Zohran Mamdani
Mayor

The City of New York
Department of Transportation
Division of Bridges

Mike Flynn
Commissioner

REQUEST FOR PROPOSALS

FOR

TOTAL DESIGN AND CONSTRUCTION SUPPORT SERVICES

FOR

MERIDIAN ROAD OVER STREAM NORTH OF LONG ISLAND EXPRESSWAY

BOROUGH OF QUEENS

CONTRACT NO. HBQ224814

BIN: 2-24814-0

E-PIN: 84127P0002

PIN: 84127QUBR794

ANTICIPATED CONTRACT TERM: **2192 Consecutive Calendar Days from the Date of Written Notice to Proceed for the Preliminary Design Phase until the Final Completion of Construction Contract.**

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SECTION I SUMMARY OF THE REQUEST FOR PROPOSALS

A. Purpose of RFP

The Agency is seeking an appropriately qualified vendor to provide Total Design (TD) and Construction Support Services (CSS) for Meridian Road over Stream North of Long Island Expressway (LIE) in Queens as described in the RFP. The technical proposal shall include understanding and approach of the Preliminary Design Phase, Detailed (Final) Design Phase, and the Construction Support Services. However, the Job Titles and Hours and cost proposal shall be submitted for Preliminary Design Phase only.

The selected prime consultant should have at least 51% of the total contract hours to be considered a Prime Consultant.

B. Site Visit and/or Inspection of Materials:

The Agency has the sole discretion in its determination whether site visits for the corresponding project may take place. Appointments for site visits must be made to the Authorized Contact Person.

Plans and specifications will be available for your review upon request. The request should be emailed to the Authorized Agency Contact Person. Subsequently, the Agency will email the firm a confidentiality agreement. Only the individual who signs the agreement will be able to review the plans and specifications. Upon receipt of the signed confidentiality agreement, the Agency will then provide the firm with instructions and a secured login link to review the documents.

C. Anticipated Contract Term

It is anticipated that the term of the contract(s) awarded from this RFP will be **2192** consecutive calendar days from the date of written notice to proceed for the preliminary design phase until final completion of the construction contract. The agency reserves the right, prior to contract award, to determine the length of the contract term

Anticipated Time Required for completion of Phase I, Preliminary Design Services: **545** consecutive calendar days.

Anticipated Time Required for completion of Phase II, Detailed (Final) Design services: **551** consecutive calendar days.

Anticipated Time Required for completion of Phase III, Construction Support Services: **1096** consecutive calendar days.

D. Anticipated Payment Structure

It is anticipated that the payment structure for the contract awarded from this RFP will be based on a combination of direct technical salary costs times a multiplier, specified direct non-salary costs subject to an overall "not-to-exceed" fee (upset amount) and performance outcome measures and related financial incentives and/or disincentives. The multiplier shall be applied only to technical salary costs and shall be considered as including provisions for indirect costs (overhead) and profit.

However, DOT will consider proposals to structure payment in a different manner and reserves the right to select any payment structure that is in the City's best interest.

E. Key Personnel

Below are the minimum requirements per title for the Key Personnel required for the project. The Consultant is required, as part of its proposal, to identify the individuals who will perform services as Key Personnel. DOT will evaluate the information and resumes provided. Greater consideration will be given for proposed individuals who meet or exceed the following requirements:

PROJECT MANAGER:

- Minimum of ten (10) years of total professional experience in Civil Engineering
- Minimum of six (6) years of direct bridge design experience
- Qualified for ASCE Grade V and above
- Baccalaureate degree in civil engineering from an accredited college
- Valid NYS P.E. License
- At least two (2) years of experience as Project Manager on bridge design project(s) completed within the last five years.
- Familiar with NYC DOT and NYSDOT standards

PROJECT ENGINEER:

- Minimum of six (6) years of direct bridge design experience
- Qualified for ASCE Grade IV and above
- Baccalaureate degree in civil engineering from an accredited college
- Valid NYS P.E. License
- Prior experience as Project Engineer on a bridge design project successfully completed within the last five years
- Familiar with NYC DOT and NYSDOT standards

F. Exclusion From Participation In Subsequent Solicitation(s)

This RFP is for Total Design (TD) and Construction Support Services (CSS) for Meridian Road over Stream North of Long Island Expressway (LIE), Borough of Queen. The selected proposer from this RFP shall not be allowed to participate, whether as a consultant or sub-consultant, in response to a subsequent solicitation(s) utilizing the specifications they drafted, except as provided under New York City's Procurement Policy Board Rules.

G. Joint Ventures and Other Consultant Relationships:

There is no minimum requirement for the proportion of work by either of the two joint venture partners. Joint ventures must carry the required insurance either as policies written specifically for the joint venture entity, or by using their existing single entity policies with endorsements written for the joint venture activity.

DOT does not recognize the corporate configuration wherein one company is "in association with" another. Relationships between two or more firms shall be either as joint venture partners or prime consultant/sub-consultant. In the event that a proposal is received wherein two or more firms are described as being "in association with" each other, DOT will treat the relationship as one of prime consultant/sub-consultant(s). The RFP evaluation will be handled accordingly, and if chosen as a winner, the contract documents will show only the prime firm on the signature page, and all other firms will be relegated to sub-consultant category.

SECTION II: SCOPE OF SERVICES AND M/WBE REQUIREMENT

A. Agency Goals and Objectives for this RFP

The Agency's goals and objectives for this RFP are to have TD and CSS for Meridian Road over Stream North of Long Island Expressway, Borough of Queens to ensure the safety of New York City bridges in relation to their structural integrity and repair as stipulated in the Proposed Contractual Agreement & Specifications for the Preparation of Record Drawings and Electronic Media.

B. Agency Assumptions Regarding Consultant Approach

The agency's assumptions regarding which approach will best achieve the goals and objectives set out above are reflected in detail in the Proposed Contractual Agreement.

Agency Assumptions Regarding Proposer's Experience

Agency's assumption is that the firm that would be selected from this procurement have the following certifications, experience and qualifications:

- Professional engineers licensed by the State of New York.
- Prior successful relevant total design [TD - preliminary & detailed (final) design] and construction support services (CSS) experience as the prime design engineering consultant in bridge design projects.
- The average total relevant experience of the firm's project manager is 10 years or more.
- The average total relevant experience of the firm's project engineer is 6 years or more.
- Both the Project Manager and Project Engineer shall be licensed Professional Engineers in the State of New York and have accredited Bachelor's Degrees in Civil Engineering.
- Proven ability to provide TD/CSS services in a pro-active manner with special focus on ability to work with other bureaus and agencies to solve problems arising during TD/CSS phases.
- Proven ability to provide expeditious direction and solutions during TD/CSS phases.
- Proven ability to obtain timely approval letters from all affected parties including various bureaus, community boards and agencies during TD phases.

Agency Assumptions Regarding Proposer's Organizational Capability

In order to accomplish the goals and objectives as set out above, the Contractor would at a minimum, to the sole satisfaction of the Agency:

- A minimum of 30 full time technical employees must be employed. Employ at least 4 Professional Engineers on staff who successfully completed a bridge project within the last five years
- A minimum of 10 full-time Bridge Design Engineers must be employed.
- The firm must have successfully completed three "Medium" or "Large" Bridge Design Projects, as the prime consultant, within the last five year and/or as a sub consultant to a prime consultant involved in structural design of bridges, in this case a letter from the prime consultant shall be submitted. The letter should show the type of design work performed and the construction cost.
- Over the previous 3 years, the attrition rate of technical employees of the firm must not exceed an average of 20% annually. If the attrition rate exceeds specified limits due to a firm's elimination of a unit unrelated to bridges, supporting documentation may be submitted with the application for consideration.
- The firm must have a published and adopted Employee Manual.
- The firm must have a published and adopted QA/QC procedure manual.
- The firm must have the ability to provide CADD drawings, that it must possess two CADD Station.
- The firm must have an available line of credit in excess of $500,000, or equivalent.

Agency Assumptions Regarding Proposer's Approach

In order to accomplish the goals and objectives as set out above, the Contractor would at a minimum, to the sole satisfaction of the Agency shall provide a detailed statement describing Proposer's strategic approach to the Project, including:

- Its understanding of the technical design issues, construction environment and complexities of the Project as related to TD/CSS Services
- Its understanding of different tasks anticipated to be performed and their relationship
- Its methodology for tracking and maintaining the Project's budget and timely schedule with proper staffing
- Its understanding of potential problems and techniques for problem solving
- Its ability to recommend innovative approaches to assist in achieving the project goals and objectives.

NOTES:

For Agency's assumptions regarding the scope of TD/CSS phases throughout the duration of the project, refer to

1. Proposed Contractual Agreement, Section V, Attachment A and

2. Specifications for the Preparation of Record Drawings and Electronic Media **(Documents Section)**

C. Participation by Minority-Owned and Women-Owned Business Enterprises in City Procurement

If the contract resulting from this Request for Proposals will be subject to M/WBE participation requirements under Section 6-129 of the Administrative Code of the City of New York, as indicated by the inclusion of Schedule B – M/WBE Utilization Plan and the Participation Goals indicated in Part I thereof, proposers must complete the Schedule B – M/WBE Utilization Plan and submit it with their proposal. Please refer to the Schedule B – M/WBE Utilization Plan and the Notice to All Prospective Contractors (attached in Documents section of PASSPort) for information on the M/WBE requirements established for this solicitation and instructions on how to complete the required forms. If the proposer intends to seek a full or partial waiver of the Participation Goals on the grounds described in Section 10 of the Notice to All Prospective Contractors, including but not limited to, proposer's intention to use its own forces to perform any or all of the required contract work would result in a failure to attain the Participation Goals, the proposer must request and obtain from the Agency a full or partial waiver of the Participation Goals (M/WBE Utilization Plan, Part III) in advance of proposal submission and submit the waiver determination with the proposal. Please note that if a partial waiver is obtained, the proposer is required to submit a completed Schedule B-M/WBE Utilization Plan based on the revised Participation Goals in order to be found responsive.

D. Compliance with Local Law 34 of 2007 (Doing Business Data Form)

In order for the City to obtain necessary information to establish the required database, vendors responding to this solicitation are required to complete the Doing Business Data Form in PASSPort when they are submitting their proposal. Organizations which hold 10% or more ownership of the entity must now be reported.

E. Contract Provisions and Requirements (Appendix A) (Documents Section)

The Contract shall incorporate the City's general contract provisions, in substantially the form that they appear in "Appendix A—General Provisions Governing Contracts for Consultants, Professional and Technical Services". In addition, the Contractor will be subject to the Procurement and Sourcing Solutions Portal (PASSPort) Disclosure Filing Requirements.

F. Compliance with the Iran Divestment Act (Questionnaire Section)

Pursuant to State Finance Law Section 165-a and General Municipal Law Section 103-g, the City is prohibited from entering into contracts with persons engaged in investment activities in the energy sector of Iran. Each proposers is required to complete the attached Bidders Certification of Compliance with the Iran Divestment Act, certifying that it is not on a list of entities engaged in investments activities in Iran created by the Commissioner of the NYS Office of General Services. If a proposer appears on that list, the Agency/Department will be able to award a contract to such proposer only in situations where the proposer is takings steps to cease its investments in Iran or where the proposer is a necessary sole source. Please refer to the Affirmations section of the Questionnaire for information on the Iran Divestment Act required for this RFP and review https://ogs.ny.gov/iran-divestment-act-2012 for additional information concerning the list of entities.

G. NYC Mayoral Executive Order No. 39 Rider (Questionnaire Section)

The Order applies to all contracts that have an estimated value of $2,000,000 or more and include a scope of work that, in order to be performed, will require the utilization (1) of a City-contracted Vehicle (2) within the City of New York on a weekly or more frequent basis. This includes all subcontracts under the aforementioned contracts, regardless of monetary value, if the subcontracted vehicle is utilized within the City of New York on a weekly or more frequent basis

H. Community Hiring Requirements (Documents Section)

Authorized under Section 3502 of the New York City Charter, the contract awarded pursuant to this solicitation will be subject to the Community Hiring requirements set forth in the rules promulgated under Title 74 of the Rules of the City of New York ("Community Hiring Rules"). The City requires that the awarded contractor will agree to make best efforts to employ Community Hires.

I. Procurement and Sourcing Solutions Portal (PASSPort) Disclosure Filing (formerly known as Vendor Information Exchange System (VENDEX) Forms or Certificate of No Change)

All organizations intending to do business with the City of New York should complete an online disclosure process to be considered for a contract. This disclosure process was formerly completed using Vendor Information Exchange System (VENDEX) paper-based forms. The organization must create online accounts in the new Procurement and Sourcing Solutions Portal (PASSPort) and file all disclosure information. Paper submissions, including certifications of no changes to existing VENDEX packages will not be accepted in lieu of complete online filings.
For more information about PASSPort, please visit

https://www.nyc.gov/site/mocs/passport/about-passport.page

J. Responding to the Request for Proposals

This RFP is released through PASSPort, New York City's online procurement portal. Responses to this RFP must be submitted via PASSPort. To access the RFP, vendors should visit the PASSPort public Portal at the link provided in Section II (I) above and click on the "Search Funding Opportunities in PASSPort" blue box. Doing so will take one to the public portal of all procurements in the PASSPort system. To quickly locate the RFP, insert the **E-PIN:84127P0002** into the Keyword search field. In order to respond to the RFP, vendors must create an account within the PASSPort system if they have not already done so.

Any inquiries concerning this RFP should go through the PASSPort communication function. Questions/inquiries must be submitted by 5:00 PM (E.S.T) on the "questions due date" indicated on the View RFx tab.[1]

[1] In PASSPort, an RFx is synonymous with the solicitation released to vendors. An RFx can be a Request for Proposals (as in this instance), Invitation for Bids, Request for Information, Request for Quotes, etc.

SECTION III: PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES

A. Evaluation Procedures

All proposals accepted by the Agency/Department will be reviewed to determine whether they are responsive or nonresponsive to the requisites of this RFP. Proposals that are determined by the Agency to be non-responsive will be rejected. The Agency shall rank proposers by technical merit, and pursuant to the City's Quality-Based Selection Method.

The proposals will be ranked in order of highest to lowest technical score and the Agency will establish a shortlist of all the proposals scoring at or above the cut-off score of 70 percent.

Based on these rankings, a "short-list" will be established of only those proposers who submit highly relevant and technically viable proposals with relevant and adequate experience, overall project understanding, approach and innovativeness in all project areas. Proposers not included on the "short-list" will not be further considered. The Agency reserves the right to limit the number of firms shortlisted.

The Agency reserves the right to conduct site visits and/or interviews and/or to request that proposers make oral or visual presentations in support of their proposals or to exhibit or otherwise demonstrate or clarify the information contained in their proposals. Subsequent to any such presentations, the CSC will prepare revised rating sheets.

Proposals from New York State or City certified M/WBEs shall receive a point preference of 5% of the total technical points earned in the evaluation of the proposal.

The price proposal of ONLY the highest technically ranked firm will be opened and reviewed by the evaluation committee to determine whether it is responsive.

The agency will then consider price by negotiating a fair and reasonable price with the highest technically ranked proposer(s). In the event that such a fee is not successfully negotiated, the agency may conclude such negotiations, and enter into negotiations with the next ranked vendor(s), as necessary.

Although discussions may be conducted with proposers submitting acceptable proposals, the agency reserves the right to award contracts on the basis of initial proposals received, without discussions; therefore, the proposer's initial proposal should contain its best programmatic and cost terms.

B. Evaluation Criteria

Each proposal package will be evaluated based on the following technical criteria and weights:

1.	**Demonstrated Quantity and Quality of Successful Relevant Experience**	**25%**
2.	**Demonstrated Level of Organizational Capability**	**20%**
3.	**Quality of Proposed Approach**	**55%**
		100%

C. Basis for Contract Award

A contract will be awarded to the responsible proposer whose proposal is determined to be the most advantageous to the City, taking into consideration the price and such other factors or criteria which are set forth in this RFP. Contract award shall be subject to the timely completion of contract negotiations between the Agency and the selected proposer. Pursuant to the City Quality Based Selection (QBS) Method, DOT will award this contract to the highest technically ranked firm from a shortlist established based on criteria described above in the Evaluation Procedures. The price proposal of ONLY the highest technically ranked firm will be opened. In the event that the fee is not successfully negotiated with the highest technically ranked firm, the agency may conclude such negotiations, and enter into negotiations with the next ranked vendor(s), as necessary.

SECTION IV - GENERAL INFORMATION TO PROPOSERS

A. Complaints. The New York City Comptroller is charged with the audit of contracts in New York City. Any Proposer who believes that there has been unfairness, favoritism or impropriety in the proposal process should inform the Comptroller, Office of Contract Administration, 1 Centre Street, Room 1005, New York, NY 10007; contract@comptroller.nyc.gov, or at (212) 669-2323. In addition, the New York City Department of Investigation should be informed of such complaints at its Investigations Division, 80 Maiden Lane, New York, NY 10038; the telephone number is (212) 825-5959.

B. Applicable Laws. This Request for Proposals and the resulting contract award(s), if any, unless otherwise stated, are subject to all applicable provisions of New York State Law, the New York City Administrative Code, New York City Charter and New York City Procurement Policy Board (PPB) Rules. A copy of the PPB Rules may be obtained by contacting the PPB at (212) 788-0010 or at https://www.nyc.gov/site/mocs/regulations/ppb.page

C. General Contract Provisions. Contracts shall be subject to New York City's general contract provisions, in substantially the form that they appear in "Appendix A with Addendum - General Provisions Governing Contracts for Architects and Engineers (November 2018 Final)." or, if the Agency utilizes other than the formal Appendix A, in substantially the form that they appear in the Agency's general contract provisions. A copy of the applicable document is available through the Authorized Agency Contact Person..

D. Contract Award. Contract award is subject to each of the following applicable conditions and any others that may apply: New York City Fair Share Criteria; New York City MacBride Principles Law; submission by the proposer of the requisite New York City Department of Business Services/Division of Labor Services Employment Report and certification by that office; submission by the proposer of the requisite PASSPort Questionnaires/Affidavits of No Change and review of the information contained therein by the New York City Department of Investigation; all other required oversight approvals; applicable provisions of federal, state and local laws and executive orders requiring affirmative action and equal employment opportunity; and Section 6-108.1 of the New York City Administrative Code relating to the Local Based Enterprises program and its implementation rules

E. Proposer Appeal Rights. Pursuant to New York City's Procurement Policy Board Rules, proposers have the right to appeal Agency non-responsiveness determinations and Agency non-responsibility determinations and to protest an Agency's determination regarding the solicitation or award of a contract.

F. Multi-Year Contracts. Multi-year contracts are subject to modification or cancellation if adequate funds are not appropriated to the Agency to support continuation of performance in any City fiscal year succeeding the first fiscal year and/or if the contractor's performance is not satisfactory. The Agency will notify the contractor as soon as is practicable that the funds are, or are not, available for the continuation of the multi-year contract for each succeeding City fiscal year. In the event of cancellation, the contractor will be reimbursed for those costs, if any, which are so provided for in the contract.

G. Prompt Payment Policy. Pursuant to the PPB Rules, it is the City's policy to process contract payments efficiently and expeditiously.

H. Prices Irrevocable. Prices proposed by the proposer shall be irrevocable until contract award, unless the proposal is withdrawn. Proposals may only be withdrawn by submitting a written request to the Agency prior to contract award but after the expiration of 90 days after the opening of proposals. This shall not limit the discretion of the Agency to request proposers to revise proposed prices through the submission of best and final offers and/or the conduct of negotiations.

I. **Confidential, Proprietary Information or Trade Secrets.** Proposers should give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification of why such materials, upon request, should not be disclosed by the City. Such information must be easily separable from the non-confidential sections of the proposal. All information not so identified may be disclosed by the City..

