



REQUEST  
FOR  
PROPOSALS

NEW YORK CITY DEPARTMENT OF  
DESIGN + CONSTRUCTION

# RFP



Pre-Proposal Conference

Submission Deadline

PIN

Project

MICHAEL R. BLOOMBERG  
Mayor

DAVID J. BURNEY, AIA  
Commissioner

ERIC MACFARLANE, P.E.  
Deputy Commissioner

**DEPARTMENT OF DESIGN AND CONSTRUCTION**

**REQUEST FOR PROPOSALS**

**PROJECT:**

**City Lights Streetlight Design, Fabrication, and Testing of Prototypes**

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**SECTION I. TIMETABLE**

A. RFP Issuance

Pre-Proposal Conference:

A Pre-Proposal conference will be held at 10:00AM on Thursday, February 8, 2007, at DDC headquarters, 30-30 Thomson Avenue, Long Island City, NY 11101, in the Conference Room on the 4<sup>th</sup> Floor RM 408. Attendance is recommended but not mandatory to propose on the contract described in the RFP, it is strongly encouraged.

Submission Deadline:

The proposer shall deliver, on or before 4:00PM on Tuesday, February 20, 2007, the Proposal in a clearly marked envelope or package. The Proposal shall consist of a clearly marked, sealed package with the Technical Proposal (1 original and 4 copies).

Proposals shall be hand delivered to the contact person at the location listed below. Proposals received after the applicable due date and time prescribed in the RFP are late and will not be accepted except at the discretion of DDC pursuant to the applicable section of the City Procurement Policy Board Rules.

James A. Cerasoli (718) 391-1549  
Professional Contracts Section  
Department of Design and Construction  
30-30 Thomson Avenue, 4th Floor (Entrance on 30th Place)  
Long Island City, NY 11101  
E-mail: cerasoli@ddc.nyc.gov

NOTE: Respondents are held responsible for ensuring that the Professional Contract Section receives the RFP response package by the deadline. Respondents are warned not to rely on signed delivery slips from their messenger services. Occasionally packages are delivered to the School Construction Authority located in the same building and the packages are not forwarded to the DDC Professional Contracts Section in a timely manner. Entrance to DDC is on 30<sup>th</sup> Place, not Thomson Avenue despite our Thomson Avenue house number.

B. Inquiries: In the event a proposer desires any explanation regarding the meaning or interpretation of this RFP, such explanation must be requested in writing, no later than one week prior to the submission date prescribed in the RFP. In the event DDC determines that it is necessary to respond to the inquiry in writing, such response will be furnished as an addendum to the RFP to all potential proposers and posted at the DDC website <http://ddcftp.nyc.gov/rfpweb/>. All inquiries must be directed ONLY to the contact person listed above.

- C. Addenda: Receipt of an addendum to this RFP by a proposer must be acknowledged by attaching an original signed copy of the addendum to the Technical Proposal. All addenda shall become a part of the requirements for this RFP.
  
- D. RFP Schedule: The following is the estimated timetable for receipt, evaluation, and selection of proposals. This is only an estimate and is provided to assist responding firms in planning.
  - a. Identify Consultant: Within four weeks of submission deadline.
  
  - b. Complete Contract Registration: Approximately three months from date of consultant selection.
  
  - c. Commence Work: When directed by DDC.

## SECTION II. SUMMARY OF THE REQUEST FOR PROPOSALS

### A. Background and Objectives of the Project

The New York City Department of Design and Construction (DDC), Division of Infrastructure, is seeking a consultant to provide Design Services for the project described in this RFP. The selected Consultant will be required to provide the following Design Services: (1) preparation of preliminary, final and modified final design documents that fully realize the Project's design intent, (2) fabrication of working prototypes including all necessary parts, and (3) performance of all testing necessary to insure that the prototypes meet all design and performance criteria.

### B. Joint Ventures and Other Consultant Relationships

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

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

### C. Contract Term/Cost Estimate

The term of the contract shall commence on the date set forth in the written Notice to Proceed and shall continue until completion of all required services. The anticipated time frame for completion of all required design services is 510 consecutive calendar days as set forth in Exhibit A to the attached Contract.

### D. Insurance

The Consultant and all subconsultants performing services for this contract must provide the types and amounts of insurance specified in Article 11 of the attached contract. The Proposer is advised to carefully review such insurance requirements.

E. Payment Provisions

The terms and conditions regarding payment to the Consultant are set forth in Article 7 of the attached contract.

### SECTION III. SCOPE OF WORK AND CONTRACT CONDITIONS

A. Scope of Services

The selected Consultant will be required to provide all services necessary and required for the preparation and finalization of “production-ready” Design Documents that fully realize the Design Intent, as defined in the Specific Requirements (Exhibit B of the attached Contract, SR Appendix 1 and Appendix 2). Pursuant to the Contract, the Consultant shall provide the following Design Services: (1) preparation of preliminary, final and modified final design documents that fully realize the Project’s Design Intent, (2) fabrication of working prototypes, including all necessary parts, and (3) performance of all testing necessary to ensure that the prototypes meet all design and performance criteria. The Design Services to be provided by the Consultant are set forth in detail in the Specific Requirements.

B. Contract Provisions

The services to be provided by the Consultant and all standards of performance applicable to the required work are set forth in the form of contract, attached hereto and incorporated herein as part of this RFP. Any firm awarded a contract as a result of this RFP will be required to sign this form of contract. For a more complete and thorough description of the scope of services summarized in this section of the RFP, the proposer is advised to review the contract.

C. Consultant’s Services

The Consultant shall be required, throughout the term of the contract, to provide all personnel necessary and required for performance of engineering related services for the project in accordance with the contract. The Consultant must provide such personnel through its own employees and/or through its Subconsultants. The proposer is advised to review Article 5 of the attached contract, which describes the Consultant’s obligations regarding the provision of personnel.

**SECTION IV. FORMAT AND CONTENT OF THE PROPOSAL**

- A. Proposal Subdivision Instructions: Proposers should provide all information required in the format below. The proposal should be typed on both sides of 8½" X 11" paper. The City of New York requests that all proposals be submitted on paper with not less than 30% post-consumer material content, i.e., the minimum recovered fiber content level for reprographic paper recommended by the United States Environmental Protection Agency (for any changes to that standard please consult: <http://www.epa.gov/epg/products/printing.htm>). Pages should be paginated. The proposal will be evaluated on the basis of its content, not its length. Failure to comply with any of these instructions will not make the proposal non-responsive. Submit proposal in a clearly labeled, sealed package as follows:
1. Technical Proposal (1 original and 4 copies): Include all information requested in Subsection B below. Forms 254 and 255 are available at <http://nyc.gov/html/ddc/html/otherfrm.html>. The Technical Proposal package shall not include the Fee Proposal(s).
  2. Fee Proposal (1 original): **To be submitted ONLY upon request.** Include all elements requested in Subsection C below. Forms for the submission of the Fee Proposal is included as Attachments # 3 to this RFP.
- B. Technical Proposal (1 original and 4 copies): The Technical Proposal shall contain the information described below.
1. Cover Letter: Submit a maximum of one page, indicating the company name and address, and the name, address and telephone number of the person authorized to represent the firm. **(Be sure to refer to the proper DDC project number and title.)**
  2. Experience of Consultant & Subconsultants: The Proposer shall submit Attachment 2, identifying the proposed subconsultants who will provide Design Services for the Project. The proposer and each subconsultant identified in Attachment 2 shall submit visual materials of their past work relevant to the work described in Section II of this RFP. These may take the form of a printed brochure, photographs, drawings, or similar images. Items under this subparagraph are returnable upon request.
  3. Project Team: The Proposer shall submit Attachment 2, identifying by name the proposed Key Personnel who will be assigned to the Project. For all proposed Key Personnel, the proposer shall submit resumes, detailing the individual's managerial and technical qualifications. The Proposer is advised that Attachment 4 sets forth the Minimum Requirements per Title.
  4. Technical Approach: The Proposer shall provide a statement describing its technical approach to the Project, including its understanding of the technical issues and complexities of the Project.

5. Organizational Capability: Demonstrate the organizational capability of the firm. The proposer shall submit a SF-254 Form, which provides information concerning (1) the number of full-time people currently employed by the firm, (2) the projects on which the firm is currently working, (3) the projects the firm has completed, and (4) future projects to which the firm is committed. All project information shall include the dollar value of the contract, as well as the schedule.
6. Statement of Understanding: The Statement of Understanding form included as Attachment 1 for this RFP should be signed by a responsible partner or corporate officer for the proposing firm and submitted with the firm's Technical Proposal.
7. Acknowledgement of Addenda: The Acknowledgement of Addenda form (Attachment 5) serves as the proposer's acknowledgement of the receipt of addenda to this RFP that may have been issued by the Agency prior to the Proposal Due Date and Time. The proposer should complete this form as instructed.

C. Fee Proposal

Forms for the submission of the Fee Proposal is included as Attachments 3 of the RFP. Upon written notification, the proposer must submit the Fee Proposals in a separate clearly labeled, sealed package within ten business days of such notice. The Proposer must complete the Fee Proposals as per the instructions on Attachments # 3. The fee proposal shall consist of two fees outlined below:

1. Design Fee: The proposer shall submit a Design Fee. The Design Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of required Design Services for the Project, including all expenses related to management, overhead and any anticipated profit. The Design Services included in the Design Fee are set forth in Exhibit B to the attached contract (the "Specific Requirements").

Reduction in Design Fee: The proposer is advised that the City reserves the right, at the conclusion of the Preliminary Design Phase, to determine not to proceed with any further services by the Consultant involving design(s) based on LED technology. In the event of such determination, the portion of the Design Fee payable during the Final Design Phase [70% of the Design Fee] shall be reduced by thirty (30%) percent. This reduction is set forth in Article 7 of the attached contract. (Note: This reduction will result in a Final Design Phase Fee that is equal to 49% of the Design Fee.)

2. All Inclusive Hourly Rates: The proposer shall submit All Inclusive Hourly Rates for the titles of personnel set forth in Attachment 3. Such All Inclusive Hourly Rates shall apply only if the Consultant is directed in writing to provide Additional Professional Services. The All Inclusive Hourly Rates shall have

no application to the Consultant's performance of Design Services, as set forth in the Specific Requirements. Payment for Design Services shall be through the Design Fee.

Such All Inclusive Hourly Rates shall apply to all hours during which such personnel perform Additional Professional Services for the Project, including overtime hours. Such All Inclusive Hourly Rates shall be deemed to include: (1) all expenses incurred by the Consultant and/or its Subconsultants in the performance of all required services for the Project; (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties; (3) all expenses related to overhead; and (4) any anticipated profit.

**D. Proposal Package Contents ("Checklist")**

The Proposal Package should contain the following materials:

1. Technical Proposal: (1 original and 4 copies)  
Sealed envelope, clearly marked as "Technical Proposal", including
  - Statement of Understanding (Attachment 1)
  - Form for Identification of Subconsultants and Key Personnel (Attachment 2)
  - Acknowledgement of Addenda (Attachment 5)

**SECTION V. PROPOSAL EVALUATION AND CONTRACT AWARD PROCEDURES**

**A. PROPOSAL EVALUATION**

1. Selection Process: A DDC evaluation committee will review, evaluate and score all Technical Proposals in accordance with qualitative and quantitative criteria established in Subsection 2 below. This evaluation and scoring will determine the proposer's score. DDC reserves the right to interview proposers and visit their offices for the purpose of clarifying their Technical Proposals, after which their scores may be re-evaluated. Proposers shall be ranked in accordance with the scores. The ranking will be submitted to the Executive Consultant Selection Committee who will certify the results and authorize fee negotiation to commence with the highest ranked firm. Should negotiations fail with the highest ranked firm, the ECSC will authorize fee negotiation with the next highest ranked firm. The firm(s) whose proposals are determined to be the most advantageous to the City will be awarded the project.
  
2. Proposal Evaluation Criteria: The proposal evaluation criteria are as follows:
  - a. Experience of the Consultant & Subconsultants: (Weight 30%)
  - b. Project Team: (Weight 30%)
  - c. Technical Approach: (Weight 20%)
  - d. Organizational Capability: (Weight 20%)
  
3. Basis of Award: The Department of Design and Construction will award contract(s) to the responsible proposer(s) whose proposal(s) is/are determined to be the highest quality and most advantageous to the City, taking into consideration the overall quality of the proposal as measured against factors or criteria as are set forth in the Request for Proposals and successful negotiation of an appropriate fee. Such fee negotiation shall commence upon written notification and shall conclude not more than thirty days after receipt of the fee proposal.
  
4. Supply and Service Report: Upon selection, the successful proposer will be required to submit one original copy of the Department of Business Services Supply and Service Report, a copy of which can be downloaded from <http://www.nyc.gov/html/ddc/html/otherfrm.html>. Upon written notification; the proposer must submit the Service and Supply Report within ten days of such notification.

5. VENDEX: Upon selection, the successful proposer will be required to submit proof of filing of the appropriate VENDEX Questionnaires. Upon written notification, the proposer must submit a Confirmation of VENDEX Compliance and VENDEX Certificate of No Change to DDC within five days of official notification. A form for this confirmation is set forth in the RFP.

**The proposer is advised that VENDEX Questionnaires and procedures have changed. See [www.nyc.gov/vendex](http://www.nyc.gov/vendex) to download the new VENDEX Questionnaires and a Vendor's Guide to VENDEX or contact DDC's VENDEX Unit at 718-391-1565.**

- (a) Submission: VENDEX Questionnaires (if required) must be submitted directly to the Mayor's Office of Contract Services, ATTN: VENDEX, 253 Broadway, 9<sup>th</sup> Floor, New York, New York 10007.
  - (b) Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, proposers may be obligated to complete and submit VENDEX Questionnaires. If required, VENDEX Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after award.
6. Contract Finalization: Upon selection, the successful proposer will be asked to finalize a contract with DDC subject to the conditions specified in the RFP and to the agency's standard contract provisions. The contents of the selected proposal, together with this RFP and any addendum(s) provided during the proposal process, may be incorporated into the final contract to be developed by the agency.

**SECTION VI. GENERAL INFORMATION TO PROPOSERS**

- A. Non-Binding Acceptance of Proposals: This RFP does not commit the City to award a contract for any services. Further, the City may award one or several Engineering Inspection Services contracts for this Project.
  
- B. Incurring Proposal Costs: The City of New York is not liable for any costs incurred in the preparation of a response to this RFP. If Proposers choose to participate in negotiations, they may be asked to submit such price, technical data, or other revisions to their proposals as may be required by the City.
  
- C. Confidentiality: The contents of a Proposer's RFP response are not deemed confidential unless the Proposer identifies those portions of its response which it deems confidential, or containing proprietary information, or trade secrets. The Proposer must provide justification as to 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.
  
- D. Reserved Rights: All proposal material submitted becomes the property of the City and the City reserves the right, at its sole discretion, to:
  - 1. Reject any and all proposals received in response to this RFP;
  - 2. Award a contract to other than the lowest-fee Proposer;
  - 3. Waive, modify or correct any irregularities in proposals received, after prior notification to the Proposer;
  - 4. Use without limitation any or all of the ideas from submitted proposals;
  - 5. Contract for all or selected parts of the Proposer's proposal, selecting from the services offered without affecting the itemized pricing;
  - 6. Extend the time for submission of all proposals after notification to all prospective Proposers;
  - 7. May conduct discussions with offerers submitting acceptable proposals, award may be made without any discussion;
  - 8. Terminate negotiations with a selected Proposer and select the next most responsive Proposer, or take such other action as deemed appropriate if negotiations fail to result in a signed contract within a reasonable time of the commencement of negotiations as determined by the Commissioner;
  - 9. Postpone or cancel this RFP, in whole or in part, and to reject all proposals.

**E. Contractual Requirements**

1. Any firm awarded a contract as a result of this RFP will be required to sign the City's standard contract for Engineering Inspection Services. A copy of the contract is attached for your information. The requirements for performance of this Project, as well as insurance, payment terms and all other provisions are contained in the contract.
2. Any information which may have been released either orally or in writing prior to the issuance of the RFP shall be deemed preliminary in nature and bind neither the City nor the Proposer.
3. The City will deal only with the Engineer and the City has no financial obligation to sub-consultants and sub-contractors of the Engineer. However, all sub-consultants and sub-contractors are subject to the City's contracting requirements including Equal Employment Opportunity (Executive Order #50 of 1980 as revised).
4. If this is an Infrastructure contract for engineering design services, the Proposer must negotiate with the agency the adoption of a schedule of payments and deliverables. In the event that a satisfactory decision cannot be reached regarding those schedules, the agency reserves the right to award to another proposer.
5. The prompt Payment provisions set forth in the edition of the Procurement Policy Board Rules in effect at the time of this solicitation shall be applicable to payments made under a contract resulting from this solicitation. The provisions require the payment to contractors of interest payments made after the required payment date except as set forth in the Rules.

The contractor (consultant) must submit a proper invoice to receive payment, except where the contract provides that the contractor shall be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

Determinations of interest due shall be made in accordance with the provisions of the Procurement Policy Board Rules and General Municipal Law 3-a.

6. 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, 10<sup>th</sup> Floor, New York, NY 10007; the telephone number is (212) 669-2323. In addition, the New York City Department of Investigation should be informed of such complaints at its Investigations Division, 80 Maiden Lane, New York, NY 10038; the telephone number is (212) 825-5959.

7. This Request for Proposals and the resulting contract award(s), if any, unless otherwise stated, are subject to all applicable provision 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 accessing the City's website at [nyc.gov/ppb](http://nyc.gov/ppb).
8. Contract award is subject to each of the following applicable conditions and any others that may apply: New York City Fair Share Criteria; New York City MacBride Principles Law; submission by the proposer of the 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 Certificates of No Charge 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 Local Based Enterprises program and its implementation rules.
9. 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.
10. 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.
11. The Agency has determined that the contract(s) to be awarded through this Request for Proposals will not directly result in the displacement of any New York City employee.

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ACCO Signature

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Date

**ATTACHMENT 1**

**STATEMENT OF UNDERSTANDING**

By signing in the space provided below, the undersigned certifies that the respondent (i) has read and understands the scope and requirements of this project, as described in the RFP and all attachments; (ii) has the capacity to execute this project, (iii) agrees to accept payment in accordance with the requirements of this RFP and the standard resident engineering inspection services contract, attached hereto, and (iv) will, if its proposal is accepted, enter into the attached Standard contract with the New York City Department of Design and Construction.

Is the response printed on both sides, on recycled paper containing the minimum percentage of recovered fiber content as requested by the City in the instructions to this solicitation?

**Yes**             **No**

I hereby certify that my firm will carry all types of insurance specified in the contract.

The undersigned further stipulates that the information in this Proposal is, to the best of knowledge, true and accurate.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Consultant Firm

\_\_\_\_\_  
Fax Number

\_\_\_\_\_  
Federal Tax I.D.

\_\_\_\_\_  
E-Mail Address

\_\_\_\_\_  
Address

**ATTACHMENT 2**

**LIST OF SUBCONSULTANTS AND KEY PERSONNEL**

**PART A: FORM FOR IDENTIFICATION OF SUBCONSULTANTS**

Architectural Design Services: \_\_\_\_\_

Structural Engineering Design Services: \_\_\_\_\_

Lighting Design Services: \_\_\_\_\_

Electrical Engineering Services: \_\_\_\_\_

Cost Estimating Services: \_\_\_\_\_

**PART B: FORM FOR IDENTIFICATION OF KEY PERSONNEL**

Principal-in-Charge: \_\_\_\_\_

Project Manager \_\_\_\_\_

Project Designer: \_\_\_\_\_

Structural Engineer: \_\_\_\_\_

Senior Lighting Designer: \_\_\_\_\_

Electrical Engineer: \_\_\_\_\_

**ATTACHMENT 3**

**FEE PROPOSAL: DESIGN FEE**

**To be submitted ONLY upon request**

In the space provided below the proposer shall submit a Design Fee.

Design Fee: The Design Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of required Design Services for the Project, including all expenses related to management, overhead and any anticipated profit. The Design Services included in the Design Fee are set forth in Exhibit B to the attached contract. (the "Specific Requirements").

Reduction in Design Fee: The proposer is advised that the City reserves the right, at the conclusion of the Preliminary Design Phase, to determine not to proceed with any further services by the Consultant involving design(s) based on LED technology. In the event of such determination, the portion of the Design Fee payable during the Final Design Phase [70%of the Design Fee] shall be reduced by thirty (30%) percent. This reduction is set forth in Article 7 of the attached Contract. (Note: This reduction will result in a Final Design Phase Fee that is equal to 49% of the Design Fee.)

Design Fee: \$\_\_\_\_\_

The proposer must sign the Fee Proposal in the space provided below.

\_\_\_\_\_  
Name of Proposer

\_\_\_\_\_  
EIN#

By:\_\_\_\_\_  
Signature of Partner or Corporate Officer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

**ATTACHMENT 3 (cont.)**

**FEE PROPOSAL: ALL INCLUSIVE HOURLY RATES**

**To be submitted ONLY upon request.**

All Inclusive Hourly Rates: In the space provided below, the proposer shall submit All Inclusive Hourly Rates for the specified titles of personnel.

The All Inclusive Hourly Rates submitted by the Proposer shall apply only if the Consultant is directed in writing to provide Additional Professional Services. The All Inclusive Hourly Rates shall have no application to the Consultant’s performance of Design Services, as set forth in the Specific Requirements. Payment for Design Services shall be through the Design Fee.

Such All Inclusive Hourly Rates shall apply to all hours during which such personnel perform Additional Professional Services for the Project, including overtime hours. Such All Inclusive Hourly Rates shall be deemed to include: (1) all expenses incurred by the Consultant and/or its Subconsultants in the performance of all required services for the Project; (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties; (3) all expenses related to overhead; and (4) any anticipated profit.

**ARCHITECTURAL DESIGN SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Project Designer	_____
Project Manager (Architecture)	_____
Senior Draftsperson/CAD	_____
Junior Draftsperson/CAD	_____

**STRUCTURAL ENGINEERING DESIGN SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Structural Engineer	_____
Project Manager (Structural Engineering)	_____
Junior Structural Engineer	_____
Senior Structural Engineering Draftsperson/CAD	_____
Junior Structural Engineering Draftsperson/CAD	_____

**ELECTRICAL ENGINEERING SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Electrical Engineer	_____
Project Manager (Electrical Engineering)	_____
Junior Electrical Engineer	_____
Senior Electrical Engineering Draftsperson/CAD	_____
Junior Electrical Engineering Draftsperson/CAD	_____

**ATTACHMENT 3 (cont.)**

**FEE PROPOSAL: ALL INCLUSIVE HOURLY RATES**

**LIGHTING DESIGN SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Senior Lighting Designer	_____
Junior Lighting Designer	_____

**COST ESTIMATING SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Senior Estimator	_____
Junior Estimator	_____

Increases in All Inclusive Hourly Rates: The All Inclusive Hourly Rates submitted by the Proposer shall be subject to increases as set forth in Article 7 of the attached Contract.

**Do not leave blanks - do not retype this sheet.**

The proposer must sign the Fee Proposal in the space provided below.

\_\_\_\_\_  
Name of Proposer

By: \_\_\_\_\_  
Signature of Partner or Corporate Officer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Firm

\_\_\_\_\_  
EIN #

**ATTACHMENT 4**

**MINIMUM REQUIREMENTS PER TITLE**

**MINIMUM REQUIREMENTS PER TITLE:** Any personnel provided by the Consultant and/or its Subconsultants must satisfy the Minimum Requirements Per Title set forth below.

