

Michael W. Bloomberg
Mayor

The City of New York
Department of Transportation
Division of Bridges

Iris Weinshall
Commissioner

REQUEST FOR PROPOSALS

FOR

**TOTAL DESIGN AND CONSTRUCTION SUPPORT SERVICES
FOR
RECONSTRUCTION OF QUEENSBORO BRIDGE CONTRACT #7
SEISMIC RETROFIT**

BOROUGHES OF MANHATTAN & QUEENS

CONTRACT NO.: BRC231S

PIN: 84105MBBR058

RELEASE DATE OF THE RFP: NOVEMBER 15, 2005

CONSTRUCTION COST: \$30,000,000

ANTICIPATED CONTRACT TERM: 1811 Consecutive Calendar Days from the Date of Written Notice to Proceed until final completion of the Construction Contract.

AUTHORIZED AGENCY CONTACT PERSON

Proposers are advised that the Authorized Agency Contact Person for all matters concerning this Request for Proposal is:

Dr. Paul-Michael Kazas
Director, Capital Procurement
2 Rector Street, 8th Floor
New York, NY 10006
Telephone: (212) 442-7654
Fax: (212) 442-9885



New York City Department of Transportation

Agency Chief Contracting Officer
40 Worth Street, Room #1228
New York, New York 10013
Tel: 212/442-7749
Fax: 212/442-7449

Iris Weinshall, Commissioner

Web: www.nyc.gov/dot

November 15, 2005

Re: Request for Proposals for
Total Design and Construction Support Services for
Reconstruction of Queensboro Bridge
Contract # 7 Seismic Retrofit
Boroughs of Manhattan & Queens
Contract No. BRC231S
PIN 84105MBBR058

To Whom It May Concern:

I am pleased to invite your organization to submit a proposal for Engineering Services to assist the Division of Bridges with its Capital Infrastructure Improvement Program. Specifically, the proposal will be for Engineering Services in connection with the above noted contract.

Please be advised that a Pre-Proposal Conference has been scheduled for **November 30, 2005** at 10-30 A.M, at 2 Rector Street, 8th Floor Conference Room. Due to limited space, no more than (2) representatives from each interested firm will be permitted to attend.

Enclosed for your use in developing your proposal is a set of forms with instructions for the above-referenced project. Be further advised that the selected proposer should not subcontract more than 49% of the contract work. You should follow the submittal instructions carefully.

You should hand deliver your proposal, as indicated in Section IV of the RFP, to the **NYC Department of Transportation, Contract Section, 8th Floor - Room 824A, 40 Worth Street, New York, New York 10013 on or before December 28, 2005 between the hours of 9:00am and 2:00pm only on business days.**

In order that we can expeditiously disseminate additional information regarding this RFP, please complete the attached "**ACKNOWLEDGEMENT OF RECEIPT OF REQUEST FOR PROPOSALS FORM**" and return to Dr. Paul Michael Kazas within 48 Hours of receipt of this RFP by Fax: (212) 442-9885.

If you have any questions concerning this invitation please call (212) 442-7654.

Very truly yours,



for Dr. Paul Michael Kazas
Director of Capital Procurement

Enclosure

ACKNOWLEDGEMENT OF RECEIPT OF REQUEST FOR PROPOSALS

**WE STRONGLY RECOMMEND THAT YOU FAX THIS SHEET TO US TO ENSURE THAT YOU RECEIVE ALL
FUTURE ADDENDA**

ATTN.: DR. PAUL-MICHAEL KAZAS- FAX: (212) 442-9885

**WE WILL PARTICIPATE IN THE RFP - SEND ANY TECHNICAL ADDENDA TO THE CONTACT PERSON LISTED
BELOW:**

Consultant:		
Address:		
City	State	ZIP
Contact Person:	Phone #	
RFP PIN (Fill in): Contract No. 84105MBBR058	Fax #	
RFP Contract Title (Fill in): Total Design and Support Services for Reconstruction of Queensboro Bridge, Contract #7 Seismic Retrofit, Boroughs of Manhattan & Queens.		

OR

WE DO NOT PLAN TO SUBMIT A PROPOSAL, BECAUSE (Please check as many as apply).

Please check **all** the reasons that apply and return this form to Dr. Paul Michael Kazas
Fax: (212)442-9885.

- 1) Size of this contract is not within the interest of consultant.
- 2) Consultant had an insufficient amount of time to prepare proposal. (Please give the date that the Consultant acquired RFP and any other pertinent information.)
- 3) Contract work not within the specialty of the Consultant. (Please cite Consultant's area of specialty.)
- 4) Other. (Please explain in comment section below.)
- 5) Please remove me from your solicitation list.

Comments: (Please use additional sheets if necessary)

Signature

Title

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SECTION II - SUMMARY OF THE REQUEST FOR PROPOSALS

A. Purpose of the RFP

The Agency is seeking an appropriately qualified vendor to provide Preliminary Design, Final Design and Construction Support Services (i.e. preparation of designs, bridges studies, final design and preparation of construction support documents; and bid analysis services in support of letting of the construction project) in connection with the Reconstruction of Queensboro Bridge, Contract # 7 Seismic Retrofit, Boroughs of Manhattan and Queens. Proposers will provide only Titles and Costs for the Preliminary Design Services (Phase 1) in their proposals.

B. Anticipated Contract Term

It is anticipated that the term of the contract awarded from this RFP will be **1811** Consecutive Calendar Days from the date of written Notice to Proceed until final completion of construction contract.

Anticipated Time Required for completion of Phase 1, Preliminary Design Services: **630** consecutive calendar days.

Anticipated Time Required for completion of Phase II, Final Design Services: **450** consecutive calendar days.

Anticipated Time Required for completion of Phase III, Construction Support Services: **731** consecutive calendar days.

C. 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 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.

SECTION III : SCOPE OF SERVICES

A. Agency Goals and Objectives

The agency's goals and objectives are to acquire quality Preliminary Design, Final Design and Construction Support Services to ensure the safety of New York City bridges in relation to their structural integrity and repair.

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 the Proposed Contractual Agreement. (See Attachment A)

SECTION IV: FORMAT AND CONTENT OF THE PROPOSAL

Instructions: Proposers should provide all the information requested in the format below.

The RFP package should consist of four (4) individually sealed components as listed below, each bound in a 8 1/2" x 11" plastic spiral binding. No pictures or drawings should be included, except for the cover. The cover should be hard cardboard or laminated plastic, the cover should feature the name of the responding firm(s) and the contract name and number. Responses should be typed using 12 point font. Responses on pre-printed forms should be no smaller than 8 point font, and then only when necessary. The response may include a one page bound transmittal letter, which summarizes the respondent's understanding of the project and its ability to successfully accomplish the job. Each section should be tabbed and labeled to correspond with each section listed (i.e. 1T, 2T, 3T, 4T, 5T, 6T, 7T, Form 254, Form 255, Form 4T1, Form 4T2 and 4T3.).

The proposal will be evaluated on the basis of its content, not length.

A. Proposal Format

Component 1: Procedural Forms

A Procedural Forms packet has been supplied with this Request for Proposal and should be fully completed and included in the proposal package as follows:

FORM 1P	PROPOSAL COVER LETTER
FORM 2P	ACKNOWLEDGEMENT OF ADDENDA
FORM 3P	AFFIRMATION FORM

The Original Procedural Forms Packet should include all completed Procedural forms, required procedural documents, signed certifications and Supplementary information.

Component 2: Proposal Forms

A Proposal Forms Packet has been supplied with this Request for Proposal and should be fully completed and included in the proposal package as follows:

FORM 1T	QUALITY & RELEVANCE OF PRIOR EXPERIENCE (FIRM IN GENERAL)
FORM 2T	PROPOSED STAFF (RESUMES)
FORM 3T	STAFF EXPERIENCE
FORM 4T	JOB TITLES & HOURS PROPOSED
FORM 5T	OVERALL APPROACH
FORM 6T	NYCDOT CURRENT WORKLOAD DISCLOSURE (2 PGS.)
FORM7T	DBE PARTICIPATION
FORM 254	STANDARD FORM
FORM 255	STANDARD FORM

Component 3: Cost Proposal

A Cost Proposal Forms Packet has been supplied with this Request for Proposals and should be fully completed and included in the proposal package as follows:

Cost Proposal A

FORM 4T1A LABOR COST PROPOSAL*
FORM 4T2A COST PROPOSAL SUMMARY*
FORM 4T3 PERFORMANCE OUTCOME MEASURES & FINANCIAL INCENTIVES AND/OR DISINCENTIVES

Cost Proposal B

FORM 4T1B LABOR COST PROPOSAL*
FORM 4T2B COST PROPOSAL SUMMARY*
FORM 4T3 PERFORMANCE OUTCOME MEASURES & FINANCIAL INCENTIVES AND/OR DISINCENTIVES

NOTE:* FORM 4T1 (COLUMNS 3, 4 AND 5), AND FORM 4T2 (COLUMNS 2, 3, 4, AND 5) FOR BOTH A & B COST PROPOSALS ARE TO BE COMPLETED AND SUBMITTED AS PART OF YOUR COST PROPOSAL PACKET.

Proposers should submit **two (2) different cost proposals** in their cost proposals packet. The two (2) cost proposals should contain the following information:

Cost Proposal A should include: Form 4T1A and 4T2A which employ a multiplier that is locked in for the first phase of the project and subject to audit for successive phases of the contract – allowing for fluctuation related to changes in the overhead costs.

Cost Proposals B should include: Form 4T1B and 4T2B which employ a multiplier that will be locked in for all phases of the contract.

Performance Outcome Measures and Financial Incentives and/or Disincentives

Performance outcome measures and their related financial incentives and/or disincentives should be proposed in Form 4T3. List and describe desired performance outcomes or targets for the work to be performed by the proposer under the contract along with the related financial incentives and/or disincentives that could potentially be applied to the contract. The proposer's proposed performance outcome measures and related financial incentives and/or disincentives will not be scored, they may be considered by the agency while awarding the contract and structuring its payments to the consultants.

Component 4: Multiplier Form

This form (Attachment F), which is for informational purposes only, should be included in your submittal package as a separate envelope labeled "Multiplier Form". The form requests that you list two (2) different multipliers. The first multiplier, referred to as "Multiplier A", is a multiplier that is locked in for the first phase of the project and subject to audit for successive phases of the contract – allowing it to fluctuate given a change in overhead costs. The second multiplier, referred to as "Multiplier B", is a multiplier that will be locked in for the duration of the contract through all phases. While the information provided will not be scored, it may be considered by the agency while awarding the contract and structuring its payments to the consultant.

All components should be individually sealed and labeled (i.e., Component 1, Component 2, Component 3, Component 4) to indicate the contents of each package and placed in an outer envelope or wrapper. Address all component packages, outer envelopes or wrappers as follows:

Proposer's Name
Address

NYCDOT Contract Section
40 Worth Street
8th Floor, Room 824A
New York, New York 10013

PIN No. 84105MBBR058
CONTRACT NO. BRC231S
TOTAL DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR RECONSTRUCTION OF
QUEENSBORO BRIDGE CONTRACT #7 SEISMIC RETROFIT
BOROUGH OF MANHATTAN & QUEENS
PROPOS SUBMISSION DEADLINE IS DECEMBER 28, 2005
NO LATER THAN 2:00 PM

The individually sealed proposals should be submitted at the time and place as indicated in Section I, Timetable.

B. Proposal Package Contents (“Checklist”)

CHECKLIST FOR RFP

The Proposal Packet should contain the following materials. Proposers should utilize this section as a checklist to ensure completeness prior to submitting their proposal to the Agency.

COMPONENT 1 – Submit one original set

- 1P Proposal Cover Letter
- 2P Acknowledgment of Addenda
- 3P Affirmation Form

COMPONENT 2A – Submit one original and three copies

- 1T Quality and Relevance of Prior Experience (Firm in General)
- 2T Proposed Staff (Resumes)
- 3T Staff Experience
- 4T Job Titles and Hours Proposed
- 5T Overall Approach
- 6T NYCDOT Workload Disclosure (2 pgs.)
- 7T DBE Participation
- 254 Standard Form
- 255 Standard Form

COMPONENT 3: COST PROPOSAL – Submit one original and three copies

Cost Proposal “A”

- 4T-1A Labor Cost Proposal
- 4T-2A Cost Proposal Summary
- 4T-3 Performance Outcome Measures and Financial Incentives and/or Disincentives

Cost Proposal “B”

- 4T-1B Labor Cost Proposal
- 4T-2B Cost Proposal Summary
- 4T-3 Performance Outcome Measures and Financial Incentives and/or Disincentives

COMPONENT 4 – Submit one original

- Multiplier Form (Attachment F)

SECTION V: PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES

A. Evaluation Procedures.

All proposals accepted by the Agency will be reviewed to determine whether they are responsive or non-responsive to the requirements of this RFP. Proposals that are determined by the agency to be non-responsive will be eliminated from further consideration. The agency's Consultant Selection Committee will evaluate and rate all responsive proposals based on the Evaluation Criteria prescribed below.

In accordance with the Federal/State method, the Agency will require proposers to give oral or visual presentations in support of their proposals or to exhibit or otherwise demonstrate or clarify the information contained in their responses.

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

	<u>TD/CSS</u>
1. Quality & Relevance of Prior Experience	
- Proposed staff (Resumes)	35%
- Firm in general	20%
2. Quality of Proposal	
- Overall (project understanding)	20%
- Approach	15%
- Innovation	5%
3. Workload/Staff Availability	<u>5%</u>
Total:	100%

C. Basis for Contract Award.

In accordance with the NYC Charter, the Department of Transportation will award the contract to the responsible proposer whose proposal is determine to be most advantageous to the City, taking into consideration the price and such factors or criteria as are set forth in the Request for Proposals.

D. Opportunity for Disadvantaged Business Enterprise

NYC Department of Transportation encourages firms to meet the New York State's Disadvantaged Business Enterprise (DBE) goals.

SECTION VI - 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 1225, New York, NY 10007; the telephone number is (212) 669-3059. 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.

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"- General Provisions Governing Contracts for Consultants, Professional and Technical Services' 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. If a copy of the applicable document is not attached, it is available through the Authorized Agency Contact Person.

D. Contract Award. Contract award is subject to each of the following applicable conditions: New York City Fair Share Criteria; New York City MacBride Principles Law; submission by the proposer of the 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 VENDEX Questionnaires/Certificate 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 Enterprise 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 New York City's Procurement Policy Board Rules, it is the policy of the City 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.

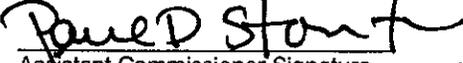
I. Confidential, Proprietary Information or Trade Secrets. Proposers should give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification of why such materials, upon request,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

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. Charter Section 312(a) Certification.

The New York City Department of Transportation has determined that the contract to be awarded through this Request for Proposals (PIN 84105MBBR058) for Total Design and Construction Support Services for the Reconstruction of Queensboro Bridge, Contract #7 Seismic Retrofit, Boroughs of Manhattan and Queens, will not directly result in the displacement of any New York City employee.


Assistant Commissioner Signature

10-11-05
Date

SECTION VII

ATTACHMENTS

- A) **Proposed Contractual Agreement**
- B) **General Provisions (Appendix A2)**
- C) **Procedural Forms Packet**
- D) **Proposal Forms Packet**
- E) **Cost Proposal Forms Packet**
- F) **Multiplier Form**

SECTION VII

A) PROPOSED CONTRACTUAL AGREEMENT

**TOTAL DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR THE
QUEENSBORO BRIDGE CONTRACT #7, SEISMIC RETROFIT**

BOROUGHES OF MANHATTAN & QUEENS

CONTRACT NO.: BRC231S

PIN: 84105MBBR058

**TOTAL DESIGN & CONSTRUCTION SUPPORT SERVICES
FOR
RECONSTRUCTION OF QUEENSBORO BRIDGE CONTRACT #7
SEISMIC RETROFIT
BOROUGH OF MANHATTAN & QUEENS
CONTRACT NO BRC 231S
PIN: 84105MBBR058**

BRIDGE DESCRIPTION

The Queensboro Bridge was completed and opened to traffic on June 18, 1909.

Various changes were made over the years and currently the bridge carries four lanes of automobile and bus traffic on the upper level, four lanes of mixed automobile, bus and truck traffic on the lower inner level, one lane of automobile traffic on the south outer roadway and a bikeway/walkway on the north outer roadway.

The bridge consists of the following:

1. Manhattan Approach

Manhattan Approach, Figures 1.1, 1.2(a) and 1.2(b), is a steel column and bent structure between Second Avenue in Manhattan and the Manhattan Anchor Pier. The total length of the approach, which includes ninety-three bents, is 1081 ft. Twenty-eight bents (1 to 26, 32 and 39) make up the main portion of the south upper roadway.

The framing system is supported on columns with a three bay transverse configuration at the upper level and a four bay configuration at the lower level. The height of the columns at the upper level, approximately 20ft., is constant throughout the length of the approach. The lower separate level is supported on five columns, all encased in concrete and masonry.

All columns of the Manhattan Approach are supported on unreinforced concrete footings founded on hardpan or rock at various levels up to about 25 ft. below the ground surface. The columns are anchored to the top of the concrete footings with four anchor bolts of 1.5 inch diameter and 5 or 6ft. length each.

2. Main Bridge

The Main Bridge, which has 123 panel points and a total length of 3724.5 ft., is a double cantilever truss structure, Figure 1.1. It consists of the Manhattan, the Queens and the Roosevelt Island sections that are connected at the middle of the two channels of the East River with vertical links at panel points 37 to 91.

Main tension members of the truss are made of eyebars and main compression members are built-up sections with lacing bars. The top chord members are mostly nickel steel eyebars. At the anchor piers, the top chords are carbon steel built-up sections. The main diagonals are mostly carbon steel eyebar tension members except for some diagonals close to the towers which are built-up sections. The bottom chords are heavy continuous box sections with several webs. The rest of the main truss members including the verticals are carbon steel built-up sections.

The four towers, Figure 1.3 are about 200ft. tall and 60 ft. wide at the top where they are connected with the diagonals and top chords. They are 95 ft. wide at the bottom to allow the trusses to go through.

The bridge has two lateral systems. A top lateral system at the level of the top chord consisting of square rods with relatively small cross sectional areas. Due to their extreme slenderness, these rods are only effective in tension. A much heavier bottom lateral system is present below the lower deck at the level of the floorbeams, tying into bottom chords.

The superstructure is supported on six piers, which correspond to truss Panel Points (PP) 1, 17, 57, 75, 107 and 123, Figure 1.1. The piers of the bridge consist of a 16 ft. thick spandrel beam with concrete core and embedded steel I beam supported on buttresses on the inside face of the two pier legs, Figure 1.6. The piers vary in height from about 60 ft. for the shortest (Manhattan Anchor Pier) to about 140 ft. for the tallest (Pier 2). They are massive structures with unreinforced concrete cores (anchor piers) or limestone cores (all others), and granite blocks as a veneer.

At, Anchor Piers, PP 1 and 123, the bridge is supported on links that allow longitudinal translation. These links, which are built-up members and can carry tension or compression forces, run through walls inside the anchor piers, Figure 1.5. The links possess adjustment screws that were used to change their length and adjust the elevation of the cantilever arms during the construction.

3. Queens Approach

The Queens Approach, Figure 1.7, is a through truss structure, supporting six roadways from the Queens Anchor Pier to Crescent Street in Queens. The total length of the approach is 2,667 ft., of which 431 ft. are on embankment. The remaining 2,236 ft. of approach consists of the steel truss structure with simply supported and continuous spans varying in length from 97 ft. to approximately 166 ft. There are nine simply supported truss spans between PP 0 to PP 57 and two three span continuous trusses between PP 57 and PP 90, Figure 1.7.

The foundations of the Queens Approach consist of unreinforced concrete footings bearing on bedrock whose depth varies approximately between 20 and 50 ft. below the ground surface, Figure 1.1.

The approach contains the following basic sets of structures:

- A set of primary trusses and two floor systems supporting two levels of roadways
- Towers and bents supporting the trusses; substructures supporting the towers and bents
- Auxiliary structures, consisting of columns, girders, and bracings carrying the upper roadways as they diverge from the truss
- Embankment within abutment and retaining walls
- .

4. Approach Ramps

The approach Ramps are viaducts connecting the upper level of the bridge with local streets of Manhattan and Queens. They include the following structures:

- Borough of Queens; Approach Ramps A, B, C, D and the Queens Off Ramp, Figure 1.1.
- Borough of Manhattan; North and South Approach Ramps, Figure 1.1.

Most of the column footings of Approach Ramps are supported on either steel piles or spread footings. Some bents are supported on the roof of the IND-BMT subway tunnel below street level.

OBJECTIVES

In 1995, a detailed evaluation of the seismic performance of the Queensboro Bridge was performed. The summary report identifying the vulnerabilities and necessary retrofit measures was submitted in 1996. The 1995 evaluation was based on the hazard levels given in the AASHTO Standard Specifications. In 1998, the NYCDOT adopted the ground motions recommended specifically for the New York City Region by a committee of seismologists. The seismic condition of the Queensboro Bridge was reevaluated based on the 1998 ground motions and NYCDOT Design Guidelines. An addendum to the summary report was submitted in August of 2003. This Contract provides for the final evaluation of the seismic condition of the Bridge and the preparation of necessary construction documents for the retrofit measures. The bridge has been classified as a critical bridge by the NYCDOT, and as such shall be evaluated for the two levels of earthquake in accordance with the NYCDOT Design Guidelines.

LIST OF POTENTIAL RETROFITS MEASURES

Following is a list of major retrofit measures as recommended by the current evaluation report:

Manhattan Approach and Ramps

- Strengthen columns and column base anchorages
- Strengthen floorbeams and connections to columns
- Strengthen bracings
- Strengthen footings
- Replace concrete protection
- Retrofit retaining walls and embankments

Main Bridge

- Strengthen piers and towers
- Retrofit fixed bearings

Queens Approach and Ramps

- Retrofit bearings
- Strengthen towers and bents
- Strengthen columns and column base anchorages
- Strengthen footings
- Shear transfer between truss segments
- Strengthen truss members and connections
- Strengthen floorbeam connections and bracings
- Retrofit retaining walls and embankments

TASKS:

The following major tasks and services shall be provided by the Engineer:

Task 1 – Collection of Information:

A. The Engineer shall gather all information and become familiar with the bridge and tower structure as necessary for performing the project tasks. This shall include the following:

1. Review the Department files and become familiar with the design and shop drawings for the bridge, including foundation, abutment, machines and electrical system installed on the bridge.
2. Review all previous inspection reports and BRPR's available for the Project Bridge. Become familiar with the changes made to the structure since original construction and any previous investigation that includes seismic assessment. Make field visits to supplement information available on these reports. It is expected that the computer model of the bridge structures used for the previous seismic assessment will be made available for the Engineer.
3. Review all available subsurface and soil boring data. All subsurface and soil boring information and ambient vibration measurements during the previous seismic assessment will be provided to the Engineer. The consultant shall review these information and determine whether they are adequate for the final evaluation.
4. The Engineer shall develop and prepare a plan for the maintenance and protection of traffic if required during his field visits. The Engineer shall coordinate with the Office of Construction Mitigation and Coordination (OCMC) and other appropriate parties, such as Coast Guard, on the proposed maintenance plan(s). The Engineer prior to the commencement of field visit(s) shall obtain all required approvals.
5. The Engineer shall prepare schedules and coordinate all activities of the subcontractors, suppliers, and subconsultants.

B. Investigation Plan:

The Engineer shall prepare an Investigation Plan for performing the final seismic investigation under this project. It shall include but not limited to the following information:

1. The needs, if any, for additional geotechnical information for the bridge site. The methods proposed for obtaining the required information shall be included.
2. The adequacy of available information and how they will be utilized for the final seismic evaluation.
3. The computer modeling of the bridge structure for seismic analyses and the calculations of vibration characteristics, including but not limited to the following:
 - a. The computer programs to be used, and use of available computer model.

- b. The modeling of superstructures and substructures, including masonry piers and towers and abutments.
 - c. The modeling of soil-structure interaction.
 - d. Vibration characteristics to be investigated.
4. The methods of seismic analysis and evaluation of bridge performance and vulnerabilities, including the following but not limited to:
- a. Method used for analysis (response spectrum, model superposition, pushover technique, time history or direct integration analysis).
 - b. Consideration of spatial variation effects for dynamic and differential movements.
 - c. Consideration of structural damping.
 - d. Seismic responses to be calculated.
 - e. Criteria for assessing bridge performance and vulnerabilities.
 - f. Acceptable capacity demand ratio for the two levels of seismic activities. Available information regarding the properties of existing structural members will be provided. However, the consultant shall be responsible to review and determine the adequacy of the information.
5. The methods for assessing the seismic retrofit requirements.

Six copies of the Investigation Plan shall be submitted to the Department for Review.

Task 2 – Soil Exploration

The 1995 Seismic investigation demonstrated that liquefaction is of concern at the Queen's side of the East River and to a less extent at the Manhattan side. This task provides for a soil exploration program to evaluate the extent of liquefaction and its effects on the foundations. It is envisioned that additional twenty two boreholes and two crosshole tests may be required to supplement the existing information regarding the soils and rock. The estimated cost of subcontractors for boreholes and crosshole tests has been included in the "Budgetary Allowances". However, the Engineer shall provide inspection, review and evaluation of these soil exploration data.

The Engineer, complying with all applicable City/State/Federal regulations shall retain the services of a qualified Geotechnical Investigation contractor to obtain the required soil/rock samples, to conduct in situ field-testing and installation of geotechnical instrumentation.

The Engineer, complying with all applicable City/State/Federal regulations shall retain the services of a qualified testing laboratory to perform the approved tests on soils/rock.

The Engineer shall prepare the Final Geotechnical Foundation Report. Geotechnical Foundation Report shall discuss the subsurface conditions (including previously available information) along the bridge alignment, provide seismic geotechnical parameter required for structural modeling, investigate vulnerability, for the City supplied time history records for acceleration, velocity, displacement as input for excitation of computer models, etc. This report shall help establish the adequacy of existing foundations under these seismic loads, and recommend foundation remedial measures and their costs, if needed.

The report shall be prepared in accordance with the NYCDOT Procedures for Bridge Reconstruction Project Report.

Task 3 – Modeling and Calculation of Vibration Characteristics:

The Engineer shall commence work on this task after the Department has granted such authorization upon review of the Investigation Plan. The work on this task may proceed concurrently with Task 2.

The Engineer shall develop analytical computer model of the bridge for the analyses under this project. The Engineer shall also calculate the vibration characteristics of the bridge relevant to understanding its dynamic behavior. The vibration characteristics to be calculated shall include, but not limited to natural frequencies, mode shapes, modal participation factors and composite modal damping if applicable. The vibration characteristics obtained by the field measurement as provided under previous investigation shall be compared with those calculated under this task to verify the computer model developed under this task for the bridge structure.

The Engineer shall prepare and submit to the Department six copies of a report on this task. The report shall include the following:

1. Description of the model, with all properties defined, and computer plots of the model.
2. Printouts for eigenvalue analyses performed, and plots of the mode shapes.
3. Vibration characteristics calculated, with a discussion of the significance of the modes for horizontal and vertical components of seismic activity and appropriate combination thereof.
4. Justification or basis for the representations and approximations used in modeling the bridge and tower structure, including those for the following:
 - a. Soil effects including soil dampers, if any
 - b. Masonry piers, abutments and foundations
 - c. Piles and caissons

Task 4 – Evaluation of Bridge Vulnerabilities

The Engineer shall commence work on this task only after authorization from the Department.

The Engineer shall perform seismic analyses of the bridge structure, including its foundation, piers and abutments consistent with the seismic design and bridge performance criteria. The analyses shall take into account all significant aspects of the structure; its support and site, including but not limited to the following:

1. Soil – structure interaction effects.
2. Spatial variation of seismic ground motion, including its dynamic effects as well as the differential movement effects at supports.
3. Soil Liquefaction
4. Vertical and horizontal components of ground motion in accordance with the latest NYCDOT Seismic Design Guidelines.

Utilizing the results of the seismic analyses, the Engineer shall identify and quantify all seismic vulnerabilities of the bridge components, including, but not limited to, truss members, connections, piers, foundation/piles, towers, retaining walls and embankments.

All deficient conditions shall be noted and their effect on the integrity of the bridge during seismic activity shall be discussed in detail for each level. These vulnerabilities and associated construction cost estimates shall be compared with the previous investigation report.

The Engineer shall prepare and submit to the Department eight copies of the report on this task. The report shall describe and document adequately the work performed under this task, and shall include the results of analyses. The report shall also include the recommended retrofit measures, the conceptual retrofit details and their estimated construction costs. Computer printouts and disk files of these analyses, with both input and output shall be included in the appendices of the report. The computer disk files shall be in a format compatible to the NYCDOT computers.

Task 5 – Preliminary Plans

- a. Upon notice to proceed of the selection of the retrofit measures by the Department, the Engineer shall prepare Preliminary Plans, based on the approved scheme for retrofitting the bridge structure. The Preliminary Plans shall show sufficient detailed MPT drawings. The Preliminary Plans shall also include a separate itemized scope of work. The Preliminary Plan submission shall include an up to date itemized cost estimate.
- b. The Engineer shall submit ten sets of the Draft Preliminary Plans to the Department for review. Upon incorporation of all comments received from the Department, the Engineer shall resubmit ten sets of the revised Preliminary Plans to the Department for approval.
- c. The Engineer shall submit complete sets of the Preliminary Plans to all affected agencies (written receipts required), as determined by the Commissioner, for their review. An all agency conference and a separate OCMC meeting will subsequently be held to receive their comments, at which the Engineer shall attend. All comments as approved by the Commissioner shall be incorporated into the Preliminary Plans.
- d. The Engineer shall submit six sets of the approved Preliminary Plans to the Commissioner.

e. Construction Duration

Once the maintenance and protection of traffic scheme has been agreed upon by the Department (both Bridge Design and OCMC's office), the Engineer shall evaluate whether or not the project warrants additional efforts to mitigate the impact of the construction on the public. Such efforts would include construction contract provisions to ensure project's timely completion; to shorten the total duration; to minimize traffic delays.

The Engineer shall consider and address in his evaluation, the projects significance with respect to: vehicular traffic; public safety; the community (quality of life, business, pedestrians, etc.); program needs (scheduling of other projects, etc.); other means of transportation (subway, waterway, etc.); the projects complexity; coordination with others (subway, utilities, etc); etc.

If the Engineer's evaluation indicates that the project warrants additional efforts to mitigate the impact of the construction on the public, the Engineer shall investigate the various methods as they pertain to the project and make a recommendation of one method (or a combination thereof). Such methods shall include, but not limited to the following:

Cost plus time bidding (A+B bidding); lane rental; incentive/disincentive clauses; time related contract provisions such as interim milestone dates or contract completion dates with significant liquidated damage provisions; the use of Critical Path Method (CPM) scheduling as a bid item, etc.

Any project estimated to cost more than \$ 20 million must include the use of Critical Path Method (CPM) scheduling as a bid item.

The Engineer's discussion shall include but not be limited to the following for each particular method: advantages and disadvantages; its practicality; estimated construction duration; bar chart schedule; estimated construction cost; estimated road user costs; associated payments and assessments; etc.

The Engineer's evaluation and recommendations shall be submitted to the Department. The Department will make a determination on whether or not to implement a time related construction contract provision. If the Department decides to employ such a provision, the Engineer shall accordingly incorporate the provision into the Final Contract Documents.

Upon completion and approval of the Seismic Assessment Report and Preliminary Plan(s), the Engineer shall prepare and hand deliver to the Commissioner the following final documents, which shall be labeled, bound, and indexed in an orderly fashion:

1. A complete set of the Preliminary Plans on reproducible drafting film. In addition, if any drawings were prepared using CADD, the Engineer shall also submit to the Department two copies of the CADD diskettes.
2. Six copies of the completed Final Bridge Seismic Assessment Report which includes copies of all special commercially available computer programs used for analysis of soil, soil structure, and structure.
3. Original design calculations. The submission of computerized calculations must include, but is not limited to, diskettes and written details of all programming information and results.

Task 6 – Final Design

Upon the approval of the Preliminary Design, the NYCDOT may direct the Engineer to continue to final design under this contract.

- a) The preparation of the Advanced Plans Submission. This submission shall consist of 90% complete plans, 90% complete specification book (s). 90% complete special specifications, and 90% complete itemized estimate (s).
- b) The preparation of Final Contract Bid Documents. This requires the submission for approval of Final Plan Submission (s) and PS&E submission (s), and the submission of Final Contract Bid Documents for use in the construction contract bidding process.
- c) The performance of a Bid Analysis of the bids received on the project bridge (s) resulting from this contract. Microfilming and indexing services and the delivery of Final Contract Document Records are also part of this task.
- d) Project coordination, as an ongoing task during the performance of all other tasks and services.

At the completion of Final Design, the NYCDOT will decide whether to continue to Construction Support Services under this Contract or have the tasks associated with Construction Support Services completed under a new Consultant Construction Support Contract. In no event shall the Engineer proceed to Construction Support Services until written authorization is received from the NYCDOT.

Task 7 – Construction Support Services (CSS)

- a) Shop Drawing Review Services, consisting of review and approval of shop and working drawings, and review and approval of Contractor's construction procedures/practices.
- b) Specialized Engineering Services consisting of the performance of any redesign resulting from unanticipated field conditions uncovered during construction.
- c) Attend liaison, process, coordination and other such meetings when required by the Department.
- d) The Engineer shall analyze, review and provide recommendations on all changes in materials, design or proposed work, particularly as they apply to "Value Engineering" that is proposed by the Contractor.

The Engineer specifically agrees that:

- a) his subcontractor's agents or employees shall possess the experience, knowledge, and character necessary to qualify them individually for the particular duties they perform;
- b) he will comply with the provisions of the Labor Law and all State Laws and Federal and local statutes, ordinances and regulations that are applicable to the performance of the Agreement and;

- c) he will secure all licenses and permits, if any, that are necessary for the performance of his duties under this Contract.

In fulfillment of provision (a) above, the Engineer shall submit a resume for each employee prior to assignment to the Contract, for review and approval by the Department. Employees shall be Professional Engineers licensed in the State of New York if their ASCE/NICET grade, requires that they be Professional Engineers. No substitutions for approved employees shall be permitted until the resume of the replacement employee is approved. The Commissioner, or duly authorized representative, shall have the right at all times to inspect the work of the Engineer.

All technical data in regard to the Contract existing in the Office of the Commissioner or existing in the offices of the Engineer shall be made available to the other party to this Agreement without expense to such other party, or additional compensation to the Engineer.

All office diaries, engineers' and inspectors' diaries, daily records of labor, materials and equipment used, notes, designs, reports including laboratory and plant inspection reports, drawings, tracings, estimates and specifications prepared and furnished by the Engineer shall become the property of the City upon their approval and acceptance in writing by the Commissioner or upon the termination of the Engineer's services, pursuant to Appendix "A" of this Agreement. The Engineer shall deliver to the Commissioner all said diaries, daily records of labor, material and equipment used, notes, designs, reports, drawings, tracings, estimates and specifications, which there-after the City may utilize in whole or in part or in modified form and in such manner of for such purposes or as many times as it may deem advisable, without employment of or additional compensation to the Engineer.

Peer Review Requirements

Because of the complexity nature of the analysis required for this project, an independent Peer Review Consultant shall be retained to review the Engineer's work during the Seismic Evaluation and the Preliminary Design Phase. The Peer Review team shall consist of one principal reviewer with at least 15 years experience in each of the following disciplines:

- *Structural Analysis in the long span bridges*
- *Geotechnical engineering, specialized in Seismic Analysis*

The Peer Review shall include the following as minimum:

A. Become familiar with the project

The Peer Review Consultant shall become familiar with the bridge structures including all bridge components, foundations and soil conditions. The Peer Review Consultant shall become familiar with the changes made to the bridge structures since original construction and also the on-going rehabilitation projects, which may affect the seismic evaluation of the bridge.

B. Review geotechnical investigation, soil characterization and geotechnical aspects of the soil-foundation-structure interaction

The Peer Review Consultant shall review the Geotechnical Investigation Report/Program prepared to provide all the seismic geotechnical parameters required to perform the work of this project, such as soils' dynamic properties, free-field motions, soil-foundation-structure interaction parameters, etc.

The Peer Review shall include:

- Boring logs, soil profile(s), laboratory and field test results (including geophysical testing)
- Interpretation and analysis of subsurface data
- Free-field analyses, results (including their interpretation and applications)
- Spatial variation of seismic ground motions
- Static and seismic geotechnical parameters required for foundation design, soil-foundation-structure interaction, and structural modeling
- Liquefaction assessment
- Effects of underground MTA facility

C. Review analytical modeling of the bridge system and its validation

1. The Peer Review shall review the assumptions for analytical modeling of the bridge structures and foundation including:
 - *Modeling of the Main Spans*
 - *Modeling of ramps and approach structures (in particular the masonry substructures)*
2. The Peer Review shall review the analytical considerations and modeling of all significant aspects of the structure, its support and site in the modeling including but not limited to the following:
 - *Soil-foundation-structure interaction effects*
 - *Spatial variation of seismic ground motions*
 - *Soil Liquefaction*
 - *Effects of underground MTA facility*
3. The Peer Review Consultant shall review the analytical results and the Design Consultant's interpretation.

Independent modeling/analysis may/will be required to verify all the above items/issues.

D. Review the performance evaluation and retrofit recommendations

1. The Peer Review Consultant shall review:
 - *Criteria for assessing bridge performance and identification of vulnerabilities*
 - *Acceptable demand over capacity ratios for different levels of seismic hazard*
 - *Methods for assessing the seismic retrofit requirements*
2. The Peer Review Consultant shall review the retrofit schemes and structural detailing recommendations focusing on:
 - *Technical soundness and constructability*
 - *Economic feasibility and cost effectiveness*
 - *Conformance and/or coordination with rehabilitation construction*

E. Prepare summary peer review report of findings

The Peer Review Consultant shall prepare a summary peer review report at the completion of the preliminary design phase of the project. The summary report shall include the consultant's opinion of whether the Engineer's seismic evaluation is adequate; and comments on the Engineer's retrofit measures. The Department may require the consultant to prepare intermediate reports during the course of the seismic evaluation. The maximum number of intermediate reports is 3. All these reports shall be submitted directly to the Department for review. The Department will decide whether the reports will be provided to the Engineer for the Engineer's responses.

F. Attend meetings

The Peer Review Consultant is expected to attend the following meetings:

- *One project kick-off meeting*
- *Five working meetings with the Design Consultant*
- *Two review meetings with the Design Consultant, NYCDOT, NYSDOT, and FHWA*

**TABLE 1
QUEENSBORO BRIDGE
CONTRACT BRC231S**

**TOTAL DESIGN FOR SEISMIC RETROFITS
TIME OF COMPLETION SCHEDULE**

Following are the Calendar Day Requirements for:

BIN 24004, Total Design for Seismic Retrofits

<u>Target 1</u>	<u>Target 2</u>	<u>Target 3</u>	<u>Target 4</u>	<u>Target 5</u>	<u>Target 6</u>
60	360	480	570	630	1080

Target Date 1:

The Engineer shall complete all Data collection, review of existing plans and submit investigation plan within these many Calendar Days from Notice to Proceed.

Target Date 2:

The Engineer shall complete geotechnical investigation within these many Calendar Days from Notice to Proceed.

Target Date 3:

The Engineer shall complete development of bridge models, comparison of field measured and theoretical vibration characteristics of the project bridge within these many Calendar Days from Notice to Proceed.

Target Date 4:

The Engineer shall complete structural analysis, evaluation of bridge performance, retrofit assessment and seismic assessment report within these many Calendar Days from Notice to Proceed.

