

# REQUEST FOR PROPOSALS FOR

<u>Pier A Structural Repairs Project –</u>

**Phase II Contractor Services** 

# TABLE OF CONTENTS

I. INTRODUCTION	
II. OVERVIEW	
III. GENERAL PROVISIONS	ĺ
IV. TIMETABLE & DESIGNATED CONTACT	
A. Key Dates	
B. Anticipated Project Duration / Right to Terminate	2
V. GENERAL REQUIREMENTS	
A. Minimum Qualification Requirements	
B. MBE/WBE/SDVOB Participation, Joint Ventures, and Sub-contracting Goals	3
C. Restricted Period	3
D. Submission of Proposals	3
E. Project Subject to New York State Prevailing Wage Requirements3	}
VI. PROPOSAL FORMAT AND CONTENTS	1
A. Proposal Format	1
B. Proposal Content	1
VII. INFORMATION REQUIRED	5
A. Questions and Information Sought Relating to the Work	
B. Questions and Information Sought Relating to Proposer's Firm & Eligibility	5
C. Required Attachments	5
VIII. INSURANCE REQUIREMENTS	7
A. General Requirements	
B. Insurance Requirements for the Selected Proposer	7
C. Insurance Requirements for all Subcontractors	3
D. Payment and Performance Bonds	
IX. COST PROPOSAL: FORMAT AND REQUIRED INCLUSIONS	
X. SELECTION PROCESS	
A. Evaluation	)
B. Interviews	)
C. Evaluation Criteria for Selection	)
D. Basis for Contract Award	0
XI. NON-COLLUSION	)
XII. IRAN DIVESTMENT ACT	)
XIII. ENCOURAGING USE OF NEW YORK STATE BUSINESSES IN CONTRACT PERFORMANCE10	)
EVILIDIT A GCODE OF WORK	
EXHIBIT A – SCOPE OF WORK EXHIBIT B – PIER A STRUCTURAL REPAIRS PROJECT – PHASE II DRAWINGS AND SPECIFICATIONS	C
EXHIBIT C – MBE/WBE/SDVOB REQUIREMENTS, MBE/WBE AND EEO POLICY STATEMENT &	3
DIVERSITY PRACTICES QUESTIONNAIRE	
EXHIBIT D – BPCA'S STANDARD FORM OF CONTRACT	
EXHIBIT E – FORM OF COST PROPOSAL	
EXHIBIT F – FORM OF BID BREAKDOWN	
EXHIBIT G – PREVAILING WAGE RATE SCHEDULE	
EXHIBIT H – ACKNOWLEDGEMENT OF ADDENDA	
EXHIBIT I – LIST OF BPCA & BPCPC BOARD MEMBERS AND EMPLOYEES	

# I. INTRODUCTION

Battery Park City Authority d/b/a Hugh L. Carey Battery Park City Authority ("BPCA"), a New York State public benefit corporation created pursuant to the New York State Public Authorities Law, is seeking to retain a contractor firm to provide BPCA with structural repairs in furtherance of the Pier A Structural Repairs – Phase II Project ("Project"), as more fully described in this Request for Proposals and its attachments (collectively, the "RFP").

A summary of BPCA's structure, mission, and history, as well as the Battery Park City project area, may be viewed at: <a href="www.bpca.ny.gov">www.bpca.ny.gov</a>. Public information regarding BPCA's finances, budget, internal controls, guidelines, and policies may be viewed at: <a href="www.bpca.ny.gov/public-information">www.bpca.ny.gov/public-information</a>. Information relating to the Battery Park City Parks Conservancy Corporation ("BPCPC"), BPCA's affiliate, may be viewed at: <a href="http://bpcparks.org/">http://bpcparks.org/</a>. Minority-Owned Business Enterprises ("MBE"), and Service-Disabled Veteran-Owned Business Enterprises ("SDVOB") are encouraged to submit proposals in response to this RFP.

# II. OVERVIEW

In furtherance of the Project, BPCA hereby requests proposals (individually, a "Proposal" and collectively, the "Proposals") from general construction contractors and marine construction contractors (individually, a "Proposer" and collectively, the "Proposers"), to provide BPCA with structural repairs to the exterior of the building located at Pier A (the "Pier Building" or, in reference to the Pier A site overall, the "Project Site"). The Work shall include, but not be limited to: (1) preparation of timber piles and installation of protective timber pile wrap at the Project Site; (2) performance of concrete spalling repairs, void repairs, and crack repairs to the underside of the Pier Building and to the Project Site's breakwater structure, as needed; (3) performance of necessary repairs to the Pier Building's structural steel components; and, (4) performance of concrete injections at various undermined areas of the Pier Building. A detailed scope of work for which the selected Proposer will be responsible is attached as Exhibit A (the "Work").

# III. GENERAL PROVISIONS

This Request for Proposals, including attachments, exhibits, and any amendments or addenda (collectively, the "RFP") is subject to the rights reserved by BPCA, including, but not limited to BPCA's right to:

- Reject any or all Proposals received in response to this RFP;
- Withdraw the RFP at any time, at BPCA's sole discretion;
- Make an award of the resulting contract associated with this RFP (the "Contract") in whole or in part;
- Disqualify any Proposer whose conduct and/or Proposal fails to conform to the requirements of this RFP;
- Seek clarifications and/or revisions of the Proposal or any part of the Proposal;
- Use information obtained by BPCA through site visits; interviews; investigation of a Proposer's qualifications, experience, ability or financial standing; and any other material or information provided by or received from the Proposer during the procurement process;
- Prior to BPCA's review of the Proposals, direct Proposers to submit Proposal modifications addressing subsequent amendments to the RFP;
- Request that Proposers submit best and final offers subsequent to BPCA's review of the Proposals;
- Change any of this RFP's scheduled dates:
- Waive any non-material requirements;
- Negotiate contract terms with one or more Proposers in the Authority's sole discretion;
- Utilize any and all ideas submitted in the Proposals received;
- Require clarification at any time during the procurement process, and/or require correction of arithmetic or other apparent errors for the purpose of assuring a full and complete understanding of a Proposal and/or to determine a Proposer's compliance with the requirements of the RFP; and,
- Make non-material revisions to the Scope of Work following receipt of Proposals.

BPCA is not liable or responsible in any way for any expenses incurred in the preparation of a Proposal in response to this RFP. All information submitted in response to this RFP is subject to the Freedom of Information Law, Article 6 of the New York State Public Officers Law ("FOIL"), which requires public access to certain documents possessed by BPCA, unless a specific exemption applies. Proposers are responsible for identifying any information in their respective Proposals considered to be confidential and exempt from FOIL. BPCA, however, is obligated to disclose information consistent with the requirements of FOIL, NYS Public Officers Law Section 87.

# IV. TIMETABLE & DESIGNATED CONTACT

#### A. Key Dates

Subject to change at BPCA's discretion, the following are key dates for this RFP:

- RFP issued: July 18, 2023
- Pre-proposal meeting: July 24, 2023 at 10 a.m. at BPCA's Offices (200 Liberty Street, 24<sup>th</sup> Floor, New York, N.Y., 10281)
- Project Site Walk-Through: July 24, 2023 at 11:15 a.m. (immediately following the Pre-Proposal Meeting), at Pier A Plaza (22 Battery Place).
- Deadline to submit questions to BPCA: August 1, 2023 by 5:00 p.m. (by email only)
- All questions regarding this RFP should be submitted in writing via email to the "Designated Contact": Michael LaMancusa, Asst. Contracting Officer at Battery Park City Authority, at michael.lamancusa@bpca.ny.gov.
- BPCA's response to substantive questions: August 10, 2023 (posted to BPCA website)
- PROPOSAL DUE DATE: August 24, 2023 by 3:00 p.m. (the "Due Date")
- Project Start Date: October 2023 (approximate)

#### B. Anticipated Project Duration / Right to Terminate

It is anticipated that the duration of the Project will be approximately six (6) months, subject to an approved construction schedule. BPCA reserves the right to terminate the contract awarded pursuant to this RFP (the "Contract") at any time, with or without cause, in accordance with the terms of the Contract. BPCA's sample form of contract (the "Standard Form of Contract") is attached as Exhibit D.

#### V. GENERAL REQUIREMENTS

#### A. Minimum Qualification Requirements

The following are the minimum qualification requirements for this RFP. Proposals that fail to meet these requirements will be rejected.

- 1) Proposer must have an office in New York State (a New York City office is preferred);
- 2) Proposer must be lawfully authorized to do business in New York State; and,
- 3) Proposer, or one or more of its principals, must have at least five (5) years of experience in performing marine construction work.

# B. MBE/WBE/SDVOB Participation, Joint Ventures, and Sub-contracting Goals

Contractor requirements and procedures for business participation opportunities for New York State certified MBEs/WBEs/SDVOBs and equal employment opportunity requirements relating to minority group members and women are attached as <a href="mailto:Exhibit C">Exhibit C</a>. For questions relating to MBE/WBE/SDVOB participation, joint ventures and sub-contracting goals *only*, please contact the "MBE/WBE/SDVOB Designated Contact" Mr. Thierry Byron at <a href="mailto:Thierry.Byron@bpca.ny.gov">Thierry.Byron@bpca.ny.gov</a> or 212-417-4415.

#### C. Restricted Period

New York State's State Finance Law sections 139-j and 139-k apply to this RFP, restricting Proposers' contacts with BPCA. Proposers are restricted from making any contact (defined as oral, written or electronic communications with BPCA under circumstances where a reasonable person would infer that a communication was intended to influence BPCA's conduct or decision with respect to a procurement) relating to this RFP with anyone other than the Designated Contact, as specified in Section IV. A., or MBE/WBE/SDVOB Designated Contact, as specified in Section V.B., from the time of Proposer's receipt of notice of this RFP through the date of the Final Award as defined in BPCA's Procurement Guidelines (the "Restricted Period"). BPCA employees must record certain contacts during the Restricted Period, including, but not limited to, any oral or written communications that could reasonably be seen as intended to influence BPCA's conduct or award of this RFP. Upon notice of an improper contact, BPCA shall make a determination regarding the Proposer's eligibility to continue participating in this RFP.

# D. Submission of Proposals

#### Proposals must be received by BPCA no later than 3:00 p.m. on August 24, 2023.

- Each Proposer must e-mail its Technical Proposal to the following e-mail address: <a href="mailto:technicalproposals@bpca.ny.gov">technicalproposals@bpca.ny.gov</a>. The Technical Proposal must be clearly labeled as "Proposal Enclosed Pier A Structural Repairs Project Phase II Contractor Services"
- Each Proposer must also e-mail its Cost Proposal to the following e-mail address: <a href="mailto:costProposals@bpca.ny.gov">costproposals@bpca.ny.gov</a>. The Cost Proposal must be separately attached and clearly labeled as "Cost Proposal Pier A Structural Repairs Project Phase II Contractor Services"
- Each Proposer is responsible for the successful delivery and receipt of their Proposal. BPCA is not accepting Proposals sent via messenger, overnight courier, or certified mail to BPCA offices. If a Proposer has already sent a Proposal via one of these methods, please e-mail the Proposal to the above e-mail address by the Due Date. If a Technical Proposal's file size is too large to submit by e-mail, the Proposer must make alternate electronic accommodations (e.g., linking to a file sharing website), which shall also be transmitted through technical proposals@bpca.ny.gov. Please contact the Designated Contact prior to the Due Date in order to ensure successful transmission of the documents prior to the Due Date.
- Proposals *must* arrive at the time and place specified herein. Please leave ample time for submission. Late Proposals, no matter the cause of their lateness, will NOT be accepted. Hard copy or faxed Proposals will NOT be accepted. A Proposer may, after submitting a Proposal, amend its Proposal by submitting an amended Proposal, clearly labeled "Amended Proposal Pier A Structural Repairs Project Phase II Contractor Services," as long as the amended Proposal is submitted by the Due Date.

# E. Project Subject to New York State Prevailing Wage Requirements

This Project is subject to Labor Law 220, the New York State Prevailing Wage Law ("Prevailing Wage"). All labor employed on the Project must be paid the Prevailing Rate of Wage (the "Prevailing Wage Rate") as identified by the New York State Department of Labor ("NYSDOL"). Attached to this RFP as Exhibit G is a

Prevailing Wage Schedule provided by the NYSDOL. Any discrepancy between the Prevailing Wage Rates contained therein, and the Prevailing Wage Rates which may be required by law, shall not relieve the selected Proposer from the requirement to pay the legally required Prevailing Wage Rate, nor shall they entitle the selected Proposer to any additional compensation under the Contract.

#### VI. PROPOSAL FORMAT AND CONTENTS

# A. Proposal Format

The submitted Proposal must be organized in accordance with the subheadings of Proposal contents set forth in this Section VI. Proposals shall be prepared with paper size no larger than standard 8 1/2" x 11" and a minimum font size of 11 point, with reasonable exceptions for charts, graphics and financial information. Proposal pages must be numbered, with the Proposer's name and "BPC Sustainability Consulting Services" clearly marked on the cover of each of the Technical Proposal and the Cost Proposal.