**ARCHITECTURAL DESIGN SERVICES**

<b>TITLE</b>	<b>MINIMUM REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Project Designer	7	
Project Manager (Architecture)	7	
Senior Draftsperson/CAD	5	
Junior Draftsperson/CAD	1	

**STRUCTURAL ENGINEERING DESIGN SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Structural Engineer	7	Professional License
Project Manager (Structural Engineering)	7	
Junior Structural Engineer	3	
Senior Structural Engineering Draftsperson/CAD	5	
Junior Structural Engineering Draftsperson/CAD	1	

**ELECTRICAL DESIGN SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Electrical Engineer	7	Professional License
Project Manager (Electrical Engineering)	7	
Junior Electrical Engineer	3	
Senior Electrical Engineering Draftsperson/CAD	5	
Junior Electrical Engineering Draftsperson/CAD	1	

**LIGHTING DESIGN SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Senior Lighting Designer	7	Industry Certified
Junior Lighting Designer	3	Industry Certified

**COST ESTIMATING SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Senior Estimator	7	
Junior Estimator	3	

**ATTACHMENT 5**

**ACKNOWLEDGEMENT OF ADDENDA**

TITLE OF THE REQUEST FOR PROPOSALS:	PIN #:
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Instructions: The proposer is to complete Part I or Part II of this form, whichever is applicable, and sign and date this form. This form serves as the proposer's acknowledgement of the receipt of Addenda to this Request for Proposals (RFP) which may have been issued by the Agency prior to the Proposal Due Date and Time.

\_\_\_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 Name

Proposer's Authorized Representative:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT 6**

**CONFIRMATION OF VENDEX COMPLIANCE**

The Proposer shall submit this Confirmation of Vendex Compliance

Name of Proposer: \_\_\_\_\_

Proposer's Address: \_\_\_\_\_

Proposer's Telephone Number: \_\_\_\_\_

Proposer's Fax Number: \_\_\_\_\_

Date of Proposal Submission: \_\_\_\_\_

Project ID: \_\_\_\_\_

**VENDEX Compliance:** To demonstrate compliance with VENDEX requirements, the Proposer shall complete either Section (1) or Section (2) below, whichever applies.

(1) **Submission of Questionnaires to MOCS:** By signing in the space provided below, the Proposer certifies that as of the date specified below, the Proposer has submitted VENDEX Questionnaires to the Mayor's Office of Contract Services, Attn: VENDEX, 253 Broadway, 9th Floor, New York, New York 10007.

Date of Submission: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of Partner or corporate officer)

Print Name: \_\_\_\_\_

(2) **Submission of Certification of No Change to DDC:** By signing in the space provided below, the Proposer certifies that it has read the instructions in a "Vendor's Guide to VENDEX" and that such instructions do not require the Proposer to submit VENDEX Questionnaires. The Proposer has completed **TWO ORIGINALS** of the Certification of No Change.

By: \_\_\_\_\_  
(Signature of Partner or corporate officer)

Print Name: \_\_\_\_\_

**THE CITY OF NEW YORK**  
**DEPARTMENT OF DESIGN AND CONSTRUCTION**  
**DIVISION OF STRUCTURES**  
**30-30 THOMSON AVENUE**  
**LONG ISLAND CITY, NEW YORK NEW YORK 11101**  
**CONTRACT FOR**  
**ARCHITECTURAL, ENGINEERING**  
**AND RELATED SERVICES**

**PROJECT:** City Lights Streetlights Design,  
Fabrication and Testing of Prototypes

**PROGRAM UNIT:**

**FMS NUMBER:**

**REGISTRATION  
NUMBER:** \_\_\_\_\_

**PIN NUMBER:** \_\_\_\_\_

**CONSULTANT:**

**Telephone:** \_\_\_\_\_  
**Facsimile:** \_\_\_\_\_  
**EIN:** \_\_\_\_\_

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between the City of New York (the "City") acting by and through the Commissioner of the Department of Design and Construction (the "Commissioner") and \_\_\_\_\_ (the "Consultant"), located at \_\_\_\_\_.

WITNESSETH:

WHEREAS, the City desires to have architectural, engineering and related services performed for the Project described in the Specific Requirements (Exhibit B), and

WHEREAS, the Consultant has been selected based upon and in consideration of its representation that it can perform the required services set forth herein in a timely and expeditious manner,

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained, the parties hereto agree as follows:

ARTICLE 1 Definitions

1.1 "Agreement" shall mean this Agreement which has been signed by the parties, including (1) the Request for Proposals for the Contract ("RFP"); (2) the Consultant's Proposal for the Contract, and (3) the Exhibits set forth below. In the event of any conflict between the Specific Requirements and any other component, the Specific Requirements shall prevail.

Exhibit A	Contract Information and Amendments
Exhibit B	Specific Requirements
Exhibit C	Key Personnel and List of Subconsultants
Exhibit D	Payment Schedule
Exhibit E	Staffing Requirements: Titles and All Inclusive Hourly Rates
Exhibit F	Minimum Requirements Per Title
Appendix I	Design Range Illustrations
Appendix II	Design Intent Renderings

1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

1.3 "Agency Chief Contracting Officer" ("ACCO") shall mean the person designated by the Commissioner to exercise such powers and duties with respect to procurement as are set forth in the Procurement Policy Board Rules.

1.4 "City" shall mean the City of New York.

1.5 "Commissioner" or "Agency Head" shall mean the Commissioner of the Department of Design and Construction of the City of New York, his/her successors or duly authorized representative(s).

1.6 "Commissioner's Representative" shall mean the Project Manager designated by the Commissioner or any successor or alternate representative designated by the Commissioner.

1.7 "Comptroller" shall mean the Comptroller of the City of New York, his/her successors, or duly authorized representatives.

1.8 "Consultant" shall mean the party of the second part hereto, whether a corporation, firm, or individual, or any combination thereof, and its, their, his or her successors, personal representatives, executors, administrators and assigns, and any person, firm or corporation who or which shall at any time be substituted in the place of the party of the second part under this Contract.

1.9 "Contract" or "Contract Documents" shall mean the Agreement and all components thereof, as set forth in Article 1.1.

1.10 "Department" or "DDC" shall mean the Department of Design and Construction of the City of New York acting by and through the Commissioner thereof, or his duly authorized representative.

1.11 "Drawings" shall mean all graphic or written illustrations, descriptions, explanations, directions, requirements and standards of performance applied to the construction work.

1.12 "Government Entity" shall mean the United States, the State and City of New York, and any and every agency, department, court, commission, or other instrumentality or political subdivision of government of any kind whatsoever, now existing or hereafter created.

1.13 "Law(s)" shall mean each and every law, rule, regulation, order or ordinance of any kind whatsoever issued by any Government Entity, in effect from the date of this Agreement through the conclusion or termination hereof, applicable to or affecting the Project and all employees engaged hereunder.

1.14 "Mayor" shall mean the Mayor of the City of New York, his successors or duly authorized representatives.

1.15 "Modification" shall mean any written amendment of this Agreement signed by both the Department and the Consultant.

1.16 "Project" shall mean the Project for which architectural, engineering and related services are required, as set forth in the Specific Requirements (Exhibit B).

1.17 "Safety Standards" shall mean all laws, union rules and trade or industry custom or codes of any kind whatsoever, in effect from the date of this Agreement through Final Acceptance of the construction work, pertaining to worker safety and accident prevention applicable to the Project and/or the construction work (including, but not limited to, rules, regulations and standards adopted pursuant to the Occupational Safety and Health Act of 1970, as amended from time to time).

1.18 "Shop Drawing" shall mean any and all drawings, diagrams, layouts, explanations, illustrations, manufacturer's drawings or other written or graphic materials which illustrate any portion of the construction work.

1.19 "Site(s)" shall mean the area(s) upon or in which the construction work for the Project is carried on, and such other areas adjacent thereto as may be designated by the Commissioner.

1.20 "Specifications" shall mean all of the directions, requirements and standards of performance applied to the construction work.

1.21 "Subconsultant" shall mean any person, firm, or corporation, other than employees of the Consultant, who or which contracts with the Consultant or his subconsultants to furnish, or actually furnishes services, labor, or labor and materials, or labor and equipment hereunder. All Subconsultants are subject to the prior written approval of the Commissioner.

1.22 "Treasurer" shall mean the Commissioner of the Department of Finance of the City of New York.

1.23 "Vendor", as used in the Article entitled "Resolution of Disputes", shall mean the Consultant.

## ARTICLE 2 Compliance with Laws

2.1 Procurement Policy Board Rules: This contract is subject to the Rules of the Procurement Policy Board of the City of New York ("PPB Rules") in effect at the time of the receipt of proposals for this Contract. In the event of a conflict between the PPB Rules and a provision of this Contract, the PPB Rules shall take precedence.

2.2 The Consultant shall comply with all local, State and Federal laws, rules and regulations applicable to this Agreement and to the services to be performed hereunder.

2.3 The Consultant shall comply with Section 24-216(b) of the Administrative Code of the City of New York and with the New York City Noise Control Code and with all regulations issued pursuant to Section 24-216(b) of the Administrative Code or the Noise Control Code.

2.4 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 deemed to be inserted herein, and if through mistake or otherwise, any such provision is not inserted in correct form, then this contract shall forthwith upon 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.

### ARTICLE 3 Agreement to Serve

3.1 The City hereby retains the Consultant to perform the services hereinafter described, on the terms and conditions specified herein, and the Consultant agrees to so serve. The Consultant agrees to provide, to the satisfaction of the Commissioner, all architectural, engineering and construction related services necessary and required for the Project, as set forth in this Contract. The Consultant hereby certifies that it has the necessary experience, expertise, staff and resources to fulfill its obligations under this Contract competently and efficiently.

### ARTICLE 4 The Project

4.1 The Consultant shall provide all architectural, engineering and related services required for the Project, as set forth in the Specific Requirements (Exhibit B).

### ARTICLE 5 The Consultant's Personnel

5.1 Provision of Personnel: The Consultant agrees, throughout the term of the Contract, to provide personnel for the performance of all required architectural, engineering and related services for the Project, as set forth in Article 6. The Consultant shall provide all personnel required for the performance of such services through its own employees and/or through its Subconsultants, as set forth in Exhibit C, except as otherwise approved by the Commissioner. The Consultant specifically agrees that its employees, agents and Subconsultants shall possess the experience, knowledge and character necessary to qualify them individually for the particular duties they perform.

5.2 Key Personnel: Key Personnel for the Project are set forth in Exhibit C. Such Key Personnel were identified by the Consultant in its Proposal for the Project. The Consultant specifically agrees to assign such Key Personnel to the Project for the entire duration thereof, unless otherwise approved by the Commissioner. Failure by the Consultant to provide such Key Personnel shall be grounds for termination for cause in accordance with Article 14.

5.2.1 Replacement of Key Personnel: No substitutions for Key Personnel shall be permitted unless approved in advance in writing by the Commissioner. Such approval will only be granted in the case of extenuating circumstances. Any proposed replacement for Key Personnel must possess qualifications substantially similar to those of the Key Personnel being replaced. In addition, at the Commissioner's request at any time, the Consultant shall remove any Key Personnel or other personnel and substitute another employee of the Consultant or Subconsultant reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, in his sole discretion.

5.3 Subconsultants: Subconsultants for the Project are set forth in Exhibit C. Such Subconsultants were identified by the Consultant in its Proposal for the Project. The Consultant specifically agrees to engage such Subconsultants for the Project for the entire duration thereof, unless otherwise approved by the Commissioner. Failure by the Consultant to provide the Subconsultants set forth in Exhibit C shall be grounds for termination for cause in accordance with Article 14. The Consultant shall be responsible for the performance of services by all its Subconsultants, including maintenance of schedules, correlation of their work and resolution of all differences between them.

5.3.1 Approval: Subconsultants are subject to the prior written approval of the Commissioner; provided, however, no provision of this Contract shall be construed as constituting an agreement between the Commissioner and any Subconsultant.

5.3.2 Replacement Subconsultants: No substitution for any Subconsultant shall be permitted unless approved in advance in writing by the Commissioner. Such approval will only be granted in the case of extenuating circumstances. Any proposed replacement Subconsultant must possess qualifications and experience substantially similar to those of the Subconsultant being replaced. In addition, at the Commissioner's request at any time, the Consultant shall remove any Subconsultant and substitute another Subconsultant reasonably satisfactory to the Commissioner. The Commissioner may request such substitution at any time, if, in his sole opinion, he determines that any Subconsultant may be unable to satisfactorily provide the required services in a timely fashion.

5.3.3 Payment: Expenses incurred by the Consultant in connection with furnishing Subconsultants for the performance of required services hereunder are deemed included in the payments by the City to the Consultant, as set forth in Article 7. The Consultant shall pay its Subconsultants the full amount due them from their proportionate share of the requisition, as paid by the City. The Consultant shall make such payment not later than seven (7) calendar days after receipt of payment by the City.

5.3.4 Subcontracts: The Consultant shall inform all Subconsultants engaged for this Project fully and completely of all terms and conditions of this Contract relating either directly or indirectly to the services to be performed. The Consultant shall stipulate in all subcontracts with its Subconsultants that all services performed and materials furnished thereunder shall strictly comply with the requirements of this Contract. If requested by the Commissioner, the Consultant shall furnish copies of subcontracts with its Subconsultants.

5.4 Services Based upon Staffing Hours (Time Card): The Consultant may be directed to perform services based upon staffing hours (time card), as set forth below. No such services shall be performed by the Consultant unless expressly authorized in advance in a written directive from the Commissioner. The requirements set forth below shall apply to the performance of such services.

- (a) Not used
- (b) Additional Professional Services, as set forth in Article 6.5.
- (c) not used

5.4.1 Titles of Personnel: A list of titles of personnel, as well as All Inclusive Hourly Rates for such titles, are set forth in Exhibit E. Such list specifies the titles of personnel which may be required for the performance of services based upon staffing hours (time card). The Consultant shall be required to provide such personnel through its own employees and/or through its Subconsultants.

5.4.2 Requirements Per Title: Personnel provided by the Consultant and/or its Subconsultants must satisfy the minimum requirements for the title in question, as set forth in Exhibit F. The Consultant shall provide resumes or other documentation acceptable to the Commissioner to demonstrate that personnel provided hereunder comply with the minimum requirements per title. In exceptional circumstances, the Commissioner, in his sole and absolute discretion, may modify the minimum requirements per title.

5.4.3 Staffing Plan: A Staffing Plan shall be established and approved by the Commissioner prior to commencement of the performance of services based upon staffing hours (time card) by the Consultant. Such Staffing Plan shall include the items set forth below. Such Staffing Plan shall include only those personnel necessary for the performance of the required services.

- (a) required titles of Key Personnel and specific personnel for each title
- (b) required titles of personnel (other than Key Personnel) and specific personnel for each title
- (c) All Inclusive Hourly Rates for all required personnel, in accordance with Exhibit E
- (d) total estimated hours for all required personnel
- (e) total estimated amount for all required personnel

5.4.4 Payment Limitation: In accordance with Article 7.3, payment to the Consultant for the performance of services based upon staffing hours (time card) shall be limited to those personnel set forth in the approved Staffing Plan. The Consultant shall not be entitled to payment for any personnel who are not included in the approved Staffing Plan. The Consultant shall not be entitled to payment for a principal's time performing oversight or management

duties. This prohibition on payment for a principal's time shall not apply if the following criteria are met: (1) such principal is qualified to perform services for the Project in accordance with one of the titles set forth in Exhibit F, and (2) such principal is included in the approved Staffing Plan for such title.

5.4.5 Consultant's Proposed Staffing Plan: Within five (5) business days of a written request from the Commissioner, the Consultant shall submit a proposed Staffing Plan for services based upon staffing hours (time card). Such proposed Staffing Plan shall include the items set forth in Article 5.4.3. With respect to proposed personnel, the Consultant shall submit the individual's resume and any other information detailing his/her number of years of experience, as well as technical and professional qualifications. In addition, the Consultant shall submit the following for all required personnel: (1) total estimated hours; (2) total estimated amount(s), and (3) applicable All Inclusive Hourly Rate(s), in accordance with Exhibit E.

5.4.6 Review and Approval of Staffing Plan: The Commissioner shall review the Consultant's proposed Staffing Plan and shall direct revisions to the same if necessary prior to final approval thereof. As part of his review of the proposed Staffing Plan, the Commissioner shall determine whether each individual proposed by the Consultant meets the requirements for the title in question, as set forth in Article 5.4.2 above, including the requisite number of years of experience, as well as technical and professional qualifications. The Commissioner shall also determine: (1) whether the personnel proposed by the Consultant are necessary for the provision of the required services, and (2) the All Inclusive Hourly Rates applicable to all specified personnel, in accordance with Exhibit E. The Consultant shall revise the proposed Staffing Plan as directed, until the same is approved in writing by the Commissioner.

5.4.7 Revisions to Staffing Plan: The Commissioner may, at any time, direct revisions to the Staffing Plan, including without limitation, increasing or decreasing the specified personnel, based upon the scope of required services. The Consultant shall increase or decrease the specified personnel, as directed by the Commissioner.

5.5 Employees of the Consultant: The Consultant is solely responsible for the work and department of all its personnel and its Subconsultants. These are employees of the Consultant or its Subconsultant and not of the City.

## ARTICLE 6 Scope of Services

6.1 General: The Consultant shall provide, to the satisfaction of the Commissioner, all architectural, engineering and related services necessary and required for the Project. The services the Consultant may be required to provide shall include without limitation the services set forth in this Article 6. Amendments to this Article, if any, are set forth in Exhibit A. The services set forth herein are further described in the Specific Requirements (Exhibit B). The Consultant shall provide the services set forth in this Article 6 through its own employees and/or through its Subconsultants.

6.2 Not Used

6.3 Design Services: The Consultant shall provide Design Services, including the fabrication and testing of prototypes, as set forth in the Specific Requirements (Exhibit B).

6.3.1 Scope of Design Services: The Consultant shall provide all Design Services set forth in Exhibit B, the Specific Requirements. Design services shall include all necessary and usual components and/or services in connection with the design. The Consultant shall provide services during the phases described therein.

6.3.2 Design Criteria: All required Design Services shall be in accordance with the following: (1) the Specific Requirements, (2) the Client Agency Design Standards, and (3) all applicable local, state and federal laws, rules and regulations, including without limitation, the New York City Building Code.

6.3.3 Not Used

6.3.4 Submission of Design Documents: The Consultant shall submit design documents in accordance with the time frames set forth in Exhibit B.

6.3.5 Approval of Design Documents: All required design documents, including fabrication and testing

of prototypes, and cost estimates, are subject to review and written approval by the Commissioner. Final design documents are subject to approval by all regulatory agencies whose approval of the design is required, including without limitation the Department of Transportation, and, if required, the Art Commission and the Landmarks Preservation Commission.

6.3.6 Self-Certification: Self-Certification may be required by the Commissioner for approval by the Department of Buildings.

6.3.7 Architect/Engineer of Record: All drawings shall bear all required stamps of approval, including the seal and authorized facsimile of the signature of the Architect or Engineer of Record, and shall be accompanied by all necessary applications, certificates, or permits of all local, state and federal agencies having jurisdiction over the Work.

6.3.8 Tropical Hardwoods: In accordance with Section 165 of the New York State Finance Law, design documents prepared by the Consultant shall not specify the use of tropical hardwoods, as defined in Section 165 of the State Finance Law, except as such use is permitted by the foregoing provision of law.

6.3.9 Not Used

6.3.10 Not Used

6.4 Not Used

6.5 Additional Professional Services: The Consultant may be directed by the Commissioner to provide Additional Professional Services for the Project, as set forth below. The Consultant shall provide such Additional Professional Services through its own professional employees or through its Subconsultants, as directed in writing by the Commissioner. Amendments to this Article, if any, are set forth in Exhibit A, Contract Information and Amendments.

6.5.1 Additional Professional Services shall be professional services which the Commissioner determines are required for the Project and are in addition to or beyond the necessary and usual services in connection with Design Services, as set forth in Article 6.3. Additional Professional Services shall include, without limitation, the services set forth below.

- (a) Services specifically designated as Additional Professional Services in the Specific Requirements
- (b) Changes to the design documents, as set forth in Articles 6.9.1(b) and 6.9.2 below
- (c) any other professional services, determined by the Commissioner to be necessary for the Project.

6.5.2 Additional Professional Services shall not include the services set forth in Articles 6.9.1(a) and 6.9.3 below.

6.5.3 Payment for Additional Professional Services shall be based upon staffing hours (time card) in accordance with Article 7.3.

6.5.4 Not Used

6.5.5 If the Consultant believes that any service it has been directed to perform constitutes an Additional Professional Service, the Consultant shall notify the Commissioner in writing within five (5) business days of such direction. The Commissioner's determination as to whether or not such service constitutes Additional Professional Service shall be final, conclusive and binding upon the Consultant.

6.6 Reimbursable Services: The Consultant may be directed by the Commissioner to provide Reimbursable Services for the Project, as set forth below. The Consultant shall provide such Reimbursable Services, if so directed in writing by the Commissioner. The Consultant shall provide such Reimbursable Services through entities approved by the Commissioner, and shall utilize the method of procurement and form of payment directed by the Commissioner. Payment for Reimbursable Services shall be in accordance with Article 7.5.

6.6.1 Reimbursable Services shall be such services determined by the Commissioner to be necessary for the Project, and may include, without limitation, the services set forth below.

- (a) Not Used
- (b) Printing design documents beyond requirements set forth in the Specific Requirements
- (c) Specialty consultants, other than the subconsultants set forth in Exhibit C
- (d) Long distance travel. In the event the Consultant is directed in advance in writing by the Commissioner to provide services which require long distance travel, the Consultant shall be reimbursed for expenses incurred in connection with such long distance travel. Long distance travel shall mean travel which is in excess of 75 miles from whichever of the following is closer to the destination: (1) Columbus Circle, or (2) the Consultant's home office. Consultants and/or Subconsultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.
- (e) Filing fees and related application fees for New York City agencies
- (f) any other services, determined by the Commissioner to be necessary for the Project

6.7 Non-reimbursable Services: Throughout the Project, the Consultant shall be responsible for providing the non-reimbursable services set forth below. All costs for such services are deemed included in payments to the Consultant as set forth in Article 7 hereof.

6.7.1 The Consultant shall, when requested by the Commissioner, provide overnight delivery of the following Project documents: (1) design documents; (2) all required submittals, including without limitation shop drawings, material samples and catalogue cuts; (3) change orders; (4) documents with respect to payment, and (5) any other critical communications and/or documents.

6.7.2 The Consultant shall provide transportation, including parking and tolls, for all personnel performing services hereunder. Consultants and/or Subconsultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.

6.7.3 The Consultant shall provide communications equipment and service, including without limitation cellular telephones and beepers, for all field and Key Personnel assigned to the Project. The telephone and beeper numbers of all such field and Key Personnel shall be submitted to the Commissioner.

6.7.4 The Consultant shall provide all expediting services necessary and required with respect to securing all required regulatory approvals of the design.

6.8 Assistance to Commissioner: Should any claim be made or any action brought against the Commissioner or the City of New York relating to the design of the Project, the Consultant shall diligently render to the City without additional compensation any and all assistance which may be requested by the Commissioner.

6.9 Provisions Regarding Changes to the Design Documents

6.9.1 Changes Not Involving Scope:

- (a) The Consultant shall revise and correct, without additional compensation therefore, any and all design documents until the same shall be accepted by the Commissioner and by all other agencies whose approval is required by law.
- (b) Should any substantial change, other than a change in Project scope, make it necessary for the Consultant to change design documents after approval of the preliminary or final design documents, the Commissioner shall direct such change in writing. Such change shall constitute an additional professional service.

6.9.2 Decrease in Scope: The Commissioner shall have the right to reduce the scope of the services of the Consultant hereunder, at any time and for any reason, upon written notice to the Consultant, specifying the nature and extent of such reduction. In such event, the Consultant shall be paid, in accordance with the payment terms set forth

in Article 7, for services already performed prior to receipt of written notification of such reduction in scope, as determined by the Commissioner. Any services performed by the Consultant to revise the design documents as a result of the reduction in the scope of the Project shall constitute Additional Professional Services in accordance with Article 6.5.1 above.