J. RFP Postponement/Cancellation. The Agency reserves the right to postpone or cancel this RFP in whole or in part, and to reject all proposals.

K. Proposer Costs. Proposers will not be reimbursed for any costs incurred to prepare proposals.

L. PASSport Fees. Pursuant to PPB Rule 2-08(f)(2), the contractor may be charged a fee for the administration of the PASSPort system.

M. Charter Section 312(a) Certification. [IF APPLICABLE]

__X__ The Agency has determined that the contract(s) to be awarded through this Request for Proposals will not result in the displacement of any New York City employee within this Agency. See attached Displacement Determination Form.

_____ The Agency has determined that the contract(s) to be awarded through this Request for Proposals will result in the displacement of New York City employee(s) within this Agency. See attached Displacement Determination Form.

_____ The contract to be awarded through this RFP is a task order contract that does not simultaneously result in the award of a first task order; a displacement determination will be made in conjunction with the issuance of each task order pursuant to such task order contract. Determinations for any subsequent task orders will be made in conjunction with such subsequent task orders.

Message from the NYC Vendor Enrollment Center: ***Get on mailing lists for NYC contract opportunities!***

Submit a NYC-FMS Vendor Application - Call 212/857-1680

Message from New York City's Department of Small Business Services

The Department of Small Business Services (SBS) offers One-on-One Technical Assistance to businesses that are interested in bidding on City contracts for the following goods and services: construction, construction related, standardized and architectural and engineering. If you plan on bidding on this or any other City contract, contact SBS to schedule an appointment. The Department of Small Business Services will meet with you to review your particular proposal or submission, and provide feedback and guidance to help you submit the best proposal possible.

To schedule One-on-One Technical Assistance, email techassist@sbs.nyc.gov and an SBS representative will contact you.

SECTION V – ATTACHMENT

A) PROPOSED CONTRACTUAL AGREEMENT

NEW YORK CITY
DEPARTMENT OF TRANSPORTATION

DIVISION OF BRIDGES

SCOPE OF WORK

TOTAL DESIGN (TD)
AND
CONSTRUCTION SUPPORT SERVICES (CSS)
FOR

MERIDIAN RD OVER STREAM NORTH OF LIE

BIN 2-24814-0

BOROUGH OF QUEENS

CONTRACT NO. HBQ224814

COMMUNITY BOARD
QUEENS 81

COUNCIL DISTRICT
QUEENS 21

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EXHIBIT C: BIN 2248140 – Firm Requirements & Key Personnel…… 3 Pages

NEW YORK CITY DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGES

SCOPE OF SERVICES FOR TOTAL DESIGN (TD) AND CONSTRUCTION SUPPORT SERVICES (CSS) FOR MERIDIAN RD OVER STREAM NORTH OF LIE (BIN 2-24814-0) BOROUGH OF QUEENS

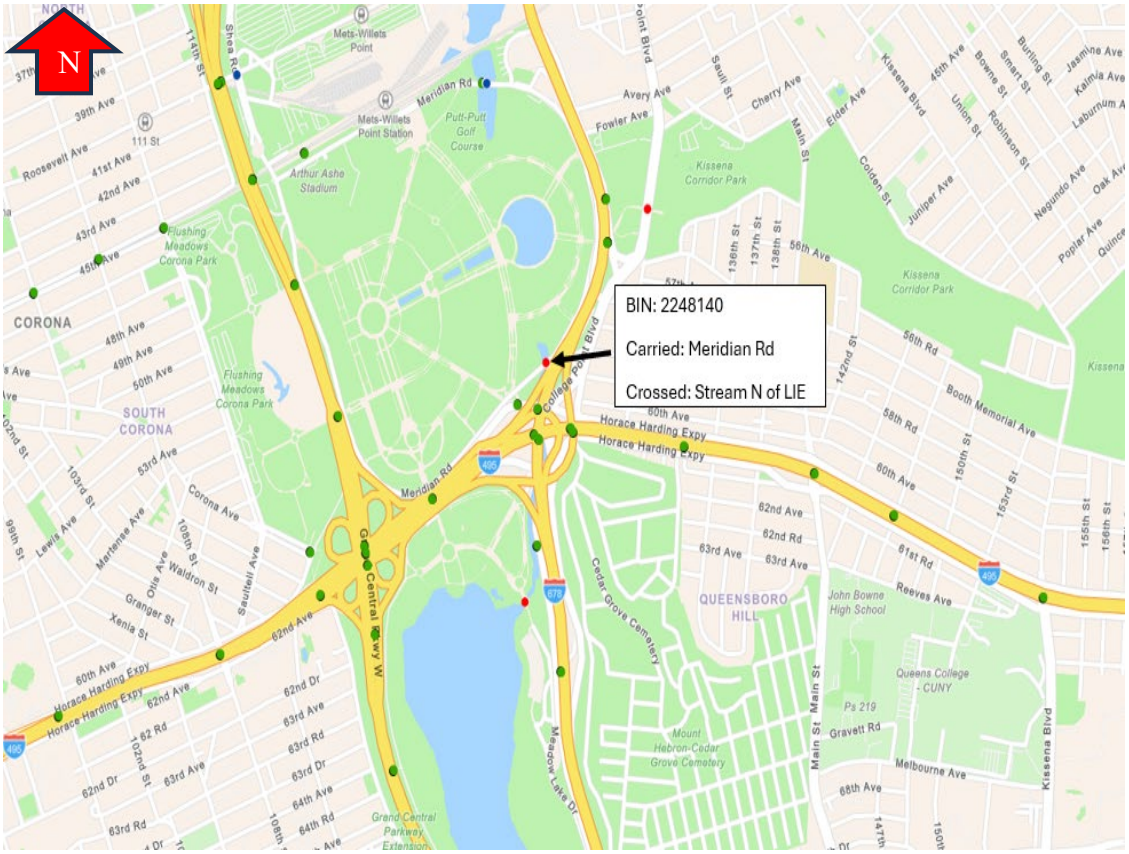
CONTRACT NO. HBQ224814

Section 1 – General

1.01 Project Description and Location

The project is located along Meridian Rd over the Stream North of Long Island Expressway (LIE) in Flushing Meadows Corona Park in Queens. Meridian Rd runs west-east over stream running north-south and is part of vehicular roadway system in the park. There is an entrance to the park just north of the bridge. The land immediately adjacent to the bridge at all four corners is undeveloped open green space associated with the Flushing Meadow Corona Park under Tax Block 2018 Lot 1. The surrounding neighborhood is a park space and residential area consisting of low-rise single-family homes with some commercial use particularly along College Point Blvd.

The bridge carries Meridian Rd and crosses the Stream North of LIE in Queens. It was built in 1963 and as per our available information, no major rehabilitation took place since then. The structure consists of Prestressed Concrete Box Beams along 5 spans that carries two lanes of traffic, one lane in the eastbound direction and one lane in the westbound direction. The left and right sidewalks are 3.8 ft. The bridge is 130 feet long and 32 feet wide with a total deck area of approximately 4,160 sq.-ft. There are Con Ed conduits that run parallel to the bridge on both fascia girders. Any bridge replacement/rehabilitation alternatives may have potential impact on the conduits.



Location Map 1



Location Map 2



Bridge Photo: Elevation View Facing North



Underside of Bridge

1.02 Project Location

STREET NAME, INTERSECTIONS FROM / TO	Meridian Road, between College Point Blvd & Meadow Lake Rd W
BIN	2-24814-0
BOROUGH	Queens
COUNCIL DISTRICT	Queens 21
COMMUNIITY BOARD	Queens 81

1.03 Critical Design Element:

The consultant shall verify and evaluate all the critical design elements as listed below, but not limited to:

Feature	**Details**
Feature Carried	Meridian Road
Feature Crossed	Stream North of LIE
NYS Functional Classification	Meridian Rd – Urban Local Street Stream North of LIE – Not Applicable
Truck Route	Not a designated Truck Route
National Highway System	Not on system
Bike Route	Not a designated Bike Route
Bus Route	Not a designated Bus Route
Posted Speed Limit	25 mph
Design Speed	35 mph
Lane Widths	Approximately, 12 ft
Sidewalk Widths	Approximately, 3.8 ft Left, 3.8 ft Right
Vertical Clearance	Below: None / Above: None
Load Rating	Load Rating unknown, no load posting at bridge

1.04 Existing Nonstandard / Nonconforming Features

Listed below are potential existing nonstandard / Nonconforming features, but not limited to and the consultant shall evaluate:

1) Lane widths (all modes)
2) Sidewalk widths
3) Maximum grade
4) Superelevation
5) Stopping sight distance
6) Horizontal clearance
7) Vertical clearance
8) Pavement Cross Slope
9) Railings

Existing Characteristics of Concern:

Based on inspection report dated July 2025 (AASHTO Element Rating), the bridge has a NYS General Recommendation of 5 and the NBI rating is 5 for the deck and superstructure, and 4 for the substructure. There is one yellow flag issued for a deteriorated Pier 2 Cap beam.

Crash History: Using NYSDOT CLEAR Crash Viewer, there were no Crashes in the past 10 years within a radius 1/3 of a mile of bridge limits on Meridian Road.

Bike /Pedestrian Deficiencies: There is no existing bike lane, and the sidewalk exhibits several spalls and cracking. Additionally, there is fence that is held together by wires on the sidewalk.

1.05 Description of the Proposed Work

As per available information, this project will restore the structural integrity and functional service life of the bridge through replacement of the existing superstructure and rehabilitation or replacement of substructure elements. The extent of rehabilitation/replacement work involved will be decided after performing the field investigation and in-depth inspection which is included during the preliminary design that involves collection of detailed structure condition data, condition assessment of structural deck, assessment of structural integrity of the existing bridge and the potential for restoring full capacity through rehabilitation/replacement actions, assessment of structural vulnerabilities to potential modes of failure.

Need for the Project

Based on inspection report dated July 8, 2025 (AASHTO Element Rating), the need for the Project is demonstrated based on the following major areas of concern:

Superstructure:

- The underside of adjacent beams exhibits several longitudinal cracks.
- There is scattered efflorescence build-up with leakage between the beams.
- There is shallow spalling and diagonal cracking on the fascia beams around the tie rod openings.
- Asphalt wearing surface exhibits isolated longitudinal cracking as well as transverse cracking.
- Sidewalk exhibits multiple spalls with exposed rebar.

The superstructure element condition ratings explanation includes, but is not limited to the following:

Prestressed Concrete Top Flange – 3712 sq. ft. total

- 3712 sq. ft. out of 3712 sq. ft. have deficiencies (CS2) that signify a progression of the deterioration process. Therefore, this element may need replacement.

Prestressed Concrete Closed Web/Box Girder – 1024 ft. total

- 856 ft. out of 1024 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need replacement.
- 168 ft. out of 1024 ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Other Joint– 64 ft. total

- 32 ft. out of 64 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need replacement.
- 32 ft. out of 64 ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Reinforced Concrete Approach Slab – 1280. sq. ft. total

- 1280 sq. ft. out of 1280 sq. ft have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Metal Bridge Railing – 260 ft. total

- 260 ft. out of 260 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Wearing Surface – 3120. sq. ft. total

- 2820 sq. ft. out of 3120 sq. ft have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.
- 300 sq. ft. out of 3120 sq. ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Steel Protective Coating – 1460. sq. ft. total

- 1030 sq. ft. out of 1460 sq. ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.
- 375 sq. ft. out of 1460 sq. ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.
- 55 sq. ft. out of 1460 sq. ft. have severe deterioration (CS4). Therefore, these quantities of the element may need to be replaced.

Sidewalk – 1040. sq. ft. total

- 1000 sq. ft. out of 1040 sq. ft have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.
- 40 sq. ft. out of 1040 sq. ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Curb – 260 ft. total

- 244 ft. out of 260 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation
- 16 ft. out of 260 ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Substructure:

- The begin face of reinforced concrete pile cap beam exhibits horizontal cracks with scattered efflorescence. There are also spalls along the top as well as hollow areas.
- The end face of reinforced concrete pile cap beam exhibits spalls with exposed rebars as well as section loss on the rebars.

- The underside of reinforced concrete pile cap beam exhibits multiple cracks and hollow sounding areas, spalls with exposed rebars, and section loss on the rebars.

The substructure element condition ratings explanation includes, but is not limited to the following:

Reinforced Concrete Abutment – 64 ft. total.

- 64 ft. out of 64 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Steel Pile – 20 total

- 10 out of 20 steel piles have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Reinforced Concrete Pier Cap – 124 ft. total.

- 23 ft. out of 124 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.
- 101 ft. out of 124 ft. have advanced deterioration (CS3). Therefore, these quantities of the element may need rehabilitation or to be replaced.

Elastomeric Bearing – 80 total

- 24 each out of 80 elastomeric bearings have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation

Erosion or Scour – 400 ft. total

- 104 ft. out of 400 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Pier Pedestal – 64 each total

- 16 each out of 64 each have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Wingwall – 80 ft. total.

- 80 ft. out of 80 ft. have deficiencies (CS2) that signify a progression of the deterioration process. These quantities of this element may need rehabilitation.

Listed below are some project constraints, but not limited to:

1) There are trees near the bridge in the adjacent green areas.
2) There are utilities running parallel to Meridian Road on the fascia girders.
3) The bridge runs west–east over a stream running north–south and provides limited space beneath the bridge for performing work.
4) Project is in a park so consultant must coordinate with NYCDPR.

The general scope of work may include, but is not limited to the following major items:

A. Superstructure

Replacement of superstructure elements, including but not limited to the prestressed concrete top flange and prestressed concrete closed web/box girders.

B. Substructure

Rehabilitation or replacement of substructure elements, including but not limited to the reinforced concrete abutment, the steel piles, and the reinforced concrete pier caps.

C. Utilities/Drainage

All existing utilities on the bridge will be protected, relocated, or replaced if necessary, as per utility Companies or other agency requirements. In the event that additional utilities are identified during subsequent inspections or construction operations, appropriate measures will be implemented to protect, replace, or relocate the utilities as required, in accordance with the utility companies or other agency requirements.

D. Work Zone Traffic Control (WZTC)

Provide WZTC scheme and plans for rehabilitation or replacement time period. Special consideration will be given to the WZTC and construction staging to minimize traffic disruption in the area. WZTC stipulations and approval will be obtained from OCMC and NYCDPR.

E. Electrical & Street Lighting

All existing electrical and street lighting systems attached to the bridge and/or within Project limits will be protected or replaced or relocated as necessary during construction.

F. Aesthetics Including Pedestrian Fencing

Historic Aesthetics will be part of design of the bridge and be subjected to Public Design Commission and/or Landmark Preservation Commission review and approval.

G. Landscape Design

If necessary, the Consultant will provide Landscape Architect and Arborist Services to design green spaces disturbed by construction and staging. All drawings and/or specifications including Landscape Design must be reviewed and approved by NYCDOT and NYCDPR.

H. ADA Compliance

The Consultant shall replace all ramps within or adjacent to the project limit and construction limit. The project limit for Meridian Rd Bridge over Stream North of LIE is from Meadow Lake Rd W to College Point Blvd along Meridian Rd. The construction limit is to be determined during the development of alternatives within the stated project limit. The bridge rehabilitation/replacement must confirm the ramps are in compliance with Americans with Disabilities Act (ADA) standards.

Section 2 – General Expectations:

2.01 Project Familiarization

The following documents may be provided by NYCDOT:

1. The latest Bridge Inspection and Condition Reports.

2. The as-built plans for the existing bridge are not available (or the available plans are inadequate). It is the Consultant's responsibility to verify the accuracy of information from the existing drawings, if any. The Consultant shall perform field investigation of the existing structure to the extent necessary in order to prepare the Design Approval Document.

Before starting any other work, The Consultant will become familiar with the Project. The Consultant will thoroughly review the Project-related information supplied by NYCDOT and identify any missing information or need for updated project approach if any.

For any investigative efforts the Consultant will make a determination of permits/approvals required from all applicable agencies including, but not limited to: OCMC, NYCDPR, and estimate the time needed for obtaining the permits/approval required to perform investigative field studies to complete preliminary design. The statements concerning the required permits and the estimated time required for obtaining permits will be included in the DAD report. If such permits are determined not to be required, a statement will be made. The Consultant will submit the planning statement to NYCDOT.

2.02 Project Management and Administration

The Consultant will prepare for and attend all meetings as directed by NYCDOT. Scope shall include the following minimum Meetings may be held to:

- Regular progress meetings, monthly or as needed
- Present, discuss and receive direction on the progress and scheduling of work in this Contract.
- Present, discuss and receive direction on Project specifics.
- Present, discuss and receive direction for concepts under development and selection of concepts moving forward
- Discuss and resolve comments resulting from review of Project documents, advisory agency review, and coordination with other agencies.
- Meeting for the discussion of the concepts level before determining the alternatives shortlist
- Present, discuss concept development and selection of alternatives.
- Overview visual aids for public meetings.
- Manage sub- consultants and sub-contractors.

The Consultant will be responsible for the preparation of all meeting minutes; the minutes will be submitted to meeting attendees within one (1) week of the meeting date.

For the duration of this Contract, the Consultant will prepare and submit to NYCDOT on a monthly basis a Progress Report in a format approved by the Engineer. The Progress Report must contain the Cost Control Report. The Cost Control Report shall clearly detail the capital used to date, estimated capital to complete work, total budget for each party, variance, remaining budget and percentage of completion to date. The format of the Cost Control Report will be provided by NYCDOT after the NTP. The beginning and ending dates defining the reporting period must correspond to the beginning and ending dates for billing periods, so that this reporting process can also serve to explain billing charges. (In cases where all work under this Contract is officially suspended by NYCDOT, this task will not be performed during the suspension period.)

The consultant shall notify DOT in a timely manner if there is extra work incurred, and a request for extra work must be submitted in writing with proper justifications and cost estimate for approval prior to performing any extra work. If the additional work request is accepted by the city, a change order will be processed. For minor extra or out-of-scope work, requests for additional funds will not be processed until the present total direct labor budget is exceeded.

2.03 Policy and Procedures

The design of this Project will be progressed in accordance with the current Local Projects Manual (LPM).

1. Compliance with documents

   All work will conform to current editions of the following documents but not limited to Federal, State, and City standards and other applicable documents.

AASHTO LRFD Bridge Design Specifications	NYCDOT Seismic Design Guidelines for Bridges in Downstate Region
AASHTO Guide Specifications for Fatigue Evaluation of Existing Steel Bridges	NYSDOT Bridge Deck Evaluation Manual
AASHTO Manual for Bridge Evaluation	NYSDOT Bridge Detail (BD) Sheets
AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities	AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges
ADA Accessibility Guidelines for Buildings and Facilities	NYSDOT Bridge Inventory Manual
A Policy on Design Standards - Interstate System, AASHTO	NYSDOT Prestressed Concrete Construction Manual (PCCM)

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO)	NYSDOT LRFD Bridge Design Specifications
NYSDOT Bridge Inspection Manual	NYSDOT Steel Construction Manual (SCM)
NYSDOT Bridge Manual	NYSDOT Local Projects Manual (LPM)
NYSDOT Bridge Safety Assurance Seismic Vulnerability Manual	NYSDOT Project Development Manual
NYSDOT Comprehensive Pavement Design Manual	NYSDOT Right Of Way Mapping Procedure Manual
NYSDOT Design Consultant Manual	NYSDOT Standard Specifications for Construction and Materials
New York State Eminent Domain Procedure Law Guidelines	AASHTO Standard Specifications for Highway Bridges
NYSDOT Engineering Bulletins	NYSDOT Structures Design Advisories
NYSDOT Engineering Instructions and Directives	NYSDOT Structures Technical Advisories
NYSDOT Environmental Procedures Manual	NYSDOT Surveying Standards & Procedures Manual
FHWA Seismic Retrofitting Manual for Highway Bridges	NYSDOT Uniform Code of Bridge Inspection
New York State Manual of Uniform Traffic Control Devices with New York State Supplement	4/17/87 memorandum titled “Bridge Project Selection Guidelines”
NYSDOT Highway Design Manual	NYCDOT Specifications for the Preparation of Record Drawings & Electronic Media
Highway Capacity Manual (HCM)	NYCDOT Street Lighting Standards
NYC Environmental Quality Review Technical Manual	NYCDOT Uniform Land Use Review Procedure
Electric Code of the City of New York	NYC DEP Standard Sewer and Water Main Specifications
NYC DEP Sewer Design Standards	NYC DEP Water Main Standard Drawings

2. Compliance with Environmental Laws, Regulations and Permits

All Consultant work will meet the requirements of all applicable City, State and Federal environmental laws, regulations and policy specified in the Local Projects Manual (LPM).