The Proposal shall be separately packaged into two (2) components:

- A Technical Proposal containing the information required in Section VI. B ("Proposal Content"). The Technical Proposal shall be limited to thirty-five (35) pages. This page limit excludes the Proposal Cover Letter (defined in Section B, below) and the Required Attachments listed in Section VII. C ("Required Attachments"). Proposers should, however, submit a Proposal that provides the information requested in this RFP in a clear, concise, and complete manner. The Technical Proposal shall not include any cost or pricing information that is included in the Cost Proposal.
- A Cost Proposal containing the information required in Section IX ("Cost Proposal") of this RFP. There is no page limit for the Cost Proposal.

#### B. Proposal Content

In addition to the separately sealed Cost Proposal, described in Section IX. below, each Proposal must include the following in the order listed:

- 1) Cover Letter, signed by a person within the firm who is authorized to bind the Proposer, which includes representations that:
  - (a) 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;
  - (b) Proposer satisfies all of the minimum qualification requirements in Section V.A; and
  - (c) Proposer has reviewed BPCA's Standard Form of Contract, attached as <u>Exhibit D</u> to this RFP, and either has no objections or has detailed their objections in an appendix to their Proposal.
- 2) Executive Summary.
- 3) Responses to the Questions as well as all of the Information Required (Sections VII A. and B.).
- 4) Required Attachments (Section VII. C.). <u>Note that Mandatory Forms and resumes do not count toward the</u> page limit.

BPCA reserves the right to reject any Proposals that fail to include any required item described in this Section VI. B., including Cover Letters that are unsigned or fail to include each of the above representations (including an appendix, if applicable). As BPCA is currently only accepting electronic

Proposal submissions, scans of documents requiring signatures and/or requiring notarization are acceptable.

# VII. <u>INFORMATION REQUIRED</u>

#### A. Questions and Information Sought Relating to the Work

- 1) Describe your firm's background, services, size, and history as these factors are relevant to the Work.
- 2) Describe your proposed approach and methodology to the Work, including but not limited to:
  a) mobilization; b) maintenance of Project Site conditions throughout performance of the Work; and c) method of access to the underside of the Pier Building for performance of the Work.
- 3) Please describe your firm's experience performing structural repair work in a marine environment or in similar conditions.
- 4) List each key member of the team you intend to assign to this engagement and include for each listed individual: (a) area(s) of specialization; (b) title and/or position within your firm; (c) the services to be performed.
- 5) Identify the person who will be the lead project manager (the "Lead PM") and primary contact in providing services to BPCA, and any other persons who will be listed as a "key person" in any contract with BPCA.
- 6) Identify any potential subcontractors you intend to use for this engagement, and describe the services to be performed by each subcontractor.
- 7) Describe your proposed team's experience with similar work for other public entities, with an emphasis on New York State public entities.
- 8) Clearly identify any information in your Proposal that you believe to be confidential and exempt from FOIL, and state the reasons. Please note that this question is for informational purposes only, and BPCA will determine, in its sole discretion, whether requested documents are exempt from disclosure under FOIL.
- 9) Identify any and all exceptions taken to BPCA's Standard Form of Contract, attached as Exhibit D, explaining the reasons for such exceptions. Such exceptions must be detailed in an appendix to your Proposal labeled, "Appendix: Objections to BPCA Form of Contract." No exceptions to the Contract will be considered by BPCA after submission of the Proposals. BPCA maintains the right to reject Proposals based on nonconformance with the Standard Form of Contract.
- 10) Provide at least three client references for whom your firm has performed similar work to that requested in this RFP. For each client, describe the project, the project's date, and services performed, and provide the name, address, and telephone number for a person at client's firm familiar with such work.

#### B. Questions and Information Sought Relating to Proposer's Firm & Eligibility

- 1) Within the past three (3) years, have there been any significant developments in your firm such as changes in ownership or restructuring? Do you anticipate any significant changes in the near future? If so, please describe.
- 2) How does your firm identify and manage conflicts of interest?
- 3) Are there any potential conflict of interest issues posed by your firm's performance of the Work on behalf of BPCA?
- 4) Has your firm or have any of the firm's partners/employees been disciplined or censured by any regulatory body within the last five (5) years? If so, please describe the relevant facts.

- 5) Within the last five (5) years, has your firm, or a partner or employee in your firm, been involved in litigation or other legal proceedings relating to the provision of professional services? If so, please provide an explanation and the current status or disposition of the matter.
- 6) List any professional or personal relationships your firm's employees may have with BPCA's Board Members and/or employees, a list of which is attached as Exhibit J.
- 7) If selected, will your firm assign any person to this engagement who was previously an employee of BPCA or BPCA's affiliate, the Battery Park City Parks Conservancy ("BPCPC")? If so, please: i) identify when (month and year) that person's employment at BPCA/BPCPC terminated, and ii) describe that person's involvement, if any, with matters related to this RFP during his/her employment at BPCA/BPCPC.
- 8) In the past five (5) years, have any public sector clients terminated their working relationship with your firm? If so, please provide a brief statement of the reasons. Provide the name of the client and provide a contact person, address and telephone number.

# C. Required Attachments

1) Mandatory Forms:

Each Proposal must include a completed copy of all "Mandatory Forms" found at: <a href="https://bpca.ny.gov/wp-content/uploads/2015/03/Mandatory-Forms.pdf">https://bpca.ny.gov/wp-content/uploads/2015/03/Mandatory-Forms.pdf</a>. The Mandatory Forms include the following:

- a) NYS Standard Vendor Responsibility Questionnaire, notarized and signed by the individual(s) authorized to contractually bind the Proposer, indicating the signer's title/position within the firm.
- b) Certificate of No Change (if applicable).
- c) Statement of Non-Collusion.
- d) MBE/WBE/SDVOB Utilization Plans. Please note that all such plans must be submitted even if Proposer is an MBE/WBE/SDVOB.
- e) Proposer's Affirmation of Understanding of and Agreement pursuant to State Finance Law 139-j(3) and 139-j(6)(b).
- f) Proposer's Certification of Compliance with State Finance Law 139-k (5).
- g) Proposer's Disclosure of Prior Non-Responsibility Determinations.
- 2) Response to the question regarding the use of New York State businesses set forth in Section XIII.
- 3) W-9 form.
- 4) Completed MBE/WBE and EEO Policy Statement and Diversity Practices Questionnaire (attached as part of Exhibit C).
- 5) <u>Financial Statements</u>: Provide a copy of your firm's most recent Audited Financial Statements (within the last year). In the event you do not have audited financials you must provide a statement to that effect with your proposal, and summary financial information for the calendar year most recently ended.

6) <u>Acknowledgement of Addenda</u>: Attach a completed and signed Acknowledgement of Addenda Form, attached as <u>Exhibit H</u>, acknowledging receipt of all addenda to this RFP, if any, issued by BPCA before the Due Date. Addenda are posted by BPCA as necessary and can be found on the BPCA website at <a href="https://www.bpca.ny.gov">www.bpca.ny.gov</a>. It is the responsibility of each Proposer to check the BPCA website for addenda and to review addenda prior to submitting any proposal in response to this RFP.

# 7) Appendices:

- a) Attach professional biographies for all Project executives, Project Managers, and general foremen identified in your Proposal.
- b) Attach a project bar chart schedule showing completion dates for key tasks and milestones, etc. and final completion of all Work.

# VIII. INSURANCE REQUIREMENTS

# A. General Requirements

The total cost of the required insurance listed in Items B) and C) below, must be incorporated into the Cost Proposal. The additional insured protection afforded BPCA, BPCPC, and the State of New York must be on a primary and non-contributory basis. All policies must include a waiver of subrogation in favor of BPCA, BPCPC, and the State of New York, no policies may contain any limitations / exclusions for New York Labor Law claims, and cross liability coverage must be provided for BPCA, BPCPC, and the State of New York.

All of the carriers that provide the below required insurance must be rated "A-:VII" or better by A.M. Best and must provide direct written notice of cancellation or non-renewal to BPCA, BPCPC, and the State of New York at least thirty (30) days before such cancellation or non-renewal is effective, except for cancellations due to non-payment of premium, in which case ten (10) days' written notice is acceptable.

# B. Insurance Requirements for the Selected Proposer

The selected Proposer will be required to obtain and provide proof of the types and amounts of insurance listed below: (i) as a condition precedent to the award of the contract for the Project; and (ii) continuing throughout the entire Term. The insurance policies listed below must also conform to the applicable terms of the Contract, as shown in BPCA's Standard Form of Contract (attached as Exhibit D).

- Commercial General Liability Insurance, written on ISO Form CG 00 01 or its equivalent and with no modification to the contractual liability coverage provided therein, shall be provided on an occurrence basis and limits shall not be less than:
  - o \$6,000,000 per occurrence
  - o \$7,000,000 general aggregate which must apply on a per location / per project basis
  - o \$7,000,000 products/completed operations aggregate

BPCA, BPCPC, and the State of New York must be protected as additional insureds on ISO Form CG 2010 (11/85) or its equivalent on policies held by the selected Proposer and any of its subcontractors. Should the Proposer's work include construction activities of any kind then the Proposer must maintain Products / Completed Operations coverage for no less than three years after the construction work is completed, and continue to include Additional Insured protection for BPCA, BPCPC and the State of New York for the prescribed timeframe. When providing evidence of insurance, the Proposer must include a completed Acord 855 NY form. Securing the required limits via a combination of primary and umbrella/excess liability policies is allowed. The General Aggregate limit must apply on a per project basis on the primary General Liability policy should a combination of primary and Umbrella/Excess liability policies be utilized to secure the required total limits of coverage.

- Automobile Liability Insurance with a combined single limit of not less than \$1,000,000. Coverage must apply to the Proposer's owned, hired, and non-owned vehicles and protect BPCA, BPCPC, and the State of New York as additional insured.
- Workers' Compensation, Employer's Liability, and Disability Benefits shall not be less than statutory limits, including United States Longshore and Harbor Workers Act coverage as applicable to the operations of the Proposer.

As applicable if any Project repairs are being made from watercraft:

- Comprehensive Marine Liability Insurance must be maintained at a limit of not less than \$1,000,000 per occurrence and include the following coverage:
  - o Protection and indemnity
  - o General liability
  - o Pollution liability

BPCA, BPCPC, and the State of New York must be protected as additional insureds on policies held by the selected Proposer and any of its subcontractors.

# C. Insurance Requirements for all Subcontractors

Any subcontractor(s) utilized by the selected Proposer will be required to obtain the types and amounts of insurance listed below: (i) as a condition of commencing any Work; and (ii) continuing throughout the duration of the subcontractor's Work. The insurance policies listed below must also conform to the applicable terms of the Contract, as shown in BPCA's Standard Form of Contract (attached as Exhibit D):

- Commercial General Liability Insurance, written on ISO Form CG 00 01 or its equivalent and with no modification to the contractual liability coverage provided therein, shall be provided on an occurrence basis and limits shall not be less than:
  - o \$1,000,000 per occurrence
  - o \$2,000,000 general aggregate which must apply on a per location / per project basis
  - o \$2,000,000 products/completed operations aggregate

BPCA, BPCPC, and the State of New York must be protected as additional insureds on ISO Form CG 2010 (11/85) or its equivalent on policies held by all subcontractors. Should the subcontractor's work include construction activities of any kind then the subcontractor must maintain Products / Completed Operations coverage for no less than three years after the construction work is completed and continue to include Additional Insured protection for BPCA, BPCPC and the State of New York for the prescribed timeframe. When providing evidence of insurance the subcontractor must include a completed Acord 855 NY form. Securing the required limits via a combination of primary and umbrella/excess liability policies is allowed. The General Aggregate limit must apply on a per project basis on the primary General Liability policy should a combination of primary and Umbrella/Excess liability policies be utilized to secure the required total limits of coverage.

- Automobile Liability Insurance with a combined single limit of not less than \$1,000,000. Coverage must apply to the subcontractor's owned, hired, and non-owned vehicles and protect BPCA, BPCPC, and the State of New York as additional insured.
- Workers' Compensation, Employer's Liability, and Disability Benefits shall not be less than statutory limits, including United States Longshore and Harbor Workers Act coverage as applicable to the operations of the subcontractor.

• Subcontractors will also be required to obtain all other insurances listed in Section (2) unless otherwise approved in writing by BPCA prior to commencement of any Subcontractor's work.

# D. Payment and Performance Bonds

A payment bond and a performance bond will both be required for this Project. Please provide a letter from your surety(ies) stating that you are able to provide both such bonds, as required in the Standard Form of Contract (Exhibit D).

