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I. SUMMARY

Battery Park City Authority d/b/a Hugh L. Carey Battery Park City Authority ("BPCA") requests proposals (each individually, a "Proposal" or collectively, the "Proposals") from Landscape Contractors (each individually, a "Proposer" or collectively, the "Proposers") to provide tree replacement services. Tree replacement services to replace existing trees that have died or been removed due to construction and/or environmental conditions shall include, but not be limited to the supply and installation of 12 trees throughout Battery Park City. The trees will be located both within the parks and on the streets. Removal of existing trees and/or root balls will also be required.

Minority-Owned Business Enterprises ("MBE") and Women-Owned Business Enterprises ("WBE") are encouraged to submit Proposals.

This request for proposals, the attachments and any additional information submitted herewith, (collectively, the "RFP") does not obligate BPCA to complete the selection and contract award process. BPCA reserves the right: 1) to accept or reject any and all Proposals; 2) to request additional information from any or all Proposers to assist BPCA in its evaluation process; 3) to amend or withdraw this RFP prior to the announcement of the selected firm; and 4) to award the proposed services, in whole or in part, to one or more firms. In case of an amendment to the RFP, all Proposers will be provided with a copy of any such amendment(s) and will be afforded the opportunity to revise their Proposals in response to the RFP amendment.

II. DESCRIPTION OF BPCA

BPCA is a public benefit corporation created in 1968 under the laws of the State of New York for the purpose of financing, developing, constructing, maintaining, and operating a planned community development of the Battery Park City site as a mixed commercial and residential community.

Under the Battery Park City Authority Act (the "Act"), BPCA has the following powers, among others: to borrow money and to issue negotiable bonds, notes or other obligations and to provide for the rights of the holders thereof; to acquire, lease, hold, mortgage and dispose of real property and personal property or any interest therein for its corporate purposes; to construct, improve, enlarge, operate and maintain Battery Park City; to make bylaws for the management and regulation of its affairs, and, subject to agreements with bondholders, for the regulation of Battery Park City; to make contracts and to execute all necessary or convenient instruments, including leases and subleases; to accept grants, loans and contributions from the United States, or the State of New York or the City of New York (the "City"), or any agency or instrumentality of any of them, or from any other source and to expend the proceeds for any corporate purpose; to fix, establish and collect rates, rentals, fees and other charges; and to do all things necessary or convenient to carry out the powers expressly granted by the Act. BPCA has no taxing power.

Since its inception, BPCA has caused the staged development of Battery Park City, in individual parcels, creating a richly diversified mixed use community providing residential and commercial space, with related amenities such as parks, plazas, recreational areas and a waterfront esplanade. Most individual parcels of land in Battery Park City were developed into residential and commercial buildings by tenants ("Ground Lease Tenants") under long-term ground leases with BPCA. The Ground Lease Tenants are responsible for the maintenance, insurance and defense and indemnification of BPCA with regard to those leased parcels.

One of BPCA's key responsibilities under the Act is to operate, maintain and repair the parks and opens spaces in and around Battery Park City's residential and commercial areas. This function has been delegated by BPCA to the Battery Park City Parks Conservancy Corporation ("BPCPC") through a written Management Agreement. The BPCPC carries out its mission by maintaining 36 acres of parks, playgrounds and open spaces, including a mile-long waterfront esplanade. The BPCPC also develops programs and manages public events for the Battery Park City community. BPCA owns and has built out a commercial condominium unit in a residential building in Battery Park City, which serves as the BPCPC headquarters.

To obtain a copy of BPCA's most recently completed audited financial statements, please visit BPCA's official website at www.batteryparkcity.org. The audited financial statements and related reports found on BPCA's website will provide you with an overview of the operations for which BPCA is responsible and the areas of expertise in which the selected Proposer must be proficient. For an overview of BPCPC's operations, please visit its website at www.bpcparks.org.

III. SERVICES REQUIRED

- **A.** All work to be performed by the selected Proposer shall be performed under the supervision of a Project Manager in charge of this engagement (the "Lead PM") who must ensure that the work completed for BPCA is performed competently and in a timely manner.
- **B.** Proposer will be responsible for the services delineated in Exhibit A (the "Scope of Work"), attached hereto.

IV. KEY DATES, CONTRACT TERM AND MINIMUM QUALIFICATIONS

A. Key Dates

The following is a list of key dates, up to and including the date Proposals are due to be submitted, which is subject to change at BPCA's discretion:

- Request for Proposals issued: Friday, December 21, 2012.
- Pre-proposal meeting: Friday, January 4, 2013 at 9:00 AM. Meeting Location: BPCPC Offices, 75 Battery Place, New York, NY 10280 (attendance is highly recommended).
- Deadline to submit questions to BPCA: Tuesday, January 8, 2013 by 5:00 p.m. (by email only).
 - All questions regarding this RFP should be submitted in writing via email to the "<u>Designated Contact</u>": Sharon Wade, Battery Park City Authority, at sharon.wade@batteryparkcity.org.
- Deadline for BPCA's response to substantive questions: Thursday, January 10, 2013 (by email).
- DUE DATE FOR RESPONSES TO RFP: Wednesday, January 16, 2013 by 3:00 p.m. (the "Due Date").
- Selection and notification of successful Proposer: To be determined.
- Contract start date: February, 2013.

B. Anticipated Contract Term

It is anticipated that the term of the contract awarded pursuant to this RFP (the "Contract") will be a six (6) month contract. BPCA reserves the right to terminate the Contract at any time, with or without cause, upon thirty (30) days written notice.

C. Minimum Qualification Requirements

The following are the Minimum Qualification Requirements for this RFP. Proposals that fail to comply with these requirements will be rejected.

1) The firm must be licensed to do business in the State of New York.

V. GENERAL REQUIREMENTS

A. Questions regarding MBE/WBE participation, joint ventures and sub-contracting goals

Please see <u>Exhibit B</u> (attached) ("Diversity Exhibit") for contractor requirements and procedures for business participation opportunities for New York State certified MBEs/WBEs and equal employment opportunities for minority group members and women.

For questions relating to MBE/WBE participation, joint ventures and sub-contracting goals <u>ONLY</u>, please contact "<u>MBE/WBE Designated Contact</u>" Mr. Anthony Peterson at 212.417.2337.

B. Restricted Period

Applicants are restricted from making contact with anyone other than the Designated Contact or MBE/WBE Designated Contact specified above during the period from the date of publication of the notice of this RFP in the New York State Contract Reporter through approval of the Contract by BPCA (the "Restricted Period"). Employees of BPCA are required to record certain contacts during the Restricted Period, including, but not limited to, any oral, written or electronic communication with a governmental entity under circumstances where a reasonable person would infer that the communication was intended to influence BPCA's conduct or decision regarding the governmental procurement, and to make a determination of responsibility based, in part, upon any such contact. Failure to abide by this process may result in a finding that the firm is a non-responsive Proposer.

C. Submission of Proposals

Proposals are due no later than 3:00 p.m. on January 16, 2013.

Proposers must submit four (4) paper copies of their Proposals and one (1) electronic CD-Rom copy in a sealed package clearly marked "**Proposal Enclosed – Tree Replacement – Spring 2013**" to the Designated Contact by messenger, overnight courier or certified mail to the following address:

Sharon Wade Battery Park City Authority One World Financial Center, 24th Floor New York, NY 10281

BPCA is not responsible for any internal or external delivery delays which may cause any Proposal to arrive beyond the stated Due Date. To be considered, Proposals <u>must</u> arrive at the time and place specified herein and be time stamped by BPCA's time stamp prior to the Due Date. Please leave ample time for building security, as late Proposals will not be accepted. Proposals submitted by fax or electronic transmission will NOT be accepted. A Proposer may, after submitting a Proposal, amend its Proposal by submitting a second, amended Proposal, clearly labeled "Amended Proposal Enclosed – Tree Replacement – Spring 2013," as long as the amended Proposal is submitted by the Due Date.

Public access to Proposals shall be governed by the relevant provisions of the Freedom of Information Law, Article 6 of the New York State Public Officers Law, and regulations adopted pursuant thereto.

D. Mandatory Forms

Proposers must complete and include with their Proposal all "Mandatory Forms," which can be found at the following URL address: http://www.batteryparkcity.org/pdf_n/Mandatory_Forms_Packet.pdf, by the Due Date.

These Mandatory Forms include the following:

- 1) NYS Standard Vendor Responsibility Questionnaire Submit with the Cost Proposal (as described below), one (1) original unbound set of a completed NYS Standard Vendor Responsibility Questionnaire with original ink signatures. Do not include the Standard Vendor Responsibility Questionnaire in the bound copies of the Cost Proposal. The NYS Standard Vendor Responsibility Questionnaire must be notarized and signed by the individual(s) authorized to bind the firm contractually. Indicate the title or position that the signer holds within the firm.
- 2) State Finance Law § 139 Form 1 one original unbound completed SFL 139 Form 1: Professional's Certifications Pursuant to SFL § 139-j and § 139-k with original signature. State Finance Law § 139 Forms 1 must be signed by the individual(s) authorized to bind the firm contractually.
 - 3) W-9 form.
 - 4) Statement of Non-Collusion.
 - 5) Diversity Forms.

VI. PROPOSAL FORMAT AND CONTENTS

A. Proposal Format

The Proposal must be printed on either 8½" x 11" or 8½" x 14" paper. The Proposal will be evaluated on the basis of its content, not length. BPCA reserves the right to disqualify Proposals that fail to comply with any of these instructions.

B. Proposal Content

A Proposal in response to this RFP must include the following sections in the order listed:

1) Cover Letter, as follows:

The Proposal must include a signed Transmittal Letter from a person within the firm who is authorized to bind the firm. Cover letters must be signed. **Proposals with unsigned Cover Letters will be rejected.**

The Cover Letter must include a representation by the Proposer that, except as disclosed in the Proposal, no officer or employee of the Proposer is directly or indirectly a party to or in any other manner interested financially or otherwise in this RFP.

- 2) Corporate Overview.
- 3) Firm's discussion of its understanding of the Services Required (see Section III).
- 4) Firm's Responses to the RFP Questions and RFP Additional Information Request, set forth below.
- 5) Firm's Cost Proposal, as described below.

C. RFP Questions

- 1. Briefly describe your firm's background, size, and history as it may be relevant to the services required, with an emphasis on tree work in New York City.
- 2. Describe your experience and methodology for the project
- 3. Please describe your experience working in parks in New York City

- 4. Has your firm or any of the firm's partners/employees been disciplined or censured by any regulatory body or filed for bankruptcy or reorganization or has had bankruptcy proceedings initiated against it/them within the last 5 years? If so, please describe the relevant facts.
- 5. Are there any potential conflict of interest issues in representing BPCA?
- 6. Are any of your employees or principals former employees of BPCA? If so, please list their names, current titles, and dates of employment with BPCA.
- 7. List any professional or personal relationships your firm's employees may have with BPCA's Board and/or staff members of BPCA.
- 8. Identify the Lead person who will be the primary contact and lead person in providing services to BPCA, and who will be listed as a "key person" in any contract with BPCA.
- 9. Describe your proposed team's experience (including both direct contract work and work performed under subcontracts) with similar work for other public agencies and authorities, with a particular emphasis on New York State and City agencies and authorities or Federal government agencies or authorities. Include contract dates, the nature of the work performed, the contracting agency, the contract number (if known) and the agency supervisor for each.
- 10. Submit a discussion of your approach to the work which shall briefly address your conceptual step-by-step approach towards completion of the work and outline the proposed procedures for the executing the work.
- 11. Itemize the work you intend to perform with your firm's resources and/or workforce as well as the work for which you propose to utilize subcontractors.
- 12. Provide a list of all proposed subcontractors for the completion of the work.
- 13. Provide a list of all proposed suppliers for the completion of the work.
- 14. Submit a <u>bar chart schedule</u> for completion of the work. This should include sequencing of the work, manpower staffing level, work shifts, and show all project milestones and successful overall completion.
- 15. Discuss your ability to take stringent safety measures into account as to work done on public streets and in public parks.
- 16. Identify any and all exceptions taken to BPCA's standard form of contract attached hereto as Exhibit C detailing the reasons for such exceptions. No exceptions to the contract will be considered by BPCA after submission of the proposals. BPCA maintains the right to reject proposals based on non-conformance with the standard form of contract.
- 17. Does the firm employ an ISA Certified Arborist or does the firm utilize sub-consultants for this service?
- 18. Please provide any additional information which would serve to distinguish your firm from other firms and that you believe may be relevant to this RFP and your capability to perform the services requested.

D. RFP Additional Information Request

1) Insurance/Bonding:

- a. Do you impose any limitations on liability through your contracts?
- b.Describe the levels of coverage for any insurance your firm carries. List the insurance carrier(s) or provide an insurance certificate showing your firm's coverage in accordance with the following:
 - Commercial General Liability Insurance limits shall not be less than \$1,000,000 per each occurrence and \$2,000,000 in the aggregate. Excess Liability limits shall not be less than \$5,000,000 and Automobile liability limits shall not be less than \$1,000,000. The costs of the insurance shall be included in the Proposal.
- c. State whether or not you can provide payment and performance bonds, the amounts thereof (both single and aggregate) and the name of your bonding company. Provide a letter from your surety stating that you are able to provide 100% bonding for this project.

2) References:

Please provide at least three (3) client references for whom your firm has performed similar work to that requested in this RFP. For each client, please provide the name, address and telephone number for the client's.

3) Appendices:

- a. Include resumes for all key management personnel listed in your Proposal.
- b. Provide a copy of each addenda submitted by BPCA with regard to this Proposal (if applicable) and a signed acknowledgment of receipt of each addenda.
- 4) <u>Financial Statements</u>: Please provide a copy of your firm's most recent Audited Financial Statements (within the last year).

E. Cost Proposal

Each "Cost Proposal" must be a lump sum with an itemized schedule of values for the services contemplated herein. To submit a complete Cost Proposal, Proposer must submit each of the following:

- 1) Cost proposal in the form attached hereto as Exhibit D ("Cost Proposal").
- 2) Labor rates in the form attached hereto as Exhibit E ("Labor Rates").
- 3) An itemized cost proposal in the form attached hereto as Exhibit F ("Schedule of Values").

VII. THE EVALUATION PROCESS

A. Objectives

The primary objective of the evaluation process is to select a firm:

- That demonstrates a thorough understanding of the scope of the engagement and the specific responsibilities which it entails;
- Possesses adequate resources to handle assigned responsibilities and to handle unforeseen circumstances that may arise;
- Assigns highly skilled, experienced, diligent, responsible and professional personnel to perform the required services;
- Maintains high ethical standards and has an unblemished reputation;
- Has no conflict of interest between its representation of BPCA and that of other clients.

The selection process will begin with the review and evaluation of each of the written Proposals. The purpose of this evaluation process is twofold: (1) to examine the responses for compliance with this RFP and (2) to identify the complying firms that have the highest probability of satisfactorily performing the Services Required at a reasonable cost to BPCA. The evaluation process will be conducted in a comprehensive and impartial manner. The evaluation process will be conducted by a committee of BPCA's employees selected by BPCA (the "Committee"). The Committee will evaluate the Proposals based upon the evaluation criteria for selection set forth below.

BPCA reserves the right to reject and return unopened to the Proposer any Proposal received after the RFP Due Date. All timely submitted Proposals will be reviewed to determine if they contain all required submittals specified herein. Incomplete Proposals may be rejected.

B. Interviews

BPCA reserves the right to determine whether interviews will be necessary for any or all of the Proposers. The purpose of the interview is to further document a Proposer's ability to provide the Services Required, and to impart to the Committee an understanding of how specific services will be furnished. The proposed Lead PM, as well all other key personnel proposed to provide the services must be present and participate in the interview. The firm will be evaluated on the basis of whether the interview substantiates the characteristics and attributes claimed by the Proposer in its written response to this RFP and any other information requested by the Committee prior to the interview.

C. Evaluation Criteria for Selection

Selection will be based upon the following criteria:

1) Cost Proposal: 45%

2) ISA Certified Arborist on Staff: 15%

3) Demonstrated experience: 25%

4) Proposed MBE/WBE utilization plan (the "Utilization Plan") and/or Firm MBE/WBE status: 15%

D. Basis for Contract Award

The Contract will be awarded to the highest technically rated Proposer whose Proposal is determined to be responsive and in the best interests of BPCA, subject to a determination that the Cost Proposal is fair and reasonable.

VIII. NON-COLLUSION

By submitting a Proposal, Proposers hereby warrant and represent that any ensuing Contract has not been solicited or secured directly or indirectly in a manner contrary to the laws of the State of New York, and that said laws have not been violated and shall not be violated as they relate to the procurement or the performance of the Contract by any conduct, including the paying or giving of any fee, commission, compensation, gift, or gratuity or consideration of any kind, directly or indirectly, to any member of the board of directors, employee, officer or official of BPCA.

EXHIBIT A

Scope of Work

The purpose of this contract is to replace existing trees that have died or been removed due to construction and/or environmental conditions. Under this contract the contractor is to install 12 trees, as described below, in Battery Park City. These trees will be located both within the park system and also on the streets. Removal of existing trees and/or root balls will also be required.

Stringent safety measures must be taken due to the fact that this work is taking place in public parks and streets. This planting is to take place between the dates of March 1 through May 15, 2013, which is the spring planting season.

- 1. The selected Proposer will coordinate with nurseries as to delivery dates to accommodate the installation work schedule.
- 2. The foreman on the job must be an I.S.A. certified arborist, and be a full time employee of the Proposer. This employee must have been with the firm for at least one year.
- 3. Existing Belgian block to be removed and stacked.
- 4. Remove and discard, off site, existing dead trees and / or tree stumps as follows:

Quantity	Caliper
1	8" root ball only
2	12" trees & root ball

- 5. In all cases and instances, plant material to remain shall be protected. Damaged or destroyed plant material shall be restored or replaced as directed by the Construction Manager.
- 6. BPCA wants to stress the requirement of digging by hand.
- 7. The selected Proposer will install the following replacement trees:

Quantity	Tree Type & Location	Caliper
1	Pyrus Caleryana "Aristocrat" at Rector Bridge	4"- 4 1/2"
1	Pyrus Caleryana "Aristocrat" at Kowsky Plaza	4"- 4 1/2"
1	Zelkova Serrata at Wagner Park	4"- 4 1/2"
4	Cladastris kentukea at Kowsky Plaza	4"- 4 1/2"
3	Tilea tomentosa on the Espalande	4"- 4 1/2"
1	Nyssa sylvatica at Rockefeller Park Norht Lawn	4"- 4 1/2"
1	Cornus mas at Tear Drop Park	10' height

- 8. Stake each tree with four 8' high, 4" diameter rough sawn wooden stakes.
- 9. Some of the trees will need to be moved very carefully over existing plantings and/or lawns.
- 10. Replace Belgian block on a 1" sand setting bed.
- 11. No use of heavy machinery in the gardens.
- 12. Nothing larger than a bobcat on the lawn areas and plywood must be laid out.
- 13. Some trees might have iron tree grates that will need to be carefully lifted and reinstalled.
- 14. Clean up and mulch each planting area that has been worked on.
- 15. Proposer must obtain all necessary permits including a BPCA permit to work within Battery Park City and must provide the necessary equipment (safety cones, caution tape, blockades, etc.) and personnel to keep the site safe from park users and pedestrians.
- 16. All BPCPC planting and soil specifications must be strictly adhered to with no exceptions. Such "Technical Specifications" are annexed hereto as <u>Exhibit G</u>, and labeled as SECTION 02950.

EXHIBIT B

CONTRACTOR REQUIREMENTS AND PROCEDURES FOR BUSINESS PARTICIPATION OPPORTUNITIES FOR NEW YORK STATE CERTIFIED MBEs/WBEs AND EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITY GROUP MEMBERS AND WOMEN

Pursuant to New York State Executive Law Article 15-A, BPCA recognizes its obligation under the law to promote opportunities for maximum feasible participation of certified MBE/WBEs and the employment of minority group members and women in the performance of BPCA contracts.

In 2006, the State of New York commissioned a disparity study to evaluate whether minority and women-owned business enterprises had a full and fair opportunity to participate in state contracting. The findings of the study were published on April 29, 2010, under the title "The State of Minority and Women-Owned Business Enterprises: Evidence from New York" (the "Disparity Study"). The report found evidence of statistically significant disparities between the level of participation of minority-and women-owned business enterprises in state procurement contracting versus the number of minority-and women-owned business enterprises that were ready, willing and able to participate in state procurements. As a result of these findings, the Disparity Study made recommendations concerning the implementation and operation of the statewide certified minority- and women-owned business enterprises program. The recommendations from the Disparity Study culminated in the enactment and the implementation of New York State Executive Law Article 15-A, which requires, among other things, that BPCA establish goals for maximum feasible participation of New York State Certified MBEs/WBEs and the employment of minority groups members and women in the performance of New York State contracts.

Business Participation Opportunities for MBE/WBEs and minorities and women

For purposes of this solicitation, BPCA hereby establishes an overall goal of 20% for MBE/WBE participation, 10% for MBE participation and 10% for WBE participation (based on the current availability of qualified MBEs and WBEs). A contractor ("Contractor") on the Contract must document good faith efforts to provide meaningful participation by MBE/WBEs as subcontractors or suppliers in the performance of the Contract and Contractor agrees that BPCA may withhold payment pending receipt of the required MBE/WBE documentation. The directory of New York State Certified MBE/WBEs can be viewed at: http://www.esd.ny.gov/mwbe.html.

For guidance on how BPCA will determine a Contractor's "good faith efforts," refer to 5 NYCRR §142.8.

In accordance with 5 NYCRR §142.13, Contractor acknowledges that if it is found to have willfully and intentionally failed to comply with the MBE/WBE participation goals set forth in the Contract, such finding constitutes a breach of Contract and BPCA may withhold payment from the Contractor as liquidated damages.

Such liquidated damages shall be calculated as an amount equaling the difference between: (1) all sums identified for payment to MBE/WBEs had the Contractor achieved the contractual MBE/WBE goals; and (2) all sums actually paid to MBEs/WBEs for work performed or materials supplied under the Contract.

By submitting a bid or Proposal, a Proposer agrees to submit the following documents and information as evidence of compliance with the foregoing:

- A. Proposers are required to submit a Utilization Plan with their bid or Proposal. Any modifications or changes to the Utilization Plan after the Contract award and during the term of the Contract must be reported on a revised Utilization Plan and submitted to BPCA.
- B. BPCA will review the submitted Utilization Plan and advise the Proposer of BPCA's acceptance or issue a notice of deficiency within 30 days of receipt.

- C. If a notice of deficiency is issued, Proposer agrees that it shall respond to the notice of deficiency within seven (7) business days of receipt by submitting to BPCA, at the address specified in this RFP, or by facsimile at 212-417-2279 a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by BPCA to be inadequate, BPCA shall notify the Proposer and direct the Proposer to submit, within five (5) business days, a request for a partial or total waiver of MBE/WBE participation goals. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or Proposal.
 - D. BPCA may disqualify a Proposer as being non-responsive under the following circumstances:
 - 1) If a Proposer fails to submit a Utilization Plan;
 - 2) If a Proposer fails to submit a written remedy to a notice of deficiency;
 - 3) If a Proposer fails to submit a request for waiver; or
 - 4) If BPCA determines that the Proposer has failed to document good faith efforts.

Contractors shall attempt to utilize, in good faith, any MBE/WBE identified within its Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to the Contract award may be made at any time during the term of the Contract to BPCA, but must be made no later than prior to the submission of a request for final payment on the Contract.

Contractors are required to submit a Contractor's MBE/WBE Contractor Compliance & Payment Report to BPCA on a monthly basis over the term of the Contract documenting the progress made toward achievement of the MBE/WBE goals of the Contract.

Equal Employment Opportunity Requirements

The Contractor is required to ensure that it and any subcontractors awarded a subcontract over \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor, shall undertake or continue programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, equal opportunity shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, and rates of pay or other forms of compensation. This requirement does not apply to: (i) work, goods, or services unrelated to the Contract or (ii) employment outside New York State.

Proposer further agrees to submit with the Proposal a staffing plan identifying the anticipated work force to be utilized on the Contract and if awarded a Contract, will submit to BPCA a workforce utilization report identifying the workforce actually utilized on the Contract. Contractor will be required to make good faith efforts to achieve a participation goal of 30% of the total number of employees required for the work who are minority group members and a participation goal of 5% of the total number of employees required for the work who are women to perform the work.

Further, pursuant to Article 15 of the Executive Law (the "Human Rights Law"), all other New York State and Federal statutory and constitutional non-discrimination provisions, the Contractor and sub-contractors will not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

Please Note: Failure to comply with the foregoing requirements may result in a finding of non-responsiveness, non-responsibility and/or a breach of the Contract, leading to the withholding of funds, suspension or termination of the Contract or such other actions or enforcement proceedings as are allowed by the Contract.

For questions on MBE/WBE participation, joint ventures and sub-contracting goals ONLY, please contact Mr. Anthony Peterson at 212.417.2337.

EXHIBIT C

(BPCA's standard form of contract attached)

CONSTRUCTION AGREEMENT

between

BATTERY PARK CITY AUTHORITY, d/b/a HUGH L. CAREY BATTERY PARK CITY AUTHORITY

and

CONTRACTOR COMPANY NAME

Dated as of ______ Contract No. ????

(PROJECT NAME)

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EXHIBITS

CONSTRUCTION AGREEMENT

	AGREEMENT	made	as	of	the			day	of
	,	, 2011,	between	BA	TTERY	PARK	CITY	AUTHC	RITY
d/b/a HUC	GH L. CAREY BAT	ΓERY P	ARK CIT	ΓΥ Α	AUTHO	RITY,	a body	corpora	ite and
politic, con	stituting a public ben	efit corp	oration an	ıd ha	ving a p	lace of	busines	s at One	World
Financial C	Center, 24th Floor, Nev	w York, l	New York	102	81 ("Au	thority,	" "BPC	4 " or "O	wner")
and CONT	TRACTOR COMPAN	NY NAN	ME, a co	rpora	ation in	corporat	ted und	er the la	aws of
STATE, ha	wing an office at Stree	et Addres	ss, City, Z	Zip, P	hone, ("	Contrac	ctor").		

$\underline{W} \underline{I} \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:

WHEREAS, BPCA has fee title to certain real property located in the City, County and State of New York, generally consisting of approximately 92 acres of land located on the west side of lower Manhattan, bounded by Pier A to the South, the westerly extension of Reade Street to the North, the United States Bulkhead Line to the East and the United States Pierhead Line to the West (collectively, "Battery Park City"); and

WHEREAS, BPCA has caused the staged development of Battery Park City, in individual parcels, creating a richly diversified mixed use community providing residential and commercial space, with related amenities such as parks, plazas, recreational areas and a waterfront esplanade; and

WHEREAS, BPCA intends to hire a contractor to perform type of services services, consisting of the Work, as hereinafter defined, for the location (the "Project"), located in and adjacent to location, in Battery Park City, in the Borough of Manhattan, County, City and State of New York (the "Site"); and

WHEREAS, Contractor has been selected to perform the Work, as hereinafter defined, upon the terms and conditions hereinafter provided; and

WHEREAS, Contractor and BPCA entered into a Letter of Intent, dated as of August 31, 2011 (the "Letter of Intent"), under which BPCA authorized Contractor to perform the Work, as hereinafter defined, up to a funding maximum of \$50,000. The terms and conditions of such Letter of Intent are hereby superseded by the terms and conditions set forth herein; (if there is no Letter of Intent, omit this Recital).

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and BPCA hereby agree as follows:

ARTICLE 1 - DEFINITIONS

The following terms, wherever used in the Contract Documents, as defined herein, shall have the meanings set forth below or in the Section enumerated below next to each term:

- (a) Agreement as defined in Section 2.2(a).
- (b) Agreement Termination Date as defined in Section 3.1(a)
- (c) Architect Name, address, etc. or n/a.
- (d) Artist n/a.
- (e) Authority as defined in the introductory clause of this Agreement.
- (f) BPCA as defined in the introductory clause of this Agreement. BPCA hereby designates BPCA Person and Title, Project Manager, as the representative of BPCA for the purpose of acting on behalf of BPCA whenever action is required to be taken hereunder by BPCA. Such designation may be revoked in writing at any time after notice given by BPCA to Contractor. In addition, such representative of BPCA shall have full power and authority to delegate in writing any or all of her responsibilities hereunder to any one or more persons after notice to Contractor.
 - (g) Certificate of Substantial Completion as defined in Section 8.6.
 - (h) Change Order as defined in Section 9.1(b).
 - (i) Construction Manager Name, address, etc. or n/a.
 - (j) Contract Documents as defined in Section 2.2.
 - (k) Contract Price as defined in Article 4.
- (l) Contract Time the duration of time during which Construction Manager schedules and coordinates the Work of Contractor pursuant to Section 7.2 hereof.
 - (m) Contractor as defined in the introductory clause of this Agreement.
 - (n) Drawings Project drawings comprising part of Exhibit B.
 - (o) Engineer Name, address, etc. or n/a.
- (p) Extra Work Any work in addition to the Work to be performed by Contractor pursuant to the Contract Documents.

- (q) Field Order as defined in Section 9.3.
- (r) Final Acceptance as defined in Section 8.7.
- (s) Final Requisition as defined in Section 5.2.
- (t) Guarantor as defined in Section 27.3.
- (u) Joint Venture an entity created pursuant to a written agreement among two or more contractors pursuant to which each shares in the direction and performance of the Work and shares in a stated percentage of profits or losses.
 - (v) Key Person/Personnel as defined in Section 27.25.
 - (w) Letter of Intent as defined in the fifth whereas clause of this Agreement.
 - (x) Materialman Supplier of Materials.
- (y) Materials All products, materials, fixtures, tools, equipment, apparatus, and furnishings intended to form a part of the Work.
- (z) Minority Business Enterprise or Minority Owned Business Enterprise or MBE as defined in Article 26.
 - (aa) Minority or Minority Group Member as defined in Article 26.
 - (bb) Payment Bond as defined in Section 13.3.
 - (cc) Performance Bond as defined in Section 13.3.
 - (dd) Preceding Covered Date as defined in Section 5.5.
- (ee) Product Data Illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by Contractor to illustrate a material, product or system for some portion of the Work.
 - (ff) Progress Schedule as defined in Section 3.1(a).
 - (gg) Project as defined in the third Recital of this Agreement.
 - (hh) Purchase Order as defined in Section 10.1(e).
 - (ii) Requisitions as defined in Section 5.2.
- (jj) Samples Physical examples which illustrate Materials or workmanship and establish standards by which the Work will be judged.

- (kk) Site as defined in the third whereas clause of this Agreement.
- (II) Specifications the specifications comprising part of Exhibit C.
- (mm) Subcontract An Agreement between the Contractor and a Subcontractor (as defined in subSection (nn), below) for work on the Site.
- (nn) Subcontractor A person, firm, partnership or corporation under contract with Contractor.
 - (oo) Term as defined in Section 3.1(i).
 - (pp) Trade Payment Breakdown as defined in Section 5.3.
- (qq) Women's Business Enterprise or Women Owned Business Enterprise or WBE as defined in Article 26.
 - (rr) Work as defined in Section 2.1.
 - (ss) Work Completion Date as defined in Section 3.1(a).

ARTICLE 2 - SCOPE OF WORK, MATERIALS AND LABOR

2.1 Definition of Work

Contractor shall perform and complete (and shall cause all Subcontractors to perform and complete) for BPCA the work more particularly described in Exhibit A - Scope of Work annexed hereto and made a part hereof, required by and in conformity with the Contract Documents in connection with the construction of the Project on the Site. All Materials to be furnished and labor and work to be performed and completed by Contractor and/or Subcontractors as required in the Contract Documents and in conformity with all requirements applicable with respect thereto are herein collectively referred to as the "Work."

2.2 Contract Documents

The "Contract Documents" shall consist of the following:

- (a) This instrument (the "Agreement"), which includes, in addition to the text comprising Articles 1 through 27, the following:
 - (1) Exhibit A:
 - (2) Exhibit B:

Etc.

- (b) The Payment and Performance Bonds (as defined in Section 13.3).
- (c) Change Orders adopted pursuant to Article 9.

The Contract Documents form the contract between BPCA and Contractor. References in the Contract Documents to "the Contract", "this Contract" or "the Construction Contract" shall be deemed to include all of the Contract Documents. References to "this Agreement" or "the Agreement" shall refer to this instrument (including the Exhibits attached hereto), which is one of the Contract Documents.

2.3 Intent of Contract Documents

- (a) The intent of the Contract Documents is to include in the Work all labor and materials, insurance, tools, equipment, permits, licenses, taxes, approvals, transportation, surveys, testing, field Engineering and other professional services (other than the services of BPCA's Architect, Construction Manager, Engineers and attorneys, and the inspection, survey and testing services of BPCA) and any other items required to execute and complete the Work satisfactorily and in accordance with the Contract Documents. Contractor shall perform and complete the Work in accordance with the true intent and meaning of the Contract Documents and shall perform all Work incident thereto or as is usually performed in connection therewith or as is reasonably inferable therefrom, it being the intention that all work usually performed by the trade covered by this Agreement and necessary to produce the intended result be performed by Contractor whether or not specifically covered by the Contract Documents.
- (b) The Contract Documents are complementary and what is called for by one shall be as binding as if called for by all.
- (c) If any conflicts or ambiguities are found in or between the Drawings and Specifications, or among any of the Contract Documents, they shall be brought to the attention of Construction Manager immediately for resolution. Engineer and Construction Manager will interpret the Contract Documents so as to secure in all cases the most substantial and complete performance of the Work as is most consistent with the needs and requirements of the Work. In the event that Engineer and Construction Manager shall disagree as to the interpretation of the Contract Documents, such dispute shall be presented to BPCA, which shall have sole authority to resolve the dispute.
- (d) Addenda to parts of the Contract Documents are for the purpose of varying, modifying, rescinding or adding to the affected portion of the Contract Documents. All addenda should be read together with the portions of the Contract Documents to which they pertain. Where an addendum modifies a portion of a paragraph or a Section, the remainder of the paragraph or Section shall remain in force unless otherwise stated in the addendum.
- (e) Captions, headings, cover pages, tables of contents and footnote instructions contained in the Contract Documents are inserted only to facilitate reference and for

convenience and in no way define, limit or describe the scope, intent or meaning of any provision of the Contract.