Target Date 5:

The Engineer shall submit Preliminary Plans to the Commissioner and incorporate all the comments from agencies to complete the preliminary design package within these many Calendar Days from Notice to Proceed.

Target Date 6:

The Engineer shall submit final plans, specifications and itemized estimates (P.S. & E) to the Commissioner within these many Calendar Days from Notice to Proceed. Also complete and submit bid documents including responses/addendums if needed and bid analysis till award of the contract.

CONTRACT BRC 231S
TOTAL DESIGN FOR SEISMIC RETROFIT

OF

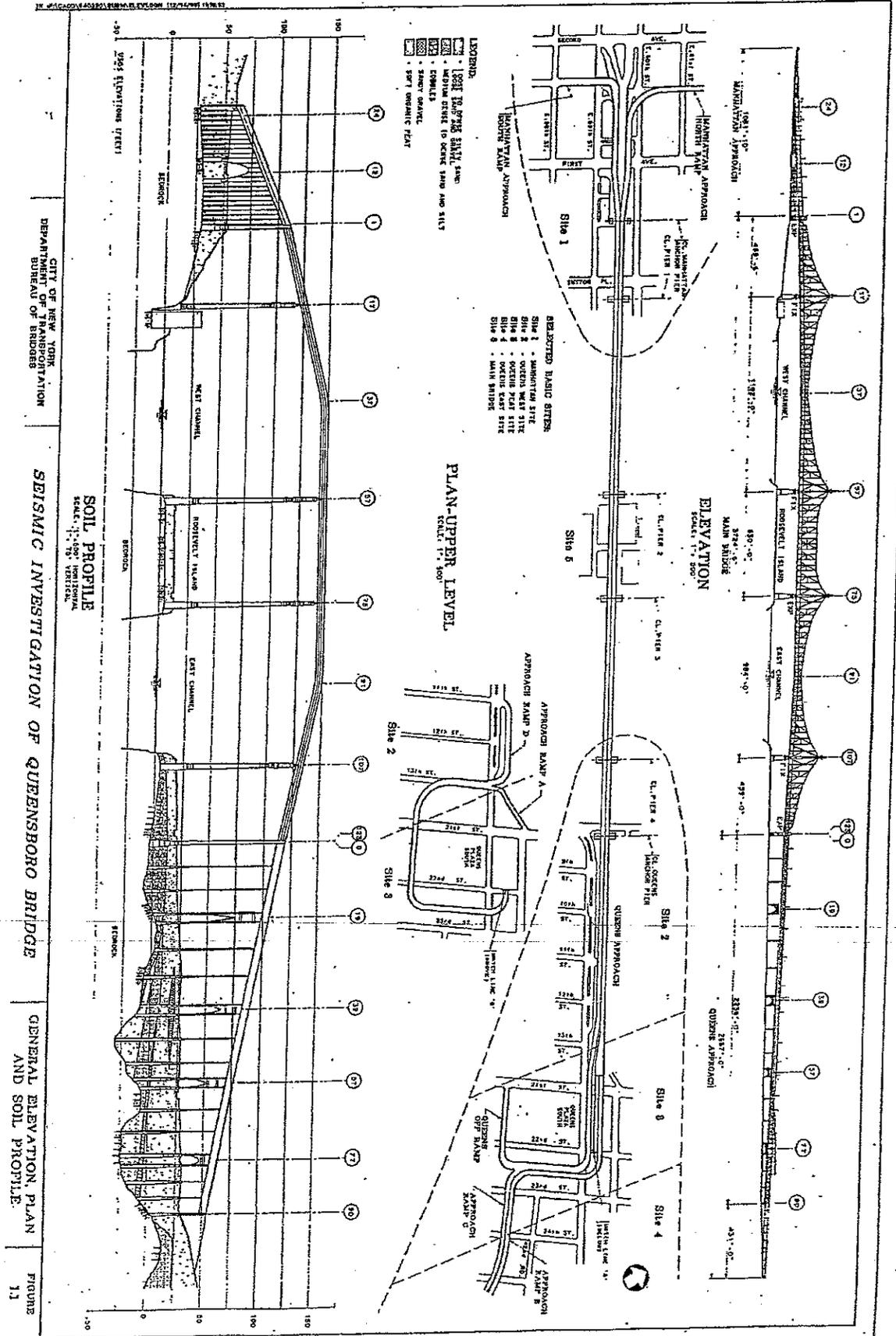
QUEENSBORO BRIDGE

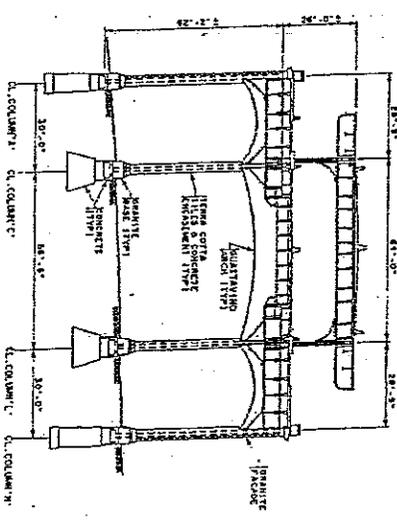
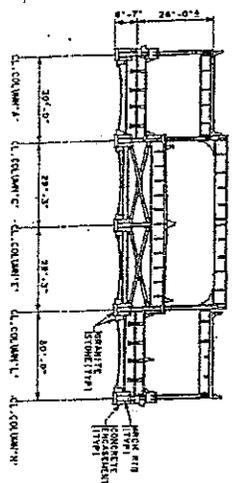
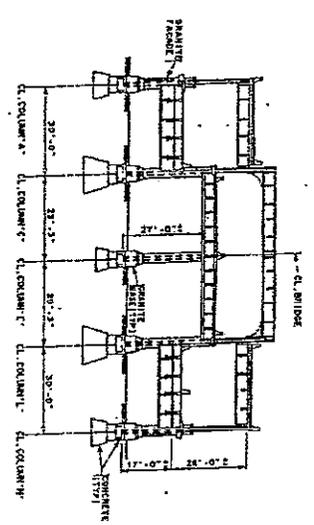
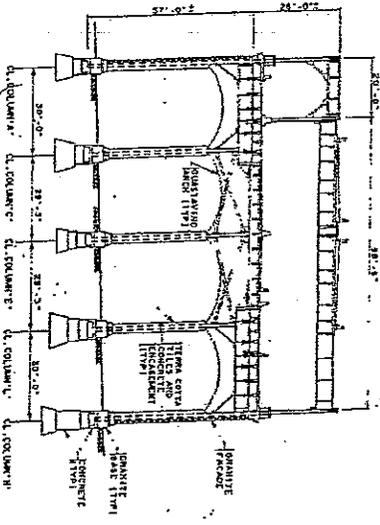
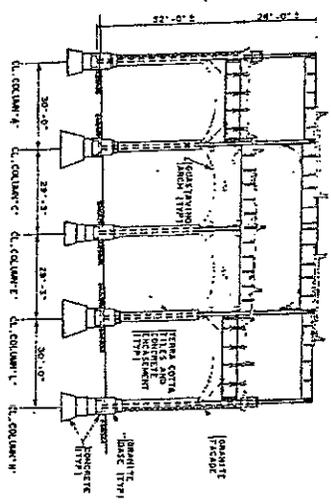
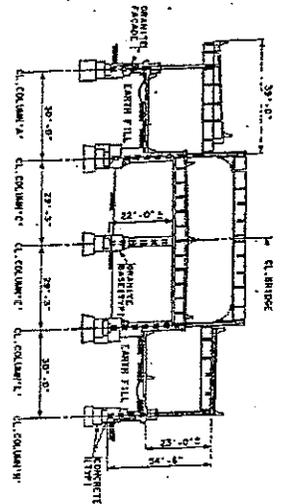
ATTACHMENT “A”

Number of Spans

Structure		No. of Spans
Manhattan Ramps	A	See Attached Figures
	B	See Attached Figures
Manhattan Approach		23
Main Bridge		7
Queens Approach		23
Queens Ramps	Off	See Attached Figures
	A	See Attached Figures
	B	See Attached Figures
	C	See Attached Figures
	D	See Attached Figures

- Figure 1.1** General Elevation, Plan and Soil Profile
- Figure 1.2 (a)** Manhattan Approach – Elevation, Plan and Details
- Figure 1.2 (b)** Manhattan Approach – Sections
- Figure 1.3** Tower Elevation at Pier 1
- Figure 1.4** Main Bridge – Cross Section
- Figure 1.5** Manhattan Anchor Pier – Elevation and Section
- Figure 1.6** Pier 1 – Elevation and Section
- Figure 1.7** Queens Approach – Elevation, Section and Details





**GENERAL REQUIREMENTS OF CONTRACT
FOR THE SERVICES OF THE CONSULTANT FOR**

**TOTAL DESIGN AND CONSTRUCTION SUPPORT SERVICES FOR
RECONSTRUCTION OF QUEENSBORO BRIDGE, CONTRACT #7
SEISMIC RETROFIT**

BOROUGHES OF MANHATTAN & QUEENS

**CONTRACT # BRC231S
PIN 84105MBBR058**

I. GENERAL REQUIREMENTS

- A. The intent of this Contract is to provide for a coordinated Preliminary Design(s) and Final Design(s) for preparation of Contract Documents to be used in the public bidding of the related project bridge(s) and to provide for Construction Support Services. Pertinent data which describes the bridge(s), and which states various parameters pertaining to the work to be done at each bridge site, is listed in the attached Project Bridge Data Sheet(s).*

It is the purpose of this Contract to present a coordinated effort for either the total rehabilitation, or reconstruction or replacement of the project bridge(s) and to define and outline the major issues and proposed solutions to the issues involved.

* **Note:** It is the Consultant's responsibility to verify all information provided herein, such as year built, type of superstructure, etc. In particular, please note that the year built provided herein does not include major or minor rehabilitation.

- B. ENGINEERING SERVICES FOR THIS CONTRACT SHALL CONSIST OF THE FOLLOWING:

1. PRELIMINARY DESIGN

- a) The performance of an In-Depth Inspection including field survey for the superstructure and the substructure.
- b) The performance of a Soil Investigation Program / Geotechnical Foundation Report.
- c) The preparation of a Bridge Deck Evaluation Report and where required by the Project Bridge Data Sheets(s), the preparation and supervision of a Concrete Coring Program(s).
- d) The preparation of Bridge Load Ratings.

- e) The performance of Seismic Assessment.
- f) The preparation of an accident report analyzing the past three years of accident data collected from the New York City Police Department at Police Plaza. Report shall include identification of all accidents attributable to geometric features of the bridge and approaches.
- g) The preparation of a Bridge Reconstruction Project Report (BRPR) including all results and recommendations of the In-Depth Inspection, Bridge Deck Evaluation Report, Bridge Load Rating, Seismic Assessment and Investigation of Design Alternatives.
- h) The preparation of Preliminary Plans, including a detailed Right-of-Way map, for the approved design alternative.
- i) Project coordination, as an ongoing task during the performance of all other tasks and services.

At the completion of Preliminary Design, the 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. In no event shall the firm proceed to Final Design until written authorization is received from the NYCDOT.

2. FINAL DESIGN

- a) The preparation of the Advanced Plans Submission. This submission shall consist of 90% complete plans, 90% complete specification book(s), 90% complete special specifications, and 90% complete itemized estimate(s) for each of the project bridge(s) called for in this Contract. In each instance, 90% complete means equal to 90% of a Final Contract Bid Document submission.
- b) The preparation of Final Contract Bid Documents, for each of the project bridge(s) called for in this Contract. This requires the submission for approval of Final Plan Submission(s) and PS&E submission(s), and the submission of Final Contract Bid Documents for use in the construction contract bidding process.
- c) The performance of a Bid Analysis of the bids received on the project bridge(s) resulting from this contract. Microfilming and indexing services and the delivery of Final Contract Document Records are also part of this task.

- d) Project coordination, as an ongoing task during the performance of all other tasks and services.

At the completion of Final Design, the NYCDOT will decide whether to continue to Construction Support Services under this Contract or have the tasks associated with Construction Support Services completed under a new Consultant Construction Support Contract. In no event shall the Consultant proceed to Construction Support Services until written authorization is received from the NYCDOT.

3. CONSTRUCTION SUPPORT SERVICES

- a) Shop Drawing Review Services, consisting of review and approval of shop and working drawings, and review and approval of Contractor's construction procedures/practices.
- b) Specialized Engineering Services consisting of the performance of any redesign resulting from unanticipated field conditions uncovered during construction.
- c) Attend liaison, process, coordination and other such meetings when required by the Department.
- d) The Consultant shall analyze, review and provide recommendations on all changes in materials, design or proposed work, particularly as they apply to "Value Engineering" that is proposed by the Contractor.

The Consultant specifically agrees that:

- (e) its subcontractors, agents or employees shall possess the experience, knowledge, and character necessary to qualify them individually for the particular duties they perform;
- (f) the firm shall not subcontract more than 49% of the contract work;
- (g) the firm will comply with the provisions of the New York State Labor Law and all State Laws and Federal and local statutes, ordinances and regulations that are applicable to the performance of the Agreement and;

(h) the firm will secure all licenses and permits, if any, that are necessary for the performance of its duties under this Contract.

In fulfillment of provision (e) above, the Consultant shall submit a resume for each employee prior to assignment to the Contract, for review and approval by the Agency. Employees shall be Professional Engineers licensed in the State of New York if their ASCE/NICET grade, as shown in Table I, requires that they be Professional Engineers. No substitutions for approved employees shall be permitted until the resume of the replacement employee is approved.

- C. All technical data in regard to the Contract existing in the Office of the Commissioner or existing in the offices of the Consultant shall be made available to the other party to this Agreement without expense to such other party, or additional compensation to the Consultant.
- D. All office diaries, engineers' and inspectors' diaries, daily records of labor, materials and equipment used, notes, designs, reports including laboratory and plant inspection reports, drawings, tracings, estimates and specifications prepared and furnished by the Consultant shall become the property of the City upon their approval and acceptance in writing by the Commissioner or upon the termination of the Consultant's services, pursuant to Appendix "A2" of this Agreement. The Consultant shall deliver to the Commissioner all said diaries, daily records of labor, material and equipment used, notes, designs, reports, drawings, tracings, estimates and specifications, which there-after the City may utilize in whole or in part or in modified form and in such manner of for such purposes or as many times as it may deem advisable, without employment of or additional compensation to the Consultant.

SPECIFIC REQUIREMENTS

A. PROJECT COORDINATION

INCLUDED HEREUNDER ARE THE MAJOR TASKS AND SERVICES WHICH SHALL BE PROVIDED BY THE CONSULTANT FOR THE PROJECT BRIDGE(S) AND BE PERFORMED DURING PRELIMINARY DESIGN AND FINAL DESIGN:

1. The Consultant shall assemble and review all record data for the project. The Consultant shall conduct formal interviews with all governmental and non-governmental personnel, as directed by the Commissioner and as required for the efficient and thorough completion of the project, in order to ascertain all existing concerns, issues, problems and programs directly related to the project. The Consultant shall fully coordinate all activities under the project with all Federal/State/City Agencies, public/private utilities or organized groups which, in the opinion of the Commissioner and/ or the Consultant, are necessary for the development of a fully coordinated Project. The Consultant shall assemble and review all available reports, designs, surveys, maps, plans, documents, maintenance records, traffic counts, alignment maps, as-built drawings, construction photographs and accident records related to the bridge, including the latest NYCDOT and NYSDOT Bridge Inspection and Condition Reports, and Bridge Inventory Listing, from the Department as required during the course of this contract. Requirements of private and public utilities shall be requested by the Consultant at the onset of the project so that they may be received in time for incorporation into the Draft BRPR.
2. 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). Sufficient staffing shall be provided to complete the work on schedule. Emphasis shall be placed on the Consultant's performance evaluations with respect to scheduled timely submissions. Evaluations will be used in selection of Consultants for future work.

The Project Manager shall have a minimum of five (5) years of direct bridge design experience and ten (10) years of overall experience in the bridge engineering field, wherein he or she shall be familiar with NYSDOT and NYCDOT Standards. The Project Engineer shall have a minimum of three years of direct bridge design experience and five (5) years of overall experience in the bridge engineering field, wherein he or she shall be familiar with NYSDOT & NYCDOT Standards. 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. The Project Manager, Project Engineer, and the majority of the design staff must continuously work out of the same office and that office must be located within the tri-state area.

The Consultant shall have a local area code phone number. If the Consultant resides outside the five boroughs, he or she must provide either a NYC tie line or toll free 800 number. The phone number shall be in operation for the extent of the contract and shall be available at the time of execution of the contract. The expense of this shall be included in the Consultants overhead.

3. The Consultant shall inspect the site(s) and become familiar with the general and specific nature of the Project and the surrounding area. The Preliminary Design Limits shall be as specified in the Project Bridge Data Sheet(s). Regarding Wingwall/Retaining Wall Reconstruction: the extent of reconstruction shall be 20 feet beyond the end of the Wingwall/Retaining Wall, unless otherwise noted. In the event that this substructure element is part of a continuous retaining wall system (as is encountered in railroad cuts), then the limit of reconstruction shall be 20 feet beyond the end of the adjacent abutment.
4. The Consultant shall obtain, and become familiar with, all applicable Departmental Design Directives, Standard Details, Administrative Procedural Bulletins and guidelines for the prosecution of the work/services under the various elements of the project. These shall include, but not be limited to, the latest editions including all amendments, of the following New York State Department of Transportation (NYSDOT) and New York City Department of Transportation (NYCDOT) documents, and American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA) manuals:

NYCDOT Procedures for Bridge Reconstruction Projects (revised 2/95) including:

Appendix A: BRPR Format and Requirements

Appendix B: Substandard Features Checklist

Appendix C: Presentation of Ratings

Appendix D: In-Depth Inspection Form and Bridge Inspection & Condition Report

Appendix E: Preliminary Plan Review Checklist

Appendix F: Field Survey Requirements

NYCDOT Requirements for the Preparation of Engineering Drawings and Documents, Section 1A

NYCDOT Requirements for the Microfilming of Engineering Drawings and Documents, Section 2B & 2C

NYCDOT Detailed Instructions for the Computerized Indexing of Engineering Drawings and Documents for Microfilming, Section 3

NYCDOT Street Lighting Standards

NYCDOT Uniform Land Use Review Procedure

NYC Specifications for Title Examinations and Reports on Street/Railroad Intersections

NYC Specifications for Title Examinations and Reports on Privately-Owned Tax Lots

NYCDEP Water Supply and Sewer Standards

Electric Code of the City of New York

National Electric Code

NYSDOT Engineering Bulletins and Engineering Instructions

NYSDOT Highway Design Manual, Volumes 1 and 2

NYSDOT Standard Specifications

NYSDOT Steel Construction Manual

NYS DOT Geometric Design Policy for Bridges
NYS DOT Prestressed Concrete Construction Manual
NYS DOT Manual of Uniform Traffic Control Devices
NYS DOT Uniform Code of Bridge Inspection
NYS DOT Bridge Inspection Manual
NYS DOT Bridge Inventory and Inspection System Manual
NYS DOT Specifications For In-Depth Bridge Inspection
NYS DOT Specification For Diving Inspection of Bridges
NYS DOT Rating Criteria For Diving Inspection of Bridges
NYS DOT Engineering Instructions for Load Ratings
NYS DOT Bridge Deck Evaluation Procedure Manual
NYS DOT Standard Detail for Highway Bridges, Bridge Design Data Sheets and Guideline Drawings
NYS DOT Right of Way Mapping Procedure Manual
NYS DOT Manual of Administrative Procedure (MAP)
NYS DOT Interim Guide to Metric Design
NYS DOT Metric Conversion Guidelines. Structures Division
AASHTO Standard Specifications for Highway Bridges, as amended by NYSDOT
AASHTO Standard Specifications for Movable Highway Bridges
AASHTO Manual for Condition Evaluation of Bridges
AASHTO Guide for the Development of Bicycle Facilities
AASHTO Guide to Metric Conversion
AISC Metric Properties of Structural Shapes
ASTM Standard Specifications
FHWA Bridge Inspector's Manual for Movable Bridges
FHWA Seismic Design and Retrofit Manual for Highway Bridges
FHWA Seismic Retrofitting Guidelines for Highway Bridges

5. The Consultant shall develop an initial Progress Report (Bar Chart Schedules and Written Text), and update them monthly in accordance with Section V, Progress Reporting of this Contract. The Progress Report for Final Design shall also include a list of Contract Drawings showing the estimated percent of completion of each drawing.
6. The Consultant shall interview Departmental Maintenance, Inspection, and Engineering personnel, as appropriate, to determine the location and extent of all problems and issues in the Project.
7. The Consultant shall interview the appropriate personnel to determine the requirements for gaining access to the site for the purpose of performing the proposed contractual work.
8. The Consultant shall interview additional interested parties, as deemed appropriate by the Commissioner, to determine if the project will impact on their activities.

9. As directed by the Commissioner, the Consultant shall arrange all meetings and participate/function as Chairperson, unless otherwise directed by the Commissioner, at all meetings and conferences required in the performance of contractual work, including any/all required follow-up meetings and/or actions.
10. The Consultant shall prepare draft and final minutes for all meetings and conferences required in the performance of contractual work. The draft minutes shall be prepared and distributed to the NYCDOT Project Manager and Engineer within two (2) business days of the meeting. Upon receiving comments on the draft minutes, the Consultant shall revise the minutes, as appropriate, and shall distribute final minutes within five (5) business days.
11. As directed by the Commissioner, the Consultant shall prepare and distribute all correspondence necessary in connection with the performance of the Contract.
12. The Consultant shall attend, liaison, schedule and coordinate all meetings held during the progress of the contract between the City, the local Community Board(s), merchant groups, schools, community organizations and/or other bona fide interested parties and shall provide other community liaison services as deemed necessary by the Commissioner. The Consultant's employee assigned this responsibility shall be trained in this area, and approved by the Department for this work. This employee shall be designated the "liaison officer" for the project.
13. The Consultant shall analyze the expressed needs and concerns of the parties contacted, and shall address those needs/concerns. Upon approval by the Commissioner, the Consultant shall develop and pursue a course of action and/or strategy to resolve those issues. Upon approval of the Commissioner, the Consultant shall communicate the resolutions to the aforementioned parties. The performance of the contract work includes any and all follow up actions.
14. The Consultant shall coordinate and meet with the Local Community Board(s), the railroads and other parties as may be designated by the Commissioner, or as required for the efficient completion of the project. The Consultant shall identify and resolve all requirements, conditions and issues as presented by said parties. The minimum quantities and types of such meetings will be as follows:

Preliminary Design

One (1) All Agency Plan Review
 Two (2) OCMC
 One (1) Landmarks Commission
 One (1) Art Commission
 Three(3) Community Boards/Organizations

Final Design

Two (2) All Agency Plan Review
 Three (3) OCMC
 Three (3) Landmarks Commission
 Three (3) Art Commission
 Four (4) Community Boards/Organizations
 Two (2) NYSDOT
 One (1) Pre-Bid
 One (1) PreConstruction

Meetings with the Department and all other affected parties (public and private utilities, railroads, permit agencies, etc.) including all ULURP and Land Use related meetings will occur as required and will not be separately enumerated.

15. The Consultant shall obtain timely approval letters from all affected parties including private utilities, railroads, all City Agencies, Community Boards, OCMC, NYSDOT, FHWA, etc. during both Preliminary and Final Design. The costs incurred by the railroad entity in reviewing the design shall be reimbursed to that entity through the Force Account Agreement made between the Consultant and the entity.
16. In Preliminary Design, the Consultant is responsible to provide for all work required by private parties (non City-owned utilities, railroads and others) and City Agencies.
17. In Final Design, the Consultant shall review and provide appropriate recommendations for all work (including Plans, Specifications, and Estimates including Force Account Estimates) prepared by private parties (non City-owned utilities, railroads, and others). The Consultant shall incorporate the approved work into the Contract Documents. The design of the supports for the private utilities shall be the responsibility of the Consultant. The Consultant shall design and incorporate into the Contract Documents, the maintenance of the applicable services during construction. The Consultant shall also be responsible for and provide for in the Contract Documents, the permanent reinstallation of any affected railroad facilities including electrification modifications (as per railroad requirements). Amtrak requires that all the design for electrification modifications (catenary support, catenary relocation, bonding and grounding, etc.) be performed by a qualified consultant. Amtrak maintains a list of consulting firms that meet Amtrak's requirements.
18. In Final Design, the Consultant shall design and incorporate into the Contract Document (Plans, Specifications, and Estimates) all work required by the City Agencies. The work shall include, but not be limited to: the maintenance of existing utility services during construction; new utility installation and supports; street lighting; traffic signals; traffic signs; roadway striping; drainage; etc.
19. Prior to the submission of the Draft BRPR it shall be the Consultant's responsibility to determine which permits are required for the completion of the design and construction. The Consultant shall start the permit application process in Preliminary Design. During Final Design it shall be the Consultant's responsibility to complete the permit applications; process the applications; and to ensure that the Contract Documents fully comply with the permit requirements. All approvals for the Department shall be obtained prior to PS&E. Permits may be required from the following agencies, amongst others: the Army Corps of Engineers, Coast Guard, New York State Department of Environmental Conservation, New York City Department of Parks and Recreation, etc. The Consultant shall be responsible for ensuring that the Contract Documents identify any permits that the Contractor shall be required to obtain in order to complete the work, and to ensure that the Contract Documents provide for complying with the permit requirements.

In conjunction with complying with an agency's requirements, the Consultant shall perform, as required, sampling and testing (of river sediment; water; soil; asbestos; etc.); prior approval of the Department is required. The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified contractor to obtain the samples. The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified testing laboratory to perform the tests on the samples

20. Prior to the submittal of the Consultant's proposal the Consultant shall review the available plans of the bridge. Where plans are not available, or the available existing plans are inadequate, the Consultant shall perform the field work (take measurements, etc.) of the existing structure to the extent necessary, in order to provide the required design services. The Consultant shall provide for performing all necessary field work in his proposal.
21. The Consultant shall perform all contractual work using International System (metric) units of measurement.

B. PRELIMINARY DESIGN

INCLUDED HEREUNDER ARE THE FOLLOWING MAJOR TASKS & SERVICES WHICH SHALL BE PROVIDED BY THE CONSULTANT FOR THE PROJECT BRIDGE(S) AND BE PERFORMED AS PART OF PRELIMINARY DESIGN:

1. IN-DEPTH INSPECTION

The Consultant shall perform an in-depth field inspection of the project bridge(s) in accordance with the NYSDOT Uniform Code of Bridge Inspection and NYSDOT Specifications for In-Depth Bridge Inspection. In addition, the Consultant shall perform field surveys by a New York State Licensed Land Surveyor, as specified and to the extent necessary to meet the requirements of the Contract.

a. Preparation for Inspection & Field Survey

- 1) The Project Bridge Data Sheet(s) state the availability of the plans from which each of the project bridge(s) was constructed. Where plans are stated as being available, the Consultant shall determine the location of such plans, and shall arrange to obtain the plans from the appropriate Agency or Department.
 - a) Where the plans are available, the Consultant shall obtain a copy of the plans, which the Consultant shall then research, put in chronological order, and inventory as per specifications of the NYCDOT. Upon receipt of the existing plans, the Consultant shall send a copy to the Department.

- b) Where the plans are not available, the Consultant shall take field measurements of the existing structure to the extent necessary (this may involve additional removal of concrete encasement at sample locations, if applicable) in order to provide the required Ratings and prepare the Preliminary Plans.
- 2) The Consultant shall review all available plans and reports and shall coordinate/reconcile this data with the existing conditions of the bridge as identified through the Consultant's inspection and survey.
- 3) The Consultant shall prepare schedules and coordinate all activities with the Department.
- 4) The Consultant shall coordinate all activities of the subcontractors, suppliers, and subconsultants.
- 5) The Consultant shall obtain all permits required.
- 6) The Consultant shall develop and prepare a plan for the maintenance and protection of all traffic (vehicular, rail, waterway, pedestrian) during his Inspection & Field Survey. The Consultant shall coordinate with the Office of Construction Management Coordination (OCMC) and other appropriate parties, such as railroad, and Coast Guard, on the proposed maintenance plan(s). All appropriate required approvals shall be obtained by the Consultant prior to the commencement of inspection.
- 7) Where force account labor is required during the inspection, the Consultant shall obtain the force account labor, entry permits and necessary insurance, and enter into a Force Account Agreement, if required, with the appropriate transportation entity. In either case, the force account overhead rate used shall be in accordance with current New York City standards for this type of work, and these rates shall receive prior concurrence from the Department before work proceeds.

The Engineer shall be responsible for ensuring that payment to the railroad is appropriately made; the railroad is only entitled to receive payment for days when flagmen were at the site together with the Consultant.

- 8) The Consultant shall adhere to the NYSDOT's EB 94-034 "Lead Containment Protocol for Bridge Inspection Projects". The Consultant shall be responsible for the proper containment, collection, labeling, disposal, and worker safety protection in connection with any waste generated by the inspection. The Department shall arrange for a temporary storage site (accumulation point), located within the City of New York. The Consultant shall accumulate the waste at the designated site. The Consultant shall perform all work in conformance with State, Federal, and City regulations.

The Consultant shall notify the Borough President's office, via a letter, of a pending bridge inspection activity whenever waste (paint chips/ debris, etc.) may be generated as a consequence of the inspection process. The notification shall be made at least 14 days prior to the start of the work.

If the Consultant's inspection work includes abrasive blasting, the Consultant shall notify the Borough President's office and the local community of the nature of the work at least 30 days prior to starting the abrasive blasting activity. The community notification procedure shall be in conformance to the City's current regulations. It shall include the preparation and distribution of pamphlets describing the nature of the work, similar to the requirements for notification during bridge reconstruction projects.

The Consultant shall use one container for the waste generated at each individual bridge site. The one container shall be used for storage, transport, etc. A one gallon container of a durable material, having a sealable top (to prevent leakage), shall be used.

b. Performance of Inspection & Field Survey

- 1) The Consultant shall perform a field survey in accordance with the NYCDOT Procedure for Bridge Reconstruction Projects (Appendix F). The limits of this survey shall be as specified in the project bridge data sheet(s).
- 2) The Consultant shall obtain the permissible work hours for the Inspection and Field Survey from OCMC and all other appropriate parties. It may be necessary to work off peak hours and weekends.
- 3) The Consultant shall provide the necessary traffic controls as required by OCMC to close those lanes/sections of the bridge needed to perform the inspection. It is anticipated that one lane closure will be permitted during off-peak hours.
- 4) Where inspection is done over water or railroad tracks, the Consultant shall set up additional traffic controls where they have been determined to be necessary as a result of preparations made, and approvals received, under Section II.B.1.a.6) and 7).
- 5) Concrete Coring and/or Steel Sampling Program

The Consultant shall perform a Coring Program for the project bridge(s), as defined below and as stated in the Project Bridge Data Sheet(s). The Consultant shall determine the need for a Steel Sampling Program for the project bridge(s). If required, the Consultant on a contingency basis which shall be approved by the Department prior to its use, shall perform a Steel Sampling Program as defined below.

- a) The Consultant shall submit a coring and/or steel sampling Location Plan and Testing Program(s) to the Department for prior approval. The Testing Program submittal(s) shall describe the types, methods and purposes of tests to be conducted; Coring and/or steel sampling operation shall conform to traffic controls as previously stipulated herein under Section II.B.1.b.2)3) & 4) for In-Depth Inspection.
 - b) The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified concrete coring contractor and/or Steel Sampling Contractor to obtain the required Core and/or Steel Samples.
 - c) The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified testing laboratory to perform the approved tests on the concrete cores and/or Steel Samples.
- 6) Concrete Encasement Removal Program (for those bridges having concrete encased steel members as indicated in the Project Bridge Data Sheet(s)).

The Consultant shall perform a Concrete Encasement Removal Program as defined below:

- a) The Consultant shall submit a concrete encasement removal Location Plan (and sections) to the Department for prior approval. The removal shall be in conformance with the NYSDOT Specifications For In-Depth Inspection. The program submittal shall describe the proposed methods of removal. The removal operation shall conform to traffic controls as previously stipulated herein under Section II.B.1.b.3 for In-Depth Inspection.
 - b) The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified contractor to perform the work.
- 7) Underwater Inspection (for waterway bridges only)

The Consultant shall determine the need for underwater diving inspections based upon visual inspections and his/her review of the latest Underwater Inspection report, which shall be made available from the Department. If required, the Consultant, on a contingency basis which shall be approved by the Department prior to use, shall make provisions to supplement the record data. These provisions shall include, but not be limited to, an underwater diving inspection of the bridge substructure and the preparation of a diving inspection report.

- a) The Consultant shall perform a detailed underwater inspection for the substructure in accordance with the NYS Specification for Diving Inspection of Bridges.

- b) The Consultant, complying with all applicable City/State/Federal regulations, shall retain the services of a qualified diver to perform a complete underwater inspection of the substructure. The diver shall be a New York State Licensed Professional Engineer.
- 8) The Consultant shall make a VHS video tape of all areas inspected, with particular attention given to deteriorated and flagged conditions. Video tape shall be in color, narrated and contain views of the approaches, adjacent properties, both bridge elevations, and the bridge itself from both approaches. Video tape shall be of professional quality. Submission of the video tape shall be made concurrent with the Draft BRPR. The video shall include concrete encasement removal operations.
- 9) Upon completion of the inspection, all temporary equipment shall be removed and the site left in a neat and orderly manner.

c. Flagged Conditions

- 1) The Consultant shall immediately inform the NYCDOT Director of Flags and the NYCDOT Project Manager of any unsafe and/or flagged conditions found during the course of the inspection.
- 2) Such information shall be communicated immediately by telephone followed by written notification to the NYCDOT Director of Flags. Written notification shall include drawings showing the location(s) of the condition(s) and recommended repair and/or support details; photos of the condition(s) and load ratings of the affected structural member(s).

d. Soils Investigation Program

The Consultant shall research and review the available subsurface data and determine the need for additional Soils Investigation for seismic analysis and foundation design. The Consultant shall perform a Soils Investigation Program, if required and approved by the Department, prior to the submittal of the Draft BRPR. The Consultant shall perform the subsurface exploration, testing and obtain all necessary information regarding local geology and seismicity in order to satisfy the seismic and foundation preliminary design aspects for all reconstruction / replacement schemes included in the Draft BRPR. If required, the Consultant shall perform a Soil Investigation Program as defined below:

- 1) The Consultant shall submit his Soils Investigation Program(s) and related specifications, to the Department for prior approval. The Program submittal(s) shall describe the types, methods and purposes of tests to be conducted. Soils Investigation shall include subsurface exploration, and its operations shall conform to traffic control, requirements as stipulated herein under Section II for Inspection and Survey.

- 2) The Consultant, complying all applicable City/State/Federal regulations shall retain the services of a qualified Soils Investigation contractor to obtain the required soils samples, to conduct in situ field testing and installation of geotechnical instrumentation.
- 3) The Consultant, complying with all applicable City/State/Federal regulations shall retain the services of a qualified testing laboratory to perform the approved tests on the soils.
- 4) The budgetary allowances allocated for Soil Investigation shall be used to cover the cost for drilling and testing (Items 2 and 3 as indicated above.)

2. BRIDGE RECONSTRUCTION PROJECT REPORT(S) (BRPR)

- a. The Consultant shall prepare a Bridge Reconstruction Project Report (BRPR), in accordance with the latest edition of the NYCDOT Procedure for Bridge Reconstruction Projects. The BRPR shall contain the following:

1) Traffic Study

- a) The Consultant shall determine the projected traffic (20 years, or as specified,) design speed, and the Design Hour Volume (DHV) one-way and two-way.
- b) The Consultant shall provide new Traffic (vehicular and pedestrian), Classification and Turning Movement Counts (see Project Bridge Data Sheet for requirements).
- c) The Consultant shall obtain the functional classification from the NYCDOT to be utilized in determining/analyzing applicable geometric and substandard features.

d) Accident Report

2) Traffic Maintenance Plans.

3) Planning Statement.

4) Hydraulic Report

The Consultant, complying with all applicable City/State/Federal regulations, shall conduct a complete hydraulic study within the project area and its vicinity. The Consultant's inspection findings and evaluation of the condition of the underwater substructure and his/her hydraulic study, together with his/her recommendation, shall be included in the Draft BRPR.

5) Geotechnical Foundation Report

The Consultant shall compile the findings of the Soils Investigation Program and/or available subsurface data and produce a Geotechnical Foundation Report for submission to the Department. The report shall include the subsurface exploration results, geotechnical design parameters for various subsurface materials, soil profile(s), design analysis, evaluation and recommendations. The report shall be part of the BRPR.

The Consultant shall establish the site specific ground motion if required by the Project Data Sheet(s) and as defined in the Seismic Assessment Section. These ground motions at the bridge site shall be established after appropriate input from an experience Seismologist who shall have a minimum of ten years of experience with the local seismic environment.

6) Foundation Design Requirements.

7) Statements of Hazardous Material (Asbestos, Lead Paint, etc.)

8) Substandard Features.

a) The Substandard Features Checklist shall show what the standard feature should be and the appropriate reference from which it was obtained, what the existing feature consists of, and what the actual action proposed is.

b) The Consultant shall submit a separate justification write-up for each retained substandard feature documenting the Consultant's reasons for retaining the feature. In addition, the Consultant shall submit a separate justification write-up documenting his reasons for merely improving a Substandard Feature, as opposed to fully eliminating the Substandard Feature. Reasons for retention or improvement shall be backed by an accident study, cost of eliminating substandard feature, traffic study, environmental impact, etc.

9) In-depth Inspection Report.

10) Load Ratings.

a) The Consultant shall perform a load rating for each and every member of the structure, both as-built and as-inspected conditions, in accordance with the Load Rating requirements of the NYCDOT Procedure for Bridge Reconstruction Projects, and also in accordance with current NYSDOT requirements for level one (1) load ratings. Each member shall be rated for both Inventory and Operating Conditions using each of the following types of loadings in all cases: MS18, M18, type 3, type 3S2, and type 3-3. All MS and M ratings shall include both the equivalent MS and M truck and total load in metric tons. As-built load ratings shall include existing dead loads.

- b) All members and connections shall be rated initially by the Allowable Stress method (Working Stress). Each and every member that does not meet the minimum required inventory rating for each vehicular type shall be re-rated using the Load Factor Method.
- c) The results of the Bridge Load Rating(s) shall be incorporated into the Bridge Reconstruction Project Report(s).

11) Bridge Deck Evaluation Report

12) Seismic Assessment

The Consultant shall study the bridge for conformance to seismic requirements as specified in City/State/Federal guidelines and standards.

The Consultant should refer to Bridge Data Sheet to determine if site specific ground motion are required at the project site. If required, the Consultant shall evaluate the bridge for two levels of seismic hazards, as defined in the NYCDOT Procedures for Bridge Reconstruction Projects.

Multimode analysis shall be performed and the evaluation of member capacity shall be by the load factor method. The design forces for foundations including footings, pile caps and piles shall be the lesser of: a) the forces determined in AASHTO Division I-A article 4.7.2 with $R=1.0$ (unreduced seismic forces obtained from analysis) or; b) the forces at the bottom of the columns corresponding to column plastic hinging as determined in AASHTO Division I-A article 4.8.2.

In metropolitan areas where traffic congestion is likely to occur, the Consultant shall consider the probability of a large live load being on the bridge during an earthquake and provide adequate capacity (Earthquake load combination shall include a minimum of 50% of the live load without impact).

All reconstruction alternative schemes for the bridge shall include seismic retrofitting.

13) Plans and Sections

14) Land Use Assessment

The Consultant shall perform the following so that he/she can make a determination as to whether temporary and/or permanent easements and/or acquisitions and/or a ULURP (Uniform Land Use Review Procedure) process will be required for construction (including staging and access) and maintenance purposes; as well as identify any existing encroachments.