3. All work will conform to the CADD requirements stated in NYCDOT- Specifications for the Preparation of Record Drawings and Electronic Media latest version. In general, this requires all CADD graphics be generated in the required version of AutoCAD format currently supported by NYCDOT.

4. The Consultant will prepare for and attend all meetings as directed by NYCDOT. The Consultant will be responsible for the preparation of all minutes of meeting and the minutes will be submitted to NYCDOT within one (1) week of the meeting date. The consultant shall not use Artificial Intelligence assistance to record virtual meetings with NYCDOT. If the Consultant uses a default Artificial Intelligence setting in their virtual meeting platform, the consultant shall notify NYCDOT prior to discussion of the Contract.

5. Before transmitting each product to NYCDOT, the Consultant will review it to ensure its conformity to all applicable New York State/NYC requirements.

6. The Consultant and Sub-Consultants must adhere to all Federal, State and City Laws.

7. The Consultant shall anticipate some night/weekend work for this Contract.

8. If the work requires roadway lane closures, the consultant should also propose improvement measures to address any construction-related safety and operational concerns.

9. All Licenses/Certifications that are required for the Project for the titles proposed **MUST** be valid and up to date within the State of New York.

10. No Artificial Intelligence software, applications and/or add-ons shall be used to produce any Contract Documents in this Contract.

2.04 Standards & Specifications

The Project will be designed and constructed in accordance with the current edition of the NYSDOT Standard Specifications for Construction and Materials, including all applicable revisions, and all applicable NYCDOT Standards.

2.05 Sub-Consultants

The Consultant will be responsible for:

- Coordinating and scheduling work, including work to be performed by Sub-Consultants
- Technical compatibility of a Sub-Consultant's work with the Prime Consultant's and other Sub-Consultants' work.
- Reviewing Sub-Consultant work before submitting to NYCDOT.

2.06 Sub-Contractors

Procurement of Sub-Contractors must be in accordance with the requirements set forth in the NYC Procurement Policy Board (PPB) Rules.

- The Consultant will prepare the contract document describing the work, schedule, and method of payment in sufficient detail for obtaining sealed bids for the work. The Consultant will provide the work description and will submit it to NYCDOT for review. The Consultant will modify the work description as necessary before including it in the contract document.

- The Consultant will solicit sealed bids from a sufficient number of prospective qualified Sub-Contractors to ensure that at least three (3) bids are received. Upon receipt of at least three bids, the Consultant will submit all bids to NYCDOT along with a recommended choice. It is assumed that NYCDOT will either concur with the recommendation or accept one of the other bids. NYCDOT will then advise the Consultant in writing to proceed. The lowest bidder who is fully responsive to the invitation to bid will most often be chosen.

- Upon receipt of written authorization from NYCDOT to proceed, the Consultant will execute the contract with the Sub-Contractor and oversee the Sub-Contractor's operations/services to the extent of assuring that the work is performed as described in the contract and that the work performed conforms to NYCDOT and, if applicable, State and Federal requirements.

2.07 Public Outreach Plan (POP)

The Consultant will develop a comprehensive community outreach/public participation plan for the Project during preliminary design phase. The Public Outreach Plan will identify the goals and objectives of the Project and outline all outreach tasks and responsibilities.

The POP will include the identification of stakeholders within the communities of the Project's impact area including the identification of special populations for whom participation in the outreach program will require special or coordinated assistance. The stakeholder organizations and their representatives will be developed into a Notification Network that will serve as the conduit from the team to all stakeholders for official information regarding the Project.

The Consultant will identify all required public outreach tasks associated with regulatory approvals and those Tasks will be included in the POP.

The Consultant will develop for agency review and approval all community outreach/public participation materials to support this effort as listed below.

All activities associated with the Public Outreach Plan will be documented during the term of the Project including minutes of all public outreach meetings, public presentations, workshops and all other community activities in an Activity Log.

2.08 Utilities

The Consultant needs to be aware of the responsibilities of the utilities and rules governing the placement of utilities on bridges. In this regard, the Consultant will comply with the requirements of Utilities Section 7 of NYSDOT Bridge Manual. The consultant must also comply with all requirements of private utility companies and all applicable codes. In addition, specific NYCDOT requirement of utilities on the proposed Project includes, but not limited to the following:

1. All existing as well as proposed utilities will be accurately located on the bridge plans.

2. Existing as well as proposed utilities will be relocated in bays between longitudinal members under sidewalks.

3. In situation when all utilities and their appurtenances cannot be located or fit under the sidewalk, a request for waiver with justification will be required to be made to and approved by the Deputy Chief Engineer in final design.

4. Utilities will be supported or suspended by separate or independent support system attached to the main longitudinal members of the bridge and not to or through the slab.

5. Utilities will not be supported on diaphragms and will not be embedded in any structural concrete.

6. Adequate horizontal and vertical clearances for inspection and maintenance will be maintained between utilities and structural components.

7. Utilities (and all supports) must be 1 ½" above the bottom of superstructure and 1" below the bottom of the deck of the superstructure.

8. Utility manholes or valve boxes will not be located on the bridge structure, or attached to the railings and barriers (except electrical lines and boxes for street lighting) and manholes & chambers required for utilities will be located beyond the approach slab.

9. The Consultant shall note that sizes and numbers of utilities to be accommodated on the bridge may impact proposed alternatives for bridge rehabilitation or replacement as well as alternative to be recommended. For example, when large numbers of utilities are to be located under the bridge, superstructure with box beams is a less suitable design. However, the Consultant will review and address requirements of utilities to be installed on the bridge very carefully in design and document in the Design approval Document (DAD) report.

Section 3 – Project Specific

3.01 Railroads

Not Applicable.

3.02 Project Specific Meetings

These meetings shall include but not limited to the Agencies/Stake Holders listed below.

Preliminary Design

One (1) All Agency Plan Review
Two (2) OCMC
Two (2) Public Design Commission
Three (3) Community Boards/Organizations
Two (2) NYSDOT
Two (2) NYCDPR
Two (2) Landmark Preservation Commission

Additional meetings will be conducted, as required with other divisions within NYCDOT, other applicable city agencies, private utility companies, stakeholders.

3.03 Public Outreach Plan (POP)

The following items are anticipated for this project for the preliminary design phase:

- Project brochure,
- PowerPoint presentations,
- workshop materials and handouts,
- press releases,
- community newsletters/updates,
- important notices and
- construction bulletins, and
- related material including the development of material in other languages as needed.
- development and management of a Project specific Social Media program, managed by the Division of Bridges which may include the use of Facebook, Twitter, Instagram and other media to inform and educate local and regional stakeholders.

To perform these tasks, the Consultant will provide a dedicated Public Outreach Liaison to implement the Public Outreach Plan, support the Project team and serve as the single point of contact for all public inquiries and communications. Public Outreach Liaison must possess ability to use M.S. Office, InDesign or related Graphics Software. The liaison will assist NYCDOT by attending all community meetings, advising and providing updates to stakeholders and community organizations regarding the plans, schedule and progress of the Project. The Liaison will also foster ongoing communication and coordination through telephone contacts and regular field visits with stakeholders and other entities with jurisdictions within the Project limits. The Liaison will possess extensive community and public relations experience, superior communication skills, familiarity with the neighborhoods in which the

Project is located, a knowledge of the operation of Community Boards and role of elected officials in the review of the Project.

3.04 Public Design Commission (PDC)

This project needs to be submitted to PDC for approval.

Introduction: As per Chapter 37, Section 854 (b) of the Charter of the City Of New York, all bridges, viaducts and their approaches will be subject to review and approval by the NYC Public Design Commission.

Task: Public Design Commission Review

At Project initiation, the design team will meet with DOT Urban Design (UD) to establish a Project schedule with regard to PDC review. The Consultants will be required to meet with UD as necessary to provide the deliverables outlined below. UD will advise the Consultant throughout the design process so determinations can be made regarding the need and/or level of PDC review. Generally, the design team will meet with UD at the following stages:

- Completion of the Design Approval Document (DAD)
- 30% design completion
- 60% design completion
- 90% design completion

Given the scope and complexity of the Project, the Consultants should be prepared to submit the Project for conceptual review by the Commission early in the design process when drawings are at the pre-schematic level; preliminary review and approval by the PDC would occur at the end of 30% design completion. If significant changes are made in design development subsequent to preliminary approval, the Project must be submitted for committee review prior to proceeding to final drawings. Final review and approval is based on the submission of construction drawings.

The submission guidelines and requirements for each level of review can be found on the Design Commission's website (http://www1.nyc.gov/site/designcommission/review/design-guidelines/design-guidelines.page). The Consultant will be responsible for preparing the submission package. Each level of review will require its own submission package as directed by UD.

UD will review drafts of all submission materials and provide comments as appropriate; a meeting between UD and the Consultants may be necessary. All draft material will need to be prepared a minimum of three (3) weeks in advance of an anticipated PDC submission deadline (http://www1.nyc.gov/site/designcommission/calendar/calendar.page).

All draft deliverables should be provided in electronic form. The Consultants will be responsible for the printing and delivery of all final submission materials once approved by UD.

Once the Project is submitted, UD will coordinate all comments provided by PDC in advance of the official hearing. The Consultants will be responsible for making any changes necessary to advance the Project for approval.

The Consultants will be responsible for presenting the design at the Public Design Commission hearing in coordination with UD. A minimum of one dry-run meeting should be anticipated for each level of review prior to the official hearing.

Consultant must comply with the current guidelines of the Public Design Commission.

3.05 Project Specific Utilities

Listed below are anticipated utility involvement as shown on records:

Anticipated Utility Impacts			
Owner	**Facility**	**Location**	**Impact**
NYCDEP	-	-	-
NYSDOT	Drainage Pipe	From overhead VWE	Maintain or replace
Con-Ed	Electrical conduits	Parallel to bridge on both fascia girders	Maintain or replace
National Grid	-	-	-
ECS	-	-	-
NYCDOT	Lighting	Within Project limits near bridge approaches	Maintain or replace
NYCDPR	Lighting	Within Project limits near bridge approaches	Maintain or replace
Other	Manhole	west approach	Maintain or replace

3.06 Aesthetics

Bridge Aesthetics will be part of design of the bridge and be subjected to Public Design Commission review and approval. The proposed Project rehabilitation or replacement of bridges includes, but not limited to the following:

The Consultant shall consider various architectural aspects of the Project regarding surroundings, overall aesthetics, appropriate detailing for good appearance and functionality, selection of materials, means and methods, composition, proportion, harmony, size, color, texture, pattern, ornamentation, surface treatment and all related architectural considerations including other bridges in the area for maximizing appearance, visual integrity and impact, functional needs and minimum maintenance. The Consultant will retain a New York State Registered Architect experienced in bridge aesthetics to design and implement all applicable architectural aspects. The Consultant recommendations related to aesthetics will be included in the DAD.

Section 4 – Preliminary Design

4.01 Design Survey

Provide complete survey of area within survey limits shown in the Project Bridge Data Sheet.

United States Customary Units of Measurements will be used, and it will be indicated on the topographical survey plan.

Provide complete lists of symbols, line styles, legends, layers and feature/code names to be used in the topographical plan and surface model drawings prior to performing field survey, for NYCDOT approval. Any changes or additions to these lists will also require NYCDOT approval.

Descriptions of all abbreviations used will be given.

Consultant has the option of using field survey, photogrammetry or a combination of both. Note that obtaining certain features will require field survey.

The design software used by NYCDOT does not recognize true vertical walls or features containing true vertical faces. The data measured at the top and bottom of features such as bridge abutments, retaining walls, curbs, etc. will be offset no less than 0.10 feet from each other to correctly build the model.

Surfaces that define overhangs, bridge decks, etc. will be collected in separate surface module drawings.

The Consultant will thoroughly review all survey information obtained from the surveyor, prior to submitting to NYCDOT for review and approval.

The Consultant should note that if discrepancies are found at any time during the design phase, after the final stamped and sealed submissions are made, they must be corrected by the Consultant and/or its surveyor at no additional cost to the City.

A. Topographical Survey

1. Visit the Borough's Topographical Bureau
   - Obtain and provide Monument information
   - Obtain and provide Bench Mark information
   - Obtain and provide Legal Grade information
   - Obtain and provide information about existing property lines, Right of Way (ROW), Block number and Lot numbers.

2. Obtain and provide property owner's name and address for each and every parcel.

3. For each of the above information, add a statement to indicate where it was obtained.

4. Locate monuments and benchmarks in the field, and provide descriptions and locations.

5. All horizontal control traverses will begin and end on monuments.

6. Set up survey baselines to the extent of the survey limits.

   - Provide baseline information.
   - All elevations, including benchmarks, will be based on the North American Vertical Datum of 1988 (NAVD88).
   - All baselines will be coordinated with the North American Datum of 1983 (NAD83).

7. Establish station line and provide all information on how the stations were established.

8. Horizontal and vertical datum must be tied to the monuments and/or bench marks obtained from the Borough's Topographical Bureau.

9. Take survey shots at bottom of embankment, shoulder break line, top and bottom of wall, top and bottom of curb, edge of roadway pavement, roadway centerline. These shots will be taken at 30-foot maximum interval along station line, within the survey limits. Take additional survey shots at all irregularities if they exist within the survey limits, and at all entrances.

   - Provide point number, N, E, vertical elevation and description of each survey point.

10. Take survey shots of each physical feature (manhole, catch basin, valves, etc.) within the survey limits.

11. Show ROW lines for the structure and Block and Lot limits on the topographical plan. Tie all ROW, Block and Lot limits to the survey baseline and station line.

12. Locate the extreme limits of the existing bridge and tie the controlling features of the existing bridge to the survey baseline.

13. Indicate type of pavement for travel lanes, shoulders and sidewalks on the topographical plan.

14. Create topographical plan of the survey area. Note that it is NYCDOT's preference to have the plan oriented in such a way as to have the centerline of the structure shown horizontally on the drawing.

15. Show vertical clearances of the bridge structure. Vertical clearances will be obtained along the span length of the bridge. At a minimum, vertical clearances will be obtained at each fascia of the bridge.

B. Drainage Survey

- Perform survey of the entire existing drainage system within the survey limits.
- Provide all pertinent information, including locations of all drainage structures (manholes, catch basins, pipes, etc.).
- Provide size, material and inverts of all pipes.

- Show inverts elevations for all inlets and outlets. Remove hoods as required to obtain elevations, and replace.
- For each catch basin, state whether it is with steel curb or not.
- If any drainage structure within the survey limits is connected to another drainage structure which is outside the survey limits, then all information for the latter will also be obtained.

Notes regarding drainage survey:

- The drainage information will be placed in a separate layer on the topographical plan.
- Every effort must be made to obtain all pertinent information at each drainage structure.
- Any field investigation of drainage structures as directed by NYCDOT will be performed.

C. Utility Survey

All existing utilities on the bridge and approaches, including lamppost, traffic signal, electrical and telephone boxes, manholes, catch basins and conduits will be surveyed. The consultant shall conduct a Quality Level C utility survey at a minimum per ASCE 38-02, that provides information to NYCDOT to determine whether utilities are within, near, or crossing the project area. Where any utility from the Class D or Class C utility survey is identified as potentially impacting a major design discipline listed in this Contract, then an additional utility survey of a higher order and cost (Class A or B) will be required.

Notes regarding utility survey:

- The information will be placed in a separate layer for each utility on the topographical plan.
- The information will include locations of all public and private utilities.

D. Tree Survey

If there are trees existing within the project limits, the Consultant shall perform tree survey of every tree which is 2" or greater in diameter within the survey limits. The Consultant shall follow the requirements and regulations of the NYCDPR and coordinate this work with them. Please see the following link:
https://www.nycgovparks.org/services/forestry/consulting-arborists

- Tag each tree.
  Note regarding tags:
  - The Consultant will provide information on the preferred tags to NYCDOT for prior approval.
  - Provide coordinates of each tree
  - Provide diameter of each tree

Notes regarding tree survey (shall follow latest NYC DPR required inventory format):

- Show tree location in a separate layer on the topographical plan.
- Provide Excel Spreadsheet containing tree information.

E. Sign survey

A field survey of all existing signs within the survey limits will be made. Provide all pertinent information and a photograph of each sign.

Notes regarding sign survey:

- Show sign locations on the topographical plan.
- Provide a binder with all labeled sign photos.

4.02 Soil Investigation Program / Geotechnical Foundation Report

A geotechnical subsurface investigation should be performed. The geotechnical subsurface investigation should include borings, laboratory soil testing, and seismic testing. Based on the findings of the subsurface investigation, the geotechnical engineer should prepare a Geotechnical Report that should include at a minimum the following information:

- Description of structures.
- Boring logs with unified soil classifications, soil profile(s), laboratory and field test results, and ground water information.
- Soil Class according to latest NYCDOT Seismic Design Guidelines for Bridges in Downstate Region.
- Analysis and interpretation of subsurface data.
- Static and dynamic geotechnical parameters required for foundation design.
- Foundation stiffness matrices and point of fixity.
- Determine need for liquefaction potential of subsurface soil provide remedial measures and cost estimates, if required. For example, for Soil Class F, Site Specific analysis will be performed.
- Slope stability and lateral spread under static and dynamic load.
- Field tests and instrumentation required during and after construction.
- Discussion of soil-structure interaction and adequacy of existing foundation under static and dynamic load.
- Foundation recommendations for all proposed reconstruction or replacement schemes or new structure.
- Discussion of anticipated construction problems, proposed remedial action and solutions

Foundation Design Requirements

The Consultant should document all foundation deficiencies along with recommendations. The bridge will be inspected for foundation deficiencies, for example: settlement, tilting, and so on. If no deficiencies are found, a statement to that effect will be made. Conversely, if deficiencies are found, plans and alternatives to repair these deficiencies during the reconstruction shall be provided.

4.03 Statement of Hazardous Materials

If hazardous materials (asbestos, lead paint, contaminated soil, etc.) exist on City R.O.W., it is critical to identify them in the design phase. Hazardous materials regulated under federal and state laws include substances that are discarded and / or polluted in air, water and soil, and pose a potential hazard to public health.

A review of as-built (or existing) plans should be conducted to obtain information on asbestos (or other hazardous) contaminated materials. Particular attention should be directed to the composition of any conduits, any structure that has a heating system, roof, siding or modification of lighting control cabinets, and any abutment back-wall / approach slab work. In addition, utility plates should be reviewed for additional conduits installed not appearing on the as built plans.

The Consultant will provide a complete statement showing that all hazardous materials were accounted for, both in the field and on the as-built drawings and on utility plates, and indicated what the findings were. If any was identified, the Consultant will indicate the requirements for their protection from disturbance or the requirements for their removal. The Consultant will indicate (and quantify) whether or not the hazardous materials pose a public health risk, in their present state as well as during construction.

The Consultant will include but not limited to the following hazardous materials scope of work into the Contract. A Phase I Environmental Site Assessment must be performed during preliminary design phase.

