state and USEPA documents, review of construction drawings, research of historical usage, evaluation of potential impacts to sensitive receptors, review of hazardous substances utilized, hazardous waste generated, and disposal practices.

MOTT MACDONALD

William A. DiBartolo, Jr., PLS

Personal summary

Education:

BS, Surveying Engineering Technology, New Jersey Institute of Technology, 2007

Registrations:

Professional Land Surveyor

NJ #24GS04331200, 2011
NY #050993-1, 2016

Professional memberships:

National Society of Professional Land Surveyors

New Jersey Society of Professional Land Surveyors

New York State Association of Professional Land Surveyors

Mr. DiBartolo is responsible for administering Mott MacDonald's land surveying operations in New Jersey as Survey Manager. His experience includes a wide variety of land surveying, geographic information system (GIS), and municipal engineering projects, giving him a multidisciplinary perspective towards project management and execution. His land surveying experience includes a full range of survey services in support of engineering and publicly funded land acquisition projects. These include boundary, topographic, and environmental surveys, as well as deformation/settlement monitoring.

Mr. DiBartolo's project duties also include setting property corners, metes and bounds descriptions, parcel mapping for easement and right-of-way acquisitions, tax map preparation and revisions, ALTA/ACSM surveys, construction stakeout and grade sheet preparation, preparation and review of major and minor subdivision plats and descriptions, and report preparation for legal proceedings. His tax map experience includes maps drawn in ink on mylar and AutoCAD, as well as converting existing sheets into AutoCAD format. He is responsible for yearly tax map maintenance, updates, and drafting revision.

Mr. DiBartolo has experience with Global Positioning System (GPS) and robotic total station, as well as traditional instrumentation, to most effectively complete projects. Additionally, he has coordinated the location of stormwater outfalls and inlets with mapping grade GPS for inclusion in Tier A municipalities' Geographic Information Systems (GIS) mapping.

Mr. DiBartolo currently serves on the Board of Directors of the New Jersey Society of Professional Land Surveyors.

Selected projects

Floodwall Protection – Wastewater Treatment Plant, Passaic Valley Sewerage Commission, Newark, NJ: Survey Manager for the preparation of an updated existing conditions and utility mapping for the design of a 12,600sf floodwall. The mapping served as a Basis of Design for the relocation of existing utilities to accommodate the design of the floodwall, which will protect the treatment plant from flooding and storm surges.

CR 512 Water Main Crossing under the Passaic River and NJ Transit Right-of-Way, Long Hill Township, Morris County, NJ: Survey Manager for the preparation of a topographic, bathymetric, and right-of-way base mapping for the design of approximately 1,090 lf of 18-inch-diameter steel casing pipe installed utilizing horizontal directional drilling (HDD) crossing the Passaic River and NJ Transit right-of-way.

Sewer Asset Inventory Survey, Lakewood Township, Ocean County, NJ: Survey Field Crew Coordinator for field data collection regarding the Township's sanitary sewer assets. Asset locations were captured using a combination of survey grade Global Positioning System (GPS) equipment and conventional survey techniques.

Easement Mapping, Penn East Pipeline, Luzerne County, PA to Mercer County, NJ: Senior Surveyor for oversight of field survey and drafting teams in the production of easement plats for a 120-mile underground pipleline.

Digital Tax Assessment Map, Chatham Borough and Wharton Borough, Morris County, NJ: Project Manager for the creation of a digital tax assessment map and development of a land record database for use by the Borough Tax Assessor and Engineer. Individual parcels from the tax map were joined with the land records database using geographic information system (GIS) software to create new zoning, Open Space, and Historic District maps.

Combined Sewer Asset Inventory Survey, City of Elizabeth, Union County, NJ: Survey Field Crew Coordinator for field data collection regarding the City's combined sewer assets. Asset locations were captured using a combination of survey grade Global Positioning System (GPS) equipment and conventional survey techniques.

Combined Sewer Asset Inventory Survey, Village of Ridgefield Park, Bergen County, NJ: Field Crew Coordinator for data collection regarding the Village's sanitary and storm sewer assets. Asset locations were captured using a combination of survey grade Global Positioning System (GPS) equipment and conventional survey techniques.

Roadway Reconstruction Projects, City of Summit, Union County, NJ: Survey Manager for the preparation of topographic surveys for roadways for various milling and paving, road and sidewalk reconstruction, and drainage improvement projects.