- a) The collection, research and review of all pertinent data (existing and legal grades, mapped R.O.W. lines, etc.) relative to the project, as well as to the map change, the limits of which may extend beyond the limits of the project.
- b) The obtaining of supplemental survey information, as required.
- c) Last owner title search of parcels adjacent to bridge and approaches, and if ULURP is deemed necessary, of all properties within the limits of the map change (i.e. alignment, grades, easements). For publicly-owned parcels, the Consultant shall determine agency management and ownership jurisdiction.
- d) For publicly-owned parcels, the Consultant shall determine whether a Section 4f Evaluation is required (see FHWA Technical Advisory T 6640.8A). If required, the Consultant shall follow the requirements as outlined in this advisory.
- e) Preparation of R.O.W. plans (strip map) showing legally adopted street lines as documented on final section and/or the latest alteration maps. Existing topography, property line monumentation, and baselines shall be tied to the bridge elements and this shall be shown on the R.O.W plan together with the correct location of the existing property lines and highway boundaries positioned accurately to a degree in keeping with the map scale. Property owner's names shall be shown together with existing easements and rights of way and total acreages of property. All means of access to the property shall be shown.
- f) The findings of the Land Use Assessment shall be included/discussed in the Bridge Reconstruction Project Report, including the R.O.W. plan.
- g) Preparation of Title Examinations and Reports on all parcels adjacent to bridge and approaches. (Contingency money for this work provided under, Fees and Payments Section III)

15) Recommendations, Estimates and Conclusions:

- a) The Consultant shall provide six feasible alternative solutions for rehabilitating / reconstructing / replacing the bridge. All members must be designed to meet the minimum inventory load requirements of each of the aforementioned five vehicular types. The Consultant shall be responsible for investigating the feasibility of obtaining MS23 live loading for each alternative. The Consultant shall discuss the feasibility (advantages and disadvantages) of obtaining MS23 live loading for each alternative. The Consultant shall recommend one of the six alternatives. The Consultant's recommendation shall include/address live load capacity as well.
- b) The Consultant shall provide Itemized estimates for the cost of construction of the six alternative solutions.

- c) The Consultant shall include a discussion of any reports which have been previously prepared on the condition of and/or any recommendations proposed for the bridge.
- d) The Consultant shall indicate the proposed design criteria for each alternative; wherein such criteria shall include, but not be limited to, the following: materials (including grade and type), allowable stresses for new and remaining existing bridge elements.

16) Original Color Photos

17) Video Tape

b. Draft Bridge Reconstruction Project Report:

The Consultant shall submit three (3) Draft Bridge Reconstruction Project Reports which shall incorporate all of the above items. The Department will coordinate all comments and forward them to the Consultant for implementation/incorporation by the Consultant into the Final BRPR(s).

c. Final Bridge Reconstruction Project Report:

The Consultant shall furnish four (4) copies of the Final Bridge Reconstruction Project Report to the Department for approval as per the Time of Completion Schedule, Table I. In conjunction with the submission of the Final Documents, the Consultant shall also submit four (4) copies of the Final BRPR to the New York City Department of Records and Information Services, Acquisitions Unit.

3. PRELIMINARY PLANS

- a. Upon notice to proceed of the selection of the reconstruction scheme by the Department (not necessarily one presented in the Draft BRPR), the Consultant shall prepare Preliminary Plans, based on the approved scheme for either rehabilitating, reconstructing or replacing the structure. The Preliminary Plans shall show sufficient details to ensure constructability of the proposed scheme, including all existing and proposed utilities, and seismic retrofitting; acquaint affected parties with the project and project components; serve as an instrument for initial approval by affected parties; and serve as a basis for the development of the final Contract Documents. Large scale partial cross sections showing dimensions between utilities and structural members shall be provided for both the existing and proposed conditions. In addition, the Consultant shall provide detailed MPT drawings. The estimated number of drawings in the Preliminary Plans for each of the Project Bridge(s) is specified in the Project Bridge Data Sheet(s); this is not necessarily the maximum number. The Preliminary Plans shall also include a separate detailed Right-of-Way plan and itemized scope of work. The Preliminary Plan submission shall also include an up to date itemized cost estimate.

- b. The Consultant shall submit three (3) sets of the Draft Preliminary Plans to the Department for review. Upon incorporation of all comments received from the Department, the Consultant shall resubmit three (3) sets of the revised Preliminary Plans to the Department for approval.
- c. The Consultant shall submit sets of the Preliminary Plans to all other affected agencies (written receipts required), as determined by the Commissioner, for their review. An all-agency conference and a separate OCMC meeting will subsequently be held to receive their comments, at which the Consultant shall attend. All comments as approved by the Commissioner shall be incorporated into the Preliminary Plans.
- d. The Consultant shall submit six (6) sets of the approved Preliminary Plans to the Commissioner, as per the Time of Completion Schedule, Table I.
- e. Construction Duration

Once the maintenance and protection of traffic scheme has been agreed upon by the Department (both Bridge Design and OCMC's office), the Consultant shall evaluate whether or not the project warrants additional efforts to mitigate the impact of the construction on the public. Such efforts would include construction contract provisions to: ensure a project's timely completion; to shorten the total duration; to minimize traffic delays.

The Consultant shall consider and address in his evaluation the project's significance with respect to: vehicular traffic; public safety; the community (quality of life, businesses, pedestrians, etc.); program needs (scheduling of other effected projects, etc.); other means of transportation (railroad, waterway, etc.); the project's complexity; coordination with others (railroads, utilities, etc.); etc.

If the Consultant's evaluation indicates that the project warrants additional efforts to mitigate the impact of the construction on the public, the Consultant shall investigate the various methods as they pertain to the project and make a recommendation of one method (or a combination thereof). Such methods shall include, but not be limited to the following:

Cost plus time bidding (A + B bidding); lane rental; incentive/disincentive clauses; time related contract provisions such as interim milestone dates or contract completion dates with significant liquidated damage provisions; the use of Critical Path Method (CPM) scheduling as a bid item; etc.

Any project estimated to cost more than \$20 million must include the use of Critical Path Method (CPM) scheduling as a bid item.

The Consultants discussion shall include but not be limited to the following for each particular method: advantages and disadvantages; its practicality; estimated construction duration; bar chart schedule; estimated construction cost; estimated road user costs; associated payments and assessments; etc..

The Consultant's evaluation and recommendation shall be submitted to the Department. The Department will make a determination on whether or not to implement a time related construction contract provision. If the Department decides to employ such a provision, the Final Design Consultant shall accordingly incorporate the provision into the Final Contract Documents.

- f. Uniform Land Use Procedure (ULURP): If it is determined that a ULURP is required for any purpose other than legal grade changes, the Consultant shall immediately initiate the required ULURP. (Contingency money for this work provided under Fees and Payments Section III)

In conjunction with any required ULURP, the Consultant shall perform the following:

- 1) Preliminary Mapping
 - a) The Consultant shall prepare preliminary ULURP application drawings (Area Map, Preliminary Alteration Map, Acquisition Map) suitable for submission to the Department of City Planning for Pre-application review. The drawings will be prepared in accordance with the instructions of the Office of NYCDOT's Land Use Coordination, the office of the Borough President, and the Department of City Planning Technical Review Unit.
 - b) The Consultant shall modify the ULURP drawings as required until approval (sign off) is obtained from the Department of City Planning Technical Review Unit.
 - c) Upon receipt of "sign off" the Consultant will provide NYCDOT's Office of Land Use Coordination with 55 sets of prints of the ULURP Drawings and of drawings selected from the contract plans.
- 2) Engineering Assistance: The Consultant shall assist the City with his/her engineering expertise during the mapping procedure. This shall include, but not be limited to the following:
 - a) Participate in all conferences, meetings, and Public Hearings on the mapping, upon the request of the Bureau of Bridges or the Office of Land Use Coordination, to present the engineering background necessary.
 - b) Prepare reports, documentation, drawings or backup material necessary to advance the proceedings.

- 3) Final Map Preparation: The Consultant may be required to modify the Preliminary Alteration Map in accordance with the instructions of the Office of the Borough President, so that it is acceptable for approval by the Borough President as the Final Alteration Map.
- 4) Surveys: In preparing the Maps for the ULURP Application, the Consultant shall utilize all information as contained in the plotted Topographic and Utility Surveys. The Consultant shall supplement this information with field trips, additional surveys and searches for information as may be required.
- 5) Final Documents: Upon completion of ULURP (Adoption of Map(s)), the Consultant shall hand-deliver to the Commissioner the following:
 - a) One complete set of every Map, in ink, on reproducible drafting film (or other reproducible material as specified by the Office of Borough President).
 - b) All notes, studies, designs, analysis, drawings, calculations, data, etc. used in the preparation of Map(s).
 - c) Copies of all correspondence to and from all agencies (City, State, Federal), Utilities, Community Planning Boards, and all other having jurisdiction or interest in project or area.
 - d) Original survey notes and plotted survey tracings. All original Topographic Survey information shall be dated, signed and certified by a licensed surveyor. The License Seal of the Surveyor and/or Registered Professional Engineer shall be shown on all plans, tracings and tabulations sheets.

4. FINAL DOCUMENTS

- a. For the Project Bridge(s) upon completion and approval of the Bridge Reconstruction Project Report(s) and Preliminary Plan(s), the Consultant shall prepare and hand deliver to the Commissioner the following final documents, which shall be labeled, bound, and indexed in an orderly fashion:
 - 1) A complete set of the plotted Survey and the Preliminary Plans on reproducible drafting film. In addition, if any drawings were prepared using CADD, the Consultant shall also submit to the Department two (2) copies of the CADD diskettes.
 - 2) Six (6) sets of prints of the plotted Survey and the approved Preliminary Plans.
 - 3) Six (6) copies of the completed Final Bridge Reconstruction Project Report.
 - 4) Original design calculations and Bridge Load Ratings. The submission of computerized calculations must include, but is not limited to, diskettes and written details of all programming information and results.

- 5) Originals/copies of all correspondence and data pertinent to the project. All correspondence shall be numbered, bound, and submitted with a typed index.
 - 6) Videotapes of all inspections.
 - 7) The Consultant's certification that all applicable Departmental Standards, Directions, Rules, Regulations, and Guidelines have been conformed to.
 - 8) All materials shall be packaged and delivered to the Commissioner in temporary file-type cartons, together with an index.
 - 9) This submission shall be subject to Departmental review and approval.
- b. The Consultant shall submit four (4) copies of the Final Bridge Reconstruction Project Report (BRPR) to the New York City Department of Records and Information Services, Acquisitions Unit.

C. FINAL DESIGN

INCLUDED HEREUNDER ARE THE MAJOR TASKS AND SERVICES WHICH SHALL BE PROVIDED BY THE CONSULTANT FOR THE PROJECT BRIDGE(S) AND BE PERFORMED AS PART OF FINAL DESIGN:

1. PREPARATION OF ADVANCED PLANS (includes plans, specification books, special specifications, and itemized estimates).
 - a. The Final Design Scope of Work shall be defined as shown on the Approved Preliminary Plans and shall include the following requirements:
 - 1) The elimination (or improvement, at a minimum) of all Substandard Features (including stopping sight distances).
 - 2) The bridge project(s) should meet any adjacent public/private agency projects currently anticipated regardless of the scheduled construction fiscal years, as concurred by NYCDOT.
 - 3) The incorporation of all work proposed by private parties and public agencies (utilities, railroads, etc.) and as concurred by the NYCDOT.
 - b. Deficient Conditions

All deficient conditions noted in the BRPR, and any commented on by the NYCDOT during the course of the Preliminary Design, shall be addressed in the Final Design to the satisfaction of the NYCDOT and in compliance with standard design requirements.

c. Field Re-Inspection and Survey as Required:

The Consultant shall re-inspect the structure in order to update repair details (due to possible further deterioration); to document any additional interim repairs which were made to the structure; to obtain any information needed to calculate the final load ratings; and/or to obtain information to facilitate the maintenance and protection of traffic scheme. These re-inspection updates may be required up until the approval of the PS&E submission depending on the condition of the bridge(s) involved. The Consultant shall submit a re-inspection report (including photographs) to the Department. The Consultant shall provide any additional survey data required during the course of Final Design. In addition, the Consultant is required to re-survey the vertical and horizontal clearances for bridges over railroads. All surveying shall be performed by a New York State Licensed Land Surveyor. The Consultant shall perform his inspection and field survey in accordance with the applicable requirements of Preliminary Design; including the requirements pertaining to Flagged Conditions.

d. Uniform Land Use Procedure (ULURP):

If it is determined that a ULURP is required for the purpose of legal grade changes, the Consultant shall immediately initiate the required ULURP and shall perform all associated tasks as per the requirements included under Preliminary Design, Section II.B.3.f.1 thru 5. (Contingency money for this work provided under, Fees and Payments Section III)

The Consultant understands and agrees that in order for the project work efficiently to proceed that it may be necessary for it to retain the services of subconsultants specialized in the area of real property appraisal, evaluation and title examination. In such circumstances, the selection of the subconsultant as well as the proposed scope of work to be performed by the subconsultant and the proposed fees to be paid the subconsultant shall be approved in advance by the Department after consultation with the City's Law Department. (Contingency money for this work provided under, Fees and Payments Section III)

e. Soils Investigation Program

The Consultant shall review the available subsurface data / Geotechnical Foundation Report assembled during the Preliminary Design and determine if additional Soils Investigation is required. The Consultant may perform his recommended Soils Investigation only if requested by the Consultant and authorized by the Department.

- 1) The Consultant shall perform his Soils Investigation Program in accordance with the applicable requirements of Preliminary Design.

- 2) The Consultant shall compile the findings of the Soils Investigation Program and produce a Soils Investigation Report for submission to the Department. The report shall include the subsurface exploration results, geotechnical design parameters for various subsurface materials, soil profile(s), design analysis, evaluation, and recommendations.
- f. Prior to the start of Design, the Consultant shall submit to the Commissioner his proposed design criteria for review and approval of the Commissioner; wherein such criteria shall include, but not be limited to, the following: materials (including grade and type), allowable stresses for new and remaining existing bridge elements.
- g. All new bridge decks are to be designed for MS23 using the allowable stress method (working stress). If during the design process, the Consultant finds that compliance with this requirement has an adverse impact, the Consultant shall describe the impact and submit his recommendation to the City.
- h. Load Ratings of the reconstructed and/or new structure shall be calculated for each of the following five vehicle types set forth in 1) below, and a summary table shall be provided on the plans.
 - 1) The Consultant shall perform a load rating of all members of the structure in accordance with current NYSDOT requirements for Level One (1) load rating. Each member shall be rated for both Inventory and Operating conditions using each of the following types of loadings in all cases: MS23 or MS18, as specified in the approved Preliminary Design; M18; type 3; type 3S2; and type 3-3. All MS and M ratings shall include both the equivalent MS and M truck and total load in metric tons.
 - 2) The Allowable Stress (Working Stress) method shall be used, unless conditions necessitate alternative methods. All alternative methods are subject to the approval of the Department.
 - 3) All members must be designed to meet the minimum inventory load requirements of each of the aforementioned vehicular types.
- i. Seismic Design shall be performed. The Load Factor Method shall be used. Multimode analysis shall be performed. The design forces for foundations including footings, pile caps and piles shall be the lesser of: a) the forces determined in AASHTO Division I-A article 4.7.2 with R=1.0 (unreduced seismic forces obtained from analysis) or; b) the forces at the bottom of the columns corresponding to column plastic hinging as determined in AASHTO Division I-A article 4.8.2.

In metropolitan areas where traffic congestion is likely to occur, the Consultant shall consider the probability of a large live load being on the bridge during an earthquake and provide adequate capacity (Earthquake load combination shall include a minimum of 50% of the live load without impact).

- j. Maintenance and Protection of Traffic shall be included in the plans. The "Approved Preliminary Plans" shall be used as the initial basis for the design; however, due to the involvement of others, changes in the Maintenance of Traffic scheme may be required. It shall be the Consultant's responsibility to incorporate all approved changes into the scheme.
- k. If the project includes a special construction contract provision to mitigate the impact of the construction on the public, as determined during the Preliminary Design, it shall be the Consultant's responsibility to incorporate the specified provision into the Contract Documents (plans; specifications; and estimate). These construction contract provisions may include but are not limited to the following: cost plus time bidding (A + B bidding); lane rental; incentive/disincentive clauses; time related contract provisions such as interim milestone dates or contract completion dates with significant liquidated damage provisions; the use of Critical Path Method (CPM) scheduling as a bid item; etc. In Final Design, the Consultant shall also investigate various methods to compress the construction duration; such as: expanded mandatory work hours ; minimum number of work crews; minimum number of locations of work; mandatory work sequence; etc.. It shall be the Consultant's responsibility to prepare all necessary contract requirements (contractual stipulations; road user costs; associated payments and assessments; etc.).
- l. Construction Schedule

A construction schedule shall be submitted by the Consultant together with his Advance Plan Submission.

The Consultant shall prepare a construction schedule which enumerates all pertinent construction tasks. The schedule shall take into account any railroad or other restrictions. The Consultant shall subsequently forward the schedule to the railroad in conjunction with the Consultant obtaining, reviewing and commenting on the Railroad License Agreement (Force Account) cost estimate.

If the project includes a special construction contract provision to mitigate the impact of the construction on the public, as determined during the Preliminary Design, the construction schedule prepared shall be in conformance with Critical Path Method (CPM) scheduling techniques. The Consultant shall prepare the CPM schedule such that it's level of detail is roughly equivalent to one work activity for each \$100,000 of the estimated construction cost. Exceptions to this requirement regarding the level of detail (i.e., number of activities) will be reviewed by the Department upon request by the Consultant. The critical activities shall be identified by the Consultant. In addition, the Consultant shall also submit a Time - Scaled Logic Diagram which shall show the sequence and interdependence of activities required for the complete performance of the construction work.

Inconjunction with developing the CPM schedule, the Consultant shall also evaluate compressing the construction duration and make recommendations on incorporating the compressed schedule into the Contract Documents.

The Consultant's compression evaluation shall include but not be limited to: expanded mandatory work hours (nighttime, weekends, longer shifts, etc.); minimum number of work crews; minimum number of locations of work; mandatory work sequence; etc. The Consultant shall discuss the advantages and disadvantages of the various compression methods as well as to provide appropriate justification for his recommendation (including cost estimates).

If the project does not include a special construction contract provision, the Consultant may submit his schedule in the form of a bar chart.

The Consultant's schedule (CPM or bar chart) shall graphically show the activities necessary to complete the work, and the sequence in which each activity is to be accomplished as planned by the Consultant and in accordance with current construction practices. Activities shown on the schedule shall include but are not necessarily limited to:

1. Project mobilization;
2. Submittals and approvals of Shop Drawings and Samples;
3. Procurement and delivery of equipment and critical materials;
4. Fabrication of special material and equipment, and their installation and testing;
5. Final cleanup;
6. Final inspection and testing;
7. Holiday shutdown - and interdependence;
8. Railroad activities;
9. Maintenance and protection of traffic work;
10. Earthwork/ demolition work/ substructure work/ superstructure work/ highway work/ drainage work/ etc.;
11. Utility work;
12. Painting;
13. All activities that affect progress, with required dates for completion.

The Consultant's schedule submission (CPM or bar chart) shall include at a minimum: description of the activities; work days per week, number of shifts per day, number of hours per shift; major equipment used; work location; major activity constraints; indicate activities not performed by the contractor; etc.

The Consultant shall submit his construction schedule (including his compression recommendations, as required) for review and comment to the Department. The Consultant shall revise, update and resubmit his construction schedule, as required.

Upon approval by the Department, the Consultant shall provide for and incorporate the schedule into the Contract Documents (plans, specifications, and estimate). This includes the preparation of all necessary contract requirements.

m. Special Specifications

The Consultant shall prepare Special Specifications and submit them as early as possible for approval by the Department. Special Specifications shall be required if the latest issue of NYCDOT and NYSDOT Standard Specifications with current additions and modifications, including any Engineering Instruction (E.I.) and State Special Specifications (as per the current NYSDOT Control Report), does not cover particular items included in the scope(s) of work of the subject bridge(s).

- 1) The Consultant shall use State Standard and Special Specification items. If State Specifications are not applicable, the Consultant may use existing NYC approved specification items, which will be supplied by the Department. It shall be the Consultant's responsibility to convert State Special and NYC approved specification items from English to SI (metric) units.
- 2) The procedure for preparing and obtaining new special City specifications approval shall include the following:
 - a) After determining that there are no current applicable State or City Specifications, the Consultant shall prepare any special specifications required and shall submit them for approval to the Department, and all affected parties.
 - b) After approval by the Department, the item numbers will be assigned. The Consultant shall then incorporate the special specifications into the Specification Book portion of the contract documents.

n. Specification Book

The Consultant shall prepare and assemble the Specification Book, which shall include the proposal for Bids, Bid Agreement, and Specifications in accordance with the Department's standard format and specific requirements. This task shall include all necessary work such as preparation of the Bid Schedule and Special Provisions; writing all technical items; typing-in necessary information on proposal pages; and assembling the Specification Book for use in the review submittal.

- o. Drawing Requirements shall be in accordance with NYCDOT Requirements for the Preparation of Engineering Drawings and Documents, Section 1A.

p. Advanced Plans Submission

- 1) For the project bridge(s), the Consultant shall prepare the Advanced Plans Submission, including plans, specification books, special specifications and itemized estimates, the completeness of which shall be not less than 90% of a Final Bid Submission. The Contract Limits of the project bridge(s) shall be determined during the course of the Final Design and shall be subject to the review and approval of the Commissioner.
- 2) The Advanced Plans Submission shall be prepared in accordance with all applicable documents listed in Section II.A.4 of this Contract. The Advanced Plans Submission shall be submitted to the Department for review prior to being submitted to the other affected parties. Five (5) sets of Advanced Plans Submission documents are required by the Department for its review. After approval by the Department, the Consultant shall submit sets of the Advanced Plans Submission for the project bridge(s) to all affected agencies (written receipts required), as determined by the Commissioner, for their review. An All-Agency conference and a separate OCMC meeting will subsequently be held to receive the agencies comments which the Consultant shall attend. All comments as approved by the Commissioner shall be incorporated by the Consultant into the Final Plans. The total number of sets of Advance Plans submission documents produced shall not exceed sixty (60) sets, except for the specification books, the total of which shall be ten (10) copies.

The Consultant shall submit Forty (40) required sets of the Capital Project Estimate(s) (itemized estimates) after the Advanced Plans Submission is approved. The Itemized Estimates shall be prepared in accordance with Departmental requirements and as follows:

- a) On a "per item number" basis for the entire construction project, plus on an "individual bridge" basis for construction projects involving more than one bridge.
- b) Separated by budget lines, on a "per item number" basis, for the entire construction project; and separated by budget lines on an "individual bridge" basis for construction projects involving more than one bridge.
- c) The Consultant shall input his Capitol Project Estimate into the Department's computer system. The Department shall make available to the Consultant a computer terminal with access to a menu driven program . This is required to ensure agreement with the Department's item data base; as well as to subsequently generate a computer printout of the submitted bids.

The Consultant shall perform the necessary data entry (items; quantities; budget codes; etc.). The terminal will be made available between 9 AM and 4 PM on City working days. The Consultant shall be responsible for verifying that the computer generated item lists have the correct item descriptions and units. Should any discrepancy be discovered in the item lists, it shall be immediately corrected by the Consultant in consultation with the NYCDOT Project Manager and the Department's Bridges and Roadway's Information System group.

The Consultant shall be responsible for ensuring that the data entered is complete and approved, as necessary, by the involved parties (with respect to: budget codes; shared costs; item numbers; etc.). If there are any subsequent changes in related item lists (ie., the Capitol Project Estimate; the Bid Schedule (B-Sheets)), prior to the start of advertisement, the Consultant shall update the computer entries . The Consultant shall also immediately update the computer entries if an addendum to the Bid Documents is issued.

2. PREPARATION OF FINAL CONTRACT BID DOCUMENTS

a. Final Plans Submission

- 1) For the project bridge(s) the Consultant shall prepare the Final Plans Submission (including plans, specification Book(s), and itemized estimate(s), the completeness of which shall be not less than 100% of a contract Bid Document submission incorporating all comments made on the Advanced Plan Submission as approved by the Department.
- 2) The Final Plans Submission shall consist of ten (10) sets of the above documents submitted to the Department for review. The specification book(s) shall include the special specifications. The itemized estimate(s) shall be in accordance with the Advance Plans submission requirements. An All-Agency conference will subsequently be held to receive the agencies comments, which the Consultant shall attend. All comments as approved by the Commissioner shall be incorporated by the Consultant into the P.S. & E. Submission.

b. P.S. & E. Submission

- 1) For the project bridge(s), the Consultant shall prepare the P.S.& E. Submission includes plans, specification book(s) and itemized estimate(s).
- 2) The P.S. & E. Submission shall consist of twenty (20) sets submitted for review to the affected parties as approved by the Department. The specification book(s) shall include the special specifications and only ten (10) copies shall be submitted for review. The itemized estimate(s) shall be prepared in accordance with the Advance Plans Submission requirements.

- c. The Contract Bid Documents Submission: Upon the approval of the P.S. & E. including the incorporation of all approved comments, the Consultant shall hand-deliver to the Commissioner the following:
 - 1) Two hundred fifty (250) halfsize and twenty (20) full size sets of bound paper prints of the Contract Plans for the project bridge(s). Printing shall be one-sided.
 - 2) One (1) original of the Consultant's Itemized Estimate for each of the project bridge(s), including the required City agency budget code breakdown(s).
 - 3) Two hundred fifty (250) complete bound books of specifications, collated, with boiler plate, for the construction project. Printing shall be two-sided.
- 3. BID ANALYSIS (INCLUDING MICROFILMING AND INDEXING SERVICES, AND DELIVERY OF FINAL CONTRACT DOCUMENT RECORDS)
 - a. The Consultant, at the commencement of the bidding period for every ensuing construction contract, shall obtain a copy of the Invitation to bid.
 - b. The Consultant shall provide, to the satisfaction of the Commissioner, all services required during the bidding period in order to ensure that questions from prospective bidders are answered in a uniform/timely fashion, including attending the Pre-Bid Meeting(s).
 - c. During the bidding period, the Commissioner shall make known to the Consultant, and the Consultant shall make known to the Commissioner, any ambiguities or inconsistencies in the Bid Documents. The Consultant shall investigate all such problems and shall deliver to the Commissioner an analysis and/or recommendation concerning the resolution of all such problems.
 - d. Where the Commissioner deems that an Addendum to the construction contract is necessary, the Consultant shall prepare and hand-deliver said Addendum to the Commissioner within twenty-four (24) hours of notification and shall notify and deliver via overnight mail and/or FAX machine a copy of the addenda to all prospective bidders immediately upon receiving direction to do so from the Commissioner.
 - e. The Consultant shall attend the opening of bids and commence the review and analysis of the bids in accordance with currently applicable Departmental Standards. In general, this shall include the reviewing of the computer printout of the submitted bids, the analyzing of unit prices and lump sum items to determine the appropriateness of costs with respect to the associated work items, the determining of apparent unbalanced and penny-bid items, the checking of item quantities as directed, and the re-checking of quantities and lump sum items for low bid items that are 15% or more above the Consultant's Estimate. If required, the Consultant shall prepare a "Case II" or a "Savings" analysis, whichever applies, in accordance with the latest NYSDOT procedures.

- f. The Consultant shall formally recommend to the Department, within twenty-four (24) hours of the receipt of the bid tabulation, an acceptable low bidder.
- g. Within forty-eight (48) hours of the receipt of the bid tabulation, the Consultant shall submit comments on the reviewed computer printout of the submitted bids, in accordance with currently applicable Departmental Procedures.
- h. In conjunction with the Uniform Code of Bridge Inspection, the Consultant shall prepare the NYSDOT's Level I Load Rating Summary, Level II Load Rating input forms, and update the Bridge Inventory Sheets for the reconstructed bridge (as per the design shown in the Contract Bid Documents submission).

The Consultant shall submit these items (Level I Load Rating Summary, the Level II Load Rating input forms, and Updated Bridge Inventory Sheets) to the NYSDOT's Region 11 Bridge Planning and Management Group, and send copies to the Department.

- i. Microfilming and Indexing

In accordance with NYCDOT Requirements for the microfilming of, Detailed Microfilming of, and Computerized Indexing of Engineering Drawings and Documents, the Consultant shall assemble all appropriate project documentation and shall microfilm said documentation. This shall include, but not be limited to, the following:

- 1) The Consultant shall Microfilm and Index all Contract Documents and back-up information, as prepared and compiled in connection with this Project, including the existing Plans and all survey documents, in accordance with currently applicable Departmental Standards and Procedures.
- 2) The Consultant shall provide a computerized index, which shall be a chronological listing, including an abstract of document content for the central project file, said Index to be incorporated into the microfilm presentation.
- 3) All records shall be kept in a complete, comprehensively indexed central project file, which the Consultant shall maintain. This file shall contain all letters, reports, minutes, files notes, sketches, computations, telephone messages, diaries, surveys, marked-up drawings, worksheets, data, research records, computer outputs, payments, problem reports, applications, renderings, and permits. Additionally, the central project file shall be kept in a format in accordance with currently applicable Departmental Standards and Procedures, which in general shall mean a format which shall facilitate the indexing of the required records.

4. FINAL CONTRACT DOCUMENT RECORDS

The Consultant shall hand deliver the following Final Contract Document Records to the Commissioner after the Bid Analysis, Microfilming and Indexing are complete and in accordance with the time of completion schedule of this contract:

- a. The complete set of original (Permanent) Final Contract Bid Documents for the Project Bridge(s). These documents shall include plans, specification book(s) (including special specifications, proposal for bids, bid agreement) and itemized estimate(s). In addition, if any drawings were prepared using CADD, the Consultant shall also submit to the Department two (2) copies of the CADD diskettes.
- b. All project files, microfilm, and index of project files.
- c. Original design calculations and Bridge Load Ratings. The submission of computerized calculations must include, but is not limited to, diskettes and written details of all programming information and results.
- d. Originals/copies of all correspondence and data pertinent to the project. All correspondence shall be numbered, bound, and submitted with a typed index.
- e. The Consultant's certification that all applicable Departmental Standards, Directions, Rules, Regulations, and Guidelines have been conformed to.
- f. All materials shall be packaged and delivered to the Commissioner in temporary file-type cartons together with a typed index.
- g. This submission shall be subject to Departmental review and approval.

D. CONSTRUCTION SUPPORT SERVICES

INCLUDED HEREUNDER ARE THE MAJOR TASKS AND SERVICES WHICH SHALL BE PROVIDED BY THE CONSULTANT FOR THE PROJECT BRIDGE(S) AND BE PERFORMED DURING CONSTRUCTION SUPPORT SERVICES:

1. The Consultant shall provide Specialized Engineering Services, Plant Inspection Services, Materials Testing Services, Shop Drawing Review Services, and Design Services in accordance with the Contract Documents and the Referenced Design Specifications with a staff commensurate with the level of construction activity until completion and final acceptance of the Construction Contract work. In the event of a work stoppage or a winter shutdown, or as situation warrants, the Consultant shall reduce his work force appropriately or as directed by the Commissioner. Forms 4T-1 and 4T-2 of the Specific Requirements indicates the approximate level of competence required of the staff, together with estimated durations of employment.
2. The Consultant agrees to provide, as required by the Commissioner and to his satisfaction, Shop Drawing Review Services. The Consultant shall be responsible for the review and approval of all shop drawings as required by the Contract Documents. Shop Drawings shall be reviewed for their conformance with the Contract Documents and any changes to the details or specifications as approved by the N.Y.C.D.O.T. The Contract Documents include the Plans and Specifications along with all other referenced material in the Contract. The Consultant shall appropriately stamp all reviewed shop drawings with a stamp indicating "designations of acceptance" which conform to the contract documents and as approved by the Commissioner. Processing of Shop Drawings shall comply with directions given by the Commissioner. The Consultant may be required to coordinate his Shop Drawing review with other agencies as required by the contract documents or agencies as designated by the Commissioner.

All drawings prepared by the Contractor (including Sub-Contractors, Fabricators, Manufacturers, Erectors, etc.) to facilitate construction as required by the Contract Documents shall be termed Shop Drawings.

Such Shop Drawings shall include, but not be limited to the following:

- | | |
|--|---|
| 1. Structural Steel Drawings | 8. Bridge Railing Drawings |
| 2. Prestressed/Precast Concrete Drawings | 9. Bridge Bearing Drawings |
| 3. Shop/Plant Repair Procedures and Drawings | 10. Temporary Jacking and/or Shoring Drawings |
| 4. Heat Curving/Cambering Drawings | 11. Cofferdam/Sheeting Drawings |
| 5. Erection and Transportation Drawings | 12. Demolition/Removal Drawings |
| 6. Expansion Joint System Drawings | 13. Machinery Drawings/Catalog Cut |
| 7. Steel Reinforcement Drawings | 14. Electrical Drawings/Catalog Cut |

As part of Shop Drawings Review Services the Consultant also agrees to review and provide comments on any calculations required by the contract documents or by the Commissioner to be submitted by the contractor or his engineer.

3. The Consultant shall review the Contractor's Removal Plan to ascertain if they adequately identify and address safety conditions and that the demolition operation does not subject the structure to any stress in excess of the structures' ability to support.
4. The Consultant shall attend liaison, progress, coordination and other such meetings when required by the Department. When required by the Department, the Consultant shall analyze, review and provide recommendations on all changes in materials, design or proposed work, particularly as they may apply to "Value Engineering" that is proposed by the Contractor.
5. Prior to commencement of work Shop Drawing Review and/or Erection Drawing Review Services, the Consultant shall submit to the Commissioner for review and approval, the names, grades, and experience of the personnel who it is anticipated will be utilized on these services. In no event shall the Consultant perform Drawing Review Services without prior written authorization by the Commissioner or his duly authorized representative.
6. The Consultant agrees to provide Interim (Semi-Annual) Inspection of the portion of the project bridge(s) open to traffic as per the Department's Interim Inspection requirements.
7. In the event the Department decides to provide Resident Engineering and Inspection Services with in-house personnel, the following shall be performed by the Consultant:
 - a. The Consultant shall have the in-house specialized capability or shall have a specialized subconsultant to handle the Department's Air-Monitoring Protocol.
 - b. The Consultant shall prepare, furnish, index, and microfilm complete sets of accurate shop, working, and record as-built drawings, catalog sheets, technical bulletins, manuals, diagrams, other printed matter, etc. as required which shall show the work as actually installed in compliance with the provisions of the Microfilming requirements.

III. FEES AND PAYMENTS

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

A. FEE

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	\$ _____	
Final Design	<u>\$1,210,000.00</u>	Budgetary amounts*
Construction Support	<u>\$1,900,000.00</u>	Budgetary amounts*

** Fees for Final Design and Construction Support are estimates based on information currently available to the Department. Should the scope of work develop during the Preliminary Design phase indicate that more work will be required for Final Design and Construction Support than is currently anticipated, any proposed fees for 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 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 expenses.

C. DEFINITIONS

1. Direct Technical Office Salary Cost

Direct technical office salary cost shall include only engineering, surveying and drafting salaries, 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. Any salary increases prior to or during the contract period shall be within parameters as established in the Engineer Pay Index of the U.S. Bureau of Labor Statistics-Employment Cost Index for Professional Specialty and Technical Workers-Wages and Salaries. ¹

¹The annual employment cost index percent increase times the total year salary cost of all current employees working on that project for the prior year, becomes a pool of money from which various raises may be granted. The maximum salary increase per person is limited to the annual employment cost index plus 50% of the index. The total of individual raises shall not exceed the pool money per contract year.

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 shall not exceed One Hundred Dollars (\$100.00) per hour, to be based on actual draw.
- b. The Principals participating in the Project shall provide the Commissioner with a demonstration certifying his/her actual draw from the firm on an average weekly basis. Where said rate exceeds Fifty Dollars (\$50.00) per hour, the principal participating in the project shall provide the Commissioner with a notarized statement by a certified public accountant that such rate does not exceed the principals' annual direct compensation, excluding profit, computed on an hourly rate. The amount payable for Principals' Time shall not be included in the technical salary cost base and is not subject to any multiplier.
- 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 hereinbefore.
- 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 times an adjusted (where appropriate) multiplier, said multiplier to be established by Department's Engineering Audits Bureau to avoid duplication of indirect expenses. (Adjusted multiplier is calculated by decreasing 10% from multiplier).

- 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. Out-Of-Pocket Expense.

Out-of-pocket expenses shall be limited to:

- a. 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, Underwater Inspection, Soils Investigation and Testing Services, and Permit Application Fees and related Sampling and Testing Services, as required.
- 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). (For Definition, See III.C.5)
- 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 as 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 out-of-pocket costs. This shall not include the purchase of general tools or office supplies whether expendable or reusable.

Out-of-Pocket expenses shall be subject to audit by the Department. Consequently, the Consultant shall maintain, and submit to the Department as part of his/her monthly payment voucher, time and material records for all out-of-pocket expenses incurred during that month and submitted for reimbursement in connection with the services herein contained. Subcontractors and subconsultants are subject to the same rules governing the documentation and reimbursement of Out-of-Pocket expenses as the prime consultant.

5. 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.

6. 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 out-of-pocket expenses.
- 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	$(1+A) \times (1+B)$
_____	_____	_____
_____	_____	_____
_____	_____	_____
		For Preliminary Design
		For Final Design
		For Construction Support Services

*Said multiplier was established by the consultant in his/her "Request for Proposal: submission and has been accepted by the department subject to the review and audit provisions as contained herein.

- b. For Final Design and Construction Support Services, the profit portion of Consultant's and Subconsultant's accepted multiplier shall be fixed at _____. The overhead portion shall be calculated and audited by the Department.
 - c. For approved out-of-pocket costs 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 Commissioner, or his duly authorized representative, but not more than once per calendar month, a certified voucher, and six copies, 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 and the number of hours worked each day, the direct salary and 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. All said vouchers and progress reports shall be subject to review and approval of the Division's 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 shall endorse his/her approval of payment of said voucher.
4. Out-of-pocket expenses and compensation for Principals' Time approved by the Commissioner shall be paid at cost to the Consultant, with no markup for the Consultant's overhead and profit.

5. There shall be a final payment made at the end of each phase (Preliminary Design, Final Design and Construction Support Services) with the release of the associated retainage of the applicable phase.
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.
8. The Fee and all payments hereunder shall be subject to review and audit by the Department of Transportation and subject to a post audit by the Comptroller.
9. The Fee shall not be increased for any reason except as provided herein.
10. The City shall retain five percent (5%) from each Consultants' partial payment.
11. Included hereunder are the major provisions/requirements applicable to Construction Support Services only:
 - a. The annual daily wage rates, exclusive of applicable weekend/night work differential, shall not exceed the rates as shown on Form 4T-1. 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 Engineer of Construction and the Engineering Audit Officer, and shall be within the parameters as established in the U.S. Bureau of Labor Statistics Employment Cost Index for Professional Specialty and Technical Workers-Wages and Salaries.
 - b. Partial Payments:
 - 1) The Consultant shall be paid in monthly progress payments based on actual allowable cost incurred during the period in accordance with Section III-A of this Agreement. The consultant shall submit a breakdown of costs for each specific task provided with request for payment. Bills are subject to the approval of the Commissioner, or his duly authorized representative.
 - 2) The Consultant shall inform the City and all Sub Contractors and Sub Consultants of the Consultant's schedule for submitting monthly vouchers to the City, said schedule shall be strictly adhered to by the Consultant.