A. Lead Paint and Coatings

All bridge structures that will be impacted by rehabilitation, reconstruction or demolition must be inspected for the presence of coatings. These coatings may contain lead, in addition to other metals such as chromium, arsenic, cadmium, silver, selenium and barium.

A representative number of coating samples must be collected from all types of surfaces. These surfaces include, but are not limited to, steel members, roadway gratings, and handrails, steel encased in concrete, concrete surfaces and other systems.

A sufficient number of samples must be collected to accurately determine if the presence of lead or other metals is present throughout the coatings on the structure.

All samples must be collected and tested in accordance with standards established by federal, state or local agencies. A licensed and accredited laboratory must analyze samples. Sample results must be reported in a percentage by weight basis or weight by area basis.

Quantities estimate for lead paint or other coatings must be provided to NYCDOT.

B. Soil Contamination

All bridge structures that will require excavation of soils (i.e. replacement of abutments) must undergo investigation to determine if contaminated soil is present.

A Phase I Environmental Site Assessment must be performed during the preparation of DAD in order to determine if potential soil contamination is present within the areas affected by the Project. The investigation is performed with respect to contaminants identified within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and for petroleum products. A Phase I consists of a historical and regulatory review of the Project site and surrounding properties to determine if records indicate the potential presence of contamination. A visual inspection of the site and observation of surrounding properties is also performed. The Phase I assessment must be performed in accordance with ASTM guideline E1527-00.

The findings of the Phase I assessment will determine the applicability of performing a Phase II investigation during the preparation of the final DAD. The Phase II investigation consists of the collection and analysis of soil and groundwater samples from the Project site. These soil and groundwater samples will be collected based on a sampling strategy developed for the Project site. Soil and ground water samples may be collected utilizing various methodologies, including but not limited to, hollow stem augers, hydraulic push samplers and hand augers. Prior to sampling of soil and groundwater all utilities must be marked out at the site and the sampling adjusted to account for the presence of utilities and other subsurface obstructions. All drill cuttings are other waste generated at the site must be placed in Type 1A steel 55-gallon drums and stored on-site until disposed of in accordance with applicable regulations. If required, monitoring wells must be installed to determine if groundwater is contaminated. These monitoring wells must be installed and developed in accordance with standard practice such as ASTM guidelines.

A New York State licensed and accredited laboratory will perform all sample analysis. This laboratory must be capable of performing the required analysis depending on the contamination expected to be present at the site. A report detailing the sampling activities, boring logs, subsurface lithology, sample analysis results and presence of contamination must be prepared and submitted to NYCDOT.

C. Underground Storage Tanks

Depending on the scope of the bridge Project, underground storage tanks (UST) containing petroleum products or other material may be present on site. The results of the Phase I site assessment will identify potential location of UST's and whether the UST will be impacted by the proposed Project.

If a UST is present the UST should undergo pressure testing to determine the integrity of the system. A UST that fails an integrity test may have leaked petroleum products or other contents into the soil or groundwater at the site.

A Phase II investigation must be performed to determine the extent of contamination from the leaking UST. Soil and ground water samples may be collected utilizing various methodologies, including but not limited to, hollow stem augers, hydraulic push samplers and hand augers. Prior to sampling of soil and groundwater all utilities must be marked out at the site and the

sampling adjusted to account for the presence of utilities and other subsurface obstructions. All drill cuttings are other waste generated at the site must be placed in Type 1A steel 55-gallon drums and stored on-site until disposed off in accordance with applicable regulations. If required, monitoring wells may be installed to determine if groundwater is contaminated. These monitoring wells must be installed and developed in accordance with standard practice such as ASTM guidelines.

A New York State licensed and accredited laboratory will perform all sample analysis. This laboratory must be capable of performing the required analysis depending on the contamination expected to be present at the site. A report detailing the sampling activities, boring logs, groundwater levels, subsurface lithology, sample analysis results and presence of contamination must be prepared and submitted to NYCDOT.

D. Asbestos-Containing Materials

Asbestos-containing materials may be present in various types of materials, and used for various functions. These include, but are not limited to, caulking, window glazing, electrical insulation, electrical panels, roofing materials, tar, floor tiles, pipe insulation, cement products and paint.

All suspect asbestos-containing materials must be collected by a NYSDOL certified asbestos investigator and NYCDEP licensed asbestos investigator. A licensed and accredited laboratory must analyze all samples. Copies of all licenses and certifications must be provided to NYCDOT.

All suspect asbestos-containing materials must be sampled in sufficient quantities as required by the EPA, NYS and NYC regulations. Samples must be analyzed by Polarized Light Microscopy with Dispersion Staining (PLM/DS). All samples found to contain less than 10% asbestos must be point-counted. Non-organically bound materials must be analyzed by Transmission Electron Microscopy (TEM).

Quantities of all asbestos-containing materials must be provided to NYCDOT upon completion of the survey and analysis of samples.

E. Polychlorinated Biphenyls (PCBs), Xylenes, and Universal Waste

The Consultant will include but not limited to the following hazardous materials scope of work into the Contract. All bridge structures that will be impacted by rehabilitation, reconstruction, or demolition must be inspected for the presence of Polychlorinated Biphenyls (PCBs) and Xylenes within existing coatings, as these substances may be present in addition to lead and other metals.

Investigation must also extend to non-coating materials where PCBs may be present, including but not limited to caulking, window glazing, sealants, electrical insulation, and tar.

Furthermore, the Consultant must inspect all electrical equipment, specifically transformers and capacitors, for the presence of PCBs. A representative number of samples must be collected from all suspect surfaces and materials and analyzed by a New York State licensed and accredited laboratory.

Because PCB remediation is regulated by the US EPA, the Consultant must prepare and submit remedial action plans for approval by the US EPA if these materials are identified.

The Consultant must also perform a comprehensive investigation to identify and quantify Universal Waste that may be disturbed by the Project. This investigation includes, but is not limited to, mercury-containing switches, fluorescent and high-intensity discharge lamps, and batteries. A complete statement showing that all Universal Waste items were accounted for must be provided to NYCDOT, including specific requirements for their protection from disturbance or the requirements for their removal and disposal in accordance with applicable federal, state, and local regulations.

All sampling for PCBs, Xylenes, and Universal Waste must be conducted in sufficient quantities to accurately determine the presence of contaminants throughout the structure. Quantity estimates for all identified materials must be provided to NYCDOT upon completion of the survey and analysis of samples. The Consultant will indicate and quantify whether or not these hazardous materials pose a public health risk, in their present state as well as during construction, and provide a report detailing the sampling activities and analysis results to NYCDOT.

4.04 In-Depth Field Inspection

The Consultant will perform In-depth field inspection of each bridge to determine its condition, to establish the necessary rehabilitation work, and to prepare a Level 1 load rating.

The Consultant will perform and document the findings of an in-depth inspection of each bridge in accordance with the current AASHTO “Manual for Bridge Evaluation."

A. Flagged Conditions

If, during the course of the inspection, any unsafe and/ or flagged condition is found, which in the opinion of the Consultant, requires action (repairs, shoring, etc.), the NYCDOT Director of Flags and NYCDOT Project Manager will be immediately informed by written notification. For flagged conditions, the Consultant will define the condition as per the latest NYSDOT flagging procedures. Written notification will include drawings showing the location of the conditions and the recommended repair and / or shoring details and load ratings of the affected component(s).

B. Deck Evaluation

The Consultant will perform a bridge deck evaluation in accordance with the NYSDOT *Bridge Deck Evaluation Manual*.

C. Load Rating/Posting Analysis

The Consultant will perform a Level 1 load rating of the existing bridge in accordance with NYSDOT EI 20-026. If the analysis results indicate that the bridge needs to be posted, the Consultant will immediately notify NYCDOT Division of Bridges in writing.

For existing as-inspected conditions, LFR and LRFR ratings shall be shown at the Inventory and Operating levels as rating factors. Currently, NYSDOT overload permitting and bridge posting policies require that new and replacement bridges be load rated using the Load Factor Design (LFD) or Allowable Stress Design (ASD) methods. For this reason, load ratings will continue to be computed by the LFD or ASD method and shown on the contract plans. LFD and ASD ratings shall be shown at the Inventory and Operating levels as rating factors of the AASHTO HS live load. Also, load rating factors for all new, replacement, and rehabilitated bridges will be computed by the Load and Resistance Factor Rating (LRFR) method and shown on the contract plans. LRFR ratings shall be shown at the Inventory and Operating levels as rating factors of the AASHTO HL-93 live load.

Immediately upon completion of the in-depth inspection, the Consultant will transmit one electronic Adobe Acrobat file (*.pdf) copy of the Level 1 load rating package to NYCDOT for filing. The Consultant will also submit one electronic copy of the input files of any proprietary software applications used to generate the structural analysis along with a summary sheet listing the file name, software program and version of the program used to produce the file.

D. Fatigue Evaluation

1. The Consultant will analyze the structure for fatigue using provisions from the following AASHTO documents: (1) *Guide Specifications for Fatigue Evaluation of Existing Steel Bridges,* (2) *Guide Manual for Condition Evaluation and Load Resistance Factor Rating (LRFR) of Highway Bridges*, (3) *LRFD Bridge Design Specifications*, and (4) *Standard Specifications for Highway Bridges.*

   Where the provisions in those documents do not apply (e. g., severe corrosion, mechanical damage, repaired fatigue damage, wrought iron instead of steel, etc.), the Consultant will develop an appropriate approach for comprehensive fatigue evaluation in coordination with NYCDOT for guidance and input. The Consultant will then conduct the evaluation accordingly.

   - For situations where the calculated remaining fatigue life is less than the planned remaining service life of the bridge, the Consultant will develop various conceptual strategies to improve fatigue performance and/or safely manage the risk.

   - The Consultant will prepare and submit to NYCDOT a technical memorandum documenting the relative advantages, disadvantages, and approximate costs of each strategy along with specific recommendations.

   NYCDOT will determine the strategy to be adopted.

2. For situations where the calculated remaining fatigue life is equal to or greater than the planned remaining service life of the bridge, the Consultant will prepare and submit to NYCDOT a technical memorandum documenting the results of the fatigue evaluation.

E. Bridge Site Data - Bridge Data Sheets

The Consultant will prepare and submit to NYCDOT a copy of the Bridge Data Sheets as shown in and applicable to *Appendices 3A and 3B of the Bridge Manual*.

The Consultant will prepare and submit site data for the bridge, consisting of completed NYSDOT Bridge Data Sheets as shown in and applicable to *Appendices 3A and 3B of the Bridge Manual* and accompanying material described in them. The plans will show (on the appropriate scale drawing) all features described on the Bridge Data Sheets, including but not limited to the following:

- Extreme limits of the existing bridge
- Related cuts and fills
- Baselines
- Existing and proposed center lines of features carried and crossed
- Stationing equalities at intersections
- Existing and proposed alignment information, including curve data
- Dimensions tying horizontal and vertical control between existing and proposed alignments

F. Seismic Assessment

The Consultant will evaluate / analyze the bridges in compliance with Seismic Design Criteria Guidelines and Standards of New York City Department of Transportation (NYCDOT), New York State Department of Transportation (NYSDOT), American Association of State Highway Transportation Officials (AASHTO). **Based on the Seismic Operational Category of bridges, seismic vulnerability assessment will be performed for the existing bridge and all feasible alternative(s) used for rehabilitation/replacement of bridges and will be used to develop preliminary plans.** The seismic assessment will be based on the parameters contained in the geotechnical report and the Consultant will not perform any analysis with assumed geotechnical data unless authorized by NYCDOT. Seismic hazards (spectra and ground motions) for both design and retrofit shall be based on the current NYSDOT LRFD Bridge Design Specifications (2026 Blue Pages) and applicable AASHTO seismic provisions, including performance-based seismic design requirement where applicable.

In draft Design Approval Document (DAD), there should be a statement to the effect that the proposed alternative for rehabilitation/replacement can be designed to satisfy the applicable seismic performance requirements of the current NYSDOT LRFD Bridge Design Specifications and AASHTO seismic provisions.

4.05 Pavement Evaluation

The Consultant will prepare a Pavement Evaluation in accordance with EB 01-017 and the current NYSDOT *Pavement Rehabilitation Manual* (PRM), Volumes I (Pavement Evaluation) and II (Treatment Selection). Analyses will consider thickness design in accordance with the *New York State Comprehensive Pavement Design Manual*.

A. The Consultant will directly coordinate with local government offices where necessary to obtain road history data.

B. The Consultant will perform a field distress survey of pavement and shoulders.

C. The Consultant will perform full-depth pavement coring to verify existing conditions. If the Consultant will use a subcontractor to take the pavement cores, the Consultant will perform the required pavement coring through the use of a subcontractor under Subsection 1.14.

D. The Consultant will perform life cycle cost analyses of alternative treatments.

E. The Consultant will prepare a Condition Report summarizing the survey findings in the format specified in Volume I of the PRM.

F. The Consultant will prepare a Pavement Evaluation Report documenting the above data and activities and describing and comparing alternative pavement treatments. This report will follow the format shown in Part 4, Volume II of the PRM but will initially omit the "Recommendations" section.

G. The Consultant will transmit an initial draft along with the cores to NYCDOT for review.

NYCDOT will determine recommended pavement treatments as part of this review and will provide the Consultant with all comments including the recommended treatments within four weeks of receipt of the initial draft.

H. The Consultant will revise the report to incorporate review comments (assumed minor) and to add the recommended treatment(s) to the “Recommendations” section. The Consultant will include a summary in the DAD and retain it in the Project files.

Section 5 – Traffic/Operational Data Collection & Analysis

5.01 Determination of Existing Conditions

The Consultant will determine, obtain or provide all information needed to accurately describe in pertinent Project documents the existing conditions within and adjacent to the Project limits. This includes TMCs and ATRs. It also includes but is not limited to pedestrian counts, bike counts, bus blockage counts or observations, parking maneuver observations, speeds, and travel times or queue lengths (if necessary) following the CEQR Technical Manual and State Design Manual guidelines and requirements.

Speeds should be collected for off-peak periods to establish the design speeds of the project.

5.02 Crash Data and Analysis

The Consultant will obtain and review the most recent three-year crash data to identify safety problems, patterns and clusters involving vehicular, pedestrians and bicyclists. The analysis should identify the cause of crashes and recommend potential measures to address safety concerns. For the crash analysis, the Consultant will follow the guidance provided in the most recent version of the City Environmental Quality Review (CEQR) Technical Manual (TM) and the State Design Manual. The following steps must be considered in a crash analysis:

- Identify the study area and location of concerns;
- Determine if the study locations have been identified as part of the Mayor's Vision Zero priority area, priority corridor, or priority intersection, NYSDOT Priority Investigation Intersection (PII), Priority Investigation Location (PIL), High Crash Location (HCL) or Safety Deficient Location (SDL);
- Obtain the most recent three-year crash data including police crash reports, if warranted;
- Identify the number of vehicular, pedestrian and bicyclist crashes;
- Summarize crashes by type and severity for each year and three-year total;
- Prepare collision diagrams, if warranted, and associated summary sheets;
- Identify the causes/clusters, contributing factors, and severity of pedestrian/bicyclist and vehicular crashes, and note any clusters of crashes or patterns implying inadequate geometrics, operational or other safety problems, within the Project limits;
- Compare crash rates to statewide average rates for total crashes as well as by collision type, if warranted;
- Compare KSI (Killed or Seriously Injured) rates to citywide and borough KSI rates;
- Identify and determine the applicability of any safety improvement measures proposed as part of any prior studies for the study locations; and
- Identify, evaluate and recommend countermeasures.

5.03 Data Collection

Prior to beginning data collection, a more specific data collection scope with proposed locations, times, dates, and types of transportation data collection should be submitted to NYCDOT for review and approval.

The Consultant will collect applicable transportation data (traffic, transit, pedestrian, bicycle, etc.) on the bridge, adjacent intersections and all pedestrian elements (i.e., crosswalks, sidewalks, corners, staircase, walkways, etc.) leading to the bridge. The guidance provided in

the CEQR TM and NYSDOT Design Manual should be used to determine number of days and peak periods for data collection. The data (automatic traffic recorder [ATR] counts, turning movement counts [TMC], vehicle classification counts [VCC], pedestrian and bicycle counts, physical inventory up to 250 feet of the study intersections, travel time and delay runs, spot speed, field observations including queues and unmet demand, etc.) should be collected and summarized following the CEQR TM, NYSDOT Design Manual and NYCDOT TIMS guidelines and uploaded to TIMS database. When providing observations of unmet demand, the Consultant will describe the methodology used by the field collection staff on how each observation was quantified in the field. For traffic levels of service (LOS) analysis, conflicting pedestrians should be collected at each crosswalk. If the bridge is located near school, additional traffic and pedestrian counts should be collected for school start and dismissal hours.

The Consultant will provide Annual Average Daily Traffic (AADT), Design Hour Volume (DHV) and Directional Design Hour Volume (DDHV). The Consultant will provide traffic and pedestrian balanced flow maps for each of the analysis peak hours (e. g., weekday AM, midday, PM, Saturday midday; etc., as warranted) for existing and No-Build conditions. No-Build volumes should be provided for both ETC and Design year. Design year should be determined following the NYSDOT Design Manual and in consultation with NYCDOT.

For the Projection of ETC and Design year traffic, transit, pedestrian and bicycle, volumes, the Consultant will follow the guidance provided in the CEQR TM and NYSDOT Design Manual [i.e., any approved/planned developments (generators) that would generate and assign vehicular, transit, pedestrian and bicycle volumes to the bridge, adjacent intersections and at pedestrian elements (crosswalks, corners, sidewalks, staircase, walkways, etc.)]. In addition to the approved/planned developments, the recommended annual growth rate(s) cited in the CEQR TM will be used. The Consultant will contact city and state agencies (i.e., NYMTC, NYSDOT, NYCDOT, NYCDCP, MTA/NYCT, etc.) to identify future approved/planned developments/generations, public transit facilities, approved or planned geometric and operational improvements, etc. within the study area.

If the bridge reconstruction requires the closure of sidewalk, parking lane and/or a travel lane, the Consultant will collect all necessary transportation data (traffic, pedestrian, bicycle, transit, parking, etc.) needed to perform LOS analysis and to support Temporary Traffic Control/Maintenance and Protection of Traffic. Therefore, prior to developing the specific data collection scope, the Consultant should conduct a high-level feasibility analysis to identify potential closure of pedestrian elements and/or travel lanes as well as pedestrian and traffic diversions during construction and any propose detour routes. This analysis allows for the identification of additional potentially impacted locations, even outside of the project limits.

The Consultant will submit the detailed scope of work for transportation data collection and analysis for NYCDOT review and approval prior to commencing data collection.

5.04 Capacity Analysis

The Consultant will use appropriate analysis software (i.e., Synchro/SimTraffic, HCS, etc.) in consultation with NYCDOT and following the CEQR TM and NYSDOT Design Manual guidelines to perform traffic LOS analysis. In addition, the Consultant will use NYCDOT pedestrian analysis worksheet following the CEQR TM guidelines to perform LOS analysis for

pedestrian elements (crosswalks, corners, sidewalks, stairways, walkways, etc.). The Consultant will contact NYCDOT to verify the traffic analysis software/version and the most updated version of the pedestrian analysis worksheet to be used. For stairways, the MTA/NYCT guidelines provided in the CEQR TM will be followed. Bridge segments, adjacent intersections and pedestrian elements within the Project limits will be analyzed to determine:

- LOS for Existing conditions for each of the analysis peak hours;
- LOS for No Build conditions for each of the analysis peak hours for both ETC (Estimated Time To Complete) & Design Year; and
- LOS for Build conditions for ETC and Design Year to be determined following the NYSDOT Design Manual and in consultation with NYCDOT for each of the analysis peak hours including any improvement measures needed to maintain the Design LOS.