# IX. COST PROPOSAL: FORMAT AND REQUIRED INCLUSIONS

Each cost proposal (the "Cost Proposal") must state the total lump-sum cost for the performance of all Work. Please note that the Project is subject to Prevailing Wage requirements contained in Labor Law 220. As stated in Section V. D. above, each Proposer must e-mail its Cost Proposal to the following e-mail address: costproposals@bpca.ny.gov. The Cost Proposal must be clearly labeled as "Cost Proposal – Pier A Structural Repairs Project – Phase II Contractor Services."

Proposer must submit with its Cost Proposal (the form of which is attached to this RFP as Exhibit E) an itemized cost for the Work, according to the Form of Bid Breakdown (attached to this RFP as Exhibit F). The total sum of these items will be equivalent to the Base Proposal. If quantities change during the course of the Project, BPCA shall, in its sole discretion, adjust the Contract Price either by using the Unit Prices identified by the Proposer in the Bid Breakdown Form, or by utilizing one of the other contractual mechanisms for change in the Contract Price as set forth in Article 9 of the Contract.

# X. SELECTION PROCESS

#### A. Evaluation

Each timely submitted Proposal will be reviewed for compliance with the form and content requirements of this RFP. A committee of BPCA employees selected by BPCA (the "Committee") will then review and evaluate the Proposals in accordance with the evaluation criteria set forth below. While only Committee members will score the evaluation criteria, the Committee may consult an outside expert for advisement on the evaluation of matters requiring technical expertise. Before final selection, BPCA must determine that the proposed selected Proposer is responsible, in accordance with applicable law and BPCA's Procurement Guidelines, which may be viewed at: www.bpca.ny.gov/public-information.

#### B. Interviews

BPCA reserves the right to decide whether to interview any or all of the Proposers. The Committee may conduct interviews for many reasons, including to further assess a Proposer's ability to perform the Work or provide specific services, or to seek information related to any other evaluation criteria. The proposed Lead PM, as well all other key personnel proposed to perform the Work, must be available to participate in the interview.

#### C. Evaluation Criteria for Selection

Selection will be based upon the following criteria:

#### 1) Technical Evaluation:

•	Schedule	10	)%
•	Response to Diversity Practices Questionnaire.	10	)%

# 2) Cost Proposal evaluation.

# 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, reasonable, and provides the best value to BPCA given the requirements of the Project.

# XI. NON-COLLUSION

By submitting a Proposal, each Proposer warrants and represents 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.

#### XII. IRAN DIVESTMENT ACT

By submitting a Proposal or by assuming the responsibility of any Contract awarded hereunder, each Proposer certifies that it is not on the "Entities Determined To Be Non-Responsive Bidders/Offerers Pursuant to The New York State Iran Divestment Act of 2012" list ("Prohibited Entities List") posted on the New York State Office of General Services website at: http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf and further certifies that it will not utilize any subcontractor/consultant that is identified on the Prohibited Entities List on this Contract. The selected Proposer agrees that should it seek to renew or extend any Contract awarded hereunder, it must provide the same certification at the time the Contract is renewed or extended. The selected Proposer also agrees that any proposed assignee of the Contract will be required to certify that it is not on the Prohibited Entities List before BPCA may approve a request for assignment of the Contract.

During the term of any Contract awarded hereunder, should BPCA receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, BPCA will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the New York State Iran Divestment Act of 2012 within 90 days after the determination of such violation, then BPCA shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, seeking compliance, recovering damages, or declaring the selected Proposer in default of the awarded Contract.

BPCA reserves the right to reject any request for renewal, extension, or assignment for an entity that appears on the Prohibited Entities List prior to the renewal, extension, or assignment of the Contract, and to pursue a responsibility review with the selected Proposer should it appear on the Prohibited Entities List hereafter.

# XIII. ENCOURAGING USE OF NEW YORK STATE BUSINESSES IN CONTRACT PERFORMANCE

New York State businesses have a substantial presence in State contracts and strongly contribute to the economies of the state and the nation. In recognition of their economic activity and leadership in doing business in New York State, Proposers for this Contract for commodities, services or technology are strongly encouraged and expected to consider New York State businesses in the fulfillment of the requirements of the Contract. Such partnering may be as subcontractors, suppliers, protégés or other supporting roles.

Proposers are strongly encouraged, to the maximum extent practical and consistent with legal requirements, to use responsible and responsive New York State businesses in purchasing commodities that are of equal quality

and functionality and in utilizing services and technology. Furthermore, Proposers are reminded that they must continue to utilize small, minority and women-owned businesses, consistent with current State law.

Utilizing New York State businesses in State contracts will help create more private sector jobs, rebuild New York's infrastructure, and maximize economic activity to the mutual benefit of the contractor and its New York State business partners. New York State businesses will promote the contractor's optimal performance under the Contract, thereby fully benefiting the public sector programs that are supported by associated procurements.

Public procurements can drive and improve the State's economic engine through promotion of the use of New York businesses by its contractors. The State therefore expects bidders/proposers to provide maximum assistance to New York businesses in their contracts. The potential participation by all kinds of New York businesses will deliver great value to the State and its taxpayers.

Proposers can demonstrate their commitment to the use of New York State businesses by responding to the question below. Each proposer must include a response to this question with their proposal. Please note that a "yes" response requires supporting information. If yes, identify New York State businesses that will be used and attach identifying information.

Will New York State businesses be used in the performance of this Contract?_	Yes	No

# EXHIBIT A SCOPE OF WORK

# I. Overview

This scope of work is intended to clarify, but not limit, the selected Proposer's obligation to complete all Work as indicated in, or inferable from, the Pier A Structural Repairs Project – Phase II (the "Project") design drawings ("Drawings") and specifications, both attached hereto as Exhibit B (collectively, the "Construction Documents"). The purpose of the Project is to restore the structural integrity of a portion of the exterior underside of the Pier Building and adjacent piles that collectively constitute the Project Site. Prior to commencement of the Work, the selected Proposer shall install a turbidity curtain around the perimeter of the Project Site<sup>1</sup>. The Work will include, but not be limited to: (1) preparation of timber piles and installation of protective timber pile wrap at the Project Site; (2) performance of concrete spalling repairs, void repairs, and crack repairs to the underside of the Pier Building and to the Project Site's breakwater structure, as needed; and, (3) performance of concrete injections at various undermined areas of the Pier Building, in accordance with the Construction Documents.

# II. Scope of Services

Specifically, the selected Proposer will be responsible for the following Work:

- A. Installation of the new timber pile wrap which consists of, but is not limited to, the following:
  - Preparation of the existing timber piles;
  - Removal of protrusions, marine growth, splinters, nails, and other such elements;
  - Plugging of all voids in accordance with the Construction Documents; and,
  - Application of the protective pile wrap to thirty (30) timber piles, as shown in the Construction Documents.
- B. Concrete repairs to previously failed repairs, spalls, voids and undermined areas which will consist of:
  - Removal and disposal of all loose, delaminated concrete;
  - Coating of the newly-exposed concrete and any exposed steel with an adhesive coating;
  - Placement, by hand, of a non-shrink grout onto any Project Site areas found to be deteriorated; and,
  - Injection, using a tremie, of concrete in undermined areas of the Pier Building.

Note that all such undermined areas are shown on the Project Drawings and consist of approximately: a) four-hundred and ninety (490) square feet of spall repair; and b) five-hundred and forty-five (545) cubic feet of void and other undermined area repairs.

- C. Crack repairs which will consist of:
  - Injection of cracks in the concrete with high-modulus, high-strength, smooth paste adhesive epoxy.

Note that all locations subject to crack repairs are shown on the Project Drawings and consist of approximately one-thousand, four-hundred and fifty (1,450) feet of cracks.

- D. Structural steel repairs which will consist of:
  - Steel surface preparation using abrasive blasting and/or wire brushing; and,
  - Application of recommended coating to steel using spray on, brush, or roller.

 $<sup>^{1}</sup>$  All capitalized terms used, but not defined, in this  $\underline{\text{Exhibit A}}$  – Scope of Work, shall have the same meaning as such terms already introduced and defined earlier in this RFP.

Note that the selected Proposer, in consultation with the Project's Construction Manager and Design Engineer, will be responsible for verifying all quantities in the field prior to its commencement of the Work.

# III. General Considerations

The selected Proposer shall remove and properly dispose of all debris located within the Project Site or generated during the performance of the Work – including, but not limited to, broken concrete, miscellaneous metals and debris, and other construction debris and miscellaneous trash.

[NO FURTHER TEXT ON THIS PAGE]

# EXHIBIT B PIER A STRUCTURAL REPAIRS PROJECT – PHASE II DRAWINGS AND SPECIFICATIONS

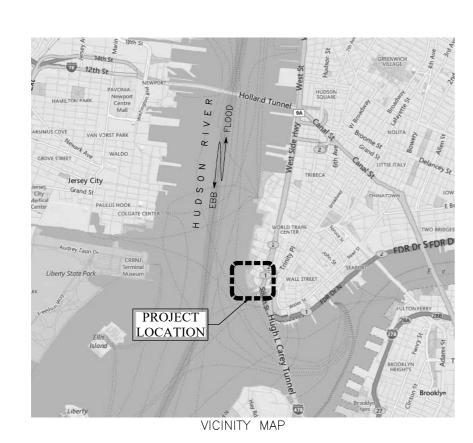
(ATTACHED)

# PIER A REHABILITATION

22 BATTERY PL., NEW YORK, NY 10004 FOR

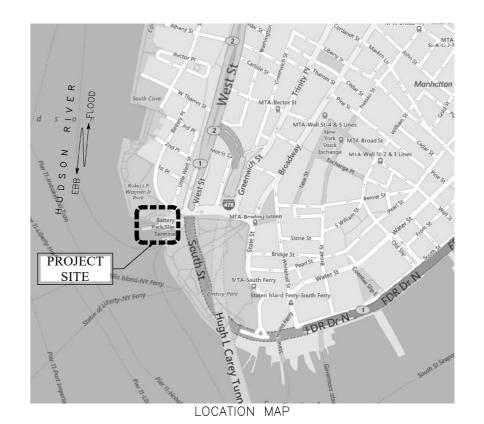
# BATTERY PARK CITY AUTHORITY

200 LIBERTY STREET, 24TH FLOOR, NEW YORK, NY 10281





DRAWING INDEX							
SHEET NUMBER	SHEET TITLE						
GS-1	COVER SHEET						
GN-1	GENERAL NOTES						
GN-2	GENERAL NOTES						
GA-1	EXISTING PIER PLAN						
GA-2	EXISTING SECTIONS						
S-1	APRON PILES AND PIER STEMS REPAIR PLAN						
S-2	BREAKWATER PLAN AND SECTIONS						
S-3	BREAKWATER ELEVATION & TYPICAL REPAIR DETAILS						
S-4	UNDER DECK REPAIR PLAN - SPAN 1						
S-5	UNDER DECK REPAIR PLAN - SPAN 2 & 3						
S-6	UNDER DECK REPAIR PLAN - SPAN 4 & 5						
S-7	UNDER DECK REPAIR PLAN - SPAN 6 & 7						
S-8	CONCRETE REPAIR DETAILS						
S-9	PILE AND STEEL REPAIR DETAILS						



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URBAN PROJECT NO. 2020200179.001

#### GENERAL NOTES

- DESIGN AND CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES AND STANDARDS, THE PROJECT SPECIFICATIONS, AND DRAWINGS. NOTES ON DRAWINGS SHALL TAKE PRECEDENCE OVER PROJECT SPECIFICATIONS. SPECIFIC NOTES ON DETAIL DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTE DRAWINGS. STATE AND LOCAL CODES SHALL TAKE PRECEDENCE OVER PROJECT SPECIFICATIONS AND NOTES ON DRAWINGS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS
  PRIOR TO MOBILIZING. ALL EXISTING & PROPOSED DIMENSIONS AND ELEVATIONS SHOWN
  ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY
  FABRICATION OR ERECTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
- 3. THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL WASTE MATERIAL, DEMOLISHED MATERIAL AND DEBRIS GENERATED DURING THE COURSE OF THE WORK, U.N.O. DISPOSAL OF ALL GENERATED WASTE MATERIAL, DEMOLISHED MATERIAL AND DEBRIS IS THE CONTRACTOR'S RESPONSIBILITY. DISPOSE OF ALL MATERIAL IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS.
- 4. THE CONTRACTOR SHALL PLACE SEDIMENT CONTROL DEVICES, BOOMS, TARPAULINS, FLOATS, STAGING, TURBIDITY BARRIERS, AND OTHER DEVICES AS NECESSARY TO PREVENT CONSTRUCTION MATERIALS FROM ENTERING THE WATER AND LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF ALL MATERIALS.
- 5. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE ENVIRONMENTAL PROTECTION STANDARDS, CODES, LAWS, REGULATIONS, AND PERMITS.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO NOT INTERFERE WITH, OR BE DETRIMENTAL TO, VESSEL AND VEHICULAR TRAFFIC DURING THE COURSE OF THE WORK.
- 7. ALL STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER ERECTION IS FULLY COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ERECTION PROCEDURES AND SEQUENCE AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

#### CONCRETE AND REINFORCING STEEL

- ALL CONCRETE WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI 301 AND ACI 318, UNLESS OTHERWISE SPECIFIED.
- 2. FOLLOW THE REQUIREMENTS OF ACI 306 WHEN POURING CONCRETE IN COLD WEATHER.
- 3. CAST-IN-PLACE CONCRETE STRENGTH SHALL BE A MINIMUM OF 4500 PSI AT 28 DAYS, U.N.O.
- 4. NONMETALLIC NON-SHRINK GROUT STRENGTH SHALL BE A MINIMUM OF 5000 PSI AT 28 DAYS, U.N.O.
- 5. THE CONTRACTOR SHALL MAINTAIN PROPER CURING PROCEDURES FOR A MINIMUM OF 7 DAYS.
- 6. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315.
- REINFORCING STEEL FOR CAST-IN-PLACE CONCRETE SHALL CONFORM TO ASTM A 615, GR 60, EXCEPT REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A 706.
- 8. MINIMUM CONCRETE COVER FOR ALL REINFORCING SHALL BE 2 INCHES, U.N.O.
- 9. ALL CONSTRUCTION JOINTS SHALL BE KEYED, U.N.O. JOINTS SHALL BE PROVIDED AS NECESSARY AT LOCATIONS, AND USING METHODS, APPROVED BY THE ENGINEER.
- 10. ALL REINFORCING BAR SPLICES SHALL BE TENSION LAP SPLICES, IN ACCORDANCE WITH ACI 318, U.N.O.
- 11. CHAMFER ALL EXTERNAL EXPOSED CORNERS OF CONCRETE WITH A 1 INCH, 45—DEGREE CHAMFER, U.N.O.
- 12. WELDING OF REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.4.