Water and Sewer System Upgrades, Lakewood Township, Ocean County, NJ: Survey Manager for an aerial survey of a 300-acre section of the Township and ground survey of 25,000sf of roadway to obtain utility mark-out and record accurate rim and invert elevations on sanitary and drainage sewer structures.

Braydon Street, Lincoln Street, and Johnson Avenue, City of Englewood, Bergen Count, NJ: Survey Manager for the survey of approximately 5,000sf of roadway to assist with the development of design drawings in connection with road reconstruction projects.

Passaic Avenue Bridge over the Passaic River, Town of Kearny, Hudson County, NJ: Survey Field Crew Chief for an existing conditions survey of a concrete beam bridge. The survey included topography of the bridge deck, abutments, and land below the structure, and a detailed survey of the locations and elevations of individual piers and beams.

NJ Transit Bridge over the Passaic River, City of Newark, Essex County, NJ: Survey Field Crew Chief for a survey for a proposed Riparian Grant related to upgrades to an existing railroad crossing over the Passaic River. The existing structure, piers, and bulkheads were surveyed and mapped with adjoining Riparian Grants in the project area to show the extent and metes and bounds of the proposed grant.

County Administration Building, Morris County, Morristown, NJ: Survey Manager for a detailed existing conditions and topographic survey of the Ann Street side of the building for the design of stormwater drainage improvements.

Brookside Park Pond, Scotch Plains Township, Union County, NJ: Survey Manager for the topographic and hydrographic survey of the Brookside Park Pond and surrounding wetlands. Detailed subsurface topography was required to calculate the volume of sediment to be dredged.

Warren County Landfill, Oxford Township, Warren County, NJ: Survey Field Crew Chief for an as-built survey of approximately 4,400sf of PVC pipe for a landfill gas collection and extraction pipeline.

Fuel Storage Tank Settlement Monitoring, Buckeye Partners/City of Linden, Union County, NJ: Survey Field Crew Chief for a settlement monitoring survey of four new fuel storage tanks during the load testing of each tank. Measurements were recorded around the perimeter of the tanks simultaneously to monitor settlement and movement to the required accuracy of 1/16-inch (0.005 feet).

Environmental Site Remediation Surveying Support, International-Matex Tank Terminals, Bayonne, Hudson County, NJ: Survey Field Crew Coordinator for surveying support for the site cleanup and remediation of a 600-acre petroleum bulk storage and processing facility on the Upper New York Harbor. Provided as-built records and volume calculations of excavations, prepared deed notice area descriptions for remediated areas, and surveyed 400+ groundwater monitoring wells.

Monitoring Well Surveys

- Garden State Parkway and NJ Turnpike Service Stations – Richard Stockton, Woodrow Wilson, Molly Pitcher, Vince Lombardi, Montvale, Vaux Hall, Brookdale, and Clifton, New Jersey Turnpike Authority
- Exxon and Shell Retail Gasoline Service Stations – 212 sites throughout New Jersey

NJDEP Green Acres Program Surveys

- Daniel Farmland Preservation, Readington Township, Hunterdon County (2014)
- Madison Community Recreation Center, Florham Park Borough, Morris County (2009)
- Koehler Pond, Boonton Township, Morris County (2008)
- Byrn Estate, Livingston Township, Essex County (2007)

MOTT MACDONALD

Section 5
References

MOTT MACDONALD

References

Mott MacDonald, LLC pride ourselves on the relationships that we have with our clients. Our philosophy has been and continues to be one that focuses on achieving long-term client relationships by developing trust and continuous satisfaction. The quality of our services, matching the right personnel to meet client needs, and our commitment to providing complete solutions, has resulted in enormous benefits for both our clients and our firms.

Below is a list of public facility clients. The listing exemplifies the quality of client relations that we strive to achieve. We welcome the County to contact any of the below.

Essex County
900 Bloomfield Avenue
Verona, NJ 07044
Sanjeev Varghese, PE, PP,
County Engineer
973-226-8500 x2660

Ocean County
Michael J. Fiure
Assistant County Administrator
Ocean County Board of Chosen Freeholders
101 Hooper Avenue
Toms River, NJ 08754
732.929.2099

US Property & Fiscal Office – New York
New York Air National Guard
105 CES, One Maguire Way
Newburgh, NY 12550
Major Raymond Pifer, Base Civil Engineer
845.563.2702

Rutgers, The State University of New Jersey
82 Street 1603
Piscataway, NJ 08854-8037
Mr. Dave O'Brien
Facilities Project Administration
732.816.0501