- (f) Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- (g) Drawings and Specifications are complementary. Anything shown in the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown in the Drawings, shall have the same effect as if shown or mentioned in both.
- (h) A typical or representative detail indicated on the Drawings shall constitute the standard for workmanship and material throughout corresponding parts of the Work. Where necessary, and where reasonably inferable from the Drawings or Specifications, Contractor shall adapt such representative detail for application to such corresponding parts of the Work. The details of such adaptation shall be subject to prior approval by Engineer. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown.
- (i) The layout of mechanical and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items, and accessories indicated on the Drawings is diagrammatic, and all variations in alignment, elevation, and detail required to avoid interferences and satisfy Architectural and structural limitations are not necessarily shown. Actual layout of the Work shall be carried out without affecting the Architectural and structural integrity and limitations of the Work and shall be performed in such sequence and manner as to avoid conflicts, provide clear access to all control points, including valves, strainers, control devices, and specialty items of every nature related to such systems and equipment, obtain maximum headroom, and provide adequate clearances as required for operation and maintenance.

2.4 Completion of Drawings and Specifications

Contractor acknowledges that there are items of work which are not drawn or specified with complete detail in the Drawings and Specifications but which are required for the completion of the Work. Any such item, when identified as part of the reasonable development of the Work, shall be drawn or specified by Engineer in consultation with Contractor, in a manner consistent with contemplated kind and quality and customary standards. When such drawing or specification is approved by BPCA, the drawing or specification so approved shall thereupon be part of the Contract Documents and the item of work shall be performed by Contractor as part of the Work without further action or order of Construction Manager or BPCA and without any increase in the Contract Price (as hereinafter defined) as if such drawing and specification were originally included in the Contract Documents.

2.5 Title to Materials

Title to all Materials shall immediately vest in BPCA upon payment in respect of such Materials, whether or not then incorporated or installed into the Project. The Materials shall then become the sole property of BPCA subject to the right of BPCA, Construction

Manager or Engineer to reject same for failure to conform to the standards of any or all of the Contract Documents. Title to all Work and Materials shall be in BPCA, free and clear of all liens, claims, security interests or encumbrances. Contractor warrants that no Work or Materials shall be fabricated or delivered to the Site by Contractor or any Subcontractor or Materialman subject to any security interest, lien or similar encumbrance.

2.6 Contractor's Obligations

- (a) Contractor shall in a good and workmanlike manner perform all the Work required by this Agreement in accordance with the best practice of Contractor's trade within the time specified herein. Contractor shall supervise and direct the Work using its best skill and attention. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures within the scope of Contractor's Work.
- (b) Contractor shall furnish, erect, maintain, and remove such construction plant and such temporary Work as may be required for the performance of the Work. Contractor shall be responsible for the safety, efficiency and adequacy of Contractor's plant, appliances and methods, and for damage which may result from failure or improper construction, maintenance or operation of such plant, appliances and methods. Contractor shall comply with all terms of the Contract Documents, and shall do, carry on and complete the entire Work under the direction of and to the satisfaction of BPCA.
- (c) Contractor shall provide all equipment, tools and materials and whatever else may be required for proper performance of the Work unless stated otherwise in the Contract Documents.
- (d) Contractor shall deliver all Materials at such times and in such quantities as will insure the speedy and uninterrupted progress of the Work. All Materials shall be delivered to the Site in proper order and quantity and shall be stored at the Site, if storage space is available in Construction Manager's opinion, in such places as Construction Manager shall direct; provided, that no delivery of Materials shall be made to the Site without prior approval by Construction Manager. No Materials shall be removed from the Site without the consent of Construction Manager. Contractor shall handle and take care of all Materials used in performance of the Work whether furnished by Contractor or BPCA, as the same are delivered to the Site or to any applicable offsite storage location and shall be solely responsible for the security and condition of the same. After final completion and acceptance of the Work, or sooner if requested by Construction Manager, Contractor shall remove all surplus Materials and scaffolding furnished by it which have not been incorporated in the Work.
- (e) Contractor shall follow and perform the Work in accordance with the Contract Documents as interpreted by Engineer, Construction Manager, and BPCA.
- (f) Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work. Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the

performance of the Work. If Contractor observes that any of the Contract Documents are at variance with any applicable laws in any respect, Contractor shall promptly notify Engineer and Construction Manager in writing, and any necessary changes shall be accomplished by appropriate modification. If Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to Engineer and Construction Manager, Contractor shall assume full responsibility therefor and shall bear all costs attributable thereto.

- (g) Contractor shall be responsible for collecting all paper, cartons and other debris caused by its Work or personnel, placing the same in a location designated by Construction Manager and keeping the portion of the Site upon which Contractor is performing the Work free from all debris.
 - (h) Contractor shall attend meetings as directed by BPCA or Construction Manager.

2.7 "Or Equal" Clause

- (a) The Materials of manufacturers referred to in the Specifications and on the Drawings are intended to establish the standard of quality and design required by Engineer; however, Materials of manufacturers, other than those specified, may be used if equivalent and approved by Engineer, Construction Manager and BPCA.
- (b) It is deemed that the term "or approved equal" is included after all Materials referred to in the Specifications or on the Drawings.
- (c) Engineer will initially judge the equivalency of proposed substitute Materials. Engineer will make written recommendation of acceptance or rejection to Construction Manager and/or BPCA. Construction Manager and/or BPCA will then authorize Engineer to issue to Contractor written approval or rejection of the substitution.
- (d) If Contractor desires to use a substitute item, Contractor shall make application to Engineer in writing in sufficient time (with regard to the progress of the Work, the period of delivery of the goods concerned and adequate time for Engineer's review) stating and fully identifying the proposed substitute, cost changes (if any), and submitting substantiating data, samples, brochures of the item proposed. It is Contractor's responsibility to provide at its sole expense sufficient evidence by tests or other means to support any request for approval of substitutions.
- (e) Prior to proposing any substitute item, Contractor shall satisfy itself that the item Contractor proposes is, in fact, equal to that specified and had been used satisfactorily in similar applications to the application proposed for the Work, for at least three years, that it will fit into the space allocated and within the load allocated for the same, that it affords comparable ease of operations, maintenance and service, that its appearance, longevity and suitability for the climate and use are comparable to that specified, and that the substitution requires no change in dimension or design of any other Work of Contractor, of any other contractor or in the time required for the performance thereof.

- (f) The burden of proof that a proposed substitution is equal to a specified item shall be upon Contractor, who shall support its request with sufficient test data and other means to permit Engineer to make a fair and equitable decision on the merits of the proposal. Any item by the manufacturer other than those cited in the Contract Documents, or of brand name or model number or of generic species other than those cited in the Contract Documents, will be considered a substitution.
- (g) Acceptance of substitutions shall not relieve Contractor from responsibility for compliance with all the requirements of the Contract Documents. If, notwithstanding the provisions of subSection (e) above, changes in other parts of the Work or the work of other contractors are required by its substitutions, Contractor shall be responsible for the costs of any such changes including the cost of all design and redesign services related thereto incurred by the Engineer and his consultants.
- (h) The Contract Time shall not be extended by any circumstances resulting from a proposed substitution, nor shall Contractor be entitled to any compensation for any delay caused thereby or related thereto.

2.8 Quality and Labeling

All Materials furnished shall be new and the quality thereof shall be in accordance with the Contract Documents. When Materials are specified to conform to a given standard, the Materials delivered to the Site shall bear manufacturer's labels stating that the Materials meet such standard. The above requirements shall not restrict or affect BPCA's right to test Materials as provided in this Agreement.

ARTICLE 3 - COMMENCEMENT AND COMPLETION OF THE WORK

3.1 Commencement, Completion and Progress Schedule

- (a) Contractor agrees to be bound by and comply with the Progress Schedule and the Work Completion Date and the progress schedule for completion and progress of the Work (with the original progress schedule, as the Progress Schedule shall be updated pursuant to subSection (b), below, being referred to herein as the "Progress Schedule") and waives any right to charge or claim damages or any increased cost, charges or expenses against BPCA, Construction Manager, or Engineer, for delays or disruptions from any cause whatsoever. Contractor's sole remedy as against BPCA, Construction Manager, or Engineer for any delays or disruptions shall be as provided in Section 3.4 hereof. Notwithstanding the foregoing, the Work shall be completed by no later than DATE (the "Work Completion Date") with time being of the essence in respect of said Work Completion Date, as more fully set forth in subSection (h) below; this Agreement shall terminate by DATE (the "Agreement Termination Date").
 - (b) Contractor has prepared a Progress Schedule detailing, without limitation, all

items of Work to be performed. Such Progress Schedule shall be updated weekly, or at any other time at the request of Construction Manager or BPCA, and submitted to Construction Manger and BPCA for review and approval. Failure to submit any requested update shall constitute a material breach of this Agreement. After submission of the Progress Schedule for the Work, Construction Manager shall coordinate the Progress Schedule for the Work in coordination with the Progress Schedule for the entire Project. The Progress Schedule for the Work may be revised by Construction Manager from time to time.

- (c) Contractor (shall commence the Work upon receipt of a written notice to proceed signed by BPCA/commenced the Work pursuant to the Letter of Intent, and shall prosecute the Work diligently and in accordance with the time and place requirements of the Project as determined and directed by Construction Manager, by using such means and methods of construction as will assure that the Work will be performed hereunder in accordance with the Contract Documents and Progress Schedule, and to the satisfaction of BPCA, Engineer, and Construction Manager.
- (d) If, in the opinion of Construction Manager, Contractor falls behind the Progress Schedule then in effect, Contractor shall take whatever steps may be necessary to improve its progress and shall, if requested by Construction Manager, submit operational plans to demonstrate the manner in which the lost time may be regained. It is the responsibility of Contractor to maintain its schedule so as not to delay the progress of the Project or the schedules of other contractors. If Contractor delays the progress of its Work or the work of other contractors, it shall be the responsibility of Contractor to increase the number of workers, the number of shifts, the days of Work and/or, to the extent permitted by law, to institute or increase overtime operations, all without additional cost to BPCA, in order to regain any time lost and maintain the Progress Schedule then in effect as established by Construction Manager.
- (e) If Contractor shall fail to complete the Work by the Work Completion Date, or within the time to which such completion may have been extended, BPCA may, at its option, withhold from any sums otherwise due and owing to Contractor hereunder, so much of the balance thereof as BPCA shall deem necessary to secure it against any costs, expenses, or damages which may be incurred by BPCA as a result of said failure, but any such withholding shall not be deemed to be a waiver of any rights hereunder, and Contractor shall be liable to and shall indemnify and hold BPCA harmless from any and all cost, expense or damage incurred by BPCA by reason of such failure.
- (f) If Contractor shall neglect, fail or refuse to complete the Work by DATE, or upon the expiration of any proper extension granted by Owner, Contractor agrees to pay to Owner \$1,000.00 (One Thousand Dollars), not as a penalty, **but as liquidated** damages, for each and every calendar day that the Contractor is in default. Default shall include abandonment of the Work by Contractor. (IF NO LIQUIDATED DAMGES, WRITE "Liquidated Damages I n/a").
- (g) Said amount of liquidated damages is agreed upon by and between Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages which Owner would sustain in the event of delay in completion, and said

amount is agreed to be the amount of damages sustained by Owner and said amount may be retained from time to time by Owner. (IF NO LIQUIDATED DAMGES, WRITE "Liquidated Damages II – n/a").

- (h) It is further agreed that time is of the essence for each and every portion of the Work. In any instance in which additional time is allowed for the completion of any Work, the new time of completion established by said extension shall be of the essence. Contractor shall not be charged with liquidated damages or any excess cost if BPCA determines that Contractor is without fault and that the delay in completion of the Work is due:
- (1) to any preference, priority or allocation order duly issued by the Government of the United States or the State of New York;
- (2) to an unforeseeable cause beyond the control and without the fault of, or negligence of Contractor, and approved by BPCA, including, but not limited to, acts of God or of public enemy, acts of BPCA, fires, epidemics, quarantine, strikes, freight embargoes and unusually severe weather; and
- (3) to any delays of Subcontractors or Materialmen occasioned by any of the causes specified in SubSections 1 and 2 of this paragraph.
- (i) Notwithstanding the foregoing, and whether or not, at any given time, a Progress Schedule, or update thereto (as appropriate) has been submitted, the Work shall be completed by the Work Completion Date (with the period between commencement of the Work and the Work Completion Date being referred to herein as the "Term").

3.2 Coordination with Other Contractors

Contractor shall coordinate the Work to be performed hereunder with the work of other contractors performing work for the Project in such manner as Construction Manager shall direct. Contractor shall indemnify and hold BPCA, Construction Manager and Engineer harmless from any and all claims or judgments for damages, costs and expenses to which BPCA, Construction Manager or Engineer may be subjected or which they may suffer or incur by reason of Contractor's failure to comply with Construction Manager's directions promptly. If Contractor notifies Construction Manager in writing that another contractor is failing to coordinate its work with the Work to be performed hereunder, Construction Manager shall promptly investigate the charge. If Construction Manager finds that charge to be true, it shall promptly issue such direction to the other contractor with respect thereto as the situation may require. BPCA, Construction Manager and Engineer shall not, however, be liable for any damages suffered by Contractor by reason of the other contractor's failure promptly to comply with the directions so issued by Construction Manager or by reason of another contractor's default in performance. Should Contractor sustain any damage through any act or omission of any other contractor, Contractor shall have no claim against BPCA, Construction Manager or Engineer for such damage but shall have a right to recover such damage from the other contractor, under a provision similar to a provision contained in the following sentence which is part of this Agreement and which has been or will be inserted in the contracts with the other contractors engaged in the Project.

Should any other contractor having or who shall hereafter have a contract with BPCA for the performance of work upon the Project sustain any damage through any act or omission of Contractor hereunder, Contractor agrees to reimburse such other contractor for all such damages and to indemnify and hold BPCA, Construction Manager and Engineer harmless from all such claims. Any claim against a performance bond surety made by any contractor shall be subordinated to any claim of BPCA then existing or that may arise in the future against such other contractor or its performance bond surety.

3.3 Notice of Delay

Should Contractor be or anticipate being delayed or disrupted in performing the Work hereunder for any reason, including, without limitation, its financial condition or Contractor's general nonpayment of its debts as such debts become due, it shall promptly and in no event more than three (3) days after the commencement of any condition which is causing or is threatening to cause such delay or disruption notify Construction Manager in writing of the effect of such condition upon BPCA's Progress Schedule, stating why and in what respects the condition is causing or is threatening to cause delay, provided, however, that notwithstanding the above, if such delay or disruption, or anticipated delay or disruption, should be the result of any change or anticipated change in Contractor's financial condition, Contractor shall notify Construction Manager forthwith of such cause or anticipated cause. Failure strictly to comply with this notice requirement shall be sufficient cause to deny Contractor a change in schedule and to require it to conform to the Progress Schedule then in effect established by Construction Manager.

3.4 Extension of Time

- (a) An extension of time under the Progress Schedule then in effect may be granted by BPCA subject to the provisions hereof upon written application therefor by Contractor. An application for an extension of time under the Progress Schedule then in effect must set forth in detail the nature of each cause of delay in the performance of the Work, the date or dates upon which each cause of delay began and ended and the number of days delay attributable to each such cause. After the application is submitted, Contractor shall supply any other data that Construction Manager may request.
- (b) Contractor shall be entitled to an extension of time under the Progress Schedule then in effect for delays in the performance of the Work, if caused:
 - (1) solely by acts or omission of BPCA, Construction Manager or Engineer; or
 - (2) by the acts or omissions of other contractors or unforeseeable causes beyond the control and without the fault or negligence of Contractor including, but not limited to, acts of God, acts of public enemy, acts of any Government body, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of

Subcontractors or Materialmen arising from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and such Subcontractors or Materialmen; provided, that Contractor shall have used its best efforts and diligently sought to have minimized any such period of delay, by taking whatever measures are necessary, including without limitation, if applicable, seeking alternate sources of Materials, other Subcontractors or other facilities in which to perform the required construction operations; and provided, further, that an application is made pursuant to the requirements of the immediately preceding paragraph.

ARTICLE 4 - CONTRACT PRICE

For the performance and completion of the Work, BPCA shall pay Contractor a lump sum amount of \$497,572.95, (such sum is herein sometimes referred to as the "Contract Price"), which amount shall include any monies paid heretofore in accordance with the Letter of Intent, provided, that if the Contract Price shall be expressly revised by a Change Order in accordance with Article 9 hereof, the Contract Price shall thereafter mean the Contract Price as so revised. Contractor will submit appropriate Time Sheets in the form of Exhibit F.

ARTICLE 5 - METHOD, SCHEDULE AND TERMS OF PAYMENTS

5.1 Partial Payment

- (a) In accordance with Requisitions (as defined in Section 5.2) submitted and approved as provided below for Work performed in accordance with this Agreement, Contractor shall be entitled to partial payment on account of the Contract Price in an amount equal to the value, as determined in accordance with the Trade Payment Breakdown (as defined in Section 5.3), of the portions of the Work completed and acceptable to BPCA and Construction Manager for purposes of such payment, less a retainage equal to ten percent (10%) of the total amount of all prior partial payments. Partial payments shall constitute advances against the Contract Price until final payment is made and accepted. No partial payment made, nor approval of a portion of the Work given for purposes of making a partial payment, shall constitute an acceptance of any Work not in accordance with the Contract Documents.
- (b) Upon completion of fifty percent of the Work, Contractor may make written application to BPCA requesting reduction of the retainage set forth in Section 5.1(a) hereof. Approval of such reduction of retainage and the percentage to which the retainage shall be reduced is in the sole discretion of BPCA. If BPCA approves a reduction of retainage as herein described, BPCA shall so notify Contractor in writing. Any reduction of retainage pursuant to this paragraph (b) shall not be deemed to be a waiver of retainage requirements for future partial payments.

5.2 Requisitions

Applications for partial payments ("Requisitions") and application for final payment ("Final Requisition") shall be in the form previously supplied by BPCA and shall be submitted by Contractor to Construction Manager or its designee in five original copies in the manner hereinafter provided for the approval of BPCA and Construction Manager. Each Requisition shall be supported by such data substantiating Contractor's right to payment as BPCA and Construction Manager may require.

5.3 Trade Payment Breakdown

Prior to the submission of the first Requisition, Contractor shall present to Construction Manager for approval a trade payment breakdown (the "Trade Payment Breakdown") of the various portions of the Work, aggregating the Contract Price, prepared in such form as specified by BPCA and supported by such data to substantiate its correctness as Construction Manager may require. After approval by BPCA and Construction Manager, the Trade Payment Breakdown shall not be changed or revised in any way without the written consent of Construction Manager. The Trade Payment Breakdown, when approved by Construction Manager, shall be used only as a basis for Requisitions and shall not be considered as a basis for reducing or increasing the Contract Price.

5.4 Payment for Stored Materials

If approved in advance of delivery by BPCA and Construction Manager, payments will be made on account of 80% of the value of Materials not incorporated in the Work but delivered and suitably stored at the Site or at some other offsite location agreed upon in writing by BPCA and Construction Manager. Such payments shall be conditioned upon submission by Contractor of bills of sale or other supporting documentation satisfactory to BPCA and Construction Manager to establish BPCA's title to such materials including applicable insurance and transportation to the Site for those materials stored offsite. In the event that Contractor, with approval of BPCA, stores any materials offsite, the conditions for payment of material stored off-site shall include but not be limited to the following: (a) the material shall be properly stored in a secured location approved by the BPCA and/or Construction Manager; (b) the Material will be covered under the BPCA's builder's risk policy subject to policy limits and restrictions; and (c) the Material may be inspected by the BPCA and /or Construction Manager to assure compliance with Contract Documents.

5.5 Receipts and Releases of Liens

With each Requisition, Contractor shall furnish its affidavit of payment and waiver of lien for Work done and Materials furnished through the date covered by the last preceding partial payment (the "Preceding Covered Date") and shall furnish its affidavit certifying that all Subcontractors and Materialmen have been paid for Work performed and Materials furnished through the Preceding Covered Date except for any permitted retainage. BPCA may also require Contractor to attach to each Requisition (i) affidavits of payment and waivers of lien from all Subcontractors and Materialmen dealing directly or indirectly with Contractor for Work performed and Materials furnished through the Preceding Covered Date

and/or (ii) the consent of the surety issuing the Payment Bond to such payment. BPCA may require Contractor to execute a waiver of lien at the time payment is made for a Requisition for all Work performed through the date of the Requisition in respect of which payment is being made.

In addition to the documents required to be furnished by the preceding paragraph, with the Final Requisition, Contractor shall furnish (y) its affidavit that there are no liens, claims or demands by, and that there is no indebtedness to, Subcontractors, Materialmen, laborers, other employees or third persons for which BPCA, Construction Manager, or Engineer might in any way be responsible and (z) releases from all Subcontractors and Materialmen dealing directly or indirectly with Contractor. Should any such Subcontractor or Materialman fail or refuse to furnish such release, Contractor may be required to furnish a bond satisfactory to BPCA to indemnify it against any such lien, claim or demand. If any such lien, claim or demand remains unsatisfied after all payments are made to Contractor, Contractor shall refund to BPCA all monies that BPCA may be compelled to pay in discharging such lien, claim or demand including all costs, expenses and attorneys' fees which BPCA may incur in connection therewith.

5.6 Time of Payment

Requisitions shall be submitted by Contractor to BPCA and Construction Manager by the seventh day of each calendar month for Work completed up to the last calendar day of the previous month or other day approved by BPCA, and payment shall be made on or about twenty days after BPCA receives the Requisition together with the documents required pursuant to Sections 5.2 and 5.5 hereof. Contractor shall be entitled to payment only in the amount approved by BPCA, and Construction Manager with respect to such Requisitions, each of which must be signed by BPCA, and Construction Manager before payment is made. The value of any Work included in a Requisition for partial payment which is found unacceptable by BPCA, or Construction Manager may be deducted from that or any subsequent Requisition.

5.7 Reduction of Retainage

Upon the issuance of a Certificate of Substantial Completion, as defined in Section 8.6, Contractor shall submit a Requisition in an amount equal to the Contract Price less an amount equal to two times the value of the Work on the punch list as determined by Construction Manager and less the total amount of all prior payments. Upon approval of the same by BPCA, BPCA shall pay to Contractor the amount approved less any amount which BPCA is entitled to withhold hereunder.

5.8 Final Payment

- (a) The final balance due Contractor under this Agreement shall be payable to Contractor by BPCA, as final payment hereunder, within thirty days after all of the following have taken place:
 - (1) Contractor's Final Requisition has been submitted by Contractor and

approved by BPCA, and Construction Manager;

- (2) the affidavit provided for in Section 5.5 hereof has been submitted by Contractor, and any other documents or actions expressly specified in the Contract Documents as preconditions to final payment have been submitted or completed; and
- (3) any inspections or approvals with respect to any of the Work that BPCA deems legally required or appropriate by governmental authorities or by the applicable Board of Fire Underwriters have been performed or obtained.
- (b) The acceptance of final payment shall constitute a waiver of all claims by Contractor.

5.9 Release and Consent of Surety

Notwithstanding any other provision of this Agreement, before final payment pursuant to Section 5.8 shall become due pursuant hereto or before reduction of retainage, Contractor shall submit to BPCA a consent of surety to final payment or reduction of retainage in a form and substance acceptable to BPCA.

5.10 BPCA's Right to Audit and Inspect Records

Contractor shall maintain and shall keep for a period of at least six years after the date of Final Acceptance of the Work, pursuant to Section 8.7, all records and other data relating to the Work. BPCA or its designee shall have the right to inspect and audit all records and other data of Contractor relating to the Work at any time and from time to time until the end of such six year period. Contractor shall promptly respond to any inquiries of BPCA or any representative of BPCA arising out of any such inspection or audit.

5.11 Withholding of Payments

- (a) BPCA may withhold payment or, because of subsequently discovered evidence, may nullify the whole or any part of any previously approved Requisition to such extent as may, in the judgment of BPCA, be necessary:
 - (1) to assure payment of just claims or liens of any persons supplying labor or Materials for the Work:
 - (2) to protect BPCA from loss due to defective Work or to reimburse BPCA, Construction Manager and Engineer for fines on account of non-compliance with applicable laws, rules and regulations, including rules promulgated by the Office of Safety & Health Administration;

- (3) to protect BPCA from loss due to death or injury to persons or damage to the Work or property of BPCA, other contractors or others caused by the act or neglect of the Contractor;
- in the event that there is reasonable evidence that the Work will not be completed for the unpaid balance of the Contract Price;
- in the event that there is reasonable evidence that the Work will not be completed within the time provided; or
- in the event that Contractor persistently fails to perform the Work in accordance with the Contract Documents.

In any of such events, BPCA shall have the right to apply any such amounts so withheld in such manner as BPCA may deem proper to satisfy such claims, to secure such protection, to complete the Work or to compensate BPCA for any loss suffered by reason of Contractor's delay. Such application shall be deemed payment for the account of Contractor. In the event that BPCA gives Contractor notice that it intends to make such application, Contractor shall be estopped from disputing liability or the amount of liability unless, within three days after receipt of such notice, it indicates to BPCA in writing that it is not liable or that the amount of its liability is different from that set forth in the notice.

(b) The provisions of this Section 5.11 are solely for the benefit of BPCA, and any action or non-action by BPCA shall not give rise to any liability on the part of BPCA. Failure to so act shall not be deemed a waiver of any present or future claims of BPCA.

ARTICLE 6 – CONTRACTOR

6.1 Superintendence by Contractor

Contractor shall provide a competent construction superintendent to be in charge of the Work. The construction superintendent shall devote full time to the Work, shall be present at the Site during the time the Work is required to be performed and shall have full authority to accept instructions, make decisions and act for Contractor at all times. If at any time the construction superintendent is not satisfactory to BPCA or Construction Manager, Contractor shall, if requested by BPCA, replace such superintendent with another satisfactory to BPCA. Contractor shall enforce strict discipline and good order at all times among Contractor's employees and all Subcontractors. Contractor shall not engage any employee not skilled in the task assigned.

6.2 Representations and Warranties

Contractor represents and warrants that:

(a) Contractor is financially solvent and is experienced in, and competent to

perform, the Work and has the staff, manpower, equipment, Subcontractor, and suppliers available to complete the Work within the time specified in the Agreement for the Contract Price:

- (b) Contractor is familiar with all Federal, State or other laws, ordinances, orders, rules and regulations, which may in any way affect the Work;
- (c) any temporary and permanent Work required by this Agreement can be satisfactorily constructed, and such construction will not injure any person or damage any property; and
- (d) Contractor has carefully examined the Contract Documents and the Site and, from Contractor's own investigations, is satisfied as to the nature and location of the Work, the character, quality and quantity of surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, the general and local conditions, and all other conditions or items which may affect the Work. Prior to submitting its bid for performance of the Work, Contractor notified BPCA or Construction Manager in writing of any discrepancies or errors in the Contract Documents.

6.3 <u>Verifying Dimensions and Site Conditions</u>

Before proceeding with the Work, Contractor will check all previous and surrounding work and determine the correctness of the same; failure on its part to detect or report discrepancies will relieve BPCA of liability from any and all claims to recover cost, expense, loss or damage resulting therefrom. Contractor shall take, determine, investigate and verify all field measurements, dimensions, field construction criteria and Site conditions for the performance of the Work and shall check and coordinate the information contained in the Contract Documents and the boring logs which shall be available for inspection with the requirements of the Work. Contractor shall be responsible for determining the exact location of and to verify the spatial relationships of all Work. If any conflicts or discrepancies are found in the Contract Documents or if Contractor has any questions concerning the foregoing, it shall immediately notify Construction Manager and shall thereafter perform the Work in accordance with the directions of Construction Manager.

6.4 Copies of Contract Documents for Contractor

BPCA shall furnish to Contractor, without charge, two sets of the Contract Documents. Any sets in excess of the number mentioned above may be furnished to Contractor at the cost of reproduction and mailing.

6.5 Meetings

Contractor shall attend all meetings as directed by BPCA or Construction Manager, including meetings set forth in Section 26.3, and shall be represented at such meetings by a person having knowledge of the Work and authorized to act for Contractor at all times. If at any time such person is not satisfactory to BPCA or Construction Manager,

Contractor shall, if requested by BPCA, be represented by another person satisfactory to BPCA, having knowledge of the Work and authorized to act for Contractor at all times.

6.6 Related Work

Contractor shall examine the Contract Documents for related work to ascertain the relationship of such work to the Work under the Contract Documents.

6.7 Surveys and Layout

Unless otherwise expressly provided in this Agreement, Owner shall furnish Contractor survey points necessary for the Work, but Contractor shall lay out the Work.

6.8 Reports and Access

Contractor shall furnish BPCA and Construction Manager with daily and monthly manpower reports on forms provided by Construction Manager and such other reports as may be required by BPCA or Construction Manager. BPCA, Construction Manager and Engineer shall have full and free access to the shops, plants and factories of Contractor, any Materialmen and Subcontractors to inform themselves as to the progress of the Work.

6.9 <u>Financial Information</u>

Until completion of the Work, Contractor agrees to notify BPCA forthwith in writing of any event which has caused or is reasonably anticipated to cause a material adverse change in Contractor's business or financial condition from that shown in the then most recent financial statements furnished by Contractor to BPCA. Contractor has furnished to BPCA financial statements regarding the period from January 1, 2010 through December 31, 2010. Contractor agrees to furnish to BPCA, at BPCA's request from time to time hereafter, quarterly, or annual financial statements (which shall be audited, if such is the practice of Contractor for financial statements covering the applicable period) and such additional information as BPCA shall deem necessary or desirable to satisfy itself of Contractor's continuing ability to complete the Work.

ARTICLE 7 - CONTRACT ADMINISTRATION

7.1 Engineer's Responsibilities and Functions

Contractor acknowledges that the role of Engineer with respect to the Work shall be as specified in this Agreement. Contractor will comply with the instructions of

Engineer pursuant hereto.

Engineer's duties and services shall in no way supersede or dilute Contractor's obligation to perform and complete the Work in conformity with the Contract Documents.

7.2 Construction Manager's Responsibilities and Functions

- (a) Construction Manager shall coordinate and schedule construction to insure that the completion of the Project is on schedule and that the Project is well constructed in accordance with the Contract Documents. Contractor acknowledges that the role of Construction Manager with respect to the Work shall be as specified in this Agreement. Contractor hereby agrees to comply with the directions and instructions of Construction Manager.
- (b) Construction Manager shall call for meetings of Contractor, other contractors, Subcontractors and Materialmen as necessary for the proper coordination of the Work. Such meetings shall be held at the Site on regular working days, during regular working hours, unless otherwise directed by BPCA. Attendance shall be mandatory for all parties notified to attend.

7.3 Scope of Responsibility of Engineer and Construction Manager

In no event shall any act or omission on the part of the Construction Manager or Engineer relieve Contractor of its obligation to perform the Work in full compliance with the Contract Documents. Neither Engineer nor Construction Manager will be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and neither will be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents or the failure to fulfill any of the requirements of this Agreement.

ARTICLE 8 - INSPECTION AND ACCEPTANCE

8.1 Access to the Work

BPCA, Construction Manager, Engineer or their authorized representatives shall at all times have access to and the right to observe the Work and all facilities where the Work or any part thereof is being fabricated or stored, and Contractor shall provide proper facilities for such access and observation.

8.2 Notice of Required Inspections and Tests

If the Contract Documents, or any laws, rules, ordinances or regulations, require that any Work be inspected or tested, Contractor shall give BPCA, Construction Manager and Engineer timely notice of readiness of the Work for inspection or testing and the date fixed for such inspection or testing.

8.3 Additional Inspections and Tests

- (a) Whenever, in the opinion of BPCA, Construction Manager or Engineer, it is desirable to require inspection or testing of the Work or its individual components in addition to any such testing which may be originally included in the Work, they shall have authority to do so whether or not such Work be then fabricated, installed, covered or completed. If such inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, Contractor shall bear all costs thereof, including Engineer's and Construction Manager's additional services made necessary by such failure; otherwise BPCA shall bear such costs, and an appropriate Change Order shall be issued.
- (b) In the event that any item of the Work fails inspection or testing, BPCA, Engineer or Construction Manager may require inspection or testing of any or all of the other items of the Work at Contractor's cost and expense.

8.4 <u>Uncovering of Work</u>

- (a) If any Work shall be covered or concealed contrary to the request of BPCA, Engineer or Construction Manager, such Work shall, if required by BPCA, Engineer or Construction Manager, be uncovered by examination, inspection or testing. Any examination, testing or inspection shall not relieve Contractor of the responsibility to maintain quality control over the Work. If any test results are below specified minimums, BPCA may order additional testing. The cost of such additional examination, inspection or testing, any additional professional services required, and any other expenses incurred by BPCA as a result of such examination, inspection or testing shall be borne by Contractor.
- (b) In the event that a typical detail fails inspection or testing, BPCA, Engineer or Construction Manager may require inspection or testing of any or all of other such typical details at Contractor's cost and expense.

8.5 Correction of Work

Any Work not approved by BPCA, Engineer and Construction Manager shall immediately be reconstructed, made good, replaced or corrected by Contractor including all Work of other contractors destroyed or damaged by such removal or replacement. Rejected material shall be removed immediately from the Site. Acceptance of material and workmanship by BPCA shall not relieve Contractor from Contractor's obligation to replace all Work which is not in full compliance with the Contract Documents.

8.6 Certificate of Substantial Completion

Upon their receipt of written notice from Contractor stating that in Contractor's estimation the Work has been substantially performed in conformity with the Contract Documents, Engineer and/or Construction Manager shall perform an inspection for the

purposes of determining whether the Work has been so performed, commencing such inspection within ten (10) days of receipt of such notice and completing it with all due diligence. When Engineer and/or Construction Manager find upon inspection that, to the best of their knowledge and belief, the Work is so performed, they shall prepare and deliver to BPCA for delivery to Contractor a certificate specifying the date of substantial completion of the Work for purposes of this Agreement ("Certificate of Substantial Completion") and a punch list of items of Work remaining to be completed prior to the completion of the Work.