#### STRUCTURAL AND MISCELLANEOUS STEEL

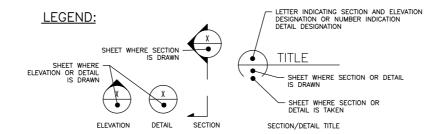
- 1. ALL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL. DESIGN, FABRICATION, AND ERECTION ARE TO BE GOVERNED BY THE LATEST REVISIONS OF:
  - A. AISC STEEL CONSTRUCTION MANUAL
  - B. AISC CODE OF STANDARD PRACTICE C. AWS D1.1 STRUCTURAL WELDING CODE
  - D. RCSC SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS
- 2. STRUCTURAL AND MISCELLANEOUS STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING,

WIDE FLANGE SHAPES:	ASTM A 992, GRADE 50
HP PILES:	ASTM A 572, GRADE 50
PIPE PILES:	ASTM A 252, GRADE 3, $F_V = 50$ KSI
PIPE:	ASTM A 53, GRADE B, TYPE S
HOLLOW STRUCTURAL SECTIONS (HSS):	ASTM A 500
OTHER SHAPES, BARS AND PLATES:	ASTM A 36, Fy = 36 KSI
HEADED BOLTS:	ASTM A 325
ANCHOR BOLTS:	ASTM A 449
STEEL SHEET PILE (SSP):	ASTM A 572, GRADE 50
NUTS:	ASTM A 563
WASHERS:	ASTM F 436

- 3. IF OVERSIZED HOLES ARE USED, WASHERS MUST BE EXTRA THICK, AND MAY REQUIRE WELDING.
- 4. ALL MISCELLANEOUS METALS INCLUDING BOLTS, WASHERS, NUTS, ANGLES, INSERTS, PLATES, AND OTHER FABRICATIONS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A 123 AND/OR ASTM A 153, AS APPLICABLE AFTER FABRICATION, UNLESS OTHERWISE NOTED OR SPECIFIED. STAINLESS STEEL ITEMS SHALL NOT BE GALVANIZED.
- 5. FIELD TREAT DAMAGED GALVANIZED FINISH WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT, COLD GALVANIZING COMPOUNDS OR APPROVED EQUAL. IN ADDITION, ALL EXPOSED THREADED SURFACES SHALL BE CLEANED AND PAINTED WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT AFTER INSTALLATION OF THE NUT(S).
- 6. THE TYPE, SIZE, SPACING, AND ALIGNMENT OF CONNECTING HARDWARE SHOWN ARE CRITICAL AND MUST BE MAINTAINED.
- 7. ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF AWS D.1.1, U.N.O. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES, UNLESS HIGHER STRENGTH ELECTRODES ARE REQUIRED BY AWS D1.1. GENERALLY, ELECTRODES SHALL BE NEW OR BAKED AT THE START OF EACH SHIFT. FOLLOW THE ATMOSPHERIC EXPOSURE LIMITS AND BAKING REQUIREMENTS OF CLAUSE 5 OF AWS D1.1.
- 8. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1, U.N.O.
- 9. MINIMUM SIZE OF FILLET WELDS SHALL BE  $\%_6$ " U.N.O.
- 10. WHEN THE 'ALL—AROUND' WELDING SYMBOL IS USED AT AN END CONNECTION OF A ROLLED SHAPE, THE CONTRACTOR SHALL TERMINATE THE WELD AT EACH OF THE FLANGE EDGES, AND ONE WELD THICKNESS AWAY FROM EACH INTERSECTION OF THE WEB AND FLANGE, U.N.O.
- 11. DOWELS, BOLTS, REINFORCEMENT OR OTHER STEEL TO BE EMBEDDED IN CONCRETE SHALL BE INSTALLED USING HILTI HIT—HY 200 EPOXY, U.N.O.

# CIVIL/STRUCTURAL ABBREVIATIONS, U.N.O.

•		OCTORAL ADDICEVIATIONS,			
AASHT0	=	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	LT m	=	LONG TON METERS
ACI	=	AMERICAN CONCRETE INSTITUTE	mm	=	MILLIMETERS
AISC		AMERICAN INSTITUTE OF	MAX	=	
		STEEL CONSTRUCTION	MEA	=	
ALT		ALTERNATE	MHHW		MEAN HIGHER HIGH WATER
ANSI	=	AMERICAN NATIONAL STANDARDS INSTITUTE	MHW MIN	=	MEAN HIGH WATER MINIMUM
APPROX	=	APPROXIMATE	MISC		MISCELLANEOUS
ARCH.		ARCHITECTURAL	MLLW		MEAN LOWER LOW WATER
ASTM	=	AMERICAN SOCIETY FOR	MLW	=	MEAN LOW WATER
		TESTING AND MATERIALS	MPa		MEGAPASCALS
AVG AWS		AVERAGE AMERICAN WELDING SOCIETY	MPH MSL	=	MILES PER HOUR MEAN SEA LEVEL
B.O.P.		BOTTOM OF PIPE	N N	=	NEWTON OR NORTH
B/B		BACK TO BACK	NAVD-88	=	NORTH AMERICAN VERTICAL
c/c		CENTER TO CENTER			DATUM OF 1988
CF C.I.P.		CUBIC FEET CAST IN PLACE	NGVD-29	=	NATIONAL GEODETIC VERTICAL DATUM OF 1929
CJ.P.		CONSTRUCTION JOINT	NTP	=	NOTICE TO PROCEED
CLR		CLEAR	NIC		NOT IN CONTRACT
CO		CLEAN OUT	NS		NEAR SIDE
CONC		CONCRETE	NTS		NOT TO SCALE
CONST CONT		CONSTRUCTION CONTINUOUS	NO. O.C.		NUMBER ON CENTER
CTE		COAL TAR EPOXY	0.c. 0/S	=	
CY		CUBIC YARD	OSHA		OCCUPATIONAL SAFETY AND
D		DEPTH			HEALTH ADMINISTRATION
D/R		DOWNRIVER	PSI	=	
DEG DETL'S		DEGREES DETAILS	PVC R/F		POLYVINYL CHLORIDE REINFORCING
DIA		DIAMETER	R.C.P.		REINFORCED CONCRETE PIPE
DIST		DISTANCE	REQ'D		REQUIRED
DWG		DRAWING	S	=	
DWT		DEAD WEIGHT TONNAGE	SCH	=	
E EA		EAST EACH	SECT SHT	=	
EF .		EACH FACE	SIM	=	
EHW		EXTREME HIGH WATER	SPEC	=	
EJ		EXPANSION JOINT	SQ	=	
EL/ELEV. ELEC		ELEVATION ELECTRICAL	SS SSP	=	
EW		EACH WAY	STL	=	
EXIST.		EXISTING	STRUC.	=	
EXT	=	EXTERIOR	SUPP	=	SUPPORT
EXPN		EXPANSION	SY	=	
FDN. FPS		FOUNDATION FEET PER SECOND	T, TONNE TON	=	METRIC TON SHORT TON
FRP		FIBERGLASS REINFORCED PLASTIC	T.B.D		TO BE DETERMINED
FS	=	FAR SIDE	TEMP	=	
FT		FEET	THK	=	THICKNESS
FY		YIELD STRESS	THRU	=	THROUGH
GALV GR		GALVANIZED GRADE	T.O. T.O.C		TOP OF CONCRETE
GRTNG		GRATING	T.O.S		TOP OF STEEL
GUSS	=	GUSSET	TYP	=	TYPICAL
H		HEIGHT	U.N.O.		UNLESS NOTED OTHERWISE
HAT HTL		HIGHEST ASTRONOMICAL TIDE HIGH TIDE LINE	UHMWPE	=	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
HVY		HEAVY	U/R	=	UP RIVER
I		I BEAM	USACE	=	UNITED STATES ARMY CORPS
I/S		INSHORE	/		OF ENGINEERS
JT	=	INVERT	W/ W	=	WITH
kg	=		W.P./WP	=	
KIP	=		W.T.	=	
kN		KILONEWTONS	WT	=	
L		ANGLE	Ý	=	
LAT	=	LOWEST ASTRONOMICAL TIDE OR LATITUDE	# % PL	=	
LB	=	POUND	ŕ	=	
LF	=	LINEAR FEET	&	=	AND
LG		LONG	0	=	
LLV		LONG LEG VERTICAL	X Ø	=	BY DIAMETER
LOA LONG.		LENGTH OVERALL LONGITUDE	y v	-	DIDINIT   FIV
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# **ELEVATIONS:**

HIGHEST OBSERVED WATER LEVEL (10/30/2012)

+2.28'
+1.96'
-0.00'
NAVD-88
-0.30'
MEAN HIGHER HIGH WATER (MHW)
NAVD-88
MEAN TIDE LEVEL (MTL)
-2.60'
MEAN LOW WATER (MLW)
-2.77'
NEAN LOWEST OBSERVED WATER LEVEL (02/02/1976)
(NOT TO SCALE)

NOTE: TIDAL DATA IS BASED ON NOAA STA. NO. 8518750, BATTERY, NY HARBOR

REHABILITATION PIER A F AS NOTED 11/11/21 100% DESIGN 2020200179.001 SUBMISSION GN-1 DATE: 11/11/21 SHT 2 OF 14 GN-1 GEN... .DWG

NEW YORK STATE OF OPPORTUNITY. Battery Park

BATTERY PARK CITY

**AUTHORITY** 

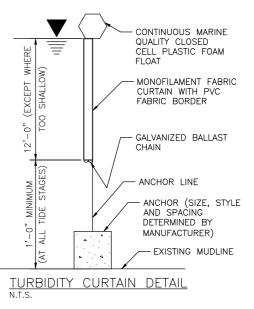
#### **TIMBER**

- SHIMS: CLEAR SELECT STRUCTURAL WHITE OAK HEARTWOOD, EDGE SAWN (I.E. GRAIN TO BE ROUGHLY PERPENDICULAR TO THE BEARING FACES OF THE SHIM),
- OTHER TIMBER: SELECT STRUCTURAL MARINE GRADE SOUTHERN PINE THAT IS ROUGH CUT, U.N.O.
- LEAD HOLES FOR LAG SCREW SHALL BE BORED AS FOLLOWS:
  - A. THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK, AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK. THE DRILL BIT LENGTH SHALL BE
  - 1/8" LESS IN LENGTH AS IS REQUIRED TO ACCOMMODATE SHANK DEPTH.