6.9.3 Changes through Fault of Consultant: In the event that any change is required to the design documents because of defects of design or unworkability of details, or because of any other fault or errors of the Consultant, no additional compensation shall be paid to the Consultant for making such changes.

## ARTICLE 7 Payment Terms and Conditions

### 7.1 Total Payments

7.1.1 Maximum Amount: The Maximum Amount of the Contract is set forth in Exhibit A. Total payments for all services performed and all expenses incurred pursuant to this Agreement shall not exceed the Maximum Amount. The Maximum Amount does not represent a commitment or guarantee on the part of the City to pay such amount, unless it has been determined to be due and payable to the Consultant in accordance with the terms and conditions set forth herein. The Maximum Amount is comprised of the following: (1) Design Fee, (2) Allowance for Services Based Upon Staffing Hours (Time Card), and (3) Allowance for Reimbursable Services.

7.1.2 Method of Payment: The method of payment for the performance services by the Consultant shall be as set forth below. The types of services listed below are described in Article 6.

<u>Type of Service</u>	<u>Form of Payment</u>	<u>Article Reference</u>
(a) Not Used		
(b) Design Services	Design Fee	Article 7.2
(c) Additional Professional Services	Time Card	Article 7.3
(d) Not Used		
(e) Reimbursable Services	Reimbursement / 5% mark-up	Article 7.5
(f) Not Used		

7.1.3 Allowances: In the event the amount of the allowances set forth in Exhibit A are not sufficient, as determined by the Commissioner, to cover the cost of services which the Consultant is directed to provide, the Commissioner will increase the amount of such allowances.

7.1.4 Reallocation of Allowance Amounts: Notwithstanding the specific amounts allocated for allowances, as set forth in this Article 7, the Commissioner may, by issuance of a No Cost Change Order to the Consultant, reallocate such specific allowance amounts within this Article 7.

7.1.5 Executory Only: This Agreement shall be deemed executory only to the extent of the moneys appropriated and available for the purpose of the Agreement and no liability or account thereof shall be incurred beyond the amount of such moneys. It is therefore understood that neither this Agreement nor any representation by any public employee or officer creates any legal or moral obligation to request, appropriate or make available moneys for the purpose of this Agreement.

### 7.2 Payment for Design Services

7.2.1 Design Fee: For the performance of all required Design Services for the Project the City agrees to pay and the Consultant agrees to accept a total Design Fee, the amount of which is set forth in Exhibit A.

- (a) Services Included: The Design Fee is deemed to include all costs and expenses incurred by the Consultant and/or its Subconsultant(s) in the performance of required Design Services for the Project, including all expenses related to management, overhead and any anticipated profit. The Design Services included in the Design Fee are set forth in Exhibit B (the "Specific Requirements").

- (b) Reduction in Design Fee: As set forth in Exhibit B, the City reserves the right, at the conclusion of the Preliminary Design Phase, to determine not to proceed with any further services by the Consultant involving design(s) based on LED technology. In the event of such determination, the portion of the Design Fee payable during the Final Design Phase [70% of the Design Fee] shall be reduced by Thirty (30%) percent.

7.2.2 Payment of Design Fee: The Design Fee shall be paid to the Consultant as set forth below.

- (a) Design Services: For the performance of all required Design Services for the Project, including fabrication and testing of prototypes, as set forth in Exhibit B, the Consultant shall be paid the Design Fee. Partial payment of this amount shall be in accordance with the percentage breakdown set forth below, upon written acceptance by the Commissioner of the specified deliverable.

Preliminary Design	30% of Design Fee
Final Design	
a. Final Design Documents	20% of the Design Fee
b. Fabrication and Testing of Prototypes	40% of the Design Fee
c. Final Modified Design Documents	10% of Design Fee

- (b) Payment Schedule: Payment of the Design Fee shall be in accordance with the Payment Schedule set forth in Exhibit D. Partial payments of the amounts set forth therein may be made to the Consultant on a monthly basis, based upon the Commissioner’s determination that the Consultant is progressing the required work for the deliverable in a satisfactory fashion and in accordance with the schedule set forth in Exhibit B; provided, however, partial payments for the deliverable may not exceed 50% of the lump sum fee for the same, unless the Consultant submits a draft of the deliverable demonstrating satisfactory progress of the work. Total payment of the lump sum fee per deliverable shall not be made until written acceptance by the Commissioner of the deliverable.

7.2.3 Not Used

7.2.4 Not Used

7.2.5 Additional Professional Services: In the event the Commissioner directs the Consultant to perform Additional Professional Services, payment for such services shall be based upon staffing hours, as set forth in Article 7.3, except as otherwise provided below.

7.2.6 Not Used

7.3 Payment for Services Based upon Staffing Hours (Time Card)

7.3.1 Allowance: An Allowance for Services Based Upon Staffing Hours (Time Card) is set forth in Exhibit A. Such Allowance is established for payment for services the Consultant is directed to perform based upon staffing hours (time card), as set forth below. No such services shall be performed by the Consultant, or paid from this allowance, unless expressly authorized in advance in a written directive from the Commissioner.

- (a) Not Used
- (b) Additional Professional Services, as set forth in Article 6.5.
- (c) Not Used

7.3.2 Information from Staffing Plan: In accordance with Article 5.4.3, in the event the Consultant is directed to perform services based upon staffing hours (time card), a Staffing Plan must be established and approved by the Commissioner prior to commencement of the Consultant’s services. Such Staffing Plan must specify the items

set forth below.

- (a) Required Personnel: The personnel specified in the Staffing Plan shall be considered Assigned Employees for the purpose of payment in accordance with this Article 7.3.
- (b) All Inclusive Hourly Rates: The All Inclusive Hourly Rates for the personnel specified in the Staffing Plan shall be in accordance with Exhibit E. Such All Inclusive Hourly Rates shall apply to all hours during which an Assigned Employee, as described in Paragraph (a) above, performed services for the Project based upon staffing hours (time card), including overtime hours. No increase in such rates shall be provided for services performed during overtime hours. Such All Inclusive Hourly Rates shall be deemed to include: (1) all expenses incurred by the Consultant and/or its Subconsultants in the performance of all required services for the Project based upon staffing hours, (2) all expenses related to management and oversight, including, without limitation, any time spent by principals performing such duties, (3) all expenses related to overhead, and (4) any anticipated profit.

7.3.3 Amount of Payment: For any given week during which an Assigned Employee performed services for the Project based upon staffing hours (time card), payment to the Consultant for such employee's services for that week shall be calculated as follows: Multiply the amount set forth in subparagraph (a) by the number set forth in subparagraph (b).

- (a) All Inclusive Hourly Rate applicable to the Assigned Employee, as set forth in Article 7.3.2 (b) above.
- (b) Total number of hours set forth on time sheets completed by the Assigned Employee for the week in question during which the Assigned Employee actually performed services for the Project based upon staffing hours. This total number of hours shall **NOT** include the following: (1) any hours the Assigned Employee spent commuting; (2) any non-billable hours, as defined below; (3) any hours during which the Assigned Employee performed services for any other project; (4) any hours the Assigned Employee spent performing services for this Project, as set forth in Articles 6.9.1(a) and 6.9.3, for which the Consultant is not entitled to compensation, and (5) any hours set forth in Article 7.3.4 below.
- (c) Non-billable hours shall be defined as any hours set forth on time sheets completed by the Assigned Employee which have been allocated to any category or function other than services performed for this Project. Non-billable hours shall include without limitation: (1) compensated absence time, including without limitation vacation time, sick time, personal time and holidays; (2) performance of indirect administrative tasks, or (3) any other time keeping category consistent with standard accounting practices.

7.3.4 No Payment for Principals: The Consultant shall not be entitled to payment for a principal's time performing oversight or management duties. This prohibition on payment for a principal's time shall not apply if the following criteria are met: (1) such principal is qualified to perform services for the Project in accordance with one of the titles set forth in Exhibit F, and (2) such principal is included in the approved Staffing Plan for such title.

7.3.5 Requisitions: For any given week(s) for which the Consultant is requesting payment for services performed by an Assigned Employee based upon staffing hours (time card), the Consultant shall submit the documentation set forth below.

7.3.6 Change Order Services: The Consultant may be directed to perform services pursuant to a change order issued in accordance with Article 17. If so specified in the change order, the Consultant agrees to perform the services specified therein in accordance with all terms and conditions applicable to the performance of Additional Professional Services, and payment for the same, as set forth herein. Such change order shall specify a not to exceed amount for the performance of the Consultant's services.

7.3.7 Increases in All Inclusive Hourly Rates: The All Inclusive Hourly Rates set forth in Exhibit E shall be subject to increases as provided for herein. The first such increase shall be made at the beginning of the calendar year which is at least three years after the commencement of the Contract, i.e., in the month of January of the year which is at least three full years after the date of the advice of award. Subsequent increases shall be made on a yearly

basis at the beginning of each calendar year for the remainder of the contract term or any extension thereof. Such increases shall be based upon any increase in the Employment Cost Index for Professional, Specialty and Technical Occupations, published by the U.S. Department of Labor, Bureau of Labor Statistics (the "Index"). If the Index declines or shows no increase, rates shall not be increased. Any increases in the All Inclusive Hourly Rates shall be applied on a prospective basis only.

7.4 Not Used

7.5 Payment for Reimbursable Services

7.5.1 Allowance: An Allowance for Reimbursable Services is set forth in Exhibit A. Such Allowance is established for payment for Reimbursable Services the Consultant is directed to provide, as set forth in Article 6.6. No Reimbursable Services shall be provided by the Consultant, or reimbursed hereunder, unless expressly authorized in a written directive from the Commissioner. For Reimbursable Services in excess of \$150, such written authorization must be provided in advance of the expenditure.

7.5.2 Procurement: With respect to Reimbursable Services, the Consultant shall utilize the method of procurement directed by the Commissioner. If so directed by the Commissioner, the Consultant shall conduct a competitive bid and/or proposal process for the specified Reimbursable Service. In general, such competitive process will be required if the cost of the specified Reimbursable Service exceeds \$5,000.

7.5.3 Form of Payment: With respect to Reimbursable Services, the Consultant shall utilize the form of payment directed by the Commissioner. Payment for Reimbursable Services shall be in accordance with one of the following methods: (a) lump sum; (b) unit price, or (c) actual cost, except as otherwise provided in Article 7.5.4 below.

7.5.4 Long Distance Travel: Payment for long distance travel, as set forth in Article 6.6.1, shall be in accordance with the normal travel allowances of the City of New York for its own employees as provided in Comptroller's "Directive #6, Travel, Meals, Lodging and Miscellaneous Agency Expenses."

7.5.5 Consultant's Mark Up: The Consultant shall be entitled to a mark-up of 5% for its overhead and profit with respect to Reimbursable Services; provided, however, the Consultant shall **NOT** be entitled to any mark-up with respect to (1) long distance travel, and (2) filing fees.

7.5.6 Payment: Payment for Reimbursable Services shall be as set forth below.

- (a) if the form of payment is lump sum, payment shall be based upon the percentage of completion of all required services.
- (b) if the form of payment is unit price, payment shall be based upon the number of completed units.
- (c) if the form of payment is actual cost, payment shall be based upon the actual and reasonable cost, as indicated by receipted bills or any other data required by the Commissioner.

7.5.7 Requests for payment for Reimbursable Services shall be accompanied by receipted bills or any other data required by the Commissioner.

7.6 Not Used

7.7 Requisitions for Payment

7.7.1 Requisitions for payment may be submitted as the work progresses, but not more often than once a month. Requisitions shall be in the authorized form and shall set forth the services performed by the Consultant and the total amount of partial payment requested. The total amount of partial payment requested shall be broken down into the following categories, depending on the services performed: (1) Payment for Design Services through a Design Fee; (2) Payment for Services Based upon Staffing Hours (Time Card); (3) Payment for Reimbursable Services. The Consultant shall submit one original and three (3) copies of each requisition for payment.

7.7.2 Requisitions for payment shall be accompanied by the documentation set forth below.

- (a) Project Progress Report: The Consultant shall submit a statement indicating the percentage of completion of all required services for the Project.
- (b) Payment for Design Services Through Design Fee:
  - (1) For payment requisitions for any portion of the Design Fee, the Consultant shall state that the Commissioner's written approval of the required deliverable(s) has been obtained, or the payment is otherwise authorized in accordance with Article 7.2.3 (b).
  - (2) Not Used
- (c) Payment for Services Based upon Staffing Hours (Time Card): For any given period for which the Consultant is requesting payment for services based upon staffing hours, the Consultant shall submit the documentation set forth below:
  - (1) name and title of the Assigned Employee, as defined in Article 7.3.2 (a).
  - (2) Commissioner approval of the Assigned Employee, either approved Staffing Plan or documentation approving the Assigned Employee as a replacement.
  - (3) All Inclusive Hourly Rate applicable to the Assigned Employee, as set forth in Article 7.3.2 (b) above.
  - (4) number of hours worked each day by the Assigned Employee for the week(s) in question during which the Assigned Employee actually performed services for the Project based upon staffing hours.
  - (5) detailed time sheets completed by the Assigned Employee for the week(s) in question. Such detailed time sheets shall reflect all hours of service by the Assigned Employee, including without limitation: (1) actual hours during which the employee performed services for this Project based upon staffing hours; (2) actual hours during which the employee performed services for this Project covered under the Design Fee; (3) actual hours during which the employee performed services for other projects; (4) non-billable hours, as defined above; (5) actual hours, if any, during which the Assigned Employee spent performing services for this Project, as set forth in Articles 6.9.1(a) and 6.9.3, for which the Consultant is not entitled to compensation, and (5) any hours set forth in Article 7.3.4 above.
- (d) Not Used
- (e) Payment for Reimbursable Services: For any given period for which the Consultant is requesting payment for Reimbursable Services, the Consultant shall submit:
  - (1) a description of the Reimbursable Service the Consultant was directed to provide.
  - (2) if the authorized form of payment is lump sum, a current report on the progress of the work, indicating the percentage of completion of all required services.
  - (3) if the authorized form of payment is unit price, a current report indicating the number of completed units.
  - (4) if the authorized form of payment is actual cost, receipted bills or any other data required by the Commissioner.

7.7.3 All payments hereunder are contingent upon the Consultant's satisfactory performance of the required services. The Commissioner is authorized to make deductions for any services performed which he/she determines to be unsatisfactory.

7.7.4 Following the receipt of a satisfactory requisition for payment, the Commissioner will approve a voucher in the amount certified for partial payment, less any and all deductions authorized to be made by the Commissioner under any terms of this Agreement or by law. This voucher will thereupon be filed with the Comptroller, with a copy thereof available to the Consultant if requested.

## 7.8 Prompt Payment

7.8.1 The prompt payment provisions of the PPB Rules in effect at the time of the solicitation for this Contract shall 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 PPB Rules.

7.8.2 The Consultant must submit a proper invoice to receive payment.

7.8.3 Determination of interest due shall be made in accordance with the PPB Rules and General Municipal Law 13-a.

7.8.4 If the Consultant is paid interest, the proportionate share of that interest shall be forwarded by the Consultant to its Subconsultant.

## 7.9 Final Payment

7.9.1 The last and final payment to the Consultant shall become due and payable upon written acceptance by the Commissioner of all required services hereunder and the submission by the Consultant of all required records and documentation in connection with the Project.

7.9.2 The acceptance by the Consultant, its successors 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, including final payment in the event of termination, shall constitute and operate as a general release to the City from any and all claims of and liability to the Consultant arising out of the performance of this Contract.

## ARTICLE 8 Time Provisions

8.1 Term of Contract: This Contract shall commence as of the date of the written advice of award and shall remain in effect until Final Acceptance of all required construction work for the Project and completion of all required services hereunder.

8.2 Time Frame for Design Services: The time frame for completion of all required Design Services shall be as set forth in Exhibit B. Such time frame shall commence as of the date of the written advice of award and shall not include any review time by agencies whose approval the Consultant is required to obtain.

8.3 Extension of Contract: Upon written application by the Consultant, the Agency Chief Contracting Officer may grant an extension of time for performance of the Contract. Said application must state, at a minimum, in detail, each cause for delay, the date the cause of the alleged delay occurred, and the total number of delay in days attributable to such cause. The ruling of the Agency Chief Contracting Officer shall be final and binding as to the allowance of an extension and the number of days allowed.

## ARTICLE 9 Ownership of Documents

9.1 Any and all material, records or documents prepared by or for the Consultant pursuant to this Contract, including, but not limited to, notes, designs, drawings, tracings, specifications, estimates, reports, schedules, charts, graphs, maps, and/or photographs, shall be the property of the City. During the term of this Contract and at any time within seven years thereafter, the Consultant shall, upon demand, promptly deliver such material, records or documents to the Commissioner, or make such records available to the Commissioner or his authorized representative for review and reproduction at such place as may be designated by the Commissioner. Thereafter, the City may utilize such material, records or documents in whole or in part or in modified form and in such manner or for such purposes or as many times as it may deem advisable without employment of or additional compensation to the Consultant.

9.2 Should such documents prepared under this Contract be re-used by the City for other than the Project originally created, it is understood that the Consultant bears no responsibility whatsoever for such re-use except in those instances where he is re-employed for re-use of the documents.

## ARTICLE 10 Patented and Proprietary Items

10.1 The Consultant shall not, without the prior written approval of the Commissioner, specify for the Project, or necessarily imply the required use of any article, product, material, fixture or form of construction, the use of which is covered by a patent, or which is otherwise exclusively controlled by a particular firm or group of firms.

10.2 The Consultant shall be liable to and hereby agrees to defend, indemnify and hold harmless the City against all claims against the City for infringement of any copyright or patent rights of systems, graphs, charts, designs, drawings or specifications furnished by the Consultant in the performance of this Contract.

#### ARTICLE 11 Insurance

11.1 Required Insurance: From the date the Consultant is first ordered to commence work and throughout the term of this Contract, the Consultant shall effect and maintain, and shall cause each Subconsultant to effect and maintain, the types and amounts of insurance set forth below. The Consultant shall include in all its contracts with Subconsultants a requirement that they effect and maintain the types and amounts of insurance set forth below.

11.1.1 Comprehensive General Liability Insurance: The Consultant shall provide a policy of comprehensive general liability insurance in the minimum amount of \$1,000,000 per occurrence (combined single limit for bodily injury and property damage), \$2,000,000 aggregate. Such policy shall be in the Consultant's name, shall name the City of New York as an additional insured thereunder. Such policy shall protect the Consultant and the City of New York from claims for property damage and/or bodily injury, including accidental death, which may arise from operations under this Contract, whether such operations are performed by the Consultant or anyone directly or indirectly employed by him/her. The coverage provided must be "occurrence" based; "claims made" coverage will not be accepted. The general liability insurance policy provided shall include the following endorsements:

- (a) The City of New York, together with its officials and employees, is an Additional Insured under this policy.
- (b) Notice under the Policy to the Additional Insured shall be addressed to the Commissioner of the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, N.Y. 11101.
- (c) Notice of Accident shall be given to the Company by the Insured within one hundred twenty (120) days after notice of such accident has been sent to the Commissioner of the Department of Design and Construction.
- (d) Notice of Claim shall be given to the Company within one hundred twenty (120) days after such notice shall be filed with the Comptroller of the City of New York.
- (e) Notice of Claim to the Company by the Insured of an accident or claim on the site shall constitute notice by the City to the Company.
- (f) Notice of Cancellation of Policy as set forth in Article 11.2.4 below.
- (g) The presence of representatives of the City at the Site shall not invalidate this policy.

11.1.2 Professional Liability Insurance: The Consultant shall provide Professional Liability Insurance covering as insured the Consultant in the minimum amount of \$1,000,000 per claim, \$3,000,000 aggregate. Subconsultants performing professional services shall also provide such coverage in the minimum amount of \$1,000,000 per claim, \$3,000,000 aggregate. The professional liability insurance policy(s) provided shall include the endorsement set forth in Article 11.2.4 below.

11.1.3 Worker's Compensation Insurance: The Consultant shall provide Worker's Compensation Insurance in accordance with the Laws of the State of New York on behalf of all employees providing services under this Contract.

11.1.4 Employers Liability Insurance: The Consultant shall provide Employers Liability Insurance in the minimum amount of \$1,000,000 per occurrence. Such policy shall provide compensation due to bodily injury by accident or disease sustained by any employee of the insured arising out of or in the course of his/her employment by the insured.

#### 11.2 General Requirements for Insurance Policies

11.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-7 or a Standard and Poor's rating of at least AA, unless prior written approval is obtained from the Mayor's Office of Operations.

11.2.2 All required Insurance policies shall be in a form acceptable to the City and shall contain no exclusions or endorsements which are not acceptable to the City.

11.2.3 The omission of any endorsements or clauses required by this Article will be considered cause for rejection of the policy.

11.2.4 All required policies shall be endorsed to provide as follows: "This policy shall not be canceled, terminated, modified or changed by the Insurance Company unless at least thirty (30) Days prior written notice is sent to the Named Insured by Certified Mail and also sent by Registered Mail to both the Commissioner and to Comptroller's Office, attn: Office of Contract Administration, Municipal Building, Room 835, New York, New York 10007."

11.2.5 The Consultant 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 of New York is an insured under the policy.

11.2.6 In his sole discretion, the Commissioner may, subject to the approval of the Comptroller and the Law Department, accept letters of credit and/or custodial accounts in lieu of required Insurance.

### 11.3 Proof of Insurance

11.3.1 On or before the commencement of work pursuant to this Contract, the Consultant shall submit, and shall cause each Subconsultant to submit, to the Commissioner two certificates of Insurance for all policies required under this contract, together with originals of all endorsements required hereunder.

11.3.2 Certificates confirming renewals of Insurance shall be submitted not less than thirty (30) days prior to the expiration date of coverage until all operations under this Contract have been completed.

11.3.3 The Consultant shall be responsible for providing continuous insurance coverage as required by this contract and shall be authorized to provide services hereunder only during the effective period of all required coverage.

11.3.4 The Consultant shall promptly notify the Commissioner of any accidents causing bodily injury or property damage arising in the course of operations under this Contract.

11.3.5 Pursuant to Sections 57 and 220 of the New York State Workers' Compensation Law, the Consultant has submitted proof of workers' compensation and disability benefits coverage to the Department.

## ARTICLE 12 Indemnification

12.1 If persons or property of the City, or of others sustain loss, damage or injury resulting, either directly or indirectly from the acts, conduct, omissions, negligence, carelessness or lack of good faith of the Consultant or its officers, agents, employees, or any person, firm, company, agent or others engaged by the Consultant hereunder, in their performance of this Agreement, or from his or their failure to comply with any of the provisions of this Contract or of law, the Consultant shall indemnify and hold the City harmless from any and all claims and judgments for damages and from costs and expenses to which the City may be subjected or which it may suffer or incur by reason thereof.

12.2 The Consultant shall indemnify and hold harmless the Commissioner and the City, each officer, agent and employee of the Commissioner and the City, against all claims against any of them for bodily injury or wrongful death or property damage arising out of the negligent performance of services, including professional services, or caused by any error, omission or negligent act of the Consultant or anyone employed by the Consultant, in the performance of

this Contract.

12.3 The provisions of this Article shall not be deemed to create any right of action in favor of third parties against the Consultant or the City.

12.4 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.

12.5 In the event that any City property is lost or damaged, except for normal wear and tear, then the City shall have the right to withhold further payments hereunder for the purpose of set off, in sufficient sums to cover such loss or damage.

#### ARTICLE 13 Consultant Independent Contractor

13.1 The relationship of the Consultant to the City shall be that of independent contractor, and the Consultant shall have no authority to bind the City in any way with third parties.

13.2 Nothing contained herein shall be deemed to give any third party any claim or right of action against the City or the Consultant beyond such as may otherwise exist without regard to this Contract.