The delivery of a Certificate of Substantial Completion shall not terminate or alter Contractor's obligation under this Agreement to complete the Work in conformity with the Contract Documents and to fulfill all terms and conditions of this Agreement.

8.7 Completion of Work and Acceptance

Upon their receipt of written notice from Contractor stating its belief that the Work has been fully performed in conformity with the Contract Documents, and confirming that Contractor has completed any items of Work previously noted to it by Engineer and Construction Manager as not having been acceptably completed in any punch list or otherwise, Engineer and Construction Manager shall perform an inspection for purposes of determining whether the Work has been so performed. Engineer and Construction Manager shall commence such inspection within ten (10) days of receipt of such notice and shall pursue and complete it with all due diligence. When BPCA and Construction Manager find upon inspection that, to the best of their knowledge and belief, the Work has been so performed, they shall prepare a certificate of final completion, and, upon delivery by BPCA to Contractor of said certificate, the Work shall be deemed to be finally accepted by BPCA (such delivery of the certificate of final completion to Contractor is hereinafter referred to as "Final Acceptance").

ARTICLE 9 - CHANGES IN THE WORK

9.1 Change Orders

- (a) BPCA may, at any time, in any quantity or amount, without notice to the sureties and without invalidating or abandoning the contract, order Extra Work. Notwithstanding the terms of subSection 3.1(a) hereof, BPCA may, but shall be under no obligation to, change the manner, sequence or method of performance of the Work or direct acceleration of the Work and Contractor shall, therefor, be entitled to a Change Order (as defined in Section 9.1(b)) provided that such change or acceleration was not ordered to maintain the Progress Schedule or to coordinate the Work with the work of other contractors. Contractor shall not perform any Extra Work or change in the Work unless it has received a Change Order or Field Order (as defined in Section 9.3) duly signed as hereinafter provided. Contractor shall be obligated to perform changed Work promptly in conformity with any Change Order or Field Order issued in accordance herewith.
- (b) "Change Order" shall mean a written order issued by the Authority to Contractor after execution of this Agreement, authorizing or requiring:

- (i) Extra Work,
- (ii) items which were erroneously deleted or omitted from the Work,
- (iii) items which were included in the Work but were subsequently deleted,
- (iv) an extension of time to complete Work,
- (v) an increase or reduction in the payment to Contractor;, or
- (vi) any other change in the Contract Documents or in the sequence of performing or phasing of the Work.
- (c) All Change Orders shall be prepared, signed and issued by Construction Manager at the instruction of BPCA, and to be valid, must be countersigned by BPCA and Contractor.

9.2 Change in Contract Price and Time

- (a) The Contract Price will not be revised due to any change of the Work except as and to the extent expressly provided in the Change Orders. The amount by which the Contract Price is to be increased or decreased by any Change Order shall be determined by BPCA and Construction Manager by one or more of the following methods:
 - (1) by accepting an amount agreed upon by BPCA and Contractor;
 - (2) by applying the applicable unit prices and alternates where the Work involved is covered by unit prices in this Agreement;
 - (3) by receiving from Contractor a detailed breakdown satisfactory to BPCA and Construction Manager, including actual time slips and invoices, itemizing the direct cost of labor and material to perform the changed Work and adding thereto fifteen percent (15%) to cover profit and all indirect and overhead costs, except that where the changed Work is performed by a Subcontractor or Materialman, the direct cost of labor and material to perform the changed Work plus fifteen percent (15%) for profit and all indirect and overhead costs to Subcontractor or Materialman and an additional sum for profit and all indirect and overhead costs of Contractor equal to ten percent (10%) of the first \$100,000, five percent (5%) of the second \$100,000 and three percent (3%) of any cost in excess of \$200,000 to Contractor. No allowance shall be paid on the premium portion of overtime pay. Where the changed Work involves both an increase and a reduction in any contract Work, the above percentage override shall be applied only on the amount, if any, by which the cost of the increase exceeds the cost of the reduction.

- (4) by receiving from Contractor a true copy of its bid work sheets to determine the contract price for the elimination of any contract Work. The amount of reduction shall not include the overhead or profit of Contractor for the eliminated Work. Should Contractor fail to furnish BPCA with such bid work sheets, then Construction Manager shall determine the amount of the reduction. The determination of Construction Manager shall be final and binding unless erroneously or fraudulently arrived at, or arbitrary and capricious;
- (5) by adding to the Contract Price only the amount of the premium portion of overtime pay resulting from an acceleration of the Work; or
- (6) by adding to the Contract Price, the actual incremental labor and equipment costs incurred by the Contractor resulting from a change in the manner, sequence or method of performing the Work.
- (b) The compensation specified in a Change Order shall constitute a release and full payment for the Extra Work covered thereby and for any delay and disruption cost or expense occasioned by reason of said change in the Work.
- (c) No time extension shall be granted Contractor by reason of the issuance of any Change Order unless it is expressly stated therein.

9.3 Field Orders

Construction Manager shall have the authority to order minor changes in the Work by the issuance of written field orders ("Field Orders"), which may be issued without prior approval by BPCA. Field Orders must be countersigned by Contractor. Minor changes in the Work for purposes of this Section shall mean only changes which do not necessitate or warrant any revision in the Contract Price in excess of \$5,000 or affect the time of performance of Contractor's Work, any change in the basic character or design of the Project, or deviation from design standards established for the Project. Except as otherwise provided in the preceding sentence relating to an increase in the Contract Price, no claim for an increase in the Contract Price may be based upon any Field Order. If Contractor, on a receipt of a Field Order, claims that the change of Work involved necessitates a Change Order, it shall proceed in accordance with the Field Order under protest and notify BPCA immediately of its claim for additional compensation for Extra Work pursuant to Article 14.

9.4 Changed Conditions

(a) Contractor shall promptly, and before such conditions are disturbed, notify Construction Manager of: (1) subsurface or latent physical conditions differing materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. Construction Manager shall

promptly investigate the conditions, and if it finds that such conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for, performance of any part of the Work under this Agreement, Contractor shall be paid in the manner provided for payment with respect to any Change Order and receive, if warranted, a time extension.

(b) No claim of contractor under this clause shall be allowed unless Contractor has given the notice required in subSection (a) above.

ARTICLE 10 - SUBCONTRACTS AND PURCHASE ORDERS

10.1 <u>Selection of Subcontractors and Materialmen and Approval of Subcontracts and Purchase Orders</u>

- (a) Contractor shall submit to Construction Manager, within 21 calendar days of notice to proceed, the names of all persons with whom it has contracted or intends to contract or hereafter contracts with respect to the Work.
- (b) Except as specifically provided herein, Contractor shall not enter into any Subcontracts or issue any Purchase Orders (as hereinafter defined) to any Materialmen in connection with the performance of Contractor's obligations hereunder without the prior written consent of BPCA to the use of each such Subcontractor or Materialman, and to the agreement to be entered into between Contractor and any such Subcontractor or Materialman. Contractor shall inform BPCA in writing of any interest it may have in a proposed Subcontractor or Materialman. No such consent by BPCA, or employment, contract, or use by Contractor, shall relieve Contractor of any of its obligations hereunder.
- (c) Contractor shall be responsible for the performance of the Work of any Subcontractors or Materialmen engaged, including the maintenance of schedules, coordination of their Work and resolutions of all differences between or among Contractor and any Subcontractors. It is expressly understood and agreed that any and all Subcontractors or Materialmen engaged by Contractor hereunder shall at all times be deemed engaged by Contractor and not by BPCA.
- (d) Upon the request of BPCA, Contractor shall cause any Subcontractor or Materialman employed by the Contractor in connection with this Agreement to execute a copy of the Agreement wherein such Subcontractor or Materialman shall acknowledge that it has read and is fully familiar with the terms and provisions hereof and agrees to be bound thereby as such terms and provisions are or may be applicable to such Subcontractors or Materialmen.
- (e) Contractor shall submit to BPCA promptly following execution, three copies of every revision, amendment, modification or cancellation executed or issued by Contractor with respect to any Subcontractor or Materialman. BPCA is not obligated to make payment on account of Work performed or Materials furnished by a Subcontractor or a Materialman under a Subcontract or contract for construction supplies or Materials (hereinafter "Purchase Order(s)") unless there shall have been filed with BPCA prior to the submission of a

Requisition for each payment, three copies of such Subcontract or Purchase Order containing the provisions required by this Agreement to be contained therein, except as may otherwise be specified by BPCA with respect to Purchase Orders for minor purchases.

10.2 Access by BPCA and Others

Contractor shall include a provision in all Subcontracts and Purchase Orders stating that, to permit verification of Contractor's costs, BPCA shall have the right to have its representatives inspect and audit the books of account and records of the Subcontractor and Materialmen, including the right to make excerpts from such books and records. All payments by Contractor to a Subcontractor or Materialman shall be by check specifically indicating that payment is attributable to this Agreement. Contractor shall include a provision in all Subcontracts and Purchase Orders that will enable representatives of the State of New York, Construction Manager and BPCA, as the case may be, to obtain access during working hours to the appropriate books of account and records of the Subcontractors or Materialmen relating to the Work to determine if there is compliance with the requirements of law or this Agreement.

10.3 Retainage

Contractor may provide for a retainage under any of its Subcontracts or Purchase Orders provided that where a Subcontract or Purchase Order provides for a retainage, the retainage shall be no greater in percentage than that provided for under Sections 5.1 or 5.7 hereof with respect to Contractor itself, unless otherwise approved in writing by BPCA. Contractor shall submit with each Requisition a statement setting forth the amounts of all retainage, if any, under its Subcontracts and Purchase Orders.

10.4 <u>Miscellaneous</u>

- (a) Contractor shall be fully responsible for the work, acts and omissions of Subcontractors and Materialmen, and of persons either directly or indirectly employed by Subcontractors and Materialmen.
- (b) Contractor's use of Subcontractors and Materialmen shall not diminish Contractor's obligation to complete the Work in accordance with the Contract Documents. Contractor shall control and coordinate the work of Subcontractors and Materialmen.
- (c) Nothing contained in this Agreement shall create any contractual relationship between Subcontractors or Materialmen and BPCA, Construction Manager or Engineer. Nothing in this Section shall obligate BPCA to pay or to see to the payment of any sums to any Subcontractor or Materialmen.
- (d) Contractor shall include a provision in all Subcontracts and Purchase Orders exceeding \$50,000, requiring the Subcontractor or Materialman, if requested by BPCA, until the Subcontractor or Materialman finishes its portion of the Work, to deliver to Contractor unaudited and, if available, audited financial statements of the Subcontractor or Materialman

similar to the obligation of Contractor under Section 6.8 and promptly upon receipt thereof Contractor shall deliver copies thereof to BPCA.

ARTICLE 11 - ASSIGNMENT

11.1 No Assignment of Duties

Contractor shall not assign this Agreement or the performance of any obligations of Contractor under this Agreement, nor enter into any Subcontract in respect of the Work or any part thereof except in compliance with Article 10 hereof and with the prior written consent of BPCA, and each and every such assignment, Purchase Order and Subcontract without such compliance and consent shall be void and shall revoke and annul this Agreement.

11.2 No Assignment of Monies

Contractor shall not assign any monies payable hereunder nor execute and deliver any order for payment unless Contractor and the assignee shall have complied with the following terms and conditions:

- (a) the assignee shall be a commercial bank or finance company regularly engaged in the business of provided financing to construction contractors and shall be providing such financing to Contractor;
- (b) the assignee shall, simultaneously with the assignment, execute and deliver to BPCA an undertaking, in favor of BPCA, in form and substance satisfactory to BPCA, providing that:
 - (1) assignee will cause Contractor to apply for trust purposes, as defined in Article 3-A of the Lien Law of the State of New York (the "Lien Law"), all funds advanced by assignee to Contractor;
 - assignee will file a copy of the assignment, containing the covenant required by the Lien Law, with the County Clerk of New York County;
- (c) the assignee shall agree with BPCA in writing that BPCA and Contractor may modify any of the terms of this Agreement, including any of the terms of payment, without the consent of assignee;
- (d) the assignee shall agree with BPCA in writing that after the effective date of the assignment, BPCA may make payment directly to any Subcontractor or Materialman without any liability to the assignee;
- (e) the assignee shall agree with BPCA in writing that the assignee shall require and cause Contractor to keep his books and records in the form and manner described in Section 75 of the Lien Law; and

(f) the assignee shall agree with BPCA in writing that the assignee will indemnify and hold BPCA harmless from and against any loss, claim or expense incurred as a result of any failure of performance in accordance with the terms of such undertaking.

11.3 Assignment by BPCA

This Agreement or any rights of BPCA under this Agreement, including any guaranties or warranties of workmanship or material, may at any time be assigned by BPCA to the State of New York or any political subdivision, public corporation or agency of the State.

ARTICLE 12 - MECHANICS' LIENS AND CLAIMS

If any mechanic's lien or other claim shall be filed for or on account of the Work, Contractor shall promptly discharge such lien or claim.

ARTICLE 13 – INSURANCE AND CONTRACT SECURITY

13.1 Insurance

- (a) Contractor shall procure and maintain all of the insurance required under this Article 13 until Final Acceptance of the Work, except with respect to Completed Operations Coverage, as described in 13.1(f)(3) below.
- (b) Contractor shall not commence physical performance of the Work at the Site until Contractor has obtained, and required each Subcontractor to obtain, all the insurance required under this Article and until it has furnished to BPCA the certificate or certificates of insurance required by Section 13.1(c) hereof.
- (c) Contractor shall furnish to BPCA, before or upon execution of this Agreement, attention: **Michelle Rolon, Paralegal**, a certificate or certificates of the insurance required under this Article and, upon BPCA's request, certified copies of the original policies of insurance, within the time period required by BPCA and before commencing physical performance of the Work at the Site. Such certificate or certificates shall be in form satisfactory to BPCA, shall list the various coverages and shall contain, in addition to any other provisions required hereby, a provision that the policy shall not be changed, canceled or reduced and that it shall be automatically renewed upon expiration and continued in force until two years after Final Acceptance unless BPCA is given 90 days' written notice to the contrary. Such policies and certificates should name as additional insureds BPCA, Battery Park City Parks Conservancy Corporation (the "Conservancy"), the State of New York, Construction Manager, and Engineer.
- (d) All insurance required to be procured and maintained must be procured from insurance companies which have a financial rating by A.M. Best Company as published in the

most current key rating guide of "A-X" or better and which are authorized to do business in the State of New York.

- (e) If at any time any of the required insurance policies should be canceled, terminated or modified so that insurance is not in effect as required, then, if BPCA shall so direct, Contractor shall suspend performance of the Work. If the Work is not suspended then BPCA may, at BPCA's option, obtain insurance affording coverage equal to that required, the cost of such insurance to be payable by Contractor to BPCA.
 - (f) Contractor and each Subcontractor shall secure in form satisfactory to BPCA:
 - (1) Worker's Compensation and Employer's Liability Insurance, including USL & H (United States Longshoreman & Harbor Workers) and Jones Act Coverages, during the Term for the benefit of such employees as are required to be insured by the applicable provisions of law and voluntary compensation for employees excluded from statutory benefits. Employer's Liability Insurance and benefits resulting from disease shall not be less than an annual aggregate amount of \$500,000 for each consecutive 12-month period.
 - (2) Disability Benefit Insurance during the life of this Agreement for the benefit of such employees as are required to be insured by the applicable provisions of law.
 - (3) Commercial General Liability Insurance as follows:

Standard commercial general liability insurance policy with contractual, products and completed operations and explosion, blasting, collapse and underground damage liability coverages, under the occurrence policy format, issued to and covering the liability of Contractor for all the Work and operations relating thereto and all obligations assumed by Contractor under this Agreement in an amount which shall not be less than the following limits:

Combined Single Limits, Bodily Injury and Property Damage Liability

\$1,000,000.00 per each occurrence and \$2,000,000.00 in the aggregate.

The completed operations coverage shall continue in force until three years after Final Acceptance of the Work and shall contain, in addition to any other provisions required hereby, a provision that the policy shall not be changed, canceled or reduced. As a condition precedent to the making of Final Payment, Contractor shall furnish BPCA with a certified copy of the completed operations policy.

(4) Automobile Liability Insurance as follows:

A policy covering the use in connection with the Work of all owned, non-owned and hired vehicles bearing, or under the circumstances under which such vehicles are being used being required by the Motor Vehicle Laws of the State of New York to bear license plates. The coverage under such policy shall not be less than the following limits:

Combined Single Limits, Bodily Injury and Property Damage Liability

\$1,000,000.00 per each occurrence.

- (5) Marine Protection and Indemnity ("P&I") insurance of not less than one million dollars (\$1,000,000) per occurrence, if Contractor or any of its Subcontractors utilizes floating equipment, barges or floats, or performs marine-related construction, covering any and all claims for personal injury, death and property damage arising out of or in connection with this Agreement.
- Pollution Liability Insurance, on an occurrence basis, providing (6) coverage for bodily injury liability, property damage or environmental damage caused by pollution conditions with a limit of liability of not less than five million dollars (\$5,000,000) per occurrence and in the aggregate. The policy shall include coverage for environmental clean-up on land, in air and on water. The policy shall include coverage for completed operations for two (2) years after the completion of the performance of the Work, gradual and sudden and accidental pollution coverage, with a time element of no less than seven (7) days' notice and thirty (30) days' reporting. The policy shall not contain a sunset provision, or any other provision, which would prohibit the reporting of a claim and the subsequent defense and indemnity that would normally be provided by the policy. The policy shall provide transportation coverage for the hauling of hazardous materials from the Project Site to the final disposition location.
- (7) Vessel Pollution Liability Insurance, on an occurrence basis, providing coverage for bodily injury liability, property damage or environmental damage caused by pollution conditions, emanating from any floating equipment, barges or floats, utilized by Contractor or SubContractors in the performance of Marine related construction, with a limit of liability of not less than five million dollars (\$5,000,000) per occurrence and in the aggregate. The policy shall include coverage for environmental clean-up on land, in air and on water.

- (8) Umbrella Liability Insurance, excess of general liability, automobile liability, Protection and Indemnity ("Marine Liability"), vessel pollution and Employer's Liablity, in an amount of not less than 5,000,000.00.
- The insurance required under subSections 13.1 (f) 3, 4 and 5 shall be of a type (g) which shall protect Contractor and Subcontractors, respectively, against damage claims which may arise from operations under this Agreement, whether such operations be by the insured or by anyone directly or indirectly employed by the insured. Each of the aforesaid policies shall provide that the insurance company or an attorney approved and retained by the insurance company shall defend any suit or proceeding against BPCA or any officers, agents or employees of BPCA whether or not such suit is groundless, false or fraudulent. Notwithstanding the foregoing, BPCA shall have the right to engage its own attorneys for the purpose of defending any suit or proceeding against it or its respective officers, agents or employees, and, in such event, Contractor shall, indemnify BPCA for all attorneys' fees and disbursements and other costs incurred by it arising out of, or incurred in connection with, any such defense. The said insurance shall name BPCA, the Conservancy, the State of New York, Construction Manager and Engineer as additional insured as respects this location and shall, where applicable, be written on an occurrence basis and shall contain a provision that it is primary and that any similar insurance which BPCA, the Conservancy, the State of New York, Construction Manager, and Engineer Contractor or Subcontractor elect to carry for their own benefit is secondary or excess and not contributing insurance.
- (h) BPCA, at BPCA's cost and expense, may, at its sole option, procure and maintain such insurance as shall in the opinion of BPCA, protect BPCA from contingent liability of BPCA to others for damages arising from bodily injury, including death and property damages which may arise from operations under this Agreement. The procurement and maintenance of such insurance by BPCA shall not in any way be construed or be deemed to relieve Contractor from, or to be a limitation on the nature or extent of, such obligations and risk.
- BPCA shall, at all times during the period of construction and until completion (i) and Final Acceptance of the Work procure and maintain at the cost and expense of BPCA "Builders Risk" insurance, or its functional equivalent, against direct physical loss or damage to the Work and on all Materials to be made a part of the Work in the names of BPCA, Construction Manager, Contractor and Subcontractors, said amount of insurance to be procured and maintained on a one hundred percentage (100%) completed value basis on the insurable portion of the Work, which insurance shall contain a deductible provision for all losses except flood and earthquake in the amount of \$10,000 and a deductible provision for flood and earthquake in the amount of \$10,000. Owner recognizes that the deductible applicable to flood and earthquake may be greater than \$10,000 due to insurance market conditions and shall notify Contractor if such deductible is greater than \$10,000. Losses up to and including the amounts of such deductible provisions shall be borne by Contractor. The insurance specified above may, in certain instances, include other parties as named insureds, as the interests of such parties may appear. Loss, if any, is to be made adjustable with and payable to BPCA on behalf and for the named insureds as the interests of such insureds may appear. BPCA shall, in BPCA's sole discretion, have power to adjust and to settle with the insureds any loss or claim under such

insurance. The above is not intended to be a complete, full or accurate description of the coverage provided by the policies of insurance, copies of which are on file with BPCA. This subSection (i) is not intended to create or give any rights to Contractor or Subcontractors other than those which may be made available to such Contractors or Subcontractors under the terms of such policies. BPCA assumes no obligation to obtain insurance other than that evidenced by said polices. Contractor and Subcontractors shall not violate or permit to be violated any term or condition of such policies and shall at all times satisfy the safety requirements of BPCA and of the insurance companies issuing the aforementioned policies. The Contractor shall, upon notification by BPCA, obtain such insurance at BPCA's expense on a date determined by BPCA, which date shall not be less than (thirty) (30) days after notice to Contractor of such determination by the BPCA.

13.2 Effect of Procurement of Insurance

Neither the procurement nor the maintenance of any type of insurance by BPCA or Contractor shall in any way be construed or be deemed to limit, discharge, waive or release Contractor from any of the obligations and risks impressed upon Contractor by this Agreement or to be a limitation on the nature or extent of such obligations and risks.

13.3 Contract Security

Contractor shall, if it already has not done so, furnish to BPCA, with the execution of this Agreement, to BPCA, a bond in an amount at least equal to one hundred percent (100%) of the Contract Price for performance of the Work (the "Performance Bond") and also a labor and material payment bond in an amount at least equal to one hundred percent (100%) of the Contract Price for the payment of all persons performing labor or providing Materials in connection with the Work (the "Payment Bond").

13.4 Additional or Substitute Bond

If at any time BPCA shall be or shall become dissatisfied with any surety or sureties then obligated upon the Performance Bond or the Payment Bond, or if for any other reason such bonds shall cease to be adequate security to BPCA, Contractor shall within five (5) days after notice from BPCA to do so, substitute an acceptable bond or bonds in such form and sum and signed by such other surety or sureties as may be satisfactory to BPCA, except that the penal sum of said bond shall not exceed the Contract Price as adjusted by Change Orders. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished such an acceptable bond or bonds to BPCA.

ARTICLE 14 - CLAIMS FOR EXTRA WORK

(a) If Contractor is of the opinion that (i) any work which it has been ordered to perform is Extra Work and not Work as set forth in the Contract Documents, (ii) any action or omission of BPCA, Construction Manager or Engineer is contrary to the terms and provisions of the Contract Documents and will require the performance of Extra Work or will cause

additional expense to Contractor or (iii) any determination, order or directive of BPCA, Construction Manager or Engineer is contrary to the terms of the Contract Documents and will require the performance of Extra Work or will cause additional expense to Contractor, Contractor shall:

- (1) not suspend Work but promptly comply with each determination, order or directive and proceed diligently with the performance of the Work in accordance with BPCA's instructions,
- (2) notify BPCA, Construction Manager and Engineer in writing within 72 hours of such determination, order or directive of its reasons for its opinion and request a final determination thereon by BPCA, and
- (3) present to the Construction Manager for signature daily time and material tickets to confirm quantities of Material and hours of labor in cases where Contractor is performing the Work which it considers to be Extra Work.

If BPCA determines that (x) work is Work required to be performed hereunder and not Extra Work, (y) action or omission is proper or (z) a determination, order or directive is proper, Contractor, in order to reserve its right to claim compensation for or damages resulting from the performance of such work or the compliance with such determination, order or directive, must notify BPCA in writing within three (3) working days after receiving notice of BPCA's determination that it is performing such work or complying with such determination, order or directive under protest.

In addition to the foregoing, Contractor must submit to BPCA, Construction Manager and Engineer within thirty (30) days after it has performed such work or complied with such determination, order or directive, a detailed statement of the extra expense claimed to have been incurred and of any claimed damages resulting from the performance of such work or the compliance with such determination, order or directive.

- (b) No claim for Extra Work shall be allowed unless the same was done pursuant to written order approved in writing by BPCA. Contractor's failure to comply with any provision of this Article:
 - (1) shall constitute a conclusive and binding determination on the part of Contractor that such action, omission, determination, order or directive does not involve Extra Work, has not caused extra expense to Contractor, and is not contrary to the terms and provisions of the Contract Documents; and
 - (2) shall constitute an irrevocable waiver by Contractor of any claim for compensation for or damages resulting from the performance of such work or the compliance with such determination, order or directive.

(c) The value of claims for Extra Work, if allowed, shall be determined by the methods described in Section 9.2.

ARTICLE 15 - TERMINATION

15.1 Termination for Cause

- (a) If any of the following events shall occur (an "Event of Default") then BPCA or Construction Manager may serve written notice upon Contractor and upon Contractor's surety, if any, terminating this Agreement at a specified date. The notice shall contain the reasons for termination but shall not be effective to terminate this Agreement if Contractor cures all Events of Default stated in the notice prior to the date specified in the notice of termination.
 - (1) Contractor shall violate any substantial provision of this Agreement, including, without limitation, by failing to maintain the Progress Schedule then in effect in accordance with, or failing to discharge any of its responsibilities under, Section 3.1(d) hereof, or by failing to indemnify and hold harmless BPCA (as required by Sections 3.1(e), 3.2, 17.5, 21.1, 21.2., 22(c) or any other provision of this Agreement) from and against any and all claims, liabilities, losses, costs or damages arising out of Contractor's performance of, or failure to perform, its obligations under this Agreement in accordance with its terms; or
 - (2) any material adverse change shall take place in the financial condition of the Contractor;
 - (3) any action shall be taken by Contractor which would result in it becoming the subject of any insolvency proceeding. "insolvency proceeding" as used herein shall include the filing of a petition for relief under Title 11 of the United States Code by Contractor or the consent, acquiescence or taking of any action by Contractor, or the filing by or against Contractor of petition or action, looking to or seeking reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under any other regulation; or the appointment, with or without the consent of Contractor, of any trustee, custodian, receiver or liquidator of Contractor of any property or assets of Contractor; or Contractor's making of an assignment for the benefit of creditors or its inability to pay its debts as they become due.
 - (4) Contractor shall have misrepresented or omitted information in its submission of the Statement of Qualifications of Contractor submitted by Contractor to BPCA in connection with this Agreement; or
 - (5) Any partner, principal, director, officer or shareholder owning in excess of five percent (5%) of the stock of Contractor shall have been convicted

of a felony.

- (b) Upon the occurrence of an Event of Default, at Owner's option exercised by written notice to Contractor, title to any or all of Contractor's Materials, equipment, work in process and dies and tools, whether on the Site or off site, which are necessary or useful in completing the Work shall vest in Owner and Owner may take possession of and utilize the same for completion of the Work; provided that title to such items shall revert to Contractor upon effectuation of a cure of the Event of Default prior to the termination of this Agreement. If no cure has been effected, this Agreement has been terminated and Owner has taken possession of the same, then after Owner has taken possession and the Work shall have been completed by or on behalf of Owner, Owner shall pay to Contractor, in respect to the items for which title has vested in Owner, an amount equal to the sum of:
 - (1) the direct costs of Contractor for such materials and Work in progress, and
 - the depreciated book value of such tools and dies less, if Owner elects to return the tools and dies to Contractor, the salvage value thereof. Owner shall have the right to set off against such payment due to Contractor any amounts then due and payable by Contractor to Owner which may accrue as damages owing by Contractor to Owner under the terms of this Agreement. Contractor shall execute any further documents (including Form UCC-1 Financing Statements to give public notice of the potential ownership interest of Owner as set forth herein) required by Owner to confirm the terms of this subSection 15.1(b).
- (c) Upon termination of this Agreement, BPCA shall have the right, in addition to all other rights and remedies, to complete or have the Work completed by such means and in such manner, by contract or otherwise, with or without public letting as permitted by law, as BPCA deems advisable. BPCA may deduct any loss it incurs thereby from any payment then or thereafter due to Contractor without prejudice to any other remedy BPCA may have.
- (d) Immediately upon termination in accordance with the provisions of this Section, each and every Subcontract and Purchase Order entered into by Contractor shall, at BPCA's option, be automatically assigned to BPCA, and Contractor shall insert a provision to this effect in all Subcontracts and Purchase Orders. In the event that it shall be determined that a termination under this paragraph was wrongful or not justified, such termination shall be conclusively deemed to be a termination for convenience of BPCA under Section 15.2 hereof and the sole right, remedy and recourse of Contractor against BPCA shall be governed and determined by Section 15.2 hereof.
- (e) Contractor shall, upon the date when such termination shall take effect, promptly notify the union or unions, if any, having jurisdiction over the work by its employees that it releases the Project and consents that the Work be performed by others and Contractor expressly authorizes BPCA to notify the union or unions of such release in the name of Contractor. The failure, neglect or refusal of Contractor to issue such release or the disclaimer

by it of the effectiveness of the release issued by BPCA shall subject Contractor to all damages sustained by BPCA.

(f) If this Agreement shall have been terminated by BPCA pursuant to this Section 15.1 and it shall be finally determined by a court of competent jurisdiction that adequate grounds for such termination did not exist, then such termination shall be deemed a termination for convenience as provided hereunder.

15.2 Termination for Convenience of BPCA

- (a) BPCA, at any time, may terminate this Agreement for its own convenience. Any such termination shall be effected by delivering to Contractor a notice of termination specifying the extent to which performance of Contractor's Work under the Contract is terminated and the date upon which such termination becomes effective. Upon receipt of the notice of termination, Contractor shall:
 - (1) stop work under this Agreement on the date specified in the notice of termination;
 - (2) place no further Purchase Orders or Subcontracts for Materials, services or facilities;
 - (3) unless directed otherwise by BPCA, terminate all Purchase Orders and Subcontracts;
 - (4) assign to BPCA, in the manner, at the times, and to the extent directed by Construction Manager, all of the right, title and interest of Contractor under the Purchase Orders and Subcontractors so terminated, in which case BPCA shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such Purchase Orders and Subcontracts;
 - (5) to the extent required by Construction Manager, settle all outstanding liabilities and all claims arising out of such termination of Purchase Orders and Subcontracts, with the approval or ratification of Construction Manager, which approval or ratification shall be final for all the purposes of this Section 15.2;
 - (6) transfer title to BPCA and deliver in the manner, at the time, and to the extent, if any, directed by the Construction Manager (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the notice of termination, and (ii) the completed or partially completed plans, drawings, information and other property, which if this Agreement had been completed, would have been required to be furnished to BPCA;

- (7) take such action as may be necessary, or as the Construction Manager may direct, for the protection and preservation of the property related to this Agreement which is in the possession of Contractor and in which BPCA has or may acquire an interest.
- (b) In the event of a termination of this Agreement pursuant to this Section 15.2, Contractor shall be paid by BPCA only the apportioned Contract Price for Work installed, the fair and reasonable value of Materials stored on the Site and under order for which Contractor is responsible for payment, less any sums properly deductible by BPCA, except that in no event shall Contractor be entitled to compensation in excess of the total Contract Price.

15.3 Suspension of Work

- (a) BPCA may at any time and for any reason direct Contractor to suspend, stop, or interrupt the Work or any part thereof for a period of time. Such direction shall be in writing and shall specify the period during which the Work is to be stopped. Upon receipt of a direction of suspension, Contractor shall, as soon as practicable, cease performance of the Work as ordered and take immediate affirmative measures to protect the Work from loss or damage. Contractor shall resume the Work upon the date specified in such direction or upon such other date as BPCA may thereafter specify in writing.
- (b) The period during which the Work shall have been suspended, stopped or interrupted may, if warranted, be added to the time fixed for performance. A suspension, stoppage or interruption of the Work pursuant to this provision shall not give rise to any claim against BPCA for additional compensation.

ARTICLE 16 - COMPOSITE DRAWINGS AND COOPERATION

Where Contractor shall perform Work in close proximity to work of other contractors or subcontractors, or where there is evidence that Contractor's Work may interfere with work of other contractors, or subcontractors, Contractor shall assist in arranging space conditions to make satisfactory adjustment for the performance of such work and the Work. Contractor shall prepare composite scale working drawings and Sections as directed by Construction Manager, clearly showing how Contractor's Work is to be performed in relation to work of other contractors or Subcontractors. Such direction may include the following: the scale of the drawings, where the drawings are to be drafted, the number of prints or reproducibles, and the requirement of attendance at meetings. The determination as to who shall provide the composite drawings and the contents of the same shall rest exclusively with Construction Manager. Upon request by Construction Manager, Contractor shall sign and be bound by such composite drawings. Such signature shall indicate Contractor's acknowledgment that such drawing is acceptable as related to its Work covered or included in such drawing. If Contractor performs work in a manner which causes interference with the work of other contractors, or subcontractors, Contractor shall make the changes necessary to correct the condition as directed by Construction Manager.

ARTICLE 17 - PROTECTION OF RIGHTS, PERSONS AND PROPERTY

17.1 Accident Prevention

Contractor shall at all times take every precaution against injuries to persons or damage to property and for the safety of persons engaged in the performance of the Work.

17.2 <u>Safety Programs</u>

Contractor shall be responsible for the initiation, maintenance and supervision of safety precautions and programs as prescribed by Construction Manager in connection with the Work.