- 3) 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.
 - 4) The Consultant is required to make partial payments to all Sub Contractors and Sub Consultants within (10) calendar days of receipt of payment from the City.
 - 5) 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 and, on Federally aided Projects, by the Federal Highway Administration. Such audit shall not be a condition of partial payment.
 - 6) The City shall retain five percent (5%) from each Consultant's progress 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.
12. The total length of the Preliminary Design and Final Design Services for the project bridge(s) shall be as stipulated in the Time of Completion Schedule. 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 expenses shall not exceed \$15,000.*
- c. The cost of out-of-pocket expenses for Bore Holes Testing shall not exceed \$200,000.00, the cost of MPT inspection shall not exceed \$25,000.00, the cost of Peer Review Consultant shall not exceed \$350,000.00,* the cost of Concrete Coring Program shall not exceed \$0,* the cost of the Soils Investigation Program shall not exceed \$0,* the cost of force account expenses shall not exceed \$0,* the cost of Permit Application Fees and related Sampling and Testing shall not exceed \$0,* the cost of the Hydraulic Survey shall not exceed \$0,* and the cost of the Hydraulic Study shall not exceed \$0*. Cost of work is subject to Departmental approval. Approval shall be based on competitive low bid process from a minimum of three sub-consultants.

** 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. 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 Departmental 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 the Department 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 A2 Section 6.24.*

- d. The total direct technical office salary cost times the technical office multiplier plus reimbursement for Principals' Time and approved out-of-pocket expenses for services provided in connection with contingent work to provide Underwater Inspection, as stated herein, shall not exceed \$0,** and services provided in connection with contingent work to provide a Steel Sampling Program, as stated herein, shall not exceed \$-0** and services provided in connection with contingent work to provide for flagged conditions, as stated herein, shall not exceed \$0** Cost of work is subject to Departmental approval. Approval shall be based on competitive low bid process from a minimum of three subconsultants.
- e. The total direct technical office salary cost times the technical office multiplier plus reimbursement for Principals' time and approved out-of-pocket expenses for services provided in connection with contingent work to provide a ULURP process, as stated herein shall not exceed \$-0**, and services provided in connection with contingent work to provide Title Examinations and Reports, as stated herein, shall not exceed \$-0**. 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 A2 Section 6.24.

2. FINAL DESIGN

The Final Design fee shall be negotiated at the completion of Preliminary Design, and shall be apportioned at that time. In accordance with the not to exceed fee and technical office multiplier(s) as stipulated herein under section III. (Fees & Payments)

Final Design Services	<u>\$1,210,000.00</u>	Budgetary Amount
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3. CONSTRUCTION SUPPORT

The Construction Support fee shall be negotiated at the completion of Final Design, and shall be apportioned at that time. In accordance with the not to exceed fee and technical office multiplier(s) as stipulated herein under section III. (Fees & Payments)

Construction Support Services	<u>\$1,900,000.00</u>	Budgetary Amount
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4. Upon approval by the Department, funds may be transferred between tasks as long as the scope or total fee of the Agreement is not exceeded, upon approval of the Department.

5. For both partial and final payment purposes (Preliminary and Final Design only), the cost limitations, as herein stated in Form 4T2, 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 are:

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.

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 are:

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

IV. TIME OF COMPLETION

The Consultant shall complete all tasks associated with the Preliminary and Final Design phases of this contract within the time frames listed, for the project bridge(s), of the contract. The total anticipated time of completion is **1811** Consecutive Calendar Days from Date of Written Notice to Proceed 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 ENGINEER ALL DOCUMENTS AS LISTED IN SECTION II, HEREIN, WITHIN THE TIME FRAMES LISTED, FOR THE PROJECT STRUCTURES, IN TABLE 1 OF THE CONTRACT.

V. PROGRESS REPORTING (PRELIMINARY AND FINAL DESIGN ONLY)

A. Upon receipt of the Notice to Proceed, the Consultant shall prepare and submit for approval by the Commissioner a detailed, initial Progress Report (Bar Charts, written text, 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). A Progress Report shall be submitted at the Start-up Meeting. The Schedule Bar Chart 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 Bridge Reconstruction Project Report, Final Bridge Reconstruction Project Report, Draft Preliminary Plans, and Approved Preliminary Plans; 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 elements of the Bar Chart; and the Project's critical path. All contract times and extensions of time shall be indicated.

B. For the purpose of the Schedule Bar Chart, the date of Notice to Proceed shall be established as the "Anniversary Date".

C. On a monthly "Anniversary Date" basis, the Consultant shall analyze the Project's progress as it relates to the approved Schedule Bar Chart. 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 element of the work plan network; changes in targeted completion dates for the various elements of the network; 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 network which reflects the Project's current status at the end of the instant reporting period.

D. Progress Reports and documentation shall be submitted to the Commissioner, for approval, no later than two (2) working days following the close of the reporting period.

E. Recoupment of Cost of Design Errors and Omissions

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

Neither the Consultant nor any of its Sub-Consultants will perform any legal services under this agreement without the prior written approval of the Department and the Law Department.



**PROCEDURES
FOR
BRIDGE RECONSTRUCTION
PROJECT REPORT**

UPDATED JANUARY 2004

**ENGINEERING REVIEW GROUP
BUREAU OF ENGINEERING REVIEW & SUPPORT
DIVISION OF BRIDGES**

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PROCEDURES
FOR
BRIDGE RECONSTRUCTION PROJECT REPORT

This document describes the format to be followed and the information that shall be included in the Bridge Reconstruction Project Report (BRPR).

1. PURPOSE:

These procedures enumerate the requirements for producing a set of Preliminary Plans that will be used as a basis for developing Final Contract Bid Documents for the rehabilitation/ replacement of bridges. It is expected that the rehabilitation / replacement, in conjunction with maintenance, will extend the useful life of the structure by a minimum of thirty years.

Unless otherwise stated, all structures shall be reconstructed to a MS23 (Inventory) level, minimum.

The International System (Metric) Units of measurement shall be used for all contractual work, including the work pertaining to public and private agencies (utilities, railroad facilities, etc.). Soft conversion shall be used for existing features that are to be retained and for applicable Standards and Design directives for which SI (Metric) conversion is not yet available.

There shall be an individual Bridge Reconstruction Project Report and set of Preliminary Plans for each bridge, which is to be reconstructed or replaced under the Engineer's Contract.

2. BRIDGE PLANS AND REPORTS:

Prior to the submittal of the Engineer's proposal, the Engineer shall review the following:

- A) The latest Bridge Inspection and Condition Report and Bridge Inventory. If not available from the City, the Engineer shall obtain them from the NYSDOT.
- B) The plans of the existing bridge. Note: Where plans are not available, or the available existing plans are inadequate, the Engineer shall take field measurements of the existing structure to the extent necessary, in order to perform load ratings (inventory and operating) and prepare the BRPR (i.e. existing framing plans, existing cross sections and elevations, etc.) and the Preliminary Plans.

3. BRIDGE RECONSTRUCTION PROJECT REPORT

The Engineer shall prepare a "Bridge Reconstruction Project Report", in accordance with the format and requirements specified in Appendix A, which will include the following:

- 3.1 Traffic Study
- 3.2 Maintenance and Protection of Traffic Plans
- 3.3 Planning Statement - Determination of Permits
- 3.4 Hydraulic Report
- 3.5 Soil Investigation Program / Geo-technical Foundation Report
- 3.6 Foundation Design Requirements
- 3.7 Statement of Hazardous Material
- 3.8 Substandard Features
- 3.9 In-Depth Inspection Report - Under-deck Inspection
- 3.10 Load Ratings
- 3.11 Bridge Deck Evaluation Report
- 3.12 Seismic Assessment
- 3.13 Utilities
- 3.14 Aesthetics
- 3.15 Plans and Sections
- 3.16 Land Use Assessment
- 3.17 Recommendations, Estimates and Conclusions
- 3.18 Original Color Photos
- 3.19 Video Tape

3.1 TRAFFIC STUDY

The Engineer shall provide the highway classification, current vehicular and pedestrian traffic counts and turning movements, projected traffic (20 years, or as specified), design-speed and legal speed (indicate if posted), Specify land use (residential, commercial etc) in the vicinity of the bridge, Indicate all hospitals, schools, police and fire departments within the vicinity of the bridge. Attach a separate plan identifying all these facilities, AM/PM peak periods and traffic volumes, average Daily Traffic as well as one-way (and two way) design hourly volume (DHV), and Accident Report.

The following information shall be provided:

1. TRAFFIC COUNTS

A. VEHICULAR TRAFFIC COUNTS:

Provide a minimum of five consecutive days of 24-hour vehicular counts, Monday thru Friday.

B. PEDESTRIAN TRAFFIC COUNTS:

Provide a minimum of three consecutive days of pedestrian traffic counts, Tuesday thru Thursday, from 7 a.m. to 10 a.m. and from 4 p.m. to 7 p.m. Pedestrian traffic counts are required for all sidewalks, stairways and pedestrian ramps. If the bridge is located near school, provide additional hours of pedestrian traffic counts to be done prior to school start and school dismissed.

The Engineer shall determine the adequacy of the width of sidewalks on the bridge based on the pedestrian traffic counts.

C. BICYCLE TRAFFIC COUNTS:

Provide a minimum of three consecutive days of bicycle traffic counts, Tuesday thru Thursday, from 7 a.m. to 10 a.m. and from 4 p.m. to 7 p.m.

D. TURNING MOVEMENT COUNTS:

Provide a minimum of three days of turning movement counts, Tuesday thru Thursday, from 7 a.m. to 10 a.m. and 4 p.m. to 7 p.m. Prepare a plan showing all turning movements.

2. TYPE OF TRAFFIC:

Specify traffic composition above and below the span, as applicable. Perform same traffic study for lower roadway. Traffic composition shall be expressed as a percentage of trucks, automobiles and buses. The bridge is above the rail road; submit train schedule.

3. Projected future traffic based on a “No-built” scenario. Future traffic shall be projected based on annual traffic growth rate provided to the Engineer by the NYCDOT Office of Traffic Planning. Future traffic shall be estimated for a 20-year time span.
4. Level of service for both present and future vehicular and pedestrian traffic. Explain methodology used to arrive at the LOS for both present and future traffic. This includes both method of analysis and software used to calculate the LOS.

Provide specific recommendations to improve both present and future LOS. This may include highway/bridge widening, use of HOV lanes, use of Intelligent Transportation Systems (ITS), traffic controls, upgrade of any substandard geometric features or any other measures deemed necessary to improve the Level of Service.

3.1.2 ACCIDENT REPORT

The Engineer's Accident Report shall include three (3) years of accident data. The Engineer shall research the accident data from the City's Police Department.

The Engineer shall provide a list of all accidents with descriptions and attach a plan showing all accident locations.

The Engineer shall evaluate the accident data and determine if the accidents are as a result of any bridge/ highway features, geometric deficiencies; traffic patterns, or other related factors including human factor. The Engineer shall indicate whether or not any repetitive accident patterns were occurred.

The Engineer shall provide his/her conclusions and provide specific recommendations on how to reduce the number of accidents in the vicinity of the bridge.

In addition to the accident data from the Police Department, the Engineer shall contact the NYSDOT Traffic Engineering and Safety Division, and verify all reported accidents have been obtained from the Police Department's files and incorporated into the accident report.

3.1.3 BICYCLE FACILITIES REPORT

The Engineer shall provide bicycle access to the existing bridges (and approaches) in compliance with AASHTO, and NYSDOT requirements.

The Engineer shall contact to Department's Bicycle Coordinator to determine if the project is located on a NYCDOT designated bicycle path, lane or route.

The Engineer shall evaluate the project site for bicycle facility improvements, as per AASHTO guidelines, regardless of whether or not the project location is on a NYCDOT designated bicycle facility.

The Engineer shall present his findings, conclusions and provide specific recommendations on this particular issue.

3.2 MAINTENANCE AND PROTECTION OF TRAFFIC PLANS

The Engineer shall investigate, at a minimum, the following three plans for maintenance and protection of traffic:

- a. Full bridge closure to vehicular (and pedestrian) traffic.
- b. Least Impact to the Traveling Public (vehicles and pedestrians) - The considerations/issues involved may be numerous: various staging plans; off peak work hours (night time, weekends); effects on quality of reconstructed bridge; etc. This may involve the investigation (and presentation) of more than one alternative.
- c. Least Impact on the Community - The community shall include the areas immediately adjacent to the bridge, and may also include those communities impacted by detouring traffic and / or other adverse consequences of the construction.

The Engineer shall present all plans, as well as his recommendation, in Section 8.0 of the BRPR. Each plan shall be described and discussed in terms of its advantages and disadvantages. A preliminary cost estimate, construction duration and staging shall be included for each plan.

The Engineer's proposed plans for maintenance and protection of traffic: Prior to the submission of the draft BRPR, the Engineer shall discuss his proposed plans with the Division of Bridges, and the Office of Construction Mitigation and Coordination (OCMC). After the submission of the Preliminary Plans, and meetings with the Community Boards and other affected parties, OCMC will issue stipulations and approvals for maintenance and protection of traffic.

The Engineer shall prepare detailed plans for Maintenance and Protection of Traffic plans. Plans and sections of each staging of the M.P.T. Plan shall be provided. Plans of the Detour(s) shall also be provided, as required. All vehicular and pedestrian detour routes shall be evaluated and reported on by the Engineer in terms of safety, travel time, distance, etc. Proposed M.P.T. signage shall not be required as part of the BRPR (or Preliminary Plans).

3.3 PLANNING STATEMENT

The Engineer shall obtain statements from the following: NYSDOT (Regional Director); NYCDOT Division of Planning and Traffic Operation; NYCDOT Division of Bridges; NYCDOT Office of Land Use, Director of Community Boards, Borough President, City Planning, Arterial Maintenance, NYCDOT Community Affairs, Capital Roadway Planning and Development, Surface Transit Operations, Bus Service Companies, and NYC Parks. The Engineer shall contact NYCT, MTA, AMTRAK, METRONORTH, etc., if their property is nearby.

The planning statement request to the NYSDOT should request information on all current and proposed State bridge and highway projects within the vicinity of the subject City bridge; construction year of the project; current design phase of the project; and approximate project limits; including any State projects which have maintenance and protection of traffic plans that involve the subject City bridge project delineated.

The planning statement requests to the NYCDOT Division of Planning and Operation should request similar information on their respective highway projects. Planning statements from the State and City about proposed improvements

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 Engineer shall be responsible to determine which parties are to be requested for the Planning statements.

3.3.1 DETERMINATION OF PERMITS

The Engineer shall make a determination of permits required from all applicable agencies including, but not limited to the following: OCMC; DEC; Coast Guard; Department of Park and Recreation; Corps of Engineers; Waterfront Revitalization Planning; Landmarks Commission; Art Commission, and estimate the time needed for obtaining the permits/approval required. The statements concerning the required permits and the estimated time required for obtaining permits shall be included in the BRPR. If such permits are determined not to be required, a statement shall be made. The planning statement for NYCDOT Bridges will be required from the Engineer and submit in the report.

The Engineer shall start the required permit processes in Preliminary Design.

3.4 HYDRAULIC REPORT (on waterway/stream bridges and culverts)

The Engineer shall evaluate the hydraulic adequacy of the structure; and identify its susceptibility to flooding and its vulnerability to scour, ice and debris. The Engineer shall provide remedial action plans to correct any hydraulic deficiencies and/or vulnerability reduction measures which can be incorporated into the rehabilitation project. The evaluation shall also assess the effectiveness of proposed countermeasures and comment if rehabilitation is practical from a hydraulic standpoint, or whether a replacement project should be considered. If replacement is recommended, the Engineer shall identify hydraulic requirements for the proposed type and size of the structure. This assessment is included in the BRPR stage due to the potentially dramatic impact of hydraulic considerations to a project's scope and cost. In addition to that the designer shall comply with the requirements of Hydraulic Section 3.4 of NYSDOT Bridge Manual.

3.5 SOILS INVESTIGATION PROGRAM / GEO-TECHNICAL FOUNDATION REPORT

The report shall include but not be limited to the following information:

- Description of structures.
- Provide boring logs with unified soil classifications, soil profile(s), laboratory and field test results, and ground water information.
- Provide soil Class per latest NYCDOT Seismic Design Criteria.
- Interpretation and analysis of subsurface data.
- Static and dynamic geo-technical parameters required for foundation design.
- Foundation stiffness matrixes and point of fixity.
- Liquefaction potentials of subsurface soil provide remedial measures and cost estimates, if required. For example for soil Class F, Site Specific analysis shall be performed.
- Slope stability and lateral spread under static and dynamic loads.
- Field tests and instrumentation required during construction.
- Discussion of soil-structure interaction and adequacy of existing foundation under static and dynamic loads.
- Foundation recommendations for all proposed reconstruction/ replacement schemes in BRPR.
- Discussion of anticipated construction problems and proposed remedial action and solutions.

3.6 FOUNDATION DESIGN REQUIREMENTS

The bridge shall be inspected for foundation deficiencies: settlement, tilting, etc. If none are found, a statement to that effect shall be made. If some are found, plans or alternatives to repair these deficiencies during the reconstruction shall be provided.

3.7 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 Engineer shall 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 Engineer shall indicate the requirements for their protection from disturbance or the requirements for their removal. The Engineer shall indicate (and quantify) whether or not the hazardous materials pose a public health risk, in their present state as well as during construction.

The Engineer shall include but not limited to the following hazardous materials scope of work into the contract:

3.7.1 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 the NYCDOT.

3.7.2 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 the BRPR 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 BRPR. 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 and 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 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.

3.7.3 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 and 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 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 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.

3.7.4 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 the 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 the NYCDOT upon completion of the survey and analysis of samples.

3.8 SUBSTANDARD FEATURES

All substandard features on the structure, on the approaches, and under the structure (existing and proposed) must be documented on the Substandard Features Check List (see Appendix B). The bridge and approach roadway widths, profile, stopping sight distance (existing and proposed) are especially important factors and must be thoroughly analyzed.

All substandard features must be eliminated. A detailed cost estimate shall be prepared for elimination of each substandard feature. If a substandard feature is to be retained, or merely improved, a separate statement fully detailing the justification for retaining (or merely improving) the substandard feature is required. If R.O.W. taking cost, or

other consideration, makes elimination of these features impractical, the Engineer shall thoroughly document these reasons in the BRPR. The Engineer shall be responsible for preparing whatever plans and estimates that may be required.

This documentation shall include the accident data for the last three (3) years (tied down to the structure location) with an analysis of the data as it pertains to the retention of the substandard features.

The criteria for substandard features will be those standards contained in the latest NYSDOT and AASHTO publications.

The Substandard Features Checklist shall indicate what the standard feature should be (and the appropriate reference from which it was obtained), what the existing feature consists of, and what the specific proposed action is.

3.9 IN-DEPTH INSPECTION REPORT AND FIELD SURVEY

The Engineer shall perform an in-depth field inspection in accordance with the NYSDOT Specification for In-Depth Bridge Inspection, including all current updates, revisions and technical advisories, and the current AASHTO manual for Maintenance and Inspection of Bridges.

Whenever the Engineer must inspect underdecks covered by protective materials / shielding, such as netting or planking, the protective materials / shielding shall be removed as required in order to properly inspect all components (connections, underdeck concrete, etc.). The Engineer shall locate and document (on a plan) materials retained by the protective materials / shielding. After completion of the inspection, the Engineer shall restore protective materials / shielding to its original location.

In addition, the Engineer will perform a field survey in accordance with Appendix F, Field Survey Requirements.

For structures having concrete encased members, the Engineer shall perform a concrete encasement removal program. The program shall be submitted to the Department for prior approval. The program submittal shall include a location plan (framing) and sections, and methods of removal. The Engineer shall be responsible to patch the uncovered areas after inspection is finalized in connection with concrete encasement removals.

3.9.1 UNDER-DECK INSPECTIONS

The Engineer shall be required to inspect and perform sounding for all concrete within the underside of each structure; this includes but is not limited to concrete decks, concrete encasement for structural steel members, reinforced concrete structural members, concrete fascia, jack arches (including brick), etc. By means of his inspection, the Engineer shall locate all hollow, delaminated, loose, and spalled areas.

The method of the Engineer's inspection shall include, but not be limited to the following:

The Engineer shall perform a hands-on inspection including sounding all concrete areas, regardless of their apparent condition.

During the Engineer's inspection, all underdeck areas that present the possibility of falling concrete shall be identified. These areas shall include, but not be limited to hollow, delaminated, loose, and spalled areas. The Engineer shall outline the subject deficient areas with spray paint, completely and clearly defining the subject areas.

If the Engineer determines that removal of concrete is required, the Engineer shall immediately notify the NYCDOT Director of Flags and the NYCDOT Project Manager, and the Engineer shall make recommendations. The Engineer shall perform the design for the shoring, shielding or other related items as required.

Under-water Inspection is required for waterway/stream bridges; and culverts, as applicable.

The Engineer shall include the latest NYSDOT and/ or NYCDOT Underwater Inspection report in the BRPR, as well as any Underwater Inspections performed under this contract together with his evaluation/ recommendations.

3.9.2 FLAGGED CONDITIONS

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

3.10 LOAD RATINGS

The Engineer shall perform Level 1 load rating of all members of the structure (including sidewalks and piers) in accordance with the current NYSDOT Engineering Instructions for load ratings and the latest edition of AASHTO Condition Evaluation of Bridges.

The Engineer shall not rely or obtain information regarding member sizes and ratings from previous load rating calculations performed in the past by other parties.

Each member shall be rated for both As-Built and As-Inspected conditions. For each of these conditions, both an Inventory and Operating Rating of the member shall be made, using each of the following types of loadings in all cases: MS18, M18, type 3, type 3-S2 and type 3-3. All MS and M ratings shall include both the equivalent M and MS truck

and the total load in Metric Tons. Pedestrian loading shall be used where applicable. See Appendix C for additional instructions regarding ratings. All members and connections shall be rated initially by the Allowable Stress method (working stress). Each and every member that does not meet the minimum required inventory rating for the vehicular type should be re-rated using the Load Factor method.

The following are guideline requirements to the Engineer and indicate what is required, at a minimum; various structural spans and/or elements (i.e., stringers, floor-beams, columns, etc.) shall be addressed in a clear and orderly manner:

Discussion of the analysis; which includes:

- Allowable inventory and operating stresses (and material grade and type) used in the ratings; the source of the allowable stresses (i.e., original drawings; Condition Evaluation Manual; etc.).
- Analysis method used.
- Computer programs used.
- Assumptions used in the analysis (for example, use of composite action).

Discussion of results; which includes:

- A summary of controlling members and their ratings (as-built and as-inspected; inventory and operating); for low rated members specify whether shear or moment governed. Engineer shall prepare Level 1 Load Rating summary form as attached sheets.
- A summary of the results in a tabulated form as shown in “Load Rating Data As Built” and “Load Rating – As Inspected” as per attached load-rating data Table. A framing plan shall be provided with all members and spans identified. The framing plan shall show all lengths of members, stringer spacing, floor-beam spacing, etc.

Conclusions; which includes:

- Statements on: connections; the structure's redundancy; fracture critical members; etc.

Recommendations; which includes:

- Provide recommendations on what interim action is required for all low rated members (or statement justifying why no action is required). In addition:
- A framing plan (all members rating less than MS18 inv. shall be identified), provide member sizes.
- A diagram of the above referenced five vehicular loadings and MS23 loading.
- Load rating tables (see Appendix C for presentation format).
- Other pertinent information relating to the particular project.

The Engineer shall determine the existing (current) dead loads on the structure. The existing (current) dead loads shall be used in both the As- Built and as -Inspected ratings.

The Engineer shall notify the NYCDOT immediately (in advance of the draft BRPR) if any structural flags were warranted for component(s) which are rated very low; written notification shall include the Engineer's recommendations and appropriate justifications. The posting of the bridge as per NYSDOT EI 88-06 and shall establish weight limit for the bridge.

LEVEL 1 LOAD RATING SUMMARY SHEET

Region/County _____ BIN _____

Feature(s) Carried and Crossed _____

Date of field inspection upon which Level 1 rating is based _____

OVERALL BRIDGE RATINGS (BASED ON LOWEST RATED ELEMENTS):

Total number of rating units _____

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
Comments	_____			

Individual Rating Unit Level 1 values: Rating unit span(s) _____

Main member ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
Comments	_____			

Floor beam ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
Comments	_____			

Stringer ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
Comments	_____			

Certified by _____ Date _____

Quality Control Engineer Signature _____ Date _____

Agency or Company represented by certifier _____

Notes:

- If connection ratings governs, record them under stringer rating for stringer - floor beam connections, floorbeam ratings for floorbeam - main member connections, etc.
- When Level 1 results indicate the need for load posting or other corrective action, the NYSDOT Regional Structures Engineer shall be notified immediately.
- Load ratings should be filed in the regional office within 60 days of completion of calculations.
- Bridge shall be flagged based on Level 1 results in accordance with the current NYSDOT flagging procedures.
- Bridge load posting closure etc. determinations shall be made as results are being produced

LEVEL 1 LOAD RATING CONTINUATION SHEET

Region/County _____

BIN _____

Date of field inspection upon which Level 1 rating is based _____

Individual Rating Unit Level 1 values:

Rating unit span(s) _____

Main member ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

Floor beam ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

Stringer ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

Individual Rating Unit Level 1 values:

Rating unit span(s) _____

Main member ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

Floor beam ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

Stringer ratings

	M18 inventory	M18 operating	MS18 inventory	MS18 operating
Rating	<u>M18</u> (MT)	<u>M18</u> (MT)	<u>MS18</u> (MT)	<u>MS18</u> (MT)
Lowest rated element	_____	_____	_____	_____
Analysis method	_____			
	Comments _____			

LEVEL 1 LOAD RATING SUMMARY SHEET

Region/County _____

BIN _____

Date of field inspection upon which Level 1 rating is based _____

Individual Rating Unit Level 1 values:

	ratings				Rating unit span(s) _____			
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

	ratings							
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

	ratings							
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

Individual Rating Unit Level 1 values:

	ratings				Rating unit span(s) _____			
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

	ratings							
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

	ratings							
	M18	inventory	M18	operating	MS18	inventory	MS18	operating
Rating	M18	(MT)	M18	(MT)	MS18	(MT)	MS18	(MT)
Lowest rated element	_____		_____		_____		_____	
Analysis method	_____		Comments		_____			

3.11 BRIDGE DECK EVALUATION REPORT

The Engineer shall perform a deck evaluation in accordance with the aforementioned In- Depth Inspection requirements, the NYSDOT Bridge Deck Evaluation Procedure Manual, and as noted in Appendix A.

3.12 SEISMIC ASSESSMENTS

The Engineer shall evaluate / analyze the bridges in compliance the latest 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) and Federal Highway Administration (FHWA). The following seismic analysis shall be performed based on the importance category of the bridges: The seismic assessment will be performed only for the alternative used for rehabilitation of bridge and used to develop preliminary plans. The seismic assessment shall be based on the geotechnical report and engineer shall not perform any analysis with assumed geotechnical data.

Draft BRPR, there should be a statement to the effect that the proposed alternative for reconstruction / rehabilitation can be designed to sustain seismic load during seismic event. The seismic analysis shall be performed as per the latest NYCDOT Seismic Design Criteria Guidelines.

In the final BRPR the following items should be included for the design of selected bridge structure alternate.

3.12.1 <u>CRITICAL BRIDGES</u>

The evaluation / analysis shall be included but not limited to:

- a) Time history of rock motions per latest NYCDOT Seismic Design Criteria Guidelines.
- b) All the three (3) direction ground motion shall be considered
- c) Performance Criteria and Seismic Hazard Level for design and evaluation of bridges per latest NYCDOT Seismic Design Criteria Guidelines.
- d) Multimode Spectral Analysis.
- e) Site-Specific Soil Effects.
- f) Soil-Structure Interaction.

3.12.2 ESSENTIAL OR OTHERS BRIDGES

The evaluation / analysis shall be included but not limited to:

- a) All the three (3) directions of ground motions shall be considered.
- b) Performance Criteria and Seismic Hazard Level for design and evaluation of all bridges excluding single span bridges and tunnel as per latest NYC DOT Seismic Design Criteria Guidelines.
- c) Soil acceleration response spectra per NYCDOT Seismic Design Criteria Guidelines except soil Class F.
- d) For soil Class F, if present site-specific analyses shall be performed.
- e) Multi-Mode spectral analysis for multi-span bridges of any type.

3.12.3 EXISTING BRIDGES

If the alternative under consideration is for the rehabilitation / replacement requires retention of existing components, Engineer shall provide alternatives to retrofit the existing components / members to meet the seismic requirements. The analysis shall be governed by the importance category of the bridges (i.e., Critical; Essential; Others) per NYCDOT Seismic Design Criteria Guidelines including but not limited to the following features:

- a) All the three (3) directions of ground motions shall be considered.
- b) Calculating the capacity (C) / Demand (D) ratios for each of the potential modes of failure for all the critical components as specified in to establish the vulnerability of bridges during seismic event. In general, the components for which seismic capacity/demand ratios should be calculated for the following items: expansion joints and bearings, support length, lateral load capacity, deck joints, and abutments.
- c) Pushover analysis for each bent / pier to establish their ultimate capacities.
- d) Provide seismic protective systems to reduce seismic demand and eliminate all vulnerabilities identified, if feasible.
- e) Strengthen structural details, if required, to ensure that there are no premature failures of bridge components.
- f) Retrofit foundation / footing, if required.

Engineer shall identify all the bridge components with deficiencies and their effects on the integrity of bridge system.

Engineer shall present seismic retrofitting plans and cost estimate for the Division review and approval.

3.12.4 NEW BRIDGES

If the alternative under consideration for the replacement of existing bridges, the analysis shall be governed by the importance category of the bridges (i.e., Critical; Essential; Others) per all the requirements of latest NYCDOT Seismic Design Criteria Guidelines including but not limited to the following features:

- a) All the three (3) directions of ground motions shall be considered.
- b) Install seismic protective system to reduce seismic demand, if feasible.
- c) Provide adequate displacement and ductility capacity for bridge system to ensure complying with seismic performance criteria.
- d) Attention to detailing, especially in regard to the potential plastic hinge zones, location of splices in rebar's, and the requirement of the hooks of rebar's.
- e) Set bridge components' shear strength higher than flexural strength to ensure there will be no brittle or sudden bridge failure.
- f) Design foundation / footing conservatively to avoid costly future retrofitting.

3.13 UTILITIES

The designer needs to be aware of the responsibilities of the utilities and rules governing the placement of utilities on bridges. In this regard, the designer shall comply with the requirements of Utilities Section 7 of NYSDOT Bridge Manual. In addition, specific NYCDOT requirement of utilities on the proposed bridge reconstruction includes, but not limited to the following:

1. All existing as well proposed utilities shall 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 can not 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 thru 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" (38mm) above the bottom of superstructure and 1" (25mm) below the bottom of the deck of the superstructure.
8. All private utility work will be excluded from the DOT contracts and will be performed in accordance with the provision of Section 'U' to be incorporated in the contract document.
9. 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 shall be located beyond the approach slab.
10. All costs for and associated with all private utility work will be borne by the owning private utility companies.
11. The designer should note that sizes and numbers of utilities to be accommodated on the bridge may impact proposed alternates for bridge reconstruction as well as alternate to be recommended. For example, when large numbers of utilities are to be located under the bridge, superstructure with box beams is less suitable design. Hence, the designer shall review and address requirements of utilities to be installed on the bridge very carefully in design at the BRPR stage.

3.14 AESTHETICS:

The BRPR shall meet all applicable requirements described in NYSDOT Bridge Manual, latest Edition, and Section 23 – Aesthetics. In addition specific NYCDOT requirements for aesthetics / architectural purpose on the proposed bridge reconstruction includes, but not limited to the following:

The Engineer 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 for maximizing appearance, visual integrity and impact, functional needs and minimum maintenance. The engineer shall retain a professional Architect experienced in bridge aesthetics to design and implement all applicable architectural aspects. The project specifics will be described in case-by-case basis for each individual project. Any specific suggested scheme by the NYCDOT/ Bridges Architect shall be included in the BRPR as part of the Engineer's Alternates.

3.15 PLANS, ELEVATIONS, AND SECTIONS

The Engineer shall prepare plans, elevations, and sections of the existing and proposed highway, bridge and bridge approaches (wherein all utilities shall be shown). The plans and cross sections shall all be to scale.

3.16 LAND USE ASSESSMENT

The Engineer shall make a determination as to whether temporary and/or permanent easements and/ or acquisitions and/or a Uniform Land Use Review Procedure (ULURP) process is required for bridge construction (including staging and access) and maintenance purposes. The Engineer shall perform, but not limited to, the following tasks:

- Collect, research, and review of all pertinent data.
- Obtain supplemental survey data, as required.
- Perform last owner title searches; Title Examinations and Reports for publicly owned parcels: a section 4f evaluation; agency management and jurisdiction.
- Preparation of Right of Way (R.O.W.) Plan.
- Engineer shall obtain and review such documents 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.

3.16.1 PREPARATION OF RIGHT OF WAY (R.O.W.) PLAN

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

- 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.

3.16.2 PREPARATION OF ULURP PLANS (AREA, ALTERATION, DAMAGE AND ACQUISITION MAPS)

The Engineer shall 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) shall be developed to incorporate all Preliminary/Final Design Plan modifications. The Engineer shall perform, but not limited to, the following tasks:

- The Engineer shall be prepared to discuss project, access, relocation, environmental, and land use related issues.
- 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 "City Planning Rules of Procedures", dated 2001 (or latest addition), for preparation of maps.
- Adhere to the requirements and procedures as outlined in the Uniform Land Use Procedures (ULURP, November 1998).

- Adhere to the requirements and procedures as outlined in the City Environmental Quality Review (CEQR, June 1991).
- 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.

3.16.3 PREPARATION OF ULURP APPLICATION

The Engineer shall obtain and complete a ULURP Application Form from the Department of City Planning. The Engineer shall perform, but not limited to, the following tasks:

- The Engineer shall prepare the ULURP Application for filing purposes with the Department of City Planning.
- The Engineer shall prepare Notification Letters to all adjacent property owners.
- The Engineer shall make all necessary copies of ULURP drawings, 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.

3.16.4 FIELD VISITS, PUBLIC MEETINGS, PRESENTATIONS, PUBLIC HEARINGS, ETC.

The Engineer shall 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 Engineer shall 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.

To perform above described tasks 3.16, 3.16.1, 3.16.2, and 3.16.3 may require specialist or special services, as needed.

3.17 RECOMMENDATIONS, ESTIMATES, AND CONCLUSIONS

The Engineer shall provide a detailed description of each rehabilitation and replacement alternative provided, including an itemized cost estimate (wherein all major work is to be itemized).

The Engineer shall provide six (6) feasible alternatives for the reconstruction/replacement of the bridge.

The alternatives shall be based on geometric that eliminate the existing substandard features and to mitigate current NYCDOT Seismic NYCDOT Design Criteria.

Each alternative shall be discussed in detail for:

- Construction feasibility and anticipated construction problems
- Advantages
- Disadvantages
- Load capacity (MS18; MS23)
- Design criteria: If the allowable stress method (working stress) is found to be not feasible, the Engineer shall provide documentation herein (this requirement applies to the design of new bridge decks, as well).
- Hydraulic adequacy
- Redundancy, fatigue sensitive details
- Removal and disposal of hazardous materials
- Future maintenance
- Utilities and their impact on design and MPT, if any.
- Conformance to AASHTO, NYSDOT, NYCDOT and FHWA Seismic requirements and as specified herein. A justification shall be included if the alternative does not conform to these requirements. A detailed calculation is not required for all alternatives at this stage.
- Proposed treatment of substandard features: list of substandard features recommended for retention (or merely improved) with justification. Accident data shall be included as part of the justification where applicable.
- Maintenance and protection of traffic plan (staging and duration)
- Land: indicate whether or not any temporary and/or permanent easements and/or land acquisitions will be required. Provide the associated cost of any required easement or acquisition.

- Environmental; community; permit issues; appearance.
- Include provision to access by pedestrians to privately owned property affected by the construction activities, if applicable.
- Cost
- Other (as required)

Each alternative write-up shall also include the following:

- Itemized cost estimate.
- Cost per square foot of deck area.
- Plans and sections.

The following six alternatives shall be considered by the Engineer as an initial guide in evaluating the possible rehabilitation / replacement alternatives:

- 1) Concrete overlay on existing deck in conjunction with the rehabilitation of the existing superstructure and substructure.
- 2) Replacement of existing deck in conjunction with the rehabilitation of the existing superstructure and substructure.
- 3) Replacement of the existing deck and superstructure with a new steel superstructure, in conjunction with the rehabilitation of the existing substructure.
- 4) Replacement of existing deck and superstructure with a pre-stressed concrete superstructure, in conjunction with the rehabilitation of the existing substructure.
- 5) Replacement of the entire structure (including substructures) using steel superstructure.
- 6) Replacement of entire structure (including substructure) using pre-stressed concrete superstructure.

Any substructure elements remaining in selected alternative(s) must satisfy seismic criteria or provide justification for retaining such an element(s).

The Engineer shall possess high degree of sensitivity to the hardship of traveling public and community impacted by the extensive duration of construction, the use of prefabricated components and / or other innovative plans to shorten the construction duration are additional factors to be included to the above-mentioned six alternatives considered.

The above mentioned six alternatives are for the purpose of cost proposal only. The actual alternatives shall be determined by the Engineer during development of BRPR. Selection of alternatives are to be based on the size of bridge (span length, width, height, etc.), features carried, features crossed, type and volume of traffic supported, location, and any other pertinent factor. The Division may suggest other more appropriate and feasible alternative. These may add up to a total of six (6) alternatives. The engineer will look into it, check if it will be in compliance with all applicable standards, and then include this as a part of the alternatives package for the BRPR at no additional cost. The Engineer shall state that all proposed alternatives are suitable and feasible, and they comply with all applicable standards. The Division will review all alternatives including the Engineer's recommendation, and will make the final selection of an alternative.

The Engineer shall investigate the feasibility as well as the desirability of providing for an Inspection platform/walkway on the reconstructed bridge. The Engineer shall present his findings and recommendations herein.

3.18 ORIGINAL COLOR PHOTOS

The following photos are to be taken and included in the BRPR, at a minimum:

- Both elevation views of the entire structure and facility being scanned.
- Views taken from each approach looking toward the structure, and taken from the structure looking towards both approaches.
- Representative conditions of the bridge elements (and approaches) found during the Engineer's In-Depth Inspection.
- Each type of problem observed in the field (deteriorated and/ or low rated). Enough photos shall be included.
- All specialized inspection operations, such as concrete encasement removal, underwater inspections, etc.

Photo location plans (showing where each photo was taken) shall be contained in the appropriate BRPR sections.

Photos contained in the draft BRPR and final BRPR submissions must be original developed prints. Color photocopies shall be accepted by the Department, with appropriate size and good quality color photos. In addition to that consultant will submit photos in an electronic format along with the report.

3.19 VIDEO TAPE

The Engineer shall prepare a color videotape (cassette) or DVD of the bridge structure and approaches inspected during the In-Depth Inspection.

The video/ DVD shall contain views of the approaches, adjacent properties, both bridge elevations, the bridge itself from both approaches; document representative conditions of the bridge elements (and approaches); deteriorated and/or low rated elements; all flagged conditions; any unusual conditions; all specialized inspection operations; etc.

The use of the videotape / DVD does not replace any part of the normal in-depth inspection procedures. To ensure that recording of all required views are done properly the video / DVD camera operator shall be a trained professional and shall work under the supervision and direction of the Team Leader responsible for the Inspection. The intent of all scenes in the video / DVD should be clearly narrated. The narration should be audible and understandable. Noise and other disturbances due to traffic or any other activity at the site of bridge during inspection should be completely eliminated. This can be easily attained by dubbing the video / DVD afterwards in a studio.

There shall be a separate videocassette / DVD for each bridge. The bridge should be identified by its description, BIN and date at the beginning of the recording (by visual and audio message). If the video / DVD recording for a bridge takes more than one cassette / DVD, each cassette / DVD should have the audio and visual message identifying the bridge.