#### ARTICLE 14 Suspension or Termination of Performance

14.1 Suspension of Performance: The Commissioner may at any time, and for any reason, direct the Consultant to stop work under this Contract for a period of time. Such direction shall be in writing and shall specify the period during which work shall be stopped. The Consultant shall resume work upon the date specified in such direction, or upon such other date as the Commissioner may thereafter specify in writing. The period during which work shall have been stopped shall be deemed added to the time for performance. Stoppage of work under this Article shall not give rise to any claim against the City.

14.2 Termination Without Cause: The Commissioner may at any time, and for any reason, terminate this contract by written notice to the Consultant specifying the termination date, which shall be not less than seven (7) days from the date such notice is given. In the event of such termination, the Consultant shall be paid such amount as shall compensate him for the portion of the work satisfactorily performed prior to the termination date. Such amount shall be fixed by the Commissioner, after consultation with the Consultant, and shall be subject to audit by the Comptroller. Termination under this Section shall not give rise to any claim against the Commissioner or the City for damages or for compensation in addition to that provided hereunder.

14.3 Termination for Cause: In the event that: (1) the Consultant shall not for any reason or through any cause, have completed performance within the time fixed for performance hereunder; or (2) Any representation or warranty made hereunder shall prove to be untrue in any material respect; or (3) grounds for cancellation of the contract shall arise; or (4) the Consultant shall otherwise be in default hereunder; or (5) the Commissioner shall give the Consultant written notice that in his opinion the conduct of the Consultant is such that the interests of the City are likely to be impaired or prejudiced, stating the facts upon which such opinion is based; then the Commissioner may, upon written notice to the Consultant, immediately terminate this contract for cause. Upon such termination, the Consultant shall be entitled to payment of such amount, to be determined by the Commissioner and subject to audit by the Comptroller, as shall fairly compensate him for the work satisfactorily performed to the termination date, provided, however, that (1) no allowance shall be included for termination expenses; and (2) the Commissioner shall deduct from such amount and from any amount due and payable to the Consultant to the termination date, but withheld or not paid, the total amount of additional expenses incurred by the City in order to satisfactorily complete the work required to be performed by the Consultant under this contract including the expense of engaging another architect or engineer for this purpose. If such additional expense shall exceed the amounts otherwise due and payable to the Consultant hereunder, the Consultant shall pay the City the full amount of such excess expense incurred by the City. No amount shall be paid to the Consultant under this Article until the work required to be performed under this contract has been satisfactorily completed by others.

#### ARTICLE 15 - Resolution of Disputes

1. Except as provided in 1(a) and 1(b) below, all disputes between the City and the vendor that arise under, or by virtue of, this contract shall be finally resolved in accordance with the provisions of this section and Section 4-09 of the Rules of the Procurement Policy Board (“PPB Rules”). This procedure shall be the exclusive means of resolving any such disputes.

- (a) 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.
- (b) 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 vendor’s work to the contract, and the acceptability and quality of the vendor’s work; such disputes arise when the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner makes a determination with which the vendor disagrees.

2. 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.

3. 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 vendor shall continue to perform work in accordance with the contract and as directed by the Agency Chief Contracting Officer (“ACCO”) or Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner. Failure of the vendor to continue the work as directed shall constitute a waiver by the vendor of any and all claims being presented pursuant to this section and a material breach of contract.

4. Presentation of Dispute to Agency Head.

- (a) Notice of Dispute and Agency Response. The vendor 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 written 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 vendor relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the vendor 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, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, 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 vendor to produce any requested material whose relevancy the vendor has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the vendor of its claim.
- (b) Agency Head Inquiry. The Agency Head shall examine the material and may, in his or her discretion, convene an informal conference with the vendor and the ACCO and, in the case of construction or construction-related services, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, 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 vendor with a contract related to the work of this contract and that vendor shall be bound by the decision of the Agency Head. Any vendor thus brought into the dispute resolution proceeding shall have the same rights and obligations under this section as the vendor initiating the dispute.

- (c) 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 vendor and ACCO and, in the case of construction or construction-related services, the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner, together with a statement concerning how the decision may be appealed.
  - (d) 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 vendor take such a petition, the City may seek, and the CDRB may render, a determination less favorable to the vendor and more favorable to the City than the decision of the Agency Head.
5. Presentation of Dispute to the Comptroller. Before any dispute may be brought by the vendor to the CDRB, the vendor must first present its claim to the Comptroller for his or her review, investigation, and possible adjustment.
- (a) Time, Form, and Content of Notice. Within thirty (30) days of receipt of a decision by the Agency Head, the vendor 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 vendor contends the dispute was wrongly decided by the Agency Head; (ii) a copy of the decision of the Agency Head, and (iii) a copy of all materials submitted by the vendor to the agency, including the Notice of Dispute. The vendor may not present to the Comptroller any material not presented to the Agency Head, except at the request of the Comptroller.
  - (b) 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.
  - (c) 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 vendor. Willful failure of the vendor to produce within fifteen (15) days any material requested by the Comptroller shall constitute a waiver by the vendor of its claim. The Comptroller may also schedule an informal conference to be attended by the supplier, agency representatives, and any other personnel desired by the Comptroller.
  - (d) 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 5(c) to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the vendor and the Comptroller, to a maximum of ninety (90) days from the Comptroller's receipt of all the materials. The vendor 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.
6. Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:
- (a) 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;

- (b) 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
- (c) 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 prequalified 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.

7. Petition to CDRB. In the event the claim has not been settled or adjusted by the Comptroller within the period provided in this section, the vendor, within thirty (30) days thereafter, may petition the CDRB to review the Agency Head determination.

- (a) Form and Content of Petition by Vendor. The vendor shall present its dispute to the CDRB in the form of a Petition, which shall include (i) a brief statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the vendor 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 vendor to the agency; (iv) a copy of the decision of the Comptroller, if any, and (v) copies of all correspondence with, and material submitted by the vendor to, the Comptroller's Office. The vendor shall concurrently submit four complete sets of the Petition: one to the Corporation Counsel (Attn: Commercial and Real Estate Litigation Division), and three to the CDRB at OATH's offices, with proof of service on the Corporation Counsel. In addition, the vendor 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.
- (b) Agency Response. Within thirty (30) days of receipt of the Petition by the Corporation Counsel, the agency shall respond to the statement of the vendor and make available to the CDRB all material it submitted to the Agency Head and Comptroller. Three complete copies of the agency response shall be submitted to the CDRB at OATH's offices and one to the vendor. 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.
- (c) Further Proceedings. The Board shall permit the vendor to present its case by submission of memoranda, briefs, and oral argument. The Board shall also permit the agency to present its case in response to the vendor by 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 vendor 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, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, 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.
- (d) CDRB Determination. Within forty-five (45) days of the conclusion of all 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.
- (e) Notification of CDRB Decision. The CDRB shall send a copy of its decision to the vendor, 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, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner. A decision in favor of the vendor 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.

- (f) Finality of CDRB 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 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 Section 4-09 of the PPB Rules.

8. 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.

#### ARTICLE 16 Consultant's Report Information

16.1 A copy of each report submitted by the Consultant to any City 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.

#### ARTICLE 17 Contract Changes

17.1 Changes may be made to this contract only as duly authorized by the Agency Chief Contracting Officer or his or her designee. Consultants deviating from the requirements of the Contract without a duly approved change order document, or written contract modification or amendment, do so at their own risk. All such changes, modifications and amendments will become a part of the original contract. Work so ordered must be performed by the Consultant.

17.2 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 work. Contract changes may include any contract revision deemed necessary by the Agency Chief Contracting Officer.

17.3 The Consultant may be entitled to a price adjustment for extra work performed pursuant to a written change order. If any part of the contract work is necessarily delayed by a change order, the Consultant may be entitled to an extension of time for performance.

17.4 Where the cost of the change order has been negotiated in the absence of established cost history, the costs are subject to verification.

17.5 All payments for change orders are subject to pre-audit by the Engineering Audit Officer and may be post-audited by the Comptroller. If the audits reveal that the Consultant's costs for the change order work were inaccurately stated during negotiations, the agency shall recoup the amount by which the costs were inaccurately stated by proportionately reducing the price of the change order. This remedy is not exclusive and in addition to all other rights and remedies of the City.

#### ARTICLE 18 Accounting Records

18.1 The Consultant shall maintain complete, detailed and accurate cost and accounting records, in accordance with sound accounting principles, of all expenditures made and all costs, liabilities and obligations incurred under this Contract. During the term of this Contract and at any time within seven years thereafter, the Consultant shall make such records available to the City or its authorized representatives for review and audit at such place or places as may be designated by the Commissioner. In the event the Commissioner authorizes the Consultant to retain the services of Subconsultants for which the Consultant will be entitled to reimbursement hereunder, the Consultant agrees to include in all its contracts with Subconsultants a requirement that they maintain complete, detailed and accurate cost and accounting records as to all their costs relating to the services and materials furnished by them under such contracts and that during the term of this Contract and at any time within seven years thereafter, if required by the Commissioner, they will make such records available to the City or its authorized representatives for review and audit at such places as may be designated by the Commissioner.

18.2 In the event all or any part of such records are not maintained by the Consultant or its Subconsultants, or made available to the City as provided, herein, any item not supported by reason of the insufficiency or unavailability of such records shall at the election of the Commissioner or the Comptroller, be disallowed and, if payment therefor has already been made, the Consultant, upon demand, shall refund to the City the amounts so disallowed. Payments to the Consultant or approval by the Commissioner of any application for payment submitted by the Consultant, shall in no way affect the Consultant's obligation hereunder or the right of the City to obtain a refund of any payment to the Consultant which is in excess of that to which it was lawfully entitled.

#### ARTICLE 19 Audit and Examination

19.1 This Contract and all payments hereunder shall be subject to audit and examination by the Engineering Audit Officer of DDC and post-audit by the Comptroller of the City in accordance with Law.

#### ARTICLE 20 Monies Withheld

20.1 When the Commissioner shall have reasonable grounds for believing that: (1) the Consultant will be unable to perform this contract fully and satisfactorily within the time fixed for performance; or (2) a meritorious claim exists or will exist against the Consultant or the City arising out of the negligence of the Consultant or the Consultant's breach of any provision of this contract; then the Commissioner or the Comptroller may withhold payment of any amount otherwise due and payable to the Consultant hereunder. Any amount so withheld may be retained by the City for such period as it may deem advisable to protect the City against any loss and may, after written notice to the Consultant, be applied in satisfaction of any claim herein described. This provision is intended solely for the benefit of the City, and no person shall have any right against the Commissioner or claim against the City by reason of the Commissioner's failure or refusal to withhold monies. No interest shall be payable by the City on any amounts withheld under this provision. This provision is not intended to limit or in any way prejudice any other right of the City.

#### ARTICLE 21 Assignments

21.1 The Consultant shall not assign, transfer, convey or otherwise dispose of this Contract, or his right to execute it, or his right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this contract, unless the previous written consent of the Commissioner shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

21.2 Such assignment, transfer, or conveyance shall not be valid until filed in the office of the Department of Design and Construction and of the Treasurer with the written consent of the Commissioner endorsed thereon or attached thereto.

21.3 Failure to obtain the previous written consent of the Commissioner to such an assignment, transfer or conveyance, shall justify, at the option of the Commissioner, the revocation and annulment of this Contract. The City shall thereupon be relieved and discharged from any further liability and obligation to the Consultant, his assignees or transferees, and the Consultant and his assignees shall forfeit and lose all monies theretofore earned under the Contract, except so much as may be required to pay the Consultant's employees; provided, however, that nothing herein

contained shall be construed to hinder, prevent or affect an assignment by the Consultant for the benefit of creditors made pursuant to the statutes of the State of New York.

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

21.5 This Contract may be assigned by the City to any corporation, agency or instrumentality having authority to accept such assignment.

#### ARTICLE 22 Consultant's Performance

22.1 The Consultant shall be liable to the City for all losses, expenses and damage caused by the failure of the Consultant properly to perform its obligations under this Agreement and the Consultant shall not be entitled to any compensation for services or reimbursement for costs or expenses with respect to any such obligations not properly performed by it hereunder.

#### ARTICLE 23 Claims - Limitation of Action

23.1 No action shall be maintained by the Consultant, his successors or assigns, against the City on any claim based upon or arising out of this Contract unless such action shall be commenced within six (6) months after the date of filing of the voucher for final payment hereunder in the office of the Comptroller, or within six (6) months of the termination or conclusion of this contract, or within six (6) months after the accrual of the cause of action, whichever is earliest.

#### ARTICLE 24 No Claim Against Officer, Agents or Employees

24.1 The Consultant agrees to not make any claim against any officer, agent or employee of the City for, or on account of, anything done or omitted to be done in connection with this Contract.

24.2 The Consultant shall require each Subconsultant to the Consultant to agree in his contract not to make any claim against the City, its officers, agents or employees, by reason of such contract, or any acts or omissions of the Consultant.

24.3 Nothing in this contract shall be construed to give any person other than the City and the Consultant any legal or equitable right, remedy or claim under this contract; but it shall be held to be for the sole and exclusive benefit of the City and the Consultant.

#### ARTICLE 25 Notices

25.1 Except as otherwise provided herein, any notice, approval, acceptance, request, bill, demand or statement hereunder from either party to the other shall be in writing and shall be deemed to have been given when either delivered personally or deposited in a U.S. mail box in a postage-prepaid envelope, addressed to the other party. Either party may at any time change such address by delivering or mailing, as aforesaid, to the other party a notice stating the change and the changed address.

#### ARTICLE 26 Investigations

26.1 The parties to this agreement 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.

26.1.1 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;

26.1.2 If any person refuses 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 a party in interest 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 within the City then;

26.1.3 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 no 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.

26.1.4 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 26.3 below without the City incurring any penalty or damages for delay or otherwise.

26.2 The penalties which may attach a final determination by the commissioner or agency head may include but shall not exceed:

26.2.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any 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

26.2.2 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 agreement, 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.

26.3 The Commissioner or agency head shall consider and address in reaching his or her determination and in assessing an appropriate penalty the factors in paragraphs 26.3.1 and 26.3.2 below. He or she may also consider, if relevant and appropriate, the criteria established in paragraphs 26.3.3 and 26.3.4 below in addition to any other information which may be relevant and appropriate;

26.3.1 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.

26.3.2 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.

26.3.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the City.

26.3.4 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 26.2 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 26.1.3 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.

#### 26.4 Definitions Used in this Article

- 26.4.1 The term "license" or "permit" as used herein shall be defined as a license, permit, franchise or concession not granted as a matter of right.
- 26.4.2 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.
- 26.4.3 The term "entity" as used herein shall be defined as any firm, partnership, corporation, association, or person that receives monies, benefits, licenses, leases, or permits from or through the City or otherwise transacts business with the City.
- 26.4.4 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.

26.5 In addition to and notwithstanding any other provision of this agreement the Commissioner or Agency Head may in his or her sole discretion terminate this agreement upon not less than three (3) days written notice in the event consultant 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 agreement by the consultant, or affecting the performance of this contract.

#### ARTICLE 27 Unlawful Provisions

27.1 If this contract contains any unlawful provisions, not an essential part of the contract and which appear not to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall upon the application of either party be stricken from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

#### ARTICLE 28 Modification

28.1 This Contract may be modified from time to time in a writing signed by both parties in order to carry out and complete more fully and perfectly the services agreed to be performed under this Contract; provided, however, in no event shall such modification exceed the cost limitation approved by the Office of Management and Budget.

#### ARTICLE 29 Errors

29.1 If this Contract contains any errors, inconsistencies, ambiguities or discrepancies, including typographical errors, the Consultant shall request a clarification of same by writing to the Commissioner whose decision shall be binding upon the parties.

#### ARTICLE 30 Representations, Warranties and Affirmations

30.1 Procurement of Agreement: The Consultant represents and warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage fee, contingent fee or any other compensation. The Consultant 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 Consultant makes such representations and warranties to induce the City to enter into this Agreement and the City relies upon such representations and warranties in the execution hereof.

30.1.1 For a breach or violation of such representations or warranties, the Commissioner shall have the right to annul this Agreement without liability, entitling the City to recover all monies paid hereunder and the Consultant 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 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 Agreement.

30.2 Conflict of Interest: The Consultant 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 Consultant represents and warrants that in the performance of this Agreement 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 the Agreement which affects his personal interest or the interest of any corporation, partnership or association in which he is, directly or indirectly, interested; nor shall any such person have any interest, direct or indirect, in this Agreement or in the proceeds thereof.

30.3 Fair Practices: The Consultant and each person signing on behalf of the Consultant represents and warrants and certifies, under penalty of perjury, that to the best of its knowledge and belief:

30.3.1 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 competition;

30.3.2 Unless otherwise required by law, the prices which have been quoted in this contract and on the proposal submitted by the Consultant have not been knowingly disclosed by the Consultant prior to the proposal opening, directly or indirectly, to any competitor; and

30.3.3 No attempt has been made or will be made by the Consultant to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

30.3.4 The fact that the Consultant (1) has published price lists, rates, or tariffs covering items being procured, (2) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (3) has sold the same items to other customers at the same prices being bid, does not, in itself, constitute a disclosure within the meaning of the above.

30.4 Affirmations: The Consultant affirms and declares that it 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 Consultant to receive public contracts.

#### ARTICLE 31 No Discrimination

31.1 As required by New York State Labor Law Section 220 (e), the parties hereto agree as follows:

31.1.1 That in the hiring of employees for performance of work under this contract or any subcontract hereunder neither the Consultant, subcontractor, nor any person acting on behalf of such Consultant or subcontractors shall by reason of race, creed, color or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates;

31.1.2 That neither the Consultant, subcontractor, or any person on his behalf 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 or national origin;

31.1.3 That there may be deducted from the amount payable to the Consultant 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; and

31.1.4 That this contract may be canceled or terminated by the City and all moneys 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.

31.1.5 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.

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

31.2.1 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.

31.2.2 It shall be unlawful for any person or any servant, agent, or employee of any person, described in subdivision 31.2.1 above, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color, or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

31.2.3 Disobedience of the foregoing provisions shall be deemed a violation of a material provision of this contract.

31.2.4 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.

#### ARTICLE 32 Equal Employment Opportunity

32.1 This contract is subject to the requirements of Executive Order No. 50 (1980) as revised ("E.O.50") and the Rules and Regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this contract, the Consultant agrees that:

32.1.1 The Consultant 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, sexual orientation or citizenship status 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;

32.1.2 When it subcontracts, the Consultant will not engage in any unlawful discrimination in the selection of subcontractors on the basis of the owners', partners' or shareholders' race, color, creed, national origin, sex, age, disability, marital status, sexual orientation or citizenship status;

32.1.3 The Consultant will state in all solicitations or advertisements for employees placed by or on behalf of the Consultant that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, age, disability, marital status, sexual orientation or citizenship, or that it is an equal employment opportunity employer;

32.1.4 The Consultant will send to each labor organization or representative or 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 thereunder; and

32.1.5 The Consultant will furnish all information and reports including an Employment Report before the award of the contract which are required by E. O. 50, the rules and regulations promulgated thereunder, and orders of the Director of the Office of Labor Services ("DLS"), and will permit access to its books, records and accounts by DLS for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

32.2 The Consultant understands that in the event of its noncompliance with the 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 DLS, the Director of DLS may direct the imposition by the Commissioner of any or all of the following sanctions:

- 32.2.1 disapproval of the Consultant;
- 32.2.2 suspension or termination of the contract;
- 32.2.3 declaring the Consultant in default; or
- 32.2.4 in lieu of any of the foregoing sanctions, Director may impose an employment program.

32.3 The Consultant agrees to include the provisions of the foregoing paragraphs in every subcontract or purchase order in excess of \$50,000.00 to which it becomes a party, unless exempted by E. O. 50 and the rules and regulations promulgated thereunder, so that such provisions will be binding upon each subcontractor or vendor. The Consultant will take such action with respect to any subcontract or purchase order as may be directed by the Director of DLS as a means of enforcing such provisions including sanctions for noncompliance.

32.4 The Consultant 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 thereunder with a subcontractor who is not in compliance with the requirements of E. O. 50 and the rules and regulations promulgated thereunder.

#### ARTICLE 33 All Prior Written or Oral Agreements Excluded

33.1 The written agreement 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 agreement shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

#### ARTICLE 34 Head Notes and Marginal Notations

34.1 Notations in the margins and headnotes are not part of the contract and are for reference purposes only. They in no way define, limit or describe scope or intent of the article or section of the Agreement nor in any way affect this Agreement.

#### ARTICLE 35 Dust Hazards

35.1 Should a harmful dust hazard be created in performing the work of this contract, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals of the State of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard, by the Consultant. Failure to comply with this provision after notice shall make this contract void.

#### ARTICLE 36 Participation in an International Boycott

36.1 The Consultant agrees that neither the Consultant nor any substantially-owned affiliated company has participated, 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 thereunder.

36.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the Consultant or a substantially-owned affiliated company thereof, participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the Comptroller may, at his option, render forfeit and void this contract.

36.3 The Consultant shall comply in all respect, with the provisions of Section 6-114 of the Administrative Code of the City of New York and the rules and regulations issued by the Comptroller thereunder.

#### ARTICLE 37 Effective and Binding

37.1 This contract shall neither be binding nor effective unless:

- 37.1.1 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
- 37.1.2 Certified by the Mayor (Mayor's Fiscal Committee created pursuant to Executive Order No. 43, dated October 14, 1975) that performance thereof will be in accordance with the City's financial plan; and
- 37.1.3 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.
- 37.1.4 It has been authorized by the Mayor, and the Comptroller shall have endorsed his 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 agreement.

37.2 The requirements 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.

ARTICLE 38 Choice of Law, Consent to Jurisdiction and Venue

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

38.2 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 Courts") 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 agreement and intent, the Consultant agrees:

38.2.1 If the City initiates any action against the Consultant in Federal Court or in New York State Court, service or process may be made on the Consultant, either in person, wherever such Consultant may be found, or by registered mail addressed to the Consultant at its address as set forth in this Contract, or to such other address as the Consultant may provide to the City in writing; and

38.2.2 With respect to any action between the City and the Consultant in New York State Court, the Consultant hereby expressly waives and relinquishes any rights it might otherwise have (1) to move to dismiss on grounds of forum non conveniens, (2) to remove to Federal Court; and (3) to move for a change of venue to a New York State Court outside New York County.

38.2.3 With respect to any action between the City and the Consultant in Federal Court located in New York City, the Consultant 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.

38.2.4 If the Consultant commences any action against the City in a court located other than in the City and State or New York, upon request of the City, the Consultant 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 Consultant shall consent to dismiss such action without prejudice and may thereafter reinstitute the action in a court of competent jurisdiction in New York City.

38.3 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.

ARTICLE 39 Waiver

39.1 Waiver by the City of a breach of any provision of this Contract shall not be deemed to be a waiver of any other subsequent breach and shall not be construed to be a modification of the terms of the Contract unless and until the same be agreed to in writing by the Commissioner.

ARTICLE 40 All Defenses Reserved

40.1 Each and every defense, right and remedy that the City has under this Contract is not exclusive and it is in addition to and concurrent with all other defenses, right and remedies which the City has under this Contract and which the City otherwise has, will have, or may have under law, equity, or otherwise.

ARTICLE 41 MacBride Principles Provisions

41.1 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 to promote freedom of work place opportunity.

41.2 Pursuant to Section 6-115.1, prospective contractors for contracts to provide goods or services involving an 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 operations in Northern Ireland 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.

41.3 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.

41.4 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.

41.5 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.