    B. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 70% OF THE SHANK DIAMETER.
  - C. THIS EQUIPMENT SHALL BE EXPOSED TO THE FIELD ENGINEER FOR REVIEW PRIOR TO DAILY USE.
- THE THREADED PORTION OF THE LAG SCREW SHALL BE INSERTED IN ITS LEAD HOLE BY TURNING WITH A WRENCH OR BY ROTATING EQUIPMENT, NOT BY DRIVING WITH A HAMMER.
- SOAP OR OTHER LUBRICANT SHALL BE USED ON THE LAG SCREWS OR IN THE LEAD HOLES TO FACILITATE INSERTION AND PREVENT DAMAGE TO THE LAG

# PROTECTIVE PILE WRAP SYSTEM

- USE DENSO PRODUCT SEASHIELD SERIES 70, OR APPROVED EQUAL.
- MATERIALS SHALL CONSIST OF DENSYL PETROLATUM COMPOUND, DENSO MARINE PILING PETROLATUM TAPE, DENSO GLASS OUTERWRAP 70, AND DENSO POLY-WRAP, OR APPROVED EQUALS.
- INSTALL ALL PRODUCTS ACCORDING TO SPECIFICATIONS AND MANUFACTURER'S RECOMMENDED PROCEDURES.
- REMOVE EXISTING PROTRUSIONS FROM PILES PRIOR TO INSTALLATION.
- THOROUGHLY CLEAN ALL PILES PRIOR TO INSTALLATION. PILE MUST BE FREE FROM ALL NAILS, BOLTS, SPLINTERS, MARINE GROWTH, OR OTHER FOREIGN OBJECTS THAT COULD CAUSE DAMAGE TO MATERIALS.
- PLUG AND FILL ALL HOLES AND SURFACE DEFECTS WITH DENSYL MASTIC PETROLATUM COMPOUND.
- INSTALL IN SEQUENCE THE DENSO MARINE PILING PETROLATUM TAPE, DENSO GLASS OUTERWRAP 70, AND DENSO POLY-WRAP ACCORDING TO MANUFACTURER'S



# EROSION & SEDIMENT CONTROL NOTES:

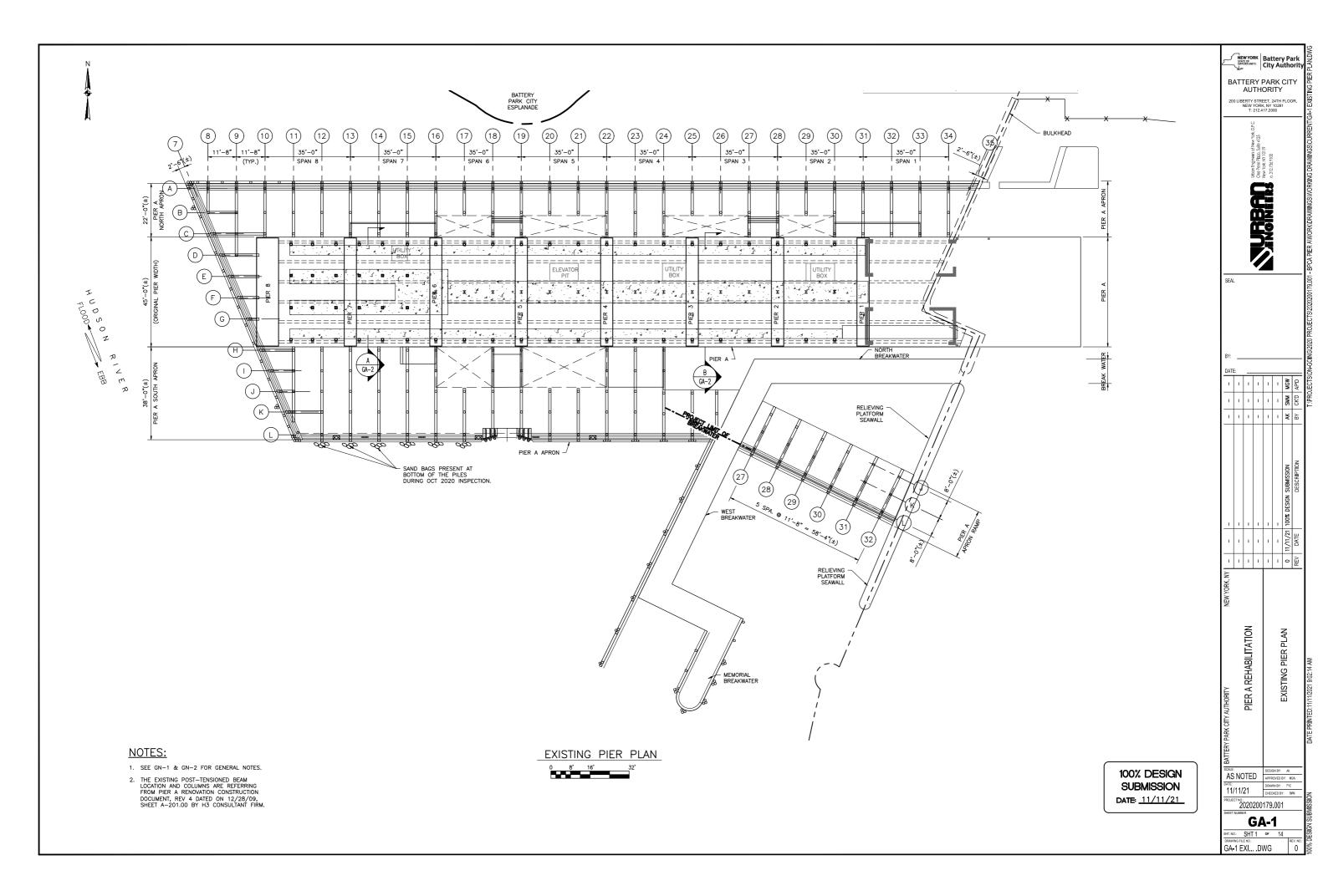
- 1. A FLOATING TURBIDITY CURTAIN SHALL BE PLACED TO ENCOMPASS AREAS WHERE SEDIMENT MAY BE GENERATED AS A RESULT OF PROJECT WORK. A TURBIDITY CURTAIN MUST BE IN PLACE FOR ACTIVITIES THAT MAY GENERATE TURBIDITY, INCLUDING: PILE INSTALLATION OR EXTRACTION, PLACING CONCRETE UNDERWATER, DREDGING OR UNDERWATER DEBRIS REMOVAL, AND DEMOLITION.
- 2. THE CURTAIN HEIGHT SHALL NOT EXCEED 12 FT, AND SHALL BE SHORT ENOUGH TO MAINTAIN A 1 FT GAP BETWEEN ITS BOTTOM AND THE MUDLINE AT MEAN LOW WATER.
- 3. UNLESS NOTED OTHERWISE, THE TURBIDITY CURTAIN SHALL BE A TRITON TYPE III PERMABLE SILT AND TURBIDITY BARRIER, OR APPROVED EQUIVALENT. WHERE NO TIDAL FLUCTUATION OR CURRENT EXISTS, A TYPE II BARRIER MAY BE USED. SUBMIT PROPOSED BARRIER SPECIFICATIONS, ALONG WITH THE MANUFACTURER'S RECOMMENDED CONDITIONS FOR USE.
- 4. 8 % EROSION CONTROL SEDIMENT LOGS SHALL BE PLACED ALONG THE WATER'S EDGE IN ALL AREAS WHERE SEDIMENT OR RUNOFF MAY ENTER THE WATER, THROUGHOUT THE DURATION OF THE PROJECT, TO PREVENT THE DISCHARGE OF SEDIMENTS INTO THE WATER.
- 5. ATTACH BUOYS WITH NAVIGATION LIGHTS WHERE REQUIRED BY THE COAST

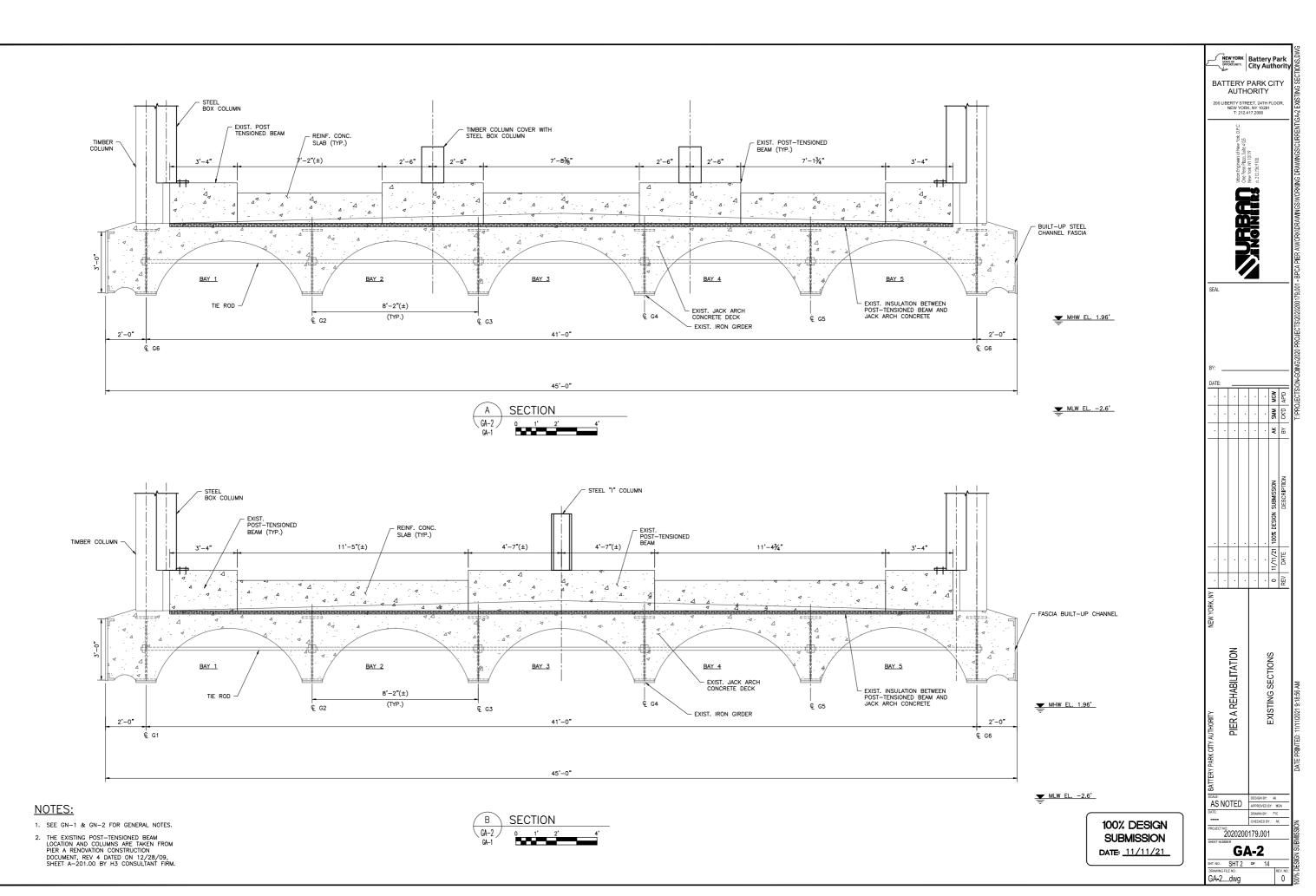
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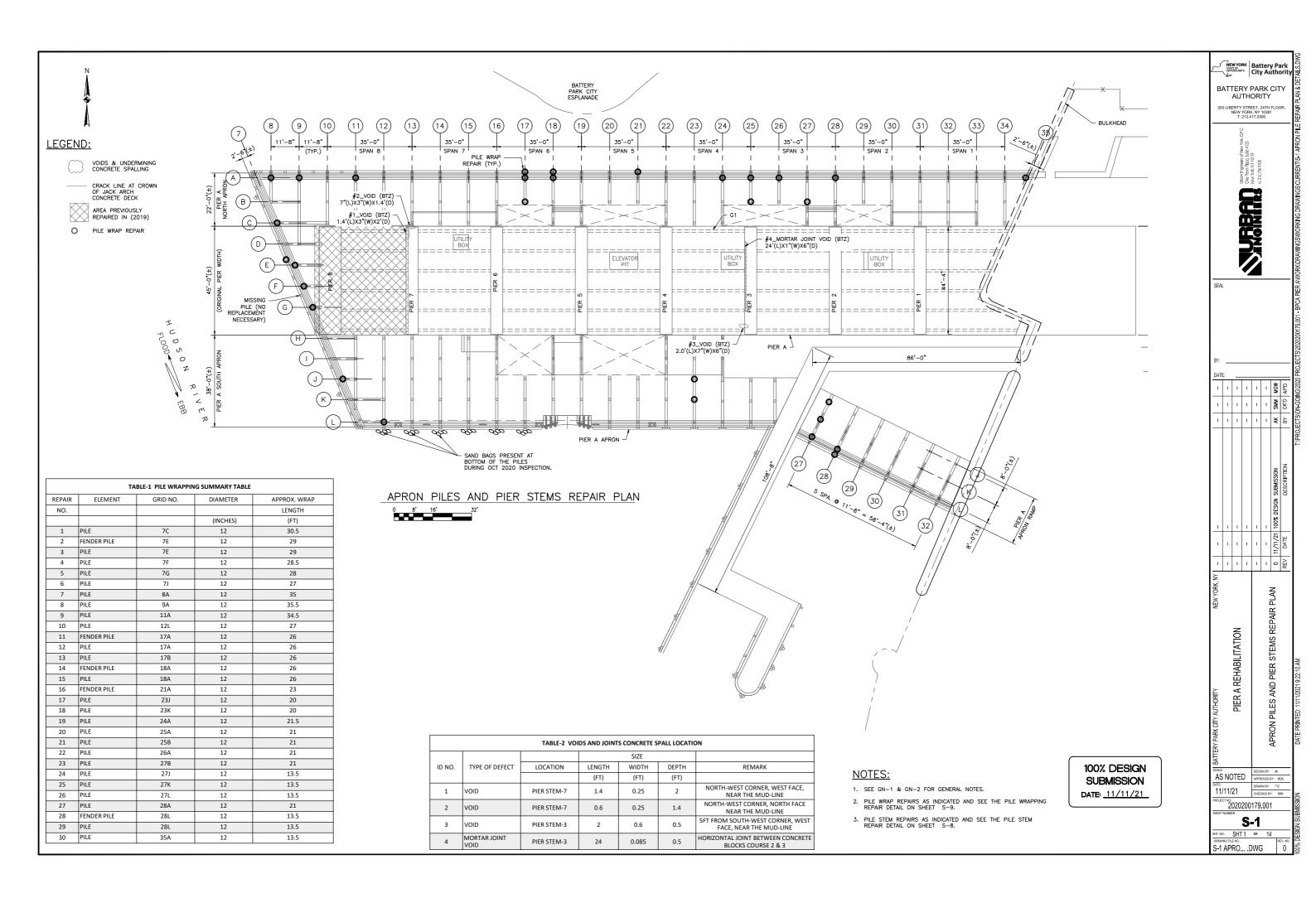
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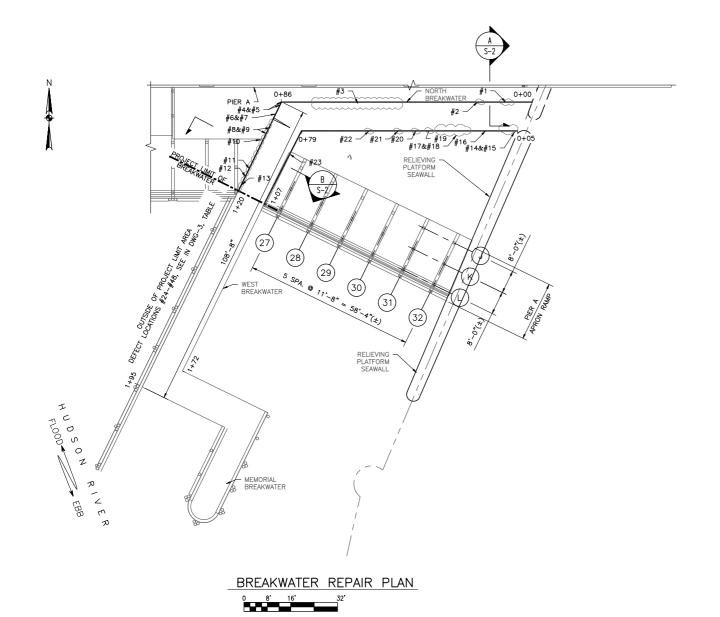