NYC Dept. of Homeless Services
101-07 Farragut Road,
Brooklyn, NY 11236
Mr. Anil Wadhwani,
Director of Capital Projects
718.688.8555

NYC Office of Management & Budget
255 Greenwich Street, 8th Floor
New York, NY 10007
Diane Smith, RA
Deputy Assistant Director,
Capital Project Scope Development
Tel. 212.788.6163

Sussex County Community College
One College Hill Road
Newton, NJ 07860
Mr. Jon H. Connolly, Ph.D. President
973.300.2115

New Jersey Division of Property Management & Construction
33 West State Street
Trenton, NJ 08625-0034
David Pittman, Project Manager
Tel. 609.984.5062
Anthony Faraca, Chief of Construction
Tel. 609.649.2565

MOTT MACDONALD

Section 6
Required forms

P-43-2018

STATEMENT OF OWNERSHIP

(N.J.S.A. 52:25-24.2)

The CONSULTANT is (check one):

☐ Partnership ☐ Corporation ☐ Sole Proprietorship ☐ Limited Liability Partnership

☒ Limited Liability Corporation ☐ Limited Partnership

☐ Subchapter S Corporation ☐ Other, Please List_____

I certify that:

☐ No individual person or entity owns a 10% or greater interest in the Consultant.

OR

☐ The list below contains the names and addresses of all individuals/entities holding 10% or greater interest in the Consultant. If a parent entity holding 10% or more is a publicly traded entity, then the Consultant in complying with N.J.S.A. 52:25-24.2 may submit the name and address of each publicly traded entity, and the name and address of each person holding 10% or more interest in the publicly traded entity as of the last annual filing with the Security Exchange Commission (SEC), or foreign equivalent.

Name: SEE ATTACHED STATEMENT Address: _____

Name: _____ Address_____

Name:_____ Address:_____

☐ Check here if additional sheets are attached.

NOTE: If an entity owns a 10% or greater interest in the Consultant, list all owners of 10% or greater interest for each such entity. Repeat the process of disclosure as necessary for each tier or level of ownership until the name and address of each individual person who owns a 10% or greater interest in each listed entity has been disclosed.

Publicly Traded Parent Company Disclosure:
Provide the Website (URL) providing the last annual Security Exchange Commission (SEC) filing, or foreign equivalent:

_____

The requested information is available on the following page number(s) of the SEC, or foreign equivalent, filing:

_____

CONSULTANT: Mott MacDonald, LLC

SIGNED BY: X _____

PRINT NAME & TITLE: Albert N. Beninato, Executive Vice President

DATE: 3-12-20

(Revised 10/2018)

MOTT MACDONALD, LLC

STATEMENT OF OWNERSHIP

Mott MacDonald, through several of its wholly owned subsidiaries, has been providing engineering services in the United States for nearly 100 years. With more than 60 offices and 2300 employees in the United States and Canada, Mott MacDonald's North American subsidiaries combine to be ranked as one of the largest engineering companies in the United States.

Mott MacDonald, LLC, a Delaware limited liability company, is a wholly owned subsidiary of Mott MacDonald Group, Inc., a Delaware Corporation headquartered in Iselin, New Jersey. Mott MacDonald Group, Inc. is 100% owned by Mott MacDonald International Limited, a corporation organized under the laws of England. Mott MacDonald International Limited is 100% owned by Mott MacDonald Group Limited, a corporation organized under the laws of England.

No individual shareholder owns more than 10% of Mott MacDonald Group Limited.

MOTT MACDONALD, LLC

By: _____

Albert N. Beninato, P.E.
Executive Vice President

NON-COLLUSION AFFIDAVIT

(*N.J.S.A.* 52:34-15)

STATE OF New Jersey)
ss:
COUNTY OF Middlesex)

Re: PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES FOR A FACILITIES CONDITION ASSESSMENT AT THE MONMOUTH COUNTY SPECIAL SERVICES COMPLEX IN THE TOWNSHIP OF FREEHOLD

I, Albert N. Beninato (name of signer) of full age, being duly sworn according to law, on my oath depose and say:

I am the Executive Vice President (title)

of Mott MacDonald LLC (name of Consultant), a prospective Consultant for the above named project, and that I executed the said proposal with full authority so to do; that the prospective Consultant has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in the proposal and in this affidavit are true and correct, and made with full knowledge that the County of Monmouth relies upon the truth of the statements contained in the proposal and in the statements contained in this affidavit in awarding a contract for the project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by my firm for the purpose of securing business.