41.6 For purposes of this section, the following terms shall have the following meanings: "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work place opportunity which require employers doing business in Northern Ireland to:

- 41.6.1 increase the representation of individuals from under represented religious groups in the work force, including managerial, supervisory, administrative, clerical and technical jobs;
- 41.6.2 take steps to promote adequate security for the protection of employees from under represented religious groups both at the work place and while traveling to and from work;
- 41.6.3 ban provocative religious or political emblems from the work place;
- 41.6.4 publicly advertise all job openings and make special recruitment efforts to attract applicants from under represented religious groups;
- 41.6.5 establish layoff, recall and termination procedures which do not in practice favor a particular

- religious group;
- 41.6.6 abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;
- 41.6.7 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;
- 41.6.8 establish procedures to assess, identify and actively recruit employees from underrepresented religious groups with potential for further advancement; and
- 41.6.9 appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

41.7 The contractor agrees that the covenants and representations in Paragraph 41.5 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 this contract either itself or by engaging another contractor or contractors. In the case of a requirement 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 this 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.

#### ARTICLE 42 Vendex Questionnaires

42.1 Requirement: Pursuant to Administrative Code Section 6-116.2 and the PPB Rules, the Consultant may be obligated to complete and submit VENDEX Questionnaires. If required, Vendex Questionnaires must be completed and submitted before any award of contract may be made or before approval is given for a proposed subcontractor. Non-compliance with these submission requirements may result in the disqualification of the proposal or the Consultant, disapproval of a subcontractor, subsequent withdrawal of approval for the use of an approved subcontractor, or the cancellation of the contract after its award.

42.2 Submission: Vendex Questionnaires must be submitted directly to the Mayor's Office of Contract Services, ATTN: Vendex, 253 Broadway, 9<sup>th</sup> Floor, New York, New York 10007. In addition, the Consultant must submit a Confirmation of Vendex Compliance to the Department.

42.3 Obtaining Forms: Vendex Questionnaires, as well as detailed instructions, may be obtained at [www.nyc.gov/vendex](http://www.nyc.gov/vendex). The Consultant may also obtain Vendex forms and instructions by contacting the ACCO or the contact person for this contract.

#### ARTICLE 43 Ultra Low Sulfur Diesel Fuel

Ultra Low Sulfur Diesel Fuel: In accordance with the provision of Section 24-163.3 of the New York City Administrative Code, the Contractor specifically agrees as follows:

I. Definitions: For the purpose of this Article, the following definitions apply:

A. "Contractor" means any person or entity that enters into a Public Works Contract with a City agency, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

B. "Lower Manhattan" means the area of New York County consisting of the area to the south of and within Fourteenth Street.

C. "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

D. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

E. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

F. "Public Works Contract" means a contract with a City agency for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a City agency for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a City agency for any final work involved in the completion of any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

G. "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

## II. Ultra Low Sulfur Diesel Fuel

A. All Contractors shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this contract.

B. Notwithstanding the requirements of paragraph A, Contractors may use diesel fuel that has a sulfur content of no more than thirty parts per million to fulfill the requirements of this Part II, where the Commissioner of the New York City Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of City agencies and Contractors. Any determination made pursuant to this subdivision shall expire after six months unless renewed.

C. Contractors shall not be required to comply with this Part II where the agency letting this contract makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such Contractor in its fulfillment of the requirements of this contract, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million is available. Any finding made pursuant to this subdivision shall expire after sixty days, at which time the requirements of this Part II shall be in full force and effect unless the agency renews the finding in writing and such renewal is approved by the DEP Commissioner.

D. Contractors may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at [www.nyc.gov/dep](http://www.nyc.gov/dep) or by contacting the Department issuing this solicitation.

E. The requirements of this Part II do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

F. The requirements of this Part II do not apply to Public Works Contracts entered into or renewed prior to June 19, 2004.

### III. BEST AVAILABLE TECHNOLOGY

A. All Contractors shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this contract. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, Contractors shall comply with the regulations of the City Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The Contractor shall fully document all steps in the best available technology selection process and shall furnish such documentation to the Department or the DEP Commissioner upon request. The Contractor shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

B. No Contractor shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Part III within three years of having first utilized such technology for such vehicle.

C. This Part III shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty calendar days.

D. The Contractor shall not be required to comply with this Part III with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

1. Where the agency makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by those paragraphs is unavailable for such vehicle, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.
2. Where the DEP Commissioner has issued a written waiver based upon the Contractor having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, Contractor shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.
3. In determining which technology to use for the purposes of subsections (D)(1) and (D)(2) above, Contractor shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.
4. Contractors shall submit requests for a finding or a waiver pursuant to this subsection (D) in writing to the DEP Commissioner, with a copy to the ACCO of the Department issuing the solicitation. Any finding or waiver made or issued pursuant to subsections (D)(1) and (D)(2) above shall expire after one hundred eighty days, at which time the requirements of subsection A shall be in full force and effect unless the agency renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

E. The requirements of this Part III do not apply where they are precluded by federal or State funding requirements or where the contract is an emergency procurement.

IV. Section 24-163 of the Administrative Code. Contractors shall comply with Section 24-163 of the New York City Administrative Code related to the idling of the engines of motor vehicles while parking.

### V. COMPLIANCE

A. Contractor's compliance with these provisions may be independently monitored. If it is determined that the Contractor has failed to comply with any provision of this rider, any costs associated with any independent monitoring incurred by the City shall be reimbursed by the Contractor.

B. Any Contractor who violates any provision of this Article, except as provided in subsection (C) below, shall be liable for a civil penalty between the amounts of one thousand and ten thousand dollars, in addition to twice the amount of money saved by such Contractor for failure to comply with this Article.

C. No Contractor shall make a false claim with respect to the provisions of this Article to a City agency. Where a Contractor has been found to have done so, such Contractor shall be liable for a civil penalty of twenty thousand dollars, in addition to twice the amount of money saved by such Contractor in association with having made such false claim.

## VI. REPORTING

A. For all Public Works Contracts covered by this Article, the Contractor shall report to the Department the following information:

1. The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;
2. The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;
3. The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;
4. The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Part III, including a breakdown by vehicle model and the type of technology used for each such vehicle;
5. The locations where such Nonroad Vehicles were used; and
6. Where a determination is in effect pursuant to Part II.B or II.C, detailed information concerning the Contractor's efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million.

B. The Contractor shall submit the information required by Paragraph A at the completion of work under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover work performed the preceding fiscal year (July 1- June 30).

### ARTICLE 44 Ultra Low Sulfur Diesel Fuel – Coordinated Construction Act for Lower Manhattan

In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

I. DEFINITIONS: For purposes of this Article, the following definitions apply:

A. "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson river as it exists now or may be extended would intersect with the southerly line of West Houston street in the borough of Manhattan extended, thence easterly along the southerly side of West Houston street to the southerly side of Houston street, thence easterly along the southerly side of Houston street to the southerly side of East Houston street, thence northeasterly along the southerly side of East Houston street to the point where it would intersect with the United States pierhead line in the East river as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

B. "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the City of New York known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

C. "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 or section 7521 of title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

D. "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five horsepower or less and that are not used in any construction program or project.

E. "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.

## II. REQUIREMENTS

Contractors and subcontractors are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine horsepower (HP) rating of 50 HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in triplicate, the day and year first above written, one copy to remain with the Commissioner, one copy to be filed with the Comptroller of the City of New York and one copy to be delivered to the Consultant.

THE CITY OF NEW YORK

By: \_\_\_\_\_  
Commissioner

CONSULTANT:

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

EIN: \_\_\_\_\_

Approved as to Form and Certified  
as to Legal Authority

\_\_\_\_\_  
Acting Corporation Counsel

Date: \_\_\_\_\_

ACKNOWLEDGMENT BY CORPORATION

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came \_\_\_\_\_, who being by me duly sworn, did depose and say that he/she resides in the City of \_\_\_\_\_ that he is the \_\_\_\_\_ of \_\_\_\_\_, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like order.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT BY COMMISSIONER

State of \_\_\_\_\_ County of \_\_\_\_\_ ss:

On this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came \_\_\_\_\_, to me known and known to me to be the Deputy Commissioner of the Department of Design and Construction of the City of New York, the person described as such in and who as such executed the foregoing instrument and he acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

\_\_\_\_\_  
Notary Public or Commissioner of Deeds

**EXHIBIT A**

**CONTRACT INFORMATION AND AMENDMENTS**

**A. CONTRACT INFORMATION**

1. Maximum Amount of Contract: Not to Exceed \$ \_\_\_\_\_
2. Design Fee: \$ \_\_\_\_\_  
(The Design Fee is subject to reduction, as set forth in Article 7.)

3. Allowance for Services Based Upon Staffing Hours: Not to Exceed \$ 70,000

4. Allowance for Reimbursable Services: Not to Exceed \$ 115,000

5. Reallocation of Allowance Amounts: Notwithstanding the specific amounts allocated for allowances set forth above, the Commissioner may, by issuance of a No Cost Change Order to the Consultant, reallocate such specific allowance amounts.

6. Term of Contract: The Contract shall commence as of the date of the advice of award and shall remain in effect until Final Acceptance of all required Design Services hereunder. The time frame for completion of all required Design Services shall be the number of consecutive calendar days (CCDs) set forth below. Such time frame shall commence as of the date of the written advice of award and shall not include any review time by agencies whose approval the Consultant is required to obtain.

Time Frame for Completion of all Design Services 510 CCDs

**B. AMENDMENTS TO THE CONTRACT**

None.

**EXHIBIT B**  
**SPECIFIC REQUIREMENTS**

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**Exhibit B is set forth after Exhibit F**

**EXHIBIT C**

**KEY PERSONNEL**

Principal-in-Charge: \_\_\_\_\_  
Project Manager: \_\_\_\_\_  
Project Designer: \_\_\_\_\_  
Structural Engineer: \_\_\_\_\_  
Senior Lighting Designer: \_\_\_\_\_  
Electrical Engineer: \_\_\_\_\_

\*\*\*\*\*

**LIST OF SUBCONSULTANTS**

The Consultant shall retain qualified subconsultants as necessary in order to properly complete all project tasks. This requirement includes but is not limited to the following subconsultants: Expenses incurred by the Consultant in connection with furnishing the subconsultants listed above for the performance of required services hereunder are deemed included in the Design Fee.

Architectural Design Services: \_\_\_\_\_  
Structural Engineering Services: \_\_\_\_\_  
Lighting Design Services: \_\_\_\_\_  
Electrical Engineering Services: \_\_\_\_\_  
Cost Estimating Services: \_\_\_\_\_

**EXHIBIT D**

**PAYMENT SCHEDULE**

DDC and the Consultant have agreed upon the Payment Schedule set forth below. The Payment Schedule is a breakdown of the Design Fee set forth in Exhibit A. The Payment Schedule is subject to revision in the event the Design Fee is reduced, as set forth in Article 7 of the Contract.

<b>PHASE</b>	<b>MILESTONE</b>	<b>PAYMENT AS A PERCENT OF THE DESIGN FEE</b>	<b>AMOUNT OF PAYMENT</b>
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**EXHIBIT E**

**STAFFING REQUIREMENTS  
LIST OF TITLES AND ALL INCLUSIVE HOURLY RATES**

Application: The All Inclusive Hourly Rates set forth below apply only if the Consultant is directed in writing to provide Additional Professional Services. The All Inclusive Hourly Rates shall have no application to the Consultant's performance of Design Services, as set forth in the Specific Requirements. Payment for Design Services shall be through the Design Fee.

**ARCHITECTURAL DESIGN SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Project Designer	_____
Project Manager (Architecture)	_____
Senior Draftsperson/CAD	_____
Junior Draftsperson/CAD	_____

**STRUCTURAL ENGINEERING SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Structural Engineer	_____
Project Manager (Structural Engineering)	_____
Junior Structural Engineer	_____
Senior Structural Engineering Draftsperson/CAD	_____
Junior Structural Engineering Draftsperson/CAD	_____

**ELECTRICAL ENGINEERING SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Electrical Engineer	_____
Project Manager (Electrical Engineering)	_____
Junior Electrical Engineer	_____
Senior Electrical Engineering Draftsperson/CAD	_____
Junior Electrical Engineering Draftsperson/CAD	_____

**LIGHTING DESIGN SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Senior Lighting Designer	_____
Junior Lighting Designer	_____

**COST ESTIMATING SERVICES**

<b>TITLE</b>	<b>ALL INCLUSIVE HOURLY RATE</b>
Senior Estimator	_____
Junior Estimator	_____

Increases in All Inclusive Hourly Rates: The All Inclusive Hourly Rates specified in Exhibit E shall be subject to increases as set forth in Article 7.

## EXHIBIT F

### REQUIREMENTS PER TITLE

**MINIMUM REQUIREMENTS PER TITLE:** Any personnel provided by the Consultant and/or its Subconsultants must satisfy the Minimum Requirements Per Title set forth below.

#### ARCHITECTURAL DESIGN SERVICES

TITLE	MINIMUM REQUIREMENTS PER TITLE	
	Number of Years of Experience	Professional License or Certification
Project Designer	7	
Project Manager	7	
Senior Draftsperson/CAD	5	
Junior Draftsperson/CAD	1	
Other (if any)		
Other (if any)		

#### STRUCTURAL ENGINEERING SERVICES

TITLE	REQUIREMENTS PER TITLE	
	Number of Years of Experience	Professional License or Certification
Structural Engineer	7	Professional License
Project Manager (Structural Engineering)	7	
Junior Structural Engineer	3	
Senior Structural Engineering Draftsperson/CAD	5	
Junior Structural Engineering Draftsperson/CAD	1	

#### ELECTRICAL ENGINEERING SERVICES

TITLE	REQUIREMENTS PER TITLE	
	Number of Years of Experience	Professional License or Certification
Electrical Engineer	7	Professional License
Project Manager (Electrical Engineering)	7	
Junior Electrical Engineer	3	
Senior Electrical Engineering Draftsperson/CAD	5	
Junior Electrical Engineering Draftsperson/CAD	1	

**LIGHTING DESIGN SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Senior Lighting Designer	7	Industry Certified
Junior Lighting Designer	3	Industry Certified

**COST ESTIMATING SERVICES**

<b>TITLE</b>	<b>REQUIREMENTS PER TITLE</b>	
	<b>Number of Years of Experience</b>	<b>Professional License or Certification</b>
Senior Estimator	7	
Junior Estimator	3	

## EXHIBIT B

### SPECIFIC REQUIREMENTS

#### I. PROJECT INTENT

The streets of New York are home to over three hundred thousand streetlights. Essential components of the public realm, streetlights play a critical role in the security, economy, and aesthetic life of New York City. As important elements of the architecture of the street, they help define our civic identity, and their light has the power to shape and transform our perception of public space.

It is the intent of the New York City Department of Design and Construction to fully develop a new streetlight design that will be used to light streets, sidewalks, and parks within the city's five boroughs. The City of New York intends to use the new streetlight design and its variations in new and reconstructed areas of the city, by request in the city's Business Improvement Districts, and as a replacement for some of the existing Cobra Head standards. As such, the new design must work in a variety of locations under varying conditions, and be compatible with a uniquely diverse urban landscape. The project is identified as:

#### City Lights Streetlight Design, Fabrication, and Testing of Prototypes

The purpose of the Project is to have the Consultant provide all services necessary and required for the preparation and finalization of "production-ready" Design Documents that fully realize the Design Intent, as defined below. Pursuant to this Contract, the Consultant shall provide the following Design Services: (1) preparation of preliminary, final, and modified design documents that fully realize the Design Intent, (2) fabrication of working prototypes, including all necessary parts, and (3) performance of all testing necessary to ensure that the prototypes meet all design and performance criteria. It is the intent of these Specific Requirements to provide for the preparation of Preliminary Documents; Final Design Documents; Fabrication and Testing of Prototypes; Modifications after Testing; Final Modified Documents; and Additional Professional Services.

The Consultant shall make such recommendations and prepare such material as may become necessary to supplement the requirements therein stated to achieve the optimum design for these streetscape structures and further the objectives of these Specific Requirements.

#### II. SCOPE OF WORK

##### A. OBJECTIVE AND BACKGROUND

###### 1. THE CITY LIGHTS DESIGN COMPETITION

The New York City Department of Design and Construction, in partnership with the Department of Transportation, announced the City Lights Design Competition in January 2004. The goal of this two-stage, international design competition was to select a new streetlight design for the city in the twenty-first century.

The design challenge facing the competitors was to create an innovative, state-of-the-art design that responds to the unique diversity of the city's architecture and urban landscape, while meeting the technical performance standards for a New York City streetlight. An additional design challenge for the competitors was to create an imaginative, cost-effective, and enduring design with the capability, over time, to become the city's preeminent and most widely used streetlight. When full development of the winning design is finished, the city intends to add it to the Department of Transportation's Street Lighting Catalogue, continuing a tradition of innovative street lighting begun more than two centuries ago.

##### B. PROGRAM

###### 1. INTRODUCTION

The City Lights program encompasses three streetlight models: the Street Model, the Park/Pedestrian Model, and the Traffic Signal Model. Three types of luminaires are included: Luminaire Type I, the basic street lighting luminaire for the Street and Traffic Signal Models; Luminaire Type II, a pedestrian level luminaire mounted to the Street and Traffic Signal Models; and Luminaire Type III, for use on the Park/Pedestrian Model. The project also includes various configurations within each model as well as add-ons and connectors applicable to each model, and configuration. Based upon the Design Intent, the Consultant shall fully develop designs for all components and elements necessary to execute the project's complete Design Range, as described in Section II.D.1 and illustrated in Appendix I, Design Range Illustrations.

The program for the streetlight is based primarily on criteria derived from NYC's current street lighting standards. These standards respond to lighting and safety requirements, as well as to the size and geometry of the City's blocks and streets. The program includes a Design Range that reflects most of the street lighting models and configurations in use today, with the exception of bridge and highway lighting.

## 2. DESIGN CRITERIA

Beyond the vision for the streetlights outlined in Sections I and II.A., the following additional required design criteria shall be met:

### a. GENERAL CRITERIA

- Designs shall be developed with fidelity to the visual and functional criteria that define the winning entry from the City Lights Design Competition, or the "Design Intent" of this project, as described in the Design Intent, Section II.B.2.b, and as illustrated in Appendix II, Design Intent Renderings.
- Designs shall be complete, and incorporate all elements and components necessary for fully functional streetlight models and configurations, as illustrated and described in the full Design Range, Section II.D.1, and in Appendix I.
- Designs shall fit or be adaptable to the existing standard NYCDOT streetlight foundations, and be capable of being installed on the standard foundations and bolt circles. This applies to both new and replacement installations.
- Designs shall meet or exceed the structural criteria outlined in Section II.B.3
- Designs shall meet or exceed the illumination criteria outlined in Section II.B.3.
- Designs shall meet or exceed the sustainable design strategy outlined in Section II.B.4
- Designs shall accommodate all existing add-ons and connectors as illustrated and described in the Design Range, Section II.D.1, and Appendix I. The Consultant shall propose alternative designs for selected add-ons and connectors as indicated therein.
- Designs shall maintain the applicable minimum street and sidewalk clearances as established by the NYCDOT.
- All components and connectors used in the Consultant's designs shall be tamper-resistant.
- Designs shall mitigate the effects of lightning.

- Designs shall allow for the dissipation of heat produced by any component inside either the luminaire or the pole.
- If the Consultant's designs incorporate movable parts (for example, components that allow adjustment of the angle of a luminaire), the Consultant shall demonstrate that they are secure, tamper-resistant, and easy to operate.

b. DESIGN INTENT CRITERIA

In providing Design Services hereunder, the Consultant must adhere to the Design Intent, as set forth in this section and as visually presented in Appendix II. The Consultant shall not undertake any deviation from the Design Intent, unless such deviation has been authorized in advance in writing by DDC.

The following list describes in greater detail the defining characteristics of the Design Intent that must be present in the Consultant's design to the satisfaction of DDC.

- **Luminaires:** The Consultant's Preliminary Design must include the two following two types of Luminaires.
  - **Light-Emitting Diode:** The design shall provide for luminaires using Light-Emitting Diode technology (LED). The visual appearance of such luminaires is informed by the technical properties of the proposed LED lighting technology, in that the luminaires take the shape of a small, slim, oval shaped profile which houses interchangeable and multi-configurational LED modules in the form of "trays". Over time, as LEDs become more efficient, the LED trays can be swapped for other trays that may incorporate fewer LEDs or higher-wattage LEDs.
  - **High Pressure Sodium:** The design shall provide for luminaires using High Pressure Sodium technology. As illustrated in Appendix II, the visual appearance and interior components of the High Pressure Sodium Luminaire have been reconfigured from the typical "Cobra Head"-type configuration to more closely mimic the slender profile developed for the LED option.
- **Base:** The typical streetlight base has been reconsidered with ergonomics and efficiency of installation and wiring in mind. All parts of the base are high pressure cast aluminum with a paint finish. After installation of the base, the bolts and wiring are enclosed by an access door with a gentle sloping top surface for water run-off. The access door is set on the base and closed in a rotating movement. A gasket incorporated into the base creates a seal to further protect the wiring and electrical equipment. For public safety and to prevent vandalism, the door is locked into place by a hidden set of stainless steel tamper resistant bolts.
- **Pole:** The pole is a painted aluminum extrusion. In plan, the extrusion is composed of 8 slots carved out of the circumference of the pole. These slots function as "attachment rails" to allow for the installation of required add-ons, such as street name and traffic signs.
- **Add-on Mounting Mechanisms:** The Consultant's design must include the two following types of mounting mechanisms:
  1. **"Rotate and Lock into Place Option:"** This option attempts to allow a sign to be attached to the pole without any additional clips or bands. Street signs are equipped with a simple stainless steel anchor in the top left corner. The anchor is

inserted into either end of the pole. After being adjusted to the correct height, the sign is locked into place by rotating the anchor.

2. **“Clip with Eccentric Anchor:”** This option incorporates an aluminum clip extrusion, which is inserted into a slot and anchored by rotating an eccentric bolt. Various lengths and configurations for the clip are optional depending on the load requirements of the add-on.

c. MATERIALS AND FINISHES

The designs shall incorporate materials and finishes that meet the following criteria:

- Durable and easy to maintain
- Resistant to corrosive agents (atmospheric, weather-borne, salt, de-icing, animal, motor vehicle, etc.)
- Graffiti-resistant
- Designs shall avoid galvanic corrosion produced by metal-to-metal contact, including contact between the Consultant's designs and any existing add-on or connector.
- Only materials that can be fabricated, tested, and inspected per the ASTM International or other internationally recognized body should be incorporated into the Consultant's designs.
- All major supporting elements, including but not limited to shaft and base components, shall be composed of materials that are non-combustible. All finishes shall be non-flammable and shall not be readily ignited under common sources of heat at temperatures less than 600° F or in the presence of electrical sparks. The materials and finishes of major supporting elements shall constitute assemblies that can pass a standard fire test for at least fifteen minutes. The combination of materials and finishes shall not produce toxic combustion byproducts.

d. WIRING/ELECTRICAL CRITERIA

Designs shall consider ease of wiring operations and shall, at a minimum, include:

- One above ground access of adequate size to permit manipulation of wiring with two hands. This access shall be located at an ergonomically comfortable height above the sidewalk level to permit installation and maintenance of electrical connections and other components inside the pole. Access shall have a lockable, affixed panel or door, with tamper-resistant connections. For the Street and Traffic Signal Models, access shall be located on the side of the streetlight facing way from oncoming traffic.
- An opening at or near the top of all poles to allow for the “fishing” of electrical supply wires. This opening may be combined with a removable pole cap, if applicable.
- A minimum of 2" interior diameter continuous space in the main shaft, and 1" interior diameter continuous space in any device used to mount luminaires.