17.3 Protection of Work and Property

- (a) Contractor shall at all times guard BPCA's property from injury or loss in connection with the Work. Contractor shall at all times guard and protect the Site, the Work and adjacent property. Contractor shall replace or make good any such loss or injury unless such loss or injury is caused directly by BPCA.
- (b) Contractor shall have full responsibility to install, protect and maintain all Materials in proper condition and forthwith repair, replace and make good any damage thereto until Final Acceptance of the Work.
- (c) No provision is included for stresses or loads imposed by construction operations. If Contractor desires to place such loads in excess of the design load (as shown on the Drawings or Specifications), Contractor shall submit to Engineer drawings and calculations prepared by, and bearing the seal of a professional engineer, showing the proposed method for supporting such loads, for Engineer's review and approval. No loading of any kind in excess of design loads shall be placed on any part of the Project prior to Engineer's approval of such submitted drawings and calculations. The costs of the Engineer's review shall be reimbursed to BPCA by Contractor.
- (d) Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work, to make its several parts fit together properly and to make the Work fit together properly with previous and surrounding work. The requirement to cut, fit or patch shall be determined by Construction Manager; provided, that structural elements of the Project shall not be cut, patched, or otherwise altered or repaired without prior authorization by BPCA. Authorization to proceed with remedial operation on any damaged or defective element or portion of the Project shall not constitute a limitation or a waiver of BPCA's, Construction Manager's or Engineer's right to require the removal and replacement of any Work which fails to fulfill the requirements of the Contract Documents.

17.4 Adjoining Property

Contractor shall protect all adjoining property and shall repair or replace any such property damaged or destroyed during the progress of the Work.

17.5 Risks Assumed by Contractor

(a) Contractor solely assumes the following risk whether such risk arises from acts or omissions (whether negligent or not and whether supervisory or otherwise) of BPCA, Construction Manager, of Engineer or Contractor, of any Subcontractor, of any Materialman, of third persons or from any other cause, including unforeseen obstacles and difficulties which may be encountered in the prosecution of the Work, whether such risk is within or beyond the control of Contractor and whether such risk involves any legal duty, primary or otherwise, imposed upon BPCA:

the risk of loss or damage, direct or indirect, of whatever nature, to the Work or to any Materials furnished, used, installed or received by BPCA, Contractor or any Subcontractor, Materialmen or workmen performing services or furnishing Materials for the Work, whether such Work or Materials are stored at the Site or at an offsite location in accordance with Section 5.4 hereof. Contractor shall bear such risk of loss or damage until Final Acceptance of the Work by BPCA or until completion or removal of such Materials from the Site and the vicinity thereof, whichever event occurs last. A portion of the risk of such loss or damage may be insured against under the terms of a "builder's risk" insurance policy maintained in the name of Contractor, among others, as described in Section 13.1(i). Notwithstanding the status of any actual or potential recovery or claim under the said "builder's risk" insurance policy, in the event of any loss or damage, Contractor immediately shall repair, replace or make good any such loss or damage.

- (b) Contractor shall not, without obtaining express advance permission of BPCA, raise any defense involving in any way jurisdiction of any court in which BPCA brings an action arising under this Agreement, governmental nature of BPCA or the provisions of any statutes respecting suits against BPCA.
- (c) Contractor's obligations under this Article 17 shall not be deemed waived, limited or discharged by the enumeration or procurement of any insurance for liability for damages.
- (d) Neither Final Acceptance of the Work nor any payment made hereunder shall release Contractor from Contractor's obligations under this Article 17. The enumeration elsewhere in this Agreement of particular risks assumed by Contractor or of particular claims for which Contractor is responsible shall not be deemed to limit the effect of the provisions of this Article 17 or to imply that Contractor assumes or is responsible for only risks or claims of the type enumerated; and neither the enumeration in this Article nor the enumeration elsewhere in this Agreement of particular risks assumed by Contractor of particular claims for which

Contractor is responsible shall be deemed to limit the risks which Contractor would assume or the claims for which Contractor would be responsible in the absence of such enumerations.

- (e) The Contractor is advised that the Work under this Agreement may impose certain obligations and requirements mandated by the U.S. Department of Labor Occupational Safety and Health Administration regulations, Title 29 CFR Part 1926.62 Lead Exposure in Construction, relative to the potential exposure to lead by its employees. The Contractor assumes entire responsibility and liability for complying fully in all respects with these regulations.
- (f) Contractor agrees that any unsatisfied claims of the BPCA arising from Contractor's obligations under this Article 17 or Article 13 (Insurance) may be offset or deducted by BPCA from any payments due to Contractor hereunder.

ARTICLE 18 - USE PRIOR TO ACCEPTANCE BY BPCA

- (a) If before Final Acceptance of Work, BPCA desires to use the Site or any part thereof which is completed or partly completed, or to place or install therein or thereon equipment, BPCA shall have the right to do so, and Contractor shall in no way interfere with or object to such use by BPCA.
- (b) Such use (1) shall not constitute acceptance of space, systems, Materials or elements of the Work, nor shall such use affect the start of any guaranty period and (2) shall not affect the obligations of Contractor for work which is not in accordance with the requirements of this Agreement or other obligations of Contractor under the Contract Documents.
- (c) Contractor shall continue the performance of the Work in a manner which shall not unreasonably interfere with such use by BPCA.

ARTICLE 19 - EXEMPTION FROM SALES AND COMPENSATING USE TAXES

19.1 BPCA Exempt

BPCA is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties thereof on all Materials which will become an integral component of the completed Project pursuant to this Agreement.

19.2 <u>Certificates</u>

Contractor, Subcontractors and Materialmen shall obtain any and all necessary certificates or other documentation from the appropriate governmental agency or agencies, and use such certificates or other documentation as required by law, rule or regulations to obtain said tax exemption.

ARTICLE 20 - WARRANTIES AND GUARANTIES

20.1 In General

- Contractor guarantees that all Work performed and all Materials furnished will (a) conform to the Contract Documents as to kind, quality, functions, design and characteristics of material and workmanship. Contractor shall remove, replace and repair, at its sole cost and expense, all defects in workmanship, Materials, ratings, capacities, or design characteristics occurring in or to the Work including, without limitation, any portion of the Work furnished or performed by any Subcontractor or Materialman, within one year from the date of Final Acceptance. Contractor guarantees that all Work performed and all Materials furnished will conform to the Contract Documents as to kind, quality, functions, design and characteristics of material and workmanship. Contractor hereby acknowledges that BPCA may be required to incur substantial expense if correction of the Work is required particularly if such correction involves the uncovering, removal or replacement of concrete, wiring and piping installed at the Site. If Contractor shall fail to reimburse BPCA for any such expense which may become payable as provided in this paragraph, BPCA shall be entitled to deduct such expense from any payments required to be made by BPCA to Contractor pursuant to this Agreement. Contractor, upon demand, shall pay for all damage to all other work resulting from such defects and all expenses necessary to remove, replace and repair such other work which may be damaged in removing, replacing or repairing such defects.
- (b) The benefits of this Article 20 shall inure to the benefit of BPCA and its respective successors and assigns. In addition, any bond or guaranty which may be required of Contractor or any Subcontractor or Materialman under the Contract Documents shall inure to the benefit of BPCA and its respective successors and assigns.
- (c) The rights and remedies afforded BPCA under this Section are in addition to and not in lieu of and do not in any way affect, change, alter, modify, vary or prejudice any right, remedy or recourse which BPCA may have under other provisions of this Agreement or pursuant to Law.

20.2 Additional Guaranties

In addition to the general guaranty set forth in Section 20.1, any other guaranties set forth in the Contract Documents shall be applicable.

20.3 Repair by Another

If BPCA has requested Contractor to correct any Work and Contractor shall not have completed any correction of the Work as shall be required pursuant to this Article 20 within ten (10) working days after receipt of written notice from BPCA specifying the defect or damage required to be removed, replaced or repaired, or if such defect or damage is of such a nature that it cannot be completely removed, repaired and replaced within such ten (10) day period and Contractor shall not have diligently commenced removing, repairing and replacing

such defect and damage within such ten (10) day period or shall not thereafter with reasonable diligence and in good faith proceed to do such work, BPCA may employ such other person, firm or corporation as it may choose, to perform such removal, replacement and repair, and Contractor shall, upon demand, pay to BPCA all amounts which BPCA expends for such removal, replacement and repair.

ARTICLE 21 - INDEMNITY

21.1 Delay or Failure

Contractor and its sureties shall be responsible for and pay to BPCA, all loss, damage and additional cost incurred by reasons or on account of (i) the unexcused delays of Contractor (determined as set forth in Section 3.1 hereof) or (ii) Contractor's failure to fully and completely carry out the terms of this Agreement.

21.2 Inventions

In addition to the indemnity set forth in Section 17.5(a), Contractor shall indemnify and hold BPCA harmless from all claims, demands or liabilities of any kind or nature, including costs and expenses, for or on account of any patented or unpatented plan, design, invention, article, arrangement, appliance, Material, or preparation, manufactured, used or followed in the performance of or incident to the Work hereunder, and shall defend any and all actions arising out of the same. In the event of any injunction or legal action by reason thereof, which shall operate to stop or retard the Work, BPCA shall have the right to substitute such other articles of like kind as will enable it to complete the Project, and all costs and expenses occasioned thereby shall be borne by Contractor.

21.3 Liability

Contractor shall hold BPCA, the Conservancy, the State of New York, Construction Manager and Engineer and their servants, agents and employees harmless from and shall indemnify them against any and all liability, loss, cost, damage or expense, including attorneys' fees, by reason of claims of its employees or employees of its Subcontractors or Materialmen for injuries or death or by reason of claims of any other person or persons, including BPCA, the Conservancy, the State of New York, Construction Manager, and Engineer and their servants, agents or employees, for injuries to person or property or for death occasioned in whole or in part by any act or omission of Contractor, its Subcontractors and Materialmen and their servants, agents and employees whether or not it is contended that BPCA contributed thereto or was responsible therefor by reason of nondelegable duty. If, however, this indemnification is limited by applicable law, then the said indemnification hereby shall be similarly limited to conform with such law, it being the intention that this indemnification shall be as permitted by applicable law. BPCA may retain any monies due or to become due hereunder sufficient to indemnify BPCA, the Conservancy, the State of New York, Construction Manager, and Engineer and their servants, agents and employees against such injuries, claims, suits, actions, costs or damages should any such claim arise. Contractor shall, at the sole option of BPCA and upon written demand of BPCA, assume the defense in behalf of

BPCA, the Conservancy, the State of New York, Construction Manager, and Engineer or their servants, agents or employees of any action or proceeding commenced against them whether or not Contractor is named as a party therein as part of Contractor's aforementioned obligation to indemnify and hold them harmless.

ARTICLE 22 - PATENTS AND ROYALTIES

- (a) In the prosecution of the Work, Contractor will not use or furnish any patented appliance, article, device or method of construction unless it has authorization for such use. Contractor shall pay all royalty and license fees.
- (b) Any approval of Materials by Engineer shall be construed merely as an approval of their adequacy for the Work.
- (c) Contractor will be responsible for all claims against BPCA for the infringement of any patents. Contractor shall defend all suits and claims for infringement of any patent rights and shall indemnify and hold BPCA harmless from loss on account thereof. Any expenses incurred by Contractor in connection with suits and claims will not offset the Contract Price.
- (d) Contractor hereby and presently grants to BPCA an irrevocable and non-exclusive license to utilize all of the Contractor's rights in and to:
 - (1) all United States patents and patents registered in any other foreign country;
 - (2) all proprietary knowledge, data and trade secrets; and
 - (3) all Engineering data and information necessary in connection with and solely in connection with, all work performed by BPCA or other contractors hired by BPCA to complete the work after termination of this Agreement pursuant to Section 15.1.

Each Purchase Order and Subcontract shall contain a similar clause with respect to the rights of Subcontractor and Materialman in and to the foregoing, in form and substance acceptable to BPCA, granting BPCA the aforesaid license. BPCA shall not be obligated to pay any royalties, license fees or any other consideration to Contractor or any Subcontractor or Materialman for this license. Contractor and each Subcontractor and Materialman shall execute a separate license agreement, in form and substance satisfactory to BPCA, concurrently with the execution of this Agreement, or any Subcontract or Purchase Order, or within ten (10) days thereafter, embodying the terms of this Section. On request, Contractor and each Subcontractor and Materialman shall furnish BPCA with copies of all related Engineering and technical data required to complete the work.

ARTICLE 23 - AS-BUILT DRAWINGS

- (a) Contractor shall be furnished by BPCA, at BPCA's expense, with one physical set and two electronic copies (on disk) of 48" x 36" Drawings, on which Contractor, where applicable, shall record the installation of underground utilities, concealed piping, concealed valves and control equipment and record changes in the Work. Such recording shall be kept current and include final and actual sizes as well as the location and elevation of the above figures and offset distances in feet and inches to permanent surface improvements such as buildings, retaining walls or curbs. During the progress of the Work, at the request of Construction Manager and prior to the approval of any Requisition of Contractor, Contractor shall provide a 48" x 36" PDF to BPCA of the up to-date Drawings showing the Work as installed. At completion of the Work, Contractor shall complete, sign and date the 48" x 36" physical set of Drawings and deliver it to Engineer.
- (b) After review by Engineer and return to Contractor for any required changes, Contractor shall furnish to BPCA, at Contractor's expense, at least one physical set and two electronic copies (on disk) of 48" x 36" final Drawings.

ARTICLE 24 - SHOP DRAWINGS AND SAMPLES

24.1 Contractor Submittal

Contractor shall submit to Construction Manager the shop drawings, Product Data and Samples required by the Contract Documents and shall adhere to all submittal and scheduling requirements with respect thereto. After review of such shop drawings, Product Data and Samples by Construction Manager and their approval by Engineer, each of such items shall be returned in accordance with the procedures established therefor.

24.2 Contractor's Responsibility

Engineer's approval of shop drawings, Product Data and Samples shall not relieve Contractor of responsibility for and deviation from the requirements of the Contract Documents. Contractor shall be responsible for the accuracy of the shop drawings, Product Data and Samples and for the conformity of Documents unless Contractor has notified Engineer of the deviation in writing at the time of submission and has received from Engineer written approval by separate letter of the specified deviations. Engineer's approval shall not relieve Contractor of responsibility for errors or omissions in the shop drawings, Product Data or Samples.

ARTICLE 25 – NOTICES

Whenever it is provided herein that notice, demand, request, consent, approval or other communication shall or may be given to, or served upon, either of the parties by the other, or whenever either of the parties desires to give or serve upon the other any notice,

demand, request, consent, approval or other communication with respect hereto, each such notice, demand, request, consent, approval or other communication shall be in writing and shall be effective for any purpose only if given or served by hand with proof of delivery, by delivery by an overnight courier service which obtains receipts, or by mailing the same by express or certified mail, postage prepaid, return receipt requested, addressed to:

(a) If to BPCA:

Name & Title of BPCA Person, Battery Park City Authority, One World Financial Center, 24th floor, New York, NY 10281

with a copy to: General Counsel, at the same address

or to such other address as BPCA may from time to time designate in the manner set forth above.

(b) If to Contractor:

Name, address & Company

or to such other addresses as Contractor may from time to time designate in the manner set forth above.

(c) if to Construction Manager

Name, Company and Address (if there is a CM).

or to such other addresses as the Construction Manager may from time to time designate in the manner set forth above.

(d) if to Engineer/Architect/etc.

Name, Company, Address.

or to such other addresses as **Engineer** may from time to time designate in the manner set forth above.

(e) Every notice, demand, request, consent, approval or other communication hereunder shall be deemed to have been given or served (i) in the case of express or certified mail, on the date the receipt is dated by the Post Office or express mail carrier, as the case may be, and (ii) in the case of notice by hand or by overnight courier service, upon delivery, as evidenced by a signed receipt.

ARTICLE 26 - EMPLOYMENT AND DIVERSITY

26.1 Definitions

The following terms shall have the meanings set forth below for the purposes of this Article 26:

- (a) "Certified Business." A business verified as a minority or women-owned business enterprise by the Division or such other New York State agency authorized to make such certification.
- (b) "Diversity Program." The program by which Owner shall monitor Contractor's compliance with the requirements set forth in (i) the MBE/WBE Required Participation Plan and (ii) the Utilization Plan.
- (c) "Division." The Division of Minority and Women's Business Development of the New York State Department of Economic Development.
 - (d) "Director." The Director or the Executive Director of the Division.
- (e) "Directory." The directory of certified businesses prepared by the Director for use by Owner and contractor in complying with the provisions of the Executive Law of the State of New York, Article 15-A.
- (f) "MBE/WBE Required Participation Plan." The plan previously submitted by a Consultant to Owner listing the certified MBEs and/or WBEs which the Contractor intends to use in the performance of this agreement in order to ensure that MBEs and WBEs are awarded a fair share of the total dollar value that is to be paid for the Work.
- (g) "Minority" or "Minority Group Member." A United States citizen or permanent resident alien who is and can demonstrate membership in one of the following groups:
 - (1) Black persons having origins in any of the Black African racial groups;
 - (2) Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American descent of either Indian or Hispanic origin, regardless of race;
 - (3) Native American or Alaskan native persons having origins in any of the original peoples of North America; or
 - (4) Asian and Pacific Islander persons having origins in any of the Far East countries, South East Asia, the Indian subcontinent or the Pacific Islands.
- (h) "Minority-owned Business Enterprise" ("MBE"). A business enterprise, including a sole proprietorship, partnership or corporation that is:

- (1) at least 51 percent owned by one or more Minority Group Members;
- (2) an enterprise in which such Minority ownership is real, substantial and continuing;
- (3) an enterprise in which such Minority ownership has and exercises the authority to control and operate, independently, the day-to-day business decisions of the enterprise; and
- (4) an enterprise authorized to do business in the State of New of New York and is independently owned and operated.
- (i) "Subcontract." An agreement providing for a total expenditure in excess of \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon between a contractor or consultant and any individual or business enterprise, including a sole proprietorship, partnership, corporation, or not-for-profit corporation, in which a portion of a contractor's obligation is undertaken or assumed, but shall not include any construction, demolition, replacement, major repair, renovation, planning or design or real property or improvements thereon for the beneficial use of the contractor.
- (j) "Utilization Plan." A plan previously submitted by Contractor to Owner which sets forth the proposed percentages of employees who are either Minority Group Members or women and who will be used by Contractor to perform the Work.
- $\begin{tabular}{lll} (k) & "Women-owned Business Enterprise" ("WBE"). & A business enterprise, including a sole proprietorship, partnership or corporation that is: \\ \end{tabular}$
 - (1) at least 51 percent owned by one or more United States citizens or permanent resident aliens who are women;
 - (2) an enterprise in which the ownership interest of such women is real, substantial and continuing;
 - (3) an enterprise in which such women ownership has and exercises the authority to control and operate, independently, the day-to-day business decisions of the enterprise; and
 - (4) an enterprise authorized to do business in the State of New York and which is independently owned and operated.

26.2 Equal Employment Opportunities for Minority Group Members and Women

- (a) During the performance of the Work, Contractor agrees as follows:
 - (1) Contractor shall not discriminate against any employee or applicant for

employment because of race, creed, color, national origin, sex, age, disability or marital status; shall undertake or continue existing programs to ensure that Minority Group Members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status; and shall make and document its good faith effort to achieve prompt and full utilization of Minority Group Members and women at all levels and in all segments of its work force where deficiencies exist.

- (2) At the request of Owner, Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of Contractor's obligations herein.
- (3) Contractor shall state in all solicitations or advertisements for employees that in the performance of the Work, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.
- (4) Contractor and any Subcontractor shall be required to submit compliance reports in accordance with this Section 26 relating to their operations and the implementation of the Diversity Program in effect as of the date of execution of this Agreement.
- (5) Contractor shall submit an EEO policy statement to Owner within seventy-two hours of notice from Owner of the awarding of this contract to Contractor. If Contractor does not have an existing EEO policy statement, Owner may provide to Contractor a model statement.
- (b) Contractor shall include the provisions of Section 26.2(a) in every Subcontract in such a manner that the provisions will be binding upon each Subcontractor as to the Work in connection with this contract's execution.
- (c) Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest

(d) <u>Miscellaneous</u>

- (1) The provisions of this Section shall not be binding upon Contractor or its Subcontractors in the performance of Work or the providing of services, or any other activities that are unrelated, separate or distinct from this Agreement as expressed by its terms.
- (2) The requirements of this Section shall not apply to any employment outside New York State, or application for employment outside such state, or solicitations, or advertisements therefore, or any existing programs of diversity regarding employment outside New York State and the effect of contract provisions required by this section shall be so limited.

(e) Enforcement

The parties agree to be bound by provisions of Article 15-A of the Executive Law of the State of New York and by the regulations adopted thereunder.

26.3 Workforce Participation

- (a) Contractor is required to make and document good faith efforts to achieve the participation of ______ or n/a % Minority Group Members and _____ or n/a % women in the workforce for each trade or services utilized by Contractor in the Work as set forth in the Utilization Plan.
- (b) To ensure compliance with this Section, Contractor shall submit a staffing plan to document the composition of the proposed workforce to be utilized in the performance of this contract by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractors shall complete the Staffing plan form and submit it as part of their bid or proposal or within a reasonable time, but no later than the time of award of the contract.
- (c) The participation for Minority Group Members and women employees must be substantially uniform throughout the work.
- (d) Contractor shall not participate in the transfer of Minority Group Member employees or women employees from employer to employer or from project to project for the sole purpose of satisfying the participation goals above set forth.
- (e) In achieving such participation, Contractor is required to make good faith efforts to find and employ qualified Minority Group Members and women supervisory personnel and journeymen.
- (f) Contractor shall meet with Owner, and such other persons as Owner may invite, on a periodic basis as required by Owner to discuss issues relating to Minority Group Members

and women workforce participation. At such meetings, Contractor shall report on the names of its Subcontractors then engaged in construction on the project to which the Work relates or which within 60 days are scheduled to be engaged in construction of such project, on the nature of the work and anticipated construction schedule of Contractor and Subcontractors, on the anticipated hiring needs of Contractors and Subcontractors, on the names of the responsible foremen directly employed by Contractor, and such information requested by Owner that will then promote the employment of Minority Group Members and women. Contractor shall use its best efforts to obtain the above information and shall, upon Owner's request, cause its Subcontractors to attend said meetings and provide the above information.

- (g) Compliance reports with respect to the Utilization Plan ("Utilization Compliance Reports") which shall be submitted to Owner's Diversity officer on a monthly basis and shall be in accordance with the following:
 - (1) Owner may require that Contractor submit Utilization Compliance Reports for the duration of this contract to Owner regarding Contractor's operation and implementation of the Utilization Plan portion of the Diversity Program in effect as of the date of execution of this Agreement.
 - (2) The Utilization Compliance Reports shall include information on any Subcontractor involved in the performance of the contract with regard to the Subcontractor's compliance with the Diversity Program.
 - (3) The Utilization Compliance Reports shall include, but are not limited to the following:
 - (i) a breakdown of the Subcontractors by ethnic background, gender or such other categories as may be required by Owner;
 - (ii) the actions the Contractor and Subcontractors have taken to meet the components of the Diversity Program;
 - (iii) how Contractor and Subcontractors intend to utilize participation of Minority Group Members and women in their workforce in connection with the performance of the Work and timetables therefor during the remainder of their performance of the Work.
- (h) Any failure by Consultant to submit a required Utilization Compliance Report, including information on any of its Subcontractor's compliance, may be deemed a breach of contract with respect to this agreement.
- (i) Contractor shall include the provisions in Section 26.3 in every Subcontract, and such provisions shall be binding upon each Subcontractor.

26.4 <u>Minority Business Enterprise (MBE) Participation and Women's Business Enterprise Participation</u>

(a)	Contractor	shall	make	good	faith	efforts	to	attain	the	participation	of
	_ % MBE and		% W	BE in t	he tota	ne total dollar valu			e Wo	ork.	

- (b) The total dollar value of the Work for purposes of determining compliance with the MBE/WBE Required Participation Plan shall be calculated as follows:
 - (1) if an MBE and WBE is not the Contractor -- the dollar value of the Work subcontracted to MBEs and WBEs; provided, however, that where materials are purchased from an MBE and WBE which acts merely as a conduit for goods manufactured or produced by a non-MBE and non-WBE, only that portion of the price paid for such materials which will accrue as profit to the MBE or WBE and/or the Fee received by the MBE and WBE shall be included;
 - (2) if Contractor is a joint venture including one or more MBEs and WBEs as joint venturers -- the Fee multiplied by the percentage of the joint venture's profits (or losses) which are to accrue to the MBE and WBE joint venturer(s) under the joint venture agreement; and
 - (3) if an MBE and WBE is Contractor or where Contractor is a joint venture consisting entirely of MBEs and WBEs -- the Fee.
- (c) Compliance reports with respect to the MBE/WBE Required Participation Plan ("MBE/WBE Compliance Reports") shall be required as follows:
 - (1) MBE/WBE Compliance Reports shall be submitted to Owner on a monthly basis and shall include information with respect to:
 - (i) dividing the Work to be subcontracted into smaller portions, where economically and technically feasible;
 - (ii) actively and affirmatively making a good faith effort to solicit bids for subcontracts from qualified MBEs and WBEs identified in the directory of certified businesses available at the office of the Owner's Diversity Officer, including the circulation of solicitations to Minority contractor associations. Contractor shall maintain records detailing the efforts made to provide for meaningful MBE and WBE participation in the Work, including the names and addresses of all MBEs and WBEs contacted and, if any such MBE or WBE is not selected as a joint venture or subcontractor, the reasons for such decision;
 - (iii) making plans and specifications for prospective work

available to MBEs and WBEs in sufficient time for review;

- (iv) utilizing the services and cooperating with those organizations providing technical assistance to Owner in connection with the participation of MBEs and WBEs in the project to which the Work relates:
- (v) encouraging the formation of joint ventures, partnerships or other similar arrangements among subcontractors where appropriate;
- (vi) ensuring that provision is made to provide progress payments to MBEs and WBEs on a timely basis; and
- (vii) not requiring bonds from and/or providing bonds and insurance for MBEs and WBEs where appropriate, and/or assisting in obtaining bonds and insurance for MBEs and WBEs where feasible.
- (2) MBE/WBE Compliance Reports which shall be submitted to the Diversity Department on a monthly basis.
- (3) MBE/WBE Compliance Reports shall also include, but not be limited to, the following information:
 - (i) the name, address and telephone number of each certified MBE and WBE which Contractor is using or intends to use to comply with the MBE/WBE Required Participation Plan.
 - (ii) a brief description of the contract scope of work to be performed for the Contractor by each certified MBE and WBE and the scheduled dates for performance;
 - (iii) a statement of whether the Contractor has a written agreement with each certified MBE and WBE which Contractor is using or intends to use, and if requested, copies of such agreements;
 - (iv) the actual total cost of the contract scope of work to be performed by each certified MBE and WBE for this Agreement; and
 - (v) The actual amounts of any payments made by Contractor to each certified MBE and WBE as of the date the MBE/WBE Compliance Report was submitted.
- (d) Contractor shall provide Owner with Monthly M/WBE and Workforce Utilization Reports, by the last calendar day of each month, in the form of "Exhibit ????" hereto. Failure to provide such reports shall be an event of default of contractor's obligations pursuant to Article 15.1 (a) (1) hereof. (IF NO GOALS, JUST WRITE, "M/WBE and

Workforce Utilization Reports – n/a").

(e) Contractor shall provide proof of payment to all subcontractors and materialmen in the form of a waiver of lien or cancelled check, with each request for payment. Failure to provide such proof of payment shall be an event of default of contractor's obligations pursuant to Article 15.1 (a) (1) hereof. (**IF NO GOALS, JUST WRITE, "Contractor Proof of Payment – n/a").**

26.5 Failure to Comply

- (a) In accordance with 5 NYCRR §142.13, Contractor acknowledges that if it is found to have willfully and intentionally failed to comply with the M/WBE participation goals set forth herein or any other requirements set forth in this Article 26, such finding constitutes a breach of contract and Owner may withhold payment from the Contractor as liquidated damages.
- (b) Such liquidated damages shall be calculated based on the actual cost incurred by Owner related to Owner's expenses for personnel, supplies and overhead related to establishing, monitoring, and reviewing certified M/WBE programmatic goals and Diversity and Equal Opportunity compliance.

ARTICLE 27 - STANDARD PROVISIONS

27.1 <u>Provision Required by Law Deemed Inserted</u>

Each and every provision of law and governmental regulation required by law to be inserted in the Contract Documents shall be deemed to be inserted therein and this Agreement shall read and shall be enforced as though so included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, this Agreement shall be deemed to be amended to make such insertion or correction. If this Agreement contains any unlawful provision, the same shall be deemed of no effect and shall, upon the application of either party, be deemed stricken from this Agreement without affecting the binding force of the remainder.

27.2 Compliance with Laws, Rules and Regulations

Contractor and each Subcontractor and Materialman shall comply fully with all applicable laws, rules and regulations pertaining to the Project or the Work.

27.3 Applicable Law, Forum and Jurisdiction

This Agreement shall be governed by the laws of the State of New York. All actions or proceedings relating, directly or indirectly, to this Agreement shall be litigated only in courts located within the County of New York. Contractor, any guarantor of the performance of its obligations hereunder (including sureties for Payment and Performance Bonds)

("Guarantor") and their successors and assigns hereby subject themselves to the jurisdiction of any state or federal court located within such county, waive the personal service of any process upon them in any action or proceeding therein and consent that such process be served by certified or registered mail, return receipt requested, directed to the Contractor and any successor at Contractor's address hereinabove set forth, to Guarantor and any successor at the address set forth in the instrument of guaranty and to any assignee at the address set forth in the instrument of assignment. Such service shall be deemed made as of the date of the return receipt.

27.4 No Third Party Rights

Nothing in this Agreement shall create or shall give to third parties any claim or right of action against BPCA, Construction Manager, or Engineer beyond such as may legally exist irrespective of this Agreement.

27.5 Exculpation; Limitation of Liability

In no event shall any claim be asserted under this Agreement by Contractor or any Subcontractor or Materialman against any member, officer, employee, lessee, consultant or agent of BPCA, Construction Manager, or Engineer. By execution of this Agreement, Contractor agrees to look solely to BPCA with respect to any claim which may arise. It is hereby understood by and between the parties hereto that BPCA shall only be liable to the extent of monies available to BPCA.

27.6 Protection of Lives and Health

- (a) Contractor's, Subcontractor's and Materialman's attention is specifically called to the rules and regulations, codes and bulletins of the New York State Department of Labor. Attention is also directed to the standards imposed under the Federal Occupational Safety and Health Act of 1970, as amended.
- (b) Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under this Agreement, and shall immediately notify BPCA in writing of any injury which results in hospitalization or death.
- (c) Contractor alone shall be responsible for the safety, efficiency and adequacy of contractor's work, plant, appliances and methods, and for any damage which may result from the failure, or the improper construction, maintenance, or operation of such work, plant, appliances and methods.

27.7 Waiver of Immunity Clause

Contractor hereby agrees to the provisions of Section 2875 of the Public Authorities Law of the State of New York which require that upon the refusal of a person, when called before a grand jury, head of a State department, temporary State commission, or other

State agency, the Organized Crime Task Force in the State Department of Law, head of a department or other City agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the State, any political subdivision thereof, or with any public department, agency or official of the State, a public authority or with any public department, agency or official of the State or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract:

- (a) such person, and any firm, partnership or corporation of which such person is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any public authority or official thereof, for goods, work or services, for a period of five (5) years after such refusal; and
- (b) any and all contracts made with any public authority or official thereof, by such person, and by any firm, partnership or corporation of which such person is a member, partner, director or officer may be canceled or terminated by the public authority without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the public authority for goods delivered or work done prior to the cancellation or termination shall be paid.

27.8 Prohibited Interests

No official of BPCA who is authorized in such capacity and on behalf of BPCA to negotiate, make, accept, or approve, or take part in negotiating, making, accepting, or approving any Architectural, Engineering, inspection, Purchase Order or any Subcontract in connection with the work, shall become directly or indirectly interested personally in the Agreement. Contractor is advised that no official or employee of BPCA is permitted to indirectly solicit, accept, or receive gifts whether in the form of money, service, loan, travel, entertainment, hospitality, thing or promise, or in any other form. No officer, employee, architect, attorney, engineer, inspector or consultant of or for BPCA who is authorized in such capacity and on behalf of BPCA to exercise any legislative, executive, supervisory or other similar functions in connection with the Work, shall become directly or indirectly interested personally in the Agreement, any Purchase Order, Subcontract, insurance contract, or any other contract pertaining to the Work.

27.9 Labor Provisions

- (a) It is hereby agreed that all applicable provision of the Labor Law of the State of New York shall be carried out in the performance of the Work.
- (b) Contractor specifically agrees, as required by Labor Law, Sections 220 and 220-d as amended, that:
 - (1) no laborer, workman or mechanic, in the employ of Contractor, Subcontractor, Materialman or other person doing or contracting to do the whole or any part of the Work contemplated by the Contract

Documents shall be permitted or required to work more than eight (8) hours in any one calendar day or more than five (5) days in any one week, except in the emergencies set forth in the Labor Law.

- (2) the wages paid for a legal day's work shall be not less than the prevailing rate of wages as defined by law;
- (3) the minimum hourly rate of wage to be paid shall be not less than that stated in the Contract Documents and as shall be designated by the Industrial Commissioner of the State of New York; and
- (4) Contractor shall post at appropriate conspicuous points at the Site, a schedule showing all determined minimum wage rates for the various classes of laborers and mechanics to be engaged in the Work and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.
- (c) The minimum wage rates, if any, herein specified for apprentices shall apply only to persons working with the tools of the trade which such persons are learning under the direct supervision of journeymen mechanics. Except as otherwise required by law, the number of apprentices in each trade or occupation employed by Contractor or any Subcontractor or Materialman shall not exceed the number permitted by the applicable standards of the New York State Department of Labor, or, in the absence of such standards, the number permitted under the usual practice prevailing between the unions and the employers' association of the respective trades or occupations.
- (d) All employees of Contractor and each Subcontractor and Materialman shall be paid in accordance with the provisions of the Labor Law.
- (e) Contractor agrees that, in case of underpayment of wages to any worker engaged in the Work by Contractor or any Subcontractor or Materialman, BPCA shall withhold from Contractor out of payments due an amount sufficient to pay such worker the difference between the wages actually paid such worker for the total number of hours worked, and that BPCA may disburse such amount so withheld by BPCA for and on account of Contractor to the employee to whom such amount is due. Contractor further agrees that the amount to be withheld pursuant to this paragraph may be in addition to the percentages to be retained by BPCA pursuant to other provisions of the Contract Documents.
- (f) The Labor Law provides that this Agreement may be terminated for cause and no sum paid for any Work done thereunder upon a second conviction for willfully paying less than:
 - (1) the stipulated wage scale as set forth in Labor Law, Section 220, subdivision 3, as amended, or
 - (2) less than the stipulated minimum hourly wage scale as specified in Labor

- (g) Contractor specifically agrees, as required by the Labor Law, Section 220-e, as amended, that:
 - (1) in the hiring of employees for the performance of Work under this Agreement or any Subcontract or Purchase Order hereunder, or for the manufacture, sale or distribution of Materials, equipment or supplies hereunder, but limited to operations performed within the territorial limits of the State of New York, no Contractor, Subcontractor, Materialman or any person acting on behalf of such Contractor or Subcontractor, or Materialman, shall by reason of race, creed, color, sex 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;
 - (2) no Contractor, Subcontractor, Materialman, or any person on behalf of such Contractor, Subcontractor or Materialman shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Agreement on account of race, creed, color, sex or national origin;
 - (3) there may be deducted from the amount payable to Contractor, by BPCA under this Agreement, a penalty of \$50.00 for each person for each calendar day during which such person was discriminated against or intimidated in violation of the terms of this Agreement; and
 - (4) this Agreement may be canceled or terminated for cause by BPCA and all monies due or to become due hereunder may be forfeited for a second or any subsequent violation of the terms or conditions of this Section of this Agreement.
- (h) Where applicable, Contractor agrees to settle labor disputes in accordance with the provisions of The New York Plan For The Settlement of Jurisdictional Disputes Between The Building And Construction Trades Council Of Greater New York And The Building Trades Employers' Association Of The City of New York.