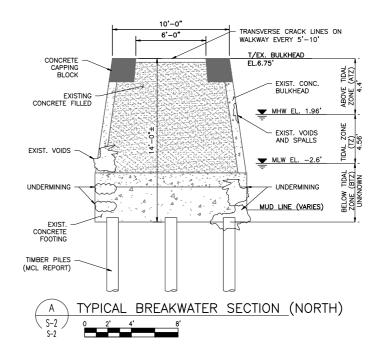
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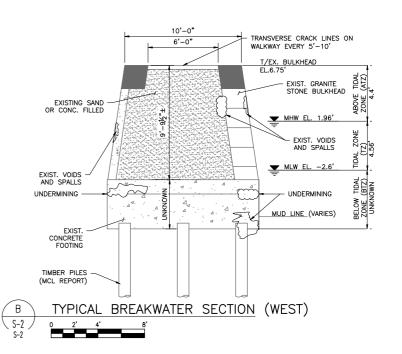
VOIDS & UNDERMINING CONCRETE SPALLING



# NOTES:

- 1. SEE GN-1 & GN-2 FOR GENERAL NOTES.
- 2. DEFECT LOCATIONS AND REPAIR DETAILS AS INDICATED ON NOTES SHEET S-3.



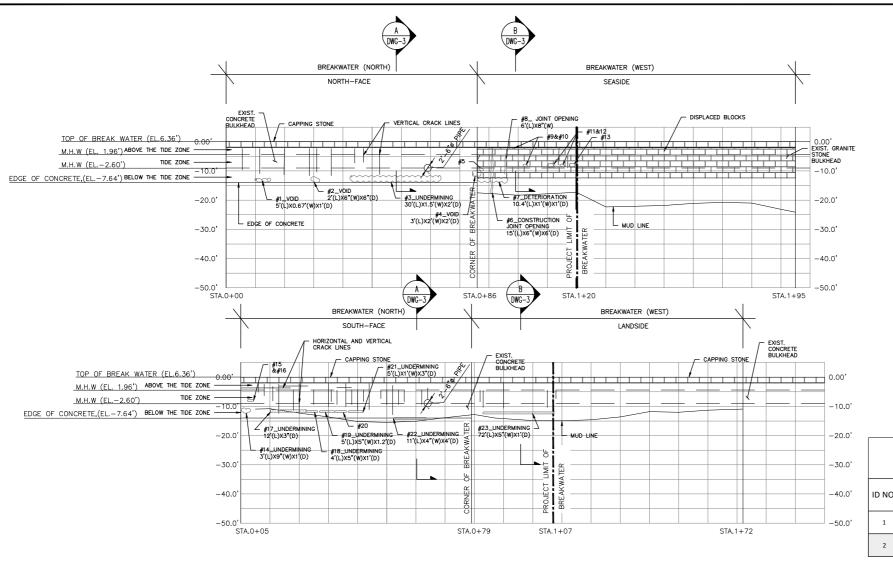


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# LEGEND:

VOIDS & UNDERMINING CONCRETE SPALLING

#### TABLE-1 VOIDS AND JOINTS CONCRETE SPALL LOCATION

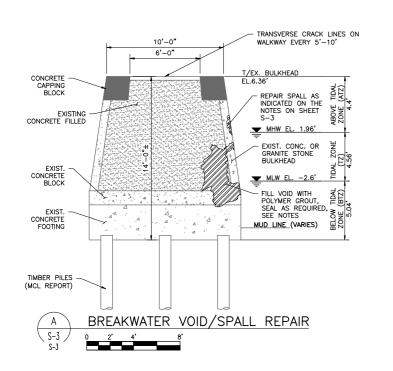
				SIZE				
ID NO.	TYPE OF DEFECT	STATION	LENGTH	WIDTH	DEPTH	ZONE		
	DEFECT		(FT)	(FT)	(FT)			
1	VOID	0+05	5	0.67	1	BTZ		
2	VOID	0+14	2	0.5	0.5	BTZ		
3	UNDERMINING	0+56.5	30	1.5	2	BTZ		
4	VOID	0+86	3	2	2	BTZ		
5	VOID	0+87	1.5	1.5	1	BTZ		
6	VOID	0+91	15	0.5	6	3ZONES		
7	DETERIORATION	0+91	10.4	1	1	BTZ		
8	JOINT	0+95	6	0.67	-	ATZ		
9	SPALL	0+97	0.83	0.33	0.5	ATZ		
10	VOID	1+01	1	1	0.83	TZ		
11	SPALL	1+10	2.5	1	1	TZ		
12	SPALL	1+14	1	0.58	0.5	TZ		
13	VOID	1+18	1.5	1.5	0.67	TZ		
14	UNDERMINING	0+05	3	0.75	1	BTZ		
15	SPALL	0+08	2	0.33	0.58	TZ		
16	SPALL	0+10	0.83	0.83	0.33	TZ		
17	UNDERMINING	0+16	12		0.16	BTZ		
18	UNDERMINING	0+24	4	0.42	1	BTZ		
19	UNDERMINING	0+30	5	0.42	1.16	BTZ		
20	UNDERMINING	0+35	4	0.33	0.25	BTZ		
21	UNDERMINING	0+41	5	1	0.25	BTZ		
22	UNDERMINING	0+59	11	0.33	4	BTZ		
23	UNDERMINING	0+88	72	0.42	1	BTZ		

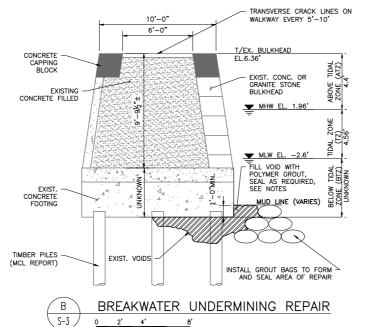
# TABLE - 2 SUMMARY OF CRACK LINES AND LOCATION

ID NO.	LOCATION	STATION	NUMBER OF	TOTAL LENGTH	CRACK WIDTH
			CRACK LINES	(FT)	(IN)
1	NORTH SURFACE AND SEASIDE	0+00 TO 1+20	12	78	MAXIMUM = 1/4
1			12	76	MINIMUM = 1/8
2	SOUTH SURFACE AND LAND SIDE	0+05 TO 1+07	29	180	MAXIMUM = 1/4
	SOUTH SURFACE AND LAND SIDE		29	160	MINIMUM = 1/32

# BREAKWATER ELEVATION







# NOTES:

- 1. SEE GN-1 & GN-2 FOR GENERAL NOTES.
- DRILL OR CUT MATERIALS AS REQUIRED AROUND VOIDS TO FACILITATE CONCRETE PUMPING.
- 3. CLEAN ALL LOOSE MATERIAL AND DEBRIS FROM REPAIR AREA.
- 4. SEAL AND FORM AREA AS REQUIRED USING GROUT BAGS OR OTHER SUITABLE METHOD.
- TREMIE PUMP POLYMER GROUT INSIDE VOIDS. BEGIN AT INNER LOWER PORTION OF VOID AND WORK OUTWARDS AND UPWARDS TO FILL ENTIRE VOID. USE ANTI-WASHOUT MIX TO MINIMIZE WATERBORNE CEMENTITIOUS MATERIALS.
- FINISH GROUT FLUSH WITH SURROUNDING MATERIALS FOR VOIDS, AND 12 INCHES ABOVE BOTTOM OF CONCRETE FOOTING FOR UNDERMINING REPAIR.
- 7. REPAIR ALL SPALLS ABOVE THE TIDE ZONE AS INDICATED ON DWG S-8.
- REPAIR ALL SPALLS IN THE TIDE ZONE WITH POLYMER GROUT WITH ANTI-WASHOUT ADDITIVE. REMOVE ALL LOOSE CONCRETE PRIOR TO FORMING. PROVIDE FORMWORK AS NCCESSARY TO ACHIEVE A FLAT SURFACE & REMOVE FORMWORK AFTER CONCRETE IS CURED.

100% DESIGN SUBMISSION DATE: 11/11/21 NEW YORK STATE OF OPPORTUNITY. City Authority

BATTERY PARK CITY AUTHORITY

OUTHORITY

OUTINEET, 24TH FLC

NEW YORK, NY 10281

T: 212.417.2000

Ulban Engineers of New York, D.P.C. One Penn Plaza, Suite 4125 New York, NY 10119 o. 212,736,9100

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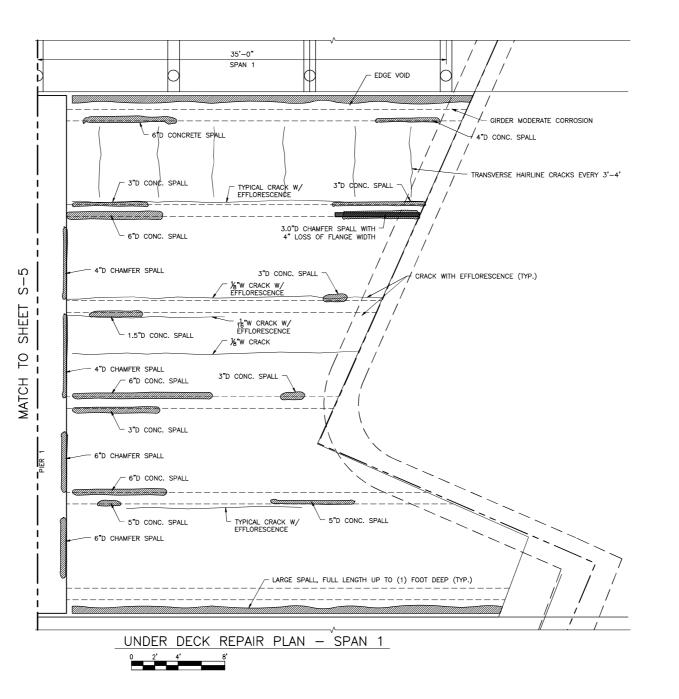
PIER A REHABILITATION
BREAKWATER ELEVATION & TYPICAL REPAIR DETAIL