All electrical components must meet all electrical code requirements and be UL certified.

e. LUMINAIRE CRITERIA

Luminaire designs shall additionally incorporate the following criteria:

- All luminaires shall provide light that is adequate in level, distribution, and quality to meet or exceed the Technical Performance Criteria outlined in Section II.B.3.
- Luminaires and lamps may be mounted horizontally or vertically.
- Luminaire Types I and II shall include the optics for two different wattages for both LED and High Pressure Sodium lamps.
- The lamping and internal components of all luminaires shall be accessible and maintainable with a minimum of tools, e.g., a thumb-latched and hinged housing, a “press and pop-in” terminal board, etc.
- Luminaires shall be watertight and dustproof. The optical system shall be rated at minimum IP 66 as per International Electrotechnical Commission (IEC) Standards for Ingress Protection.
- All luminaires shall meet requirements for UL/CSA listing.
- Designs shall include all components and/or pole mounting devices needed to position luminaires so as to meet or exceed the Isolux Footprints given for each wattage and application (see Documents Provided, Section II.C.4)
- All luminaires shall produce light that:
  - Minimizes light pollution
  - Minimizes driver and pedestrian glare.
- Luminaire Type I shall include a photocell. The photocell may be located independently of, or "stacked" with, the location and receptacle for a fire alarm luminaire (see the Design Range, Section II.D.1, for information on the fire alarm luminaire add-on). The Consultant shall provide the location and receptacle for the existing photocell, or shall incorporate a photocell of its own design into this luminaire.
- Luminaire Type II shall be capable of incorporating a photocell for use in step street applications where it is used as the sole light source. (A step street is a pedestrian right-of-way that incorporates a stair because its grade is too steep for a typical roadway or sidewalk surface.) The Consultant shall design Luminaire Type II so that it can incorporate the existing photocell or a photocell of its own design.

3. TECHNICAL PERFORMANCE CRITERIA

a. STRUCTURAL CRITERIA

Minimum criteria applicable to all streetlight models and their components up to and including their foundation bolts are outlined below.

i. DESIGN REQUIREMENTS AND STANDARDS

All streetlight models shall meet the requirements of the American Association of State Highway and Transportation Officials' (AASHTO) "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals," latest edition, as specified, except as otherwise modified below:

- **Structural Analysis:** The theory of elastic structural analysis shall be used for determining the maximum load effects (axial, shear, bending, and torsion) for which the members shall be designed. Analysis and design of structural supports shall conform to generally accepted engineering practices. Methods of analysis that satisfy the requirements of equilibrium and compatibility of the structure and use the linear stress-strain relationship for the material may be used.
- **Deflection:** As applicable, the Consultant shall also consider deflection as per AASHTO's "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", latest edition.
- **Fatigue:** Fatigue shall be considered for the Traffic Signal Model's cantilevered mast-arm with a load bearing attachment, and for the overhead sign add-on to the Traffic Signal Model's pole.
- **Exposure to Temperature Variations:** All materials and finishes shall maintain their structural integrity and functional capacity when they reach temperatures ranging from -30 F to +150 F. Exposure to repeated daily and yearly temperature variations shall not substantially reduce performance over a fifty year service life.
- **Foundations:** The Consultant shall ensure that all designs will be adequately supported, with all applicable loads, by the appropriate standard NYCDOT concrete foundation and bolt circle. All existing and new foundations shall be considered placed in soil with up 1 ton (or 2 kips) per sq. ft. bearing capacity. There are locations without sidewalks in the City where the Street Model is placed. For new foundations, modifications to the standard NYCDOT concrete foundation may be necessary.
- **Service Life:** All poles and other supporting devices shall be designed for a fifty-year service life.

ii. LOAD CRITERIA

- **Dead Load (DL):** Dead load shall consist of the weight of all structural supports, signs, luminaires, traffic signals, and all other appurtenances permanently attached to and supported by the structure. The Consultant is to consider any combination of load imposed by its designs and the weight of all applicable add-ons designed by the Consultant or provided by others. For add-ons applicable to specific streetlight models, including their weights and locations, see the Design Range, Section II.D.1, and Appendix I.
- **Live Load (LL):** Live load need not be considered except for features specific to a Consultant's designs.
- **Ice Load (ICE):** The Consultant is to assume an ice load of 3 pounds per square foot. This load shall be applied around the surfaces of the structural supports, horizontal supports, luminaires, traffic signals and all other applicable add-ons, and shall be considered on one face of all sign panels.

- **Wind Load (W):** Wind load shall be the pressure of the wind acting horizontally from any direction on the supports, signs, luminaires, traffic signals, and other attachments and applicable add-ons (vertical supports for luminaires shall be calculated for wind loads from any direction). The Consultant is to assume a wind load with the basic wind speed (three second gust wind speeds) of 110 mph. Loads shall be calculated for a mean recurrence interval of fifty years. Applicable gust effect, drag and height coefficients shall be used. For calculating the exposure factor, the Consultant should consider the support located in open terrain with scattered obstructions.
- The effects of the wind load on a semi-rigidly attached traffic sign of 4'x5' area shall also be considered. The sign shall be assumed to be located in a pole-mounted position that produces the most stringent structural condition. For computational purposes, the value of a semi-rigid connection shall be assumed to transmit only 50% of the effects of the full wind pressure on the 4'x5' sign.
- The effects of the wind load on the overhead sign add-on shall also be considered.
- **Impact load (IMP):** All designs shall be non-breakaway and not yield, fracture, or separate near ground level upon impact of a load as defined as follows: the Consultant is to assume a vehicular impact load of 10,000 pounds applied horizontally in any direction, at a height of 1'-6" above sidewalk level.
- **Load Combinations:** The loads described above shall be combined in calculations as stipulated as follows:
  - Each part of the structure shall be proportioned for the combination producing the maximum effect, using allowable stresses as indicted below:
 

DL:	Percent of allowable stress = 100%
DL+W:	Percent of allowable stress = 133%
DL+ICE*+1/2(W):	Percent of allowable stress = 133%
DL+1/2(IMP)+1/2(W):	Percent of allowable stress= 133%
DL+IMP+1/2(W):	Percent of allowable stress = 133%

b. LIGHTING CRITERIA

Minimum criteria applicable to all luminaires and their lamping assemblies, and additional criteria for each specific luminaire, are outlined below.

i. ALL LUMINAIRES

- Operable with 110/120-volt, 60-hz electrical service.
- Produce light with a Color Rendering Index (CRI) of 24 or better.
- If designs incorporate a ballast, the ballast shall start and operate at temperatures of minus 20° F.
- Produce an even distribution of light. Isolux Footprints shall exhibit uniform foot-candle fall-off readings from directly beneath the luminaire outward to the footprint perimeter.

ii. LUMINAIRE TYPE I

Luminaire Type I is the basic street lighting luminaire for the Street and Traffic Signal Models and shall meet the following criteria:

- Shall use both LED and High Pressure Sodium lamps in its optical designs.
- Shall accommodate two different wattages for each type of lamp used, one higher and one lower, and include optical designs for both wattages. Each wattage shall be capable of meeting or exceeding the Isolux Footprints for Long and Short Arm applications (These footprints are based on the city's current use of 250-watt and 150-watt High Pressure Sodium lamps with a Cobra Head luminaire.)
- Shall produce an even distribution of light with a maximum Uniformity Ratio of 4:1 (average to minimum). When Isolux Footprints overlap, the illumination shall not fall below 1 - 2 footcandles when used on 42'-wide streets and spaced 125' diagonally on-center from one another, excepting:
  - 0.8 - 1 footcandles in specific - and limited - low-density residential areas.
- Lamps shall achieve a minimum of 24,000 burning hours.
- Minimum initial lamp output of 27,500 lumens for the 250-watt equivalent version, and 16,000 lumens for the 150-watt equivalent version.
- Minimum 75.9% efficiency for the 250-watt equivalent version, and minimum 72% efficiency for the 150-watt equivalent version.
- Maximum upward light (or "sky pollution") of: 2.34% or less above the 90° horizon of the luminaire for the 250-watt equivalent version, and 2.5% or less above the 90° horizon of the luminaire for the 150-watt equivalent version.

iii. **LUMINAIRE TYPE II**

Luminaire Type II is the pedestrian level luminaire mounted to the Street and Traffic Signal Models and shall meet the following criteria:

- Shall use both LED and High Pressure Sodium lamps in its optical designs.
- Shall accommodate two different wattages for each type of lamp used and include optical designs for both wattages. Each wattage shall be capable of producing Isolux Footprints that are comparable to Isolux Footprints that are based on the city's current use of 150-watt and 100-watt High Pressure Sodium lamps with a Cobra Head luminaire.
- Lamps shall achieve a minimum of 24,000 burning hours.
- Minimum initial lamp output comparable to 16,000 lumens for the 150-watt equivalent version, and 9,600 lumens for the 100-watt equivalent version.
- 72% or comparable efficiency for both the 150-watt and 100-watt equivalent versions.
- Upward light (or "sky pollution") comparable to 2.5% or less above the 90° horizon of the luminaire for both the 150-watt and the 100-watt equivalent versions.

#### iv. LUMINAIRE TYPE III

Luminaire Type III is the basic luminaire for the Park/Pedestrian Model and shall meet the following criteria:

- May use any type of lamp in its optical design(s) to achieve photometrics that meet or exceed the criteria below.
- Shall accommodate two different wattages and include optical designs for both wattages. Each wattage shall be capable of producing Isolux Footprints that are comparable to Isolux Footprints that are based on the city's current use of 150-watt and 100-watt High Pressure Sodium lamps with a Type 2085 Luminaire.
- When Isolux Footprints overlap, the illumination shall not fall below 0.6 foot-candles in park locations where poles are spaced 80' on-center from one another.
- Lamps shall achieve a minimum of 24,000 burning hours.
- Minimum initial lamp output comparable to 16,000 lumens for the 150-watt equivalent version, and 9,600 lumens for the 100-watt equivalent version.
- 45% or comparable efficiency for both the 150-watt and 100-watt equivalent versions.

#### 4. SUSTAINABLE DESIGN STRATEGY

The purpose of the City Lights Streetlight Project's Sustainable Design Strategy is to introduce design requirements that complete the high level of general design requirements elaborated in the project goals and program, in addition to meeting general requirements for safety, security, and cost-effectiveness. Sustainability shall be included as one of the controlling design parameters.

These general goals for sustainability will be addressed in three areas of intervention: Light, Energy, and Materials.

- a. **Light** - Minimize glare, obtrusive light and artificial sky glow by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
  - The designs shall minimize emissions of luminous flux above the horizontal plane to the fullest extent possible while yielding light levels that meet or exceed the city's technical performance standards.
  - The designs shall limit light trespass, defined as unwanted light from an adjacent source, while meeting the city's photometric requirements. (Spill and glare are effects of light trespass.)
- b. **Energy** - Conserve energy to the greatest extent possible.
  - The Consultant is required to employ lamps that have an optimal environmental, energy, and economic performance in terms of these basic lamp performance principles:
    - Lumens/Watt
    - Rated Lamp Life

- Lamp Lumen Depreciation (LLD)
- Luminaire Dirt Depreciation (LDD)
- In designs that incorporate lamp/ballast combinations, electronic ballasting shall be used to achieve better efficiency and lamp performance.
- c. **Materials, Fabrication, and Transport** – Minimize transport distance of all materials, processes, fabrication techniques and methods of transport employed.
  - Reduce vehicular emissions by minimizing radius of origins for all materials and locations of material processors and fabricators from New York City. Minimize vehicular miles involved in material transport.
  - Employ materials of construction with minimal embodied energy (energy expended in the manufacture and distribution of a product).
  - Greenhouse gases and other toxic and polluting emissions should be eliminated or minimized during processing for all materials employed, fabrication of parts, and operations of luminaires and lamping assemblies.
  - Whenever possible, give priority to materials with maximum potential for reuse and/or recycling.
  - Volatile Organic Compound (VOC) emissions for architectural or other coatings shall be minimized. Lower toxicity materials shall be used whenever possible.

## 5. COST FACTORS

Overall cost-effectiveness will be a factor in determining feasibility. The Consultant shall balance the following factors in overall, cost-effective designs, and develop cost estimates for all new designs (including add-ons and connectors) that reflect these factors:

### a. FABRICATION COST

The city currently spends between \$1500 and \$9500 to fabricate a streetlight with a single luminaire. Although the volume of streetlights produced will greatly affect fabrication costs over time, the Consultant shall strive to design a streetlight that is practical to fabricate and can be produced by more than one fabricator.

- Ideally, cost of fabrication would fall in the bottom half of the current spending range, and be further offset by increased volume over time.
- Higher fabrication costs may be considered if reduced installation, maintenance, and energy costs can be demonstrated.

### b. INSTALLATION COST

The city currently installs approximately 4400 new streetlights per year, including approximately 1850 replacement streetlights. Ease of installation and wiring is important, and the Consultant shall avoid designs that require specialized skills or equipment in their installation.

**Note:** The installation of a streetlight currently requires a boom truck; with a 3-person crew, it takes approximately 30 minutes to install a streetlight (Street Model) on an existing foundation with a precast cap.

c. MAINTENANCE COST

The city currently spends approximately \$34 million dollars annually on streetlight maintenance, including approximately \$20 per streetlight for luminaire maintenance. The Consultant shall use durable materials, finishes, and details in their designs.

d. ENERGY COST

While maintaining safe and secure lighting levels, the Consultant is required to consider energy-efficient lighting technologies that balance light quality with operating cost, and lower peak demand as well as reduce energy use.

**C. APPROACH**

1. SUBCONSULTANTS

The Consultant shall retain qualified subconsultants as necessary in order to properly complete all project tasks. This requirement includes but is not limited to the following subconsultants:

- Architectural Design Services
- Structural Engineering Services
- Lighting Design Services
- Electrical Engineering Services
- Cost Estimating Services

Expenses incurred by the Consultant in connection with furnishing the subconsultants listed above for the performance of required services hereunder are deemed included in the Design Fee.

2. REGULATORY APPROVALS

In order to be added to the NYCDOT Street Lighting Catalogue, the Consultant's designs must be approved by the following regulatory entities:

- The New York City Art Commission
- The New York City Department of Transportation

3. REGULATORY AND INDUSTRY STANDARDS

Work shall meet all applicable regulatory and industry standards, including but not limited to the following:

- NYCDOT Street lighting Standards
- Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (latest edition)
- Standards from the American Association of State Highways and Transportation Officials (AASHTO)
- Standards from the Illuminating Engineering Society of North America (IESNA)
- Standards from the American Society for Testing and Materials International (ASTM International)
- New York City Building Code (latest edition)
- New York City Electrical Code (latest edition)
- National Electrical Code (NEC) (latest edition)

4. DOCUMENTS PROVIDED

The following documents can be accessed at the City Lights Design Competition Competitor Materials webpage: <http://www.nyc.gov/html/ddc/html/citylights/compete.html>

- NYCDOT Street Lighting Catalogue
- Information on Existing NYCDOT Standards
  - Cobra Head Standards
  - Traffic Signal Model
  - Add-ons and Connectors
  - Isolux Footprints for Existing Luminaires
  - NYCDOT Drawing Standards

The following documents will be provided to the Consultant upon commencement of work:

- Stage II Jury Comments (from the City Lights Design Competition)
- Stage II Technical Review Comments (from the City Lights Design Competition)
- Required Street and Sidewalk Clearance Illustration
- Existing Foundation Illustrations for all three required Streetlight Models

## **D. PRELIMINARY AND FINAL SCOPE OF WORK**

### **1. DESIGN RANGE**

The Consultant is to prepare complete design documents for the full Design Range described below. The Consultant shall include in its work all elements, components, options and alternatives necessary to develop its designs for both replacement installations (where the streetlight models will be placed on existing foundations) and new installations (where new foundations will be poured). (For new installations the distance between streetlights may vary from the standard center-to-center spacing; all design variations resulting from the variable spacing of streetlights shall be included in the Consultant's work.)

#### **a. MODELS AND CONFIGURATIONS**

The Project's Design Range includes the following three Streetlight Models (See Appendix I for illustrations):

##### **i. THE STREET MODEL**

Used to illuminate streets and sidewalks, the Street Model is typically located on sidewalks adjacent to streets, and placed mid-block or at intersections not requiring mast-mounted traffic signals. The Street Model has several configurations that allow for a variety of applications.

There are four basic types of the Street Model, including single and twin luminaires (Luminaire Type I) for both Long Arm and Short Arm Applications. When twin luminaires are used, they are positioned at either 180° or 90° to each other. At 90°, the streetlight is used at a corner to illuminate intersecting streets and sidewalks. At 180°, the streetlight is typically located on a traffic median (or mall) and placed perpendicular to the adjacent streets and boulevards; it can also be located on sidewalks and placed parallel to a street to provide lighting for the surrounding area or to allow for specialized street activities. Only one pole height is required for this model.

The Street Model also includes luminaires mounted onto existing, wooden utility poles. This occurs in the outlying areas of Queens, Brooklyn, Staten Island, and the Bronx, where utility lines are often located above ground. Existing utility poles are

typically made of pre-treated, Southern Yellow Pine. Their total height is approximately 35 feet, of which six feet is underground. Their diameter varies from 10 to 12 inches.

A pedestrian level luminaire (Luminaire Type II) is a typical add-on (see Section II.D.1.b below) for all configurations in the Street Model. For all of the applicable add-ons for the Street Model, refer to Appendix I.

ii. THE PARK/PEDESTRIAN MODEL

The Park/Pedestrian Model is used to light walkways and paths within parks or along park edges, and to supplement street lighting in certain locations. It consists of a single luminaire (Luminaire Type III) mounted on a pole. Traffic signs, pedestrian signals, and traffic signals are sometimes attached to this Model's pole.

iii. THE TRAFFIC SIGNAL MODEL

The Traffic Signal Model is used at intersections that require mast-mounted traffic signals. It consists of a pole and mast-arm. When a luminaire is required, an extension shaft (see Configuration III-B in the Design Range Illustrations, Appendix I) is added for the mounting of single and twin luminaires (Luminaire Type I) for Long Arm and Short Arm Applications. When twin luminaires are used, they are typically positioned at 90 degrees to each other.

The Consultant shall design a new extension shaft for the existing pole and mast-arm. This extension shaft shall accommodate all luminaire configurations as illustrated in the Design Range Illustrations (see Appendix I). If appropriate to their overall design aesthetic, the Consultant may modify the existing pole by adding or 'clamping' on elements of its own design.

The Consultant shall also design a new pole and mast-arm that could be used in all of the illustrated configurations. Mast-arms shall be capable of being mounted in any direction in order to adjust to street geometry; when two mast-arms are mounted to a single pole, the angle between them shall be capable of adjustments as dictated by the geometry of the intersecting streets. The existing mast-arm signal connector shall be used or accommodated in the Consultant's design. The height of the mast-mounted traffic signal is fixed at 15'-3" from the bottom of the streetlight's base to the bottom of the signal.

The Traffic Signal Model also includes poles with top-mounted traffic signals (see Configuration III-E in the Design Range Illustrations). The Consultant shall provide this pole in 10-foot and 14-foot heights (measured from the top of a pole to the bottom of its base), or provide a single pole that can accommodate both fixed heights.

The Consultant may combine Configuration III-E of the Traffic Signal Model with the Park/Pedestrian Model providing their designs incorporate bases that fit, or can be adapted to fit, each model's standard foundation and bolt circle.

For all applicable add-ons to the Traffic Signal Model, see Appendix I.

**Note:** Whenever twin luminaires are mounted at 90 degrees to each other, one luminaire may be for a Long Arm Application while the other may be for a Short Arm Application. (Other options for twin luminaires at 90 degrees include two Long Arm Applications and two Short Arm Applications.)

b. ADD-ONS

Add-ons typically consist of pole and luminaire-mounted appurtenances that are used to regulate the flow of vehicular and pedestrian traffic. Illustrations of the applicable add-ons for each streetlight model can be found in Appendix I. The Consultant's designs shall accommodate all applicable add-ons whether provided by others or designed by the Consultant.

- The Consultant shall provide a design for the following add-ons:
  - **Pedestrian Level Luminaire (Luminaire Type II):** This luminaire is typically mounted on the Street and Traffic Signal Models to provide additional lighting at the pedestrian level. A design for this luminaire and its mounting is required. For design criteria for this luminaire, see Section II.B.3.
  - **Fire Alarm Luminaire:** This luminaire, applicable to both the Street and Traffic Signal Models, is used to identify the location of a nearby fire alarm box. It may be vertically stacked below a photocell (sharing a single receptacle), or located independently of the photocell. In the past, fire alarm luminaires were located either at the top of poles or on pole-mounted arms. The current fire alarm luminaire is located on top of Luminaire Type I. Its advantages over previous models include the elimination of the arm, a low-maintenance LED bulb, and a non-breakable globe.

The Consultant shall both accommodate the existing fire alarm luminaire and prepare a new design, based on the visual appearance of the fire alarm luminaire rendered in Appendix II. The NYC Fire Department (FDNY) must approve all new designs. A fire alarm luminaire must be located within a pedestrian's line of sight. It shall be clearly visible during the day as well at night. Its lens is amber or red in color. Luminaires located in close proximity to fire alarm boxes and luminaire designs that incorporate graphics that explain the fire alarm luminaire's function will be considered. All fire alarm luminaires must be vandal-proof and low-maintenance. The weight of the fire alarm luminaire is negligible.

- **Pedestrian Push Button:** Pedestrian push buttons are mounted on the Street and Traffic Signal Models. Pedestrians employ these buttons to regulate the traffic and pedestrian signals at pedestrian crossings. A small sign mounted above the button explains their use. (Pedestrian push button signs are provided by others. The Consultant may consider new signage if integral to a new push button design.) The Consultant shall both accommodate the existing button and prepare a new design.
- The following add-ons are currently provided by others and are not to be designed by the Consultant
  - **Fire Alarm Pull Box:** These boxes, provided by the NYC Fire Department, contain pull alarms for use in case of fire or other emergency. Although typically located adjacent to a streetlight, it is not uncommon for these alarm boxes to be mounted directly onto a streetlight's pole. They are screwed to the pole via a vertical, steel strap on the back of the box, and further secured with stainless steel bands that wrap around the pole. Fire alarm pull boxes are typically 17" high x 9- 1/2" wide x 8-1/2" deep, and weigh approximately 40 pounds. They are typically mounted approximately 56" from the top of the sidewalk to the bottom of the pull box.
  - **Pedestrian Signals:** These signals carry the 'Walk/Don't Walk' messages for pedestrians at intersections and street crossings. Two pedestrian signals set at right angles are typically mounted to a pole. They are connected via a hub assembly that is screwed into the pole and additionally secured with stainless steel bands that wrap

around the pole (see Design Range Illustrations, Appendix I). A single pedestrian signal measures approximately 17-1/2" high x 17-1/2" wide x 8" deep. Two signals set at right angles weigh approximately 56 pounds, including their mounting arms. Pedestrian signals are typically mounted approximately 8 feet from the top of the sidewalk to the bottom of the signal.

- **Traffic Signals:** Traffic signals on the Street Model are pole-mounted and used at intersections. Two, set at 90 degrees to one another, are usually mounted to a single pole. They are connected via a hub assembly that is screwed into the pole and additionally secured with stainless steel bands that wrap around the pole. A single, three-light traffic signal with 12" diameter lights is approximately 42" high x 14" wide x 16" deep (from the back of the housing to the front of the light visors). Two traffic signals, set at right angles to one another, weigh 112 pounds, including their mounting arms. Traffic signals are mounted at various heights but are a minimum of 10 feet from the top of the sidewalk to the bottom of the signal.

Traffic signals on the Traffic Signal Model are hung from the mast-arm and can have up to 4 signal faces in a cluster. A four-faced cluster weighs 190 pounds, including its mast-arm connector. The bottom of the signal is approximately 16 feet from the top of the street. Two three-light signals set at right angles to one another may also be mounted to this model's pole; with 12" diameter lights, they weigh 112 pounds, including their mounting arms. These pole-mounted traffic signals are mounted at various heights but are a minimum of 10 feet from the top of the sidewalk to the bottom of the signal.

- **Control Boxes:** These boxes contain the circuitry and equipment that regulate traffic and pedestrian signals; they are pole-mounted at street corners and intersections. Boxes may vary in size but new boxes are typically 22" wide x 36" high x 17-1/2" deep; a single control box weighs approximately 175 pounds. Typical mounting is approximately 38" from the top of the sidewalk to the bottom of the box.