27.10 <u>Disputes Resolution Procedure</u>

(a) The provisions of this Article shall constitute Contractor's sole means for challenging any determination, order or other action of BPCA or otherwise asserting against BPCA any claim of whatever nature arising under, or in any way relating to, this Agreement (any such challenge or assertion by Contractor being herein referred to as a "Dispute(s)"). Exhaustion of these dispute resolution procedures, including the judicial review set forth below, shall be the parties' sole remedy in connection with any Dispute.

- (b) The parties to this Agreement hereby authorize and agree to the resolution of all Disputes arising out of, under or in connection with, this Agreement in accordance with the following and pursuant to the procedures set forth in paragraph (c) of this Section 27.10. With respect to any Dispute which relates in whole or primary part to technical issue(s) under this Agreement including, without limitation, determinations as to the acceptability or fitness of any Work, the meaning or interpretation of the Contract Documents, the question of whether any Work falls within the scope of the Specifications set forth in the Contract Documents, the acceptability of any proposed substitutions, modifications or other submission under this Agreement, the disapproval of proposed Subcontractors or Materialmen (to the extent such disapproval is related to technical issues), the extension of time to the extent related to a technical matter, the question of whether substantial completion or final completion has been achieved, the parties hereby authorize the General Counsel of BPCA, or his/her designee, (hereinafter referred to as the "Arbiter"), acting personally, to render a final and binding decision.
- (c) All Disputes shall be initiated through a written submission by either party (such submission to be hereinafter referred to as the "Dispute Notice") to the Arbiter within ten (10) days of the determination which is the subject of the Dispute. Within ten (10) days after the submission of such Dispute Notice, the party initiating the Dispute shall provide the Arbiter with all evidence and other pertinent information in support of the party's position and/or claim. Within thirty (30) days from the date of the Dispute Notice, the party against whom the Dispute Notice was filed shall submit any and all materials which it deems pertinent to the Arbiter. Upon submission of a Dispute Notice to the Arbiter, the Arbiter shall render its decision in writing and deliver a copy of same to the parties within a reasonable time not to exceed sixty (60) days after the receipt of all materials. In rendering such decision, the Arbiter may seek such technical or other expertise as it shall deem necessary or appropriate (notifying both parties to the Dispute when he/she so seeks such other information or expertise) and seek any such additional oral and/or written argument or materials from either or both parties to the Dispute as he/she deems fit. The Arbiter shall have the discretion to extend the time for submittals required hereunder. The Arbiter's ability to render and the effect of a decision hereunder shall not be impaired or waived by any negotiations or settlement offers in connection with the matter presented, whether or not the Arbiter participated therein, or by any prior decision of others, or by any termination or cancellation of this Agreement. The decision of the Arbiter shall be final and binding on both parties to this Agreement.
- (d) It is expressly understood and agreed that the pendency of a Dispute hereunder shall at no time and in no respect constitute a basis for any modification, limitation or suspension of Contractor's obligation to fully perform in accordance with this Agreement and that Contractor shall remain fully obligated to perform the Work notwithstanding the existence of any such Dispute.

27.11 Additional Provisions Relating to the Prosecution of Claims for Money Damages

(a) Except as otherwise provided in this Agreement, if Contractor claims or intends to claim compensation for any damage or loss sustained by reason of any act, neglect, fault or

default of BPCA, Contractor shall furnish a written notice to the Arbiter setting forth the nature of the claim and the extent of the damage sustained within seven (7) days of the occurrence of such loss or damages. This written notice shall constitute Contractor's submission to the Arbiter for the purposes of requesting the Arbiter's determination in accordance with Section 27.10 above. Any such claim shall state as fully as then possible all information relating thereto and shall be supported by any then available documentation, including daily records showing all costs incurred. Such information shall be supplemented with any and all further information, including information relating to the quantum of losses or damages sustained, as soon as practicable after it becomes or reasonably should become known to the Contractor.

- (b) Any claim for compensation or monetary damages, the successful prosecution of which necessarily depends upon a technical determination favorable to Contractor, may not proceed unless and until Contractor first obtains such a favorable determination with respect to the technical issue and must be made within five (5) business days of such determination; moreover, Contractor must submit to the Arbiter any documentation or proof in support of the monetary claim within fifteen (15) days of such determination in order to proceed with such a claim.
- (c) Compliance with the provisions hereof shall constitute a condition to the Contractor's submission of a Dispute pursuant to Section 27.10 with respect to any claim for compensation and the Contractor shall be deemed to have waived any claim not submitted in accordance herewith.
- (d) Any final determination of the Arbiter with respect to a Dispute initiated pursuant to this Article 27 shall be subject to review solely in the form of a challenge following the decision by the Arbiter in a Court of competent jurisdiction of the State of New York, County of New York, under Article 78 of the New York Civil Practice Law and Rules or a United States Court located in New York City under the procedures and laws applicable in that court, it being understood the review of such Court shall be limited to the question of whether or not the Arbiter's determination is arbitrary, capricious or lacks a rational basis. No evidence or information shall be introduced or relied upon in such proceeding which has not been duly presented to the Arbiter in accordance with this Article 27.

27.12 Limitation on Actions

(a) Subject to the provisions of Section 27.11, no action or proceeding shall lie or shall be maintained by Contractor against BPCA, Construction Manager, or Engineer unless (i) such action or proceeding shall be commenced within six (6) months of the date of the issuance of the Certificate of Substantial Completion to Contractor; or (ii) in the case of an action or proceeding for moneys due pursuant to Section 5.7 hereof, or arising exclusively from or pertaining exclusively to work performed after the date of issuance of the Certificate of Substantial Completion, unless such action or proceeding is commenced no later than six (6) months after the issuance of the certificate of final completion to Contractor; or (iii) if this Agreement is terminated by BPCA prior to the issuance of the Certificate of Substantial Completion, unless such action or proceeding is commenced within six (6) months after the date of such termination.

- (b) Nothing in this Section 27.12 shall be construed to modify or lengthen a shorter limitations period provided by applicable law.
- (c) No action or proceeding shall be commenced by Contractor against BPCA, Construction Manager, or Engineer except in the Supreme Court of the State of New York, County of New York.
- (d) Nothing in this Section 27.12 shall be construed to suggest that Contractor, under any circumstances, may bring an action or proceeding against Construction Manager, or Engineer.

27.13 Waiver of Remedies

Contractor acknowledges that it can be compensated adequately by money damages for any breach of this Agreement which may be committed by BPCA, Construction Manager, or Engineer. Contractor agrees that no default, act or omission of BPCA, Construction Manager, or Engineer shall constitute a material breach of contract entitling Contractor to cancel or rescind this Agreement or to suspend or abandon performance thereof, other than the failure of BPCA to make a payment of the Contract Price in accordance with the terms hereof solely because sufficient funds to pay the Contract Price have not been appropriated or will otherwise not be made available to BPCA. Except as provided in this Section 27.13, Contractor hereby waives any and all rights and remedies to which Contractor might otherwise be or become entitled to because of any wrongful act or omission of BPCA, Construction Manager, or Engineer saving only Contractor's right to money damages.

27.14 Modification of Agreement

No change in or modification, termination or discharge of this Agreement in any form whatsoever shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or its duly authorized representative, provided, however, that any change in or modification, termination or discharge of this Agreement expressly provided for in this Agreement shall be effective as so provided.

27.15 Signs and Parking

Contractor agrees that it shall not display on or about the Site any sign, trademark or other advertisement without the approval of BPCA and Construction Manager Contractor shall not and shall not permit any of its Subcontractors or Materialmen to park any vehicles on the Site.

27.16 Entire Agreement

The Contract Documents constitute the entire Agreement between the parties and incorporate all prior understandings in connection with the subject matter hereof.

27.17 Rights and Remedies

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by BPCA, Construction Manager, or Engineer or Contractor including, but not limited to, the making of any payment or permitting Contractor to continue with the performance of the Work shall constitute a waiver of any right or duty afforded any of them under this Agreement, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

27.18 Participation in International Boycott Prohibited

Contractor agrees, as a material condition of this Agreement, that neither Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated or is participating or shall participate in an international boycott in violation of the provisions of the United States Export Administration Act of 1969, as amended, or the United States Export Administration Act of 1979, as amended, or the Regulations of the United States Department of Commerce promulgated thereunder. This Agreement shall be rendered forfeit and void by the Comptroller of the State of New York if, subsequent to execution, such person, firm, partnership or corporation has been convicted of a violation of the provisions of either of such federal acts or such Regulations or has been found upon the final determination of the United States Commerce Department or any other appropriate agency of the United States to have violated the provisions of either of such federal acts or such Regulations.

27.19 Compliance with "Buy-American" Statutes

Contractor and any substantially owned or affiliated person, firm, partnership or corporation agrees to comply with the New York State Public Authorities Law, Section 2603-A as amended (affects steel or steel products).

27.20 Permitted Successors

References to parties and entities herein shall be deemed to include their permitted successors.

27.21 MacBride Fair Employment Principles

If the amount payable to Contractor under this agreement is greater than \$15,000, Contractor hereby certifies that it and/or any individual or legal entity in which it holds a 10% or greater ownership interest, and any individual or legal entity that holds a 10% or greater ownership in it, either have no business operations in Northern Ireland; or shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to nondiscrimination in

employment and freedom of workplace opportunity regarding such operations in Northern Ireland, as set forth in Section 165 (5.) of New York's State Finance Law, and shall permit independent monitoring of their compliance with such Principles.

27.22 Termination for Failure to Disclose Under NYS Finance Law §139k

BPCA reserves the right to terminate this contract in the event it is found that the certification filed by Contractor pursuant to New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, BPCA may exercise its termination right by providing written notification to the Contractor in accordance with the written notification terms of this contract. If a contract is terminated in accordance with State Finance Law §139k(5), BPCA, its subsidiaries and affiliates, will include a statement in BPCA's procurement record describing the basis for any action taken under the termination provision.

27.23 Labor Peace

The Contractor and its Subcontractors and Materialmen shall not employ on the Work any labor, materials or means whose employment, or utilization during the course of this Agreement, may tend to or in any way cause or result in strikes, Work stoppages, delays, suspension of Work or similar troubles by workers employed by the Contractor or its Subcontractors, Materialmen, or by any of the trades working in or about the buildings and premises where Work is being performed under this Agreement, or by other contractors or their subcontractors pursuant to other agreements, or on any other building or premises owned or operated by BPCA, its contractors or affiliates. Any violation by the Contractor of this requirement may be considered as proper and sufficient cause for declaring the Contractor to be in default, and for BPCA to take action against Contractor as set forth in Article 15 of this Agreement, or such other Section of this Agreement as BPCA may deem proper.

27.24 Comptroller's Approval

If this Agreement is considered an "eligible contract," as defined by Title 2 of NYCRR Part 206.2, it is subject to the New York State Comptroller's approval, and therefore shall not be valid and enforceable until that approval has been obtained. A contract is considered an "eligible contract," as defined by Title 2 of NYCRR Part 206.2, if it is not a specifically exempt contract, is executed by a state authority on or after March 1, 2010 where the aggregate consideration under the contract may reasonably be valued in excess of one million dollars, AND the contract is either (A) awarded on a single-source basis, sole-source basis or pursuant to any other method of procurement that is not a competitive procurement OR (B) shall be paid in whole or in part with monies appropriated by the State, either directly to a state authority or to a state agency which pays the money to a state authority.

27.25 Key Person/Personnel

The parties understand that in entering into this Agreement, BPCA has relied upon Contractor's representation that Name, Title, Company and Name, Title, Company

(hereinafter the "Key Person/Personnel") will be directly and consistently involved in supervising the Work and actively engaged in the day-to-day management of the Work, which shall include attending mandatory Project meetings. If the Key Person/Personnel isare not available as described herein, or if the Key Person/Personnel departs depart from the firm or severs histheir relationship with the Contractor, or for whatever other reason isare not available to work on the Project, then BPCA shall have the right to terminate this Agreement. The parties also agree that at any time during the course of the Work, BPCA may designate additional or substitute key personnel to perform the Work. Contractor agrees to make the additional or substituted key Person/personnel available under the same conditions set forth herein.

27.26 Form of Agreement Not an Offer

Notwithstanding anything herein to the contrary, the submission of this form of Agreement by BPCA to Contractor shall not constitute an offer, and execution hereof by Contractor shall not be considered acceptance of an offer. A binding contract between the parties shall exist only if and at such time as both parties have executed this document.

SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, as of the date first above written.

BATTERY PARK CITY AUTHORITY, d/b/a HUGH L. CAREY BATTERY PARK CITY AUTHORITY

By:
Name:
Title:
CONTRACTOR NAME
By:
Name:
Title:
FEIN #- 22222222222

/DRAFTER INITIALS

BPCA CONTRACT #????(PROJECT - COPY FROM ABOVE)

EXHIBIT D

(Cost Proposal form attached)

COST PROPOSAL (Proposer to submit executed Cost Proposal on its letterhead)

Date:		
One Wor	Park City Authority rld Financial Center - 24th Floor rk, New York 10281	
Attention	n: Mr. Sharon Wade Administrative Assistant	
Dear Mr.	. Windman:	
the work immediat	for the Tree Replacement - Spring	2013. The Proposer agrees to commence the Work of Intent in accordance with the terms stipulated in the
A. <u>I</u>	Base Proposal	
		(
1. T	Schedule of Values and Labor Rate The Proposer has submitted with its pattached schedule of items, for the Sco	roposal, unit cost schedule for the Work, according to the
e		roposal, labor rates for all trades, including all costs own include base hourly rate, overtime rate, insurance and
		Name of Proposer:
		By:
		Title:

EXHIBIT E

(Labor Rates form attached)

LABOR RATES

The following labor rates are to be listed by craft and classification (Foreman, Journeyman, etc.) and are to include base wages, benefits, taxes, insurance and payroll costs complete. Overhead and profit are not to be included:

<u>CRAFT</u>	<u>CLASSIFICATION</u>	HOURLY RATES	OVERTIME
LABORER CONCRETE			
CARPENTER			
IRON WORKER			
<u>LABORER</u>			
LABORERS - LESS SKILLED			
OPERATING ENGINEER			
FIELD SUPERVISOR			
<u>FOREMAN</u>			
TEAMSTER			
ELECTRICIAN			
PLUMBER		<u></u>	
	<name company="" of=""> <name of="" proposer=""></name></name>		
	Signed	Date	_
	By: <printed name=""></printed>		

EXHIBIT F

(Schedule of Values form attached)

SCHEDULE OF VALUES

ITEM	APPROXIM	PRICE PER UNIT COMPLETE IN PLACE	UNIT PROPOSAL PRICE		AMOUNT PROPOSED
NO.	ATE QUANTITY	ITEMS WITH UNIT PRICE WRITTEN IN WORDS	DOLLARS	CENTS	DOLLARS AND CENTS
1	2	Pyrus Caleryana "Aristocrat" 4"-4 ½" FOR:/EachDOLLARS CENTS			
2	4	Cladastris kentukea 4"-4 1/2" FOR:/EachDOLLARS CENTS			
3	3	FOR: /Each CENTS DOLLARS			
4	1	Zelcov Seratta 4"-4 1/2" FOR: /Each DOLLARS CENTS			
5	2	Nyssa sylvatica 4"-4 1/2" FOR:/EachDOLLARS CENTS			
6	1	Cornus mas 10' height FOR: /Eack DOLLARS CENTS			
7	2	Tree removal with stump removal, 12" caliper FOR:/Each DOLLARS CENTS			
8	1	Stump removal, 8" caliper FOR:/EachDOLLARS CENTS			

NOTE: All prices are for work furnished and installed, measured in place.

EXHIBIT G

(Technical Specifications attached)

SECTION 00005 BATTERY PARK CITY AUTHORITY CONDITIONS

1. GENERAL

Notwithstanding anything in the other Contract Documents to the contrary, including the Specifications, all provisions hereforth shall supersede any conflicting provisions in other Contract Documents. All other provisions of the Contract Documents shall remain in full force and effect. References to the "Authority" in these Conditions shall be deemed to mean "Owner/Owner's Representative" and vice versa.

2. CONDITIONS

- 2.1 Should questions of labor jurisdiction arise, this Contractor will immediately take steps to settle such disputes and will use such labor as may be determined to have jurisdiction, at no additional cost to the Owner. Should it fail to take expeditious action, it will be responsible for any time lost because of delays arising from such disputes.
- 2.2 All permits required for any part of the Contractor's work shall be procured and paid for by Contractor. This shall apply also to those permits required to be obtained in the name of the Authority.
- 2.3 The Contract includes the cost of all standby trades should Contractor work prior to or later than normal working hours on Saturdays, Sundays, and Holidays, if Contractor desires to work after hours.
- 2.4 Contractor shall comply with all legal regulations, including OSHA safety regulations and other government agencies having jurisdiction concerning the Work of this Contract.
- 2.5 Contractor shall comply with all federal and local laws regarding noise control. Mufflers and whisperized compressors shall be used throughout Contractor's Work.
- 2.6 Contractor has examined the site and the Contract Documents. Contractor agrees that the site and surrounding areas are satisfactory and sufficient for its needs in the prosecution of its work in conformance with the terms of this Contract.
- 2.7 Scaffolding, hoisting, and temporary and/or permanent power connections required for this Work shall be the responsibility of the Contractor.
- 2.8 This Agreement covers the complete scope for the type of work included herein. As "scope" documents, the drawings and specifications do not necessarily indicate or describe all work required for the full performance and completion of the work. This Agreement is let on the basis of such documents with the understanding that the Contractor is to furnish all items required for proper completion of the work without adjustment to the Contract Price. It is intended that the Work be of sound and quality construction and the Contractor shall be solely responsible for the inclusion of adequate amounts to cover installation of

- all items indicated, described or implied.
- 2.9 The hours of permissible work shall be 7:00 am and 5:00 pm. Any work requiring excessive noise shall be restricted until after 8:00 am and shall be performed in accordance with NYC noise ordinances. Any variation from the work hours is subject to approval of Owner and is to be coordinated with the Owner. Any associated costs with regard to off-hour operation or fees required shall be the responsibility of the Contractor without adjustment to the Contract Price.
- 2.10 Contractor shall not store any material or equipment on site unless directed by the Owner/Owner's Representative.
- 2.11 Contractor shall not use the site for staging of construction materials or equipment except as approved by the Owner.
- 2.12 All engineering layout is the Contractor's obligation.
- 2.13 Contractor shall remove rubbish, debris, etc., offsite at the Contractor's expense on a daily basis.
- 2.14 The Contractor shall at all times keep the work area, including storage area used by it, free from accumulations of waste material or rubbish, and prior to completion of the work remove any rubbish from the premises and all tolls, scaffolds, equipment and materials not the property of the Authority. Upon completion, the Contractor shall leave the work and premises in a clean, neat and workmanlike condition satisfactory to Authority.
- 2.15 Contractor shall submit within 10 calendar days from Contract or Notice to Proceed, unless otherwise noted, all shop drawings and samples required to the Owner's Representative for approval.
- 2.16 Contractor shall submit within two (2) weeks after receipt of Contract or Notice to Proceed a detailed schedule to the Owner's Representative conforming with the milestone construction dates, as specified in Specification 01310 Construction Schedule.
- 2.17 The overall objective will be to perform the work with <u>minimal</u> to no disruption to the daily operation of the school.
- 2.18 Payment Requisitions for this project shall be due to the Owner by the 15th of every month on the forms included in Appendix VII
- 2.19 The Contractor shall follow any and all anti-terrorism security procedures, guidelines, instructions, and regulations with respect to ingress into and egress from the work site, transportation, and disposition of material that might be considered contraband as well as any emergency procedures. It is the Contractor's responsibility to make contingencies for the effect upon the scheduling and performance of their work of any and all such regulations and procedures. The cost of such contingencies shall be included in the Contract Price.
- 2.20 The Contractor shall take special care to provide for temporary damage protection for any and all existing conditions to remain in proximity to the work area. The

protection shall remain in place while performing the work shown or described herein or elsewhere in the Contract Documents. Any damage to existing conditions to remain as a result of work by the Contractor shall be repaired or replaced to the satisfaction of the Owner and at no cost to the Owner.

END OF SECTION 00005

SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project, known as Fall 2011 Tree Planting, consists of planting trees as specified in Parks or as Street Trees.
 - 1. Project Location: Throughout Battery Park City.
 - 2. Owner: Battery Park City Authority (the "Authority" or "BPCA").
- B. The Work includes but is not limited to replacement of Street Trees following removal, as required of existing trees & stumps.
- C. The Contractor will be responsible for providing all materials, labor and equipment necessary for completing all work, and incidental related work, for proper completion of the Project.
- D. The Work shall be constructed in compliance of all applicable New York City, New York State and other codes and regulations.
- E. The Contract requires the use of environmentally sustainable materials, product, equipment and fuels as specified in these Contract Documents.
- F. The Work will be constructed under a single lump-sum prime contract.

1.3 WORK SEQUENCE

- A. Work shall be performed so as to not close any streets and to limit interruption and access to Park areas adjacent to planting.
- B. The Contractor shall submit a proposed construction schedule to the Authority for approval prior to performing any work. Refer to Section 01310 of these specifications.

1.4 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have full use of the premises for construction operations, including use of the site, while maintaining safe vehicular and pedestrian traffic flow around the site. The Contractor's use of the premises is limited only by the Owner's right to perform work or to retain other contractors on portions of the Project.
- B. Contractor shall not unreasonably encumber site and adjoining and/or adjacent areas.

Comply with the Owner's requirements for use of the site and other Battery Park City Authority (BPCA) areas and with regulatory requirements for use of public thoroughfares. Minimize and confine stockpiling of materials to areas indicated by the Owner and Construction Manager and as delineated by the special general conditions.

- C. Staging for the Work shall be in as defined by the Owner and Construction Manager. If additional space is required to the immediate construction area, Contractor shall obtain and pay for such space at no additional cost to the Owner.
- D. Working Hours: The normal working hours shall be eight (8) hours per day during the period of 7:00 a.m. to 5:00 p.m. and the normal working week is Monday to Friday. Submit requests to work other than regular working schedule to the Owner and Authority's Representative at least 48 hours prior to any proposed weekend work or scheduled extended workweeks. All costs for project supervision by the Authority's Representative for work beyond eight (8) hours per day and on weekends shall be borne by the Contractor. Maintenance and clean-up may be performed during hours other than regular working hours. Restrict use of noise-making tools and equipment prior to 8:00 a.m. to minimize complaints from persons or firms near the site.
- E. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 - 1. Parking: There will be no off-site parking provided. Any vehicles that may be required to access project sites must have all applicable permits. The Owner is not responsible for any citations due to illegally parking on public streets. Lock automotive type vehicles and other mechanized or motorized construction equipment, when parked unattended, so as to prevent unauthorized use. Do not leave such vehicles unattended with the motor running or the ignition key in place.
 - 2. Driveways and Entrances: Keep all driveways and entrances serving adjacent areas clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- F. The Authority reserves the right to place and install items of material or equipment as necessary in completed areas of the Project and to occupy such completed areas prior to substantial completion, provided that such occupancy does not substantially interfere with completion of the Work. Such placing of material or equipment and partial occupancy shall not constitute acceptance of the Work or any part of the Project.

1.5 EXISTING SITE CONDITIONS

A. Contractor shall verify all site data provided in the Contract Drawings, Technical Specifications, Reference Drawings and Information Available to Proposers.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Goals: The Owner intends that this project incorporate sustainable design concepts established for Battery Park City Authority in the reference document "Residential Environmental Guidelines". This Project will specifically emphasize Conserving Materials

and Resources, Water Conservation, and Site Management. To the extent possible, materials and requirements of these Specifications comply with environmental goals.

- B. Environmental requirements for this Project include resource conservation and pollution prevention.
 - 1. Resource conservation measures are achieved through the use of salvaged and recycled materials and use of abundant species from sustainably managed forests or rapidly renewable resources. Implementation requirements are defined in each Section, as well as in Division 1 "Environmental Impact of Materials" Section.
 - 2. Additional resource conservation measures are achieved through separation and recycling of construction waste as defined in Division 1 "Construction Waste Management and Recycling" Section.
 - 3. Products and installation techniques have been incorporated into each Section to reflect durability and to allow for material reuse. All environmental products shall be considered the same as other specified items and require submittal of manufacturer literature, affidavit, test results etc., as required by the specifications
 - 4. Pollution prevention measures are achieved through recycling requirements in Division 1 "Construction Waste Management and Recycling" Section and limited VOC off-gassing as defined Division 1 "Environmental Impact of Materials" Section. Additionally, materials have been selected to minimize embodied energy.
- C. Waste Management: It has been established that this Project shall minimize the creation of construction and demolition waste, as specified in Division 1 "Construction Waste Management and Recycling" Section.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXECUTION

A. Execute the work in accordance with the requirements of all Drawings and Technical Specifications. If there are any discrepancies between the drawings and specifications, the more stringent of the two shall apply.

END OF SECTION 01010

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, materials, tools, equipment, appurtenances and all services necessary to perform all Work as required by the plans and specifications or as required by the Authority's Representative, for lump sum items listed herein, which are included in lump sum on the proposal form.
- B. The items listed below constitute pay items for completion of the Work. No direct or separate payment will be made for providing labor, equipment, materials, tools, delivery, storage and installation, and all other requirements of the Contract Documents. Compensation for all such services and materials shall be included in the prices stipulated for the lump sum pay items listed herein.
- C. The schedule of values (Itemized Proposal) shall be utilized solely to substantiate partial payment requests or additions.

1.2 RELATED SECTIONS

- A. Proposal form
- B. Section 01010-Summary of Work
- C. Section 01027-Applications for Payment

1.3 PAYMENT ITEMS

1. Lump Sum Contract Item Measurement and Payment:

All lump sum contract items shall be compensated by the percent work complete at time of payment requisition.

END OF SECTION 01025

SECTION 01027 APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment. Refer to the Construction Agreement for more detail.
- B. This Section specifies administrative and procedural requirements governing each prime contractor's Applications for Payment.
 - 1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, Submittal Schedule, and List of Subcontracts.
- C. Related Sections: The following Sections contain requirements that relate to this Section.
 - 1. Division 1 Section "Construction Schedule"
 - 2. Division 1 Section "Submittals"
 - 3. Construction Agreement

1.3 SCHEDULE OF VALUES

- A. The Contractor shall prepare and submit five (5) copies of the Schedule of Values to the BPCA for review and approval within 7 days of the Letter of Intent being issued. If revisions are required, revise and resubmit the Schedule of Values within (two) 2 working days for final acceptance. The Schedule of Values will be used by the Authority's Representative as the basis for approving Applications for Payment.
- B. Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's Construction Schedule.
 - b. Application for Payment forms, including Continuation Sheets.
 - c. List of subcontractors.

- d. M/WBE Monthly Report forms.
- e. List of products.
- f. List of principal suppliers and fabricators.
- g. Schedule of submittals.
- C. Format and Content: The Schedule of Values shall be a reasonable reflection of actual value for each activity. Provide at least one line item for each Specification Section. Upon the Authority's Representative's request, the Contractor shall support the individual values to substantiate their correctness. The Schedule of Values shall be presented on 8 ½" by 11" white paper.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Owner.
 - c. Project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value.
 - 1) Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into several separate line items.
 - 4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
 - 5. Schedule of Values shall list the installed value for component parts of the Work in sufficient detail to serve as a basis for computing values for substantiating progress payments.
 - 6. Provide separate line items on the Schedule of Values for cost of the materials, labor, and for total installed value of that part of the Work.
 - 7. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
 - 8. Schedule Updating: The Contractor shall update and resubmit the Schedule of Values prior to each Application for Payment. Additionally, the Schedule of Values

is to be updated when Change Orders or Construction Change Directives result in a change in the Contract Sum. The Schedule of Values is to be made available to Authority and the Authority's Representative upon request.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with Article 5 of the Construction Agreement. The Contractor shall adhere to any additional information or formatting requests made by the Authority.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01027

SECTION 01040 COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
 - 1. General project coordination procedures.
 - 2. Conservation.
 - 3. Coordination Drawings.
 - 4. Administrative and supervisory personnel.
 - 5. Cleaning and protection.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Project Meetings"
 - 2. Division 1 Section "Submittals"
 - 3. Division 1 Section "Materials and Equipment"
 - 4. Division 1 Section "Contract Closeout"
 - 5. Division 1 Section "Construction Schedules"

1.3 COORDINATION

- A. Prior to proposing for this Project, the Contractor shall have made itself fully aware of the nature and extent of the work being performed by other contractors and specifically how such work will effect the Work under this Contract.
- B. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.

- C. The Contractor shall coordinate all Contract Work and shall not delegate responsibility for coordination to any subcontractor.
 - 1. Anticipate the interrelationships of all subcontractors and their relationship with the Work.
 - 2. Resolve differences or disputes between subcontractors concerning coordination, interference, or extent of Work.
 - 3. Coordinate the Work of subcontractors so that portions of the Work are performed in a manner that minimizes interference with progress of the overall Work.
- D. Contractor may be required to coordinate activities with other contractors working on other projects that may be concurrently performed near the project site.
 - 1. Cooperation and adjustments with such other contractors is essential. In case of interference between the operations of different contractors, utility owners or subcontractors, the Authority's Representative will be the sole judge of the rights of each and the sequence of work necessary to expedite the completion of the Project, and in all cases the Authority's Representative's decision shall be accepted as final.
- E. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
 - 1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- F. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Installation and removal of temporary facilities.
 - 3. Preparation of submittals.
 - 4. Project closeout activities.
- G. Remove and replace all Work which does not comply with Contract Documents. Repair or replace any other work or property damaged by operations of Contract Work to original conditions prior to the start of Work at no increase in Contract Sum.
- H. Components of assemblies, fabrications, installations and other details of the Work shall be accurately laid out and installed within the tolerances specified for the type of work and materials indicated. Contractor shall use established and confirmed lines and elevations for all work.
- I. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.4 SUBMITTALS

- A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 - 1. Show the relationship of components shown on separate Shop Drawings.
 - 2. Indicate required installation sequences.
 - 3. Comply with requirements contained in Section "Submittals."
- B. Staff Names: Within 10 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
- C. The Contractor shall prepare and submit to the Authority's Representative within 24 hours of the occurrence the following reports when necessary:
 - 1. Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a written report listing chain of events, persons participating, response by Contractor's personnel, evaluation of results and/or effects. Notify the Authority's Representative in advance when such events are known or predictable.
 - 2. Accident Reports: Prepare and submit reports detailing significant accidents at the site and anywhere Work is in progress. Record and document all data and actions. For this purpose, a significant accident is defined to include events where personal injury is sustained, property loss of substance is sustained or where the event posed a significant threat of loss or personal injury.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Installer of each major component is to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner. Notify the Authority's Representative at least 24 hours prior to the inspection.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.
- C. Do not cover any installations which will be concealed in the finished work until they have been inspected and approved by the Authority's Representative.
- D. The Contractor shall supervise the performance of all Work in such a manner and by such means that will ensure the public will not be subjected to harmful or dangerous exposure

3.2 CLEANING AND PROTECTION

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessive internal or external pressures.
 - 3. Excessively high or low temperatures.
 - 4. Thermal shock.
 - 5. Excessively high or low humidity.
 - 6. Air contamination or pollution.
 - 7. Water or ice.
 - 8. Solvents.
 - 9. Chemicals.
 - 10. Light.
 - 11. Radiation.
 - 12. Puncture.
 - 13. Abrasion.
 - 14. Heavy traffic.
 - 15. Soiling, staining, and corrosion.
 - 16. Bacteria.
 - 17. Rodent and insect infestation.
 - 18. Combustion.
 - 19. Electrical current.
 - 20. High-speed operation.
 - 21. Improper lubrication.
 - 22. Unusual wear or other misuse.
 - 23. Contact between incompatible materials.
 - 24. Destructive testing.
 - 25. Misalignment.
 - 26. Excessive weathering.
 - 27. Unprotected storage.
 - 28. Improper shipping or handling.
 - 29. Theft.
 - 30. Vandalism.

END OF SECTION 01040

SECTION 01094 WASTE MANAGEMENT/RECYCLING ALTERNATES DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitability, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of he characteristics of hazardous substances, ie., ignitability, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the Project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the Project site.
- K. Salvage: To remove a waste material from the Project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Volatile Organic Compounds (VOCs): Chemical compounds common in and emitted by many building products over time through outgassing: solvents in paints and other coatings; wood preservatives; strippers and household cleaners; adhesives in particleboard, fiberboard, etc.