The traffic analysis for existing conditions will be calibrated following NYCDOT calibration guidelines and using the queue and speed information obtained as part of the data collection effort. The calibration procedures used, including specific calibrations applied, will be detailed in a calibration memo accompanying the submission of the existing conditions analysis.

The Consultant should verify type and duration of data collection including the travel time and delay runs with NYCDEP if Air Quality and Noise analyses are warranted. In addition, all data collection and analysis should comply with, NYCDOT, NYSDOT and FHWA requirements.

The Consultant will summarize and provide average travel speed and delay estimates for the analysis peak hours as well as 85^{th} percentile speed based on spot speed data collected during off peak hours.

The consultant will prepare a design speed selection memorandum which should include written justification, supporting calculations, and data, to be reviewed and approved by NYCDOT and NYSDOT.

The Consultant, in consultation with NYCDOT's Office of SIP (Bike Group), will provide bicycle access to the existing bridges (and approaches) in compliance with NYCDOT and NYSDOT requirements.

The Consultant should use the most recent version of NYC Bike Map and verify with NYCDOT's Office of Street Improvement Projects to determine if the Project is located along a designated bicycle route.

The Consultant will present the findings and conclusions and provide specific recommendations to improve both present and future LOS. This may include bridge widening, use of HOV lanes, use of Intelligent Transportation Systems (ITS), traffic controls, and upgrade of any substandard geometric features or any other measures deemed necessary to improve safety and mobility of all street users.

5.05 Future Plans for Roadway and Coordination with Other Projects

The Consultant will coordinate with the following and all applicable agencies to obtain information regarding other proposed developments and roadway improvements in the vicinity of the Project: NYSDOT (Regional Director); NYCDOT Division of Transportation

Planning and Management, NYCDOT Division of Traffic Operation; NYCDOT Division of Bridges; NYCDOT Office of Land Use, Community Boards, Office of the Queens Borough President, NYCDOT Queens Borough Commissioner, NYC Department of City Planning, NYC Department of Environmental Protection, NYC Department of Design and Construction, NYCDOT Arterial Maintenance, NYCDOT Community Affairs, Surface Transit Operations, Bus Service Companies, Private Utilities, NYC Department of Parks and Recreation, MNRR, MTA, etc., if their property is nearby.

The planning statement to NYSDOT should request information on all current and proposed State bridge and highway Projects within the vicinity of the subject Project limits; construction year of the Project; current design phase of the Project; and approximate Project limits; including any State Projects which have Work Zone Traffic Control plans that involve the subject City Project delineated.

Statements from all utility companies and affected railroads, private and / or public, shall also be obtained with the nature and extent of their participation in the Project.

The Consultant will be responsible for determining which agencies and companies to be requested for the planning statements.

Section 6 – Environmental

6.01 CEQR Classification

This project is likely a CEQR Type II action under 6 NYCRR 617.5(c)(2) as the project consists of replacement, rehabilitation or reconstruction of a structure or facility, in kind, on the same site, including upgrading buildings to meet building, energy, or fire codes unless such action meets or exceeds any of the thresholds in section 617.4. The Consultant shall prepare any and all documentation to support this determination in the design report. If the bridge is closed for more than 180 days then the consultant shall provide the necessary documents and analyses to satisfy Local Law 24, including arranging any necessary public outreach meetings.

6.02 NEPA Classification

Not Applicable/Not Included in the Project.

6.03 Permits and Approvals

The Consultant will –identify all applicable permit(s), any required mitigation, and certification(s), including but not necessarily limited to:

- Article 24 Freshwater Wetlands Permit
- Article 25 Tidal Wetlands Permit
- FHWA Executive Order 11990 Wetlands Finding
- U.S. Coast Guard Section 9 Permit
- U.S. Army Corps of Engineers Section 10 Permit (Individual or Nationwide)
- U.S. Army Corps of Engineers Section 404 Permit (Individual or Nationwide)
- NYSDEC Section 401 Water Quality Certification
- NYSDEC State Pollution Discharge Elimination System (SPDES) Permit
- NYSDEC Article 15 Protection of Waters Permit
- Safe Drinking Water Act Section 1424(e)
- Migratory Bird Treaty Act
- Coastal Zone Consistency
- Scenic, Wild and Recreational Rivers

(For a complete list of federal and State environmental requirements, see PDM, Appendix 1.)

Inclusion of federal or state permits may trigger further review under state or federal regulations for which the consultant will be responsible for developing the appropriate documentation in coordination with NYC DOT.

This project is located over and around a wetland, NYS is in process of overhauling the wetland inventory. The consultant shall check whether there are any additional freshwater wetlands in the nearby green areas. Green areas may be considered parkland or under Parks jurisdiction, section 4(f) may be considered if federally funded for construction. In addition, forestry permit, and construction permit from NYCDPR will be required.

The consultant will confirm if eligible for listing on register of historic places.

The consultant will investigate if endangered species are appliable to this site.

6.04 Public Hearing

Not Applicable.

Section 7 – Establish ROW

7.01 The Consultant will perform, but not limited to, the following tasks when required:

- Collect, research, and review of all pertinent data.
- Obtain supplemental survey data, as required.
- Perform property ownership research for privately/publicly owned parcels within and adjacent to project and construction limits.
- Preparation of Right of Way (R.O.W.) Plan.
- The Consultant will obtain and review documents such as Final Section Maps, Land Use Maps, Tax Maps, Street Status Reports, Sanborn Maps, Deeds, existing Alteration Maps, property descriptions, records of survey monuments, etc., from the respective Borough President' Office and/or Department of Finance, etc.
- See Tax Map below.



NYC ACRIS Map

7.02 Preparation of Right of Way (R.O.W.) Plan

The ROW Plan will be amended to incorporate all Preliminary/Final Design Plan modifications. The Consultant will perform, but not limited to, the following tasks:

- Prepare the Right-of-Way Plan(s) in accordance with the "Local Projects Manual (LPM)", if necessary.
- Clearly delineate Project limits.

- Clearly delineate legally adopted street lines (as documented on final section and/or the latest alteration maps).
- Show correct location of the existing property lines and highway boundaries positioned accurately to a degree in keeping with the map scale.
- Identify existing topography, property lines, monuments, and baselines shall be tied to the bridge elements. In addition, distance(s) from centerline of existing (and proposed) bridge to property lines. All survey base lines shall be presented with their respective bearings.
- Provide Section, Block and Lot Numbers of each and every parcel that is contiguous to, and/or contained within, the Project Limits. The information is found in the respective Borough President's office (on the latest "Layout Map"). The total acreage for each individual parcel.
- Identify property owners' names. The current owner of each parcel must be identified, by research in the New York City Department of Real Estate (Tax Office).
- Delineate occupancy of each parcel, which is contiguous to the Project, must be identified by field research, regardless of whether the occupant is the owner or not.
- Identify abutting Park Lands
- Identify existing easements and rights of way must be clearly depicted.
- Identify all means of access to the property shall be shown.
- Identify temporary easements required for reconstruction (clearly depict with all dimensions; indicate total acreage).
- Identify "record", and "adopted" line information on drawing.

Right-of-Way Cost Estimates

The Consultant will provide cost estimates for the right-of-way to be acquired by NYCDOT on all alternatives being considered and will provide updated estimates, as necessary.

The Consultant will be prepared to discuss Project, access, relocation, environmental, and land use related issues.

Section 8 – Design Development

Design refines proposed design alternates from concepts, identifies feasible alternatives compares them, through the Design Approval process and selects the most appropriate alternate to be advanced to Final Design. This phase culminates in the issuance of a Design Approval Document for the chosen alternate, and the Consultant will develop 30% design drawings for the selected preferred alternate scheme at the end of Preliminary Design Phae.

8.01 Design Criteria

The Consultant will evaluate the existing conditions and standard criteria from available data and will establish and provide the applicable design criteria specified in the LPM for development of alternatives based on facility type, functional class and where applicable federal system.

The Consultant will identify all existing non-standard features as specified in the LPM that are within and immediately adjacent to the project limits.

The Consultant will identify all specific non-standard features that correlate with high crash rate.

8.02 Work Zone Traffic Control (WZTC)

Provide WZTC scheme for all concepts being presented, alternatives moving forward into DAD and the selected plan for the rehabilitation or replacement consistent with Manual on Uniform Traffic Control Devices (MUTCD). Special consideration will be given to the WZTC and construction staging to minimize pedestrian traffic disruption in the area. There are alternative detours for pedestrians & vehicles to enter/ travel through the park traveling east or west on Meridian Road on either side of the bridge from College Point Rd or Meadow Lake Rd W. WZTC stipulations and approval will be obtained from OCMC and NYCDPR. Multiple meetings with OCMC and NYCDPR in PD & FD Phases may be necessary in order to obtain an approved WZTC and a detailed pedestrian traffic study may be needed. The consultant shall provide basic WZTC phasing plans for all concept and alternatives developments. Any subsequent mitigation measures need to be coordinated with other units for review and approval.

8.03 Development of Alternatives

A. Selection of Design Alternative(s)

Both the rehabilitation and replacement concepts need to be studied further as the design process in order to determine a preferred alternative for further design development. The consultant shall study the subject bridge and surrounding area to determine the extent of deterioration and determine rehabilitation or replacement options. The consultant is responsible for providing different concept designs and alternatives based on local environmental quality review processes.

The Consultant will identify and make rudimentary evaluations of potential design alternative concepts that would meet the NYCDOT's defined project objectives/needs, and based on the findings from inspections and other available data. At a minimum a rehabilitation concept that

meets 40 year service life extension, 2-3 partial replacement and 2-3 complete replacement options with 75 year service life shall be prepared. In consultation with NYCDOT, these evaluations to be carried beyond the point of establishing the feasibility of each concept that moves forward as a design alternatives (short list); significant environmental and geometric design constraints that bear on the feasibility should be identified.

The Consultant may consider rehabilitation alternatives only for the spans under other ownership properties.

For each short listed alternatives, the Consultant will prepare rudimentary sketches of plan, profile, and typical section views which show the following but not limited to;

- **On plan:** proposed centerlines; pavement edges; curve radii and termini; and existing ROW limits.
- **On profile:** theoretical grade lines; critical clearances; vertical curve data; grades; and touchdown points.
- **On typical section:** lane, median, and shoulder widths; ditches; gutters; curbs; and side slopes; deck, girders, columns, cap beams, existing ROW limits, etc.
- **Where necessary:** important existing features including utilities.
- **Where pertaining to feasibility:** significant environmental, and geometric design constraints, construction staging requirements labeled/identified as such.

Important existing features should be depicted on these sketches. Also, pertaining to feasibility, significant environmental and geometric design constraints should be labeled as such on these sketches. These sketches will include as much information as needed to select design alternatives to be studied in further detail.

The Consultant will meet with NYCDOT to discuss the concepts, using the sketches as discussion aids to describe the relative order-of-magnitude costs, advantages, disadvantages, life-cycle cost, construction duration, stages, environmental impact/project classification, and problem areas of each. After further evaluation on the alternatives on the short list, the consultant shall recommend a preferred selected alternative. NYCDOT will select the preferred alternative that will be carried to the Final Design phase.

B. Detailed Evaluations of Selected Preferred Alternative(s)

The Consultant will further evaluate each selected design alternative with specific engineering analyses and considerations. Analyses will be conceptual and limited to determining the relative suitability of each selected design alternative, and will include:

- Design geometry, including the identification and comparison of alignment constraints and where applicable justification for retaining non-standard design features, per the "Local Projects Manual."
- Environmental constraints and potential environmental impact mitigation measures (identified under Section 3 tasks).
- Traffic flow and safety considerations, including signs, signals, and level of service analysis for intersections.
- Pavement.
- Structures, including bridges, retaining walls, major culverts, and building alterations

(limited to establishing basic concepts, accommodating clearances and stream flow, and estimating costs). Bridge investigative work (inspection, deck coring, etc.) is covered under Section 2.
- Drainage.
- Maintenance responsibility.
- Work Zone Traffic Control during construction.
- Soil and foundation considerations.
- Utilities.
- Railroads (if applicable).
- Right-of-way acquisition requirements.
- Conceptual landscaping (performed by a Registered Landscape Architect).
- Accessibility for pedestrians, bicyclists and the disabled.
- Lighting.
- Construction cost factors.

The Consultant will prepare the roadway and bridge drawings for each design alternative analyzed as follows:

- Showing plans (as a minimum) stationed centerlines; roadway geometrics; major drainage features; construction limits; cut and fill limits; and proposed right-of-way acquisition lines.
- Profiles vertical, showing (as a minimum) the vertical datum reference; significant elevations; existing ground line; theoretical grade line; grades; vertical curve data including sight distances; critical clearances at structures; centerline stations and equalities; construction limits; and super elevation data.
- Typical sections showing (as a minimum) lane, median, and shoulder widths; ditches; gutters; curbs; deck; girders; railings; canopy; and side slopes; proposed right-of-way acquisitions.
- Bridge existing and proposed plans, elevations, and sections.
- Work Zone Traffic Control plans.
- Other related drawings.

8.04 Cost Estimate

The Consultant will develop, provide, and maintain the construction cost estimate for the project. The Consultant will update the estimate periodically and as necessary to incorporate significant design changes and will develop and provide the preliminary construction cost estimate including quantity computations and rationale for unit prices being used. The cost estimate is expected to incorporate project specific risks, anticipated productivity and other working conditions related impact to the NYSDOT Pay Item Catalog unit prices https://www.dot.ny.gov/pic. The Consultant will develop and provide the construction cost estimate for each design alternative. The Consultant will update the estimate periodically and as necessary to incorporate significant design changes.

8.05 Preparation of Draft Design Approval Document (DAD)

For this project, the DAD will be a Design Report/Environmental Assessment.

The Consultant will prepare a draft DAD, which will include the results of the analyses and/or studies performed in other sections of this document. The DAD will be formatted as specified in the NYSDOT Project Development Manual (PDM).

NYCDOT and/or NYCDPR will review the Draft DAD and provide the Consultant with review comments. The Consultant will revise the Draft DAD for resubmission to NYCDOT. (If it is not federally funded, no review is required from NYSDOT and FHWA)

8.06 Advisory Agency Review

The Consultant will submit one hard copy of the draft DAD and a copy in an electronic format to NYCDOT for its review and comments. The Consultant will revise the draft DAD to incorporate the comments. Once NYC DOT comments are fully addressed, NYC DOT will distribute the Draft DAD in the form of electronic format to the cooperating (involved)/participating (interested) agencies for their review.

A. Public Hearing(s)

Not Applicable.

8.07 Preparation of Final Design Approval Document

The consultant on behalf of NYCDOT will obtain all necessary approvals and concurrences, and will publish all applicable legal notices.

The Consultant will prepare the Design Recommendation, and will modify the DAD to include the Design Recommendation, retitle the DAD in accordance with the PDM and update existing conditions and costs as necessary. The Consultant will incorporate changes resulting from the advisory agency review and all public information meetings and public hearings.

The Consultant will submit at least one (1) hard copy of the Final DAD and a copy in an electronic format to the NYCDOT for review. The NYCDOT will review the Final DAD and provide the Consultant with review comments. The Consultant will revise the Final DAD to incorporate the comments.

8.08 Preliminary Design Plans

A. Structural Justification Report

The Structural Justification Report meeting NYSDOT requirements shall be prepared and submitted during this phase, prior to submission of Final Documents for Preliminary Design. The format and content of the Structure Justification Report will be as outlined in the *NYSDOT Bridge Manual*.

B. Preliminary Plans

The Consultant will prepare and submit to NYCDOT Preliminary Bridge Plans in accordance with the *NYSDOT Bridge Manual and NYCDOT Specifications for the preparation of Record Drawings and*

electronic Media for each bridge, for the approved alternative in the Design Approval Document (DAD) for each bridge, which will be sufficiently developed to:

- Show basic concepts and major details (including all existing and proposed utilities)
- Acquaint affected parties with the project and project components
- Serve as an instrument for initial approval
- Provide a basis for the development of final plans
- The plans should indicate Work Zone Traffic Control provisions and be accompanied by a cost estimate.

The Consultant will submit an electronic copy of the Draft Preliminary Design Plans to NYCDOT for review. Upon incorporation of all comments received from the NYCDOT, the Consultant will resubmit the required number of Revised Preliminary Design Plans accompanied by Cost Estimate to NYCDOT.

The Consultant will submit the Preliminary Design Plans (written receipts required) to all affected agencies as per the list provided by NYCDOT, for their review and comments.

An All Agency meeting will subsequently be held to receive their comments. The consultant shall prepare and maintain a log of comments received and method of resolution. All comments as per written responses will be incorporated into the Preliminary Design Plans if appropriate.

A separate meeting with the Office of Construction Mitigation and Coordination (OCMC) shall subsequently be held to receive their comments.

A presentation meeting will be held to receive initial approvals from the NYC Public Design Commission (PDC).

The Consultant will submit an electronic copy of the approved Preliminary Design Plans to NYCDOT.

C. Project Schedule

The Consultant will finish the Preliminary Design (30%) according to Exhibit A-Time of Completion Schedule attached. But the Consultant will finalize the Work Zone Traffic Control (WZTC) schemes and cost estimate for the selected alternative within 18 months of issuance of NTP.

D. Final documents for Preliminary Design

Upon completion and approval of the Preliminary Design Plan(s), the Consultant will prepare and submit to NYCDOT the following final documents, in an orderly fashion in electronic format:

a) A complete set of the Preliminary Design Plans and Cost Estimate containing indexed preliminary drawings in continuous searchable PDF format and a copy in an electronic format containing preliminary drawings in AutoCAD format.

b) Electronic copy of design calculations. The submission of computerized calculations must include, but is not limited to, a copy in an electronic format and written details of all programming information and results.
c) Electronic copies of all correspondence and data pertinent to the project in searchable PDF format.
d) The Consultant certification that all applicable NYCDOT Standards, Directions, Rules, Regulations, and Guidelines have been conformed to.
e) This submission will be subject to NYCDOT review and approval.
f) Community Outreach**:** Preliminary Design power point presentations to Community Boards will be prepared.
g) Consultant must provide a risk register for the specific selected alternative.

E. Value Engineering (VE)

Not Applicable

At the completion of Preliminary Design (30% design complete), NYCDOT will decide whether to continue to Final Design under this Contract, or have the Tasks associated with Final Design completed under a new Consultant Design Contract. At that point the Consultant will deliver a Request for Proposal (RFP) with project documents to NYCDOT for getting -proposals for the continuation of the Detailed (final) design and Construction Support Services (CSS) from the prospective Consultant Firms.

In no event shall the firm proceed to Final Design until written authorization is received from NYCDOT.

Section 9 – Detailed (Final) Design

Upon Final Design Notice to Proceed (NTP), the Consultant will begin the Final Design of selected alternative based on approved Preliminary Plans.

9.01 Advance Detail Plans (ADP)

The Consultant will prepare and submit the ADP's to NYCDOT for review. The submission of drawings and cost estimate for review will be made at 60%, 90%, and final plans. At 90% stage, all plans, specifications, estimates and other associated materials will be 90% complete. At each design stage, the consultant will submit to NYCDOT an electronic format of drawings for review.

ADP's will be developed in accordance with NYSDOT Highway Design Manual, NYSDOT Bridge Manual, and all applicable NYCDOT and AASHTO standards and specifications.

The Consultant will prepare and submit an electronic format of ADP's (90%) and an electronic format of bid books to NYCDOT for all agency review. The Consultant will modify the design to reflect the review of the ADP package and submit final plans. Once final plans are approved by NYCDOT, the consultant will submit PS & E (Plans, Specifications and Cost Estimate) to NYCDOT.

9.02 Final Contract Documents

The Consultant will prepare a complete package of bid-ready contract documents. The package will include:

- Instructions to bidders.
- Bid documents.
- Contract language, including applicable federal provisions and prevailing wage rates.
- Special notes.
- Bid Books
- Contract Plans.
- A list of supplemental information available to bidders (i.e., subsurface exploration logs, record as-built plans, etc.).
- Other pertinent information.