Signed: X

Subscribed and sworn before me
this 12th day of March, 2020.

Notary signature Karen Marcotullio

My Commission expires: KAREN MARCOTULLIO
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 24, 2020

(Revised 9/2018)

County of Monmouth, State of New Jersey
Division of Purchasing
DISCLOSURE OF ENERGY SECTOR INVESTMENT ACTIVITIES IN IRAN
New Jersey Public Law 2012, Chapter 25

Bidder / Consultant: Mott MacDonald LLC

PART 1 – CERTIFICATION – CHECK THE APPROPRIATE BOX:

A. ☒ I certify that neither the Bidder / Consultant nor any of the Bidder's / Consultant's parents, subsidiaries, or affiliates, as defined in C.52:32-56(e), is on the "Chapter 25 List" created and maintained by the New Jersey Department of the Treasury, as a person or entity engaging in the energy sector investment activities in Iran described in C.52:32-56(f). The Chapter 25 List may be found at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf .

OR

B. ☐ The Bidder / Consultant and/or one or more of its parents, subsidiaries or affiliates is a person or entity on the Chapter 25 List referred to above. A detailed and precise description of the relevant activities of the listed Bidder / Consultant and/or listed parents, subsidiaries or affiliates is provided in Part 2 below.

PART 2 – ADDITIONAL INFORMATION – COMPLETE PART 2 ONLY IF B. IN PART 1 IS CHECKED:

The following is an accurate and precise description of the energy sector investment activities in Iran of the Bidder / Consultant and/or listed parents, subsidiaries or affiliates, on the Chapter 25 List (attach additional pages as necessary to make full disclosure):

Name of Person(s) or Entity(ies) on the Chapter 25 List: _____

Relationship to Bidder / Consultant: _____

Description of Activities: _____

_____

Duration of Engagement: _____ Anticipated Cessation Date: _____

Bidder / Consultant Contact Name: _____ Contact Phone Number: _____

☐ Check here if additional pages are attached and state number of attached pages: _____ (Number of pages attached.)

CERTIFICATION FOR PART 1 AND, IF APPLICABLE, PART 2: I, being of full age, hereby certify that the foregoing information and any attachments hereto are to the best of my knowledge true and complete. I certify that I am authorized to execute this certification on behalf of the Consultant. I acknowledge that the County of Monmouth will rely on the information contained herein and thereby acknowledge that I and the Bidder / Consultant are under a continuing obligation from the date of this certification through the completion of any contracts with the County to notify the County in writing of any changes to the answers or information contained herein.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me is willfully false, I am subject to punishment and the Bidder / Consultant is subject to the penalties stated in C. 52:32-59 and C. 40A:11-2.1.

Full Name (Print) Albert N. Beninato Signature: _____

Title: Executive Vice President Date: 3-12-20

(Revised 8/2015)

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE

Taxpayer Name:	MOTT MACDONALD LLC
Trade Name:	
Address:	111 WOOD AVENUE SOUTH ISELIN, NJ 08830-4112
Certificate Number:	1169109
Effective Date:	August 01, 2005
Date of Issuance:	July 25, 2016

For Office Use Only:

20160725083242072

EQUAL EMPLOYMENT OPPORTUNITY

QUESTIONNAIRE ON

PROCUREMENT AND SERVICE CONTRACT

YES OR NO

1. Our Company has a current federal affirmative action plan approval. If yes, please submit a copy of said approval. _____

2. Our Company has a New Jersey State Certificate of Employee Information Report. If yes, please include copy. Yes

3. We do not have a current Federal Plan Approval or State Certificate. We will complete and file Form AA302 on line at www.state.nj.us/treasury/contract_compliance and provide a "filed" copy to the County. _____

PLEASE NOTE:
ONE OF THE ABOVE MUST BE SUBMITTED. IF YOU ARE THE SUCCESSFUL CONSULTANT AND RECEIVE THE AWARD. THIS IS REGARDLESS OF THE NUMBER OF EMPLOYEES YOU HAVE.

NAME: Anthony F. Pedro

SIGNATURE: X 

TITLE: Senior Vice President

DATE: March 12, 2020

THIS FORM SHOULD BE COMPLETED, SIGNED AND RETURNED WITH YOUR PROPOSAL.