END OF SECTION 01094

SECTION 01096 DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.1 SECTION SUMMARY

- A. This Section includes procedural and administrative definitions, explanations, and requirements for compliance with Contract Documents, governing regulations, and codes and standards that may be imposed upon the Work. The provisions of this Section include the following:
 - 1. Specification Format and Content Explanations.
 - 2. Definitions.
 - 3. Standards and References.
 - 4. Abbreviations for Industry Standards.
- B. Terms not defined in this Section shall have the meanings as set forth in the Construction Agreement (including General Conditions) between Authority and Contractor (the "Agreement") and as may be otherwise defined in other Sections of the Contract Documents for specific reference.

1.2 SPECIFICATION FORMAT AND CONTENT EXPLANATIONS

- A. The following is to help the user of the specifications more readily understand the format, language, implied requirements, and similar conventions of content. None of the following explanations shall be interpreted to modify the substance of the Contract Documents. The specifications are organized based upon the Construction Specifications Institute's (CSI) 16 Division format. The organization of the specifications into Divisions and Sections conforms generally to recognized industry practice.
- B. Sections and Divisions: For convenience, a basic unit of specification text is a "section", each unit of which is named and numbered. These are organized into related families of sections, and various families of sections are organized into "divisions".
 - 1. A section title is not intended to limit meaning or content of the section, or to be fully descriptive of requirements specified therein, or to be an integral part of text.
 - 2. Sections of Division I include general requirements for administration, procedures, and temporary facilities for the Works of the Project.
 - 3. Sections in Division 2 include specific requirements for units of the Work.
 - 4. Section Numbering: Used to facilitate cross-references in Contract Documents, sections are placed in the Project Manual in numeric sequence. If the numbering sequence is not complete, the list of sections (Index, Table of Contents, or the. like) at the beginning of Project Manual must be consulted to determine numbers and names of specification sections in the Contract Documents.
 - 5. Page Numbering: Each section is numbered independently in the Project Manual. The Section number is shown with page number at bottom of each page to facilitate location of text in Project Manual. The final page of each section is identified by END OF SECTION.

- C. Section Format: Each section of the specifications has been subdivided into 3 (or less) "parts" for uniformity and convenience (Part 1 General, Part 2 Products, and Part 3 Execution). These titles do not limit the meaning of the specified requirements.
 - 1. Part 1 General: Usually defines the specific administrative and procedural requirements unique to the section.
 - 2. Part 2 Products: Describes, generally in some detail, the quality of items that are required for incorporation into the Project under the section.
 - 3. Part 3 Execution: Describes, generally in some detail, preparatory actions and how the products are to be incorporated into the Project.
 - 4. Article: An Article is usually a major subject consisting of related paragraphs within a Part of a specification section.
 - 5. Paragraph: A Paragraph is usually one or more sentences, dealing with a particular item or point, separated from the preceding text by beginning on a new line. Groups of paragraphs of related information usually constitutes an Article.
- D. Language of Technical Specifications: Except as otherwise indicated, requirements expressed are to be performed by the Contractor. For clarity of reading at certain locations, contrasting language is used to describe responsibilities which must be fulfilled indirectly by Contractor, or, when so noted, by others.

1.3 DEFINITIONS

A. General Explanation: A substantial amount of specification language constitutes definitions for terms found in other portions of the Contract Documents, including Drawings and other documents. Drawings must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon. Certain terms used in Contract Documents are defined generally in this Article.

Definitions and explanations of this Section are not necessarily either complete or exclusive, but are general for the Work to extent not stated more explicitly in other provision of Contract Documents.

- B. The following are definitions of terms as may be used in the technical specifications:
 - "Authority": the Hugh L. Carey Battery Park City Authority
 - "Authority's Representative": URS Corporation
 - "Approval", also "approve", "approved", "acceptable", "satisfactory", "proper", or other general qualifying terms: Shall be understood to mean approved by, acceptable to, or satisfactory to the Owner's Representative/Engineer unless otherwise expressly stated.

"BPCA": the Hugh L. Carey Battery Park City Authority.

"BPCPC": Battery Park City Parks Conservancy.

"Concealed": Items or work below, within, or behind various construction elements, such as in crawl spaces, trenches, and like conditions, and which is not exposed to view.

"Contaminates": Relating to concrete, water, and concrete spoil, contaminate shall mean to come in contact with.

"Contractor's Engineer": Professional Engineer licensed in the State of New York employed or engaged by the Contractor.

"Deliver", also "delivery", "delivered", or words of like import: These shall be understood to mean the transport, unloading, and storing with proper protection at the Project Site.

"Directed", also required", "designated", or words of like import: The direction, requirement, or designation of the Owner's Representative is intended unless otherwise expressly stated.

"Drawings": The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

"Engineer": URS Corporation

"Exposed": Open to view (including items behind louvers, grilles, registers and the like) as opposed to concealed.

"Furnish": To purchase and deliver items or materials to the Project site including proper storage without installation.

"General Requirements": Provisions and requirements of other Division 1 sections apply to the entire work of the Contract and, where so indicated, to other elements which are included in the Project.

"Governing Regulations": Refer to the Agreement for additional requirements related to compliance with governing regulations.

"Indicated": The term "indicated" is a cross-reference to graphic representations, notes or schedules on the drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of location is intended except as may be specifically noted.

"Install": Application, connection, or erection of items or materials that have been furnished.

"Installer": The entity (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular element of construction at the project site, including installation, erection, application and similar required operations. It is a requirement that installers are experienced in the operations they are engaged to perform.

"Landscape Area": Any portion of the Contract Limits that is not covered by a hardscape surface finish.

"Owner": See "Authority".

"Owner's Representative": See "Authority's Representative"

"Paved Area": Any portion of the Contract Limits that is covered by a hardscape finish (i.e. granite pavers, concrete, asphalt pavers, Belgian block, etc.)

"Product": Refers to materials, systems, and equipment to be provided for the Work of this Project.

"Product Data": Illustrations, standard schedules, performance charts, instructions, brochures, catalogs, diagrams, and other information furnished by the Contractor to illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.

"Project Manual": The volume(s) of written documents assembled for the Work which may include the RFP/bidding requirements, sample forms, Conditions of the Contract, Schedules, Specifications, and other written data.

"Project Site": The term "project site" means the space available to the Contractor for performance of the Work, either exclusively or in conjunction with others performing other construction as part of the Project. The extent of the project site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built.

"Provide": In addition to "Agreement" definition and as used in technical specifications, shall be understood to mean provide complete in place, that is, "furnished and installed" or "supplied and installed".

"Regulations": The term is defined to include laws, statutes, ordinances, and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the Work regardless of whether they are lawfully imposed by governing authority or not.

"Required": See "directed".

"Samples": Physical examples that illustrate materials, equipment, or workmanship and establish standards by which the Work will be judged.

"Shop Drawings": Drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or any Contractor's subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

"Specifications": That portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

"Standards": See Article 1.4, herein.

"Subcontractor": A person or entity who has a direct contract with the Contractor to perform a portion of the Works. The term 'Subcontractor' does not include a separate contractor or subcontractors of a separate contractor.

"Submittals": Shop Drawings, Product Data, Samples, and other data required by the Contract Documents to be submitted by Contractor for review by the Owner and Owner's Representative/ Engineer. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Submittals are not Contract Documents. Review by the Owner's Representative and Design Consultant is subject to the limitations stated in the Contract Documents.

"Supply": To furnish.

"Surveyor": Professional Land Surveyor licensed in the State of New York.

"Testing Laboratories": A "testing laboratory" is an independent entity engaged by the Contractor to perform specific tests of the work, either at the Project Site or elsewhere, and to report, and (if required) interpret results of those tests.

"Unit Price": amount stated as a price per unit of measurement for materials or services as described in the Contract Documents.

"Work": Reference "Agreement" definition. In addition thereto, the Work may constitute the whole or a part of the Project.

1.4 STANDARDS AND REFERENCES

A. Product or Execution References

- 1. Any material or installation specified by reference to published specifications of a society, association, code, or other standard shall comply with the latest requirements of the referenced publication in effect, unless other publication date is identified in the Contract Documents.
- 2. Applicable standards of construction industry have the same force and effect and are made a part of Contract Documents by reference as if copied directly into the Contract Documents, or as if published copies were bound into the Contract Documents.

- 3. Reference standards (referenced directly in Contract Documents or by governing regulations) have precedence over non-referenced standards that are recognized in the construction industry for applicability to work.
- 4. Non-referenced standards recognized in the construction industry are hereby defined, except as otherwise limited in Contract Documents, to have direct applicability to the Work, and will be so enforced for performance of the Work.
- 5. Contractor shall obtain copies of Standards and References, where needed for proper performance of the work, directly from publication sources.

B. Conflicting and Overlapping Requirements

- 1. In a conflict between referenced publications which are a kind that are not enforced by governmental authority and the Contract Documents, the Contract Documents shall govern.
- 2. In a conflict between referenced publications or between referenced publications and codes, the more stringent requirements shall govern.
- 3. In a conflict between Contract Documents and Manufacturer's latest published technical data, storage and handling requirements, installation instruction, and other product data, the more stringent requirements shall govern.

1.5 ABBREVIATIONS FOR INDUSTRY STANDARDS

A. The following abbreviations may be used in the Contract Documents.

AA	Aluminum Association	
AABC	Associated Air Balance Council	
AAMA	American Architectural Manufacturer's Association	
AAN	American Association of Nurserymen	
AASHTO	American Association of State Highway and Transportation Officials	
ACI	American Concrete Institute	
ACIL	American Council of Independent Laboratories	
ACPA	American Concrete Pipe Association	
AGA	American Gas Association	
AISC	American Institute of Steel Construction, Inc.	
AISI	American Iron and Steel Institute	
ALSC	American Lumber Standards Committee	
ANSI	American National Standards Institute	
APA	American Plywood Association	
ARI	Air Conditioning and Refrigeration Institute	
ASA	American Standards Association	
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers,	
	Inc.	
ASTM	American Society for Testing and Materials	
AWI	Architectural Woodwork Institute	
AWPA	American Wood-Preservers' Association	
AWPB	American Wood Preservers Bureau	
AWPI	American Wood Preservers Institute	
AWS	American Welding Society, Inc.	
AWWA	American Water Works Association, Inc.	
BHMA	Builders Hardware Manufacturers Association	
BIA	Brick Institute of America	

Cast Iron Soil Pipe Institute CISPI Consumer Product Safety Commission **CPSC** Concrete Reinforcing Steel Institute CRSI Commercial Standards of NBS (U.S. Dept. of Commerce) CS DHIDoor and Hardware Institute Department of Transportation DOT **Environmental Protection Agency EPA Electrical Testing Laboratories** ETL Federal Communications Commission **FCC** Flat Glass Marketing Association **FGMA** Factory Mutual Engineering and Research Organization FM Federal Specification FS Gypsum Association GA Glass Tempering Association **GTA** Hollow Metal Manufacturers Association **HMMA** International Conference of Building Officials **ICBO** Insulated Cable Engineering Association **ICKA** Institute of Electrical and Electronic Engineers **IEEE IEC** International Electric Code Illuminating Engineers Society IES Military Standardization Documents MIL National Association of Architectural Metal Manufacturers NAAMM National Bureau of Standards (U. S. Dept. of Commerce) **NBS** National Certified Pipe Welding Bureau **NCPWB** NEC National Electrical Code by NFPA National Electrical Manufacturers Association NEMA National Electrical Testing Association NETA National Fire Protection Association **NFPA** National Institute of Occupational Safety and Health NIOSH Noise Reduction Coefficient NRC National Sanitation Foundation **NSF** Office of Safety and Health Administration **OSHA** Portland Cement Association **PCA** Plumbing and Drainage Institute PDI Plastic Pipe Institute PPI Product Standard of NBS (U.S. Dept. of Commerce) PS Steel Door Institute SDI **SMACNA** Sheet Metal & Air Conditioning Contractors National Association

Steel Structures Painting Council SSPC

TCA Tile Council of America

Uniform Federal Accessibility Standards **UFAS**

Underwriters' laboratories Inc. UL

United States Department of Agriculture **USDA**

United States Steel Gauge USSG

B. Refer to Drawings for additional abbreviations and for symbols.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

SECTION 01200 PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1,2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Preconstruction conferences.
 - 2. Progress meetings.
 - 3. Coordination meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Coordination"
 - 2. Division 1 Section "Submittals"
 - 3. Division 1 Section "Construction Schedules"

1.3 PRECONSTRUCTION CONFERENCE

- A. The Authority will schedule a preconstruction conference before the start of construction. The location for the conference will be determined by the Authority. The Authority will conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: The Authority; The Authority's Representative; the Engineer; the Contractor and its superintendent; major subcontractors; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress, including the following:
 - 1. Establish relationships of all parties
 - 2. Overview of Contractor's approach to the work
 - 3. Construction schedule.
 - 4. Identify major subcontractors and suppliers
 - 5. Critical work sequencing.
 - 6. Designation of responsible personnel.
 - 7. Procedures for processing field decisions and Change Orders.

- 8. Procedures for processing Applications for Payment.
- 9. Procedures for processing Proposal Requests.
- 10. Adequacy of distribution of Contract Documents.
- 11. Submittal of Shop Drawings, Product Data, and Samples.
- 12. Preparation of record documents.
- 13. Use of the premises.
- 14. Parking availability.
- 15. Construction facilities, controls and construction aids.
- 16. Temporary utilities.
- 17. Existing materials to be taken over by Contractor.
- 18. Erosion and spoil control.
- 19. Laboratory testing requirements
- 20. Work, and storage areas.
- 21. Equipment deliveries and priorities.
- 22. Site health and safety plan.
- 23. Emergency response and contingency plans.
- 24. Security.
- 25. Quality control.
- 26. Housekeeping.
- 27. Check of required bond and insurance certifications.
- 28. Liquidated damages.
- 29. Working hours.

1.4 PROGRESS MEETINGS

- A. The Authority's Representative will schedule and chair regular progress meetings. The progress meetings will be held every fourteen (14) days or less with the first meeting being held no later than seven (7) days after the pre-construction meeting. The progress meetings will be held at a location convenient for all parties.
- B. Additional meetings may be scheduled as required by the Authority's Representative.
- C. Attendees: The Authority, the Authority's Representative, a member of the design team, Contractor's superintendent, subcontractors as required by the Authority, suppliers as required, and other entities concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- D. The Authority's Representative will prepare specific agendas for each progress meeting. The following issues will be discussed:
 - 1. Review of work in progress since previous meeting
 - 2. Contractor's Construction Schedule.
 - 3. Field observations and issues.
 - 4. Issues that may cause delay.
 - 5. Corrective measures to stay on schedule.
 - 6. Revisions to construction schedule.
 - 7. Upcoming work.
 - 8. Schedule coordination.

- 9. Submittal status.
- 10. Quality control issues.
- 11. Pending changes and substitutions.
- 12. Potential changes.
- 13. Review of emergency response plan
- 14. Other business
- E. The Contractor shall bring five (5) copies of the construction schedule, inclusive of updates from the previous meeting, to each meeting for review and discussion.

1.5 COORDINATION MEETINGS

- A. The Contractor will be required to attend coordination meetings as requested by the Authority's Representative. Coordination meetings will be scheduled to address specific issues related to adjacent facilities and other issues that may arise.
- B. The Authority's Representative shall prepare and distribute meeting minutes to all necessary parties.

1.6 SUBMITTALS

- A. The Contractor shall submit the following to the Authority's Representative 48 hours prior to each progress meeting:
 - 1. Bi-weekly construction schedule outlining detailed operations
 - 2. Overall construction schedule
 - 3. Suggested agenda items

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

SECTION 01300 SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Submittal schedule.
 - 3. Daily construction reports.
 - 4. Product Data.
 - 5. Samples.
 - 6. Quality assurance submittals.
- B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
 - 1. Permits.
 - 2. Applications for Payment.
 - 3. Performance and payment bonds.
 - 4. Insurance certificates.
 - 5. List of subcontractors.
 - 6. Working Drawings.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Applications for Payment"
 - 2. Division 1 Section "Coordination"
 - 3. Division 1 Section "Project Meetings"
 - 4. Division 1 Section "Construction Schedules"
 - 5. Division 1 Section "Ouality Control"
 - 6. Division 1 Section "Contract Closeout"

1.3 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of

construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

- 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Authority reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
- 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 - a. Allow 2 weeks for initial review. Allow additional time if the Authority's Representative must delay processing to permit coordination with subsequent submittals.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow 2 weeks for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Authority's Representative sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Provide four (4) sets of each submittal to the Authority's Representative.
 - 2. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record the review and approval markings and the action taken.
 - 3. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of the Authority.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Authority's Representative using a transmittal form. The Architect will not accept submittals received from sources other than the Contractor.

- 1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- 2. Each submittal shall be signed and sealed by the Contractor's Professional Engineer, licensed in the State of New York, certifying approval and compliance with Contract Documents.

1.4 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart-type, contractor's construction schedule in accordance with "Section 01310 Construction Schedules".
- B. Include submittal review process on construction schedule.
- C. Distribution: Following response to the initial submittal, print and distribute copies to the Authority's Representative, subcontractors, and other parties required to comply with scheduled dates.
 - 1. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- B. Schedule Updating: Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule to all required parties.

1.5 SUBMITTAL SCHEDULE

- A. After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the schedule within 5 days of acceptance of the Contractor's Construction Schedule.
 - 1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.
 - 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category (Shop Drawings, Product Data, or Samples).
 - d. Name of the subcontractor.
 - e. Description of the part of the Work covered.
 - f. Scheduled date for resubmittal.
 - g. Scheduled date for the Authority's final release or approval.
- B. Distribution: Following response to the initial submittal, print and distribute copies to the Authority's Representative, subcontractors, and other parties required to comply with submittal dates indicated. Maintain a current copy on site for review by the Authority's Representative at all times.

- 1. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule to all necessary parties.

1.6 DAILY CONSTRUCTION REPORTS

- A. Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the Authority's Representative at weekly intervals:
 - 1. List of subcontractors at the site.
 - 2. Number of personnel at the site, listing trade and time on site.
 - 3. Equipment at the site and time utilized on site.
 - 4. High and low temperatures, general weather conditions.
 - 5. Accidents and unusual events.
 - 6. Meetings and significant decisions.
 - 7. Stoppages, delays, shortages, and losses.
 - 8. Meter readings and similar recordings.
 - 9. Emergency procedures.
 - 10. Orders and requests of governing authorities.
 - 11. Change Orders received, implemented.
 - 12. Services connected, disconnected.
 - 13. Equipment or system tests and startups.
 - 14. Partial Completions, occupancies.
 - 15. Substantial Completions authorized.

1.7 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, diagrams, templates, illustrations and performance curves.
 - 1. Mark each copy to identify applicable choices and options including materials, product, models, etc. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of performance, characteristics and capacities.
 - g. Notation of coordination requirements.

- 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed by Contractor's Professional Engineer.
- 3. Submittal: Submit four (4) copies of each required submittal and/or maintenance manuals. The Authority's Representative will return one copy marked with action taken and corrections or modifications required.
- 4. Where product data is printed in color and requires color for evaluation, all copies shall be original colors as published.
- 3. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
 - a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
 - b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.8 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the specified material or product proposed. Samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of product or material, including integral related parts and attachment devices.
 - 1. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
 - a. Specification Section number and reference.
 - b. Generic description of the Sample.
 - c. Sample source.
 - d. Product name or name of the manufacturer.
 - e. Compliance with recognized standards.
 - f. Availability and delivery time.
 - 2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics.
 - a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least two (2) multiple units that show approximate limits of the variations.
 - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
 - d. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

- 3. Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices.
 - a. The Authority will review and return preliminary submittals with notation, indicating selection and other action.
- 4. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
 - b. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - c. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
 - 1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
 - a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.9 QUALITY ASSURANCE SUBMITTALS

- A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 - 1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control."

1.10 EMERGENCY RESPONSE AND CONTINGENCY PLAN

- A. Prepare and submit a Health and Safety Plan specific to the project conditions in accordance with OSHA requirements. Include the address and telephone number for the nearest hospital, police and fire departments.
- B. Submit to the Authority's Representative an Emergency Response and Contingency Plan ("ERCP") that details measures to be taken in the event of potential spills of construction related materials such as diesel fuels, grout, and accidental uncontrolled discharges into the

Hudson River.

C. The Authority's Representative will review the Contractor's ERCP in accordance with these specifications. The approved Contractor's ERCP shall be used in the event of spills and discharges that may occur during the course of the Work.

1.11 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall review shop drawings, product data, samples and all other submittals prior to submission. Coordinate each submittal with requirements of the Work and of the Contract Documents:
- B. Determine and verify:
 - 1. Field measurements
 - 2. Field construction criteria
 - 3. Catalog numbers and similar data
 - 4. Conformance with Specifications
 - 5. Review by Contractor
- C. Check equipment against drawings and field conditions for:
 - 1. Clearance
 - 2. Connections
 - 3. Accessibility
 - 4. Servicing
 - 5. Maintenance
- D. Notify in writing at least ten (10) days prior to time of submission any deviation in the submittals from the requirements of the Contract Documents.
- E. Begin no fabrication or work, which has a submittal requirement until return of submittal with Engineer's action stamp of approval.
- F. Make submittals promptly in accordance with approved schedule and as to cause no delay in the Work.
- G. Prior to submission, the Contractor shall affix to each submittal the Contractor's stamp, initialed or signed, dated and numbered for identification. Contractor's stamp shall be for certifying review and approval of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and Contract Documents. This certification as stated herein shall be indicated on each submittal as follows:

"Material submitted for approval has been checked for conformance with the Contract Documents for this Project.

Any deviations from the Contract Documents have been noted on the material or listed in

the transmittal letter.

Signed: (Contractor)

Dated: (date of submission)"

- H. Cost of submittal, delivery and distribution shall be paid by the Contractor.
- I. Should any mark or correction in any submittal be made that would or could result in incorrect fit of any part or result in insufficient strength or stability of the Work, the Contractor shall promptly notify the Authority's Representative in writing so as to expedite the required correction or modification. Failure by the Contractor to provide prompt and immediate notification shall result in responsibility for the incorrect mark or correction resting solely with the Contractor.

1.12 PROCESSING BY THE AUTHORITY'S REPRESENTATIVE

A. Upon receipt of submittal from the Contractor, the Authority's Representative will review the submittal for compliance with Contract Documents, procedures and requirements and will then transmit to the Engineer for final review.

1.13 ENGINEER'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Engineer will review each submittal, mark to indicate action taken, and return to the Contractor within seven (7) calendar days of receipt.
- B. Action Stamp: The Authority's Representative or Engineer will stamp each submittal with a uniform, action stamp. The Engineer will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. Final Unrestricted Release: When the Engineer marks a submittal "Approved," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
 - 2. Final-But-Restricted Release: When the Engineer marks a submittal "Approved as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance. A revised copy is to be submitted to the Authority's Representative for the record.
 - 3. Returned for Resubmittal: When the Engineer marks a submittal "Not Approved, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
 - a. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.
 - 4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Engineer will return the submittal marked "Action Not Required."

- C. Unsolicited Submittals: The Authority's Representative or Engineer will return unsolicited submittals to the sender without action.
- D. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Authority's Representative's or Engineer's approval of shop drawings, product data or material samples unless the Contractor has specifically informed the Authority's Representative and Engineer in writing of such deviation at the time of submission and the Engineer has given written approval for the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the shop drawings, product data or material samples by the Engineer's approval thereof.

1.14 RESUBMISSION REQUIREMENTS

- A. Identification of Changes: Clearly identify all changes made from the initial submittal, other than those requested by the Authority's Representative. The Authority's Representative or Engineer will review only those changes he/she requested and those identified by the Contractor.
- B. Procedure for re-submittals shall be the same as initial submittals.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

SECTION 01310 CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for construction schedule submissions.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Applications for Payment"
 - 2. Division 1 Section "Coordination"
 - 3. Division 1 Section "Project Meetings"
 - 4. Division 1 Section "Submittals"
 - 5. Division 1 Section "Quality Control"
 - 6. Division 1 Section "Contract Closeout"

1.3 SUBMITTALS

- A. Proposed Construction Schedule: In proposing for the Work under this Schedule, the schedule shall be a computer generated bar-chart type with appropriate detail for a project of this scale. The schedule shall include, but not be limited to the following items:
 - 1. Project information: Client, project name, location, date
 - 2. Individual line items for each major component of the Work
 - 3. Activity durations, with none greater than 20 working days
 - 4. Submittal schedule
 - 5. Permit acquisition schedule
 - 6. Work items are to be grouped appropriately by phase, area, etc.
 - 7. Milestones for start and completion of each major component

The Proposed Construction Schedule will be reviewed by the Authority and the Authority's Representative for accuracy and feasibility during review of the proposal. The Proposed Construction Schedule shall be discussed at the Preconstruction Conference, modified as required by the Authority and used as the basis in preparing the Project Construction Schedule.

- B. Project Construction Schedule: The Contractor shall prepare and submit for approval a fully developed, horizontal bar-chart-type, construction schedule prior to the start of Work.
 - 1. The Project Construction Schedule shall be used to measure the progress of the work and to provide the basis of all progress payments.

- 2. The use of Critical Path Method ("CPM") network calculations shall be used to generate the Project Construction Schedule.
- 3. The schedule shall include the appropriate level of detail as required by the Authority's Representative. Failure to develop or update the schedule as specified by the Authority's Representative will result in disapproval of the schedule.
- 4. All major items of Work shall be shown as individual activities.
- 5. Activity durations shall be accurate, with none longer than 20 working days.
- 6. Permit acquisitions must be shown as unique activities.
- 7. Procurement of items, including submittal review times, shall be shown as unique activities.
- 8. Close-out documents shall be shown on the schedule.
- 9. Activities shall be categorized by work areas, phase of work, responsibility or as determined by the Authority's Representative.
- 10. The Project Construction Schedule shall be computer generated, neatly organized and free of hand-written notes.
- 11. The Project Construction Schedule shall be printed in color on white paper.
- 12. A copy of the Project Construction Schedule is to be available on the project site at all times and presented to the Authority or the Authority's Representative upon request.
- C. Project Construction Schedule Updates: The Contractor shall bring four (4) copies of the current schedule to each progress meeting. The schedule will be discussed and the Contractor will be responsible for updating the schedule according to any revisions required within three (3) days after each progress meeting.
- D. If it is determined by the Authority or The Authority's Representative that the project is not on schedule, the Contractor will be informed of such and shall prepare a Recovery Schedule within three (3) days. The Recovery Schedule shall clearly indicate how the Contractor plans to complete the project on time.
- E. All schedules are to be made available to the Authority or the Authority's Representative in digital format upon request.
- F. Any deviation from the Project Construction Schedule shall only be with the approval of the Authority or the Authority's Representative.
- G. A copy of the current Project Construction Schedule, accurately showing all progress to date, shall be submitted with each Application for Payment.

1.4 PROJECT MILESTONES

A. The following dates are known by the Authority and shall be incorporated into the Contractor's schedule submissions:

Project Milestone <u>Date</u>

Pre-Proposal Conference March 7, 2011 3:00 PM
All Questions Due March 10, 2011 12:00pm
Addenda Issued (if required) March 14, 2011

Proposal Due March 21, 2011 5:00pm

Pre-Award Meetings	March 24, 2011, 2-4:00pm
Kick Off Meeting	on or about April 1st, 2011
Project Complete/Final Inspection	TBD
Contract Close-Out	TBD

B. Liquidated Damages: Failure to complete the Work by the date indicated above as "Construction Complete/Final Inspection" shall result in the enforcement of liquidated damages of \$1,000 per day.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

SECTION 01400 QUALITY CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality-control services.
- B. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by the Authority, the Authority's Representative, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 RESPONSIBILITIES

- A. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. The Contractor shall employ and pay a qualified independent testing agency, certified by the State of New York, to perform quality-control services. Costs for these services are included in the Contract Sum.
- B. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

- 1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
- C. Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 - 1. Provide access to the Work.
 - 2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
 - 3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 - 4. Provide facilities for storage and curing of test samples.
 - 5. Deliver samples to testing laboratories.
 - 6. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
 - 7. Provide security and protection of samples and test equipment at the Project Site.
- D. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 - 1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
- E. The Contractor shall monitor Quality Assurance and Quality Control ("QA/QC") over all suppliers, manufacturers, products, services, site conditions and workmanship to produce Work of the specified quality.
- F. Comply with manufacturer's instructions, including each step in sequence.
- G. Request clarification from the Authority's Representative before proceeding with Work if the manufacturer's instructions conflict with the Contract Documents.
- H. Comply with specified standards as a minimum quality for the Work, except where more stringent tolerances, codes, standards, or precise workmanship is required.
- I. All Work shall be performed by persons qualified to produce workmanship of specified quality.
- J. For products or workmanship specified by association, trade or other standards, comply with requirements of the standard, except where more rigid requirements are specified or are required by applicable code.
- K. Conform to reference standard by date of issue current of date for receiving proposals, except where a specific date is established by codes.
- L. Obtain copies of standards where required by product specification sections.

- M. The contractual relationship, duties and responsibilities of the parties in the Contract and those of the Authority's Representative shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.
- N. The omission of a reference standard in any section of the Specifications does not relieve the Contractor from adhering to all applicable reference standards associated with the Work.

1.4 SUBMITTALS

- A. The Contractor shall submit a Quality Assurance and Quality Control Plan establishing all guidelines for quality assurance and quality control monitoring during progress of the work. Submit the QA/QC Plan to the Authority's Representative within seven (7) days following the Letter of Intent/Award of Contract. The QA/QC Plan shall specifically address all QA/QC requirements of the Contract Documents.
- B. The Contractor is responsible for insuring that, independent testing agencies submit a certified written report, in duplicate, of each inspection, test, or similar service. If the Contractor is responsible for conducting the testing, submit a certified written report, in duplicate, of each inspection, test, or similar service.
 - 1. Submit two (2) copies of each required report and field test to the Authority's Representative within three (3) days of completion of the test. The Authority's Representative may direct the Contractor to submit tests and reports directly to the Engineer if deemed necessary.
 - 2. Submit additional copies of each written report directly to the governing authority, when the Authority so directs.
 - 3. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
 - a. Date of issue.
 - b. Project title and number.
 - c. Name, address, and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.
 - e. Names of individuals making the inspection or test.
 - f. Official stamp or seal of individual conducting test.
 - g. Designation of the Work and test method.
 - h. Identification of product and Specification Section.
 - i. Complete inspection or test data.
 - j. Test results and an interpretation of test results.
 - k. Ambient conditions at the time of sample taking and testing.
 - 1. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
 - m. Name and signature of laboratory inspector.
 - n. Recommendations on retesting.

1.5 QUALITY ASSURANCE

A. Qualifications for Service Agencies: Engage inspection and testing service agencies,

including independent testing laboratories, that are certified in the State of New York and that specialize in the types of inspections and tests to be performed.

- 1. Each independent inspection and testing agency is subject to review and approval by the Authority's Representative. Submit qualifications to the Authority's Representative prior to utilizing each agency.
- B. Testing devices shall be calibrated at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards of accepted values of natural physical constants.

1.6 LIMITS OF AUTHORITY OF SERVICE AGENCIES

- A. Service agencies, including testing laboratories, are not authorized to:
 - 1. Release, revoke, alter or enlarge requirements of Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore all finishes. Comply with Contract Document requirements.
- B. Protect construction exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

SECTION 01475 ENVIRONMENTAL IMPACT OF MATERIALS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The requirements identified within this Section supplement those identified in corresponding Sections.
- B. Requirements: To minimize environmental impacts of the construction and operation, the Contractor during the construction phase of this project is encouraged to implement the following procedures singly or in combination:
 - 1. Select products that minimize consumption of non-renewable resources, consume reduced amounts of energy, and minimize amounts of pollution to produce, and employ recycled and/or recyclable materials.
 - 2. Obtain Owner's approval of all materials listed in Part 2 prior to placing the order with the manufacturer of the material.

1.3 QUALITY ASSURANCE

A. General: Perform the work of this Section as a supplement and in accordance with applicable requirements of Division 1 "Quality Control" Section.

PART 2 PRODUCTS

2.1 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

- A. General: The following health and environmental impact requirements apply to materials specified in their respective Specification Sections.
- B. Salvaged/Refurbished Materials: Substitutions with salvaged/refurbished materials are encouraged. All proposed substitutions must be submitted to the Authority or the Authority's Representative for approval following regular submittal procedures.

PART 3 EXECUTION (NOT USED)

SECTION 01505 CONSTRUCTION WASTE MANAGEMENT AND RECYCLING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of each prime Contract, including other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The General Contractor shall implement procedures to minimize the creation of construction and demolition waste on the job site. As many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.
- B. The General Contractor shall develop a Waste Management Plan as defined in this Section.

1.3 DEFINITIONS

- A. Waste Materials: construction materials that are excess to the contract requirements and which can not be effectively used in the Work.
- B. Salvage Materials: waste materials or materials that are existing on the site that can be reused, either on site or by another entity.
- C. Recyclable Waste: waste materials that are existing on site or are generated during the construction process that can be recycled/remanufactured into another material.
- D. Categories of salvageable or recyclable waste include the following:
 - 1. Existing Vegetation: includes shrubs, plants, and trees that will be disturbed or removed during construction.
 - 2. Land Clearing Debris: solid waste generated from land clearing operations, such as stumps, woody debris, limbs and brush, clean soil, etc. Does not include rock, concrete or chemically treated landscape timbers.
 - 3. Concrete, Masonry, and Other Inert Fill Material: concrete, brick, vitrified clay pipe, rock, broken up asphalt pavement, clay, and other inert (non-organic) materials.
 - 4. Metals: metal scrap including iron, steel, copper, brass, and aluminum; includes beverage containers, packaging materials (such as metal banding), fencing, reinforcing bar, wiring, plumbing, etc.
 - 5. Untreated Wood: unpainted, untreated dimensional lumber, wood edging, wood shipping pallets, etc. Does not include pressure treated or creosote treated wood.