The Consultant will submit bid documents (Bid Books and Contract Plans) electronic format or as directed by NYCDOT, to NYCDOT for use in the construction contract bidding process, the bid sheet shall be exported from CPMS.

9.03 Cost Estimate

The Consultant will develop, provide, and maintain the construction cost estimate for the project. The Consultant will update the estimate periodically and as necessary to incorporate significant design changes and provide updates including quantity computations and rationale for unit prices being used. The cost estimate is expected to incorporate project specific risks, anticipated productivity and other working conditions related impact to the NYSDOT Pay Item Catalog unit prices https://www.dot.ny.gov/pic . Final Engineer's Estimate after undergoing appropriate

quality check, including all quantity computations will be provided at Final Design phase to match final contract plans . Consultant will be using NYCDOT Contract & Project Management System (CPMS) to input the Engineer's Estimate at PS&E.

9.04 Utilities

The Consultant will coordinate with affected utility companies to ensure the timely relocation of utility poles and appurtenances. The Consultant will assist NYCDOT in preparing any necessary agreements with utility companies.

9.05 Railroads

Not Applicable

9.06 Bridge Inventory and Load Rating Forms

The Consultant will prepare a Level 1 load rating package as described in NYSDOT latest Engineering Instruction on "Load Rating/Posting Guidelines for State-Owned Highway Bridges and State-Owned Large Culverts" for the proposed bridge.

In accordance with Section 1.3 of the NYSDOT Bridge Manual, Level 1 Load Rating inventory values for each stage of a stage-constructed bridge (existing and proposed) shall either be greater than 1.0 or shown to be safe for legal loads as defined in the latest Engineering Instruction titled "Load Rating/Posting Guidelines for State-Owned Highway Bridges"

For proposed bridge conditions and each construction stage, load rating factors will be computed by the LFR and LRFR method and shown on the contract conformed plans. LFR and LRFR ratings shall be shown at the Inventory and Operating levels as rating factors. Currently, NYSDOT overload permitting and bridge posting policies require that new and replacement bridges be load rated using the Load Factor Design (LFD) or Allowable Stress Design (ASD) methods. For this reason, load ratings will continue to be computed by the LFD or ASD method and shown on the contract plans. Also, load rating factors for all new, replacement, and rehabilitated bridges will be computed by the Load and Resistance Factor Rating (LRFR) method and shown on the contract plans. LRFR ratings shall be shown at the Inventory and Operating levels as rating factors of the AASHTO HL-93 live load.

Immediately upon completion of load rating during final design phase, the Consultant will transmit one electronic Adobe Acrobat file (*.pdf) copy of the Level I load rating package to NYCDOT for filing. The Consultant will also submit one electronic copy of the input files of any proprietary software applications used to generate the structural analysis along with a summary sheet listing the file name, software program and version of the program used to produce the file.

NYCDOT requires the load rating software used in performing the Level 1 load rating to be AASHTOWare Bridge Rating. In situations where this is not possible due to AASHTOWare Bridge Rating limitations, the next preferred analysis software is LARSA 4D, CSI Bridge, MIDAS Civil, and STAAD Pro.

9.07 Information Transmittal

Upon completion of the contract documents, the Consultant will transmit to the NYCDOT all project information, including electronic files. The electronic information will be in the format requested by NYCDOT.

Section 10 – Preparation of Uniform Land Use Review Procedure (ULURP) needs to be identified during Preliminary Design Phase and to be completed under Final Design Phase

10.01 Damage and Acquisition Maps

The Consultant must decide if any lane closure or utility work will encroach beyond NYCDOT ROW triggering a temporary and/or permanent easements and/ or acquisitions and/or a Uniform Land Use Review Procedure (ULURP) process for the bridges rehabilitation or replacement (including grade change) and maintenance purposes. The Consultant will determine the need for ULURP Drawings due to the change of existing legal grade elevations, property acquisitions, permanent easements, or temporary construction easements, etc. The Area Map, Alteration Map, and Damage & Acquisition Map (if deemed necessary) will be developed to incorporate Final Design Plan modifications. The Consultant will perform, but not limited to, the following tasks:

- Develop Preliminary, and Final Area Map, Alteration Map, and Damage & Acquisition Map(s).
- Revise the Area Map, Alteration Map, and Damage & Acquisition Map(s), as per comments received from other city agencies.
- Adhere to & follow NYC Department of City Planning requirements and procedures for Land Use Application Process by accessing into its website: http://www.nyc.gov/html/dcp/html/subcats/landuse.shtml
- Adhere to the requirements and procedures as outlined in the City Environmental Quality Review (CEQR, 2021).
- Develop a final written "Metes & Bounds" description for streets to be discontinued and closed, any areas being ceded to the city, and for any easements or corridors proposed to be delineated on the Alteration Plan.

10.02 Preparation of ULURP Application

The Consultant will obtain and complete a Uniform Land Use Review Procedure (ULURP) Application Form from the Department of City Planning if required. The Consultant will perform, but not limited to, the following tasks:

- Prepare the ULURP Application and supporting documentation for filing purposes with the Department of City Planning.
- Prepare Notification Letters to all adjacent property owners and certified mailing will be made at every stage of the Public Hearing.
- Make all necessary copies of ULURP drawings (at least 20 sets for Mapping applications and at least 12 sets for easement applications), letters, etc., for ULURP Application mass mailing submission.
- The Borough President Office charge fee for reviewing application. This fee should be added to the ULURP fee.

10.03 Field Visits, Public Meetings, Presentations, Public Hearings, etc.

The Consultant will include in the Scope of Work all anticipated field visits, meetings with Public Agencies, and Public Hearings for ULURP/ Damage & Acquisition approvals, as required for the Preliminary/Final Design Plan modifications. The Consultant will perform, but not limited to, the following tasks:

- Visit various city agencies to obtain data, develop ULURP Plans, and Damage & Acquisition plans, as deemed necessary.
- Meet with various city agencies, including Borough President's Topographical Bureau, Department of City Planning, Community Boards, Department of Citywide Administrative Services, Engineering Review – Land Use Planning Unit, etc., from the ULURP pre-application approvals to the completion of ULURP application certification, as deemed necessary.

- Prepare & distribute handouts, attend, and/or make presentation(s) to various city agencies, as deemed necessary. If the Project is involved in more than one Community Board (CB), then approval shall be obtained from each CB.

10.04 Property Appraisals

The Consultant will prepare property appraisals if required including estimating the damages caused by the acquisition(s). The Consultant will also prepare estimates for the rental of occupied property (ies) if required.

10.05 Appraisal Review

NYCDOT will review appraisals prior to offers being made to the property owners if required.

10.06 Negotiations and Acquisition of Property

If required, the Consultant will negotiate with property owners for the acquisition of their property, including completion of all documents required by NYCDOT in order to obtain the property if required.

10.07 Relocation Assistance

If required, the Consultant will administer relocation assistance to displaced persons and businesses and oversee their relocation and vacating the property if required.

Section 11 - Advertisement, Bid Opening and Award

11.01 Advertisement

The Consultant will assist NYCDOT in the preparation of the advertisement for bids to be placed in the City Record and any other newspaper or publication identified by NYCDOT. The Consultant will submit the draft ad(s) to NYCDOT for review and will revise the ad(s) to reflect comments generated by that review. Upon approval by NYCDOT.

The Consultant will assist NYCDOT for the pre-bid meeting and prepare addenda to inquiries from the prospective bidders and submit to NYCDOT for review and approval. The consultant will prepare the pre-bid presentation for the pre-bid meeting.

11.02 Bid Opening (Letting)

NYCDOT will hold the public bid opening.

11.03 Award

The Consultant will analyze the bid results in accordance with NYSDOT Manual of Administrative Procedures (MAP) Code 7.1-5. The analysis will include as follows but not limited to:

- Verifying the low bidder.
- Ensuring receipt of all required bid documents (non-collusive bid certification, debarment history certification, etc.).
- Breaking the low bid into fiscal shares, if necessary.
- Determining whether the low bid is unbalanced.
- Checking accuracy of quantity calculations for all pay items.
- Determining appropriateness of price bid for work in the item.
- Determining whether the low bidder is qualified to perform the work.

The Consultant will assist NYCDOT in preparing and compiling the package of information for the recommend of award the Contract.

If required, NYCDOT will award the Contract and will transmit the award package to the NYSDOT as described in the "Local Projects Manual (LPM)."

At the completion of the Final Design, NYCDOT will decide whether to continue to Construction Support Services (CSS) under this Contract or have the Tasks associated with CSS completed under a new Consultant Construction Support Contract. Further, at that point the Consultant will deliver all project documents to NYCDOT. In no event shall the firm proceed to CSS until written authorization is received from NYCDOT.

Section 12 - Construction Support Services (CSS)

Upon CSS Notice to Proceed (NTP), the Consultant will begin the CSS.

12.01 Construction Support Services

The Consultant will provide design response to unanticipated or changed field conditions, analyze and participate in proposed design changes, and interpret design plans.

Work under this section will always be in response to a specific assignment from NYCDOT under one of the tasks below:

- In response to unanticipated and/or varying field conditions or changes in construction procedures, the Consultant will conduct on-site field reconnaissance and, where required, prepare Field Change Sheets modifying pertinent Contract plan sheets.
- The Consultant will analyze and make recommendations on the implementation of changes proposed by NYCDOT or the construction Contractor. This includes the Traffic Control Plan.
- The Consultant will interpret and clarify design concepts, plans and specifications.
- The Consultant will review and approve shop drawings and working drawings for construction and shall review Contractor's proposed sequences and/or procedures.
- The Consultant must confirm the load rating analysis for the bridge preformed during the PS&E Phase of the project will remain accurate and valid after the bridge construction. If any relevant changes take place during construction, the consultant must perform a new load rating analysis based on the construction changes and update the Load Rating information for the As-Built condition. The Consultant must submit one electronic Adobe Acrobat file (*.pdf) copy of the new Level I load rating package and one electronic copy of the input files of any proprietary software applications used to generate the structural analysis along with a summary sheet listing the file name, software program and version of the program used to produce the Load Rating to NYCDOT for record keeping and to file with NYSDOT.
- Review of Contractor Initiated Value Engineering Change (CIVEC) Proposals.

Not reimbursable under this Section are:

- Corrections of design errors and omissions
- Straightforward interpretations of plans and designer intentions

PROJECT BRIDGE DATA (BIN 2-24814-0)

Contract HBQ224814

BIN: **2-24814-0** YEAR BUILT: **1963**

FEATURE CARRIED: **MERIDIAN RD** FEATURE CROSSED: **STREAM NORTH OF LIE**

TYPE OF EXISTING SUPERSTRUCTURE: Prestressed Concrete Box Beam System

RECONSTRUCTION LIMITS:

Longitudinal Limit: ± 200 ft. beyond Abutments

Transverse Limit: ±50 ft. beyond either fascia (For retaining walls/wing walls).

SURVEY LIMITS:

Longitudinal Limit: ±300 ft. beyond each abutment

Transverse Limit: ±50 ft. beyond each fascia

PRELIMINARY DESIGN **BUDGETARY** ALLOWANCES:

CONCRETE CORING/TESTING	$ 28,000.00
SOILS INVESTIGATION PROGRAM: (SAMPLING/TESTING)	$ 70,000.00
ENCASEMENT REMOVAL	$ 0.00
HAZMAT MATERIAL SAMPLING/TESTING	$ 35,000.00
PERMITS (OCMC, OTHER AGENCIES)	$ 35,000.00
WZTC FOR BRIDGE INSPECTIONS, OTHER FIELD INVESTIGATIONS	$ 34,000.00
FORCE ACCOUNT FOR INSPECTION	$ 0.00
Sub-Total	**$ 202,000.00**

PRELIMINARY DESIGN **CONTINGENCY** ALLOWANCES:

UNDERWATER INSPECTION:	$ 20,000.00
STEEL SAMPLING:	$ 0.00
FLAGGED CONDITIONS:	$ 32,000.00
CONTAMINATED SOIL SAMPLING/TESTING	$ 40,000.00
Sub-Total	**$ 92,000.00**

FINAL DESIGN **BUDGETARY** ALLOWANCES:

Sub-Total **$ 79,000.00**

FINAL DESIGN **CONTINGENCY** ALLOWANCES

Sub-Total **$ 57,000.00**

AVAILABILITY OF:	**Yes**	**No**	**REMARKS**
PLANS OF EXISTING BRIDGE		**X**	
BRIDGE INSPECTION & CONDITION REPORT	**X**		DATED: 10/06/2025 (1)

(1) THE INDICATED REPORT IS AVAILABLE AT NYCDOT – DIVISION OF BRIDGES

TRAFFIC DATA COLLECTION REQUIREMENTS:

CURRENT VEHICULAR, PEDESTRIAN, BICYCLE TRAFFIC COUNTS WILL BE PERFORMED FOR 7 CONSECUTIVE DAYS, 24 HRS / DAY; CURRENT TURNING MOVEMENTS, VEHICULAR CLASSIFICATION WILL BE PERFORMED FOR 7 DAYS FOR THE PEAK PERIOD.

ALL OF THE ABOVE COUNTS WILL BE PERFORMED IN THE PEAK SEASON AS DIRECTED BY NYCDOT AND AS MENTIONED IN THE SCOPE OF WORK.

TABLE 1. Design Services Time of Completion Schedule
Contract HBQ224814

Following are the **Consecutive Calendar Day** (**CCD**) Requirements for **Target Completion Days** (**TCD**), showing **Estimated Review Periods (R)** within parenthesis (See attached EXHIBIT A):

BIN: 2-24814-0: Total Design (TD) and Construction Support Services (CSS) for Meridian Rd over Stream North of LIE, Borough of Queens.

Data Collection and Preliminary Design Services:

TCD A	TCD B	TCD C	TCD D
120	240 + (30)	95 + (30)	120 + (30)

Detailed (Final) Design Services:

TCD E	TCD F
300 + (45)	160 + (46)

NOTES:

DATA COLLECTION AND PRELIMINARY DESIGN (PD) SERVICES:

TCD A:
The Consultant shall complete the **Traffic Counts and Multi-Modal Analysis, Noise Study, ROW Mapping, Utilities Survey, Soil Investigation, HAZMAT Materials, and any other field study, etc.** within this many consecutive calendar days **from Preliminary Design Notice to Proceed (PDNTP**).

TCD B:
The Consultant shall complete the **Design Criteria; Development of Alternatives, Cost Estimate, WZTC, Finish Draft Design Approval Document, etc.** within this many consecutive Calendar Days as counted **from Preliminary Design Notice to Proceed (PDNTP**).

TCD C:
The Consultant shall submit the **Final Design Approval Document** to the Commissioner within this many consecutive Calendar Days after receipt of NYCDOT's comments on the related Draft Project Report(s).

TCD D:
The Consultant shall submit the **Preliminary Design Plans (30%)** to the Commissioner within this many consecutive Calendar Days of receipt of NYCDOT's comments on the related Draft Design Approval Document.

TOTAL TIME OF COMPLETION (including Estimated Review Periods): **545 CCDs.**

DETAILED (FINAL) DESIGN (FD) SERVICES:

TCD E:
The Consultant shall submit the **Advance Detail Plans (ADP)** to the Commissioner within this many consecutive Calendar Days from **Notice to Proceed (NTP) for Final Design.**

TCD F:
The Consultant shall submit the **Contract Bid Documents** to the Commissioner within this many consecutive Calendar Days. The consultant shall also be involved in the process of Bid Advertisement to Contract Award.

TOTAL TIME OF COMPLETION (including Estimated Review Periods): **551 CCDs.**

****

TOTAL TIME OF COMPLETION for PD and FD (1,096 CCDs):
This period includes **Total Consecutive Calendar Days (CCDs)** from the Start Date of TCD A through the completion of TCD F, including reviews and comments by all Federal, State, Local and other authorities having jurisdiction on the bridge project (See attached **EXHIBIT A – Time of Completion Schedule (TCS) Bar Chart**).

EXHIBIT A:

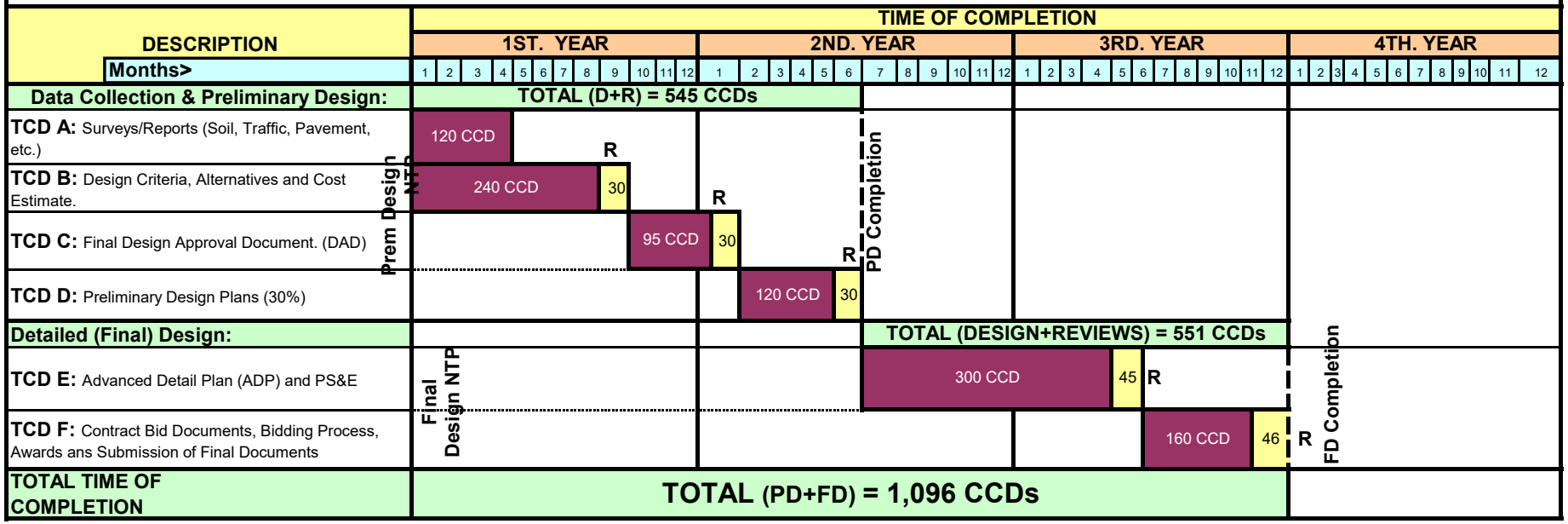
TIME OF COMPLETION SCHEDULE – BAR CHART

EXHIBIT A

TIME OF COMPLETION SCHEDULE - BAR CHART

PROJECT: MERIDIAN ROAD OVER STREAM NORTH OF LIE - QUEENS
CONTRACT NO. HBQ224814

BIN NO.: 2-24814-0



LEGEND:

X CCD — ENGINEER'S TASKS

X CCD — Estimated REVIEW PERIOD (**R**)

TCD: TARGET COMPLETION DAYS
CCD: CONSECUTIVE CALENDAR DAYS

EXHIBIT B:

Meridian Rd over Stream North of LIE

NYSDOT INSPECTION REPORT 2025

New York State Department of Transportation
General Bridge Inspection Report

Inspection Date: July 08, 2025

Structure Information

BIN: **2248140**
Feature Carried: FLUSHING MEADW PR
Feature Crossed: STREAM N OF LIE
Orientation: 2 - NORTHEAST

Region: 11 - NEW YORK CITY
County: QUEENS
Political Unit: City of NEW YORK
Approximate Year Built: 1963

Primary Owner: 42 - City
Primary Maintenance Responsibility: 72 - Other
General Type Main Span: 5 - Prestressed Concrete, 05 - Box Beam or Box Girders - Multiple
This Bridge is not a Ramp
Number of Spans: 5
Number of NSTM Spans: 0

Postings

Posted Load Matches Inventory: Yes
Posted Load in field: Not Posted
Posted Vertical Clearances Match Inventory: Yes
Inventory On: Not Posted
Inventory Under: Not Posted

Number of Flags Issued

Red PIA: 0
Red: 0
Yellow: 1
Safety PIA: 0

New York State Inspection Overview

General Recommendation: 5

Federal SNBI Condition Ratings

Deck:	5	*Railing:*	5	*Channel:*	8
Superstructure:	5	*Railing Transition:*	N	*Channel Protection:*	N
Substructure:	4	*Bearings:*	6	*Scour:*	7
Culvert:	N	*Joints:*	4	*Underwater insp.:*	N
NSTM:	N				

Action Items

Non-Structural Condition Observations noted: YES
Vulnerability Reviews Recommended: NO
Diving Inspection Requested: NO
Further Investigation Requested: NO

Inspector & Reviewer Signature Information

Inspection Signature:	Emad Habib, P.E. 091046-1	*Date:* September 30, 2025
Review Signature:	Luis E. Monroe, P.E. 078639-1	*Date:* September 30, 2025
Processed by :	Subindra Ghimire, P.E. 109010-1	*Date:* October 06, 2025

Report Printed: October 06, 2025 8:04:31 AM

Additional Information

Overloads Observed

No overload vehicles observed during this inspection.