On the Traffic Signal Model, it is not uncommon for two control boxes to be mounted on the same pole. The second, auxiliary control box is approximately 16-1/2" wide x 23-1/2" high x 16" deep, and weighs approximately 66 pounds. It is typically mounted directly above the regular control box, approximately 75" from the top of the sidewalk to the bottom of the box.

Control boxes are attached to a streetlight's pole by large galvanized steel straps that wrap around the pole and are bolted into each side of the back of the box.

- **Traffic Signs:** The City of New York has numerous traffic signs of varying sizes and shapes. Signs are typically made from .80 ga. (or .08") aluminum, weighing 1.315 lbs./sf. The maximum size of a sign is 4' x 5', and up to 20 sq. ft. of signage, weighing approximately 24 pounds, may be mounted on a single pole. Smaller signs are screwed or bolted onto two or more stainless steel brackets and the assembly is then secured to the pole with stainless steel bands. Larger, single-sided signs are bolted onto light or heavy-duty channels called sliders. Strapping buckles are slid into these sliders; stainless steel bands are inserted through the strapping buckles and used to secure the signs to a pole. Although their locations vary, traffic signs are typically mounted a minimum of 7 feet from the top of the sidewalk to the bottom of the sign.
- **Street Signs:** These signs typically identify the names of adjacent streets but can also indicate specially named or commemorative street or plaza names. There are usually two street signs on a single pole. They are typically set at right angles to one another, with one mounted higher than the other for purposes of visibility. The typical street sign is 9" high, and will vary in length between 24" and 42", depending upon the

length of the street name. Street signs are made of extruded aluminum with raised edges top and bottom. They are mounted into pre-drilled, aluminum street sign brackets. Stainless steel bands are inserted through the street sign brackets and used to secure the signs to a pole. Street signs are typically mounted a minimum of 7 feet from the top of the sidewalk to the bottom of the lowest sign.

- **Oversized Street Signs:** These signs are hung from the mast-arm of the Traffic Signal Model at busy intersections in order to more clearly identify cross streets. The typical oversized street sign is 16" high, and may be as long as 96", depending upon the length of the street name. These signs are typically made from .80 ga. (or .08") aluminum, weighing 1.315 lbs./sf. Oversized street signs are mounted into a swiveling, offset sign bracket that may be mounted at any location along the mast-arm.
- **Overhead Signs:** Overhead signs are mounted to the Traffic Signal Model's pole. Typically used mid-block, these signs provide traffic information such as "best route for trucks," and identify through streets along these 'best routes'. They may be single or double-faced. They range from 8' to 12' in length, and may be as high as 4'.

The mounting apparatus for this sign is similar to the Traffic Signal Model's mast-arm, with the main difference being that its arm is straight, rather than curved, and has a 1" x 1/4" steel bar welded continuously along its underside. A piano hinge bolted directly into the top of the sign is bolted into this bar, providing the connection. A steel tie rod provides additional support back to the pole's top.

Traffic signal mast-arms are not mounted to poles with overhead signs, nor are traffic signals hung from an overhead sign's arm. However, Luminaire Type I may be mounted to the pole's top with an extension shaft. (**Note:** The overhead sign add-on is not illustrated in Appendix I).

- **Wireless and/or Other Communication Devices:** New York City is adding a new wireless and/or other communication device to streetlights. The Consultant shall accommodate this new add-on into its designs.
- **Banners:** Accommodations for banners are not part of the Consultant's Design Range. Banners may be permitted by the Department of Transportation and attached per DOT specifications.
- **Advertisements:** It is illegal to post or place advertisements on streetlights.

#### c. CONNECTORS

Connectors refer to the devices used to attach or secure add-ons to a streetlight. The Consultant's designs shall accommodate all existing connectors currently used by NYC to attach or mount all existing add-ons. Additionally, the Consultant may propose new connectors or a system of connectors.

The City of New York currently uses the following standard types of connectors:

- **Stainless Steel Bands:** Stainless steel bands are used to attach or provide additional support for pole-mounted pedestrian signals, traffic signals, traffic signs, and street signs. The bands wrap around a pole and are secured in place with a 'crimping buckle'. Bands are approximately 3/4" high, and are available in two gauges of steel - the weight of the sign or add-on to be attached determines which gauge is used.

- **Stainless Steel Brackets:** Stainless steel brackets, in combination with the stainless steel bands cited above, are used to mount small traffic signs. First a sign is attached to a stainless steel band via a bracket containing a threaded opening at its center; once the sign is secured to the bands, the bands are wrapped around a pole and crimped in place.
- **Offset Sign Bracket Assemblies:** Oversized street signs are attached to the mast-arm of the Traffic Signal Model with swiveling, offset sign bracket assemblies. The sign is bolted into two adjustable, stainless steel swing brackets, which are bolted into a horizontal aluminum pipe. The pipe, in turn, is suspended from the mast-arm by a clamping device that consists of either stainless steel bands or cables. An assembly for a 96" sign weighs approximately 40 lbs. (not including the sign).
- **Sliders and Strapping Buckles:** Large, single-sided traffic signs are bolted onto light or heavy-duty extruded aluminum channels called sliders. (Heavy-duty sliders are used for signs up to 20 sq. ft. in area; light-duty sliders are used for signs up to 7 sq. ft. in area.) Strapping buckles are slid into the sliders; stainless steel bands (see above) are inserted through the strapping buckles to secure the signs to a pole.
- **Galvanized Steel Straps:** Galvanized steel straps are used to support control boxes and are much heavier (about 1/8" thick) than the stainless steel bands cited above. Approximately 1-1/2" high, they wrap around a pole and are screwed into each side of the box.
- **Street Sign Brackets:** Street signs are bolted (with 5/16" zinc coated bolts) into the pre-drilled channels at the front of extruded aluminum brackets. Stainless steel bands (see above) are then passed through slots at the rear of the brackets and used to attach the signs to a pole.

## 2. TECHNICAL SUBMISSION REQUIREMENTS

Technical submissions using the design and technical performance criteria outlined in the Program shall be prepared for the Project's full Design Range as described in Section. II.D.1.

### a. STRUCTURAL REQUIREMENTS

- The Consultant shall, at a minimum, submit the following information and details:
  - Identification of all materials. This shall include standard designation including American Society for Testing and Materials International (ASTM International) or equivalent reference, mechanical properties, allowable stresses, and any other pertinent characteristic.
  - Identification of all shapes and finishes
  - Height of pole: from top of pole to bottom of shaft (and from top of pole to bottom of base if applicable to Consultant's design)
  - Outside dimensions of pole's shaft at top
  - Outside dimensions of pole's shaft at bottom
  - Foundation mounting detail (including base detail if applicable to Consultant's design)
  - Connection detail at shaft for any device used to mount or attach luminaires
  - Weight of luminaires and lamp assemblies
  - Weight of pole (shaft + any applicable base)
  - Typical details of main structural elements
- Calculations shall be prepared for all load combinations listed in Section II.B.3.a. The additions to be included in these calculations are illustrated in Appendix I and described in

Section II.D.1.b. The Consultant shall, at a minimum, submit calculations for the following structural analyses:

- Stress analysis at the bottom of each pole demonstrating:
  - Structural performance of the materials proposed for the design
  - Calculations demonstrating that the proposed streetlight works within the structural capacity of the existing foundation anchor bolts.
- Stress analysis of shaft to base detail (if applicable to Consultant's designs) demonstrating the structural performance of the materials proposed for the designs
- Stress analysis of each pole, including analyses at any section of the pole where significant changes in dimensions, shapes, or materials occur.
- Stress analysis of any other major member of the Consultants designs, including but not limited to luminaires and their mounting devices.
- Geotechnical calculations demonstrating that the proposed streetlights work within the capacity of the existing foundations. This shall include calculations demonstrating that the proposed streetlights do not induce loss of stability or excessive rotation.

Additionally:

- Where required by the characteristics of the Consultant's designs, calculations for local effects such as buckling shall be performed.
- Where required by the characteristics of the Consultant's designs, stability and vibration calculations shall be performed.
- Maximum deflection values for all vertical and horizontal support members shall be provided, and shall meet AASHTO serviceability requirements.
- All calculations shall conform to AASHTO's "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals", latest edition, except as specified and /or modified in Section II.B.3.a. of the Program or as specified below:
  - The adequacy of the existing concrete foundations needs to be demonstrated only for the loads and load combinations of the NYC Building Code (latest edition). The effect of impact loads does not need to be included. Soil shall be considered cohesive with 1 ton (or 2 kips) per square foot bearing capacity. Calculations using these loads may follow AASHTO principles or any other generally accepted geotechnical engineering practice. **Note:** The existing anchor bolts are included in this exception.
- At minimum, all calculations shall illustrate the following:
  - Determination of wind pressure
  - Determination of weights
  - Cross-sectional analyses including but not limited to combinations of bending stress, shear stress, compression stress, and torsional stress.
  - All calculations presented shall be complete, indexed and legible.

When computer calculations are performed, the Consultant shall submit both input and output printouts of computer runs. All calculations presented shall be complete, indexed and legible. When the Consultant uses a generally accepted engineering practice not directly illustrated in the mentioned codes, full references shall be provided. When AASHTO structural design requirements do not cover the proposed material, the Consultant shall provide ample and specific references as to the determination of allowable stresses used in all calculations.

#### b. LIGHTING/ELECTRICAL REQUIREMENTS

For all luminaires and lamping assemblies, the Consultant shall, at a minimum, submit the following information and details. Data for new or untested technologies or for alternative

systems of measurement, e.g., visual acuity vs. footcandles, shall demonstrate how comparable or higher performance standards can be achieved.

- Identification of type of lamp/light source
- Wattage of lamp
- Initial Lamp Output expressed in lumens
- Lamp Rated Life (Burning Hours)
- Color Rendering Index
- Luminaire mounting heights for both Long and Short Arm Applications.
- Efficiency Percentage
- Total lumen depreciation projections (lamp loss factors)
- A "Road Report Characteristics Compendium" comprised of the following:
  - Cut-off characteristics and light distribution pattern type (per IESNA)
  - Candela Tabulation, including citations of:
    - Maximum candela
    - Maximum candela angle
    - Maximum candela at 90° vertical
    - Maximum candela at 80° vertical
  - Coefficients of Utilization and Flux Distribution
  - Polar Graph
- Percentage of total flux (total upward light) above 90°.
- Isolux Footprints (Isofootcandle Lines of Horizontal Illumination) for both Long and Short Arm Applications. These footprints shall show the location of the pole, the curb, and the luminaire(s).
- Wiring diagrams and other relevant information shall be provided for all systems and technologies included in the Consultant's designs. Work that impacts the city's power distribution systems shall be coordinated with the appropriate regulatory entities and utilities.
- Identification of ballast characteristics including ballast type, power factor, ballast factor, and ballast efficacy factor for designs incorporating a ballast.
- Ingress Protection Rating (IP).

If the Consultant has prepared their data using computer software, the Consultant shall submit a cd-rom containing their photometric information, including all input data, in electronic format.

### 3. FABRICATION AND TESTING OF PROTOTYPES – TESTING PLAN/RESULTS

The Consultant shall provide all services necessary and required for the fabrication and testing of working prototypes for the following models: (1) the three basic streetlight models (using LED technology) and their respective configurations, including all new add-ons and connectors,

components, and parts, and (2) the three basic streetlight models (using HPS technology) and their respective configurations, including all new add-ons and connectors, components, and parts. The tests to be performed by the Consultant shall include tests for structural integrity and lighting performance, as well as tests for the operation and serviceability of all new add-on, connectors, and parts. The results of all tests performed by the Consultant must be submitted to DDC for review.

The city reserves the right to determine not to proceed with any further services by the Consultant involving design(s) based on LED technology. In the event of such determination, the Design Fee shall be reduced, as set forth in the Article 7 of the Contract.

a. Structural Testing

The purpose of the structural testing is to determine that the designs maintain their structural integrity under the load combinations described.

The testing documents shall specify clearly and comprehensively the criteria for success and the methodology to be employed for the simulation impacts, loads, and other forces. All tests shall be taken to failure. Test descriptions shall include criteria for instrumentation and methods to avoid errors or false results.

Where applicable, structural testing criteria shall consider or adapt the methodology outlined in National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features", (although the purpose of testing is not to establish the condition of the vehicle or passenger at impact).

Where new materials or finishes are used, standard AASHTO and ASTM tests shall be performed to verify material performance such as fatigue, serviceability, and repeated variation of temperature, exposure to ultraviolet rays, and so forth. Similarly, standardized fire tests may be required.

b. Photometric Testing

The purpose of the photometric testing is to determine that optical designs meet or exceed the city's technical performance standards.

At minimum, testing shall be performed for footcandle levels, isofootcandle plots, color rendition indexes, efficiency percentages, initial lamp output, burning hours, upward light, ballast and electrical component operations, coefficients of utilization, photometric distributions, and candela angles.

Where applicable, photometric testing data shall be in IES format.

### III. DESIGN SERVICES

Based on the Design Intent, as set forth herein, the Consultant shall provide the following Design Services: (1) preparation of Preliminary Design Documents, including a cost estimate, (2) preparation of Final Design Documents, including a cost estimate, (3) fabrication of working prototypes based on the approved Final Design, (4) performance of all testing necessary to ensure that the prototypes meet all design and performance criteria, (5) modifications to the design after testing of prototypes, and (6) preparation of complete "production-ready" Final Modified Design Documents, including a cost estimate. The Consultant's design must include the following models: the three basic streetlight models and their various configurations, including all new add-ons and connectors, components, and necessary parts.

#### A. PRELIMINARY DOCUMENTS AND SERVICES

During the Preliminary Design Phase, the Consultant shall define the following items: (1) visual appearance, (2) choice of materials and components, (3) lighting quality, (4) road safety, and (5) structural and illumination requirements. Such items shall be defined for the models in the Project's full design range, i.e., the three basic streetlight models and their various configurations, including all new add-ons and connectors, components, and necessary parts.

#### 1. PRELIMINARY DESIGN DOCUMENTS

In the first half of the Preliminary Design phase, the Consultant shall develop the visual appearance of the various streetlight models in a manner consistent with the Design Intent, while identifying and resolving any contingent performance, maintenance, and/or technical issues. The Consultant shall, after the first half of the Preliminary Design Phase, prepare and submit an Interim Preliminary Report and drawings, presenting and discussing design options, including cost estimates for each option. Following the selection of the preferred Preliminary Design by the Department of Transportation (DOT) and the DDC, the Consultant shall prepare and submit a Final Preliminary Report and drawings. Such Final Report shall include the following: (1) cost estimate, (2) identification of all design issues raised during this phase, along with their resolution, and (3) identification of any options which were considered and rejected by the Consultant.

As stated in the Design Criteria, the Consultant shall consider both LED and HPS technology in luminaire designs during Preliminary Design, proceeding with both technologies on a parallel design track which will result in the completion of two sets of Preliminary Design Documents – one providing an LED lamping option and the other providing a HPS lamping option.

At the end of Preliminary Design, if the city determines that the LED lamp design, or "LED Option," cannot meet or exceed the technical performance standards of the City of New York, the city shall direct the Consultant to proceed only with the development of the HPS lamp design, or "HPS Option," for Luminaire Types I and II. In the event the city determines not to proceed with any further services by the Consultant involving design(s) using LED technology, the Design Fee shall be reduced, as set forth in the Article 7 of the Contract. If the city determines that the LED lamp design can meet or exceed the technical performance standards of the City of New York, the city shall direct the Consultant to proceed on a simultaneous, parallel track with HPS as well as LED lamp design for Luminaire Types I and II.

##### a. PRELIMINARY DESIGN DURATION

The Consultant shall, within **sixty (60) consecutive calendar days** from notice to proceed with the Preliminary Design, submit the documentation as stipulated under Par.A.1.c of this Section, Preliminary Design Deliverables, below. The Consultant shall not proceed with submission to the Art Commission or with the preparation of Design Development until the Commissioner has approved the Preliminary Design submission.

##### b. SUMMARY OF PRELIMINARY DESIGN SERVICES

- **Preliminary Design Kick-Off Meeting:** A meeting with the Consultant and required representatives of the Client Agency (DOT) and DDC shall occur at the start of each phase of the project, including Preliminary Design. Project requirements shall be presented and understood by the team at-large, including:
  - The provisions of the Contract, which include the Consultant Agreement and the Specific Requirements to the Contract
  - Design Intent, as described in Section II.B.2.b.
  - General procedures and document delivery requirements

- Project intent and goals
- Project scope
- Client Agency (DOT) standards
- Budget
- Schedule: The Consultant shall present a schedule for approval by DDC for the entire project duration. A task-based payment schedule shall also be provided for the entire project duration at this time.

- **Cost Estimating Services:** The Consultant shall provide cost estimating services.
- **Progress Meetings:** The Consultant shall attend, participate in and make incidental submittals at regularly scheduled progress and other necessary meetings scheduled by the DDC project manager. Subconsultants shall be brought to the meetings as needed. Progress meetings shall be recorded by the Consultant with Meeting Minutes.
- **Review:** Preliminary Design documents shall be submitted to DDC and the Client Agency (DOT) for review.
- **Outline Specifications:** For this phase, specifications in the Outline Short Form are preferred. The format is more fully described in the Design Development deliverables section.
- **Art Commission:** The Consultant shall present the approved Preliminary Design to the Art Commission for Preliminary Approval.
- **Presentation of Preliminary Design:** The Consultant shall make a formal presentation of the Preliminary Design to the Client Agency (DOT) and DDC at DDC offices.
- **Approval to Proceed:** The Consultant shall obtain written approval to proceed from DDC and the Client Agency (DOT) at the conclusion of the Preliminary Design phase before moving into the Final Design phase.

c. SUMMARY OF PRELIMINARY DESIGN DELIVERABLES

- **Progress Meeting Minutes:** The Consultant shall prepare minutes, following the DDC format, within three working days of the Progress Meetings for approval by the Project Manager. Minutes shall be distributed to all attendees and key team members, as determined. The minutes shall summarize:
  - Decisions made and by whom
  - Open issues, the party responsible and time frame for resolution
- **Study Models:** Study models showing shape and proportions, material renditions and, when indicated, showing contextual relationship to a surrounding streetscape, will be required.
- **Interim Preliminary Design Report:** Twelve copies of the Interim or Draft Preliminary Design Report shall be submitted at the midpoint of the Preliminary Design phase. The Interim Report shall contain:
  - Statement of project objectives
  - Documentation of program requirements

- Analysis of regulatory requirements
- Sketches and narratives for design options considered with detailed evaluation of each
- Lighting Technology, Structural and Electrical Engineering narratives, including preliminary calculations.
- Cost analysis narrative for each option
- **Final Preliminary Design Report:** Twelve copies of the Final Preliminary Design Report shall be submitted at the conclusion of the Preliminary Design Phase. The Final Report shall contain:
  - Approved project objectives and program requirements
  - Confirmed regulatory requirements
  - The documentation of the preferred Preliminary Designs in sketches and narratives explaining the solutions addressing aesthetic, technical, functional and economic factors. Variations in designs that reflect existing versus new installations shall be included.
  - Recapitulation of design issues raised during this phase along with their resolution
  - Updated Lighting Technology, Structural and Electrical Engineering narratives and calculations
- Cost Estimates: Cost estimates for both the Fabrication and Testing of Prototypes and for final production/manufacture shall be submitted for each selected Preliminary Design option. A summation and analyses of fabrication, installation, maintenance, and energy costs shall also be provided. Cost estimates for both prototypical fabrications and for production/manufacture shall include a design contingency of ten percent at this design milestone. All cost estimates for production/manufacture shall be based on approved volume assumptions. The estimates shall reflect New York City prevailing wage rates. Sales tax shall not be included.
  - Updated schedule for the project duration
- **Drawings:** Sets of Preliminary Design drawings for the preferred options shall be submitted to DDC at the end of the Preliminary Design phase. The following shall be required:
  - The NYCDOT standard title block and graphics shall be used.
  - Drawings shall be organized into separate sections for designs - by model - and, as applicable, for specific engineering disciplines for each model.
  - Drawings shall be dimensioned and drawn to a scale which is appropriate for the demonstration of the design intent
- **Presentation Documents:** Various presentation materials in the form of boards and models will be required for presentation to DDC and DOT at the close of the Preliminary Design phase, for the Art Commission and, potentially, for use at public hearings. Presentation material may be retained by DDC.
- **Presentation of Preliminary Design:** The Consultant shall make a formal presentation of the Preliminary Design to the Client Agency (DOT) and DDC at DDC offices.
- **Materials and Finishes:** At the conclusion of the Design Development phase, all materials and finishes shall have been selected for presentation to and approvals by DDC and DOT.

- **Outline for Maintenance/Operation Manual:** At the conclusion of the Preliminary Design Phase, the Consultant shall submit an outline for the Maintenance/Operation Manual for approvals by DDC and DOT. The manual shall contain all information necessary, including narratives and illustrations, for the installation, maintenance, and operation of the full design range of the new streetlight models and their components as documented and approved under this Contract.
- **Preliminary Design Outline Specifications:** The Preliminary Design outline specifications shall provide a comprehensive description of proposed materials and systems for this phase in narrative form, to further explain the design intent. Specifications shall be in agreement with the Design Development drawings. The following concerns shall be noted and responded to:
  - Outline specifications shall be divided - where applicable - into CSI Format divisions and sections. However:
    - Reference standards and quality assurance provisions are not required at this stage, but shall be required in the Final Technical Specifications.
    - Submission of a draft of the Final Technical Specifications is not the intent of the Outline Specification Requirement.
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment, as well as the specific issues.

## B. FINAL DESIGN

The intent of the Final Design Phase is to provide for the fabrication and testing of prototypical streetlight models, and to produce a complete set of specifications and detailed drawings for the project's full design range, including all three models, their various configurations, and all applicable add-ons and connectors for each model and their arrangement, and light source options. The documents produced in this phase shall be "production-ready", i.e., sufficiently detailed and specific that they can be used to fabricate and test the prototype in the subsequent phase.

If DDC decides to proceed with the development of the LED Option, the Consultant shall be required to proceed simultaneously with the development of the HPS Option.

### 1. FINAL DESIGN - HPS OPTION

The HPS Option Final Design phase consists of three parts: (1) preparation of HPS Option Final Design documents, (2) Fabrication and Testing of HPS Option Prototypes, including the preparation of documents for the Fabrication and Testing of HPS Option Prototypes, and (3) Modification of Final Documents and Preparation of HPS Option Final Modified Documents for the production and manufacture of all elements, components, and assemblies for the streetlight models in the project's full design range.

#### a. HPS OPTION FINAL DESIGN DOCUMENTS

In the HPS Option Final Design Documents phase, the Consultant shall, based on the approved Preliminary Design, prepare drawings, specifications, and cost estimates that fully present the designs at a level of development ready for the fabrication and testing of working prototypes, and that fully illustrate all details and connections for the complete range of streetlight models and their components, as described in Section II of these Specific Requirements. HPS Option Final Design Documents shall reflect all

recommendations given to the Consultant by DDC at the conclusion of Preliminary Design.

i. HPS OPTION FINAL DESIGN DOCUMENTS DURATION

Within **sixty (60) consecutive calendar days** of the notice to proceed with HPS Option Final Design Documents, the Consultant shall deliver to the Commissioner complete HPS Option Final Design Documents,

ii. SUMMARY OF HPS OPTION FINAL DESIGN DOCUMENTS - SERVICES AND DELIVERABLES

▪ **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, and any other required members of the team, shall be held at the start of this phase. All project requirements shall be discussed, including:

- Review of structural and photometric testing results
- Outline of proposed modifications to the HPS Option Final Design Documents
- Updated project schedule
- Revision of cost estimate
- Complete all regulatory approvals including, but not limited to, DDC, DOT and the Art Commission.