- 6. Engineered Wood Products: plywood, oriented strand board, masonite, particleboard, manufactured trusses and beams, and glue-laminated timbers.
- 7. Gypsum Wallboard: excess drywall construction materials including cuttings, other scrap, and excess materials.
- 8. Cardboard: clean, corrugated cardboard such as used for packaging, etc.
- 9. Paper Goods:
 - a. Office paper: includes any paper, such as manufacturer instruction, specification sheets, files, correspondence, packaging, stiffeners, etc.
 - b. Newsprint: shredded or whole newspaper goods.
- 10. Plastic: HDPE, beverage containers, packaging materials (such as polystyrene "peanuts" and expanded polystyrene), containers (other than those used for hazardous materials), vinyl products, etc.
- 11. Glass: includes glass beverage containers, and recyclable glass building materials.
- 12. Insulation: rigid foam, batt, and loose fill insulation materials.
- 13. Carpet: face fiber, backing, padding, and carpet cushion scrap.
- 14. Paints: unused portions of paints and coatings applied on-site.
- 15. Fabric: uncontaminated fabric scraps.
- 16. Rubber: uncontaminated rubber scraps, including but not limited to recycled-content rubber flooring, rubber edging, tires that are no longer serviceable, etc.
- 17. Other: any additional materials identified on-site to be valued for salvage, reuse, or recycling by the Contractor, Owner, Construction Manager, or Architect.
- 18. Non-Recyclable Waste: All waste materials that are not able to be recycled, due to contamination, lack of recycling facilities or salvage options, or high cost.
- 19. Source Separated: Materials that are separated on-site by category.
- 20. Co-Mingled: Several types of construction waste that are combined in a single container. Co-mingling of recycling waste must be approved by the identified recycling facility.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with all applicable federal, state, and local ordinance and regulation requirements for recycling and waste management.
- B. Disposal Sites, Recyclers, and Waste Materials Processors: Use only facilities properly permitted by state and local authorities.
- C. Preconstruction Waste Management Conference: Prior to beginning work at the site, as part of the Preconstruction Conference, discuss procedures, schedules and specific requirements for waste materials recycling and disposal.

D. Implementation:

- 1. Include waste management and recycling in worker orientation.
- 2. Provide on-site instruction on appropriate separation, handling, recycling, and salvaging methods to be used by all parties at the appropriate stages of the work at the site.

- 3. Include waste management and recycling discussion in pre-fabrication meetings with subcontractors and fabricators.
- 4. Also include discussion of waste management and recycling in regular job meetings and job safety meetings conducted during the course of work at the site.

1.5 STORAGE AND HANDLING

- A. Salvage Materials: Provide protective handling and storage as required for all items identified for salvage and reuse by the Owner, Owner's Representative, or Engineer.
- B. Recyclable Waste: Remove all recyclable materials, as identified in the Waste Management Plan, from the work location to approved containers daily. Failure to remove waste materials will be considered cause for withholding payment and/or termination of Contract.
- C. Provide separate collection containers as required by recycling haulers and to prevent contamination of materials, including protection from rain as applicable.
- D. Replace loaded containers with empty ones as demand requires but not less than weekly.
- E. All Containers utilized for rubbish collection must be rodent proof including steel construction and lids, and shall be emptied a minimum of two times a week.
- F. Handling: Deposit all indicated recyclable materials in the containers in a clean (no mud, adhesives, solvents, petroleum contamination), debris-free condition. Do not deposit contaminated materials into the containers until such time as such materials have been cleaned.
- G. If contamination chemically combines with the material so that it can not be cleaned, do not deposit into the recycle containers.

1.6 PROJECT/SITE CONDITIONS

- A. Environmental Requirements: Transport recyclable waste materials from the Work Area to the recycle containers and carefully deposit in the containers in a manner to minimize noise and dust. Close container covers immediately after materials are deposited. Do not place recyclable waste materials on the ground adjacent to a container.
- B. Existing Conditions: Coordinate with "Instructions to Proposers".

PART 2 PRODUCTS

2.1 CONSTRUCTION WASTE MANAGEMENT PLAN

A. Waste Materials: The following materials shall be salvaged or recycled if possible.

- 1. Salvage Materials: Salvage materials currently existing on the Project site shall be removed, protected, and stored as indicated on the plans and specifications. (See definitions under this specification.)
- B. Recyclable Materials: If applicable, the following materials, at a minimum, shall be salvaged or recycled if possible. Applies to all such listed waste materials produced during the course of this Contract. (see definitions in this specification section.)
 - 1. Topsoil
 - 2. Concrete, Masonry, and Other Inert Fill Material
 - 3. Crushed Stone and Gravel
 - 4. Asphalt
 - 5. Metals
 - 6. Untreated Wood
 - 7. Cardboard
 - 8. Paper Goods
 - 9. Beverage Containers
 - 10. Plastic
 - 11. Glass
- C. Delivery Receipts: Maintain copies of delivery receipts for waste materials salvaged and sent to permitted waste materials processors or recyclers that indicate the location and name of firm accepting recyclable waste materials, types of materials, net weights of each type, date of delivery and value of materials.

PART 3 EXECUTION

3.1 WASTE MANAGEMENT

- A. General: Implement waste management procedures in accordance with requirements set forth in the Contract Documents. Maintain procedures throughout the life of this Contract.
- B. Source Separation: Separate, store, protect, and handle at the project site all identified recyclable and salvageable waste products to prevent contamination of materials and maximize recyclability and salvageability of materials.
- C. Collection: Arrange for timely pickups from the site or deliveries to clear and prevent contamination of recyclable materials. Maintain records accessible to the Owner's Representative for verification of construction waste materials recycling.
- D. Delivery Receipts: Keep and maintain records of all deliveries to recycling facilities and all pickups of waste materials at the site by others as specified above.
- E. Salvage and Reuse: Identify salvage and reuse all materials that are deemed to be reusable.

- F. Non-Recyclable Waste: Collect and segregate non-recyclable waste for delivery to a permitted landfill site.
- G. Hazardous Waste: Control and dispose of hazardous waste in accordance with local, state, and federal regulations.

SECTION 01600 MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
 - 2. Transportation, handling, storage and protection of materials and equipment.
 - 3. The use of environmentally sustainable materials, equipment and equipment fuels.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Definitions and Standards"
 - 2. Division 1 Section "Submittals"

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.4 SUBMITTALS

- A. Product List: Contractor shall prepare a list showing products specified in tabular form acceptable to the Authority's Representative. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 - 1. Coordinate product list with the Project Construction Schedule and the Schedule of

Submittals.

- 2. Format: Prepare product list with information on each item tabulated under the following column headings:
 - a. Related Specification Section number.
 - b. Generic name used in Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
- 3. Initial Submittal: Within 7 days after date of commencement of the Work, submit 3 copies of an initial product list to the Authority's Representative. Provide a written explanation for omissions of data and for known variations from Contract requirements.
- 4. Completed List: Within 30 days after date of commencement of the Work, submit 3 copies of the completed product list to the Authority's Representative. Provide a written explanation for omissions of data and for known variations from Contract requirements.
- 5. Engineer's Action: The Engineer will respond in writing to Contractor within 2 weeks of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Engineer's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.5 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
 - 1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Authority's Representative and the Engineer to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:
 - 1. No available domestic product complies with the Contract Documents.

- 2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.
- D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 - 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 - 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units. Keep all seals and labels intact and legible.
 - 6. Store heavy materials in a manner that will not endanger the supporting construction.
 - 7. Store products subject to damage by the elements above ground, under cover in a weather-tight enclosure, with ventilation adequate to prevent condensation.

 Maintain temperature and humidity within range required by manufacturer's instructions.
 - 8. Store loose granular material on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
 - 9. Arrange products to permit access for inspection. Periodically inspect to assure products are undamaged and maintained under specified conditions. The Authority's Representative may request inspection of stored products at any time.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 - Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 - 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
 - 1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
 - 2. Semiproprietary Specification Requirements: Where Specifications name 2 or more products or manufacturers, provide 1 of the products indicated. No substitutions will be permitted.
 - a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
 - 3. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
 - 4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
 - 5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
 - a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
 - 6. Compliance with Standards, Codes, and Regulations: Where Specifications only

- require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
- 7. Visual Matching: Where Specifications require matching an established Sample, the Engineer's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.
- 8. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Engineer will select the color, pattern, and texture from the product line selected.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated to the extent that these instructions and recommendations are more stringent or explicit than the requirements indicated in the Construction Documents. Anchor each product securely in place, accurately located and aligned with other Work.
 - 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Final Acceptance.
 - 2. Maintain one set of complete instructions at the job site during installation and until project completion.
 - 3. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Authority's Representative and Engineer for further instructions. Contractor shall not proceed without clear instructions.

SECTION 01630 PRODUCT OPTIONS & SUBSTITUTIONS

PART 1 GENERAL

1.1 SECTION SUMMARY

- A. Product quality standards related to the Work of this Project.
- B. Contractor's options in selection of products.
- C. Procedures for Contractor's substitution requests and approvals.

1.2 RELATED REQUIREMENTS

- A. Related Requirements in Other Parts of Project Manual
 - 1. Instruction to Proposers and Request for Proposal.
 - 2. Conditions of Contract.
 - 3. Unit Prices.

1.3 RELATED SECTIONS

- A. Section 01010-Summary of Work.
- B. Section 01300-Submittals.
- C. Section 01500-Temporay Facilities and Controls.
- D. Section 01600-Materials and Equipment.

1.4 DEFINITIONS

A. Substitutions

- 1. Any item by a manufacturer other than manufacturers cited in the Contract Documents, or of brand name, or model number, or of generic species other than those cited in the Contract Documents will be considered a substitution.
- 2. Proposed changes or modifications to generic systems and concepts of design that are consistent with the design intent and the construction Contract Documents, and do not require a substantial revision, but require additional Design Professional services of design, redesign or administration, shall be considered a substitution.
- B. Deviations: Refer to Conditions of "Agreement".

1.5 PRODUCT QUALITY STANDARDS

A. The products, materials, and equipment of manufacturers referred to in the Specifications and on the Drawings are intended to establish the standard of quality and design for the Work of this Project.

- 1. Conform to applicable specifications and standards.
- 2. Comply with size, make, type, and quality specified, or as specifically approved in writing by the Authority or the Authority's Representative.
- 3. Manufactured and Fabricated Products:
 - a. Design, fabricate, and assemble in accord with the best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges, and to be interchangeable.
 - c. Two or more items of the same kind shall be identical and by the same manufacturer.
 - d. Products shall be suitable for service conditions.
 - e. Equipment capacities, sizes, and dimensions shown or specified shall be adhered to unless Authority or the Authority's Representative specifically approves variations in writing.
- 4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

1.6 SUBSTITUTIONS

A. Summary of Proposing and Contract Conditions

- 1. All Proposals and Work shall be based on the products, materials, and equipment described in the Proposing and Contract Documents.
- 2. Proposer or Contractor initiated requests for substitution of products, materials, and equipment specified or shown on drawings will be reviewed by the Authority or the Authority's Representative in accordance General Conditions of the Contract for Construction and in accordance with the requirements and procedures specified herein.
- 3. After Contract Award or Owner's Notice to Proceed, requests for substitution, if approved by the Authority or the Authority's Representative, shall be understood to be "Changes in the Work" in accordance with the Contract Construction Agreement and will require the issue of a "Change Order".
- 4. The Contractor will be responsible for reimbursement, to Authority or the Authority's Representative for additional review and redesign costs.
- 5. Refer to "Schedule of Substitution Submissions", herein for restrictive periods for Contractor's submittal of substitutions.

B. General Requirements

- 1. Prior to proposing any substitute item, the Contractor shall be satisfied through investigation that the item(s) the Contractor proposes for the substitution complies with the following:
 - a. That the proposed substitution is in fact, equal to or better than the product specified; that it will fit into the space allocated; that it affords comparable ease of operation, maintenance, and service; that its appearance, longevity, and suitability for the climate and use are comparable to that specified; and that it is compatible with adjacent conditions and products;
 - b. That the substitution is in the interest of the Authority.
 - c. The Contractor will provide the same guarantee/warranty for the substitution that the Contractor would be required to furnish by original specifications.
 - d. The Contractor certifies that the cost data presented is complete and includes all

- related costs under this Contract, but excludes costs under separate contracts and excludes the Owner's redesign and related costs and waives all claims for additional costs related to the substitution which may subsequently become apparent.
- e. The Contractor will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects as approved by the Authority or the Authority's Representative.
- 2. Acceptance of any substitution by Authority or the Authority's Representative shall not relieve the Contractor from responsibility for compliance with all the requirements of Contract Documents. The Contractor shall be responsible, at Contractor's own expense, for any changes in other parts of the Contract Work or the work of other contractors and any delay costs caused by Contractor's requested substitutions, including cost of design and redesign services related thereto incurred by the Authority's Representative and the Engineer as determined necessary by the Authority.

C. Contract Time Extensions and Costs

- The Contract completion time shall not be extended by any circumstance resulting from a
 Contractor proposed substitution, except as authorized in writing by Change Order. In
 addition, the Contractor will not be entitled to any compensation for any delay caused by,
 or related to, a substitution.
- 2. All costs related to submission of proposed substitutions including but not limited to reviews, product data, testing, samples, and drawing presentations shall be at the expense of the Contractor, whether the substitution is approved or not.

D. Substitution Submittal Procedures

- 1. The Contractor shall submit substitution requests to the Authority's Representative, which conform to the design intent and product quality standards of the Contract Documents. Each submittal shall include a complete description of the proposed substitution including effect on contract costs and time schedules. Data included with substitution submittals for evaluation will not be considered if:
 - a. They are indicated or implied on shop drawings, product data, or sample submissions without prior formal request for substitution as required herein.
 - b. The request for substitution is incomplete or does not describe adequate data for evaluation.
 - c. For implementation, the proposed substitution requires a substantial revision of the Contract Documents in order to accommodate use as proposed.
- 2. If the Contractor desires to use a substitute item, application shall be made to the Authority's Representative, in writing, in sufficient time as scheduled herein (having regard to the progress of the Work, the period of delivery of the products concerned, and adequate time for the Authority's Representative) stating and fully identifying the proposed substitution, cost changes (if any), and submitting substantiating data, samples, brochures, and other descriptions of item proposed. It is the Contractor's responsibility to furnish sufficient evidence by tests or other means to support any request for approval of substitutions.
- 3. The burden of proof that a proposed substitution is equal to a specified item shall be upon

the Contractor, who shall support the request with sufficient test data and other means to permit Authority or the Authority's Representative to make a fair and equitable decision on the merits of the proposal.

4. Materials and methods proposed as substitutions for specified items shall be supported by certification of their acceptance for use by any authority, person, or persons having jurisdiction over the use of the specified material or method.

5. Submit substitution submittal requests on Contractor's letterhead in the quantities and format as specified for "Submittals" in Section 01300.

6. Schedule of Substitution Submissions - Submission of requests for Substitution shall be received by the Authority's Representative according to the following:

a. After Proposal Opening and before Contract Award: Submit only as requested by Authority's Representative for the purpose of reducing Proposal Amounts and when in the Authority's interest.

b. After Contract Award or Notice to Proceed: Submission of requests for substitution shall be received by the Authority's Representative no later than 7 days after Contract Award or prior to scheduled first submittal of specified item proposed for substitution, whichever is sooner.

c. Authority will not entertain substitutions after the number of days specified herein.

E. Substitution Approval Procedures

- 1. The Authority's Representative will be the sole judge of equivalency of proposed substitute products, materials, and equipment.
- 2. The Authority's Representative will make written recommendation of acceptance or rejection to the Authority. The Authority will then authorize and issue to Contractor a written approval or rejection of the substitution.
- 3. Form of written approval for substitution shall be subject to conditions specified herein:
 - a. Prior to Contract Award or Notice to Proceed: Written approval will be in the form of an Addendum prepared by the Design Engineer.
 - b. After Contract Award or Notice to Proceed: Written approval will be in the form of a Change Order in accordance with the Conditions of Contract.
- 4. Where manufacturer's shop drawings, product data, literature, finish samples, and the like are required by Contract Documents to be submitted, final approval of proposed substitutions or deviations will be contingent upon the submittal and subsequent approval of Shop Drawings, Product Data, Samples, and other data requested.
 - a. Additional Product Data, Reports, Samples, and Shop Drawings, in addition to specified submittal requirements (in specifications sections) for originally specified items, may be required to be submitted for items of allowed substitution.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01630

SECTION 02950

STREET TREE PLANTING

PART 1 - GENERAL

1.01 GENERAL

- A. Perform the work in accordance with the requirements of the Contract Documents and Special Conditions.
- B. Hazardous Materials Provide materials that do not contain asbestos, PCB or other hazardous materials.
- C. Provide certification in accordance with the Special Conditions from the Contractor, manufacturers, and installers that materials provided for the Work comply with the above requirements.
- D. Coordinate work with that of other trades affecting or affected by work of this Section and cooperate to assure the steady progress of work.

1.02 SECTION SUMMARY

- A. Furnishing and installing all plantings of new street trees in continuous soil trenches as specified herein.
- B. Provide additional mulch, fertilizer, and soil amendment(s) if and as required.
- C. Staking and guying including necessary hardware and deadman as specified or shown.
- D. Pest and disease control.
- E. Maintenance under contract and guarantee.
- F. Testing of soil materials including off-site borrow soil, mulch, and amendment materials and manufactured soils for approved use in tree planting soil mix. Verification testing of on-site sub-soils as required.
- G. Percolation Test in tree pits.
- H. Furnishing material from approved off-site source(s) as a base component for tree planting soil mix and furnishing other soil amendment materials.
- I. Amending, preparing, and mixing planting soils for tree planting, throughout the life of the contract.
- J. Preparing sub-grade.

1.03 RELATED SECTIONS

A. Site Salvaged Granite Cobble Paving

Section 02518

1.04 SUBMITTALS

A. Notices and Scheduling:

- 1. Notice of intent to perform work shall be submitted to the Battery Park City Authority (BPCA)/Battery Park City Parks Corporation (BPCPC) representative at least 14 calendar days prior to installation of soil and planting.
- 2. Within 15 calendar days after Contract Notice to Proceed, submit to BPCA/BPCPC invoices or certificates of deposit from nursery(ies) guaranteeing timely delivery of all specified and tagged plant materials. If any plant materials are unavailable at the time of submittal, Contractor shall contact BPCA and BPCPC to determine acceptable alternatives. Indicate the following:
 - a. Confirm size and grade of materials to be planted.
 - b. Indicate source of origin and the health of trees each type.
- 3. Submit to BPCA/BPCPC a schedule itemizing landscape planting work to be performed. This schedule shall be submitted within 15 calendar days after Contract Notice to Proceed.
 - a. Include in this schedule anticipated dates for commencement and sequencing of landscape planting work, including but not limited to selections and tagging, layouts and layout approval, placement of trees, and commencement of maintenance period.
 - b. Schedule shall also include, and relate to, work being performed under separate contracts, as applicable.
 - c. If planting is delayed more than 24 hours after delivery, set balled and burlapped plants on the ground in a "shade house", erected by Contractor, with rootballs well protected with soil or other acceptable material. Protect balls and roots from freezing, sun, drying winds, and/or mechanical damage. Water as necessary until planted.
- B. Product Data: Submit technical descriptive data for each manufactured or packaged product of this Section. Include manufacturer's product testing and analysis and installation instructions for manufactured or processed items and materials.
- C. Locations: Submit locations of material sources. Submit location of mixing sites.
 - 1. BPCA/BPCPC shall have the right to reject any soil supplier.

- 2. Soil Mix supplier shall have a minimum of five years experience in supplying custom planting soil mixes.
- 3. Submit supplier name, address, telephone and fax numbers and contract name.
- 4. Submit certification that accepted supplier is able to provide sufficient quantities of materials and mixes for the entire project.

D. Certificates:

- 1. Submit certified analysis for each treatment, amendment, and fertilizer material specified and as used. Include guaranteed analysis and weight for packaged material.
- 2. Furnish certification that each tree is true to name and in conformance with these Specifications. In addition, furnish certificates of inspection as may be required by Federal, State or other authorities that plant material is free of disease or hazardous insects.
- 3. Furnish certificates/cultivars by supplying nursery.
- 4. The use of chemical insect control materials is strictly prohibited.
- 5. Prior to job acceptance submit to BPCA/BPCPC written certifications for the following total quantities by weight as used on Project Site for Project materials:
 - a. Quantity of organic amendment.
 - b. Quantity of additional soil amendments.
 - c. Quantity of antidesiccant.
- E. Test Reports Soil Analysis: The Contractor shall submit representative samples of all soil materials and organic material components which are intended to be used for planting soil mixes and final mixes, to a Soil and Plant Testing Laboratory acceptable to the Battery Park City Parks Conservancy. All reports shall be sent to the BPCA/BPCPC for approval. Samples of all soil materials to be brought to the site must be approved before delivery. Deficiencies in the soils shall be corrected organically (peatmoss is not acceptable) by the Contractor, as directed by the BPCA/BPCPC after review of the testing agency report. Testing reports shall include the following:
 - 1. Date issued.
 - 2. Project Title and names of Contractor and material supplier.
 - 3. Testing laboratory name, address and telephone number, and name(s), as applicable, of each field and laboratory inspector.
 - 4. Date, place, and time of sampling or test, with record of temperature and weather conditions.
 - 5. Location of material source.
 - 6. Type(s) of test.
 - 7. Results of tests including identification of deviations from acceptable ranges.

- 8. Particle size analysis to include sand sieve analysis shall be performed and compared to the USDA Soil Classification System per ASTM D422 (hydrometer test) or ASTM F1632 (pipette test). The silt and clay content shall be determined on soil passing the #270 sieve and shall be reported separately.
- 9. Percent of organic shall be determined by an Ash Burn Test or Walkley/Black Test, ASTM F1647.
- 10. Saturated hydraulic conductivity per any of the test methods stated in ASTM F1815.
- 11. Chemical analysis shall be undertaken for Nitrate, Ammonium, Nitrite, Phosphorous, Potassium, Calcium, Magnesium, Iron, Manganese, Zinc, Copper, Soluble Salts, Cation Exchange Capacity, and acidity (pH).
- 12. Soil analysis tests shall show recommendations for soil additives, including organic and inorganic soil amendments, necessary to accomplish particular planting objectives noted.
- 13. All tests shall be performed in accordance with the current standards of the Association of Official Agriculture Chemists.
- 14. Certified reports on analysis from producers of composted organic materials are required, particularly when sources are changed. The analysis performed shall include pH, density, salinity, total organic nitrogen, C:N Ratio, Solvita Maturity Index, moisture, sodium, potassium, calcium, magnesium, and phosphorous.
- 15. Soil Components and Soil Mix Sampling requirements: At middle height of wind row/pile, remove sample two feet into the pile. Place sample in clean container. Repeat gathering methods for five to ten times at equidistant spacing on both sides of the pile. Mix gathered samples with clean utensils. Remove approximately 500g of composite samples and place that final sample by overnight courier to the testing laboratory. Submit sample with completed testing laboratory submission form.
- 16. Biological Tests for organisms in compost and mixes:
 - a. Contact the testing laboratory to review testing and sampling requirements before sending samples.
 - b. Sampling requirements: At middle height of wind row, remove sample two feet into the pile. Place sample in clean container. Repeat gathering methods for five to ten times at equidistant spacing on both sides of the compost pile. Mix gathered samples with clean utensils. Remove approximately 500g of composite samples and place that final sample by overnight courier to the testing laboratory. Submit sample with completed testing laboratory submission form.
 - c. Maintain clear and concise records for testing and sampling procedures.
 - d. Compost samples shall be testing for the following:
 - 1) Active bacterial biomass.
 - 2) Total bacterial biomass.
 - 3) Active fungal biomass.
 - 4) Total fungal biomass.
 - 5) Protozoa, to include flagellates, amoebae, and ciliates.
 - 6) Total nematode numbers.
 - 7) Hyphal diameter

- 17. Testing Agencies: The following firms are acceptable testing agencies for the various components.
 - a. Compost testing: Woods End Research Laboratory, PO Box 297, Mt. Vernon, ME 04352, phone 800-451-0337, fax 207-293-2488.
 - b. Soil physical and chemical analysis, all components and planting soil mixes: physical soil analysis including particle size analysis shall be determined by an A2LA Accredited Lab. Soil chemical analysis can be performed at University of Massachusetts West Experiment Station, Amherst, MA 01003, phone 413-545-2311, fax 413-545-1931.
 - c. Compost/Biological Testing: Soil Foodweb New York, 555 Hallock Avenue, Rte 25A, Suite #7, Port Jefferson Station, NY 11776, tel. 631-474-8848, fax 631-474-8847.
- 18. Although the report(s) may contain the laboratory's comments or recommendations regarding amendment requirements or procedures, the report shall not be interpreted to prescribe or dictate procedures or quantities of soil materials for the work of this Contract.
- F. All approved samples to be submitted to Battery Park City Parks Conservancy:
 - 1. Leaf mold, each source, 5 lb. packaged.
 - 2. Sand, each source, 5 lb. packaged.
 - 3. Loam, each source, 5 lb. packaged.
 - 4. Base component material, each source, 5 lb. packaged.
 - 5. Yard Waste Compost, each source, 5 lb. packaged.
 - 6. Each mix type specified 5 lb. packaged.
- G. Statement(s) of Qualifications: Submit within 45 days of notice to proceed to confirm qualifications as specified in Article 1.05, herein.
- H. Equipment Data: Submit descriptive information with wheel load data for each proposed item of equipment to be used for execution of earthwork of this Contract. Equipment Data will be evaluated for conformance to site restriction of use.
- I. Schedule and Protection Plan: Submit a detailed plan for scheduling and sequencing of all contract work and for protection of soil mixes and other completed work including coordination with contractors requiring access through the site. Indicate with schedules and plans the utilization of finished work protection measures (wooden protection boards or other approved methods) over the work area of construction operations concurrent with all construction operations until substantial completion.
- J. Schedule for performing percolation tests.

1.05 QUALITY ASSURANCE

A. Qualifications:

- 1. Installation and maintenance foreman on the job shall be competent English-speaking supervisor(s) and an ISA certified arborist, experienced in landscape installation and maintenance and a permanent employee of the firm. Perform work with personnel totally familiar with planting soil preparation and planting installations under the supervision of a foreman experienced with landscape work.
- 2. Agricultural Chemist/Soil Scientist: Experienced person or persons employed by public or private soils testing laboratory, qualified and capable of performing tests, making soil recommendations, and issuing reports as specified. The Testing Laboratory shall be as approved by the Battery Park City Parks Conservancy.
- 3. It shall be the responsibility of the Contractor to see that the specifications are being adhered to. Failure of the BPCA/BPCPC to immediately reject unsatisfactory workmanship or to notify the Contractor of his/her deviation from the specifications shall not relieve the Contractor of his/her responsibility to repair and/or replace unsatisfactory work.

B. References:

- 1. Association of Official Agricultural Chemists.
- 2. American Society for Testing and Materials (ASTM) using test criteria as specified or required by other references.
- 3. Soil Science Society of America, Methods of Soil Analysis.
- 4. Tree and shrub transplanting manual, latest edition, International Society of Arboriculture.
- 5. American Standard for Nursery Stock, latest edition, American Association of Nurserymen, Inc.
- C. Pre-Installation Conferences: Person(s) responsible for soil preparation and mixes of this Section shall attend Pre-Installation Conference(s) to coordinate with work of other sections.

D. Inspections and Testing

- 1. Soil, leaf mold, mulch and other material testing and soil mix testing required in this Section or additionally required by Battery Park City Parks Conservancy, shall be furnished and paid for by Contractor.
- 2. BPCA/BPCPC reserves the right to take and analyze at any time such additional samples of materials as deemed necessary for verification of conformance to specification

requirements. Contractor shall furnish samples for this purpose upon request and shall perform testing as requested.

1.06 REGULATORY REQUIREMENTS

- A. Comply with all rules, regulations, laws and ordinances of local, state and federal authorities having jurisdiction. Provide labor, materials, equipment and services necessary to produce soil as per specification. Work shall comply with such requirements without additional cost to Owner.
- B. Procure and pay for permits and licenses required for work of this section.

1.07 PROJECT/SITE CONDITIONS

- A. The Contractor shall be responsible for pedestrian and vehicular safety and control within the work site. He/she shall provide the necessary warning devices and ground personnel needed to give safety, warning and protection to persons and vehicular traffic within the area.
- B. During site preparation, soil installation and protection, the Contractor shall be responsible for all damage to existing features above and below ground (benches, utility lines, irrigation pipes, lampposts, path surfaces, existing vegetation) incurred as a result of work operations. Repairs and/or replacements shall be made to the satisfaction of the BPCA/BPCPC.
- C. Investigate the conditions of public thoroughfares and roads as to availability, clearances, loads, limits, restrictions, and other limitations affecting transportation to, ingress and egress of this work site. Conform to all government regulations in regard to the transportation of materials to, from, and at the job site, and secure in advance such permits as may be necessary.
- D. Should the Contractor, in the course of Work, find any discrepancies between Contract Drawings and physical conditions or any omissions or errors in Drawings, or in layout as furnished by the Owner, it will be Contractor's duty to inform the BPCA/BPCPC immediately in writing for clarification. Work done after such discover, unless authorized by BPCA/BPCPC, shall be done at the Contractor's risk.

E. Environmental Requirements for Soils:

- 1. Perform both off-site mixing and on-site soil work only during suitable weather conditions. Do not work soil when frozen, excessively wet (maximum 18% moisture) or in otherwise unsatisfactory condition.
- 2. Soil mixes shall not be handled, hauled or placed during rain or wet weather or when near or above the point where maximum compaction will occur (as defined by BPCA/BPCPC).
- F. Environmental Requirements for Soil: Sequencing and Scheduling: Adjust, relate together and otherwise coordinate work of this Section with work or Project and all other Sections of Project Specifications.

- G. Environmental Requirements and Planting Schedule: Plant only within the following dates, weather permitting. Do not plant when the ground is frozen, excessively wet, or the soil is otherwise in an unsatisfactory condition for planting:
 - 1. The Spring season for all planting materials shall be that period from March 1 through May 15.
 - 2. The <u>Fall season</u> is divided into two parts made necessary by the handling characteristics of two plant types. Contractor shall define all fall digging hazard plants and plant them in the spring planting season.
 - a) September 1 through October 15 shall be the fall planting season for evergreen materials.
 - b) October 15 through December 1 shall be the fall planting season for deciduous materials.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Packaged Materials: Deliver packaged materials to the location where soils are to be mixed, in unopened bags or containers, each clearly bearing the name, guarantee, and trademark of the producer, material composition, manufacturers' certified analysis, and the weight of the material. Retain packages for BPCA/BPCPC.
- B. Soil or amendment materials stored on site temporarily in stockpiles prior to placement shall be protected from intrusion of contaminants and erosion. All temporary storage means and methods shall be approved by BPCA/BPCPC.
- C. Store and handle packaged materials in strict compliance with manufacturer's instructions and recommendations. Protect all materials from weather, damage, injury and theft.
- D. In addition, the following provision is established: Material should not be handled or hauled, placed or compacted when it is wet as after a heavy rainfall or is frozen. Soil should be handled only when the moisture content is less than the point where maximum compaction will occur (as defined by BPCA/BPCPC).
- E. After mixing, soil materials shall be covered with a tarpaulin until time of actual use and protected from contamination or erosion.

F. Inspection

1. Plants shall be subject to inspection and approval by BPCPC representative at the place of growth and again upon delivery and prior to planting for conformity to specification requirements as to quality, size and variety. Approval at the place of growth shall not impair the right of rejection due to damage suffered in handling, transportation and/or planting. Rejected plants shall be removed immediately from the site. Inspection outside the State of New York shall be made at the expense of the Contractor. A Contractor's representative shall be present at all inspections.

Written requests for inspection of plant material at their place of growth shall be submitted to the BPCPC representative at least 14 days prior to digging. The BPCPC representative may refuse inspection if in his/her judgment a sufficient quantity of plants is not available for inspection. The Contractor shall, at his expense, supply the BPCPC representative with such labor and assistance as may be necessary in the handling of material for proper inspection.

- 2. Tagging of trees shall be as follows: for every 10 trees planted, 11 trees will be tagged assuring appropriate replacement for (a) trees damaged prior to transplanting and (b) trees requiring replacement under terms of the one-year guarantee.
- G. Plant Material, Conditions of Moving and Delivery:
 - 1. The use of an antidesiccant shall not be allowed except by written approval and consent by BPCA/BPCPC.
 - a. If approved, spray deciduous plants with an antidesiccant, immediately before moving plant material from its source, applying an adequate film over trunks, branches, twigs, and foliage.
 - b. Approval shall be required for any subsequent instance of use.
 - 2. Dig and handle plants with care to prevent injury to trunks, branches and roots.
 - 3. Do not prune prior to delivery. Do not bend or bind-tie trees in such manner as to damage bark, break branches or destroy natural shape. Pack and ship to ensure arrival at site in good condition. Provide protective covering during delivery. No plants will be accepted if the rootball is cracked or broken, or trunks scarred, or branches broken.

4. Trees:

- a. Deliver after preparations of planting areas have been completed and approved and place plants immediately.
- b. If planting is delayed more than 24 hours after delivery, set balled and burlapped plants on the ground in a "shade house", erected by Contractor, with rootballs well protected with soil, wet peat, or other acceptable material. Protect balls and roots from freezing, sun, drying winds, and/or mechanical damage. Water as necessary until planted.

1.09 GUARANTEE PERIOD AND REPLACEMENTS

- A. The guarantee period for trees shall begin at the date of final acceptance.
- B. All plant material shall be guaranteed by the Contractor for a period of one year from the date of final acceptance to be in good, healthy and flourishing condition.

- C. When work is accepted in parts, the guarantee periods extend from each of the partial acceptance to the terminal date of the last guarantee period. Thus, all guarantee periods terminate at one time.
- D. The Contractor shall replace, without cost, and as soon as weather conditions permit, and within a specified planting period all plants determined dead and/or dying by a BPCPC representative during and at the end of the guarantee period.
 - 1. Plants shall be replaced that are not free of dead or dying branches and bearing foliage of normal density, size and color.
 - 2. Trees having lost their central leader or exhibiting crown dieback at the end of the one-year guarantee shall be replaced.
 - 3. Replacements shall match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification. Labor and all materials needed for installation of replacements are included in the guarantee.
- E. The guarantee of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement.
- F. The Contractor shall make periodic inspections, at no extra cost, during the guarantee period to determine what changes, if any, should be made in the maintenance program. Any recommended changes shall be submitted in writing to the BPCA/BPCPC representative.