Notes to Next Inspector

1. Small boat with operator was used for the inspection. Boat landing from grass east of the bridge.

Improvements Observed

2025 Improvements:
None.

2024 Improvements:
None.

2023 Improvements:
None.

2022 Improvements:
None.

2021 Improvements:
1.The previous depressed area and pot hole at the begin abutment joint at the right side of roadway has been patched with asphalt. Previous NSCO has been resolved.

2.The end abutment previous cracked asphalt over the joint has been re-patched with asphalt throughout the roadway.

Pedestrian Fence Height

None

Snow Fence

None

Bin Plate Condition

OK

Scour Critical Rating

8 - Bridge foundations determined to be stable for the assessed or calculated scour condition. Scour is determined to be above top of footing.

Bats, or signs of bats, present?

No

Field Notes

Staff Present During Inspection		
Name	**Title**	**Organization**
Boat Crew	Crew	North Marine
Carlos Perdomo	ATL	PK Engineering PC.
Emad Habib, PE	TL	PK Engineering PC.

General Equipment Required for Inspection*
Access Type
13 - Walking
22 - Row Boat

*** For span specific equipment requirements refer to the Active Inventory's "Access Needs" tab in BDIS.**

Detailed Time & Weather Conditions				
Field Date	**Arrival**	**Departure**	**Temp (F)**	**Weather Conditions**
07/08/2025	09:00 AM	03:00 PM	90	Sunny

Inspection Times (hours)	
Time required for travel, inspection and report preparation	16
Lane closure usage	None
Railroad flagging time	No

Element Quantities

Element Assessment Summary Table							
Element	**Total Quantity**	**Unit**	**CS-1**	**CS-2**	**CS-3**	**CS-4**	**CS-5**
15 - Prestressed Concrete Top Flange	3712	ft^2		3712			0
104 - Prestressed Concrete Closed Web/Box Girder	1024	ft		856	168		0
215 - Reinforced Concrete Abutment	64	ft		64			0
220 - Reinforced Concrete Pile Cap/Footing	146	ft	146				0
225 - Steel Pile	20	each	10	10			0
227 - Reinforced Concrete Pile	30	each	30				0
234 - Reinforced Concrete Pier Cap	124	ft		23	101		0
306 - Other Joint	64	ft		32	32		0
310 - Elastomeric Bearing	80	each	56	24			0
321 - Reinforced Concrete Approach Slab	1280	ft^2		1280			0
330 - Metal Bridge Railing	260	ft		260			0
510 - Wearing Surfaces	3120	ft^2		2820	300		0
515 - Steel Protective Coating	1460	ft^2		1030	375	55	0
800 - Erosion or Scour	400	ft	296	104			0
801 - Stream Hydraulics	1	each		1			0
810 - Sidewalk	1040	ft^2		1000	40		0
811 - Curb	260	ft		244	16		0
850 - Backwall	64	ft	64				0
851 - Abutment Pedestal	16	each	16				0
852 - Pier Pedestal	64	each	48	16			0
853 - Wingwall	80	ft		80			0

Element Assessment by Span							
Element**	**Total Quantity**	**Unit**	**CS-1**	**CS-2**	**CS-3**	**CS-4**	**CS-5**
Span Number : 1							
BA215 - Reinforced Concrete Abutment	32	ft		32			0
BA220 - Reinforced Concrete Pile Cap/Footing	33	ft	33				0
BA227 - Reinforced Concrete Pile	7	each	7				0
BA306 - Other Joint	32	ft		12	20		0
BA310 - Elastomeric Bearing	8	each		8			0
BA321 - Reinforced Concrete Approach Slab	640	ft^2		640			0
BA800 - Erosion or Scour	32	ft		32			0
BA850 - Backwall	32	ft	32				0

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
BA851 - Abutment Pedestal	8	each	8				0
BW220 - Reinforced Concrete Pile Cap/Footing	40	ft	40				0
BW227 - Reinforced Concrete Pile	8	each	8				0
BW800 - Erosion or Scour	40	ft	40				0
BW853 - Wingwall	40	ft		40			0
PR225 - Steel Pile	5	each		5			0
PR234 - Reinforced Concrete Pier Cap	31	ft		3	28		0
PR310 - Elastomeric Bearing	16	each		16			0
PR800 - Erosion or Scour	64	ft	64				0
PR852 - Pier Pedestal	16	each		16			0
15 - Prestressed Concrete Top Flange	725	ft^2		725			0
510 - Wearing Surfaces	624	ft^2		562	62		0
104 - Prestressed Concrete Closed Web/Box Girder	200	ft		180	20		0
330 - Metal Bridge Railing	52	ft		52			0
515 - Steel Protective Coating	292	ft^2		207	75	10	0
801 - Stream Hydraulics	1	each		1			0
810 - Sidewalk	208	ft^2		200	8		0
811 - Curb	52	ft		51	1		0
Span Number : 2							
PR225 - Steel Pile	5	each		5			0
PR234 - Reinforced Concrete Pier Cap	31	ft		7	24		0
PR310 - Elastomeric Bearing	16	each	16				0
PR800 - Erosion or Scour	64	ft	64				0
PR852 - Pier Pedestal	16	each	16				0
15 - Prestressed Concrete Top Flange	754	ft^2		754			0
510 - Wearing Surfaces	624	ft^2		578	46		0
104 - Prestressed Concrete Closed Web/Box Girder	208	ft		167	41		0
330 - Metal Bridge Railing	52	ft		52			0
515 - Steel Protective Coating	292	ft^2		207	75	10	0
810 - Sidewalk	208	ft^2		206	2		0
811 - Curb	52	ft		52			0
Span Number : 3							
PR225 - Steel Pile	5	each	5				0
PR234 - Reinforced Concrete Pier Cap	31	ft		9	22		0
PR310 - Elastomeric Bearing	16	each	16				0
PR800 - Erosion or Scour	64	ft	64				0
PR852 - Pier Pedestal	16	each	16				0

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
15 - Prestressed Concrete Top Flange	754	ft^2		754			0
510 - Wearing Surfaces	624	ft^2		556	68		0
104 - Prestressed Concrete Closed Web/Box Girder	208	ft		163	45		0
330 - Metal Bridge Railing	52	ft		52			0
515 - Steel Protective Coating	292	ft^2		207	75	10	0
810 - Sidewalk	208	ft^2		193	15		0
811 - Curb	52	ft		49	3		0
Span Number : 4							
PR225 - Steel Pile	5	each	5				0
PR234 - Reinforced Concrete Pier Cap	31	ft		4	27		0
PR310 - Elastomeric Bearing	16	each	16				0
PR800 - Erosion or Scour	64	ft	64				0
PR852 - Pier Pedestal	16	each	16				0
15 - Prestressed Concrete Top Flange	754	ft^2		754			0
510 - Wearing Surfaces	624	ft^2		568	56		0
104 - Prestressed Concrete Closed Web/Box Girder	208	ft		166	42		0
330 - Metal Bridge Railing	52	ft		52			0
515 - Steel Protective Coating	292	ft^2		207	75	10	0
810 - Sidewalk	208	ft^2		203	5		0
811 - Curb	52	ft		46	6		0
Span Number : 5							
EA215 - Reinforced Concrete Abutment	32	ft		32			0
EA220 - Reinforced Concrete Pile Cap/Footing	33	ft	33				0
EA227 - Reinforced Concrete Pile	7	each	7				0
EA306 - Other Joint	32	ft		20	12		0
EA310 - Elastomeric Bearing	8	each	8				0
EA321 - Reinforced Concrete Approach Slab	640	ft^2		640			0
EA800 - Erosion or Scour	32	ft		32			0
EA850 - Backwall	32	ft	32				0
EA851 - Abutment Pedestal	8	each	8				0
EW220 - Reinforced Concrete Pile Cap/Footing	40	ft	40				0
EW227 - Reinforced Concrete Pile	8	each	8				0
EW800 - Erosion or Scour	40	ft		40			0
EW853 - Wingwall	40	ft		40			0
15 - Prestressed Concrete Top Flange	725	ft^2		725			0
510 - Wearing Surfaces	624	ft^2		556	68		0
104 - Prestressed Concrete Closed Web/Box Girder	200	ft		180	20		0

Element**	Total Quantity	Unit	CS-1	CS-2	CS-3	CS-4	CS-5
330 - Metal Bridge Railing	52	ft		52			0
515 - Steel Protective Coating	292	ft^2		202	75	15	0
810 - Sidewalk	208	ft^2		198	10		0
811 - Curb	52	ft		46	6		0

** Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally indicates the element is part of the superstructure.

Inspection Notes

General Notes

1. The BIN plate is located on the right side of the Begin Abutment Stem and is in OK condition.
2. Yellow Flag NB25TXW011 has been re-issued during this inspection for deteriorated Pier 2 Cap Beam.
3. Stream Hydraulics Defect History Form is attached.
4. Bridge channel cross-section readings along fascias & channel profile readings along the piers sketches are attached to this report.
5. The bridge deck consists of the tops of the adjacent prestressed concrete voided slab units with an asphalt overlay. The NBI deck area that is assessed, is not directly visible. Therefore, the NBI Rating is based on wearing surface condition.

Element Condition Notes

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces	624	0	562	62	0	0
Span 2: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces	624	0	578	46	0	0
Span 3: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces	624	0	556	68	0	0
Span 4: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces	624	0	568	56	0	0
Span 5: 15 - Prestressed Concrete Top Flange-510 - Wearing Surfaces	624	0	556	68	0	0

Condition State 3 Note

Referenced Photo(s): 2, 3

Referenced Sketch(es): None

At Spans 1 through 5, the asphalt wearing surface exhibits isolated longitudinal cracking up to 1/8” wide near centerline of bridge and/ or at the right side, adjacent to the Sidewalk (Typical Photo 2).

In addition, at Spans 1 through 3 and Span 5 there are transverse cracks (1 to 5 in each span) from 1' long to full width of roadway (Typical Photo 3)

The ride quality over the bridge is ok.

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 104 - Prestressed Concrete Closed Web/Box Girder	200	0	180	20	0	0
Span 2: 104 - Prestressed Concrete Closed Web/Box Girder	208	0	167	41	0	0
Span 3: 104 - Prestressed Concrete Closed Web/Box Girder	208	0	163	45	0	0
Span 4: 104 - Prestressed Concrete Closed Web/Box Girder	208	0	166	42	0	0
Span 5: 104 - Prestressed Concrete Closed Web/Box Girder	200	0	180	20	0	0

Condition State 3 Note

Referenced Photo(s): 4, 5, 6, 7, 8, 9

Referenced Sketch(es): None

At Span 1, the bridge structure consists of eight (8) adjacent prestressed concrete voided box Beams.

EXHIBIT C:

Firm Requirements &

Key Personnel

Firm Requirements & Key Personnel

1. CONSULTANT FIRM REQUIREMENTS

The Consultant, herby also known as “The Firm”, would have the organizational capability that match the following certifications, experience and qualifications:

- Conduct Architecture, Construction, Engineering business in New York City and/or within the tri-state area
- Operate and maintain an office space in New York City and/or have a regional office within the Tri-State area
- Employ at least 30 full-time technical employees
- Employ at least ten (10) full-time bridge design engineers
- Employ at least four (4) Professional Engineers on staff
- Relevant previous work experience related to historical landmarks
- Professional Engineers licensed by the State of New York and have accredited bachelor’s degrees in Civil Engineering
- National Institute Certification for Engineering Technology (NICET) certified inspectors.
- Architects, Landscape Architects and/or Historical Preservation Architects shall be Registered Architects in the State of New York and have accredited bachelor’s degrees in architecture or relevant Architectural degree. Qualified professionals shall have direct design and planning experience with the preservation, conservation, and restoration of historical landmarks.
- Prior successful relevant TD & CSS experience as the prime design engineering consultant in bridge design projects. Must include successful completion of three “Medium” or “Large” bridge design project as the prime consultant within the last five years.
- Proven ability to provide TD & CSS services in a proactive manner with special focus on ability to work with other bureaus and agencies to solve problems arising during TD & CSS phases.
- Proven ability to provide expeditious direction and solutions during TD & CSS phases.
- Proven ability to obtain timely approval letters from all affected parties including various bureaus, community boards and agencies during TD & CSS phases.
- Relevant previous work experience related to NYC Department of Parks and Recreation (NYC Parks) bridges and/or public parks.
- The Firm has adopted and published a QA/QC procedures manual.
- The Firm has adopted and published an Employee manual.
- The Firm must have the ability to provide CADD drawings, that must possess two CADD Station
- Provide one Project Manager who is the main point of contact for all projects.
- The Firm must have ability to procure additional public outreach liaison.
- Over the previous three (3) years, the attrition rate of technical employees of the firm must not exceed an average of 20% annually. If the attrition rate exceeds specified

limits due to a firm's elimination of an unit unrelated to bridges, supporting documentation may be submitted for consideration.

- The Firm must have an available line of credit in excess of $500,000, or Equivalent.

2. KEY PERSONNEL

Below are the minimum requirements per title for the Key Personnel required for the Contract. The Consultant is required, as part of its proposal, to identify the individuals who will perform services as Key Personnel. The Agency, NYC DOT, will evaluate the information and resumes provided. Greater consideration will be given to proposed individuals who meet or exceed the following requirements:

PROJECT MANAGER:

- Minimum of ten (10) years of total professional experience in Civil Engineering
- Minimum of six (6) years of direct bridge design experience
- Qualified for ASCE Grade V and above
- Baccalaureate degree in civil engineering from an accredited college
- Valid NYS P.E. License
- At least two (2) years of experience as Project Manager on bridge design project(s) completed within the last five years.
- Familiar with NYC DOT and NYSDOT standards

PROJECT ENGINEER:

- Minimum of six (6) years of direct bridge design experience
- Qualified for ASCE Grade IV and above
- Baccalaureate degree in civil engineering from an accredited college
- Valid NYS P.E. License
- Prior experience as Project Engineer on a bridge design project successfully completed within the last five years
- Familiar with NYC DOT and NYSDOT standards

HISTORICAL PRESERVATION ARCHITECT:

- Minimum of five (5) years of direct historical preservation, conservation, architecture and planning and design experience
- Baccalaureate degree in Architecture or relevant Architectural studies from an accredited college
- Valid Registered Architect in the state of New York
- Prior successful relevant experience as historical preservation and/or restoration design in bridge design project
- Familiar with NYC DOT and NYSDOT standards

LANDSCAPE ARCHITECT:

- Minimum of five (5) years of direct historical preservation, conservation, architecture and planning and design experience
- Baccalaureate degree in Landscape Architecture or relevant studies from an accredited college
- Valid Licensed Landscape Architect in the state of New York
- Prior successful relevant experience as historical preservation and/or restoration design in bridge design project and/or NYC Park project.
- Familiar with NYC DOT and NYSDOT standards

I. SPECIFIC REQUIREMENTS

1. The Consultant shall submit, for approval, the names and experience portfolios of all key persons, subcontractors, and subconsultants proposed for use in connection with the Project prior to start of work (including Project Manager, Project Engineer and key designers). Members of Consultant's staff who perform any work pursuant to this contract shall meet the following criteria in conformance with the New York State Engineering Licensure Statute. All Engineering positions shall be staffed by Engineers as described below. No technician/technologist can fill an Engineering position; however an Engineer may fill any technician/technologist position.

   In accordance with the American Society of Civil Engineers (ASCE) guidelines, ASCE titles are to be used for Engineers who have graduated from an Accreditation Board for Engineering and Technology (ABET) recognized engineering program. ASCE defines nine (9) Engineering grades, i.e. ASCE I/II through ASCE IX. ASCE IV and above requires a New York State Professional Engineer (PE) license. ASCE grades are applicable to all Engineering disciplines.

   The National Institute for Certification in Engineering Technologies (NICET) titles are allowed but cannot substitute ASCE titles. However, ASCE titles may replace NICET titles. NICET titles (i.e. NICET I, II, III, IV) were developed to certify various levels of technical competence. The role of NICET certified technicians and technologists is to assist engineers in discharging their responsibilities.

   Any violation of the above requirements may result in disqualification and removal of the Consultant from the project. In addition, sanctions may be imposed by the New York State Professional Engineering Licensure Board. Violation of the Engineering Licensure Law is a serious offense and carries maximum penalty of four (4) years of jail time.

   Sufficient staffing shall be provided to complete the work on schedule. The performance evaluation for timeliness of performance will be based on the Consultant's management of tasks and staffing to meet project schedule. Evaluations will be used in selection of Consultants for future work.

2. At the Department's direction, the Consultant shall submit some or all project contract related information electronically using a Department-provided Capital Project Management System (CPMS).

II. FEES AND PAYMENTS

INCLUDED HEREUNDER ARE THE MAJOR PROVISIONS/REQUIREMENTS APPLICABLE TO PRELIMINARY DESIGN, DETAILED (FINAL) DESIGN, AND CONSTRUCTION SUPPORT SERVICES:

A. FEE

The Cost Proposal shall be submitted for the Preliminary Design phase only. The fee for the Detailed (Final) Design and CSS will be negotiated separately following completion of the Preliminary Design Phase.
In full payment for all services to be rendered hereunder, the City shall pay to the Consultant and the Consultant agrees to accept a fee not to exceed:

Preliminary Design	_____	
Detailed (Final) Design	_____	Budgetary amounts*
Construction Support	_____	Budgetary amounts

** Fees for Detailed (Final) Design and Construction Support are estimates based on information currently available to the Department and shall be finalized at the start of phase based on scope agreed with the Department. Any proposed fees for Detailed (Final) Design and Construction Support in excess of the amounts above are subject to the approval of the office of Management and Budget.*

If the Consultant is designated to complete all three (3) services, the total current not-to-exceed fee is $_____.

B. BASIS

The payment for the services rendered herein shall be made on the basis of total direct technical office salary costs of the Consultant attributable to the contract times a technical office multiplier, plus direct reimbursement for Principals' Time and certain Out-of-Pocket Allowances.

C. DEFINITIONS

1. Direct Technical Office Salary Cost

Direct office salary cost shall include only engineering, surveying and draftingsalaries,exclusive of Principals' Time, and shall be derived from direct individual salaries, not including overtime premium pay, vacation pay, holiday pay, social security, unemployment insurance, worker's compensation, sick pay or other fringe benefits. Approval by the Department of any salary increases prior to or during the contract period shall consider the escalation to midpoint of project allocated on the Cost Proposal. Adjustments to salary shall only be made once in any 12 month time period. Increases will be limited to either merit or ECI adjustment. Retroactive salary adjustment requests shall be limited to a maximum of 90 days retroactively, prior approved rate will apply beyond this period.