▪ **HPS Option Final Design Documents:** HPS Option Final Design Documents shall be prepared for the production and manufacture of the complete design range developed and documented under this contract. Twelve sets of all components of the HPS Option Final Design Documents shall be submitted to DDC for review. Contract documents shall be organized by model and shall allow for the separate bidding, award, and manufacture of individual models and the components included in their varying configurations. Add-ons and connectors shall be organized separately unless they are integral to a model. NYCDOT Standard Drawing format shall be used.

When preparing specifications, the Consultant shall, for all salient components, specify a minimum of three manufacturers, and shall include the words "or approved equal". If the Consultant recommends that the manufacturer have a certain level of experience, it shall so indicate to the city.

HPS Option Final Design Documents (drawings and specifications) shall be complete, so as to enable a prospective bidder to make accurate and reliable estimates of quantities, quality and character of labor and material required for the work, and shall fully illustrate all details and connections and present the designs at a level of development ready for production without any additional calculations or modifications. HPS Option Final Design Documents shall contain a list of any shop drawings, required samples, data sheets, and catalogue cuts pertinent to the project.

HPS Option Final Design Documents documents shall include:

- HPS Option Final Drawings at Construction Documentation level
  - HPS Option Final Specifications, meeting DOT standards, complete for implementation, manufacture, and installation of the approved designs.
  - HPS Option Final Calculations, reflecting all findings during the design process.
  - Updated HPS Option Cost Estimate Report, representing the final summation of fabrication, installation, maintenance, and energy costs for the selected design range of streetlight models, configurations, connectors and add-ons
  - HPS Option Maintenance/Operation Manual for the full design range of the new streetlight models and their components as documented and approved under this Contract
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.

**b. FABRICATION AND TESTING OF HPS OPTION PROTOTYPES**

Based on the approved HPS Option Final Design, the Consultant shall prepare Documents for the Fabrication and Testing of HPS Option Prototypes and shall undertake Fabrication and Testing of HPS Option Prototypes. Regulatory approval shall be obtained. The Documents shall include working drawings and complete specifications, final estimates for prototypical fabrication and testing costs, as well as standards for the evaluation of all HPS Option Prototypes, including an evaluation format. All work shall be properly coordinated to prevent changes or adjustments during the Fabrication and Testing of Prototypes. Any such changes or adjustments shall be at the Consultant's sole cost and expense. The Documents for Fabrication and Testing of HPS Option Prototypes will be approved, rejected, or ordered modified by the Commissioner.

In the event any of the HPS Option Prototypes fail to meet testing requirements, the Prototype must be redesigned, refabricated and retested as many times as becomes necessary to meet the requirements. All costs and expenses associated with fabrication and testing are included in the Design Fee.

**i. FABRICATION AND TESTING OF HPS OPTION PROTOTYPES DURATION**

Within **three-hundred thirty (330) consecutive calendar days** of the notice to proceed with Fabrication and Testing of HPS Option Prototypes, the Consultant shall deliver to the Commissioner complete Fabrication and Testing of HPS Option Documents.

**ii. SUMMARY OF FABRICATION AND TESTING OF HPS OPTION PROTOTYPES SERVICES**

- **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, team leader and any other required members of the team, shall be held at the start of this phase. All project requirements shall be reviewed, including:

- Updated project schedule
- Review of all significant previous and pending project decisions, assuring that all parties clearly understand the resolutions of issues documented in the approved Preliminary Design.

- **HPS Option Testing :** After receiving approval for the proposed HPS Option Testing Plan, the Consultant shall test all three (3) complete prototype assemblies at the Consultant’s facility under the supervision of the Consultant, Lighting Designer, the Structural Engineer, NYC DOT DSL (Division of Street Lighting), DDC, and all necessary parties. Failure of any part or assembly shall require the Consultant to redesign, refabricate and retest the part or assembly to the DSL’s satisfaction.

iii. SUMMARY OF FABRICATION AND TESTING OF HPS OPTION PROTOTYPES DELIVERABLES

- **Documents for the Fabrication and Testing of HPS Option Prototypes:** Twelve sets of the complete drawings, specifications and calculations prepared for fabrication and testing shall be submitted to DDC for review. The drawings and specifications shall contain all pertinent information necessary to fulfill the stipulations under Section II of these Specific Requirements. Documents must be sufficiently complete to allow shop drawings to be prepared with a minimum number of submittals from the fabricator. Drawings and specifications shall include all connections - welded, bolted, or otherwise attached.
- **HPS Option Testing Plan:** Prior to HPS Option Testing , the Consultant shall provide a testing plan, including a functional testing specification, as per DDC approval, in order to demonstrate the designs meet all technical requirements and specifications.
- **Prototype:** Provide one (1) complete prototype assembly for each Streetlight Model; i.e, a total of three (3) models – one (1) Street Model, one (1) Park/Pedestrian Model, and one (1) Traffic Signal Model
- **Cost Estimating Service:** An updated final cost estimate for the work documented under this phase shall be submitted.
- **HPS Option Testing Results:** A report detailing HPS Option Testing results shall be prepared by the Consultant and submitted to DDC for review.
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.

b. HPS OPTION FINAL MODIFIED DOCUMENTS FOR PRODUCTION AND MANUFACTURE OF TESTED STREETLIGHT MODELS AND THEIR COMPONENTS

Based on the findings and results from the Fabrication and Testing of HPS Option Prototypes, the Consultant shall modify drawings, specifications, and cost estimates to reflect required structural, lighting and feasibility improvements necessary to achieve compliance with the criteria described in Section II of these Specific Requirements. The

Consultant shall complete HPS Option Final Modified Documentation for the production and manufacture of the complete range of streetlight models and their components, as described in Section II of these Specific Requirements.

i. HPS OPTION FINAL MODIFIED DOCUMENTS DURATION

Within **sixty (60) consecutive calendar days** of the notice to proceed with HPS Option Final Modified Documents for Production and Manufacture of Tested Streetlight Models and their Components, the Consultant shall deliver to the Commissioner complete HPS Option Final Modified Documents .

ii. SUMMARY OF HPS OPTION FINAL MODIFIED DOCUMENTS SERVICES

▪ **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, and any other required members of the team, shall be held at the start of this phase. All project requirements shall be discussed, including:

- Review of structural and photometric testing results
- Outline of proposed modifications to the HPS Option Final Documents
- Updated project schedule
- Revision of cost estimate
- Complete all regulatory approvals including, but not limited to, the Art Commission.

iii. SUMMARY OF HPS OPTION FINAL MODIFIED DOCUMENTS DELIVERABLES

▪ **HPS Option Final Modified Documents:** HPS Option Final Modified Design drawings and specifications shall be prepared for the production and manufacture of the complete design range developed and documented under this contract. Twelve sets of all components of the HPS Option Final Modified Design Documents shall be submitted to DDC for review. Contract documents shall be organized by model and shall allow for the separate bidding, award, and manufacture of individual models and the components included in their varying configurations. Add-ons and connectors shall be organized separately unless they are integral to a model. (A final determination of separate contracts appropriate for the manufacture of models and their components shall be made by DDC and DOT prior to the start of HPS Option Final Modified Design Documents.) NYCDOT Standard Drawing format shall be used.

When preparing specifications, a minimum of three manufacturers, and including "or approved equal", shall be stipulated for salient components. If the Consultant recommends that the manufacturer have a certain level of experience they shall so indicate to the city

Drawings and specifications shall be complete to enable a prospective bidder to make accurate and reliable estimates of quantities, quality and character of labor and material for the work documented under this contract, and shall fully illustrate all details and connections and present the

designs at a level of development ready for production without any additional calculations or modifications. HPS Option Final contract documents shall contain a list of any shop drawings, required samples, data sheets, and catalogue cuts pertinent to the project.

HPS Option Final Modified Documents shall include:

- HPS Option Final Modified Drawings at Construction Documentation level
  - HPS Option Final Modified Specifications, meeting DOT standards, complete for implementation, manufacture, and installation of the approved and tested designs.
  - HPS Option Final Modified Calculations, reflecting all findings during the design and testing processes
  - Final Modified Cost Estimates, representing the final summation of fabrication, installation, maintenance, and energy costs for the selected design range of streetlight models, configurations, connectors and add-ons
  - Presentation Drawings for inclusion into and matching the format of the current DOT Street Lighting Catalogue, dated 1-2004.
  - Maintenance/Operation Manual for the full design range of the new streetlight models and their components as documented and approved under this Contract
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.
  - **Ancillary Items:** Provide the city with all tools, molds, extrusion dies, casts, drawings, specifications, manuals and any other ancillary items or information necessary to fabricate, install and operate the streetlight.

## 2. FINAL DESIGN - LED OPTION

The LED Option Final Design phase consists of three parts: (1) LED Option Final Design Documents (2) Fabrication and Testing of Prototypes, including the preparation of documents for the Fabrication and Testing of Prototypes, and (3) Modification of Documents and Preparation of LED Option Final Documents for the production and manufacture of all elements, components, and assemblies for the streetlight models in the project's full design range.

### a. LED OPTION FINAL DESIGN DOCUMENTS

In the LED Option Final Design Documents phase, the Consultant shall, based on the approved Preliminary Design, prepare drawings, specifications, and cost estimates that fully present the designs at a level of development ready for the fabrication and testing of working prototypes, and that fully illustrate all details and connections for the complete range of streetlight models and their components, as described in Section II of these Specific Requirements. LED Option Final Design Documents shall reflect all

recommendations given to the Consultant by DDC at the conclusion of Preliminary Design.

i. LED OPTION FINAL DESIGN DOCUMENTS DURATION

Within **sixty (60) consecutive calendar days** of the notice to proceed with LED Option Final Design Documents, the Consultant shall deliver to the Commissioner complete LED Option Final Design Documents,

iii. SUMMARY OF LED OPTION FINAL DESIGN DOCUMENTS - SERVICES AND DELIVERABLES

▪ **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, and any other required members of the team, shall be held at the start of this phase. All project requirements shall be discussed, including:

- Review of structural and photometric testing results
- Outline of proposed modifications to the LED Option Final Design Documents
- Updated project schedule
- Revision of cost estimate
- Complete all regulatory approvals including, but not limited to, DDC, DOT and the Art Commission.

▪ **LED Option Final Design Documents:** LED Option Final Design Documents shall be prepared for the production and manufacture of the complete design range developed and documented under this contract. Twelve sets of all components of the LED Option Final Design Documents shall be submitted to DDC for review. Contract documents shall be organized by model and shall allow for the separate bidding, award, and manufacture of individual models and the components included in their varying configurations. Add-ons and connectors shall be organized separately unless they are integral to a model. NYCDOT Standard Drawing format shall be used.

When preparing specifications, the Consultant shall, for all salient components, specify a minimum of three manufacturers, and shall include the words "or approved equal". If the Consultant recommends that the manufacturer have a certain level of experience, it shall so indicate to the city.

LED Option Final Design Documents (drawings and specifications) shall be complete, so as to enable a prospective bidder to make accurate and reliable estimates of quantities, quality and character of labor and material required for the work, and shall fully illustrate all details and connections and present the designs at a level of development ready for production without any additional calculations or modifications. LED Option Final Design Documents shall contain a list of any shop drawings, required samples, data sheets, and catalogue cuts pertinent to the project.

LED Option Final Design Documents documents shall include:

- LED Option Final Drawings at Construction Documentation level
  - LED Option Final Specifications, meeting DOT standards, complete for implementation, manufacture, and installation of the approved designs.
  - LED Option Final Calculations, reflecting all findings during the design process.
  - Updated LED Option Cost Estimate Report, representing the final summation of fabrication, installation, maintenance, and energy costs for the selected design range of streetlight models, configurations, connectors and add-ons
  - LED Option Maintenance/Operation Manual for the full design range of the new streetlight models and their components as documented and approved under this Contract
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.

b. FABRICATION AND TESTING OF LED OPTION PROTOTYPES

Based on the approved LED Option Final Design, the Consultant shall prepare Documents for the Fabrication and Testing of Prototypes, and shall undertake Fabrication and Testing of Prototypes. Regulatory approval shall be obtained. The documents shall include working drawings and complete specifications, final estimates for prototypical fabrication and testing costs, as well as standards for the evaluation of all prototypes, including an evaluation format. All work shall be properly coordinated to prevent changes or adjustments during Fabrication and Testing of LED Option Prototypes. Any such changes or adjustments shall be at the Consultant's sole cost and expense. The Documents for Fabrication and Testing of LED Option Prototypes will be approved, rejected, or ordered modified by the Commissioner.

In the event any of the LED Option Prototypes fail to meet testing requirements, the Prototype must be redesigned, refabricated and retested as many times as becomes necessary to meet the requirements. All costs and expenses associated with fabrication and testing are included in the design fee.

i. FABRICATION AND TESTING OF LED OPTION PROTOTYPES DURATION

Within **three-hundred thirty (330) consecutive calendar days** of the notice to proceed with Fabrication and Testing of Prototypes, the Consultant shall deliver to the Commissioner complete Fabrication and Testing Documents.

ii. SUMMARY OF FABRICATION AND TESTING OF LED OPTION PROTOTYPES SERVICES

- **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, team leader and any other required members of the team, shall be held at the start of this phase. All project requirements shall be reviewed, including:

- Updated project schedule
- Review of all significant previous and pending project decisions, assuring that all parties clearly understand the resolutions of issues documented in the approved Preliminary Design.

- **Testing:** After receiving approval for the proposed Testing Plan, the Consultant shall test all three (3) complete prototype assemblies at the Consultant's facility under the supervision of the Consultant, Lighting Designer, the Structural Engineer, NYC DOT DSL (Division of Street Lighting), DDC, and all necessary parties. Failure of any part or assembly shall require the Consultant to redesign, refabricate and retest the part or assembly to the DSL's satisfaction.

iii. SUMMARY OF FABRICATION AND TESTING OF LED OPTION PROTOTYPES DELIVERABLES

- **Documents for the Fabrication and Testing of Prototypes:** Twelve sets of the complete drawings, specifications and calculations prepared for fabrication and testing shall be submitted to DDC for review. The drawings and specifications shall contain all pertinent information necessary to fulfill the stipulations under Section II of these Specific Requirements. Documents must be sufficiently complete to allow shop drawings to be prepared with a minimum number of submittals from the fabricator. Drawings and specifications shall include all connections - welded, bolted, or otherwise attached.
- **Testing Plan:** Prior to testing, the Consultant shall provide a testing plan, including a functional testing specification, as per DDC approval, in order to demonstrate the designs meet all technical requirements and specifications.
- **Prototype:** Provide one (1) complete prototype assembly for each Streetlight Model; i.e, a total of three (3) models – one (1) Street Model, one (1) Park/Pedestrian Model, and one (1) Traffic Signal Model
- **Cost Estimating Service:** An updated final cost estimate for the work documented under this phase shall be submitted.
- **Testing Results:** A report detailing testing results shall be prepared by the Consultant and submitted to DDC for review.
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.

c. LED OPTION FINAL MODIFIED DOCUMENTS FOR PRODUCTION AND MANUFACTURE OF TESTED STREETLIGHT MODELS AND THEIR COMPONENTS

Based on the findings and results from the Fabrication and Testing of LED Option Prototypes, the Consultant shall modify drawings, specifications, and cost estimates to reflect required structural, lighting and feasibility improvements necessary to achieve compliance with the criteria described in Section II of these Specific Requirements. The

Consultant shall complete LED Option Final Modified Documentation for the production and manufacture of the complete range of streetlight models and their components, as described in Section II of these Specific Requirements.

i. LED OPTION FINAL MODIFIED DOCUMENTS DURATION

Within **sixty (60) consecutive calendar days** of the notice to proceed with LED Option Final Modified Documents for Production and Manufacture of Tested Streetlight Models and their Components, the Consultant shall deliver to the Commissioner complete LED Option Final Modified Documents .

ii. SUMMARY OF LED OPTION FINAL MODIFIED DOCUMENTS SERVICES

- **Kick-Off Meeting:** A kick-off meeting with the Consultant, the Client Agency (DOT) team representatives, the DDC project manager, and any other required members of the team, shall be held at the start of this phase. All project requirements shall be discussed, including:
  - Review of structural and photometric testing results
  - Outline of proposed modifications to the LED Option Final Documents
  - Updated project schedule
  - Revision of cost estimate
  - Complete all regulatory approvals including, but not limited to, the Art Commission.

iii. SUMMARY OF LED OPTION FINAL MODIFIED DOCUMENTS DELIVERABLES

- **LED Option Final Modified Documents:** LED Option Final Modified Design drawings and specifications shall be prepared for the production and manufacture of the complete design range developed and documented under this contract. Twelve sets of all components of the LED Option Final Modified Design Documents shall be submitted to DDC for review. Contract documents shall be organized by model and shall allow for the separate bidding, award, and manufacture of individual models and the components included in their varying configurations. Add-ons and connectors shall be organized separately unless they are integral to a model. (A final determination of separate contracts appropriate for the manufacture of models and their components shall be made by DDC and DOT prior to the start of LED Option Final Modified Design Documents.) NYCDOT Standard Drawing format shall be used.

When preparing specifications, the Consultant shall, for all salient components, specify a minimum of three manufacturers, and shall include the words "or approved equal". If the Consultant recommends that the manufacturer have a certain level of experience, it shall so indicate to the city

Drawings and specifications shall be complete to enable a prospective bidder to make accurate and reliable estimates of quantities, quality and character of labor and material for the work documented under this

contract, and shall fully illustrate all details and connections and present the designs at a level of development ready for production without any additional calculations or modifications. LED Option Final contract documents shall contain a list of any shop drawings, required samples, data sheets, and catalogue cuts pertinent to the project.

LED Option Final Modified Documents shall include:

- LED Option Final Modified Drawings at Construction Documentation level
  - LED Option Final Modified Specifications, meeting DOT standards, complete for implementation, manufacture, and installation of the approved and tested designs.
  - LED Option Final Modified Calculations, reflecting all findings during the design and testing processes
  - Final Modified Cost Estimates, representing the final summation of fabrication, installation, maintenance, and energy costs for the selected design range of streetlight models, configurations, connectors and add-ons
  - Presentation Drawings for inclusion into and matching the format of the current DOT Street Lighting Catalogue, dated 1-2004.
  - Maintenance/Operation Manual for the full design range of the new streetlight models and their components as documented and approved under this Contract
- **Response to Design Review Comments:** The Consultant is required to respond in writing (electronic transmission is acceptable) to comments from the design and technical review groups of the DDC. Response shall be within two weeks after receipt of comments, shall be complete and shall address the spirit of the comment as well as the specific issues.
  - **Ancillary Items:** Provide the city with all tools, molds, extrusion dies, casts, drawings, specifications, manuals and any other ancillary items or information necessary to fabricate, install and operate the streetlight.

#### IV. SCHEDULES OF DOCUMENTS REQUIRED

The following documents shall be provided as indicated in detail in Section III.A. and III.B. of these Specific Requirements.

##### A. PRELIMINARY DOCUMENTS

1. Preliminary Drawings
2. Outline Specifications
3. Preliminary Calculations
4. Cost Estimates
5. Materials Samples
6. Renderings/Presentation Documents
7. Study Models/Presentation Model

**B. FINAL DOCUMENTS**

1. Working Drawings for Fabrication and Testing of Prototypes
2. Final Design Drawings for Production and Manufacture
3. Final Specifications
4. Final Calculations
2. Specifications for Fabrication and Testing of Prototypes
3. Structural and Photometric Calculations for Fabrication and Testing of Prototypes
4. Cost Estimates for Fabrication and Testing of Prototypes
5. Final Modified Drawings for Production and Manufacture
6. Final Modified Specifications
7. Final Modified Calculations
8. Final Modified Cost Estimates
9. Presentation Drawings for DOT Street Lighting Catalogue
10. Maintenance/Operation Manual

One set of Final Modified Design drawings shall be reproducibles on Mylar.

Project drawings shall be developed on a Computer Aided Design (CAD) drawing system acceptable to DDC and DOT. The Consultant shall be required to furnish CAD drawing files on diskettes in addition to prints and Mylars required when submitting Final Design Drawings. Prior to commencing CAD work, the Consultant shall obtain approval from the DDC project manager, who will provide information from the DDC and DOT Management Information Systems concerning approved drawing system formats, symbols, fonts, and line types.

All other printed documents (specs, reports, test data, relevant correspondence, for example) prepared by the Consultant are to be submitted in PDF format.

**C. PRINTS AND COPIES**

<b>Contract Stage</b>	<b>Reports</b>	<b>Drawings</b>	<b>Specifications</b>	<b>Estimates</b>	<b>Manuals</b>
Interim Preliminary Report	12	---	---	---	--
Preliminary Design	12	12	---	12	--
Final Documents	12	12	12	12	
Final Testing Documents	12	12	12	12	--
Final Modified Documents	12	12	12	12	

One set of Final Modified Design drawings shall be reproducibles on Mylar; the remainder shall be printed on bond paper.

**D. DURATIONS**

<b>Phase</b>	<b>Duration</b>
Preliminary Documents and Services	60 ccd
Final Design Documents	60 ccd
Fabrication and Testing of Prototypes	330 ccd
Final Modified Documents for Production and Manufacture of Tested Streetlight Models and their Components	60 ccd

\* Time allowances for reviews and approvals are not reflected

**V. ADDITIONAL PROFESSIONAL AND REIMBURSEABLE SERVICES**

**A. ADDITIONAL PROFESSIONAL SERVICES**

The Consultant may be directed by the Commissioner to provide Additional Professional Services for the project as listed below. These services shall be billed against the Allowance for Services Based on Staffing Hours (Time Card), as set forth in Exhibit A. No Additional Professional Services shall be performed by the Consultant, or paid from this allowance, unless expressly authorized in advance in a written directive from the Commissioner. For payment purposes, the Consultant shall submit the documentation set forth in Article 7 of the Contract.

**1. ADDITIONAL MEETINGS**

Design review meetings with City Lights Design Competition jury members and other non-regulatory entities beyond the services described in Section III of these Specific Requirements may be required.

**2. ADDITIONAL ADD-ONS/CONNECTORS**

Design and development of any additional add-ons and/or connectors, or the accommodation of additional add-ons and/or connectors by others, beyond those described in Section II of these Specific Requirements may be required.

**3. COORDINATION WITH NEW YORK CITY STREET FURNITURE**

New York City is soliciting proposals for new street furniture designs; coordination with new street furniture designs may be required.

**4. ADDITIONAL PRESENTATION MODELS:** Presentation models beyond the requirements set forth in the Specific Requirements.

**B. REIMBURSABLE SERVICES:** The Consultant may be directed by the Commissioner to provide Reimbursable Services for the Project, as set forth below. The Consultant shall provide such Reimbursable Services, if so directed in writing by the Commissioner. The Consultant shall provide such Reimbursable Services through entities approved by the Commissioner, and shall utilize the method of procurement and form of payment directed by the Commissioner. Payment for Reimbursable Services shall be in accordance with Article 7.5.

1. Printing of design documents beyond the requirements set forth in the Specific Requirements.

2. Specialty subconsultants, other than the subconsultants set forth in Exhibit C

3. Long distance travel. In the event the Consultant is directed in advance in writing by the Commissioner to provide services which require long distance travel, the Consultant shall be reimbursed for expenses incurred in connection with such long distance travel. Long distance travel shall mean travel which is in excess of 75 miles from whichever of the following is closer to the destination: (1) Columbus Circle, or (2) the Consultant's home office. Consultants and/or Subconsultants that are not located in New York City or its vicinity shall not be entitled to reimbursement for transportation expenses.

4. Laboratory services not covered by the requirements for fabrication and testing set forth in the Specific Requirements.

**VI. ALLOWANCES**

Required Services on a Time Card Basis:	<u>\$70,000</u>
Reimbursable Services:	<u>\$115,000</u>

**VII. CERTIFICATE OF COMPLETENESS**

The Consultant shall, with the submission of final documentation, include a certification, stating that the completed work meets the requirements of the Design Agreement and of all applicable regulatory agencies. The certification shall be in form of a letter attached to the submission.