Video / DVD taping of underwater structures shall be performed in accordance with the criteria set forth by the NYSDOT Specification of In-Depth Bridge Inspection and specifications for diving inspection of bridges.

The video recording should use a VHS format, video camera at "SP" speed on a VHS type video cassette of professional quality and all video photography shall be properly illuminated to ensure quality viewing on the VHS monitor. The dark areas of the bridge shall be illuminated with either floodlights or with an appropriate lighting device attached to the video camera.

The Engineer shall submit one copy of the dubbed videocassette / DVD for approval with the draft BRPR. The cassettes / DVD shall be properly labeled (top and sides).

Videocassettes / DVD that do not meet the requirements set forth will be rejected. The Engineer will then be required to re-tape the video at no cost to the City.

4.0. DRAFT BRPR

The Engineer shall submit four (4) drafts BRPR's to the City, together with the videotapes and survey plans. The draft BRPR's shall be submitted to the full extent of completeness required of the BRPR. The Department will coordinate all comments and forward them to the Engineer. A set of plans of the existing bridge shall be submitted to the Department.

The Engineer shall submit report in a suitable folder / binder. The report thickness more than two inches, it is recommended to submit in separate volumes. Submit load rating calculations, seismic design calculations, Geotechnical report in a separate volume / folder or include them as an Appendix to the BRPR for complete documentation and review.

All design calculations shall be prepared with references to code allowable, paginated and properly checked (including computer input), dated and shall include the names/initials of the preparer and checker. If the design calculations are submitted separately from the BRPR, submit two (2) copies of such calculations or as directed by the Department.

5.0 FINAL BRPR

The Engineer shall incorporate all comments made by the Department into the Final BRPR. All Departmental comments shall be addressed by the Engineer and the Engineer shall provide a written response stating that either the comments was addressed or that the comments was not incorporated based upon a proper justification.

The Engineer shall submit four (4) copies of the final BRPR to the Department. In conjunction with the submission of the Final Documents, the Engineer shall also submit four (4) copies of the final BRPR to the New York City Department of Records and Information Services, Acquisitions Unit.

The Engineer shall submit Report in a suitable folder / binder. The report thickness more than two inches, it is recommended to submit in separate volumes. Submit load rating calculations, seismic design calculations, Geotechnical report in a separate volume / folder.

All design calculations shall be prepared with references to code allowable, paginated and properly checked (including computer input), dated and shall include the names/initials of the preparer and checker. If the design calculations are submitted separately from the BRPR, submit two (2) copies of such calculations or as directed by the Department.

In addition to that the Engineer shall submit final report in an electronic format, in a DVD Rom.

6.0 PRELIMINARY PLANS

The Engineer shall prepare the Preliminary Plans based on the approved rehabilitation / replacement alternative, as selected by the Department. The Department will make the final decision for the alternative. The selected alternative either from the Engineer's recommended alternative or selected alternative by the Department which may not necessarily be contained in the Engineer's draft BRPR.

The Preliminary Plans shall be prepared in accordance with the current NYSDOT Standard Details for Highway Bridges, Bridge Design Data Sheets and Guideline Drawings and all other appropriate documents referenced in the Contract.

The Preliminary Plans shall show basic concepts and major details (including all existing and proposed utilities, and seismic retrofitting), inform affected parties with the project and project components, serves as an instrument for initial approval by affected parties, and serves as a basis for the development of the Final Contract Bid Documents for reconstruction or replacement. The Preliminary Plans shall be developed to a degree of sufficiency in order to insure that there are no significant changes during the final design phase.

Engineer shall include and identify affected private / public properties adjacent to bridge or in the vicinity of bridge, within project limits, which will require provisions of special access during the construction phase.

The set of Preliminary Plans shall clearly show the scope of work and shall include the following, at a minimum:

- Itemized scope of work write-up.
- Existing general plan, bridge cross-section, elevation
- Proposed general plan, cross sections (bridge and approach slab), elevation.
- Profiles: existing and proposed: grades, legal grades, vertical curve data, SSD, design speed, scupper, catch basins; stationing, etc.
- Framing plans (existing and proposed).
- Highway sections (existing and proposed).
- Substructure: abutments, wing-walls/ retaining walls, piers, elevations and cross sections (show foundations), boring location and boring logs.
- Structural details.
- Utilities: Large-scale full or partial cross sections showing dimensions between utilities and structural members (existing and proposed). The method of maintenance of existing utilities shall be defined as applicable.
- Maintenance and Protection of Traffic (MPT) Plan.
- R.O.W. Plan.
- Itemized cost estimate (on separate 216 mm x 279 mm sheets).
- General notes

A Title sheet and signage are not required. Separate utility plans may or may not be required depending on the clarity of the general plans.

See Appendix E for the NYCDOT Preliminary Plan Review Check List, which further indicates what as a minimum is expected to be shown on the Preliminary Plans. The Preliminary Plans shall be prepared as per the Department's standards for drafting/microfilming.

The Engineer shall submit four (4) sets of the draft Preliminary Plans to the Department for review. Upon incorporation of all comments from the Department, the Engineer shall submit four (4) sets of final Preliminary Plans to the Department for approval. In addition to hard copy the Engineer shall submit final plans prepared in Auto CAAD or other software an electronic format for Department use and record. Use scale as per NYSDOT Bridge Manual for plans preparation.

7.0 PRELIMINARY PLAN - AGENCY REVIEW MEETING

The Engineer shall transmit the Preliminary Plans to affected agencies and parties for their review and comment. An All Agency meeting to take place after submission of final preliminary plans and separate OCMC meeting will subsequently be held to receive their comments. All comments as approved by the Department shall be incorporated.

8.0 SUBMISSION TO THE RAILROAD

For all projects involving a railroad, the Engineer shall obtain the force account for labor, entry and other permits, necessary insurance (such as professional, liability, etc.), and arrange for entry as necessary upon railroad property in connection with his inspection. The Engineer will communicate directly with the railroad during the development of the BRPR and the Preliminary Plans. Copies of all correspondence and the minutes of any meeting between the Engineer and the railroad shall be forwarded to the NYCDOT.

The following is a listing of the **Appendices** referenced herein:

Appendix A:	BRPR Format and Requirements
Appendix B:	Substandard Features Check List
A) Appendix C:	Presentation of Ratings
Appendix D:	In-Depth Inspection Form and Bridge Inspection and Condition Report
Appendix E:	Preliminary Plan Review Checklist
Appendix F:	Field Survey Requirements

APPENDIX - A

BRPR FORMAT AND REQUIREMENTS

The following requirements supplement those specified in the Engineer's Agreement (i.e., contract) and the Procedure for Bridge Reconstruction Projects.

All pages of the report shall be numbered.

All sections of the report shall be divided with plastic tabs

1. Transmittal Memo
2. Title Sheet
3. Table of Contents
 - a. - Location Plan (obtained from City Planning Maps)
 - b. - Large Scale Plan (showing the project limits and the
immediate Surrounding area).
 - c. - Photo Location Plan
 - d. - General Photos (6)
 - e. - List of Figures
 - f. - List of Tables

- 1 Introduction
- 2 Traffic Study
- 3 Substandard Features
- 4 Ratings
- 5 Inspection
- 6 Seismic Assessment
- 7 Statements
- 8 Recommendation and Estimates
- 9 Maintenance of Traffic
- 10 Geo-technical Foundation Report

1.0 **INTRODUCTION**

1.1 **ENGINEERING AGREEMENT**

Provide a brief summary.

1.2 **HISTORY OF BRIDGE**

In addition, to historical significance, provide the year originally built and year/description of any subsequent rehabilitation, major repair, or resurfacing.

1.3 **PLAN VIEWS OF BRIDGE AND APPROACHES; CROSS-SECTION, ELEVATION**

The following shall be included:

- Identify begin and end abutments, center line of piers
- Span length(s)
- Skew
- Fascia to fascia width
- Curb to curb width
- Number and width of all parking and travel lanes; direction of Traffic
- Clearance between edge of lane and curb
- Sidewalk widths
- Widths of all medians and shoulders
- Utilities: show size / Location / Ownership
- Stationing
- Minimum clearances (horizontal and vertical)

1.4 **DESCRIPTION OF BRIDGE AND APPROACHES**

The following shall be included and presented in an orderly and complete manner; use appropriate sub headings:

- Number of spans, length and type of each span (simple, continuous, arch, etc.)

- Skew
- Type of deck (and depth)
- Type of wearing surface (and depth)
- Type of superstructure (primary members)
- Type of substructure: abutment; piers; wing-walls/retaining walls; foundations.
- Type of railing
- Utilities (size and ownership)

1.5 DESCRIPTION OF HIGHWAY BEYOND APPROACHES

Include all appropriate items from Section 1.4

2.0 TRAFFIC STUDY

The following items shall be discussed/ provided, at a minimum:

- Traffic counts (vehicular and pedestrian) and turning movements (provide a plan of movement data). Provide a minimum of five days of 24 hour vehicular counts (Monday through Friday) and three days of turning movements and pedestrian and bicycle counts (Tuesday through Thursday; 7 a.m. to 10 a.m. & 4 p.m. to 7 p.m.). Pedestrian traffic counts are required for all sidewalks, stairways and pedestrian ramps. Additional periods (hours) of pedestrian counts may be required if the project is located near a school.
- Type of Traffic: above and below the span, including all public and private buses.
- A.M. / P.M. peak periods (and traffic volumes).
- Percentage truck traffic.
- Average Daily Traffic (ADT).
- One way (and two ways) Design Hourly Volume (DHV)
- Projected traffic (as per New York Metropolitan Transportation Council data)
- Capacity/level of service: Existing and future traffic (vehicular and pedestrian).

- Widening: Address if required and if feasible.
- Highway classification.
- Design speed, legal speed (indicate if posted).
- Traffic Controls/ geometry: address any effecting signals/ signs/ intersections/alignment; indicate proposed improvements.
- Indicate whether residential or commercial.
- Indicate all hospitals, schools, police and fire departments within the vicinity of the bridge; provide a separate plan identifying all such facilities.
- Accident Report
- Bicycle Facilities Report
- Conclusions / Recommendations

3.0 SUBSTANDARD FEATURES

All Features in "The Substandard Feature Check List" (see Appendix B) shall be addressed. Justification write-up for each substandard feature which will be retained (or merely improved) shall be provided.

SSD (existing and proposed) shall be shown on a profile; the profile shall include stationing, curve data, elevations

4.0 RATINGS

4.1 Write-up of:

- Analysis
- Results
- Conclusions
- Recommendations

Various structural spans and/ or elements shall be addressed in a clear and orderly manner. Use appropriate sub headings.

- 4.2 Submit the followings:
- Diagrams of vehicular loadings.
 - Framing Plan, identify all members rating less than MS18 inventory as inspected.
 - Photos of members which rate low due to deterioration.
- 4.3 As- Built and As-Inspected Inventory and Operating Ratings for All members (see Appendix C for required format).

5.0 **INSPECTION**

5.1 **EQUIPMENT:**

Listing of equipment used for inspection

5.2 **IN-DEPTH INSPECTION FORM:**

The In-Depth Inspection form shall be completed. See Appendix D.

5.3 **BIENNIAL INSPECTION FORM & BRIDGE INSPECTION AND CONDITION REPORT.**

Biennial Inspection Form, Bridge Inspection and Condition Report as per latest NYSDOT and as per Appendix D.

5.3 **DECK EVALUATION**

As per latest NYSDOT Bridge Deck Evaluation Procedure Manual for additional requirements.

The following shall be presented for all spans in a clear and orderly manner; use appropriate sub headings.

- **DECK DESCRIPTION:**

Provide detailed description; type; material and depth (including wearing surface); indicate whether or not composite; etc.

- **FIELD INSPECTION:**

Provide details of observations/ findings of the condition of the wearing surface and deck; including visual as well as results of soundings performed on the underside of the deck. Address whether or not the Engineer determined that concrete removal was required.

- **CORING PROGRAM:**

Present a summary of the program and results. The Engineer shall take 65% to 70% of concrete samples from the roadway surface. The Engineers prepare coring plans with all proposed locations and submit to the Department for review comments.

- **DECK DRAINAGE:**

As per NYSDOT Bridge Manual and BD sheets and NYCDEP Standards.

- **DECK ELEMENTS:**

Address sidewalks, curbs, medians, and railings/ parapets.

- **RECOMMENDATION:**

As to repair or replacement of deck.

- Typical Cross-Sections of existing Bridge.
- Plan of existing Bridge with all deck **surface deterioration** shown. All core holes shall be located on this plan.
- Plan of existing bridge with all **under deck deterioration**; cracks; efflorescence; spalls; hollow areas, etc. An estimate of the area of the deck having unsound concrete, as a percentage of the total deck area shall be provided.
- Original photographs and an electronic format deck surface and under deck documenting typical deterioration. Indicate all location and direction of all photos to be shown in Plan.
- Test results under field conditions provide quantitative values of the test results for Concrete Cores and Freeze Thaw tests. The Engineer shall submit copy of Core Tests Results; photographs and description of cores.

Note: Regardless of whether or not cores are required to be taken; none of the other above steps shall be omitted.

5.5 SUPERSTRUCTURE EVALUATION

The following shall be presented for all spans and elements. Various structural spans and elements shall be addressed in a clear and orderly manner. Use appropriate sub headings.

- **STRUCTURAL ELEMENT DESCRIPTION(S)**

(primary and secondary):

Provide detailed description of type of all **members**; all **connections**; all **joints**; all **bearings**; fracture critical members; fatigue sensitive details; etc.

- **FIELD INSPECTION:**

Discuss the observations/ findings of all the elements. Summarize the **typical conditions and deterioration** found; address all **unique conditions** as well as the **most extensive** deterioration found. Describe the following: **all specialized inspection operations** (such as concrete encasement removal; steel sampling, etc.); existing **shoring** and/ or repairs, conditions **flagged** during the inspection.

- **RECOMMENDATIONS:**

Engineer shall make recommendations to rehabilitate or replace the superstructure elements.

- **FRAMING PLAN:**

A **framing plan** shall be included with all members requiring repair noted on the framing plan with key symbols indicating the type of repair required and the extent of deterioration.

Symbols shall be as follows:

T - Top Flange

W - Web

B - Bottom Flange

a.	Normal corrosion	up to 10%
b.	Significant corrosion	up to 20%
c.	Severe corrosion	up to 30%
d.	Extreme corrosion	up to 50%
e.	Heavy Loss	over 50%

Extent of corrosion along the length of beam shall be noted in meters.

Top flange with severe corrosion for 3 m shall be noted as (Tc3).

All members to be replaced shall be shown on the framing plan.

The extent of deterioration shall be indicated on the members to replace, as well, using the previously noted symbols.

Show all existing shoring and repairs on the plan.

- Original color photos showing representative conditions and types of deterioration. Location and direction of all photos to be shown on the framing plan.

5.6 **SUBSTRUCTURE EVALUATION**

The following shall be presented for all spans and elements (includes piers, abutments, wing-walls, retaining walls; and their respective foundations). Various structural spans and elements shall be addressed in a clear and orderly manner. Use appropriate sub headings.

- **STRUCTURAL ELEMENT DESCRIPTION(S):**

Provide detailed descriptions of type of all elements and their **foundations**.

- **FIELD INSPECTION:**

Detailed description of the substructure evaluation methods used; discuss the observations/ findings of all the elements. Summarize the **typical conditions and deterioration** found; address all **unique conditions** as well as the **most extensive** deterioration found. Describe the following: **all specialized inspection operations**; existing **shoring** and/ or repairs, conditions **flagged** during the inspection.

- **TILTING, SETTLEMENT AND OTHER DEFECTS:**

Provide a statement that the elements were checked for **tilting, settlement and other defects** (erosion, scour, etc.) that would signal foundation problems; and indicate what was found. If some are found, analysis shall be performed to evaluate the effect of the deficiencies on the performance of the bridge structure, which may include the review of existing data related to soils and foundations. Methods or alternatives to repair the deficiencies during the reconstruction shall be outlined.

- **RECOMMENDATIONS:**

To replace or rehabilitate substructure units. Indicate whether or not the recommendations will have any effects (possible undermining, etc.) on adjacent structures; discuss the effects, as applicable.

- **ELEVATIONS AND CROSS SECTIONS:**

Elevations and Cross Sections of each and every substructure element (piers, abutments, wing-walls, retaining walls). Clearly show (or note) the respective foundations. On each elevation view show all deterioration, including the results of concrete sounding. For concrete elements, provide an estimate of the area of the applicable element having unsound concrete as a percentage of the applicable element's total area.

- **PHOTOS:**

Original colored **photos** of all substructure elements showing representative conditions and types of deterioration. Location of each photo to be shown on the appropriate elevation view or plan.

5.7 **UNDERWATER INSPECTION**

5.8 **HYDRAULIC REPORT**

5.9 **FENDERING SYSTEM**

6.0 **SEISMIC ASSESSMENTS**

Draft BRPR, there should be a statement to the effect that the proposed alternative for rehabilitation can be designed to sustain seismic load during seismic event. The Engineer shall performed seismic analysis for selected design scheme only. If retaining existing elements and / or structural members that do not meet seismic criteria then provide types of seismic retrofit alternatives. The seismic analysis shall be performed as per the latest NYCDOT Seismic Design Criteria Guidelines.

In the final BRPR the following items should be included for the design of selected bridge structure alternate.

The Engineer shall determine vulnerability of the bridge per latest NYCDOT Seismic Design Criteria Guidelines and provide write up of:

- Method and procedure for study and analysis:

Rock acceleration, soil profile, analysis method, modeling of structure, name of computer program.

Calculate Capacity (C)/ Demand (D) ratios for all the critical components. The required C / D ratios are also applicable to all the simple span bridges.

- Conclusions and Discussion

Identify vulnerable components of the bridge, and provide retrofit schemes to improve the seismic response of the bridge to an acceptable level.

- Recommendations and Cost Estimates.

The Engineer shall perform seismic analysis for selected design alternative only. If existing elements and / or structural members which do not meet seismic criteria are retained in the selected design alternative, the Engineer shall provide seismic retrofitting for these retained elements with a recommendation. If any structural components which do not meet the seismic criteria are maintained, the Engineer shall make formal request for waiver.

7.0

STATEMENTS

- Planning Statements:

NYCDOT Bureau of Bridges; NYCDOT Bureau of Highways; NYSDOT (Regional Director); utility companies (public and private)

- Hazardous Materials
- Determination of Permits
- Historical Significance (including Landmark status)
- Land Use Assessment (and R. O. W. Plan)

8.0 RECOMMENDATIONS AND ESTIMATES

Use appropriate sub headings.

8.1 SUMMARY OF ALTERNATIVES

8.2 ALTERNATIVES

For each of the proposed six alternatives provide:

- Detailed write-up as specified in the "Procedures for Bridge Reconstruction Projects"
- Cost Estimate for all associated work (itemize all major work).
- Plan and cross-section

8.3 RECOMMENDATION:

The Engineer shall recommend an alternative and provide appropriate justification.

9.0 MAINTENANCE OF TRAFFIC (MPT):

The Engineer shall prepare MPT scheme as described below:

9.1 MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) METHODS

Presentation of the maintenance and protection of traffic methods investigated by the Engineer (description; discussion of advantages and disadvantages, cost estimate, duration, sketches). The following methods are to be addressed (at a minimum):

1. Full Bridge Closure to Vehicular (and Pedestrian) Traffic.
2. Least Impact to the Traveling Public (Vehicular and Pedestrian).
3. Least Impact to the Surrounding Community.

9.2

PROPOSED MAINTENANCE OF TRAFFIC (MPT) SCHEME

1. The following items are required for **each stage** of the proposed maintenance of traffic scheme:

- A plan showing the bridge, the approaches and highway beyond the approaches.
- Cross-sections through the bridge (and approaches if appropriate).
- Each plan and section shall show the number and width of available traffic lanes; proposed utility installation consistent with staging lanes, transitions, work zone limits, distances to all existing and proposed, temporary and permanent: lane lines, curb lines, barriers, demolition cut lines, and reconstructed limits (transverse and longitudinal).

Engineer shall review and propose if temporary pedestrian bridge is required when sidewalk way is closed to pedestrian traffic.

- Duration

2. Detour Plan(s)

9.3

CONSTRUCTION ACCESS

The proposed means of construction access shall be explained and shown on the plan.

10.0 **GEO-TECHNICAL FOUNDATION REPORT:** Submit Geo-Technical Report to the Department as discussed in Section 3.5.

11.0 **GUIDELINE FOR REQUESTING WAIVER**

The Engineer may request for waiver of any bridge design criteria and Division's various Guidelines (Substandard features, Utility connection, Seismic compliance, etc). Formal request for such waiver should be made to the Deputy Chief Engineer with proper justification and relevant documents for review. The waiver will be subject to approval of the Deputy Chief Engineer.

APPENDIX C

INSTRUCTIONS FOR PRESENTATION OF RATINGS IN B.R.P.R.

For each member, provide an Inventory and Operating Rating (Level 1) for both As-Built and As-Inspected conditions, using the following loadings:

MS18, M20, Type3, Type3-S2 Type3-3.

The Engineer shall refer to the AASHTO Manual for Condition Evaluation of Bridges for the loading conditions.

All members and connections shall initially be rated by the Allowable Stress method (working stress). Each and every member that does not meet the minimum required inventory rating for the vehicular type shall be re-rated using the Load Factor method.

The ratings shall be presented as per the format on the attached sample sheet.

- Each span shall be numbered same as N.Y.S.D.O.T. Inspection Form (TP 349 & TP 350).
- All ratings shall be rounded to the nearest whole number.
- All MS & M ratings shall include both the equivalent M & MS truck and the total load in Metric Tons.
- The Engineer shall indicate, by means of appropriate notations on the forms that all connections have been rated.
- If the connection rates lower than the members to which it is connected to, the Engineer shall indicate on the forms the following:
 1. The connection rating.
 2. The ratings of the members to which it is connected.
 3. These connection locations shall be clearly identified on the forms.
- For low rated members, the Engineer shall indicate, by means of appropriate notations on the forms whether shear or bending moment controlled.
- The Engineer shall indicate, by means of appropriate notations on the forms, the rating method used (i.e., allowable stress or load factor).

- The Engineer shall provide ratings for the following members (minimally):
 - All superstructure members (Note: a separate load rating of the concrete deck is not required).
 - All piers (columns, cap beams, etc.)
 - All abutments, wing-walls/retaining walls comprised of: timber; soldier beam systems (Note: a load rating of concrete abutments is not required).

The Engineer shall provide a framing plan with all members and spans identified. Abbreviated member designation shall be used on the rating form, coinciding with the framing plan. The framing plan shall show all lengths of members, stringer spacing, floor-beam spacing, etc.

19. Posted Load Limit on Bridge: _____ Metric Tons, or
As-Inspected Load Limit on Bridge: _____ Metric Tons
20. Legal Speed Limit on Bridge: _____ MPH / KMPH

Is the Legal Speed Limit Posted? _____

Design Speed on Bridge: _____ MPH / KMPH

21. AADT: _____ Date of Count: _____

% Truck Traffic: _____

22. Posted Vertical Clearance:

On Bridge _____ met or None

Under Bridge: _____ met or None

23. Field Measured Minimum Vertical Clearance on Bridge: _____ met

24. Sketch Showing Minimum Field Measured Vertical Clearance at Edge of Under Roadways and Within Under Roadways

25. Alignment on Bridge:

Horizontal: Tangent: _____ or Curved Data: _____

Vertical: Grade: _____ or Curved Data: _____

26. Width of Approach Pavement: _____

27. Width of Approach Shoulders: _____

28. Approach Alignment Within 100 m of Bridge Begins and Bridge Ends.

Bridge Begins Approach Alignment:

Horizontal: Tangent: _____ or Curved Data: _____

Vertical: Grade: _____ or Curved Data: _____

Bridge Ends Approach Alignment:

Horizontal: Tangent: _____ or Curved Data: _____

Vertical: Grade: _____ or Curved Data: _____

29. Date Built: _____

30. Original Contract No.: _____

31. Location of Original Contract Plans: _____ As-Built _____

32. Contract No. of Subsequent Contracts: _____

33. Location of Subsequent Contract Plans: _____ As-Built _____

V. BRIDGE RATINGS:

31. Original Design Live Loading: _____ Unknown _____

LOAD RATING TABLE

AASHTO Truck Types	Inventory MT	Operating MT	Controlling Member(s)
MS18			
M18			
Type3			
Type 3S2			
Type 3-3			

32. Operating Rating:

- Fascia Stringer: _____
- Interior Stringer: _____
- End Floor Beam: _____
- Intermediate Floor Beam: _____
- Stringer Connection: _____
- Floor Beam Connection: _____
- Girder: _____
- Truss (Note critical member): _____

Computed by: _____

Checked By: _____

33. Inventory Rating: _____

Fascia Stringer: _____

Interior Stringer: _____

End Floor Beam: _____

Intermediate Floor Beam: _____

Stringer Connection: _____

Floor Beam Connection: _____

Girder: _____

Truss: _____

Computed By: _____

Checked By: _____

VI. PHOTOGRAPH SHOWING:

- a. Appearance of Bridge from both approaches.
- b. Appearance of upstream and downstream channels on water crossings.
- c. Appearance of bridge in elevation.
- d. Appearance of both approaches looking from bridge.
- e. Problem Areas, utility installations.

VII. COMMENTS:

VIII. WATERWAY SUPPLEMENT:

For waterway, river/stream bridges and/or culverts, the Engineer shall complete the attached.

INSPECTED BY: _____ DATE: _____

_____ DATE: _____

_____ DATE: _____

COMPLETED IN-DEPTH FILE REVIEWED BY: _____ DATE: _____

VIII. WATERWAY SUPPLEMENT:

1. a. Span measured along center line of highway: _____

b. Skew: _____

c. Is the waterway area adequate during extreme high water? _____

d. Has scour occurred? _____

2. Does erosion or deposition occur on bank or streambed or both? _____

3. Describe effects of erosion or deposition: _____

4. Does stream carry light, medium, or heavy ice: _____ Debris: _____

a. What problems have been created by ice?

Blockage: _____ Scour _____ Structure Damage _____

b. What problems have been created by Debris:

Blockage: _____ Scour _____ Structure Damage _____

5. Indicate any anticipated Department of Environmental Conservation construction restrictions and/or permits: _____

6. Is there a Flood Insurance Study at this location? _____

7. Elevation of extreme high water at existing bridge site as observed by:

a. Gage: _____ Date Observed: _____

b. Local Residents: _____ Date Observed: _____

c. D.O.T. Personnel: _____ Date Observed: _____

8. Was above high water affected by Ice? _____ Debris? _____

9. Ordinary high water elevation (Annual Flood): _____

10. Ordinary water elevation: _____

- 11. Low water elevation: _____
- 12. Has water ever flowed over roadway at structure? ___ on approaches? _____
If so, to what elevation? _____ Date: _____
- 13. Elevation of lowest under-clearance point of superstructure: _____
- 14. Describe any scour problems: _____
- 15. Additional Comments: _____

NAVIGATION REQUIREMENTS:

- 16. Does existing structure have navigation lights? _____
- 17. Is there tidal influence at project location? _____
- 18. Give type, size and volume of marine traffic: _____

Items 19 and 20: for River/Stream Bridges only if channel width changes are proposed.

EXISTING UPSTREAM STRUCTURE:

B.I.N.: _____ **Carries:** _____

- 19. a. Span measured along center line of highway: _____
- b. Skew: _____
- c. Is the waterway area adequate during extreme high water? _____
- d. Has scour occurred? _____

EXISTING DOWNSTREAM STRUCTURE:

B.I.N.: _____ **Carries:** _____

- 20. a. Span measured along center line of highway: _____
- b. Skew: _____
- c. Is the waterway area adequate during extreme high water? _____
- d. Has scour occurred? _____

APPENDIX E

PRELIMINARY PLAN REVIEW CHECK LIST

Project Description: _____

BIN: _____ **Contract No.** _____

Consultant: _____

Drawings Reviewed by: _____ **Date:** _____

Approved by: _____ **Date:** _____
(Project Manager)

General notes for the bridge structure, scope of work and estimated cost should be submitted with the draft and final Preliminary Plans. During the preparation of plans Engineer should follow NYSDOT Bridge Manual guidelines unless stated otherwise.

1. PLAN

- | | | |
|---|------------------------------|-----------------------------|
| a) Existing Plan (Show existing curb cuts). | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Indicate proposed work on plan labeled "Proposed". | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Show location of min. vertical R.R. clearance. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) Indicate R.R. name and final destination. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e) Approach slab and pressure relief joints (if required). | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f) Stations for begin & end abutment and at centerline of piers. Show all center lines of bearing. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| g) Indicates lane widths, parking lanes and clearance to curbs on bridge & approaches, lane transitions and direction of traffic. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| h) Limit of work on approaches. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| i) Limit of railing and fencing. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| j) Width of roadway and sidewalks on approach and bridge. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| k) Location of fixed and expansion joints. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| l) North arrow. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| m) Skew angle. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| n) Location of utilities, lampposts, catch basins, manholes, etc | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| o) R.O.W. lines. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

- p) Do approach roadway & sidewalk widths match those on the bridge? Yes No
- q) Are handicapped ramps shown? Yes No
- r) Are boring location and logs of borings shown? Yes No

2. **BRIDGE CROSS SECTION**

- a) For bridges carrying utilities show full width, existing And proposed cross sections. Show all dimensions. Yes No
- b) Epoxy coated top bars or wire fabric if pre-stressed concrete box beams. Yes No
- c) Is overlay option called for? Yes No
- d) Thickness of roadway slab- 190 mm min. & Side-walk slab - 175 mm min. on steel structures. Yes No
- e) Is new roadway/sidewalk slab designed for MS23 using the allowable stress method (working stress)? Yes No
- f) 175 mm steel faced curb. Yes No
- g) 4 rail railing and fencing - concrete parapet with fluted face and fence preferred if dead load or sight distance is not critical. Yes No
- h) Lane locations. Yes No
- i) Location and sizes of utilities and utility owner. Yes No
- j) Are utilities located under the sidewalk? (If not, request with justification for waiver will be required). Yes No
- k) Pre-Cast Slabs Yes No
1. 1219 mm wide units preferably, +13 mm joint between units.
 2. If 914 mm wide section required - locate on outside.
 3. 150 mm wearing course.
 4. Indicate depth.
- l) 2 % cross slope on roadway. Yes No
- m) Are sidewalk cross slopes within ADA Requirements - 2% maximum? Yes No

3.

ELEVATION

- a) ½ elev. proposed, ½ existing if similar, otherwise full Elevations required. Yes No
- b) Stationing - follow State guidelines. Yes No
- c) Min. R.R. vertical clearance both existing & proposed measured 1525 mm off centerline of track (If roadway below give vertical and horizontal clearance). Yes No
- d) Horizontal clearance measured from center line of track to obstruction. Yes No
- e) Type of foundation for Piers and Abutments (spread or on piles). Show existing and proposed. Yes No
- f) Wing-walls: show modification. Yes No
- g) Abutments: show modification. Yes No
- h) Vertical clearance to structure above bridge or Over-head lines. Yes No

4.

APPROACH SECTIONS

- a) Section thru approach slab. Yes No
- b) Highway Section (thru street beyond approach slab). Yes No
- c) Show feature beyond sidewalk (embankment, building, etc.). Yes No
- d) ½ section proposed, ½ existing if similar, otherwise full sections required. Yes No
- e) Show depth of slab and pavement - proposed & existing. Yes No
- f) Lane widths and clearance to curbs. Yes No
- g) Sidewalk and roadway widths. Yes No
- h) Sidewalk approach slab -225 mm min. Yes No
- i) Curb heights. Yes No
- j) Are sidewalk cross slopes within ADA requirements-2% maximum? Yes No

5. MISCELLANEOUS:

- a) Section thru abutment showing approach slab & expansion Joint. Yes No
- b) Section thru pier. Yes No
- c) Elev. of wing-walls: show modification or repair. Yes No
- d) elev. of abutments: show modification or repair. Yes No
- e) Framing plans. Steel structures - indicate what is remaining, what is to be repaired and what is to be replaced. Yes No
- f) Major details for proposed seismic retrofit schemes. Yes No

6. PROFILE

- a) Existing legal grade. Yes No
- b) Stationing. Yes No
- c) Vertical curve data. Yes No
- d) Stopping sight distance. Yes No
- e) Grades: existing & proposed. Yes No
- f) Drainage: scuppers and/or catch basins required?. Yes No
- g) Indicate where proposed meets existing. Yes No

7. **SCOPE OF WORK**

- a) Check to see that each deficient item reported in BRPR is on Preliminary Plans. Yes No
- b) Limits of work indicated. Yes No
- c) Reconstruction or replacement cost. Yes No
- d) Itemized scope of work write-up. Yes No
- e) Are the relocation and maintenance requirements of all utilities indicated for during construction? Yes No

8. **MAINTENANCE OF TRAFFIC - PLANS**

- a) Transition from normal lanes to restricted lanes. Yes No
- b) Location and limits of safety shape, barrels, cones, etc., as required. Is safety shape transitioned safely? Yes No
- c) Work area. Yes No
- d) Direction of travel. Yes No
- e) Lane widths on bridge & approaches. Yes No
- f) Is Design Sheet Piling required? Yes No
- g) Detour Plan. Yes No

9. **MAINTENANCE OF TRAFFIC – SECTIONS**

- a) Show different stages of construction, all dimensions of exist. superstructure, cut line. Yes No
- b) Temporary barrier, if required. Yes No
- c) Lane widths, sidewalk width Yes No
- d) Will utilities be a problem? Yes No
- e) Is Staging lanes consistent with utility installation? Yes No
- f) Pedestrian travel provided for? Is there access to property owners, homes and driveways? Yes No
- g) Is there enough room between existing and new construction? Yes No
- h) Fence off dangerous work area. Yes No

10. ELECTRICAL ITEMS

- a) Location of existing lighting standards & underpass luminaries (include type of lighting).. Yes No
- b) Location of existing electrical boxes, manholes and control cabinets. Yes No
- c) Location of existing utility company service point. Yes No
- d) Location of new lighting standards including L.P. material and height, bracket arm height & length, luminaire height Yes No
- e) Type & Wattage of luminaire to be used. Yes No
- f) Location, type & size of all new boxes, manholes & control cabinets. Yes No
- g) Location of new service point if required. Yes No
- h) Roadway and sidewalk illumination levels. Yes No

11. MOVABLE BRIDGES

- a) Location of all control stations, consoles, control cabinets, and monitoring devices. Yes No
- b) Location of service equipment, switchboards, lighting and power panels and motor control center. Include front panel layouts of equipment. Yes No
- c) Simplified wiring diagrams from service points to distribution panels, (For operational analysis) Include control devices. Yes No
- d) Location and identification of all equipment involved in vehicle, pedestrian and marine traffic control, including traffic gates, traffic signals, and navigation lights. Yes No
- e) Location and identification of electrical equipment involved in opening and closing bridges, including operator control desk, motors, end lifts, center latches, shear locks, limit switches and interlocks. Yes No
- f) Location of submarine cables in plan and elevation in channels and on piers. Include quantity and size conductors. Yes No

APPENDIX F

FIELD SURVEY REQUIREMENTS

The Engineer shall perform a field survey as required by Section 5.03, "General Survey Requirements for Design" of the New York State Highway Design Manual (in its entirety) and as stated below.

The Engineer shall submit the plotted survey to the Commissioner as per the Time of Completion Schedule Target Date A. The plotted survey drawings are considered as part of the Preliminary Plan Submission.

- a) The Engineer shall provide an up to date survey of the bridge and approaches in plan, profile and section. It shall include existing drainage and other appurtenances. The Engineer shall determine the actual sight distances on the highway approaches to the bridge.
- b) All underground facilities and existing utilities on the bridge and the approaches, including lamppost locations, shall be surveyed and said information shall be placed on the plans. The information shall include locations of public and private utilities, manholes, catch basins, etc. on the bridge and approaches.
- c) All vertical control elevations at streets, roads, etc. including horizontal and vertical clearances shall be shown.
- d) Information as required by the NYSDOT standard bridge data sheet for all bridges over water.
- e) A field of survey of all existing signs within the survey limits shall be made.
- f) The baseline and extent of survey shall extend to the survey limits specified in the Agreement.
- g) All ROW lines and property lines shall be shown.
- h) All bench marks shall be referenced to the datum of the U. S. Coast Guard and Geodetic Survey or the appropriate Borough datum, as required. Show survey baseline ties. Show all existing permanent survey monuments.
- i) The International System (Metric) Units of measurement shall be used
- j) All survey drawings shall be made using the CAD system.
- k) In addition to the above, the survey submission shall be in accordance with the following requirements:
 - 1) Plot profile at base line/centerline of roadway.
 - 2) Plot profiles at property/or fence line, or combination thereof (both sides of roadway).
 - 3) Plot profiles at curb line (both sides of roadway).

4) Locate and plot all legal grades/first floor.

Elevations/entrances/driveways/walkways/manholes/catch basins/ scuppers and sidewalk structures (with graphic plotting) directly on the appropriate profiles to scale.

5) Display sidewalk transverse slopes (i.e. 2%, 3%, 4%, 5%, 6%) with approved "field" type symbols(s).

6) Graphically show each building limit(s) with Lot/Block # and street address.

7) Plot cross sections at 10m intervals on the structure and 20 m intervals on grade and at all entrances, PT's, PI'S, PT (intersecting street), and BL (intersecting streets). The cross sections shall, minimally, be drawn from one property line to the opposite property line.

8) Provide a photo for each building/property including entrance(s) (5" x 7" color) together with the submission of the plotted survey drawings.

9) All ROW lines and property lines shall be dimensioned (and stationed) to the baseline.

APPENDIX A - II

STANDARD CLAUSES FOR ALL NEW YORK STATE CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licensor, licensee, lessor, lessee or any other party) :

1. **EXECUTORY CLAUSE.** In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.
2. **NON-ASSIGNMENT CLAUSE.** In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the State and any attempts to assign the contract without the State's written consent are null and void. The Contractor may, however, assign its right to receive payment without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.
3. **COMPTROLLER'S APPROVAL.** In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds \$10,000 (\$20,000 for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office.
4. **WORKERS' COMPENSATION BENEFITS.** In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.
5. **NON-DISCRIMINATION REQUIREMENTS.** The contractor agrees to comply with all applicable Federal, State and local Civil Rights and Human Rights laws with reference to equal employment opportunities and the provision of services. In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, age, disability or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.
6. **WAGE AND HOURS PROVISIONS.** If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.
7. **NON-COLLUSIVE BIDDING REQUIREMENTS.** In accordance with Section 139-d of the State Finance Law. If this contract was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a

non-collusive bidding certification on Contractor's behalf.

8. **INTERNATIONAL BOYCOTT PROHIBITION.** In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five(5) business days of such conviction, determination or disposition of appeal (2 NYCRR 105.4).

9. **SET-OFF RIGHTS.** The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit be the State agency, its representatives, or the State Comptroller.

10. **RECORDS.** The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively the "Records"). The Records must be kept for a minimum of six (6) years or three (3) years after final payment, whichever is later. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records

should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION:

(a) **FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER.** All invoices or New York State standard vouchers submitted for payment for the sale of goods or services or the lease of real or personal property to a New York State agency must include the payee's identification number, i.e., the seller's or lessor's identification number.

The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on his invoice or New York State standard voucher, must give the reason or reasons why the payee does not have such number or numbers.

(b) **PRIVACY NOTIFICATION.**

(1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law.

(2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in New York State's Central Accounting System by the Director of State Accounts, Office of the State Comptroller, AESOB, Albany, New York 12236.

12. **EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN:** In accordance with Section

312 of the Executive Law, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of \$100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

(b) At the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b" and "c", above, in every subcontract over \$25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State; or (iii)

(a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure

banking services, insurance policies or the sale of securities. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Governor's Office of Minority and Women's Business Development, pertaining hereto.