The maximum salary increase per person is limited to the Annual Employment Cost Index plus 50% of the Index. The individual raises shall consider the phase budget limitation.

2. Technical Office Multiplier

The technical office multiplier shall be applied to the direct technical office salary costs of the Consultant in connection with the project, and shall be considered as including provisions for indirect costs and profit.

3. Principals' Time

Principals of the firm, such as partners or owners, shall be compensated for their time, to the extent that they perform services other than administrative or supervisory services, as follows:

a. The rate of compensation for Principals' Time will not exceed the salary of the Chief Engineer of the NYCDOT-Division of Bridges.

b. The amount payable for Principals' Time The principal's effort (labor hours x hourly rate) shall be computed with overhead less profit .

c. The Principals participating in the Project shall maintain a daily log of their participation, which shall be available for inspection by the Commissioner and the Comptroller of the City.

d. The Commissioner shall certify that direct participation by the Principals is essential to the effective and economic completion of the Project.

e. The total compensation for the Principals' Time shall not exceed Thirty-Five Percent (35%) of the total not to exceed fee as stated herein.

f. In the event that a Principal assumes the specific assignment of responsibilities normally allocated to a technical member of the project team, said Principal shall be compensated at a rate corresponding to the technical salary commensurate with that assignment

g. The words "the Principals" or "the Principals of the firm" are understood to mean those individuals in a firm who possess legal responsibility for its management. They may be owners, corporate officers, associates, partners, etc. With respect to a corporation, a principal is further defined as that person who owns ten (10) percent or more of the voting stock.

4. Survey Work required for preliminary design phase is included in Direct Technical Labor. Titles related to survey work are subject to Prevailing wages and supplemental benefits.

5. Direct Non-Salary Cost

Direct Non-Salary Cost will include the following but not limited to:

a. With prior approval from the Department, the cost of acquiring, on a per diem basis, the services of other experts or engineers as may be required for the performance of the Consultant's services.

b. The cost of retaining the services of a qualified contractor, or contractors, to provide for Concrete Coring and Concrete Core Testing Services, Concrete Encasement Removal, Steel Sampling/Testing, Hazmat Sampling/Testing, Hydraulic Study, Flagged Conditions, Underwater Inspection, Soils Investigation and Testing Services, and Permit Application Fees and related Sampling and Testing Services, as required. Services that are estimated to be in excess of $20,000 are expected to be secured via a bidding process. The Consultant shall solicit at least 3 vendors.

c. The cost of any Force Account expenditure(s) and/or Force Account Agreement(s) that may be required for the performance of the Consultant's In-Depth Inspection(s).

d. The costs of the use of motor vehicles, owned by the Consultant or employees of the Consultant or leased and maintained by the Consultant and used specifically for and only for the performance of this contract, shall be compensated on a direct mileage basis in accordance with the standards established for reimbursement allowances for City personnel.

e. The cost of procurement of copies of documents, data sheets, drawings and reports for reference and information.

f. The cost of printing and duplication.

g. The cost of photographic film, developing and printing.

h. The cost of renting other materials or equipment, or acquiring services specifically for, and applicable only to, this project may be submitted for direct payment as Direct Non-Salary Cost. This shall not include the purchase of general tools or office supplies whether expendable or reusable.

i. The cost of procurement of copies of documents, data sheets, drawings and reports for reference and information.

j. The costs of project specific miscellaneous items approved by the Project Manager / EIC are reimbursable.

Direct Non-Salary Cost shall be subjected to audit by NYCDOT. Consequently, the Consultant shall maintain and submit to NYCDOT as part of his/her monthly payment voucher, time and material records for all Direct Non-Salary Cost incurred during that month and submitted for reimbursement in connection with the services herein contained.

6. Force Account Work

Force Account Work refers to the non-DTL expenses associated with having railroad entity personnel assist in the inspection of facilities above or below active railroad lines. Force Account Work also refers to the non-DTL expenses associated with having railroad entity personnel perform a technical review of the Plans.

7. Indirect Costs and Overhead

a. Indirect Costs shall include costs of a general nature which could be applied to the Consultant's entire operation and which are not readily attributable to any one project. These shall include: fringe benefits, taxes, insurance premiums, postage, office supplies, motor vehicles, equipment, office machine and computer rentals, depreciation on purchased equipment, maintenance and operation costs, recruitment, temporary facilities, consultant fees, overhead (see below) and any such costs as are necessary to conduct the Consultant's operations with the exception of those cost items which are submitted for direct payment as Direct Non-Salary Cost.

b. Overhead includes that portion of the Consultant's administrative, clerical and financial costs which are applicable to operations, including, but not limited to: rent, utilities, salary costs of administrative and clerical work (including administrative services of the Principal and Technical Typing), fringe benefits, payroll expenses, taxes, insurance, legal and professional fees, bank service charges, depreciation, office supplies and equipment, maintenance, etc.

D. PAYMENTS

1. During the course of the Contract, all payments, including the final payment, shall be paid to the Consultant on a monthly basis as they occur, as follows:

   a. Payment shall be made based on direct technical office salaries of the Consultant and all Professional subcontractors in connection with the project, times a technical office multiplier of:

Overhead (*)	**Profit (*)**	**Multiplier (*)**
A	**B**	**(1+A)x(1+B)**
_____	_____	_____

(*) *The agency will consider the proposed interim multiplier for establishing Preliminary Design Total Fee (including DTL, interim overhead & Maximum Profit of 10%). The interim multiplier will be based on currently available information on New York State audited Consultant Company's overhead and profit . The Consultant shall submit the actual audited overhead information for the respective year as soon as it becomes available. This multiplier when approved by NYCDOT shall be updated in the CPMS for subsequent invoices and the Consultant shall be responsible for ensuring related information such as staff approval rates are appropriately updated. Adjustments to the previous payments will be made as determined by the Department to match the applicable multiplier for invoice time period.. Multiplier must be updated annually for the duration of the Contract, or it will revert to at the submitted multiplier for preliminary phase at the submission of proposals.*

The same procedure will be followed at the beginning of Detailed (Final) Design & CSS Phases.

   b. For approved Direct Non-Salary Cost and allowable time for Principals' services, payments shall be made on the basis of direct reimbursement at cost to the Consultant, with no markup for the Consultant's overhead and profit.

2. The Consultant shall submit to the Department, but not more than once per calendar month but no less then once every 3 months, a certified voucher, setting forth in detail the items of work and services performed by the Consultant and the amount of partial payment requested. Vouchers shall be accompanied by statements prepared and certified by the Consultant setting forth the name and title of each of his/her and his/her sub-consultants employees who was engaged in the project during such respective month, the number of hours worked each day, the direct salary the compensation attributable to the time for which the voucher is submitted. All vouchers shall be accompanied by a report on the progress of the work properly coded and tabulated to indicate the percentage of completion of each phase of the work and estimate to completion. All said vouchers and progress reports shall be subject to review and approval of NYCDOT designated Project Engineer.

3. The Commissioner shall review the said voucher and if, in his/her judgment, the work and services therein set forth have been performed, the Commissioner or his/her authorized representative shall endorse his/her approval of payment of said voucher.

4. Direct Non-Salary Cost and compensation for Principals' Time approved by the Commissioner or his/her authorized representative in writing shall be paid at cost to the Consultant, (labor hours x hourly rate) computed with overhead less profit.

5. There shall be final payment made at the end of each phase (Preliminary Design, Detailed (Final) Design and Construction Support Services). No subsequent payment requests will be processed until the payment for the prior phase is vouchered.

6. The last and final payment to the Consultant shall become due and payable upon the actual completion of the work under this contract and the filing by the Consultant with the Commissioner of all records and documents in connection with the contract.

7. The final voucher shall be accompanied by a statement certifying the total direct technical salary costs of the Consultant attributable to the contract have been submitted and no additional invoices shall be submitted.

8. The Fee and all payments hereunder shall be subject to review and audit by NYCDOT and subject to a post audit by the Comptroller.

9. The Fee shall not be increased for any reason except as provided herein.

10. All rate increases are subject to the current NYCDOT's rate increase guidelines. Any increase in salary rates shall not affect the final negotiated cost.

    a. The annual daily wage rates, exclusive of applicable weekend/night work differential, shall not exceed the rates as shown on the Cost Proposal. However, the Consultant may periodically, but not more than once per contract year, request, in writing to the Department, to have these rates adjusted. This adjustment shall be subject to the approval of the Chief Bridge Officer of NYCDOT – Division of Bridges and the Engineering Audit Officer and shall be within the parameters as established in the NYC Comptroller's Employment Cost Index for Professional Specialty and Technical Workers-Wages and Salaries. Request for rate increase in excess of ECI for the fiscal year must be accompanied by a justification. Approval of such rate increases shall be at the discretion of the Department. Only one rate increase will be considered per fiscal year, "merit" increases will not be compounded by ECI adjustments for any given year.

    b. Partial Payments:

        I) The Consultant shall be paid in monthly progress payments based on actual allowable cost incurred during the period in accordance with Fees and Payments, Section III (A) of the Contract. The consultant shall submit a breakdown of costs for each specific task provided along with a detailed description of the work completed under each task with request for payment. Bills are subject to the approval of the Commissioner, or his duly authorized representative.

II) The Consultant shall submit a progress report no later than the 5th of the month of tasks completed during the prior month along with an update of the schedule of deliverables and a running total of hours by title used to date along with estimate to complete. Should the Consultant identify a need for additional time or hours for any required scope, and prior written approval by the Agency has been issued it shall be documented within this monthly progress report. This project management effort shall be considered by the Department in the performance evaluation related to Fiscal Administration and Management.

III) The Consultant shall inform NYCDOT and all Sub Contractors and Sub Consultants of the Consultant's schedule for submitting monthly vouchers to NYCDOT, said schedule shall be strictly adhered to by the Consultant. .

IV) All Sub Contractor and Sub Consultant Vouchers received by the Consultant at least ten (10) calendar days prior to a scheduled billing, shall be included in that billing, even if the Consultant does not have other costs to be billed for that period. The Consultant shall inform the Sub Contractor or Sub Consultant of the date the voucher was submitted to the City and the amount included for the Sub Contractor or Sub Consultant.

V) The Consultant is required to make partial payments to all Sub Contractors and Sub Consultants within (10) calendar days of receipt of payment from NYCDOT.

VI) Accounts of the Consultant shall clearly identify the costs of the work performed under this Agreement and shall be subject to periodic and final audit by the City. Such audit shall not be a condition of partial payment.

c. The Consultant shall not be entitled to any additional compensation as a result of any sum or sums paid to the Construction Contractor(s) in settlement of claims for additional compensation or of any judgment for damages under the construction contract(s). However, in the event it becomes necessary to re-let the construction contract(s), the Consultant shall be compensated for any additional work required as a result of such re-letting as ordered by the Commissioner, under terms to be agreed upon.

d. The Consultant agrees that, in the event the City deems it necessary to cancel the Construction Contract of the project for any cause, he will perform the necessary Construction Support Services to effect the completion of the work described in said contract. For such services, the Consultant shall not receive extra compensation, but he shall be compensated in accordance with the terms of this Agreement in the same manner as if the cancellation of such Construction Contract had not occurred.

e. Should the Department indicate that additional effort during the CSS phase is occurring due to Errors and Omissions resulting from the Consultant’s efforts during the Final Design phase, then Consultant shall track related time separately and may not be entitled to compensation for that effort.

11. The provisions of the original contract shall be followed in case of a company merger or takeover.

12. The total length of the Preliminary Design and Detailed (Final) Design Services for the project bridge(s) shall be as stipulated in the Time of Completion Schedule (Table I – Scope of Work). The total length of Construction Support Services shall be the duration of the Construction Contract of the project bridge(s).

E. COST LIMITATIONS

1. PRELIMINARY DESIGN

The "not to exceed" fee of $_____ shall be apportioned as follows:

a. The total direct technical office salary costs times the technical office multiplier stated herein plus reimbursement for Principals' Time for services provided hereunder shall not exceed $_____.

b. The total cost of routine operational Out-of-Pocket Allowances not anticipated to exceed $122,500.00* Refer to Fees and Payment - Section II-C5 for the items that will be covered under Direct Non-Salary Cost.

c. The cost of Direct Non-Salary Cost for the Concrete Coring/Testing Program shall not exceed $28,000.00*, the cost of the Soils Investigation Program (Sampling/Testing) shall not exceed $70,000.00*, the cost of Force Account For Inspection expenses shall not exceed $0.00*, the cost of Permits (OCMC, Other Agencies) shall not exceed $35,000.00*, the cost of the Hazmat Material Sampling/Testing shall not exceed $35,000.00*, the cost of WZTC for Bridge Inspections, Other Field Investigations, Surveying shall not exceed $34,000.00*, and the cost of the Concrete Encasement Removal shall not exceed $0.00*. Cost of work is subject to Departmental approval. Approval shall be based on competitive low bid process from a minimum of three sub consultants for services anticipated to be in excess of $10,000. The Consultant staff costs for bid document preparation through selection of service provider/subcontractor including oversight, review shall be considered included in the submitted fee for Preliminary Design.

** The cost limitations for these are budgetary estimates of non-DTL expenses only and have been established to cover work which may reasonably be expected on this project based on the described scope. The actual extent and cost of this work shall be determined during the Consultant's operations in connection with the project and may or may not exceed the limitations as stated herein. Cost of work is subject to NYCDOT approval. In the event that the cost of required work exceeds the stated cost limitation for this work, then the condition shall be deemed a change of scope and the Consultant shall, upon concurrence of NYCDOT and of the Office of Management and Budget, make written request for an increase in funds in accordance with standard change-order procedures and in conformance with Appendix A Section 9.01.*

d. The total direct technical office salary cost times the technical office multiplier plus reimbursement for Principals' Time and approved Direct Non-Salary Cost for services provided in connection with contingent work to provide Underwater Inspection, as stated herein, shall not exceed $20,000.00** and services provided in connection with contingent work to provide a Steel Sampling Program, as stated herein, shall not exceed $0.00** and services provided in connection with contingent work to provide for Flagged Conditions, as stated herein, shall not exceed $32,000.00** and services provided in connection with contingent work to provide for Contaminated Soil Sampling/Testing, as stated herein, shall

not exceed $40,000.00**. Cost of work is subject to Departmental approval. Approval shall be based on competitive low bid process from a minimum of three sub-consultants

*** No work shall be performed under these contingency provisions unless the Consultant has demonstrated, in writing, that the work under the contingency provisions is necessary for the prosecution of the services required under this Agreement. The cost limitation for contingency work is a budgetary estimate only and has been established to cover work which may reasonably be expected on this project. The actual extent and cost of this work shall be determined during the Consultant's operations in connection with the project and may or may not exceed the limitations as stated herein before. Cost of work is subject to Departmental approval. In the event that the cost of required work exceeds the cost limitations as stated for this work, then the condition shall be deemed a change of scope and the Consultant shall, upon concurrence of the Department and the Office of Management and Budget, make written request for an increase in funds in accordance with standard change-order procedures and in conformance with Appendix A Section 9.01.*

2. DETAILED (FINAL) DESIGN

The Detailed (Final) Design fee shall be negotiated at the completion of Preliminary Design.

3. CONSTRUCTION SUPPORT

The Construction Support fee shall be negotiated at the completion of Detailed (Final) Design.

4. Upon approval by NYCDOT, funds may be transferred between tasks as long as the scope or total fee of the Agreement is not exceeded, upon approval of NYCDOT.

5. For both partial and final payment purposes (Preliminary Design only), the cost limitations, as herein stated in the Cost Proposal, shall be adhered to.

6. In addition to any other requirements contained herein, the Consultant is advised that all payments due under this contract are subject to various directives issued by the Office of the Comptroller regarding the auditing of payments to consultants. Such directives can be found on the NYC Comptrollers website and include but are not limited to:

Directive No. 2 (“Guidelines for Audit of Vouchers Submitted Under Cost Reimbursable Contractual Agreements”); Directive No. 6 (Travel Meals Lodging and Miscellaneous Agency Expenses’); and Directive No. 7 (“Audit of Payment Vouchers Issued Under Contracts for Construction, Equipment and Related Consultant Services”).

Said Directives may be obtained from the Project Engineer.

III. TIME OF COMPLETION

The Consultant shall complete all tasks associated with the Preliminary and Detailed (Final) Design phases of this contract within the time frames listed, for the project bridge(s), of the contract as shown in Table I – Scope of Work. The total anticipated time of completion is **2,192** Consecutive Calendar Days from Date of Written Notice to Proceed for the preliminary design phase until final completion of the construction contract.

THE CONSULTANT SHALL COMPLETE ALL TASKS AS LISTED IN SECTION II, HEREIN, AND SHALL SUBMIT TO THE CHIEF BRIDGE OFFICER ALL DOCUMENTS IN ACCORDANCE WITH "MURK" STANDARDS WITHIN THE TIME FRAMES LISTED FOR THE PROJECT IN TABLE 1 OF THE CONTRACT.

IV. PROGRESS REPORTING

A. **PRELIMINARY DESIGN:** Upon receipt of the Notice to Proceed, the Consultant shall prepare and submit for approval by the Commissioner or his/her authorized representative a detailed, initial Project Schedule to be submitted with the first Progress Report (in MS Project, written list of assumptions, listing of each deliverable for the services required in connection with the project bridge(s). A Progress Report shall be submitted at the Start-up Meeting. The Schedule shall include, but not be limited to, the following: projected dates for completion of In-Depth Inspection and Survey, Concrete Coring and/or Steel Sampling, and Soil Investigation Programs; projected completion/target dates for submission of the Draft Design Approval Document (DAD), Final DAD, Draft Preliminary Plans, and Approved Preliminary Plans; Identify project scope risks quarterly meetings

B. **DETAILED FINAL DESIGN** At the start of Final Design phase, the Consultant shall prepared submit for approval by the Commissioner or his/her authorized representative a detailed, updated Project Schedule (in MS Project, updated list of associated assumptions, listing of each contract drawing showing the estimated percent of completion of each drawing) for the services required in connection with the project bridge(s). The Schedule shall include, but not be limited to, the following: projected completion/target dates for submission of the Advanced Plans; projected ULURP completion date; projected submission dates of Final Contract Bid Documents; a detailed listing of all tasks, sub-tasks and milestones required in connection with the Project; the time necessary to complete the various tasks, sub-tasks and milestones; the interrelationship of milestones; the interrelationship and dependency of the various tasks s of the schedule; and the Project's critical path. All contract times and extensions of time shall be indicated.

C. For the purpose of the Schedule, the date of Notice to Proceed shall be established as the Project Start Date.

D. Along with the monthly progress reports, the Consultant shall analyze the Project's progress as it relates to the approved Schedule. Additionally, the Consultant shall file with the Commissioner a report on this analysis, which shall include, but not be limited to, the following: actual time used for each tasks ; changes in targeted completion dates for the various tasks ; the reasons for any delays in the targeted completion dates; the need and justification for any extensions of time; a narrative description of the work performed during the reporting period; a narrative description of the work projected for the next reporting period; a list of contract drawings showing the estimated percent of completion of each drawing; and a revised work plan which reflects the Project's current status at the end of the instant reporting period.

E. Progress Reports and documentation shall be submitted to the Commissioner or his/her authorized representative, for approval, no later than five (5) working days following the close of the reporting period.

F. Recoupment of Cost of Design Errors and Omissions & Project Delays

In each instance in which a change order is made necessary because of a consultant design error, omission or delay attributed to the consultant, NYCDOT shall take appropriate steps to recover from the consultant the costs of the change order to NYCDOT in excess of what the work would have cost in the absence of such error or omission.