SCALE

AS NOTED

DESIGN BY: AX
APPROVED BY: MON
1/11/121

DEANN BY: FYCAX
CHECKED BY: SMM



# NOTES:

LEGEND:

1. SEE GN-1 & GN-2 FOR GENERAL NOTES.

CRACK

SPALL DELAMINATION

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SUBMISSION

DATE: 11/11/21

KNIFE EDGING OF GIRDERS

BATTERY PARK CITY AUTHORITY

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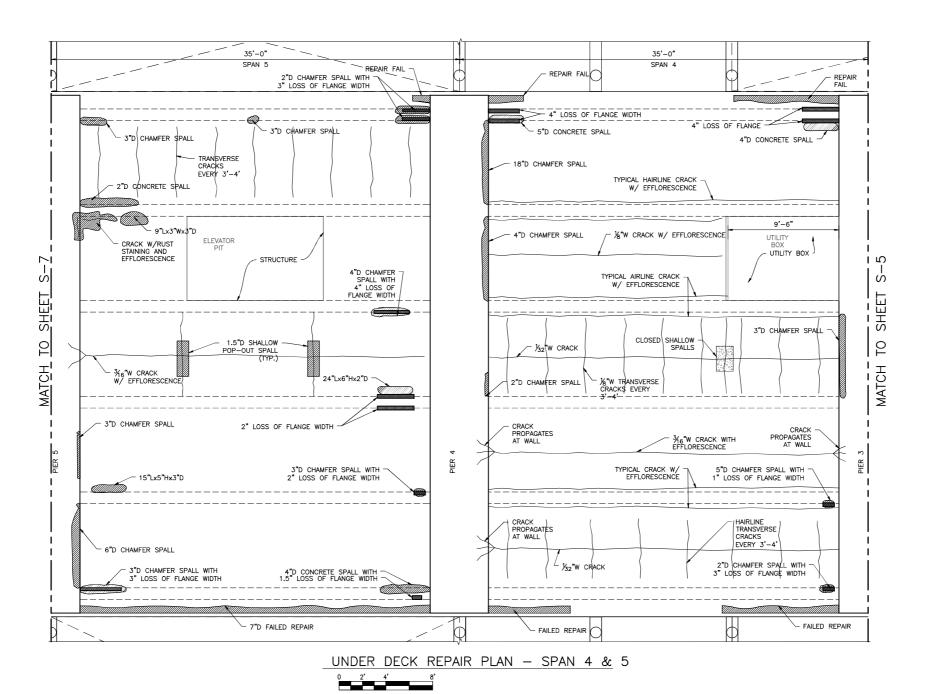
UNDER DECK REPAIR PLAN - SPAN 1 PIER A REHABILITATION

AS NOTED 11/11/21

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NO:: SHT 4 OF 14 S-3 UNDE... .DWG

S-3 UNDE... .DWG



NOTES:

LEGEND:

1. SEE GN-1 & GN-2 FOR GENERAL NOTES.

CRACK

SPALL

DELAMINATION

KNIFE EDGING OF GIRDERS

2. UNDER DECK REPAIRS AS INDICATED A

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STATE OF PORTUNITY.

Battery Park
City Authority

BATTERY PARK CITY AUTHORITY

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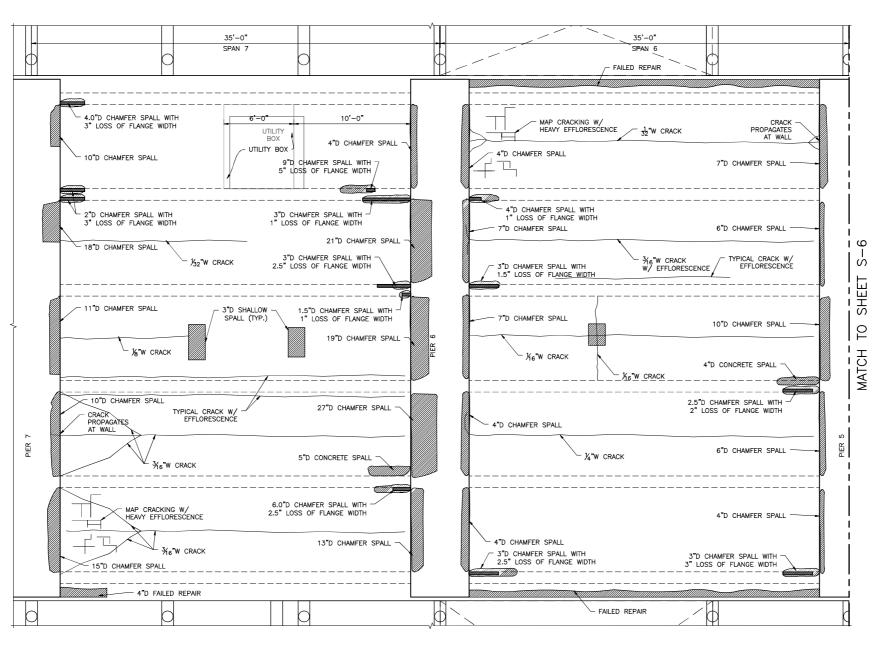
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DATE: 11/11/21



NOTES:

LEGEND:

1. SEE GN-1 & GN-2 FOR GENERAL NOTES.

CRACK

SPALL

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DELAMINATION

KNIFE EDGING OF GIRDERS

2. UNDER DECK REPAIRS AS INDICATED AND SEE THE REPAIR DETAILS ON SHEET S-8.

BATTERY PARK CITY AUTHORITY

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REPAIR PLAN - SPAN 6 & 7 PIER A REHABILITATION

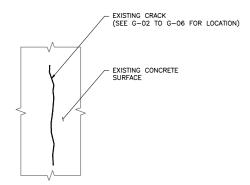
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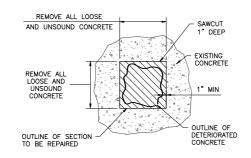
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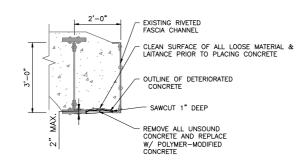
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UNDER DECK REPAIR PLAN - SPAN 6 & 7



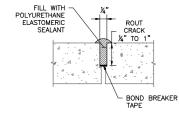






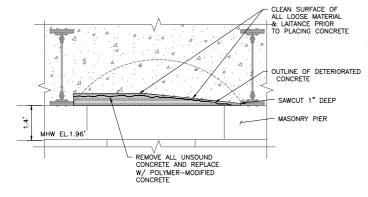
TYPICAL PIER STEM VOID REPAIR DETAIL

N.T.S.



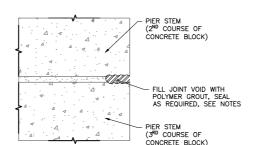
CRACK (< 1/4") REPAIR DETAIL

TYPE 1 CONCRETE SPALL REPAIR DETAIL N.T.S.



TYPE 2 CONCRETE SPALL REPAIR DETAIL

N.T.S.



PIER STEM

FILL VOID WITH POLYMER GROUT, SEAL AS REQUIRED, SEE NOTES

MUD LINE (VARIES)

INSTALL GROUT BAGS TO FORM AND SEAL AREA OF REPAIR

# PIER STEM MORTAR JOINT REPAIR DETAIL N.T.S.

#### NOTE

- 1. FOR GENERAL NOTES, SEE DWG. GN-1 & GN-2.
- 2. ALL CONCRETING FOR CRACK AND CONCRETE REPAIR IN THE TIDAL ZONE SHALL BE STARTED ON RECEDING TIDE.
- 3. THE APPROXIMATE LOCATION OF CRACKS AND SPALLS ARE SHOWN ON S-4 TO S-7. CONTRACTOR TO VERIFY THESE LOCATIONS IN THE FIELD.
- 4. REPAIR SHALL BE PERFORMED IN CONSIDERATION OF PRODUCT LIMITATIONS AS RECOMMENDED BY THE MANUFACTURER.

#### CRACK REPAIR NOTES:

- 1. ALL CRACKS SHALL BE ROUTED TO 1/2" WIDE BY 1" DEEP. CRACKS WIDER THAN 1/2" SHALL BE REPAIRED AS TYPE 1 OR TPE 2 SPALLS DEPENDING ON THE DEPTH OF THE CRACK.
- 2. BLOW-OUT THE ROUTED CRACK WITH OIL FREE COMPRESSED AIR OR FLUSH WITH WATER. INSERT A BOND BREAKER TAPE.
- 3. FILL THE SLOT WITH A POLYURETHANE ELASTOMERIC SEALANT ALLOWING FOR A SMALL CREST TO REMAIN AS PER THE SPECIFICATIONS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION, TEMPERATURE AND INSTALLATION.

#### GENERAL CONCRETE REPAIR NOTES:

- 1. ALL REPAIRS ARE TO BE IN ACCORDANCE WITH 036000 GROUTING SECTION OF THE TECHNICAL SPECIFICATIONS.
- TYPE 1 REPAIRS APPLY TO DETERIORATED AREAS WITH A DEPTH OF DETERIORATION LESS THAN OR EQUAL TO 1-1/2" WITH NO
  EXPOSED REINFORCEMENT BAR. TYPE 2 REPAIRS APPLY TO DETERIORATED AREAS WHERE ANY DEPTH OF DETERIORATION IS GREATER
  THAN 1-1/2", OR TO ANY SIZE AREA WHERE REINFORCING BARS ARE EXPOSED.
- 3. CRACK REPAIR TYPE DETAIL SHALL BE USED TO REPAIR CRACKS WIDER THAN 1/16" AND UP TO 1/4" IN WIDTH.
- FOR ADDITIONAL INFORMATION REGARDING CONCRETE REPAIRS REFER TO 036000 GROUTING SECTION OF THE TECHNICAL SPECIFICATIONS.

#### TYPE 1 SPALL REPAIR NOTES:

- 1. OUTLINE DETERIORATED CONCRETE AREAS WITH A SAWCUT OF 1" MAXIMUM DEPTH.
- REMOVE ALL LOOSE, DELAMINATED AND UNSOUND CONCRETE WITHIN THE OUTLINED DETERIORATED AREA TO FORM A UNIFORM SHAPE AND SOUND BOND BETWEEN EXISTING AND NEW CONCRETE.
- 3. CLEAN SURFACE OF LOOSE MATERIAL AND LAITANCE PRIOR TO PLACING POLYMER MODIFIED CONCRETE.
- 4. APPLY ENGINEER APPROVED EPOXY BONDING COMPOUND BETWEEN THE OLD AND NEW CONCRETE.
  - PRE WET SURFACE TO SATURATED SURFACE DRY.
- 6. PLACE REPAIR CONCRETE. RESTORE TO A FINISH TO MATCH SURROUNDING CONCRETE SURFACES.

#### TYPE 2 SPALL REPAIR NOTES:

- 1. OUTLINE DETERIORATED CONCRETE AREAS WITH A SAWCUT OF 1" MINIMUM DEPTH, BUT NOT TO THE DEPTH OF REINFORCING STEEL.
- REMOVE ALL LOOSE, DELAMINATED AND UNSOUND CONCRETE WITHIN THE OUTLINED DETERIORATED AREA TO FORM A UNIFORM SHAPE AND SOUND BOND BETWEEN THE EXISTING CONCRETE AND NEW CONCRETE. REMOVE CONCRETE TO 1" BEHIND REINFORCING BARS, IF PRESENT.
- 3. CLEAN THE EXPOSED REINFORCEMENT BARS OF RUST, IF PRESENT.
- 4. IF EXPOSED REINFORCING STEEL IS CORRODED (LOSS OF ONE QUARTER OR MORE OF ORIGINAL CROSS SECTIONAL ARE), LAP WITH NEW BARS OF EQUAL OR GREATER SIZE.
- 5. APPLY ENGINEER APPROVED EPOXY BONDING COMPOUND ON THE BARS.
- 6. APPLY ENGINEER APPROVED EPOXY BONDING COMPOUND BETWEEN THE OLD AND NEW CONCRETE.
- 7. PRE-WET SURFACE TO SATURATED SURFACE DRY.
- 8. PLACE POLYMER MODIFIED CONCRETE. RESTORE TO A FINISH TO MATCH SURROUNDING CONCRETE SURFACES.

#### IER STEM REPAIR NOTES:

- 1. DRILL OR CUT MATERIALS AS REQUIRED AROUND VOIDS TO FACILITATE CONCRETE PUMPING.
- 2. CLEAN ALL LOOSE MATERIAL AND DEBRIS FROM REPAIR AREA.
- 3. SEAL AND FORM AREA AS REQUIRED USING GROUT BAGS OR OTHER SUITABLE METHOD.
- TREMIE PUMP POLYMER GROUT INSIDE VOIDS. BEGIN AT INNER LOWER PORTION OF VOID AND WORK OUTWARDS AND UPWARDS TO FILL ENTIRE VOID. USE ANTI-WASHOUT MIX TO MINIMIZE WATERBORNE CEMENTITIOUS MATERIALS.
- 5. FINISH GROUT FLUSH WITH SURROUNDING MATERIALS FOR VOIDS, AND 12 INCHES ABOVE BOTTOM OF CONCRETE FOOTING FOR UNDERMINING REPAIR.