13. **CONFLICTING TERMS.** In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. **GOVERNING LAW.** This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. **LATE PAYMENT.** Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article XI-A of the State Finance Law to the extent required by law.

16. **NO ARBITRATION.** Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized).

17. **SERVICE OF PROCESS.** In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it be registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

SPECIAL EQUAL EMPLOYMENT OPPORTUNITY PROVISIONS

Specific Equal Employment Opportunity Responsibilities

1. GENERAL

equal employment opportunity, as required by Federal Executive Order 11246, Federal Executive Order

11375, and NYS Executive Order 45, are set forth in required Contract Provisions (Form PR-1273 or 1316, as appropriate) and those Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. Non-discrimination and affirmative action are also required by the State Labor Law, Section 220-e, as amended, and the Regulations of the NYS Department of Transportation relative to federally-assisted programs (Title 49, Code of Federal Regulations, Part 21 and Section 21.5), including employment practices when the agreement covers a program set forth in Appendix B of the Regulations. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for projects activities under this contract.

(b) The CONSULTANT will work with the STATE and the Federal Government in carrying out equal employment opportunity obligations and in their review of their activities under this contract.

(c) The CONSULTANT and all their sub-consultants and/or sub-contractors holding sub-contracts of \$10,000 or more will comply with the following minimum specific requirements of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to contractors and sub-contractors.) The CONSULTANT will include these requirements in every sub-contract with such modification of language as is necessary to make them binding on the sub-contractor.

2. **EQUAL EMPLOYMENT OPPORTUNITY POLICY** The CONSULTANT, their sub-consultant and/or sub-contractor or any person acting on behalf of the CONSULTANT or sub-consultant and/or sub-contractor will accept as their operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, national origin, age, disability or marital status, and to promote the full realization of equal employment opportunity through a positive continuing program.

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, or during consideration for employment, without regard to their race, religion, sex, or color, national origin, age, disability or marital status. Such non-discriminatory action shall include, but not be limited to: employment, job assignment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-

apprenticeship, and/or on-the-job training."

3. **EQUAL EMPLOYMENT OPPORTUNITY OFFICER** The CONSULTANT will designate and make known to the New York State Department of Transportation contracting officers an Equal Employment Opportunity Officer and a Minority Business Enterprise officer (hereinafter referred to as the EEO Officer and M.B.E. Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active equal employment opportunity program and who must be assigned adequate authority and responsibility to do so.

4. DISSEMINATION OF POLICY

(a) All members of the CONSULTANT's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the CONSULTANT's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To insure that the above agreement will be met, the following actions will be taken as a minimum:

(1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less than once every six months, at which time the CONSULTANT's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2) All new supervisory (first level of supervision and above) or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the CONSULTANT's equal employment opportunity obligations within thirty days following their reporting for duty with the CONSULTANT.

(3) All personnel who are engaged in direct recruitment for the project will be instructed in the CONSULTANT's procedures for locating and hiring minority group employees by the EEO Officer or appropriate company official. (Minority group referred to herein shall mean Black, Hispanic, Asian/Pacific Islander, American Indian/Alaskan.)

(b) In order to make the CONSULTANT's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the CONSULTANT will take the following actions:

(1) Notices and posters setting forth the

CONSULTANT'S equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2) The CONSULTANT's equal employment

(c) In all solicitations either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a sub-contract, including procurements of materials or equipment, each potential sub-contractor or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this agreement and the Regulations relative to non-discrimination.

5. RECRUITMENT

(a) When advertising for employees, the CONSULTANT will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived. These advertisements shall state that all qualified applicants will be afforded equal employment opportunity without regard to race, religion, sex, color, national origin, age, disability or marital status.

(b) The CONSULTANT will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the CONSULTANT's EEO Officer will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the CONSULTANT for employment consideration.

In the event the CONSULTANT has a valid bargaining agreement providing for exclusive hiring hall referrals, the CONSULTANT is expected to observe the provisions of that agreement to the extent that the system permits the CONSULTANT's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the CONSULTANT to do the same, such implementation violates Executive Order 11246.

(c) The CONSULTANT will encourage present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

6. *PERSONNEL ACTIONS* Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age, disability or marital status. The following procedures shall be followed:

(a) The CONSULTANT will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

(b) The CONSULTANT will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory practices.

(c) The CONSULTANT will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the CONSULTANT will promptly take corrective action. If the review indicated that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

(d) The CONSULTANT will promptly investigate all complaints of alleged discrimination made in connection with obligations under this agreement, will attempt to resolve such complaints, and will take appropriate corrective action within 15 days. All subsequent corrective actions or decisions will also be documented and forwarded to the NYS Department of Transportation Compliance Officer within 7 days after such action has taken place. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the CONSULTANT will inform every complainant of the results and all of their avenues of appeal should the complaint be denied.

7. TRAINING AND PROMOTION

(a) The CONSULTANT will assist in locating, qualifying and increasing the skills of minority group and women employees, and applicants for employment.

(b) Consistent with the CONSULTANT's work force requirements and as permissible under the Federal and State regulations, the CONSULTANT shall make full

use of training programs; i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance. In the event the Training Special Provision is provided under this contract, this subparagraph is superseded thereby.

(c) The CONSULTANT will advise employees and applicants for employment of available training

8. **UNIONS** If the CONSULTANT relies in whole or in part upon unions as a source of employees, the CONSULTANT will use their best effort to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and, to effect referrals by such unions of minority and female employees. The CONSULTANT will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice to be provided by the State Division of Human Rights, advising such labor union or representative of the CONSULTANT's compliance and with the non-discrimination clauses. Actions by the CONSULTANT, either directly or through a CONSULTANT's association acting as agent, will include the procedures set forth below:

(a) The CONSULTANT will use their best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

(b) The CONSULTANT will use their best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age, disability or marital status.

(c) The CONSULTANT is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union, and such labor union refuses to furnish such information to the CONSULTANT. The CONSULTANT shall so certify to the STATE and shall set forth what efforts have been made to obtain such information. Further, if the CONSULTANT was directed to do so by the contracting agency as part of the bid or negotiations of this contract, the CONSULTANT shall request such labor union or representative to furnish him with a written statement that such labor union or representative accepts the non-discrimination clauses and will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees

programs and entrance requirements for each.

(d) The CONSULTANT will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

that recruitment, employment and the terms and conditions of employment under this contract shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the CONSULTANT shall promptly notify the State Division of Human Rights and set forth what efforts have been made to obtain such information.

(d) In the event the union is unable to provide the CONSULTANT with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the CONSULTANT will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age, disability or marital status, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the CONSULTANT has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the CONSULTANT from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such CONSULTANT shall immediately notify the New York State Department of Transportation.

9. **AFFIRMATIVE ACTION IN SUBCONTRACTING**

(a) The CONSULTANT will not discriminate on the grounds of race, religion, sex, color, national origin, age, disability or marital status in the selection of subcontractors, including procurements and leases of equipment.

(b) If the CONSULTANT determines to use a subcontractor as part of this agreement, affirmative action shall be taken to increase the participation of minority business firms in that work. As part of that affirmative action, the CONSULTANT will identify and contact minority business firms and solicit proposals for the work to be subcontracted. The STATE will provide a list of names of minority business firms to the CONSULTANT. Another source that should be contacted for a list of minority business firms is the Governor's Office of Minority & Women's Business Development (GOMWBD).

(c) The CONSULTANT will document the affirmative action steps taken to comply with paragraph 9b. Such documentation will be provided at the time or submittal of a formal proposal to the State's Contracts Bureau.

(d) By execution of this agreement, the

(e) The CONSULTANT will insure binding subcontractor and vendor compliance with their EEO obligations. The CONSULTANT will take such actions in enforcing such provisions of such subcontract or purchase order as the contracting agency may direct, including sanctions or remedies for non-compliance. If the CONSULTANT becomes involved in or is threatened with litigation with a subcontractor or a vendor as a result of such direction by the contracting agency, the CONSULTANT shall promptly so notify the Attorney General, requesting him to intervene and protect the interest of the State of New York.

10. RECORDS AND REPORTS

(a) The CONSULTANT will keep such records as are necessary to determine compliance with the CONSULTANT's equal employment opportunity obligations. The records kept by the CONSULTANT will be designed to indicate:

(1) The number of minority and non-minority group members and women employed in each work classification on the project, where required by the NYS D.O.T Compliance Officer.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to CONSULTANTS who rely in whole or in part on unions as a source of their work force).

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees.

(4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

(5) Compliance with all other requirements in these provisions such as meetings, instructions, employment efforts, etc.

(b) The CONSULTANT will comply with Sections 291-299 of the Executive Law and Civil Rights Law and will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts other sources of information, and its facilities as may be determined by State or Federal officials to be pertinent to

CONSULTANT certifies that the affirmative action steps in 9a, 9b & 9c above were taken when soliciting proposals for the work in this agreement indicated to be subcontracted and that these steps will be taken should any work be subcontracted in the future.

ascertain compliance with such Regulations, orders and instructions. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State and the Federal Highway Administration.

(c) The CONSULTANT will submit to the New York State Department of Transportation, a monthly report for the first three months after beginning work, thereafter upon request, and each month of July following the initial submission for the duration of the project indicating the number of minority, women and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391, Federal-Aid Highway Construction Contractor's Monthly EEO Report. If on-the-job training is being required by "Training Special Provision", the CONSULTANT will be required to furnish Form FHWA-1409, Federal-Aid Highway Construction Contractor's Semi-Annual Training Report.

(d) Failure to comply with these Special EEO Provisions may be considered unsatisfactory performance and may subject the agreement to termination under the termination article of this agreement. Non-compliance may result in the CONSULTANT's being declared ineligible for future agreements made by or on behalf of the STATE or a public authority or agency of the STATE, until he satisfies the State Commissioner of Human Rights that he has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the State Commissioner of Human Rights after conciliation efforts by the State Division of Human Rights have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the State Division of Human Rights, notice thereof has been given to the CONSULTANT and an opportunity has been afforded them to be heard publicly before the State Commissioner of Human Rights or official designee. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided for by law. These may include, but are not limited to:

(1) withholding of payments to the CONSULTANT under the agreement until the CONSULTANT complies, and/or

(2) cancellation, termination or suspensions of the agreement in whole or in part.

11. *TRAINING SPECIAL PROVISIONS* This Training Special Provision supersedes paragraph 7.b above and is in implementation of 23 CFR Subpart A, Section 230.111 & Executive Order 11246.

As part of the CONSULTANT's equal employment opportunity affirmative action program training shall be provided as follows:

In the event that the CONSULTANT subcontracts a portion of the contract work, it shall be determined how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the CONSULTANT shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The CONSULTANT shall also insure that this training special provision is made applicable to such subcontract.

The number of trainees shall be distributed among the work classifications on the basis of the CONSULTANT's needs. Along with their proposal, the CONSULTANT shall submit to the New York State Department of Transportation for approval the proposed number of trainees to be trained in each selected classification, their estimated salaries and a training schedule. The salaries to be paid trainees shall not be less than 75 percent of the average hourly rate approved in the agreement for the classification to be trained. During the period from the beginning of the project to its completion, the trainee shall receive reasonable salary increases commensurate to the abilities and effort exerted by the trainee. The training schedule required should indicate the start of work and appropriate incremental salary steps in accord with the above.

Training and upgrading the proficiency of minorities and women is a primary objective of this Training Special Provision. Accordingly, the CONSULTANT shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The CONSULTANT will be responsible for demonstrating the steps that have been taken in pursuance thereof, prior to a determination as to whether the CONSULTANT is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training program or in a classification in

The CONSULTANT shall provide on-the-job training aimed at developing full competence in the job classification involved.

The number of months of training to be provided under these special provisions is previously stated in Article II, Item VII.

which they have been employed. The CONSULTANT should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the CONSULTANT's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training schedule developed by the CONSULTANT and approved by the State and Federal Highway Administration. The State and the Federal Highway Administration shall approve a program if it reasonably calculated to meet the equal employment opportunity obligations of the CONSULTANT and to assist in qualifying the average trainee toward proficiency in the classification concerned by the end of the training period. Approval of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. Training is permissible in lower level management positions. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

The CONSULTANT will be reimbursed for the cost of any and all training under the payment terms of this agreement. This can include offsite training cost as discussed above. All offsite training must be defined in the training schedule. All costs claimed or calculated for training must be directly related to the work defined in the scope of this agreement and/or added by supplemental agreement.

The CONSULTANT must demonstrate their best efforts and evidence good faith in hiring trainees for positions in the classification in which they have completed training.

The CONSULTANT shall furnish the trainee a copy of the program they will follow in the training. The CONSULTANT shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The CONSULTANT will provide for the maintenance of records and furnish periodic reports documenting

their performance under this Training Special Provision.

12. Federal Single Audit Requirements

Non-Federal entities that expend \$300,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations". Non-Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non-Federal entities that expend less than \$300,000 in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in §3052.215(a), but records must be available for review or audit by appropriate officials of the Federal agency, the New York State Department of Transportation, the New York State Comptroller's Office and the U.S. General Accounting Office (GAO).

Non-Federal entities are required to submit a copy of all audits, as described above, within 30 days of issuance, to the New York State Department of Transportation, Contract Audit Bureau, 1220 Washington Avenue, Albany, NY 12232.

CERTIFICATION REGARDING LOBBYING

Certification For Contracts, Grants, Loans, And Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by C

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):	
(attach Continuation Sheet(s) SF-LLLA, if necessary)		
11. Amount of Payment (check all that apply): \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (check all that apply): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
12. Form of Payment (check all that apply): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____		
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11: (attach Continuation Sheet(s) SF-LLLA, if necessary)		
15. Continuation Sheet(s) SF-LLLA attached: <input type="checkbox"/> Yes <input type="checkbox"/> No		
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only:		Authorized for Local Reproductio Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLLA Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any service rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLLA Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington DC 20503.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS--PRIMARY COVERED TRANSACTIONS**

Instructions For Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion- Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS--PRIMARY COVERED TRANSACTIONS**

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification;
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

49 CFR Part 29 - Appendix B

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS

Instructions For Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AN
VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS**

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

SECTION VII

B) GENERAL PROVISIONS - (APPENDIX A2)

APPENDIX A2

GENERAL PROVISIONS GOVERNING CONTRACTS FOR CONSULTANTS, PROFESSIONAL AND TECHNICAL SERVICES

ARTICLE 1. DEFINITIONS

- 1.1 As used throughout this Contract, the following terms shall have the meaning set forth below:
- A. "City" shall mean the City of New York, its departments and political subdivisions.
 - B. "Comptroller" shall mean the Comptroller of the City of New York.
 - C. "Department" or "Agency" shall mean the New York City Department of Transportation.
 - D. "Commissioner" or "Agency Head" shall mean the Commissioner of the Department of Transportation or his or her duly authorized representative. The term "duly authorized representative" shall include any person or persons acting within the limits of his or her authority.
 - E. "Law" or "Laws" shall include but not be limited to the New York City Charter, the New York City Administrative Code, a local law of the City of New York, and any ordinance, rule or regulation having the force of law.

ARTICLE 2. REPRESENTATIONS AND WARRANTIES

2.1 PROCUREMENT OF CONTRACT

- A. The Contractor represents and warrants that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage fee, contingent fee or any other compensation. The Contractor further represents and warrants that no payment, gift or thing of value has been made, given or promised to obtain this or any other agreement between the parties. The Contractor makes such representations and warranties to induce the City to enter into this Contract and the City relies upon such representations and warranties in the execution hereof.
- B. For a breach or violation of such representations or warranties, the Agency shall have the right to annul this Contract without liability, entitling the City to recover all monies paid hereunder and the Contractor shall not make claim for, or be entitled to recover, any sum or sums due under this Agreement. This remedy, if effected, shall not constitute the sole remedy afforded the City for the falsity or breach, nor shall it constitute a waiver of the City's right to claim damages or refuse payment or to take any other action provided for by law or pursuant to this Contract.

2.2 CONFLICT OF INTEREST

The Contractor represents and warrants that neither it nor any of its directors, officers, members, partners or employees, has any interest nor shall they acquire any interest, directly or indirectly, which would or may conflict in any manner or degree with the performance or rendering of the services herein provided. The Contractor further represents and warrants that in the performance of the Contract no person having such interest or possible interest shall be employed by it. No elected official or other officer or employee of the City or Department, nor any person whose salary is payable, in whole or in part from the City Treasury, shall participate in any decision relating to this Contract which affects his or her personal interest or the interest of any corporation, partnership or association in which he or she is, directly or indirectly, interested; nor shall any such person have any interest, direct or indirect, in this Contract or in the proceeds thereof.

2.3 FAIR PRACTICES

The Contractor and each person signing on behalf of any contractor represents and warrants and certifies, under penalty of perjury, that to the best of its knowledge and belief:

- A. The prices in this Contract have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder/proposer or with any competitor;
- B. Unless otherwise required by law, the prices which have been quoted in this Contract and on the bid or proposal submitted by the Contractor have not been knowingly disclosed by the Contractor prior to the bid or proposal opening, directly or indirectly, to any other bidder/proposer or to any competitor; and
- C. No attempt has been made or will be made by the Contractor to induce any other person, partnership or corporation to submit or not to submit a bid or proposal for the purpose of restricting competition. The fact that the Contractor (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of the above.

ARTICLE 3. AUDIT BY THE DEPARTMENT AND CITY

- 3.1 All vouchers or invoices presented for payment to be made hereunder, and the books, records and accounts upon which said vouchers or invoices are based are subject to audit by the Department and by the Comptroller of the City of New York pursuant to the powers and responsibilities as conferred upon said Department and said Comptroller by the New York City Charter and Administrative Code of the City of New York, as well as orders and regulation promulgated pursuant thereto.
- 3.2 The Contractor shall submit any and all documentation and justification in support of expenditures or fees under this Contract as may be required by said Department and said Comptroller so that they may evaluate the reasonableness of the charges and shall make its records available to the Department and to the Comptroller as they consider necessary.
- 3.3 All books, vouchers, records, reports, cancelled checks and any and all similar material may be subject to periodic inspection, review and audit by the City of New York, the State of New York, the Federal Government and any other person duly authorized by the City. Such audit may include examination and review of the source and application of all funds whether from the City, any State, the Federal Government, private sources or otherwise.
- 3.4 The Contractor shall not be entitled to final payment under the Contract until all requirements have been satisfactorily met.

ARTICLE 4. COVENANTS OF THE CONTRACTOR

4.1 EMPLOYEES

- A. All experts or consultants or employees of the Contractor who are employed by the Contractor to perform work under this Contract are neither employees of the City nor under contract to the City and the Contractor alone is responsible for their work, direction, compensation and personal conduct while engaged under this Contract. Nothing in the Contract shall impose any liability or duty on the City for the acts, omissions, liabilities or obligations of the Contractor, any person, firm, company, agency, association, expert, consultant, independent contractor, specialist, trainee, employee, servant, or agent, or for taxes of any nature including but not limited to unemployment insurance, workmen's compensation, disability benefits and social security, or, except as specifically stated in this Contract, to any person, firm or corporation.

B. The Contractor shall be solely responsible for all physical injuries or death to its agents, servants, or employees or to any other person or damage to any property sustained during its operations and work on the project under this Contract resulting from any negligent or wrongful act of omission or commission or error in judgment of any of its officers, trustees, employees, agents, servants, of independent contractors, and shall hold harmless and indemnify the City from liability upon any and all claims for damages on account of such injuries or death to any such person or damages to property on account of any neglect, fault or default of the Contractor, its officers, trustees, employees, agents, servants, or independent contractors. The Contractor shall be solely responsible for the safety and protection of all of its employees whether due to the negligence, fault or default of the Contractor or not.

C. Minimum Wage

Except for those employees whose minimum wage is required to be fixed pursuant to Section 220 of the Labor Law of the State of New York, all persons employed by the Contractor in the performance of this Contract shall be paid, without subsequent deduction or rebate, unless expressly authorized by law, not less than the minimum wage as prescribed by law. Any breach or violation of the foregoing shall be deemed a breach or violation of a material provision of this Agreement.

4.2 **INDEPENDENT CONTRACTOR STATUS**

The Contractor and the Department agree that the Contractor is an independent contractor, and not an employee of the Department or the City of New York, and that in accordance with such status as independent contractor, the Contractor covenants and agrees that neither it nor its employees or agents will hold themselves out as, nor claim to be, officers or employees of the City of New York, or of any department, agency or unit thereof, by reason hereof, and that they will not, by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the City of New York, including, but not limited to, Workers' Compensation coverage, Unemployment Insurance Benefits, Social Security coverage or employee retirement membership or credit.

4.3 **INSURANCE**

A. Required Insurance Coverage: Before performing any work on the Contract, the Contractor shall procure and maintain for the duration of the Contract, insurance against any claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work in this Contract by the Contractor, its agents, representatives, employees or subcontractors. The Contractor shall procure the required insurance from companies licensed and authorized by the New York State Department of Insurance to do business in New York State and with a Best's rating of A-7 or better.

1. Commercial General Liability. Before performing any work on the Contract, the Contractor shall procure Comprehensive General Liability Insurance in the Contractor's name and naming the City of New York and the Department of Transportation as additional insured thereunder and endorsed to cover the liability assumed by the Contractor under the indemnity provisions of this Contract. This insurance policy shall be maintained during the term of this Contract and shall protect the City of New York, the Contractor and/or its subcontractors performing work under this Contract from claims for property damage and/or bodily injury, including death, which may arise from operations under this Contract, whether such operations are performed by the Contractor or anyone directly or indirectly employed by the Contractor. The coverage provided shall not be less than \$1,000,000 per occurrence. The coverage provided must be "occurrence" based; "claims-made" coverage will not be accepted.

2. Workers' Compensation Insurance. Before performing any work on this Contract, the Contractor and each Subcontractor shall provide Workers' Compensation Insurance in accordance with the Laws of the State of New York, and the United States Longshoremen's and Harbor Workers' Act where applicable, on behalf of all employees providing services under this Contract.

3. Employers' Liability Insurance. Before performing any work on this Contract, the Contractor shall procure Employers' Liability Insurance, in the amount of at least \$1,000,000 per accident, providing compensation for bodily injury by accident or disease sustained by any employee of the insured arising out of and in the course of his/her employment by the Contractor.

4. Automobile Liability. Before performing any work on this Contract, the Contractor shall procure commercial auto liability insurance covering all owned, non-owned, hired and borrowed vehicles to be used in connection with this Contract. The City of New York and the Department shall be named as additional insureds. Coverage shall be in an amount of at least \$1,000,000.00.
5. Unemployment Insurance. Before performing any work on this Contract, Unemployment Insurance coverage shall be obtained and provided by the Contractor for its employees.
6. Professional Liability. Before performing any work on this Contract, the Contractor shall procure Professional Liability Insurance covering as insured the Contractor, with a limit of liability of not less than \$1,000,000. All sub-consultants to the Contractor providing professional services under this Contract shall also provide evidence of Professional Liability Insurance to the Commissioner at limits appropriate to the exposures of the sub-consultant's work, with deductibles suitable for the financial capacity of the sub-consultant and through carriers and on forms acceptable to the City.
7. The Contractor agrees to indemnify and hold harmless the City of New York and each officer, agent and employee of the City of New York against any and all claims for personal injury or wrongful death or damage to personal property arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor or anyone employed by the Contractor.

(B) General Requirements for Insurance Policies:

1. All required insurance policies shall be maintained with companies licensed and authorized to do business in the State of New York by the New York State Department of Insurance. The Contractor must first obtain the written approval of the City's Risk Manager of the Mayor's Office of Operations, or its delegate, in the event it wishes to maintain any type of required insurance with a company not licensed to do business in the State of New York.
2. The Contractor shall be solely responsible for the payment of all premiums for all required policies and all deductibles to which such policies are subject, whether or not the City is an insured under the policy.
3. All insurance policies shall include, without limitations, the following endorsements/requirements.
 - (a) Notice under the Policy to the City as Additional Insured shall be addressed to each of the following: (1) the Commissioner; (2) Comptroller's Office, attn: Office of Contract Administration, Municipal Building, Room 835, New York, NY 10007; and
 - (b) Notwithstanding any provision of this policy to the contrary, notice by or on behalf of the City as Additional Insured of any occurrence, offense, or claim, if such notice is required, will be deemed timely if given to the Insurance Company as soon as practicable after a Notice of Claim adequately specifying the occurrence, offense, or claim as one potentially covered under the policy has been filed with the Comptroller; however, in no event shall notice be deemed untimely so long as it is given within 180 days of the filing of the Notice of Claim; and
 - (c) Any notice, demand or other writing by or on behalf of the Contractor to the Insurance Company relating to any occurrence, offense, claim or suit shall also be deemed to be a notice, demand, or other writing on behalf of the City as Additional Insured, and any response thereto on behalf of the Insurance Company shall be sent to the Contractor, to the City at New York City Law Department, Insurance Law Unit, Affirmative Litigation Division, 100 Church Street, New York, NY 10007, and to the Comptroller at Insurance Unit, NYC Comptroller's Office, 1 Centre Street, Room 1222, New York, NY; and

- (d) Notice of Cancellation of Policy: In addition to any other requirements concerning notice of cancellation, this policy shall not be cancelled, terminated, modified or changed by the Insurance Company unless sixty (60) days' prior written notice is sent to the Named Insured by Registered Mail and also sent to the Commissioner and to the Comptroller's Office, attn: Office of Contract Administration, Municipal Building, Room 835, New York, New York 10007, nor shall this policy be cancelled, terminated, modified or changed by the Named Insured without the prior consent of the said Commissioner; and
 - (e) It is agreed that the Insurance Company, in the event of any payment under these policies, will waive its rights of recovery, if any, against the City; and
 - (f) The Insurance required for this contract must be on forms acceptable to the City and offered by Insurers acceptable to the New York State Insurance Department; and
 - (g) Where circumstances warrant, the Commissioner may, at his discretion and subject to acceptance by the Law Department and/or the Office of the Comptroller, accept letters of credit or custodial accounts in lieu of specific insurance requirements; and
 - (h) The Contractor shall be solely responsible for payment of all premiums for Insurance requirements, and shall be solely responsible for the payment of all deductibles to which such policies are subject whether or not the City of New York is an insured under the policy; and
 - (i) Claims-made policies will only be accepted for professional liability and such other risks as are authorized by the New York State Insurance Department. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If provided as an option, the Contractor agrees to purchase the extended reporting period on cancellation or termination unless a new policy is effected with a retroactive date, including at least the last policy year; and
 - (j) The policies shall contain no exclusions or endorsements which are not acceptable to the City; and
 - (k) Should the policies providing for any of the Insurance coverage required by the Contract expire during the Contract term, certificates confirming renewal of such insurance coverage shall be presented the Commissioner not less than thirty (30) days prior to the expiration date of coverage. In addition, a copy of the actual renewal policy, with all endorsements, shall be provided to the Commissioner no later than thirty (30) days after the expiration of the policy previously provided to the Commissioner. Failure to provide any renewal policy shall be ground to suspend payments to the Contractor; and
 - (l) Submission of Insurance Certificates and Policies. For all insurance coverage required under the Contract, two (2) certificates of such insurance shall be furnished to the Commissioner not later than twenty (20) days after receipt of the Notice of Award, unless otherwise directed by the Commissioner. In addition, with respect to all insurance coverage required by the contract, with the exception of Workers' Compensation and Employer's Liability Insurance, two (2) executed copies of the insurance POLICIES shall be provided to the Commissioner as soon as is practicable, but in not event later than thirty (30) days after the commencement of work. No Contract payments will be accepted for processing until such policies are received and approved, and failure to provide the required policies shall be ground for declaring the Contractor in default.
- C. Materiality/Non-Waiver: The Contractor's failure to secure policy(ies) in complete conformity with this article, or to give the Insurance Company timely notice of an occurrence, offense, claim or suit on behalf of the City, shall constitute a material breach of this Contract. Such breach shall not be waived or otherwise excused by any action or inaction by the City at any time.

4.4 PROTECTION OF CITY PROPERTY

- A. The Contractor assumes the risk of, and shall be responsible for, any loss or damage to City property, including property and equipment leased by the City, used in the performance of this Contract and caused, either directly or indirectly by the acts, conduct, omissions or lack of good faith of the Contractor, its officers, managerial personnel and employees, or any person, firm, company, agent or others engaged by the Contractor as an expert, consultant, specialist or subcontractor hereunder.
- B. In the event that any such City property is lost or damaged, except for normal wear and tear, the City shall have the right to withhold further payments hereunder for the purpose of set-off in sufficient sums to cover such loss of damage.
- C. The Contractor agrees to indemnify the City and hold it harmless from any and all liability or claim for damages due to any such loss or damage to any such City property described in subsection 4.4A above.
- D. The rights and remedies of the City provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or by this Contract.

4.5 CONFIDENTIALITY

All of the reports, information or data, furnished to or prepared, assembled or used by the Contractor under this Contract are to be held confidential, and prior to publication, the Contractor agrees that the same shall not be made available to any individual or organization without the prior written approval of the Department.

4.6 BOOKS AND RECORDS

The Contractor agrees to maintain separate and accurate books, records, documents and other evidence and accounting procedures and practices which sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this Contract.

4.7 RETENTION OF RECORDS

The Contractor agrees to retain all books, records, and other documents relevant to this Contract for six years after the final payment or termination of the Contract, whichever is later. City, State and Federal auditors and any other persons duly authorized by the Department shall have full access to and the right to examine any of said materials during said period.

4.8 COMPLIANCE WITH LAW

Contractor shall render all services under this Contract in accordance with applicable provisions of Federal, State and Local laws, rules and regulations as are in effect at the time such services are rendered.

4.9 INVESTIGATION CLAUSE

- A. The parties to this Contract agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a State of New York (State) or City of New York (City) governmental agency or authority that is empowered directly or by designation, to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license that is the subject of the investigation, audit or inquiry.

- B. If any person who has been advised that his or her statement, and any information from such statement, will not be used against him or her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the City, or any public benefit corporation organized under the laws of the State of New York or;
- C. If any person refused to testify for a reason other than the assertion of his or her privilege against self-incrimination in an investigation, audit or inquiry conducted by a City or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is an interested party in, and is seeking testimony concerning the award of, or performance under, any transaction, agreement, lease, permit, contract, or license entered into with the City, the State, or any political subdivision thereof or any local development corporation with the City, then;
- D. The Commissioner or Agency Head whose agency is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) days' written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.
- E. If any non-governmental party to the hearing requests an adjournment, the Commissioner or Agency Head who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license pending the final determination pursuant to paragraph (G) below without the City incurring any penalty or damages for delay or otherwise.
- F. The penalties which may attach after a final determination by the Commissioner or Agency Head may include but shall not exceed:
1. The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the City; and/or
 2. The cancellation or termination of any and all such existing City contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this Contract, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the City incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the City.
- G. The Commissioner or Agency Head shall consider and address, in reaching his or her determination and in assessing an appropriate penalty, the factors listed in paragraphs (1) and (2) below. He or she may also consider, if relevant and appropriate, the criteria established in paragraph (3) and (4) below in addition to any other information which may be relevant and appropriate:
1. The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.
 2. The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.
 3. The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

4. The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under (F) above, provided that the party or entity has given actual notice to the Commissioner or Agency Head upon the acquisition of the interest, or at the hearing called for in (D) above gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity must present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.
- H.
1. The term "license" or "permit" as read herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.
 2. The term "person" as used herein shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal, or employee.
 3. The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives monies, benefits, licenses, or permits from or through the City or otherwise transacts business with the City.
 4. The term "member" as used herein shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.
- I.
- In addition to and notwithstanding any other provision of this Contract the Commissioner or Agency Head may in his or her sole discretion terminate this Contract upon not less than three (3) days' written notice in the event Contractor fails to promptly report in writing to the Commissioner of Investigation of the City of New York any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the City or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this Contract by the Contractor, or affecting the performance of this Contract.

4.10 ASSIGNMENT

- A. The Contractor shall not assign, transfer, convey or otherwise dispose of this Contract or of Contractor's rights, obligations, duties, in whole or in part, or of its right to execute it, or its right, title or interest in it or any part thereof, or assign, by power of attorney or otherwise, any of the notices due or to become due under this Contract, unless the prior written consent of the Agency shall be obtained. Any such assignment, transfer, conveyance or other disposition without such consent shall be void.
- B. Failure of the Contractor to obtain any required consent to any assignment, shall be cause for termination for cause, at the option of the Agency; and if so terminated, the City shall thereupon be relieved and discharged from any further liability and obligation to the Contractor, its assignees or transferees, and all monies that may become due under the Contract shall be forfeited to the City except so much thereof as may be necessary to pay the Contractor's employees.
- C. The provisions of this clause shall not hinder, prevent, or affect an assignment by the Contractor for the benefit of its creditors made pursuant to the laws of the State of New York.
- D. This Agreement may be assigned by the City to any corporation, agency or instrumentality having authority to accept such assignment.

4.11 SUBCONTRACTING

- A. The Contractor agrees not to enter into any subcontracts for the performance of its obligations, in whole or in part, under this Contract without the prior written approval of the Department. Two copies of each such proposed subcontract shall be submitted to the Department with the Contractor's written request for approval. All such subcontracts shall contain provisions specifying:
 1. That the work performed by the subcontractor must be in accordance with the terms of the Contract between the Department and the Contractor.
 2. That nothing contained in such Contract shall impair the rights of the Department.

3. That nothing contained herein, or under the Contract between the Department and the Contractor, shall create any contractual relation between the Subcontractor and the Department, and
 4. That the Subcontractor specifically agrees to be bound by the confidentiality provision set forth in this Contract between the Department and the Contractor.
- B. The Contractor agrees that it is fully responsible to the Department for the acts and omissions of the Subcontractors and of persons either directly or indirectly employed by them as it is for the acts and omissions of persons directly employed by it.
 - C. The aforesaid approval is required in all cases other than individual employer-employee contracts.
 - D. The Contractor shall not in any way be relieved of any responsibility under this Contract by any subcontract.

4.12 PUBLICITY

- A. The prior written approval of the Department is required before the Contractor or any of its employees, servants, agents, or independent contractors may, at any time, either during or after completion or termination of this Contract, make any statement to the press or issue any material for publication through any media of communication bearing on the work performed or data collected under this Contract.
- B. If the Contractor publishes a work dealing with any aspect of performance under this Contract, or of the results and accomplishments attained in such performance, the Department shall have a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use the publication.

4.13 PARTICIPATION IN AN INTERNATIONAL BOYCOTT

- A. The Contractor agrees that neither the Contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce promulgated there under.
- B. Upon the final determination by the Commerce Department or any other agency of the United States as to conviction of the Contractor or a substantially-owned affiliated company thereof for participation in international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated there under, the Comptroller may, at his or her option, render this Contract forfeited and void.
- C. The Contractor shall comply in all respects, with the provisions of § 6-114 of the Administrative Code of the City of New York and the rules and regulation issued by the Comptroller there under.

4.14 INVENTIONS, PATENTS AND COPYRIGHTS

- A. Any discovery or invention arising out of or developed in the course of performance of this Contract shall be promptly and fully reported to the Department, and if this work is supported by a federal grant of funds, shall be promptly and fully reported to the Federal Government for determination as to whether patent protection on such invention shall be sought and how the rights in the invention or discovery, including rights under any patent issued thereon, shall be disposed of and administered in order to protect the public interest.
- B. No report, document or other data produced in whole or in part with contract funds shall be copyrighted by the Contractor nor shall any notice of copyright be registered by the Contractor in connection with any report, document or other data developed for the Contract.
- C. In no case shall subsection A and B of this section apply to, or prevent the Contractor from asserting or protecting its rights in any report, document or other data, or any invention which existed prior to or was developed or discovered independently from the activities directly related to this Contract.

4.15 INFRINGEMENTS

The Contractor shall be liable to the Department and hereby agrees to indemnify and hold the Department harmless for any damage or loss or expense sustained by the Department from any infringement by the Contractor of any copyright, trademark or patent rights of design, systems, drawings, graphs, charts, specifications or printed matter furnished or used by the Contractor in the performance of this Contract.

4.16 ANTI-TRUST

The Contractor hereby assigns, sells, and transfers to the City all right, title and interest in and to any claims and causes of action arising under the anti-trust laws of the State of New York or of the United States relating to the particular goods or services purchased or procured by the City under this Contract.

ARTICLE 5. TERMINATION

- A. The Department and/or City shall have the right to terminate this Contract, in whole or in part:
1. Under any right to terminate as specified in any section of this Contract.
 2. Upon the failure of the Contractor to comply with any of the terms and conditions of this Contract.
 3. Upon the Contractor's becoming insolvent.
 4. Upon the commencement under the Bankruptcy Act of any proceeding by or against the Contractor, either voluntarily or involuntarily.
 5. Upon the Commissioner's determination that termination is in the best interest of the City.
- B. The Department or City shall give the Contractor written notice of any termination of this Contract specifying therein the applicable provisions of subsection A of this section and the effective date thereof, which shall not be less than ten (10) days from the date the notice is received.
- C. The Contractor shall be entitled to apply to the Department to have this Contract terminated by said Department by reason of any failure in the performance of this Contract (including any failure by the Contractor to make progress in the execution of work hereunder which endangers such performance), if such failure arises out of causes beyond the control and without the fault or negligence of the Contractor. Such causes may include, but are not restricted to: acts of God or of the public enemy; acts of the Government in either its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes; freight embargoes; or any other case beyond the reasonable control of the Contractor. The determination that such failure arises out of causes beyond the control and without the fault or negligence of the Contractor shall be made by the Department which agrees to exercise reasonable judgment therein. If such a determination is made and the Contract terminated by the Department pursuant to such application by the Contractor, such termination shall be deemed to be without cause.
- D. Upon termination of this Contract the Contractor shall comply with the Department or City close-out procedure, including but not limited to:
1. Accounting for and refunding to the Department or City within thirty (30) days, any unexpended funds which have been paid to the Contractor pursuant to this Contract.
 2. Furnishing within thirty (30) days an inventory to the Department or City of all equipment, appurtenances and property purchased through or provided under this Contract carrying out any Department or City directive concerning the disposition thereof.

3. Not incurring or paying any further obligation pursuant to this Contract beyond the termination date. Any obligation necessarily incurred by the Contractor on account of this Contract prior to receipt of notice of termination and falling due after such date shall be paid by the Department or City in accordance with the terms of this Contract. In no event shall the "obligation", as used herein, be construed as including any lease agreement, oral or written, entered into between the Contractor and its landlord.
 4. Turn over to the Department or City or its designees all books, records, documents and material specifically relating to the Contract.
 5. Submit, within ninety (90) days, a final statement and report relating to the Contract. The report shall be made by a certified public accountant or a licensed public accountant.
- E. In the event the Department or City shall terminate this Contract, in whole or in part, as provided in paragraphs 1, 2, 3, or 4 of subsection A of this section, the Department or City may procure, upon such terms and in such manner as deemed appropriate, services similar to those so terminated, and the Contractor shall continue the performance of this Contract to the extent not terminated hereby.
- F. Notwithstanding any other provisions of this Contract, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of Contractor's breach of the Contract, and the City may withhold payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due to the City from the Contractor is determined.
- G. The provisions of the Contract regarding confidentiality of information shall remain in full force and effect following any termination.
- H. The rights and remedies of the City provided in this section shall not be exclusive and are in addition to all other rights and remedies provided by law or under this Contract.

ARTICLE 6. MISCELLANEOUS

6.1 CONFLICT OF LAWS

All disputes arising out of this Contract shall be interpreted and decided in accordance with the laws of the State of New York.

6.2 GENERAL RELEASE

The acceptance by the Contractor or its assignees of the final payment under this Contract, whether by voucher, judgment of any court of competent jurisdiction or any other administrative means, shall constitute and operate as a general release to the City from any and all claims of liability to the Contractor arising out of the performance of this Contract.