(Revised 2/2017)

Certification 2062

CERTIFICATE OF EMPLOYEE INFORMATION REPORT

RENEWAL

This is to certify that the contractor listed below has submitted an Employee Information Report pursuant to N.J.A.C. 17:27-1.1 et. seq. and the State Treasurer has approved said report. This approval will remain in effect for the period of 15-AUG-2018 to 15-AUG-2021

MOTT MACDONALD, LLC
111 WOOD AVE. SOUTH, 5T FLOOR
ISELIN NJ 08830

ELIZABETH MAHER MUOIO
State Treasurer

MOTT MACDONALD

Section 7

Project cost & work hour proposal form

P-43-2018

PROJECT COST & WORK HOUR PROPOSAL FORM

TASK	DESCRIPTION	PVII*	PVI*	PV*	PIV*	PIII*	ETV*	ETIV*	ETIII*	Tech Sec*	TOTAL HOURS	LABOR COST BY TASK (See Note 3)
	Project Tastks											
1.A	Assessment of the Building	14.5	16	126	88		39	60	60		403.5	$ 57,611
1.B	Feasibility Study	2	12	24							38	$ 7,050
1.C	Strategic Plan	2	8	16							26	$ 4,890
1.D	Final FCA Report	4	8	20							32	$ 6,060
2.A	Pre-Design and Programming for Voting Machines	10		40	20						70	$ 11,070
2.B	Schematic Design and Documentation for Voting Machines	8		16	24						48	$ 7,344
	(a) Man-hours	40.5	44	242	132	0	39	60	60	0	617.5	
	(b) Direct Salary Rate (See Note 1)	$95.00	$80.00	$50.00	$37.00	$30.00	$30.00	$37.00	$60.00	$25.00		
	(c) Multiplier (See Note 2)									3		
	TOTAL LABOR COST: (a)x(b)x(c)s	$ 11,543	$ 10,560	$ 36,300	$ 14,652	$ -	$ 3,510	$ 6,660	$ 10,800	$ -		$ 94,025

*See table below for staff titles

DIRECT EXPRESS	
SUB-CONSULTANTS (Specify Tasks)	
SUBTOTAL - Sub-Contractors	$ -
Reproduction	$ 250
Postage/Deliver	$ 150
Transportation	$ 500
Out of Pocket Expenses	
SUBTOTAL - Misc. Equipment	$ 900
TOTAL DIRECT EXPENSES	$ 900

Notes:

1. Direct Salary Rate should not include employee benefits. These rates are blended as numerous staff members fit these categories.
2. Multiplier includes overhead, profit and employee benefits. (Only one multiplier shall be used for all employees).
3. Labor Cost By Task = (man-hour)x(direct salary rate)x(multiplier)
4. Direct expenses will be billed at invoice costs (no profit or overhead)
5. Overhead shall include commutation, lodging, meals, and indirect expenses.

TOTAL LABOR COST		$ 94,025
TOTAL DIRECT EXPENSES		$ 900
TOTAL PROJECT COST		$ 94,925

ASCE Grade	Equivalent Federal General Schedule Grade	Equivalent Firm Title
PIII	GS-9	ArchitectEngineer III
PIV	GS-11	Project Manager/Project Architect/Engineer/Architect/Engineer IV
PV	GS-12	Sr. Project Architect/Engineer/Sr. Project Manager
PVI	GS-13	Principal Architect/Engineer
PVII	GS-14	Principal Pr. Manager/Principal Pr. Architect/Engineer
ETIII		Surveyor V/Designer V
ETIV		Sr. Project Manager/Sr. Project Scientist
ETV		Inspector IV/Inspector V
Tech Sec		Administrative Assistant

SIGNATURE PAGE

P-43-2018

To the Board of Chosen Freeholders of the County of Monmouth:

THE UNDERSIGNED HEREBY DECLARES THAT I (WE) HAVE CAREFULLY EXAMINED THE SPECIFICATIONS. I (WE) HEREBY CERTIFY PRICES QUOTED ARE IN ACCORDANCE WITH YOUR REQUIREMENTS.

Company Name: Mott MacDonald LLC
(PRINT)

Preparer's Name: Anthony F. Pedro, Senior Vice President
(PRINT)

Signature: [signature] March 12, 2020
(DATE)

Address: 111 Wood Avenue South
Iselin, NJ 08830

Telephone No.: 201-499-1087

Fax No.: 973-376-1072

E-Mail Address: anthony.pedro@mottmac.com
(This should be the email where Contracts would be sent)

Contact Person: Anthony F. Pedro

FEIN: [redacted]
(Federal Employee ID)

(Revised 2/2017)