PART 2 - PRODUCTS

2.01 PLANT MATERIAL

A. General Requirements

- 1. The Contractor shall furnish and plant all plants as specified and in quantities listed.
- 2. All plants shall be nursery grown.
- 3. Plants shall be true to species and cultivar specified. Certification of cultivars by supplying nursery must be supplied in writing to BPCPC representative.
- 4. Plants shall be in accordance with the American Nurserymen Association Standards in all ways, unless otherwise specified in writing by BPCPC representative.
- 5. All plants shall be of specimen quality, <u>symmetrical</u>, so trained or favored in development and appearance as to be unquestionably and outstandingly superior in forms and compactness. They shall indicate vigorous growth, be well branched and densely foliated when in leaf, free of disease, insects, eggs, larvae and shall have well developed root systems.

- 6. Trees with multiple leaders will not be accepted. Trees with a damaged or crooked leader, bark or abrasions, sun-scald, disfiguring knots, insect damage will not be accepted.
- 7. The depth of planting must be checked for all trees being tagged at the nursery. If the trunk flare is not visible, the trunk flare (the intersection of the trunk and the buttress roots) must be located. Any tree with significant adventitious root growth or evidence of girdling roots shall be subject to rejection by the BPCPC on a case by case basis. Any soil above the root/trunk flare shall be removed prior to digging (see root ball preparation detail drawing). After the removal of any excess soil above the root/trunk flare, the tree shall be hand dug and drum laced. Machine digging must receive preapproval of BPCPC. The rootball size shall be determined from the elevation of the root/trunk flare in accordance with American Standard for Nursery Stock for the caliper size of the tree.
- 8. Size: Caliper measurement shall be taken on the trunk 6" above the natural ground line for trees over 4" in caliper. Height and spread dimensions refer to the main body of the plant and not from branch tip to tip. If a range of size is given, no plant shall be less than the minimum size and not less than 50% of the plants shall be as large as the maximum size specified. Plants that meet measurements but do not possess a normal balance between height and spread shall be rejected.

Plants larger than specified may be used only if approved by BPCPC representative. Use of such plants shall not increase the contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant, in accordance with the American Standard for Nursery Stock.

9. Substitution shall not be permitted without prepapproval of BPCPC.

2.02 SOIL MIX MATERIALS

A. General

- 1. All soil mix material shall fulfill the requirements for new soil mixes as specified.
- 2. Samples of individual components of soil mixes and also blended soil mixes shall be submitted by the Contractor for testing and analysis to the approved testing laboratory. Include verification testing of on-site sub soils. Comply with specific materials requirements specified.
 - a. No base component or soil components for soil mixes shall be used until certified test reports by an approved agricultural chemist have been received and approved by the BPCA/BPCPC.
 - b. As necessary, make any and all soil mix amendments and resubmit tests reports indicating amendments until approved.
- 3. The BPCA/BPCPC may request additional testing by Contractor for confirmation of mix quality and/or soil mix amendments at any time until completion.

B. Base Component Material

- 1. Base Component Material shall be a sand that meets the requirements outlined below mixed by volume with loam material that meets the requirements outlined below. Base component materials shall not be site salvaged and must be off-site borrow material.
- 2. Test Base Component Materials, both individual components and mixed materials, for compliance with material specifications. These test criteria and results, when approved, shall establish the standard to which all subsequent Base Component Material tests must conform.
- 3. Prior to mixing Base Component Material with organic matter (leaf mold or yard waste compost), have one (1) composite sample tested from each 50 c.y. of material intended for use in soil mixes of planting work.
- 4. Sand for Base Component Material shall meet the following requirements:

a. Texture:

Sand Fraction	Size (mm)	Sieve Size	% Passing
Gravel	> 2.0	· #10	95 - 100%
Very coarse sand	1.0 - 2.0	#18	90 - 100%
Coarse sand	0.5 - 1.0	#35	65 - 75%
Medium sand	0.25 - 0.5	#60	15 - 20%
Fine sand	0.1 - 0.25	#140	0 - 4%
Very fine sand	0.05 - 0.1	#270	0 - 2%

b. Chemical Analysis:

- 1) Soil reaction (pH) $5.0 6.5 \pm 0.5$
- 2) Soluble salt content (Conductivity) < 1.5 dSm⁻¹
- c. Material shall have a saturated hydraulic conductivity rate of no less than 30 inches per hour, per ASTM 1815.
- 5. Loam for Base Component Material shall meet the following requirements:
 - a. Soil Texture per ASTM D422 or ASTM F1632, as determined on material passing a 2 mm screen:

Main Fractions	Size (mm)	Percent
Sand	0.05-2.0	83 - 87
Silt	0.002-0.05	7 - 10
Clay	< 0.002	4 - 8

In addition, maximum size shall be ½", the total gravel (> 2 mm) shall be less than 10% of the total material, and the sand passing the 2 mm screen shall have the following particle size distribution:

Sand Fraction	Size (mm)	Sieve Size	% Passing
Very coarse	1.0 - 2.0	#18	87-90
Coarse	0.5 - 1.0	#35	65-71
Medium	0.25 - 0.5	#60	34-42
Fine	0.10 - 0.25	#140	17-23
Very fine	0.05 - 0.10	#270	14-18

- b. Chemical Analysis:
 - 1) Organic matter content (%) oven dry weight of soil shall be within the range of 4 to 10%.
 - 2) Soil reaction (pH) 6.0 ± 0.5
 - 3) Soluble salt content (Conductivity) < 1.5 dSm⁻¹
- 6. Before base sand-loam mix (base component) is used for mixing with organic amendments, handle and pile the mix in the following manner:
 - a. Mix the base sand with base loam in a ratio of 3 parts sand to 1 part loam. Adjustments to the ratio may have to be made to meet the specifications for the base component. Homogenize to make a uniform mix, free of subsoil lenses and other irregularities.
 - b. Aerate the base component to make a friable planting medium.
 - c. Screen out all clay lumps, stones, roots, and other debris.
- 7. Material Requirements, Base Component Mix: The final mix of sand and loam materials shall substantially conform to the following:
 - a. Soil Texture per ASTM D422 or ASTM F1632, as determined on material passing a 2 mm screen:

Main Fractions	Size (mm)	Percent
Sand	0.05-2.0	95.0
Silt	0.002-0.05	3.0
Clay	< 0.002	<u>2.0</u>

In addition, maximum size shall be ½", the total gravel (> 2 mm) shall be less than 5% of the total material, and the sand passing the 2 mm screen shall have the following particle size distribution:

Sand Fraction	Size (mm)	Sieve Size	% Passing
Very coarse sand	1.00	#18	92-95
Coarse sand	0.50	#35	67-73
Medium sand	0.25	#60	20-26
Fine sand	0.10	#140	5-9
Very fine sand	0.05	#270	5

- b. Chemical Analysis:
 - 1) Organic matter content (%) oven dry weight of soil: 1-4%
 - 2) Soil reaction (pH): 6-7
 - 3) Soluble salt content (Conductivity) < 1.5 dSm⁻¹
- c. Saturated hydraulic conductivity of no less than 15 inches per hour per ASTM 1815.
- C. Organic Matter: Organic matter for amending planting media shall be a stable, material produced from the aerobic decomposition and curing of yard wastes. The compost shall meet the following criteria
 - 1) Organic matter content of no less than 40% as determined by ASTM 2974
 - 2) Moisture content of 35 to 70% as determined by ASTM D2974.
 - 3) Carbon to nitrogen ratio of 15:1 to 30:1
 - 4) Soluble salts not exceeding 4 dSm⁻¹
 - 5) Solvita Maturity Index 6 to 8
 - 6) 95 100% passing a 3/8" screen
 - 7) pH 6 to 7.5
 - 8) Biological Organisms: The compost shall have the following levels of organisms (direct microscopy). Refer to Article 1.04 E.15 for testing and sampling requirements.
 - · 15 to 25 or more μg active bacteria /g dry weight (dw) compost
 - 100 μg (fungal compost) to 300 or more μg (bacterial compost) total bacteria /g dw compost
 - · 15 to 25 μg or more active fungi /g dw compost
 - · 100 to 300 μg total fungal biomass /g dw compost
 - · 10,000 or more flagellates
 - · 10,000 or more amoebae
 - · 50 100 ciliates.
 - · 20 30 Total nematodes (No root feeding nematodes)

- D. Nutrient Analysis:
 - 1. Ammonium(NH4) and Nitrate (NO3): below 100 ppm
 - 2. Phosphorous
 - 3. Potassium
 - 4. Calcium (CA), Magnesium (Mg): ratio of 7 part Ca to 1 part Mg
 - 5. Iron (Fe) 1 to 4 ppm
 - 6. Manganese (Mn) 3 to 20 ppm
 - 7. Zinc (Zn) 0.1 to 70 ppm
 - 8. Copper (Cu) 0.3 to 8 ppm

2.03 SOIL AMENDMENT MATERIAL

- A. Ground Limestone: Ground Limestone as a soil amendment material will only be used pending results of analysis.
 - 1. Provide a Ground Agricultural Limestone with a minimum of 88% of calcium and magnesium carbonates.
 - 2. Ground Limestone material shall have a total 100% passing the 10 mesh sieve, minimum of 90% passing the 20 mesh sieve and a minimum of 60% passing the 100 mesh sieve.
- B. Solite Lightweight Aggregate: Provide an expanded shale as supplied by Northeast Solite Corporation, or approved equal in accordance with the following:
 - 1. Aggregate size shall be 3/4" to #4 size and, shall conform to the following sieve analysis:

Sieve Size	% Passing
1 ''	100
3/4"	96.9
1/2"	52.7
3/8"	25.8
#4	2.6

- a. Dry loose weight: 50.8 lbs./cu.ft.
- b. Dry rotted weight: 50.5 lbs./cu.ft
- c. Specific Gravity: SSD+l. 51
- 2. Sulfur: Granular, biodegradable with a minimum 99 percent passing through No. 6 sieve and a maximum 10 percent passing through No. 40 sieve.
- 3. Agricultural Gypsum: Finely ground, containing a minimum of 90 percent calcium sulfate.

4. Sand: Clean, washed, natural or manufactured, free of toxic materials, of a size as specified.

2.04 PLANTING SOIL MIXES

- A. Adequate quantities of mixed planting soil materials shall be provided to attain, after compaction and natural settlement, all design finish grades.
- B. Uniformly mix ingredients using a mechanical soil blender designed for such purpose as specified for each Mix Type (Base Component Material, compost, and other ingredients deemed to be necessary as a result of testing). Wind rowing/tilling on an approved hard surface area may also be used as an alternative. Organic matter shall be maintained moist, not wet during mixing.
 - 1. Mixing of Amendments: Add organic amendment in proportions as specified and as confirmed by testing. Other amendments shall not be added unless approved to extent and quantity by Battery Park City Parks Conservancy and additional tests have been conducted to verify type and quantity of amendment is acceptable.

C. Testing of Plant Mixes:

- 1. Perform initial tests to confirm compliance with base material and mix specifications. These test results, when approved, will establish the standard to which all other test results must conform.
- 2. Follow-up Testing: Have one (1) composite sample delivery and upon arrival to the site from each 500 c.y. or as required by BPCA/BPCPC for use in each type plant mix to include the following:
 - a. Particle size analysis: Use sieve sizes as specified for Base Component Material.
 - b. Organic matter content as per mix specified.
 - c. Nutrient Analysis:
 - 1) Have nutrient levels (pH, ammonium nitrogen, nitrate nitrogen, nitrite nitrogen, phosphorus, potassium, magnesium, calcium, magnesium, zinc, iron, copper, and manganese) tested, and request testing laboratory recommendations for additional fertilizer requirements at all plant areas if nutrient levels are below average. Soluble salts shall also be tested.
 - 2) Contractor shall not use amendments to correct nutrient deficiencies.
 - d. Biological Organisms: The mixes shall have the following levels of organisms (direct microscopy). Refer to Article 1.04 E.15 for testing and sampling requirements. Mix shall have microbiological populations as listed below. Acceptance or rejection of mixes based on these test values will be determined by Battery Park City Parks Conservancy.

Plant Material	Active Bacteria I Biomass (ug/g)	Total Bacterial Biomass (ug/g)	Active Fungal Biomass (ug/g)	Total Fungal Biomass (ug/g)	Hyphal Diameter (ug/g)		Numbers/g Amoebae		Total Beneficial Nematode Numbers (#/g)
Deciduous Trees	15-25	100-300	15-25	100-300	3.0	10,000	10,000	50-100	20-30

D. Soil Mix Types: Provide the following planting soil mix types at the locations indicated on plan. Percentages of components, unless otherwise noted, will be established upon completion of individual test results for components of the various mixes. The controlling factor will be the percent (%) organic matter as specified for each mix. Note that percent (%) by volume of components will be, in large part, determined by the compost. Specifically the bulk density of the compost will directly impact the organic matter readings that have been specified for each mix.

1. Soil A:

a. Organic Component shall be mixed with the Base Component (sand-loam) mix at a rate necessary to provide an organic matter content of 4-6% by weight, as determined by ASTM F1647. pH shall be 6.5 to 7.0. Cation Exchange Capacity shall be between 10 and 15. Natural nutrient cycling will be a minimum of 150 lbs per acre, available Nitrogen from microbial activity.

2. Planting Soil Mix S1:

- a. Soil A: 40%
- b. Solite Lightweight Aggregate: 60%.
- c. Other amendments as required by test results and as approved.

3. Soil B:

a. Organic Component shall be mixed with the Base Component (sand-loam) mix at a rate necessary to provide an organic matter content of 6-8% by weight, as determined by ASTM F1647. pH shall be 6.5 to 7.0. Cation Exchange Capacity shall be between 10 and 15. Natural nutrient cycling will be a minimum of 150 lbs per acre, available Nitrogen from microbial activity.

4. Planting Soil Mix S2:

- a. Soil B: 60%.
- b. Solite Lightweight Aggregate: 40%.
- c. Other amendments as required by test results and as approved

E. Stockpiling

1. General: Stockpiling on-site, off-site, and at source should be restricted to no more than the needs of what can be used in a 24-hr. period. Under no circumstances shall on-site or off-site stored matarial exceed 500 c. y. Stockpiles should be no more than 6 feet in height to prevent anaerobic conditions within the pile(s). Composts should be turned weekly BPCA/BPCPC to prevent anaerobic conditions within the piles. Stockpiles shall be sheltered from weather to prevent excessive water absorption and blowing by winds.

2.05 MULCH

A. Mulch: Provide type specified by Battery Park City Parks Conservancy.

2.06 STAKES AND GUYS

- A. General: Stakes and guys shall only be required if directed by BPCPC to prevent wind overturn of proposed trees.
- B. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end, 4 per tree.
- C. Guying Material: Flat woven polypropylene material ¾" wide, 900 lb. break strength, white in color as provided by Deep Root Partners, L.P., 345 Lorton Avenue #103, Burlingame, CA (800-458-7668) or approved equivalent.
- D. Ground Anchor: Duckbill Cable Anchor System or approved equal. Provide Model 40 (for trees up to 3" caliper), Model 68 (for trees between 3" and 6" caliper) or Model 88 (for trees between 6" and 10" caliper) as required for each instance. Each anchor system shall include 3 ground anchors, 3 galvanized steel cables assemblies each with galvanized turnbuckles, cable clamps, and protective collars.
- E. Hose Chafing Guard: Reinforced rubber or plastic hose at least ½ inch (13 mm) in diameter, black, cut to lengths required to protect tree trunks from damage.
- F. Flags: Standard surveyor's plastic flagging tape, noticeable bright color, 6 inches (150 mm) long.

PART 3 - EXECUTION

3.01 VERIFICATION

- A. Prior to construction and soil placement operations tree pits, ascertain the location of all electric cables conduits under-drainage systems and utility lines. Take proper precaution so as not to disturb or damage sub-surface elements. Contractor failing to take these precautions shall be responsible for making requisite repairs to damaged utilities at Contractor's own expense.
- B. It is the specific intent of this specification to use continuous trenches of Planting Soil S1 between individual tree pits. Interruption of continuous trenches is permitted only at driveways, fire hydrants and major utility interferences, or as otherwise determined by BPCA/BPCPC.

- C. Verify that required underground utilities are available, located, and ready for use. Coordinate with other trades.
- D. Verify that all work requiring access through or adjacent to areas where plant mixes are to be placed has been completed and no further access will be required. In the event that access will be required, this must be coordinated with BPCA/BPCPC.

3.02 PERCOLATION TEST

- A. Contractor to perform percolation test after digging the trench to the appropriate depth and prior to placing any soil mixes.
- B. A percolation test shall be conducted by performing the following steps in sequence:
 - 1. Prepare a test hole located within the proposed tree pit. The test hole shall have a diameter of 12 inches, as precisely as possible, with vertical sides 18 inches deep not including any allowable liners or filter layers on either the bottom or sides.
 - 2. Establish a fixed point at the top or bottom of the test hole from which all measurements will be taken.
 - 3. Scratch the bottom and sides of the test hole to remove any smeared soil surfaces, taking care not to significantly change the whole dimensions. Add two inches of coarse sand to protect the bottom from scouring, or insert a board or other impervious object in the hole so that water may be poured down or on it during the filling operation. A mesh or perforated liner deigned to maintain the test hole dimensions in extremely loose soils while allowing essentially unrestricted flow of water may be used with permission of BPCA/BPCPC.
 - 4. Carefully fill the hole with clear water to a minimum depth of 12 inches from the bottom of the hole. Maintain this minimum 12-inch or greater water level by adding water as necessary in order to saturate surrounding soils for a period no less than 15 minutes after first filling the hole.
 - 5. After saturation, if the water level drops to a depth of nine inches in fewer than 30 minutes, measure the length of time in minutes for it to drop from a depth of nine inches to a depth of six inches. If the rate is erratic in the opinion of BPCA/BPCPC, the hole shall be refilled and soaked until the drop per increment of time is steady. The time for the level to drop from a depth of nine inches to a depth of six inches, divided by three, is the percolation rate in minutes per inch.
 - 6. If the initial three-inch drop requires more than 30 minutes (rate equal to more than ten minutes per inch) the soil shall be saturated by filling the hole to the top and maintaining it full for at least four hours. The soil should then be permitted to swell a minimum of 12 hours so that the soil conditions will approach those which exit during the wettest season of the year. After the 12-hour swelling period, the test shall be made again by filling the hole to a 12-inch depth and maintaining that level for 15 minutes, letting the level drop to nine inches, then timing the drop between nine inches and six inches. The time elapsed between nine inches and six inches, divided by three, shall be the percolation rate.

7. In certain soils, particularly coarse sands, the soil may be so pervious as to make a percolation test difficult, impractical, and meaningless. At the discretion of BPCA/BPCPC and with the concurrence of the approving authority, the percolation test may be discontinued and a rate of two minutes per inch or less can be assumed provided that at least 24 gallons of water has been added to the percolation hole within 15 minutes and it is impossible to obtain a liquid depth of nine inches.

3.03 PREPARATION OF TREE PIT IN TRENCH

- A. Prior to laying and spreading Planting Soil Mixes S1 or S2, the Contractor shall verify asconstructed or existing Controlled Fill elevations and do whatever additional grading is necessary to bring the subgrade to a true, smooth, slope as indicated on Drawings.
 - 1. Clean up subgrade, remove and dispose of all debris and garbage prior to inspection, and prior to spreading S1 and S2.
- B Any soils polluted by gasoline, oil, plaster, construction debris, unacceptable soils, or other substances, which would render Controlled Fill unsuitable for a proper plant growth, shall be removed from the premises whether or not such pollution occurs or exists prior to or during the Contract period. In the event that such material is placed, this material shall be removed and replaced with approved material. All remedial operations associated with soil mixes and controlled fill shall be reviewed and approved by the BPCA/BPCPC.

3.04 PLANTING MIXTURES

- A. Planting Soil Mix S1 shall be used within continuous tree trenches paved with granite blocks. Planting Soil Mix S2 shall be used within the tree pit and, after tree installation, shall be covered with mulch as specified herein.
- B. All amendments shall be thoroughly incorporated into the mixture to assure uniform distribution.
- C. Additional amendments shall be mixed into the soil as recommended by the testing laboratory and as approved by the Battery Park City Parks Conservancy for each tree type and condition of installation.

3.05 PLACING PLANTING SOIL

- A. Remove all large clods lumps, brush, roots stumps, litter, and other foreign material and stones one-half inch (1/2") in diameter or larger. Dispose of removed material legally off-site.
- B. Do not place a muddy or wet soil mix, moisture excessive of 18%.
- C. Place and spread Planting Soil Mix S1 specified over approved compacted subgrade to a depth sufficiently greater than the depth required for indicated subbase and granite blocks as indicated, so that after natural settlement, compaction and misting and/or light rolling as previously approved by BPCA/BPCPC, the completed work will conform to the lines grades, and elevations shown or otherwise indicated.

- D Place Planting Soil S1 in maximum 6-inch lifts and compact each lift to 95% maximum, 92% minimum, standard proctor density. Do not over compact.
- E. Grading Tolerances: Planting areas shall be fine graded within ± 1/10 (0.10) feet of grades indicated on drawings. Maintain all flat areas and slopes to allow free flow of surface drainage without ponding.

3.06 PLANTING OPERATION

- A. For purpose of inspection, the BPCA/BPCPC representative shall have free access to all parts of work involved in planting operation. No work shall be covered or concealed prior to inspection.
- B. Trees shall be protected at all times from sun or drying winds. Trees that cannot be planted immediately upon delivery shall be kept in the shade and well watered by the Contractor. Trees shall not remain unplanted for longer than one day after delivery.

C. Planting Depth

Trees shall be placed on compacted subgrade. If trees cannot be set on compacted subgrade, place tree on Planting Soil Mix S2 at the depth where roots spread from trunk as shown in diagram. The flair must be located and placed at the correct level before continuing planting procedures. Expose flare of trunk by removing excess fill on top of rootball. All ropes and strings must be cut, non-biodegradable material must be removed and the burlap folded back from the top of the ball completely remove drum lacing and wire baskets. This must be approved by the BPCPC representative. When placement of the trees has been approved by the BPCPC representative and only at that time, Planting Soil Mix S2 shall be placed within tree pit zone. Soil must be firmed at 6 to 8 inch intervals and thoroughly settled with water. Trees shall stand plumb after guying.

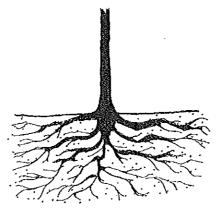
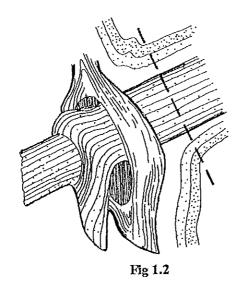


Fig 1.1



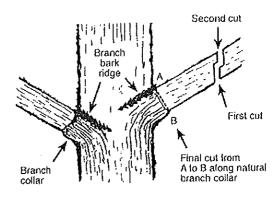


Fig 1.3

D. Staking, Guying and Wrapping

If directed by BPCPC four 6' straight, sound, rough sawn wooden stakes are to be used per tree. Galvanized steel wire shall be used to complete the support system. Wire shall be encased in 3/4" high quality rubber hose to prevent direct contact with the bark of the tree.

Tree wrap shall not be used on the trees.

E. Pruning

- 1. As per ISA, it is not recommended to prune before or directly after planting, if on-site pruning is required, it shall be supervised by a BPCPC Representative.
- 2. Each cut should be made carefully, at the correct location, leaving a smooth surface with no jagged edges or torn bark. The correct anatomical location is just beyond the branch collar. (See Figures 1.2 and 1.3).
- 3. Large or heavy limbs should be removed using three cuts. The first cut undercuts the limb one or two feet from the parent branch or trunk. The second cut is the top cut which is made slightly further out on the limb than the undercut. The third cut is to remove the stub. (See Figure 1.3.).

(Figures 1.2 and 1.3 taken from the I.S.A. certification study manual).

- 4. The natural character of the plant shall be preserved.
- 5. All deadwood, suckers, broken or badly bruised branches shall be removed.
- 6. Excessive pruning at the time of transplanting must be avoided. The extent of top pruning should be based upon the ability of the plant roots to function and the judgment of the BPCPC Representative.

7. Pruning shall be done with clean, sharp tools. No leaders shall be cut.

3.07 MAINTENANCE OF TREES AFTER PLANTING

- A. Maintenance shall begin immediately after each plant is planted and shall continue until acceptance.
- B. Maintenance shall consist of watering, mulching, tightening and repairing of guys and stakes, resetting plants to proper grade and application of horticultural oils during dormant season.

3.08 ACCEPTANCE

- A. BPCA/BPCPC shall inspect all work for acceptance upon written request of the Contractor. The request shall be received at least 10 calendar days before the anticipated date of inspection.
- B. Upon completion and re-inspection of all repairs or renewals necessary, BPCA/BPCPC shall certify in writing as to the acceptance of the work.

3.09 FINAL INSPECTION AND FINAL ACCEPTANCE

At the end of the guarantee period, the BPCA/BPCPC will inspect all guaranteed work at the written request of the Contractor. The request shall be received 10 calendar days before the anticipated date for final inspection. Upon completion and re-inspection of all repairs or renewals necessary, the BPCA/BPCPC shall certify in writing as to the final acceptance of the project.

3.10 DISPOSAL AND CLEAN UP

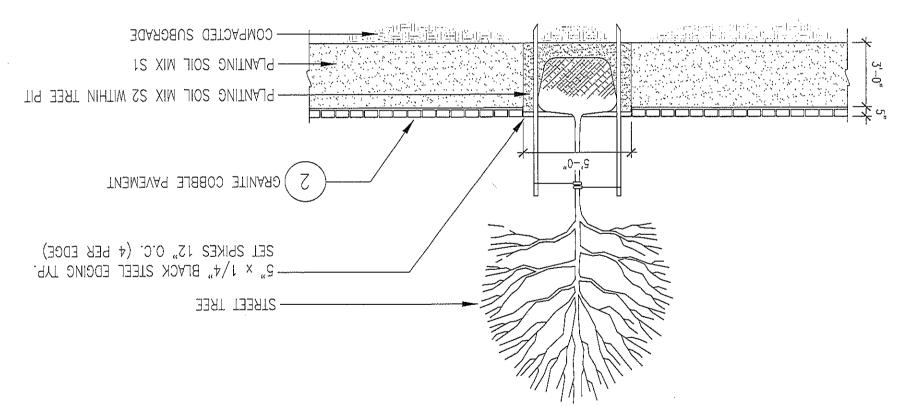
- A. Promptly remove soil and debris created by soil work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Legally dispose of off-site all refuse and debris from these operations. Do not dump or burn materials on site.
 - 1. The Contractor shall remove waste materials, unsuitable and excess materials from the Owner's property and shall recycle and provide for reuse as specified, and when deemed unsuitable for recycling and reuse, legally dispose of off-site.
- C. Maintain the site in an orderly condition during the progress of the Work. Continuously and promptly remove excess waste materials; keep walks and streets clear. Store materials and equipment where directed. Promptly remove equipment, surplus materials and debris and trash resulting from operations under this Contract upon completion and prior to initial acceptance of Work. Leave the site in a neat, order condition "broom clean".

END OF SECTION

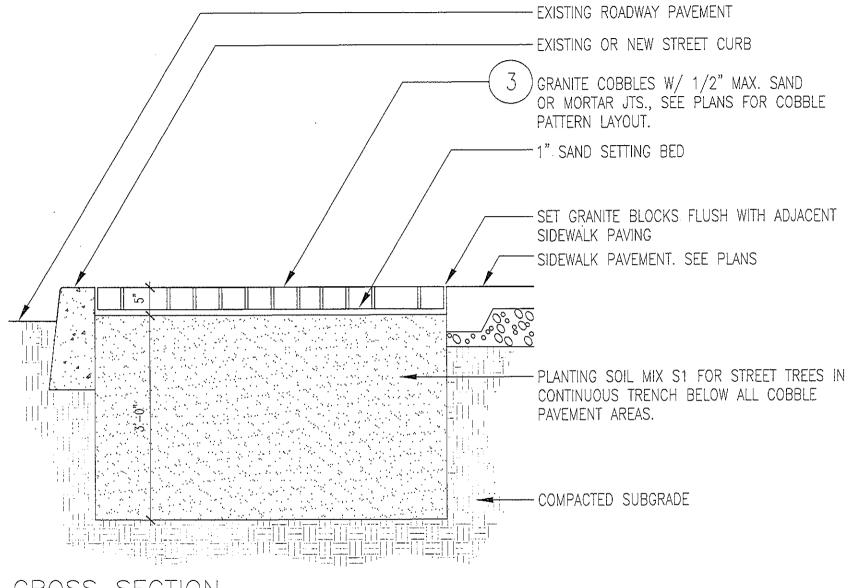
1/4,=1,-0,

NOLES:

BELOW ALL COBBLE PAVEMENT AREAS
OF PLANTING SOIL MIX S1
PROVIDE CONTINUOUS TRENCH



LONGITUDINAL SECTION TREE PIT



CROSS SECTION .
GRANITE COBBLE PAVING IN CONTINUOUS TREE TRENCH

NOT TO SCALE

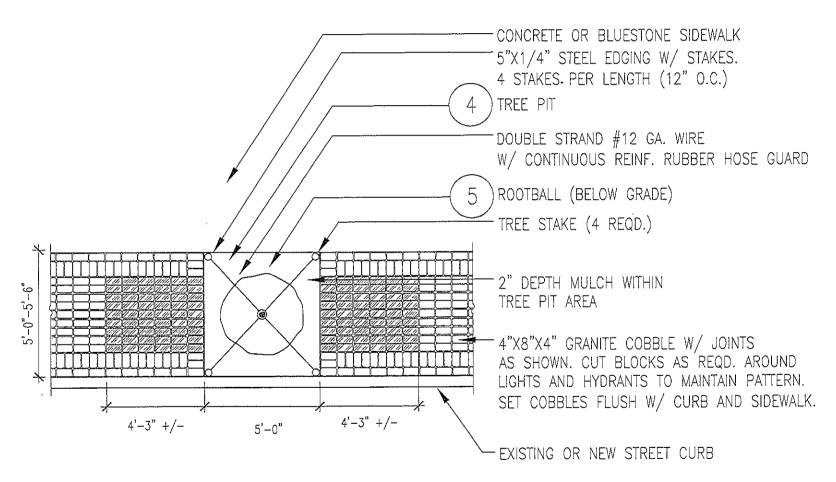
LEGEND:

☐ MORTAR JOINTS

SAND JOINTS

NOTES:

IN AREAS OF SAND JOINTS, TO BE MADE AS TIGHT AS POSSIBLE AND WORKED FROM OUTSIDE EDGE INTO THE CENTER OF COBBLE BAND TO PREVENT COBBLES SET IN SAND FROM SHIFTING OR MOVING.

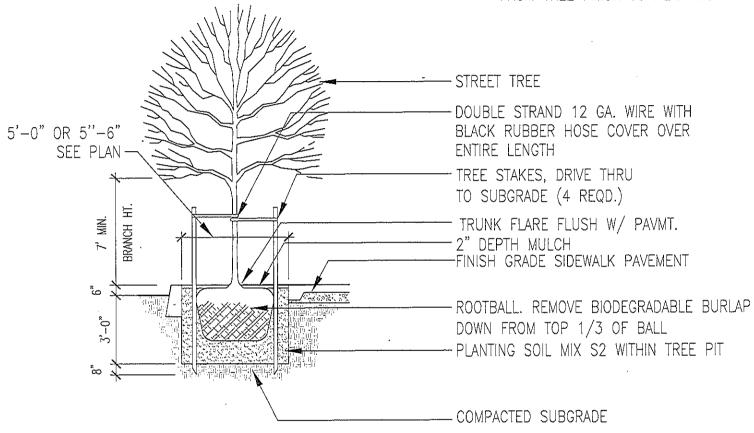


PLAN-GRANITE COBBLES, TREE TRENCH, AND TREE PIT

NOT TO SCALE



REMOVE ALL WIRE, PLASTIC, TAGS OR OTHER SYNTHETIC MATERIAL FROM TREE PRIOR TO PLANTING



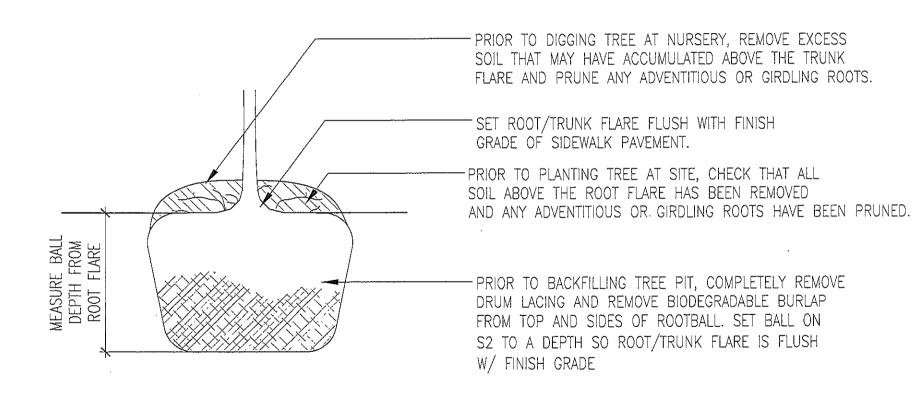
CROSS SECTION TREE PIT

NOT TO SCALE

NOTES:

ALL TREES SHALL BE HAND DUG AND DRUM LACED.

BALL SIZE (WIDTH AND DEPTH) AFTER REMOVAL OF EXCESS SOIL ABOVE THE ROOT/TRUNK FLAIR SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK FOR THE CALIPER SIZE OF THE TREE.



ROOT BALL PREPARATION

NOT TO SCALE

Tree and Stump Removal – Tree and stumps are to be removed in their entirety by the contactor and disposed of off site in a legal manner. Stump removal shall be to the full confines of the tree pit and/or as directed by the resident engineer. All tree and stump removals shall be performed in accordance with the Asian Longhorn Beetle Quarantine restrictions. The Contractor shall be responsible for all damage to existing features above and below ground (benches, utility lines, irrigation pipes, lampposts, path surfaces, existing vegetation) incurred as a result of work operations. All damages shall be repaired or replaced at the contractor's expense to the satisfaction of the BPCA/BPCPC.