6.3 CLAIMS AND ACTIONS THEREON

- A. Any claim, which is not subject to the Dispute Resolution provisions of the PBB Rules, against the City for damages for breach of contract shall not be made or asserted in any action or proceeding at law or in equity, unless the Contractor shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as hereinbefore provided.
- B. No action or proceeding shall be instituted or maintained on any such claims unless such action or proceeding be commenced within six (6) months after the date the Commissioner issues a Certificate of Substantial Completion except that:
1. Any claims arising out of events occurring after the date the Commissioner issues a Certificate of Substantial Completion and before Final Acceptance of the work shall be asserted within six (6) months of Final Acceptance of the work;

2. Any claims for monies deducted, retained or withheld under the provisions of this Contract shall be asserted within six (6) months after the date when such monies become due and payable hereunder; and
 3. If the Commissioner exercises his/her right to terminate the Contract Pursuant to Article 5, any such action shall be commenced within six (6) months of the date of filing in the Office of the Comptroller of the City of the Certificate for Final Payment hereunder.
- C. In the event any claim is made or any action brought in any way relating to the Contract herein, the Contractor shall diligently render to the Department and/or the City of New York, without additional compensation, any and all assistance which the Department and/or the City of New York may require of the Contractor.
- D. The contractor shall report to the Department in writing within three (3) working days of the initiation by or against the Contractor of any legal action or proceeding in connection with or relating to this Contract.

6.4 NO CLAIM AGAINST OFFICERS, AGENTS OR EMPLOYEES

No claim whatsoever shall be made by the Contractor against any officer, agent, or employee of the City for, or on account of, anything done or omitted in connection with this Contract.

6.5 WAIVER

Waiver by the Department of a breach of any provision of this Contract shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of this Contract unless and until the same shall be agreed to in writing by the Department or City as required and attached to the original Contract.

6.6 NOTICE

The Contractor and the Department hereby designate the business addresses hereinabove specified as the places where all notices, directions or communications from one such party to the other party shall be delivered, or to which they shall be mailed. Actual delivery of any such notice, direction or communication to a party at the aforesaid place, or delivery by Certified Mail shall be conclusive and deemed to be sufficient service thereof upon such party as of the date such notice, direction or communication is received by the party. Such address may be changed at any time by an instrument in writing executed and acknowledged by the party making such change and delivered to the other party in the manner as specified above. Nothing in this section shall be deemed to serve as a waiver of any requirements for the service of notice of process in the institution of an action or proceeding as provided by law, including the Civil Practice Law and Rules.

6.7 ALL LEGAL PROVISIONS DEEMED INCLUDED

It is the intent and understanding of the parties to this Contract that each and every provision of law required to be inserted in this Contract shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this Contract shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the law and without prejudice to the rights of either party hereunder.

6.8 SEVERABILITY

If this Contract contains any unlawful provision not an essential part of the Contract and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall upon notice by either party, be deemed stricken from the Contract without affecting the binding force of the remainder.

6.9 POLITICAL ACTIVITY

There shall be no partisan political activity or any activity to further the election or defeat of any candidate for public, political or party office as part of or in connection with this Contract, nor shall any of the funds provided under this Contract be used for such purposes.

6.10 MODIFICATION

This Contract may be modified by the parties in writing in a manner not materially affecting the substance hereof. It may not be altered or modified orally.

6.11 PARAGRAPH HEADINGS

Paragraph headings are inserted only as a matter of convenience and for reference and in no way define, limit or describe the scope or intent of this Contract and in no way affect this Contract.

6.12 NO REMOVAL OF RECORDS FROM PREMISES

Where performance of this Contract involves use by the Contractor of departmental papers, files, data or records at departmental facilities or offices, the Contractor shall not remove any such papers, files, data or records, therefrom without the prior approval of the Department's designated official.

6.13 INSPECTION AT SITE

The Department shall have the right to have representatives of the Department or the City, State or Federal governments present at the site of the engagement to observe the work being performed.

6.14 MERGER

This written Contract contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

6.15 CONDITIONS PRECEDENT

This contract shall neither be binding nor effective unless:

- A. Approved by the Mayor pursuant to the provisions of Executive Order No. 42 dated October 9, 1975, in the event the Executive Order requires such approval; and
- B. Certified by the Mayor (Mayor's Fiscal Committee created pursuant Executive Order No. 43, dated October 14, 1975) that performance thereof will be in accordance with the City's financial plan; and
- C. Approved by the New York State Financial Control Board (Board) pursuant to the New York State Financial Emergency Act for the City of New York, as amended, (the "Act"), in the event regulations of the Board pursuant to the Act require such approval.
- D. It has been authorized by the Mayor and the Comptroller shall have endorsed his or her certificate that there remains unexpended and unapplied a balance of the appropriation of funds applicable thereto sufficient to pay the estimated expense of carrying out this Contract.

The requirement of this section of the Contract shall be in addition to, and not in lieu of, any approval or authorization otherwise required for this Contract to be effective and for the expenditure of City funds.

6.16 PPB RULES

The Contract is subject to the Rules of the Procurement Policy Board of the City of New York effective September 1, 1990, as amended. In the event of a conflict between said Rules and a provision of this Contract, the Rules shall take precedence.

6.17 STATE LABOR LAW AND CITY ADMINISTRATIVE CODE

A. As required by New York State Labor Law § 220-e:

1. That in the hiring of employees for the performance of work under this Contract or any subcontract hereunder, neither the Contractor, Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, sex or national origin discriminate against any citizen of the State of New York who is qualified as available to perform the work to which the employment relates;
2. That neither the Contractor, Subcontractor, nor any person on behalf of such Contractor or Subcontractor shall, in any manner discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, sex or national origin;
3. That there may be deducted from the amount payable to the Contractor by the City under this Contract a penalty of five dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this Contract;
4. That this Contract may be cancelled or terminated by the City and all monies due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the Contract.
5. The aforesaid provisions of this section covering every contract for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

B. As required by New York City Administrative Code § 6-108

1. It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a contract with the City or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a contract with the City to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.
2. It shall be unlawful for any person or any servant, agent or employee of any person, described in subdivision (a) above, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color, creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.
3. Disobedience of the foregoing provisions shall be deemed a violation of a material provision of the Contract.
4. Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this section shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars or by imprisonment for not more than thirty days, or both.

6.18 FORUM PROVISION CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

A. This Contract shall be deemed to be executed in the City of New York, State of New York, regardless of the domicile of the Contractor, and shall be governed by and construed in accordance with the laws of the State of New York.

- B. The parties agree that any and all claims asserted by or against the City arising under this Contract or related thereto shall be heard and determined either in the courts of the United States located in New York City ("Federal Court") or in the courts of the State of New York ("New York State Courts") located in the City and County of New York. To effect this Contract and intent, the Contractor agrees:
1. If the City initiates any action against the Contractor in Federal Court or in New York State Court, service of process may be made on the Contractor either in person, wherever such Contractor may be found, or by registered mail addressed to the Contractor at its address as set forth in this Contract, or to such other address as the Contractor may provide to the City in writing;
 2. With respect to any action between the City and the Contractor in New York State Court, the Contractor hereby expressly waives and relinquishes any rights it might otherwise have (i) to move to dismiss on grounds of forum non conveniens; (ii) to remove to Federal Court; and (iii) to move for a change of venue to a New York State Court outside New York County.
 3. With respect to any action between the City and the Contractor in Federal Court located in New York City, the Contractor expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a United States Court outside the City of New York.
 4. If the Contractor commences any action against the City in a court located other than in the City and State of New York, upon request of the City, the Contractor shall either consent to a transfer of the action to a court of competent jurisdiction located in the City and State of New York, or if the court where the action is initially brought will not or cannot transfer the action, the Contractor shall consent to dismiss such action without prejudice and may thereafter reinstitute the action in a court of competent jurisdiction in New York City. If any provision(s) of this Article is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

6.19 E.O. 50 APPENDIX A RIDER

- A. This Contract is subject to the requirements of Executive Order No. 50 (1980) as revised ("E.O. 50") and the Rules and Regulations promulgated have been complied with in their entirety. By signing this Contract, the Contractor, agrees that it:
- (1) Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment;
 - (2) Will not engage in any unlawful discrimination in the selection of Subcontractors on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation;
 - (3) Will state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, disability, marital status or sexual orientation, or that it is an equal employment opportunity employer;
 - (4) Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated there under; and
 - (5) Will furnish all information and reports including an Employment Report before the award of the Contract which are required by E.O. 50 rules and regulations promulgated there under, and orders of the Director of the Bureau of Labor Services ("Bureau"), and will permit access to its books, records and accounts by the Bureau for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- B. The Contractor understands that in the event of its noncompliance with nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of the Contract and noncompliance with the E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the Bureau, the Director may direct the imposition by the contracting agency head of any or all of the following sanctions:
- (i) disapproval of the Contractor;
 - (ii) suspension or termination of the Contract;
 - (iii) declaring the Contractor in default;
 - (iv) in lieu of any of the foregoing sanctions, the Director may impose an employment program.
- C. The Director of the Bureau may recommend to the contracting agency head that a Board of Responsibility be convened for purposes of declaring a contractor who has repeatedly failed to comply with E.O. 50 and the rules and regulations promulgated there under to be non-responsible.
- D. The Contractor agrees to include the provisions of the foregoing paragraphs in every subcontract or purchase order in excess of \$50,000 to which it becomes a party unless exempted by E.O. 50 and the rules and regulations promulgated there under, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Director of the Bureau of Labor Services as a means of enforcing such provisions including sanctions for noncompliance.
- E. The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to E.O. 50 and the rules and regulations promulgated there under with a Subcontractor who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated there under.

6.20 NOISE CONTROL CODE PROVISIONS

- A. The Contractor agrees to comply with the provisions of Section 24-216, Noise Abatement Contract Compliance, of Chapter 2 of Title 24 of the Administrative Code of the City of New York which stipulates the following:
- 1. Devices and activities which will be operated, conducted, constructed or manufactured pursuant to this Contract and which are subject to the provisions of the New York City Noise Control Code shall be operated, conducted, constructed or manufactured without causing a violation of the Code.
 - 2. Such devices and activities shall incorporate advances in the art of noise control developed for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the Commissioner of the Department of Environmental Protection. Regulations promulgated pursuant to Section 24-216 after the proposal received for this Contract shall not alter its terms, conditions and specifications.

6.21 LIQUIDATED DAMAGES

- A. In case the Contractor shall substantially fail to complete the work within the times fixed in the General Provisions of this Contract or within the times to which such completion may have been extended by agreement, the Contractor must pay to the City the sum of one hundred (\$100) dollars for each and every calendar day that the time consumed in completing the work exceeds the time allowed, provided, however, that the delay in completing the work is within the control of the Contractor and is caused solely by the Contractor's acts or failures to act. Delays beyond the control of the Contractor shall include, but not be limited to, those caused by the following:
- 1. On the part of the City, its agencies, employees and representative acts or failures to act, to provide necessary information, prompt reviews, expeditious decisions and other matters essential to the progress of the project.

2. On the part of private utilities and agencies, acts or failure to act to provide necessary information, prompt reviews, expeditious decisions and other matters essential to the progress of the project.
 3. Unavoidable casualties, including Acts of God.
 4. The enforcement of laws and regulation by the City, the State of New York and/or Federal Government enacted subsequent to the date of this Contract.
- B. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of delay in the completion of the work hereunder, the sum of one hundred (\$100) dollars is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such delay, and not as a penalty.
- C. Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the City's right to indemnification or the Contractor's obligation to indemnify the City, or any other remedy provided for by contract or by law.
- D. The Comptroller will deduct and retain out of the monies which may be due hereunder, the amount of any such liquidated damages; and in case the amount which may be due hereunder shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference upon demand by the Comptroller.

6.22 COPIES OF REPORTS

A copy of each report submitted by the Contractor to any official or to any officer, employee, agent or representative of a City department, agency, commission or body or to any corporation, association or entity whose expenses are paid in whole or in part from the City treasury, shall be furnished to the Commissioner of the Department to which such report was submitted or, if not a City department, then to the chief controlling officer or officers of such other office or entity. A copy of such report shall also be furnished to the Director of the Mayor's Office of Construction for matters related to construction or to the Director of the Mayor's Office of Operations for all other matters.

6.23 CONTRACTOR'S PERFORMANCE EVALUATION

The Contractor's performance shall be evaluated by the City upon Contract completion. A copy of the evaluation will be sent to the Contractor not later than fifteen (15) calendar days after the occurrence of this event and the Contractor may respond in writing to the performance report. Such response shall be submitted to the Commissioner not later than fifteen (15) calendar days after a copy of the evaluation is sent to the Contractor. The response will be affixed to the evaluation. Failure to respond may result in review of the Contractor's performance when a proposal is evaluated without the benefit of the Contractor's response to the evaluation.

6.24 CONTRACT CHANGES

- A. Changes may be made to this Contract only as duly authorized by the Agency Chief Contracting Officer or the Agency Chief Contracting Officer's designee. Contractors deviating from the requirements of an original purchase order or Contract without a duly approved change order, do so at their own risk. All such changes, modifications and amendments will become part of the original Contract.
- B. Contract changes will be made only for work necessary to complete the work included in the original scope of the Contract, and for non-material changes to the scope of the Contract. Changes are not permitted for any material alteration in the scope of the work.
- C. Changes may include any one or more of the following:
1. Specification changes to account for design errors or omissions;

2. Changes in Contract amount due to authorized additional or omitted work. Any such changes require appropriate price and cost analysis to determine reasonableness. In addition, except for non-construction requirements contracts, all changes that cumulatively exceed the greater of ten percent of the original Contract amount or \$100,000 shall be approved by the City Chief Procurement Officer (CCPO) (for non-construction contracts) or the Director of the Office of Construction (for construction and construction-related contracts);
 3. Extensions of a Contract term for good and sufficient cause for a cumulative period not to exceed one (1) year from the date of expiration of the current Contract. Requirements contracts shall be subject to this limitation;
 4. Changes in delivery location;
 5. Changes in shipment method; and
 6. Any other changes not inconsistent with the PPB Rules.
- D. Any Contractor may be entitled to a price adjustment for extra work performed or to be performed pursuant to a written change order. If any part of the Contract work is necessarily delayed by a change order, the Contractor may be entitled to an extension to time of performance. Adjustments to price shall be validated for reasonableness by using appropriate price and cost analysis.

6.25 RESOLUTION OF DISPUTES

- A. All disputes between the City and the Contractor of the kind delineated in this section that arise under, or by virtue of, this Contract shall be finally resolved in accordance with the provisions of this section and the Rules of the Procurement Policy Board ("PPB Rules"). The procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.
1. This section shall not apply to disputes concerning matters dealt with in other sections of the PPB Rules or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.
 2. For construction and construction-related services this section shall apply only to disputes about the scope of work delineated by the Contract, the interpretation of Contract documents, the amount to be paid for extra work or disputed work performed in connection with the Contract, the conformity of the Contractor's work to the Contract, and the acceptability and quality of the Contractor's work; such disputes arise when the Engineer makes a determination with which the Contractor disagrees.
- B. All determinations required by this section shall be clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this section shall be deemed a non-determination without prejudice that will allow application to the next level.
- C. During such time as any dispute is being presented, heard, and considered pursuant to this section, the Contract terms shall remain in full force and effect and the Contractor shall continue to perform work in accordance with the Contract and as directed by the Agency Chief Contracting Officer ("ACCO") or Engineer. Failure of the Contractor to continue the work as directed shall constitute a waiver by the Contractor of any and all claims being presented pursuant to this section and a material breach of contract.
- D. Presentation of Disputes to Agency Head.
1. Notice of Dispute and Agency Response. The Contractor shall present its dispute in writing ("Notice of Dispute") to the Agency Head within the time specified herein or, if no time is specified, within thirty (30) days of receiving notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the Contract.

The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the Contractor relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the Contractor in the dispute was arrived at. Within thirty (30) days after receipt of the complete Notice of Dispute, the ACCO or, in the case of construction or construction-related services, the Engineer, shall submit to the Agency Head all materials he or she deems pertinent to the dispute. Following initial submissions to the Agency Head, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the Agency Head whose decision shall be final. Willful failure of the Contractor to produce any requested material whose relevancy the Contractor has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the Contractor of its claim.

2. **Agency Head Inquiry.** The Agency Head shall examine the material and may, in his or her discretion, convene an informal conference with the Contractor and the ACCO and, in the case of construction or construction-related services, the Engineer, to resolve the issue by mutual consent prior to reaching a determination. The Agency Head may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The Agency Head's ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the Agency Head participated therein. The Agency Head may or, at the request of any party to the dispute, shall compel the participation of any other contractor with a contract related to the work of this Contract, and that contractor shall be bound by the decision of the Agency Head. Any contractor thus brought into the dispute resolution proceeding shall have the same rights and obligations under this section as the Contractor initiating the dispute.
3. **Agency Head Determination.** Within thirty (30) days after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the Agency Head shall make his or her determination and shall deliver or send a copy of such determination to the Contractor and ACCO and, in the case of construction or construction-related services, the Engineer, together with a statement concerning how the decision may be appealed.
4. **Finality of Agency Head Decision.** The Agency Head's decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board ("CDRB") pursuant to this section. The City may not take a petition to the CDRB. However, should the Contractor take such a petition, the City may seek, and the CDRB may render, a determination less favorable to the Contractor and more favorable to the City than the decision of the Agency Head.
- E. **Presentation of Dispute to the Comptroller.** Before any dispute may be brought by the Contractor to the CDRB, the Contractor must first present its claim to the Comptroller for his or her review, investigation, and possible adjustment.
1. **Time, Form, and Content of Notice.** Within thirty (30) days of its receipt of a decision by the Agency Head, the Contractor shall submit to the Comptroller and to the Agency Head a Notice of Claim regarding its dispute with the Agency. The Notice of Claim shall consist of (i) a brief statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the Contractor contends the dispute was wrongly decided by the Agency Head; (ii) a copy of the written decision of the Agency Head, and; (iii) a copy of all materials submitted by the Contractor to the Agency, including the Notice of Dispute. The Contractor may not present to the Comptroller any material not presented to the Agency Head, except at the request of the Comptroller.
2. **Agency Response.** Within thirty (30) days of receipt of the Notice of Claim, the Agency shall make available to the Comptroller a copy of all material submitted by the Agency to the Agency Head in connection with the dispute. The Agency may not present to the Comptroller any material not presented to the Agency Head except at the request of the Comptroller.

3. **Comptroller Investigation.** The Comptroller may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the New York City Administrative Code. In addition, the Comptroller may demand of either party, and such party shall provide, whatever additional material the Comptroller deems pertinent to the claim, including original business records of the Contractor. Willful failure of the Contractor to produce within fifteen (15) days any material requested by the Comptroller shall constitute a waiver by the Contractor of its claim. The Comptroller may also schedule an informal conference to be attended by the Contractor, Agency representatives, and any other personnel desired by the Comptroller.
 4. **Opportunity of Comptroller to Compromise or Adjust Claim.** The Comptroller shall have forty-five (45) days from his or her receipt of all materials referred to in E (1) to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the Contractor and the Comptroller, to a maximum of ninety (90) days from the Comptroller's receipt of all the materials. The Contractor may not present its petition to the CDRB until the period for investigation and compromise delineated in this paragraph has expired. In compromising or adjusting any claim hereunder, the Comptroller may not revise or disregard the terms of the Contract between the parties.
- F. **Contract Dispute Resolution Board.** There shall be a Contract Dispute Resolution Board composed of:
1. The chief administrative law judge of the Office of Administrative Trials and Hearings ("OATH") or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this section as may be necessary in the execution of the CDRB's functions, including, but not limited to, granting extensions of time to present or respond to submissions;
 2. The City Chief Procurement Officer ("CCPO") or his/her designee, or in the case of disputes involving construction, the Director of the Office of Construction or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated, and
 3. A person with appropriate expertise who is not an employee of the City. This person shall be selected by the presiding administrative law judge from a pre-qualified panel of individuals, established and administered by OATH, with appropriate background to act as decision makers in a dispute. Such individuals may not have a contract or dispute with the City or be an officer or employee of any company or organization that does, or regularly represent persons companies, or organizations having disputes with the City.
- G. **Petition to Contract Dispute Resolution Board.** In the event the claim has not been settled or adjusted by the Comptroller within the period provided in this section, the Contractor, within thirty (30) days thereafter, may petition the CDRB to review the Agency Head determination.
1. **Form and Content of Petition by Contractor.** The Contractor shall present its dispute to the CDRB in the form of a Petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the Contractor contends that the dispute was wrongly decided by the Agency Head; (ii) a copy of the decision of the Agency Head; (iii) copies of all materials submitted by the Contractor to the Agency; (iv) a copy of the written decision of the Comptroller, if any, and (v) copies of all correspondence with, and written material submitted by the Contractor to, the Comptroller's Office. The Contractor shall concurrently submit four (4) complete sets of the Petition: one (1) to the Corporation Counsel (Attn: Commercial and Real Estate Litigation Division), and three (3) to the CDRB at OATH's offices, with proof of service on the Corporation Counsel. In addition, the Contractor shall submit a copy of the statement of the substance of the dispute, cited in (i) above, to both the Agency Head and the Comptroller.

2. Agency Response. Within thirty (30) days of its receipt of the Petition, the Agency shall respond to the statement of the Contractor and make available to the CDRB all material it submitted to the Agency Head and Comptroller. Three (3) complete copies of the Agency response shall be submitted to the CDRB at OATH's Offices and one to the Contractor. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon the consent of the parties, for an initial period of up to thirty (30) days.
 3. Further Proceedings. The CDRB shall permit the Contractor to present its case by the submission of memoranda, briefs, and oral argument. The CDRB shall also permit the Agency to present its case in response to the Contractor by the submission of memoranda, briefs, and oral argument. If requested by the Corporation Counsel, the Comptroller shall provide reasonable assistance in the preparation of the Agency's case. Neither the Contractor nor the Agency may support its case with any documentation or other material that was not considered by the Comptroller, unless requested by the CDRB. The CDRB, at its discretion, may seek such technical or other expert advice from any party as it shall deem appropriate and any such additional material from any party as it deems fit. The CDRB, in its discretion, may combine more than one dispute between the parties for concurrent resolution.
 4. Contract Dispute Resolution Board Determination. Within Forty-five (45) days of the conclusion of all written submissions and oral arguments, the CDRB shall render a decision resolving the dispute. In an unusually complex case, the CDRB may render its decision in a longer period of time, not to exceed ninety (90) days, and shall so advise the parties at the commencement of this period. The CDRB's decision must be consistent with the terms of the Contract. Decisions of the CDRB shall only resolve matters before the CDRB and shall not have precedential effect with respect to matters not before the CDRB.
 5. Notification of Contract Dispute Resolution Board Decision. The CDRB shall send a copy of its decision to the Contractor, the ACCO, the Corporation Counsel, the Comptroller, the CCPO, the Office of Construction, the PPB, and in the case of construction or construction-related services, the Engineer. A decision in favor of the Contractor shall be subject to the prompt payment provisions of the PPB Rules. The required payment date shall be thirty (30) days after the date the parties are formally notified of the CDRB's decision.
 6. Finality of Contract Dispute Resolution Board Decision. The CDRB's decision shall be final and binding on all parties. Any party may seek review of the CDRB's decision solely in the form of a challenge, filed within four (4) months of the date of the CDRB's decision, in a court of competent jurisdiction of the State of New York, County of New York, pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the CDRB's decision was made in violation of lawful procedure, was affected by an error of law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the CDRB in accordance with the PPB Rules.
- H. Any termination, cancellation, or alleged breach of the Contract prior to or during the pendency of any proceedings pursuant to this section shall not affect or impair the ability of the Agency Head or CDRB to make a binding and final decision pursuant to this section.

6.26 EXTENSION OF TIME FOR PERFORMANCE CONSTRUCTION AND CONSTRUCTION RELATED ONLY

- A. If performance by the Contractor is delayed for a reason set forth in the Contract, the Contractor may be allowed a reasonable extension of time in conformance with this Section and with the Rules of the Procurement Policy Board.
- B. Any extension of time may be granted only by the Agency Chief Contracting Officer or by the Board for the Extension of Time (as set forth below) upon written application by the Contractor.

C. Grounds for Extension – If such application is made, the Contractor shall be entitled to an extension of time for delay in completion of the work caused solely: (i) by the acts or omissions of the City, its officers, agents or employees; or (ii) by the actions or omissions of other contractors on this project; or (iii) by supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, Acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the Contractor). The Contractor shall, however, be entitled to an extension of time for such causes only for the number of days of delay which the Commissioner or the Board may determine to be due solely to such causes, and then only if the Contractor shall have strictly complied with all the requirements of Article 9, 10, and 11 of Chapter III, “Time Provisions”, of the City of New York Standard Construction Contract, effective October 2000, as amended.

D. Extension for Concurrent Causes of Delay – The Contractor shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the work as determined by the ACCO or the Board for Contract Time Extension irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the Contractor or of his/her Subcontractors or material men, and would of itself (irrespective of the concurrent causes) have delayed the work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

1. The determination made by the ACCO or the Board on an application for an extension of time shall be binding and conclusive on the Contractor.
2. The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the ACCO or the Board. In the absence of special circumstances, applications for extensions of time not exceeding sixty (60) days in the aggregate will be acted upon by the Department within (30) days after request therefore.
3. Permitting the Contractor to continue with the work after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the Contractor after such time, shall in no way operated as a waiver on the part of the City or any of its rights under this contract.

E. Application for Extension of Time

1. Before the Contractor’s time extension request may be approved, the Contractor must, within five (5) days after commencement of the condition which allegedly has caused or is causing the delay, submit a written application to the ACCO identifying:
 - (a) the Contractor; the Contract registration number; and project description;
 - (b) liquidated damage assessment rate, as specified in the Contract;
 - (c) original bid amount;
 - (d) the original Contract start date and completion date;
 - (e) any previous time extensions granted (number and duration); and
 - (f) the extension of time requested.
2. In addition, the application for extension of time shall set forth in detail:
 - (a) the nature of each alleged cause of delay in completing the work;
 - (b) the date upon which each such cause of delay began and ended and the number of days attributable to each such cause;

- (c) a statement that the Contractor waives all claims except for those delineated in the application, and the particulars of any claims which the Contractor does not agree to waive. For time extensions for substantial and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and
- (d) a statement indicating the Contractor's understanding that the time extension is granted only for the purpose of permitting continuation of Contract performance and payment for work performed and that the City retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

F. Analysis and Approval of Time Extensions

1. For time extensions for partial payments, a written determination shall be made by the ACCO who may, for good and sufficient cause extend the time for the performance of the Contract as follows:
 - (a) If the work is to be completed within six (6) months, the time for performance may be extended for sixty (60) days;
 - (b) If the work is to be completed within less than one year but more than six (6) months, and extension of ninety (90) days may be granted;
 - (c) If the Contract period exceeds one year, besides the extension granted in subparagraph (b) above, an additional thirty (30) days may be granted for each multiple of six (6) months involved beyond the one year period; or
 - (d) If exceptional circumstances exist, the ACCO may extend the time for performance beyond the extensions in (a), (b), and (c) above. In that event, the ACCO shall file with the Director of the Office of Construction a written explanation of the exceptional circumstances.
2. For extensions of time for substantial completion payments and final completion payments, the Department's engineering staff, in consultation with the ACCO, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of the Contract). The report shall be subject to review by and approval of the Board of Time Extension, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board of Time Extension shall be made a part of the departmental Contract file.
3. Approval Mechanism for Time Extensions for Final or Substantial Completion Payments – An extension of time for a final or substantial completion payment shall be granted only with the approval of a Board of Time Extension comprised of the ACCO, the Corporation Counsel and the Comptroller, or their authorized representatives.

- G. Assessment of Liquidated Damages – In the case of substantial completion and final completion payments, liquidated damages shall be assessed against the Contractor as determined by the report's analysis of the Contract's delays. However, neither the failure to assess liquidated damages at this time, nor the report itself, nor the granting of a time extension at substantial or final completion, shall operate as a waiver or release of any claim the City may have against the Contractor for either actual or liquidated damages.

6.27 EXTENSION OF TIME FOR PERFORMANCE (NON-CONSTRUCTION ONLY)

If performance by the Contractor is delayed for a reason set forth in the Contract, reasonable extension in time for performance may be allowed.

- A. An extension of time may be granted only by the ACCO of the agency that awarded the Contract, upon written application by the Contractor.
- B. The ruling of the ACCO shall be final and binding as to the allowance of an extension, and the number of days allowed.
- C. The application for extension must detail each cause for delay, the date it occurred, and the resulting total delay in days attributed to such case.

6.28 NO DAMAGE FOR DELAY

The Contractor agrees to make no claim for damages for delay in the performance of this Contract occasioned by any act or omission to act of the City or any of its representatives, and agrees that any such claim shall be fully compensated for by an extension of time to complete performance of the work as provided herein.

6.29 PROMPT PAYMENT

- A. The Prompt Payment provisions set forth in the Procurement Policy Board Rules in effect at the time of this solicitation will be applicable to payments made under this Contract. The provisions require the payment to Contractors of interest on payments made after the required payment date except as set forth in the Prompt Payment section of the Rules.
- B. The Contractor must submit a proper invoice to receive payment, except where the Contract provides that the Contractor will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.
- C. Determinations of interest due will be made in accordance with the provisions of the Prompt Payment section of the Procurement Policy Board Rules and General Municipal Law Section 3-a.
- D. If the Contractor is paid interest, the proportionate share of that interest shall be forwarded by the Contractor to its Subcontractor(s).
- E. The Contractor shall pay each Subcontractor (including a Materials Supplier) not later than seven (7) days after receipt of payment out of amounts paid to the Contractor by the City for work performed by the Subcontractor or Supplier under this Contract.
- F. The Contractor shall include in each of its subcontracts a provision requiring each Subcontractor to make payment to each of its lower-tier Subcontractors or Suppliers for work performed under this Contract in the same manner and within the same time period set forth above.

**MACBRIDE PRINCIPLES PROVISIONS
FOR NEW YORK CITY CONTACTORS
ARTICLE I. MACBRIDE PRINCIPLES
NOTICE TO ALL PROSPECTIVE CONTRACTORS**

Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 to the Administrative code of the City of New York. The local law provides for certain restrictions on City contracts to express the opposition of the people of the City of New York to employment discrimination practices in Northern Ireland and to encourage companies doing business in Northern Ireland and to promote freedom of workplace opportunity.

Pursuant to Section 6-115.1, prospective contractors for contracts to provide goods or services involving and expenditure of an amount greater than ten thousand dollars, or for construction involving an amount greater than fifteen thousand dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their contract, that any business in Northern Ireland operations conducted by the contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

Prospective contractors are not required to agree to these conditions. However, in the case of contracts let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five percent of the lowest responsible bid for a contract to supply goods, services or construction of comparable quality, the contracting entity shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable law and rules, that it is in the best interest of the city that the contract be awarded to other than the lowest responsible bidder pursuant to Section 313(b) (2) of the City Charter.

In the case of contracts let by other than competitive sealed bidding, if a prospective contractor does not agree to these conditions, no agency, elected official or the Council shall award the contract to that bidder unless the entity seeking to use the goods, services or construction certifies in writing that the contract is necessary for the entity to perform its functions and there is no other responsible contractor who will supply goods, services or construction of comparable quality at a comparable price.

PART A

In accordance with Section 6-115.1 of the Administrative Code of the City of New York, the contractor stipulates that such contractor and any individual or legal entity in which the contractor holds a ten percent or greater ownership interest and any individual or legal entity that holds a ten percent or greater ownership interest in the contractor either (a) have no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

PART B

For purposes of this section, the following terms shall have the following meanings:

1. "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of workplace opportunity which require employers doing business in Northern Ireland to:
 - (1) increase the representation of individuals from underrepresented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
 - (2) take steps to promote adequate security for the protection of employees from underrepresented religious groups both at the workplace and while traveling to and from work;
 - (3) ban provocative religious or political emblems from the workplace;
 - (4) Publicly advertise all job openings and make special recruitment efforts to attract applicants from underrepresented religious groups;

- (5) establish layoff, recall and termination procedures which do not in practice favor a particular religious group;
- (6) establish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
- (7) develop training programs that will prepare substantial numbers of current employees from underrepresented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade and improve the skills of workers from underrepresented religious groups;
- (8) establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement, and
- (9) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

The contractor agrees that the covenants and representations in Article I above are material conditions to this contract. In the event the contracting entity receives information that the contractor who made the stipulation required by this section is in violation thereof, the contracting entity shall review such information and give the contractor an opportunity to respond. If the contracting entity finds that a violation has occurred, the entity shall have the right to declare the contractor in default and/or terminate this contract for cause and procure the supplies, services or work from another source in any manner the entity deems proper. In the event of such termination, the contractor shall pay to the entity, or the entity in its sole discretion may withhold from any amounts otherwise payable to the contractor, the difference between the contract price for the uncompleted portion of this contract and the cost to the contracting entity of completing performance of the contract, either itself or by engaging another contractor or contractors. In the case of a requirements contract, the contractor shall be liable for such difference in price for the entire amount of supplies required by the contracting entity for the uncompleted term of its contract. In the case of a construction contract, the contracting entity shall also have the right to hold the contractor in partial or total default in accordance with the default provisions of the contract, and/or may seek debarment or suspension of the contractor. The rights and remedies of the entity hereunder shall be in addition to, and not in lieu of, any rights and remedies the entity has pursuant to this contract or by operation of law

(NO FURTHER TEXT ON THIS PAGE)

SECTION VII

C) PROCEDURAL FORMS PACKET

CONTENTS

- 1. FORM 1P - PROPOSAL COVER LETTER**
- 2. FORM 2P - ACKNOWLEDGEMENT OF ADDENDA**
- 3. FORM 3P - AFFIRMATION FORM**

Note: Please copy and use separate sheets for each subconsultant (if any).
Make copies of format sheets as needed

FORM 1P

PROPOSAL COVER LETTER

Request for Proposals for Total Design and Construction Support Services for Reconstruction of Queensboro Bridge Contract #7 Seismic Retrofit

**Boroughs of Manhattan & Queens
Contract No. BRC231S**

PIN 84105MBBR058

Proposer:

Name: _____

Address: _____

Tax Identification #: _____

Proposer's Contact Person:

Name: _____

Title: _____

Telephone #: _____ **Fax #:** _____

Proposer's Authorized Representative:

Name: _____

Title: _____

Signature: _____

Date: _____

FORM 2P

ACKNOWLEDGEMENT OF ADDENDA

RFP TITLE: _____

PIN: _____

COMPLETE PART I OR PART II, WHICHEVER IS APPLICABLE.

PART I:

Listed below are the dates of issue for each addendum received in connection with this RFP.

Addendum # 1 Dated _____

Addendum # 2 Dated _____

Addendum # 3 Dated _____

Addendum # 4 Dated _____

Addendum # 5 Dated _____

Addendum # 6 Dated _____

Addendum # 7 Dated _____

Addendum # 8 Dated _____

Addendum # 9 Dated _____

Addendum # 10 Dated _____

PART II:

_____ No addendum was received in connection with this RFP.

Proposer (Print) _____

Signature _____

Date: _____

FORM 3P

AFFIRMATION FORM

The undersigned proposer or bidder affirms and declares that said proposer or bidder is not in arrears to the City of New York upon debt, contract or taxes and is not a defaulter, as surety or otherwise, upon obligation to the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York, nor is there any proceeding pending relating to the responsibility or qualification of the proposer or bidder to receive public contracts

Except _____

Full Name of Proposer or Bidder

Address

City

State

Zip Code

Check below and include appropriate number:

____ Individual or Sole Proprietorship *
Social Security Number ___ - ___ - ___ - ___ - ___

____ Partnership, Joint Venture or unincorporated company
Employer Identification Number ___ - ___ - ___ - ___ - ___

____ Corporation
Employer Identification Number ___ - ___ - ___ - ___ - ___

If a corporation, place seal here:

by Signature _____

Print Name _____

Title _____

Must be signed by an officer or duly authorized representative.

* Under the Federal Privacy Act the furnishing of Social Security Numbers by bidders on City contracts is voluntary. Failure to provide a Social Security Number will not result in a bidder's disqualification. Social Security Numbers will be used to identify bidders, proposers, or vendors to ensure their compliance with laws, to assist the City in enforcement of laws as well as to provide the City a means of identifying of businesses which seek City contracts.

SECTION VII

D) PROPOSAL FORMS PACKET

CONTENTS

1. FORM 1T - QUALITY & RELEVANCE OF PRIOR EXPERIENCE
(FIRM IN GENERAL)
2. FORM 2T - PROPOSED STAFF (RESUMES)
3. FORM 3T - STAFF EXPERIENCE
4. FORM 4T - JOB TITLES AND HOURS PROPOSED
5. FORM 5T - OVERALL APPROACH
6. FORM 6T - NYCDOT CURRENT WORKLOAD DISCLOSURE (2 PGS)
7. FORM7T - DBE PARTICIPATION
8. FORM254 - STANDARD FORM
9. FORM255 - STANDARD FORM

Note: Please copy and use separate sheets for each subconsultant (if any)
Principal's Time (if any) is charged direct without multiplier.
Make copies of format sheets as needed

FORM IT

QUALITY & RELEVANCE OF PRIOR EXPERIENCE
(FIRM IN GENERAL)

PIN: _____

PROJECT NAME: _____

CONTRACT NO.: _____

CONSULTANT: _____

PROFESSIONAL ENGINEERING/
ARCHITECTURAL SERVICES

OTHER/ _____

DESCRIBE

QUALITY & RELEVANCE OF PRIOR EXPERIENCE – (FIRM IN GENERAL)

{Include copies of SF254/SF255 for Engineer and all sub-consultants}

FORM 2T

PROPOSED STAFF (RESUMES)

PIN: _____

PROJECT NAME: _____

CONTRACT NO.: _____

CONSULTANT: _____

PROPOSED STAFF:

Show organization chart for staffing this project below and attach resumes of key personnel.

FORM 3T

STAFF EXPERIENCE

PIN: _____

PROJECT NAME: _____

CONTRACT NO.: _____

CONSULTANT: _____

DESCRIBE STAFF EXPERIENCE:

List current projects with NYCDOT and NYSDOT, including Project Manager and Project Engineer/Resident Engineer for each, as well as construction dollar value, start date. And contract time duration of each.

FORM 4T – JOB TITLES & HOURS PROPOSED

PROJECT NAME: Total Design and Construction Support Services for the Reconstruction of Manhattan Bridge, Contract #7 Seismic Retrofit Bouroughs of Manhattan & Queens **PIN NO:** 84105MBBR058

PRIME CONSULTANT: _____

CONTRACT NO: BRC231S

CONSULTANT ON THIS FORM: _____

PROFESSIONAL ENGINEERING/
ARCHITECTURAL SERVICES

OTHER/ _____

(COLUMN 1) JOB TITLES	(COLUMN 2) TOTAL HOURS
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

**DO NOT INCLUDE SALARIES ON THIS
FORM**

1. Job titles and hours proposed should be the same as those proposed on the Labor Cost Proposal forms 4T1.
2. No salary information should be included on this form.

FORM 5T

OVERALL APPROACH

PIN: _____

PROJECT NAME: _____

CONTRACT NO.: _____

CONSULTANT: _____

OVERALL APPROACH TO PROJECT:

(Staffing Sheet)

1. Tasks Anticipated
2. Duration of Tasks
3. Positions Assigned

FORM 6T NYCDOT CURRENT WORKLOAD DISCLOSURE

The purpose of this form is to provide information concerning the current workload of the firms interested in the project for which the proposal is being submitted. The information provided should be for the office(s) which would perform the work of this contract. The values shown **should not** include fees to be paid to subconsultants and subcontractors or for rentals or purchases of equipment.

PIN: _____ FIRM NAME: _____
 CONTRACT NO.: _____ CONTACT PERSON: _____
 PROJECT NAME: _____ PHONE NUMBER _____
 BIN: _____ ADDRESS OF OFFICE(S) TO PERFORM WORK _____
 DATE OF RFP: _____
 IS YOUR FIRM A: DBE? (YES/NO) _____

Name of Personnel (Proposed Office(s)): Administration _____ Total Personnel _____

- I. Remaining NYC-DOT work of proposed office(s) (from back of sheet) with:
 All NYC-DOT \$ _____ Bureau of Bridges ONLY \$ _____
- II. Expected billings for next 18 months:
- A. NYC-DOT WORK: total expected billings in next 18 months. \$ _____
- B. WORK WITH OTHER PUBLIC AGENCIES: total expected in the next 18 months \$ _____
- C. PRIVATE WORK: total expected billings on projects in next 18 months. \$ _____
- TOTAL (A + B + C) \$ _____

III. Certified Disadvantaged Business Enterprise (DBE) firm(s) for Federal Aid Projects or for Non-Federal air Projects proposed for use on this project:

SUBCONSULTANT FIRM NAME	PROPOSED % # OF TECHNICAL OF PROJECT PERSONNEL	WORKLOAD
_____	_____ % _____	\$ _____
_____	_____ % _____	\$ _____
_____	_____ % _____	\$ _____

- IV. Other firm(s) proposed for use on this project
- | | | |
|-------|---------------|----------|
| _____ | _____ % _____ | \$ _____ |
| _____ | _____ % _____ | \$ _____ |

CERTIFICATION

I hereby certify that the above figures are actual contract amounts (when available) or my best estimate of expected billings.

DATE

SIGNATURE (OFFICER OR PARTNER)

FORM 6T Remaining work with NYCDOT (within Department)

List all projects on which you are currently working for the Department and those which you have been designated to perform. These shall be categorized as indicated below (Design, Construction Inspection or Miscellaneous).

Type of work – Highway, Bridge, Planning	Contract Number	Remaining \$ Value (include anticipated Supplemental Agreement for this Project (a))	Percentage of Project performed at Office(s) proposed for this Project (b)	Pro-rated Workload of proposed office(s) (a x b)
---	-----------------	--	---	--

Design Division (includes Highway Design, Bridge Design and Construction Support Services)				

Total Firmwide Design Workload \$ _____

Assigned Office(s) Miscellaneous Workload \$ _____

Construction Division (includes only Resident Engineering Inspection)				

Total Firmwide REI Workload \$ _____

Assigned Office(s) REI Workload \$ _____

Miscellaneous (includes Planning and any other agreements not covered above)				

TOTAL FIRMWIDE MISCELLANEOUS WORKLOAD \$ _____
OFFICE(S) MISCELLANEOUS WORKLOAD \$ _____

ASSIGNED

Total Firmwide Overall
Workload with NYC-DOT \$ _____

Assigned Office(s) Overall
Workload with NYC-DOT \$ _____

YOU MAY ATTACH ADDITIONAL SHEETS OF REMAINING WORK FOLLOWING THE SAME FORMAT AS USED ABOVE.

FORM - 7T

TECHNICAL PROPOSAL FOR ENGINEERING SERVICES

DBE PARTICIPATION FORM

PIN: _____

PROJECT NAME: _____

CONTRACT NO.: _____

Participation by DBE Consultant:

is being proposed

is not being proposed

if being proposed, attached the following:

1. Name(s) and Address(es) of proposed DBE firms.
2. Percentage(s) of assigned participation.
3. NYS DBE Certification(s)*.

* An approved letter from the New York State Department of Transportation Office of Equal Opportunity Development and Compliance is required as proof of DBE certification for any DBE prime or subconsultant. The certification must be in effect on the RFP response date.

STANDARD
FORM (SF)
254

**Architect-Engineer
and Related Services
Questionnaire**

Form Approved
OMB No. 9000-0004

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, D.C. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0004), Washington, D.C. 20503.

Purpose:

The policy of the Federal Government in acquiring architectural, engineering, and related professional services is to encourage firms lawfully engaged in the practice of those professions to submit annually a statement of qualifications and performance data. Standard Form 254, "Architect-Engineer and Related Services Questionnaire," is provided for that purpose. Interested A-E firms (including new, small, and/or minority firms) should complete and file SF 254's with each Federal agency and with appropriate regional or district offices for which the A-E is Qualified to perform services. The agency head for each proposed project shall evaluate these qualification resumes, together with any other performance data on file or requested by the agency, in relation to the proposed project. The SF 254 may be used as a basis for selecting firms for discussions, or for screening firms preliminary to inviting submission of additional information.

Definitions:

"Architect-Engineer Services" are defined in Part 36 of the Federal Acquisition Regulation.

"Parent Company" is that firm, company, corporation, association or conglomerate which is the major stockholder or highest tier owner of the firm completing this questionnaire, i.e., Firm A is owned by Firm B which is, in turn, a subsidiary of Corporation C. The "parent company" of Firm A is Corporation C.

"Principals" are those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, associates, administrators, etc.

"Discipline" as used in this questionnaire, refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification, or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline.

"Joint Venture" is a collaborative undertaking by two or more firms or individuals for which the participants are both jointly and individually responsible.

"Consultant," as used in this questionnaire, is a highly specialized individual or firm having significant input and responsibility for certain aspects of a project and possessing unusual or unique capabilities for assuring success of the finished work.

"Prime" refers to that firm which may be coordinating the concerted and complementary inputs of several firms, individuals or related services to produce a completed study or facility. The "prime" would normally be regarded as having full responsibility and liability for quality of performance by itself as well as by subcontractor professionals under its jurisdiction.

"Branch Office" is a satellite, or subsidiary extension, of a headquarters office of a company, regardless of any differences in name or legal structure of such a branch due to local or state laws. "Branch offices" are normally subject to the management decisions, bookkeeping, and policies of the main office.

Instructions of Filing (Numbers below correspond to numbers contained in form):

1. Type accurate and complete name of submitting firm, its address, and zip code.
 - 1a. Indicate whether form is being submitted in behalf of a parent firm or a branch office. (Branch office submissions should list only personnel in, and experience of, that office.)
2. Provide date the firm was established under the name shown in question 1.
3. Show date on which form is prepared. All information submitted shall be current and accurate as of this date.
4. Enter type of ownership, or legal structure, of firm (sole proprietor, partnership, corporation, joint venture, etc.).

Check appropriate boxes indicating if firm is (a) a small business concern; (b) a small business concern owned and operated by socially and economically disadvantaged individuals; and (c) Woman-owned (See 48 CFR 19.101 and 52.219-9).
5. Branches of subsidiaries of large or parent companies, or conglomerates, should insert name and address of highest-tier owner.
 - 5a. If present firm is the successor to, or outgrowth of, one or more predecessor firms, show name(s) of former entity(ies) and the year(s) of their original establishment.
6. List not more than two principals from submitting firm who may be contacted by the agency receiving this form. (Different principals may be listed on forms going to another agency.) Listed principals must be empowered to speak for the firm on policy and contractual matters.
7. Beginning with the submitting office, list name, location, total number of personnel, and telephone numbers for all associated or branch offices, (including any headquarters or foreign offices) which provide A-E and related services.
 - 7a. Show total personnel in all offices. (Should be sum of all personnel, all branches.)
8. Show total number of employees, by discipline, in submitting office. (*If form is being submitted by main or headquarters office, form should list total employees, by discipline, in all offices.) While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines -- sociologists, biologists, etc. -- and number of people in each, in blank spaces.

STANDARD
FORM (SF)
254

**Architect-Engineer
and Related Services
Questionnaire**

9. Using chart (below) insert appropriate index number to indicate range of professional services fees received by submitting firm each calendar year for last five years, most recent year first. Fee summaries should be broken down to reflect the fees received each year for (a) work performed directly for the Federal Government (not including grant and loan projects) or as a sub to other professionals performing work directly for the Federal Government; (b) all other domestic work, U.S. and possessions, including Federally-assisted projects, and (c) all other foreign work.

Ranges of Professional Services Fees

INDEX	INDEX
1. Less than \$100,000	5. \$1 million to \$2 million
2. \$100,000 to \$250,000	6. \$2 million to \$5 million
3. \$250,000 to \$500,000	7. \$5 million to \$10 million
4. \$500,000 to \$1 million	8. \$10 million or greater

10. Select and enter, in numerical sequence, **not more than thirty** (30) "Experience Profile Code" numbers from the listing (next page) which most accurately reflect submitting firm's demonstrated technical capabilities and project experience. **Carefully review list.** (It is recognized some profile codes may be part of other services or projects contained on list; firms are encouraged to select profile codes which best indicate type and scope of services provided on past projects.) For each code number, show total number of projects and gross fees (in thousands) received for profile projects performed by firm during past few years. If firm has on or more capabilities not included on list, insert same in blank spaces at end of list and show numbers in question 10 on the form. In such cases, the filled-in listing **must** accompany the complete SF 254 when submitted to the Federal agencies.

11. Using the "Experience Profile Code" numbers in the same sequence as entered in item 10, give details of at least one recent (within last five years) representative project for each code number, up to a **maximum** of thirty (30) separate projects, or portions of projects, for which firm was responsible. (Project examples may be used more than once to illustrate different services rendered on the same job. Example: a dining hall may be part of an auditorium or educational facility.) Firms which select less than thirty "profile codes" may list two or more project examples (to illustrate specialization) for each code number so long as total of all project examples does not exceed thirty (30). After each code number in question 11, show: (a) whether firm was "P," the prime professional, or "C," a consultant, or "JV," part of a joint venture on that particular project (new firms, in existence less than five (5) years may use the symbol "IE" to indicate "Individual Experience" as opposed to firm experience); (b) provide name and location of the specific project which typifies firm's (or individual's) performance under that code category; (c) give name and address of the owner

of that project (if government agency indicate responsible office); (d) show the estimated construction cost (or other applicable cost) for that portion of the project for which the firm was primarily responsible. (Where no construction was involved, show approximate cost of firm's work); and (e) state year work on that particular project was, or will be, completed.

12. The completed SF 254 should be signed by a principal of the firm, preferably the chief executive officer.

13. Additional data, brochures, photos, etc. should not accompany this form unless specifically requested.

NEW FIRMS (not reorganized or recently-amalgamated firms) are eligible and encouraged to seek work from the Federal Government in connection with performance of projects for which they are qualified. Such firms are encouraged to complete and submit Standard Form 254 to appropriate agencies. Questions on the form dealing with personnel or experience may be answered by citing experience and capabilities of individuals in the firm, based on performance and responsibility while in the employ of others. In so doing, notation of this fact should be made on the form. In question 9, write in "N/A" to indicate "not applicable" for those years prior to firm's organization.

Experience Profile Code Numbers
for use with questions 10 and 11

001	Acoustics, Noise Abatement	041	Graphic Design	085	Product, Machine & Equipment Design
002	Aerial photogrammetry	042	Harbors; Jetties; Piers, Ship Terminal Facilities	086	Radar; Sonar; Radio & Radar Telescopes
003	Agricultural Development; Grain Storage; Farm Mechanization	043	Heating; Ventilating; Air Conditioning	087	Railroad; Rapid Transit
004	Air Pollution Control	044	Health Systems Planning	088	Recreation Facilities (<i>Parks, Marinas, Etc.</i>)
005	Airports; Navais; Airport Lighting; Aircraft Fueling	045	Highrise; Air-Rights-Type Buildings	089	Rehabilitation (<i>Buildings; Structures; Facilities</i>)
006	Airports; Terminals & Hangars; Freight Handling	046	Highways; Streets; Airfield Paving Parking Lots	090	Resource Recover; Recycling
007	Arctic Facilities	047	Historical Preservation	091	Radio Frequency Systems &Shieldings
008	Auditoriums & Theatres	048	Hospital & Medical Facilities	092	Rivers; Canals; Waterways; Flood Control
009	Automation; Controls; Instrumentation	049	Hotels; Models	093	Safety Engineering; Accident Studies; OSHA Studies
010	Barracks; Dormitories	050	Housing (<i>Residential, Multi-Family; Apartments; Condominiums</i>)	094	Security Systems; Intruder & Smoke Detection
011	Bridges	051	Hydraulics & Pneumatics	095	Seismic Designs & Studies
012	Cemeteries (<i>Planning & Relocation</i>)	052	Industrial Buildings; Manufacturing Plants	096	Sewage Collection, Treatment and Disposal
013	Chemical Processing & Storage	053	Industrial Processes; Quality Control	097	Soils & Geologic Studies; Foundations
014	Churches; Chapels	054	Industrial Waste Treatment	098	Solar Energy Utilization
015	Codes; Standards; Ordinances	055	Interior Design; Space Planning	099	Solid Wastes; Incineration; Land Fill
016	Cold Storage; Refrigeration; Fast Freeze	056	Irrigation; Drainage	100	Special Environments; Clean Rooms, Etc.
017	Commercial Building (<i>low rise</i>): Shopping Centers	057	Judicial and Courtroom facilities	101	Structural Design; Special Structures
018	Communication Systems; TV: Microwave	058	Laboratories; Medical Research Facilities	102	Surveying; Platting; Mapping; Flood Plain Studies
019	Computer Facilities; Computer Service	059	Landscape Architecture	103	Swimming Pools
020	Conservation and Resource Management	060	Libraries; Museums; Galleries	104	Storm Water Handling & Facilities
021	Construction Management	061	Lighting (<i>Interiors; Display; Theatre, Etc.</i>)	105	Telephone Systems (<i>Rural; Mobile; Intercom, Etc.</i>)
022	Corrosion Control; Cathodic Protection; Electrolysis	062	Lighting (<i>Exteriors; Streets; Memorials; Athletic Fields, Etc.</i>)	106	Testing Inspection Services
023	Cost Estimating	063	Materials handling Systems; Conveyors; Sorters	107	Traffic & Transportation Engineering
024	Dams (<i>Concrete:Arch</i>)	064	Metallurgy	108	Towers (<i>Self-Supporting & Guyed Systems</i>)
025	Dams (<i>Earth; Rock</i>): Dikes; Levees	065	Microclimatology; Tropical Engineering	109	Tunnels & Subways
026	Desalinization (<i>Process & Facilities</i>)	066	Military Design Standards	110	Urban Renewals; Community Development
027	Dining Halls; Clubs; Restaurants	067	Mining & Mineralogy	111	Utilities (<i>Gas & Steam</i>)
028	Ecological & Archeological Investigations	068	Missile Facilities (<i>Silos; Fuels; Transport</i>)	112	Value Analysis; Life-Cycle Costing
029	Educational Facilities; Classrooms	069	Modular Systems Design; Pre-Fabricated Structures or Components	113	Warehouses & Depots
030	Electronics	070	Naval Architecture; Off-Shore Platforms	114	Water Resources; Hydrology; Ground Water
031	Elevators; Escalators; People-Movers	071	Nuclear Facilities; Nuclear Shielding	115	Water Supply; Treatment and Distribution
032	Energy Conservation; New Energy Sources	072	Office Building; Industrial Parks	116	Wind Tunnels; Research/Testing Facilities Design
033	Environmental Impact Studies, Assessments or Statements	073	Oceanographic Engineering	117	Zoning; Land Use Studies
034	Fallout Shelters; Blast-Resistant Design	074	Ordnance; Munitions; Special Weapons	201	_____
035	Field Houses; Gyms; Stadiums	075	Petroleum Exploration; Refining	202	_____
036	Fire Protection	076	Petroleum and Fuel (<i>Storage and Distribution</i>)	203	_____
037	Fisheries; Fish Ladders	077	Pipelines (<i>Cross-Country - Liquid & Gas</i>)	204	_____
038	Forestry & Forest Products	078	Planning (<i>Community, Regional Areawide and State</i>)	205	_____
039	Garages: Vehicle Maintenance Facilities Parking Decks	079	Planning (<i>Site, Installation, and Project</i>)		
040	Gas Systems (<i>Propane; Natural, Etc.</i>)	080	Plumbing & Piping Design		
		081	Pneumatic Structures, Air-Support Buildings		
		082	Postal Facilities		
		083	Power Generation, Transmission. Distribution		
		084	Prisons & Correctional Facilities		

STANDARD FORM (SF) <h1 style="margin: 0;">254</h1> <p style="margin: 0;">Architect-Engineer and Related Services Questionnaire</p>	1. Firm Name/Business Address:				2. Year Present Firm Established	3. Date Prepared:
	4. Specify type of ownership and check below, if applicable.					
	<input type="checkbox"/> A. Small Business					
	<input type="checkbox"/> B. Small Disadvantaged Business					
1a. Submittal is for <input type="checkbox"/> Parent Company <input type="checkbox"/> Branch or Subsidiary Office						
5. Name of Parent Company, if any:			5a. Former Parent Company Name(s), if any, and Year(s) Established:			
6. Names of not more than Two Principals to Contact: Title/Telephone						
1)						
2)						
7. Present Offices: City / State / Telephone / No. Personnel Each Office					7a. Total Personnel _____	
8. Personnel by Discipline: (List each person only once, by primary function.)						
<input type="checkbox"/> Administrative	<input type="checkbox"/> Electrical Engineers	<input type="checkbox"/> Oceanographers	_____	_____	_____	_____
<input type="checkbox"/> Architects	<input type="checkbox"/> Estimators	<input type="checkbox"/> Planners: Urban/Regional	_____	_____	_____	_____
<input type="checkbox"/> Chemical Engineers	<input type="checkbox"/> Geologist	<input type="checkbox"/> Sanitary Engineers	_____	_____	_____	_____
<input type="checkbox"/> Civil Engineers	<input type="checkbox"/> Hydrologists	<input type="checkbox"/> Soils Engineers	_____	_____	_____	_____
<input type="checkbox"/> Construction Inspectors	<input type="checkbox"/> Interior Designers	<input type="checkbox"/> Specification Writers	_____	_____	_____	_____
<input type="checkbox"/> Draftsmen	<input type="checkbox"/> Landscape Architects	<input type="checkbox"/> Structural Engineers	_____	_____	_____	_____
<input type="checkbox"/> Ecologists	<input type="checkbox"/> Mechanical Engineers	<input type="checkbox"/> Surveyors	_____	_____	_____	_____
<input type="checkbox"/> Economists	<input type="checkbox"/> Mining Engineers	<input type="checkbox"/> Transportation Engineers	_____	_____	_____	_____
9. Summary of Professional Services Fees Received: (Insert index number)					Ranges of Professional Services Fees INDEX	
					1. Less than \$100,000	
					2. \$100,000 to \$250,000	
					3. \$250,000 to 500,000	
					4. \$500,000 to \$1 million	
					5. \$1 million to \$2 million	
					6. \$2 million to \$5 million	
					7. \$5 million to \$10 million	
					8. \$10 million or greater	
Last 5 Years (most recent year first)						
Direct Federal contract work, including overseas	_____	_____	_____	_____	_____	
All other domestic work	_____	_____	_____	_____	_____	
All other foreign work*	_____	_____	_____	_____	_____	
*Firms interested in foreign work, but without such experience, check here: <input type="checkbox"/>						

Profile of Firm's Project Experience, Last 5 Years

Profile	Number of	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)	Profile Code	Number of Projects	Total Gross Fees (in thousands)
1)			11)			21)		
2)			12)			22)		
3)			13)			23)		
4)			14)			24)		
5)			15)			25)		
6)			16)			26)		
7)			17)			27)		
8)			18)			28)		
9)			19)			29)		
10)			20)			30)		

11. Project examples, Last 5 Years

Profile Code	"P," "C," "JV," or "IE"	Project Name and Location	Owner Name and Address	Cost of Work (in thousands)	Completion Date (Actual)
		1			
		2			
		3			
		4			
		5			
		6			
		7			

		8			
		9			
		10			
		11			
		12			
		13			
		14			
		15			
		16			
		17			
		18			
		19			

		20			
		21			
		22			
		23			
		24			
		25			
		26			
		27			
		28			
		29			
		30			

12. The foregoing is a statement of facts

Date:

_____ Typed Name and Title: _____

Architect-Engineer and Related Services Questionnaire for Specific Project

Form Approved
OMB No. 9000-0005

Public reporting burden for this collection of information is estimated to average 1.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, D.C. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0005), Washington, D.C. 20503.

Purpose:

This form is a supplement to the "Architect-Engineer and Related Services Questionnaire" (SF 254). Its purpose is to provide additional information regarding the qualifications of interested firms to undertake a specific Federal A-E project. Firms, or branch offices of firms, submitting this form should enclose (or already have on file with the appropriate office of the agency) a current (within the past year) and accurate copy of the SF 254 for that office.

The procurement official responsible for each proposed project may request submission of the SF 255 "Architect-Engineer and Related Services Questionnaire for Specific Project" in accord with applicable civilian and military procurement regulations and shall evaluate such submissions, as well as related information contained on the Standard Form 254, and any other performance data on file with the agency, and shall select firms for subsequent discussions leading to contract award in conformance with Public Law 92-582. This form should only be filed by an architect-engineer or related services firm when requested to do so by the agency or by a public announcements. Responses should be as complete and accurate as possible, contain data relative to the specific project for which you wish to be considered, and should be provided, by the required due date, to the office specified in the request or public announcement.

This form will be used only for the specified project. Do not refer to this submittal in response to other requests or public announcements.

Definitions:

"**Architect-Engineer Services**" are defined in Part 36 of the Federal Acquisition Regulation.

"**Principals**" are those individuals in a firm who possess legal responsibility for its management. They may be owners, partners, corporate officers, associates, administrators, etc.

"**Discipline**," as used in this questionnaire, refers to the primary technological capability of individuals in the responding firm. Possession of an academic degree, professional registration, certification, or extensive experience in a particular field of practice normally reflects an individual's primary technical discipline.

"**Joint Venture**" is a collaborative undertaking by two or more firms or individuals for which the participants are both jointly and individually responsible.

"**Key Persons, Specialists, and Individual Consultants**," as used in this questionnaire, refer to individuals who will have major project responsibility or will provide unusual or unique capabilities for the project under consideration.

Instructions for Filing (Numbers below correspond to numbers contained in form):

1. Give name and location of the project for which this form is being submitted.
2. Provide appropriated data from the Commerce Business Daily (CBD) identifying the particular project for which this form is being filed.
 - 2a. Give the date of the Commerce Business Daily in which the project announcement appeared, or indicate "not applicable" (N/A) if the source of the announcement is other than the CBD.
 - 2b. Indicate Agency identification or contract number as provided in the CBD announcement
3. Show name and address of the individual or firm (or joint venture) which is submitting this form for the project.
 - 3a. List the name, title, and telephone number of that principal who will serve as the point of contact. Such an individual must be empowered to speak for the firm on policy and contractual matters and should be familiar with the programs and procedures of the agency to which this form is directed.
 - 3b. Give the address of the specific office which will have responsibility for performing the announced work.
4. Insert the number of consultant personnel by discipline proposed for subject project on line (A). Insert the number of in-house personnel by discipline proposed for subject project on line (B). While some personnel may be qualified in several disciplines, each person should be counted only once in accord with his or her primary function. Include clerical personnel as "administrative." Write in any additional disciplines -- sociologists, biologists, etc. -- and number of people in each, in blank spaces.
5. Answer only if this form is being submitted by a joint venture of two or more collaborating firms. Show the names and addresses of all individuals or organizations excepted to be included as part of the joint venture and describe their particular areas of anticipated responsibility (ie., technical disciplines, administration, financial, sociological, environment, etc.).
 - 5a. Indicate, by checking the appropriate box, whether this particular joint venture has worked together on other projects.Each firm participating in the joint venture should have a Standard Form 254 on file with the contracting office receiving this form. Firms which do not have such forms on file should provide same immediately along with a notation at the top of page 1 of the form regarding their association with this joint venture submittal.

Architect-Engineer and Related Services Questionnaire for Specific Project

Standard Form 255
General Services Administration
Washington, D.C. 20405

6. If respondent is not a joint venture, but intends to use outside (as opposed to in-house or permanently and formally affiliated) consultants or associates, he should provide names and addresses of all such individuals or firms, as well as their particular areas of technical/professional expertise, as it relates to this project. Existence of previous working relationships should be noted. If more than eight outside consultants or associates are anticipated, attach an additional sheet containing requested information.

7. Regardless of whether respondent is a joint venture or an independent firm, provide brief resumes of key personnel expected to participate on this project. Care should be taken to limit resumes to only those personnel and specialists who will have major project responsibilities. Each resume must include: (a) name of each key person and specialist and his or her title, (b) the project assignment or role which that person will be expected to fulfill in connection with this project, (c) the name of the firm or organization, if any, with whom that individual is presently associated, (d) years of relevant experience with present firm and other firms, (e) the highest academic degree achieved and the discipline covered (if more than one highest degree, such as two Ph.D.'s, list both), the year received and the particular technical/professional discipline which that individual will bring to the project, (f) if registered as an architect, engineer, surveyor, etc., show only the field of registration and the year that such registration was first acquired. If registered in several states, do not list states, and (g) a synopsis of experience, training, or other qualities which reflect individual's potential contribution to this project. Include such data as: familiarity with Government or agency procedures, similar type of work performed in the past, management abilities, familiarity with the geographic area, relevant foreign language capabilities, etc. Please limit synopsis of experience to directly relevant information.

8. List up to ten projects which demonstrate the firm's or joint venture's competence to perform work similar to that likely to be required on this project. The more recent such projects, the better. Prime consideration will be given to projects which illustrate respondent's capability for performing work similar to that being sought. Required information must include: (a) name and location of project, (b) brief description of type and extent of services provided for each project (submissions by joint ventures should indicate which member of the joint venture was the prime on that particular project and what role it played), (c) name and address of the owner of that project (if Government agency, indicate responsible office), and name and phone number of individual to contact for reference (preferably the project manager), (d) completion date (actual when available, otherwise estimated), (e) total construction cost of completed project (or where no construction was involved, the approximate cost of your work) and that portion of the cost of the project for which the named firm was/is responsible.

9. List only those projects which the A-E firm or joint venture, or members of the joint venture, are currently performing under direct contract with an agency or department of the Federal Government. Exclude any grant or loan projects being financed by the Federal Government but being performed under contract to other non-Federal Government entities. Information provided under each heading is similar to that requested in the preceding Item 8, except for (d) "Percent Complete." Indicate in this item the percentage of A-E work completed upon filing this form.

10. Through narrative discussion, show reason why the firm or joint venture submitting this questionnaire believes it is especially qualified to undertake the project. Information provided should include, but not be limited to, such data as: specialized equipment available for this work, any awards or recognition received by a firm or individuals for similar work, required security clearances, special approaches or concepts developed by the firm relevant to this project, etc. Respondents may say anything they wish in support of their qualifications. When appropriate, respondents may supplement this proposal with graphic material and photographs which best demonstrate design capabilities of the team proposed for this project.

11. Completed forms should be signed by the chief executive officer of the joint venture (thereby attesting to the concurrence and commitment of all members of the joint venture), or by the architect-engineer principal responsible for the conduct of the work in the event it is awarded to the organization submitting this form. Joint ventures selected for subsequent discussions regarding this project must make available a statement of participation signed by a principal of each member of the joint venture. ALL INFORMATION CONTAINED IN THE FORM SHOULD BE CURRENT AND FACTUAL.

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name & Address	Specialty	Worked with Prime before (Yes or No)
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	a. Name & Title:
b. Project Assignment:	b. Project Assignment:
c. Name of Firm with which associated:	c. Name of Firm with which associated:
d. Years experience: With this Firm _____ With Other Firms _____	d. Years experience: With this Firm _____ With Other Firms _____
e. Education: Degree(s)/Year/Specialization	e. Education: Degree(s)/Year/Specialization
f. Active Registration: Year First Registered/Discipline	f. Active Registration: Year First Registered/Discipline
g. Other Experience and Qualifications relevant to the proposed project:	g. Other Experience and Qualifications relevant to the proposed project:

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	a. Name & Title:
b. Project Assignment:	b. Project Assignment:
c. Name of Firm with which associated:	c. Name of Firm with which associated:
d. Years experience: With this Firm _____ With Other Firms _____	d. Years experience: With this Firm _____ With Other Firms _____
e. Education: Degree(s)/Year/Specialization	e. Education: Degree(s)/Year/Specialization
f. Active Registration: Year First Registered/Discipline	f. Active Registration: Year First Registered/Discipline
g. Other Experience and Qualifications relevant to the proposed project:	g. Other Experience and Qualifications relevant to the proposed project:

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	a. Name & Title:
b. Project Assignment:	b. Project Assignment:
c. Name of Firm with which associated:	c. Name of Firm with which associated:
d. Years experience: With this Firm_____ With Other Firms _____	d. Years experience: With this Firm_____ With Other Firms _____
e. Education: Degree(s)/Year/Specialization	e. Education: Degree(s)/Year/Specialization
f. Active Registration: Year First Registered/Discipline	f. Active Registration: Year First Registered/Discipline
g. Other Experience and Qualifications relevant to the proposed project:	g. Other Experience and Qualifications relevant to the proposed project:

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.	
a. Name & Title:	a. Name & Title:
b. Project Assignment:	b. Project Assignment:
c. Name of Firm with which associated:	c. Name of Firm with which associated:
d. Years experience: With this Firm_____ With Other Firms _____	d. Years experience: With this Firm_____ With Other Firms _____
e. Education: Degree(s)/Year/Specialization	e. Education: Degree(s)/Year/Specialization
f. Active Registration: Year First Registered/Discipline	f. Active Registration: Year First Registered/Discipline
g. Other Experience and Qualifications relevant to the proposed project:	g. Other Experience and Qualifications relevant to the proposed project:

8. Work by firms or joint-venture members which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name & Address and Project Manager's Name & Phone Number	d. Completion Date (actual or estimated)	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Was/Is Responsible
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address and Project Manager's Name & Phone Number	d. Percent Complete	e. Estimated Cost (in Thousands)	
				Entire Project	Work for Which Firm Is Responsible

10. Use this space to provide any additional information or description of resources (including any computer design capabilities) supporting your firm's qualifications for the proposed project

11. The foregoing is a statement of facts.

Signature: _____

Typed Name and Title: _____

Date:

MULTIPLIER FORM

Prime Consultant: _____

Multiplier A: Please provide, on the line below, a proposed multiplier that is locked in for the first phase of the project and subject to audit for successive phases of the contract-allowing for fluctuation related to changes in overhead cost.

Multiplier B: Please provide, on the line below, a proposed multiplier that will be locked in for all phases of the contract.

SECTION VII

E) COST PROPOSAL

COST PROPOSAL A

FORM 4T1A	-	LABOR COST PROPOSAL "A"
FORM 4T2A	-	COST PROPOSAL SUMMARY
FORM 4T3	-	PERFORMANCE OUTCOME MEASURES AND RELATED FINANCIAL INCENTIVE AND/OR DISINCENTIVE

COST PROPOSAL B

FORM 4T1B	-	LABOR COST PROPOSAL "B"
FORM 4T2B	-	COST PROPOSAL SUMMARY
FORM 4T3	-	PERFORMANCE OUTCOME MEASURES AND RELATED FINANCIAL INCENTIVE AND/OR DISINCENTIVE

Note: Please copy and use separate sheets for each sub consultant (if any).
Principal's Time (if any) is charged direct without multiplier. Make copies
of format sheets as needed

FORM 4T1A – LABOR COST PROPOSAL

**PROJECT NAME: Reconstruction of Queensboro Bridge,
Contract #7 – Seismic Retrofit, Boroughs of Manhattan & Queens**

PIN NO.: 84105MBBR058

CONTRACT NO.: BRC231S

PRIME CONSULTANT: _____

CONSULTANT ON THIS FORM: _____

PROFESSIONAL ENGINEERING/ARCHITECTURAL SERVICES

OTHER/_____

	<u>(COLUMN 1) JOB TITLE</u>	<u>(COLUMN 2) TOTAL HOURS</u>	<u>(COLUMN 3) HOURS THIS FIRM</u>	<u>(COLUMN 4) AVERAGE HOURLY RATE</u>	<u>(COLUMN 5) LABOR COST COL 3 X COL 4</u>
1.	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____
	TOTALS	_____	_____	_____	(T)
	MULTIPLIER FOR OVERHEAD		(A)		(A)
	MULTIPLIER FOR PROFIT		(B)		(B)
	TOTAL MULTIPLIER		(1+A)X(1+B)		(M)
	Phase I is locked in, Phase II and Phase III are submitted to audit.				(C)
	TOTAL LABOR COST		(LINE T X LINE M)		_____
	TOTAL LABOR ESCALATED TO PROJECT MIDPOINT (C X PROPOSED ESCALATION FACTOR)		PROPOSED ESCALATION FACTOR		(D)
			MAXIMUM ESCALATION FACTOR = <u>1.06</u>		_____

INSTRUCTIONS:

- Each consultant of the project team is to submit a separate "Labor Cost Proposal Form". For each job title, the hours proposed by each firm of the project team in Column (3) MUST SUM to the total hours provided in Column (2).
- For Column (4), use actual average salary rates for firm for each job title at regional offices. Attach a listing of current average rates for all titles/grades/levels as approved by NYCDOT (if available) or NYSDOT for regional offices. A regional office is defined as one located within a 75 mile radius of Columbus Circle (NYC).
- The labor costs to be included in Column (5) are obtained by multiplying the hours in Column (3) by the average hourly rate in Column (4).
- The proposed escalation factor used to calculate "D" should not exceed the maximum escalation factor indicated in the shaded area. Greater consideration will be given to proposers that propose more competitive prices.
- The multiplier included in Cost Proposal A will be locked in for the first phase of the project and subject to audit for the successive phases of the contract – allowing for fluctuation related to changes in overhead costs.

FORM 4T2A – COST PROPOSAL SUMMARY

**PROJECT NAME: Reconstruction of Queensboro Bridge,
Contract #7 – Seismic Retrofit, Boroughs of Manhattan & Queens**

PIN NO.: 84105MBBR058

CONTRACT NO.: BRC231S

PRIME CONSULTANT: _____

CONSULTANT ON THIS FORM: _____

<u>(COLUMN 1)</u>	<u>(COLUMN 2)</u>	<u>(COLUMN 3)</u>	<u>(COLUMN 4)</u>	<u>(COLUMN 5)</u>
<u>CONSULTANT</u>	<u>HOURS ALL FIRMS</u>	<u>ESCALATED LABOR COST TO PROJECT MIDPOINT</u>	<u>DIRECT NON-SALARY COST</u>	<u>TOTAL COST</u>
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
Budgetary Allowance	_____	_____	_____	\$225,000
Peer Review Consultants	_____	_____	_____	\$350,000
TOTALS	_____	_____	\$15,000	(T)

INSTRUCTIONS:

1. The costs entered in Column 3 are the totals shown on line (D) of Form 4T-1 "Labor Cost Proposal" for each consultant on the project team.
2. The Total Direct Non-Salary Cost shown in the shaded area below Column 4 is an out of pocket expense budgeted amount allowed to all proposers and must not be changed.
3. The Total Direct Non-Salary Cost provided by each consultant of the project team MUST SUM to the total shown in the shaded area at the bottom of the Column 4.

FORM 4T3

**PERFORMANCE OUTCOME MEASURES AND RELATED
FINANCIAL INCENTIVES AND/OR DISINCENTIVES**

Instructions: Provide the information requested below for proposed performance outcome measures

	Performance Outcome (Target Goal)	Measure of Performance	Associated Financial Incentive/Disincentive
1.			
2.			
3.			
4.			
5.			

FORM 4T1B – LABOR COST PROPOSAL

**PROJECT NAME: Reconstruction of Queensboro Bridge,
Contract #7 – Seismic Retrofit, Boroughs of Manhattan & Queens**

PIN NO.: 84105MBBR058

CONTRACT NO.: BRC231S

PRIME CONSULTANT: _____

CONSULTANT ON THIS FORM: _____

PROFESSIONAL ENGINEERING/ARCHITECTURAL SERVICES

OTHER/_____

	<u>(COLUMN 1)</u> <u>JOB TITLE</u>	<u>(COLUMN 2)</u> <u>TOTAL</u> <u>HOURS</u>	<u>(COLUMN 3)</u> <u>HOURS THIS FIRM</u>	<u>(COLUMN 4)</u> <u>AVERAGE HOURLY</u> <u>RATE</u>	<u>(COLUMN 5)</u> <u>LABOR COST</u> <u>COL 3 X COL 4</u>
1.	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____
	<u>TOTALS</u>	_____	_____	_____	<u>(T)</u>
	MULTIPLIER FOR OVERHEAD		_____ (A)		_____ (A)
	MULTIPLIER FOR PROFIT		_____ (B)		_____ (B)
	TOTAL MULTIPLIER		_____ (1+A)X(1+B)		_____ (M)
	Locked in for the Duration of the Contract.				(C)
	TOTAL LABOR COST		_____ (LINE T X LINE M)		_____
	TOTAL LABOR ESCALATED TO PROJECT MIDPOINT (C X PROPOSED ESCALATION FACTOR)				_____ (D)
			PROPOSED ESCALATION FACTOR		
			MAXIMUM ESCALATION FACTOR = <u>1.06</u>		

INSTRUCTIONS:

1. Each consultant of the project team is to submit a separate "Labor Cost Proposal Form". For each job title, the hours proposed by each firm of the project team in Column (3) **MUST SUM** to the total hours provided in Column (2).
2. For Column (4), use actual average salary rates for firm for each job title at regional offices. Attach a listing of current average rates for all titles/grades/levels as approved by NYCDOT (if available) or NYSDOT for regional offices. A regional office is defined as one located within a 75 mile radius of Columbus Circle (NYC).
3. The labor costs to be included in Column (5) are obtained by multiplying the hours in Column (3) by the average hourly rate in Column (4).
4. The proposed escalation factor used to calculate "D" should not exceed the maximum escalation factor indicated in the shaded area. Greater consideration will be given to proposers that propose more competitive prices.
5. The multiplier included in Cost Proposal B will be locked in for all the phases of the contract.

FORM 4T2B – COST PROPOSAL SUMMARY

**PROJECT NAME: Reconstruction of Queensboro Bridge,
Contract #7 – Seismic Retrofit, Boroughs of Manhattan & Queens**

PIN NO.: 84105MBBR058

CONTRACT NO.: BRC231S

PRIME CONSULTANT: _____

CONSULTANT ON THIS FORM: _____

<u>(COLUMN 1)</u>	<u>(COLUMN 2)</u>	<u>(COLUMN 3)</u>	<u>(COLUMN 4)</u>	<u>(COLUMN 5)</u>
<u>CONSULTANT</u>	<u>HOURS ALL FIRMS</u>	<u>ESCALATED LABOR COST TO PROJECT MIDPOINT</u>	<u>DIRECT NON-SALARY COST</u>	<u>TOTAL COST</u>
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____
Budgetary Allowance	_____	_____	_____	\$225,000
Peer Review Consultants	_____	_____	_____	\$350,000
TOTALS	_____	_____	\$15,000	(T)

INSTRUCTIONS:

1. The costs entered in Column 3 are the totals shown on line (D) of Form 4T-1 "Labor Cost Proposal" for each consultant on the project team.
2. The Total Direct Non-Salary Cost shown in the shaded area below Column 4 is an out of pocket expense budgeted amount allowed to all proposers and must not be changed.
3. The Total Direct Non-Salary Cost provided by each consultant of the project team MUST SUM to the total shown in the shaded area at the bottom of the Column 4.

FORM 4T3

**PERFORMANCE OUTCOME MEASURES AND RELATED
FINANCIAL INCENTIVES AND/OR DISINCENTIVES**

Instructions: Provide the information requested below for proposed performance outcome measures

	Performance Outcome (Target Goal)	Measure of Performance	Associated Financial Incentive/Disincentive
1.			
2.			
3.			
4.			
5.			