NEW YORK
STATE OF OPPORTUNITY.

Battery Park
City Authority

BATTERY PARK CITY AUTHORITY

00 LIBERTY STREET, 24TH FLO NEW YORK, NY 10281

> n Engineers of New York, D.P.C. Penn Plazo, Suite 4125 York, NY 10119 2,736,9100



PIER A REHABILITATION
CONCRETE REPAIR DETAILS

AS NOTED | DESIGN BY: AX | APPROVEE BY: MGW | APPRO

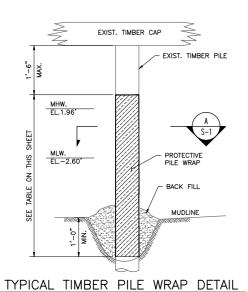
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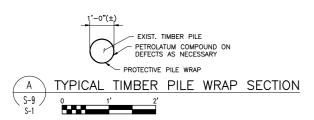
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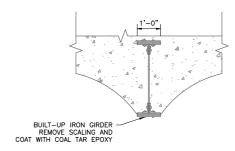
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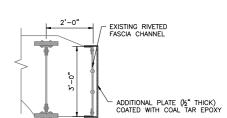
# PILE REPAIR NOTES:

- 1. SEE GN-1 & GN-2 FOR GENERAL NOTES.
- 2. REFER TO SHEET S-1 FOR PILE REPAIR LOCATION AND WRAPPING LENGTH.
- 3. PILE WRAP REPAIRS AS INDICATED AND ACCORDING TO NOTES ON GN-2.



# IRON GIRGER REPAIR DETAIL N.T.S.





OPTION-1 OPTION-2

STEEL FASCIA REPAIR DETAIL

N.T.S.

# **STEEL REPAIR NOTES:**

- 1. FOR GENERAL NOTES SEE SHEET GN-1 & GN-2.
- 2. REFER TO SHEET S-4 TO S-7 FOR REPAIR LOCATION AND SIZE OF DEFECT.
- 3. ALL NEW STEEL SHALL BE SHOP COATED WITH COAL TAR EPOXY, ONLY TOUCH UP IS PERMITTED IN THE FIELD.
- 4. STEEL SURFACE PREPARATION:
- 4.A. ABRASIVE BLASTING 4.B. WIRE BRUSHING
- 5. RECOMMENDED COATINGS:
  5.A. COAL TAR EPOXY COATING, SUCH AS STEEL STRUCTURES PAINTING COUNCIL PAINT SPECIFICATION NO.16.
  5.B. EPOXY POLYAMIDE COATINGS, SUCH AS MIL—24441.
  5.C. ZINC INORGANIC COATINGS, SUCH AS CLASS 3 OF MILP—23236. MUST BE TOP—COATED WITH AN ORGANIC COATING.
  5.D. VINYL RESIN PAINTS, SUCH AS VR—3 AND VR—6.
- 6. COATING APPLICATION:
  6.A. CONVENTIONAL SPRAY, ROLLER OR BRUSH APPLICATION AS RECOMMENDED BY THE COATING SPECIFICATION OR SUPPLIER.
  6.B. COAL TAR COATING IS ECONOMIC (IF BLACK COLOR IS ACCEPTABLE).
  6.C. APPLICATION OF COATINGS BETWEEN TIDES MUST BE UNAFFECTED BY WATER AND WILL CURE UNDER IT.
  7. INSPECTION OF COATING:
  7.A. VISUAL INSPECTION OF COATING BEFORE, DURING AND AFTER.
  7.B. LABORATORY TESTING SHOULD BE DONE ON PAINT FROM UNOPENED CANS TO VERIFY.
  7.C. THICKNESS OF PROTECTIVE COATING, MEASURE OF WET AND DRY FILM THICKNESS AS CEL TECHDATA SHEET 74–11 [7-12].

- THICKNESS AS CEL TECHDATA SHEET 74-11 [7-12].

100% DESIGN SUBMISSION DATE: 11/11/21

NEW YORK
STATE OF OPPORTUNITY.

Department of the control of the c BATTERY PARK CITY AUTHORITY NEW BREEKS PILE AND STEEL REPAIR DETAILS PIER A REHABILITATION AS NOTED 11/11/21 2020200179.001 **S-9** o.: SHT 2 of 14 S-7 CONC....DWG

# **Battery Park City Authority Pier A Rehabilitation**

Specifications Table of Contents

Division	Section Title	Pages
	PROCUREMENT AND CONTRACTING DOCUMENTS GROUP	
DIVISION 0	0 - PROCUREMENT AND CONTRACTING REQUIREMENTS	
00 00 05	GENERAL CONDITIONS	11
	SPECIFICATIONS GROUP	
	General Requirements Subgroup	
DIVISION 0	1 - GENERAL REQUIREMENTS	
01 11 00	SUMMARY OF WORK	6
01 14 00	WORK RESTRICTIONS	2
01 31 00	PROJECT MANAGEMENT & COORDINATION	5
01 32 00	CONSTRUCTION PROGRESS DOCUMENTATION	2
01 33 00	SUBMITTAL PROCEDURES	4
01 36 10	TURBIDITY CURTAINS	3
	Facility Construction Subgroup	
DIVISION 0	3 - CONCRETE	
03 20 00	CONCRETE REINFORCEMENT	4
03 30 00	CAST-IN-PLACE CONCRETE	16
03 60 00	GROUTING	6
DIVISION 0	5 - METALS	
05 12 00	STRUCTURAL STEEL FRAMING	11
DIVISION 0	9 - FINISHES	
09 90 00	PAINTING & COATING	3
TECHNICA	L SUPPLEMENTS	
01 11 00 - A	SUMMARY OF WORK	2
01 33 00 - A	SUBMITTAL PROCEDURES	2

END OF TABLE OF CONTENTS

#### **SECTION 000005**

#### **GENERAL CONDITIONS**

AIA Document A201 – General Conditions of the Contract for Construction shall be referenced if not stated in the Contract Documents.

Notwithstanding anything in these specifications and drawings to the contrary, all provisions in the Battery Park City Authority contract hereforth shall supersede any conflicting provisions in these 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.

#### PART 1 - GENERAL

#### 1.01 INTRODUCTION

- A. If, during the performance of the Work, the Contractor finds a conflict, error, or discrepancy in the Contract Documents, the Contractor shall report to the Owner's Representative in writing immediately. Before proceeding with the Work affected thereby, the Contractor shall obtain a written interpretation or clarification from the Owner's Representative which shall be provided within 24 hours of notification from the Owner. Any work done before the Owner's Representative renders his/her decision is at the Contractor's sole risk and may be forced to remove/modify said work at no additional cost to the Owner.
- B. In the event of discrepancies in the Contract Documents, interpretations will be based upon the following priorities, in descending order of precedence:
  - 1. The Scope of Work, as defined in the Request for proposal.
  - 2. The Agreement including Regulatory Authorizations, and any properly executed Change-Orders thereto.
  - 3. The Drawings and Specifications.
  - 4. AIA Document A201-General Conditions of the Contract for Construction.

The Agreement, the provisions in the Contract and other Contract documents are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of the Agreement irreconcilably conflicts with a provision of the Contract and the other Contract Documents, the provision imposing the greater duty or obligation on the Contractor shall govern. In the event of any dispute over the meaning or application, it shall be interpreted fairly and reasonably and neither more strongly for nor against either party to it.

In case of inconsistency between Drawings and Specifications, or within either document no clarified by Addendum, the better quality or greater quantity of work shall be provided in accordance with the Owner's interpretation.

C. The Specification covers the repair work on Pier A at Battery Park City, Manhattan, NY, also referred to herein as the Project Site and is shown in the Contract Drawings.

- D. The Contractor guarantees that in the performance of work, he and every person in his direct or indirect employment (i.e. subcontractors) shall abide by and comply with all federal, state, and local laws including the Occupational Safety and Health Act and waterfront MARSEC USCG requirements.
- E. The term Owner, as used throughout the Contract Documents, designates Battery Park City Authority (BPCA) as the Owner, or its duly authorized representative.
- F. The term Owner's Representative, as used throughout these Specifications, indicates the Owner's authorized representative for a particular activity. The term includes Owner's Representative, Engineer-Of-Record, and/or Special Inspector.
- G. It is the responsibility of the Owner's Representative to delegate responsibility for particular activities.
- H. The term Engineer-Of-Record, Engineer or Owner's Representative as used throughout the Contract Documents, designates Urban Engineers D.P.C.
- I. All correspondence between the Contractor and Engineer of Record shall be directed through the Owner's Representative.
- J. The Work shall commence in accordance with the Contractor's accepted schedule. If, in the opinion of the Owner, the Contractor has not mobilized sufficient plant or material and/or if the Contractor does not demonstrate that sufficient work is underway according to the accepted schedule, the Owner reserves the right to terminate the Contract.
- K. In the event of termination of the Contract pursuant to the conditions set forth herein, such termination shall not act so as to relieve the Contractor from liability for any damages sustained by the Owner as a result of any breach by the Contractor of the terms of the Contract.
- L. At the completion of each work day the area around Pier A must be clear of all construction equipment, materials and debris. The Contractor shall coordinate with the Owner regarding equipment and material lay down area.

#### M. Definitions

- 1. Work: Material, equipment, labor, and services required for Contractor to fulfill his/her obligations of project or the part of the project considered.
- 2. Project Site: Battery Park City Pier A, New York, NY 10004.
- 3. Provide: Furnish and install; provide in place.
- 4. Furnish: Furnish only, not including installation.
- 5. Install: Furnish and Install in place materials or structures. (Installation of materials furnished by others will be specifically identified).
- 6. Shall: Mandatory requirement (understood to be applicable whether or not "shall" is used in the sentence structure): omission of "shall" does not make the Specification or Contract Drawing non- mandatory.
- 7. Contract Sum: This shall be read as the Total Base Proposal amount and will be adjusted based on actual quantities of completed Work, including Owner-accepted Alternatives and Unit Price as included in the Form of Proposal.
- 8. Day: Contract "day" shall be as defined in the BPCA master contract.

#### 1.02 DESCRIPTION OF WORK

The Work shall include, but not be limited to:

This Agreement covers the complete scope for the type of work included herein, including all incidental work not necessarily indicated or described in the "scope" documents. This Agreement is let on the basis of such documents with the understanding that the Proposer 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 installation and the Proposer shall be solely responsible for the inclusion of adequate amounts to cover installation of all items indicated, described or implied.

- A. Mobilization to and demobilization from the site.
- B. Furnish, installation and maintenance of environmental controls and safety measures.
- C. Furnish, installation and maintenance of temporary works.
- D. Cleaning, demolition and authorized disposal of components associated with repairs.
- E. All repairs shown in the Contract Drawings.
- F. Providing coordination with the Owner's Representative for securing testing services and test results confirming accordance with Contract Documents for Engineer of Record approval.
- G. Providing submittals.
- H. Attendance of authorized representative at project meetings.
- I. Coordination with Owner's Representative and/or Engineer of Record for review of Work.
- J. Providing bi-weekly schedule of anticipated work.
- K. Providing daily construction reports.
- L. Providing detailed outline of Proposer's QA/QC protocol.

# 1.03 GENERAL SCOPE OF WORK

#### Schedule

Unless otherwise stated in Section 013300, the following submittal schedule of all shop drawings, etc., for review by the Owner's Representative and Engineer of Record shall be as follows:

A. Contractor's Submittal

- 1. Proposer 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 project milestone installation dates.
- 2. Contractor shall be responsible to meet all project milestone dates. If the contractor does not meet the milestone dates or is progressing behind schedule, the contractor will be directed by the Owner/ Owner's Representative to work additional shifts, hours and weekends at no additional cost to the Owner, in order to ensure substantial completion no later than project closeout date. The project milestone dates are as follows:
  - a. Contractor to complete Shop Drawings: TBD
  - b. Construction Start: TBD
  - c. Substantial Completion: TBD
  - d. Punch List Walk-through: TBD
  - e. Final Inspection of Punch List: TBD
- 3. Contractor shall be required to submit an original certificate of insurance to the Owner's Representative one week prior to commencement of contracted work in accordance with the Owner's contract.
- B. Owner's Representative Review and Comments
  - 1. Within five (5) days after receipt of Contractor's submittal.
  - 2. The Work shall be performed in a general sequence developed by the Contractor and submitted to the Owner's Representative for review, in accordance with the requirements of the Contract. The Contractor is solely responsible for the means and methods of construction and for the sequences and procedures to be used.
  - 3. The Contractor shall furnish and coordinate all plant, labor, supervision, materials, equipment and appliances for all demolition and/or construction work in connection with the demolition and/or construction of the marine facilities.
  - 4. The Contractor acknowledges and is aware that the area is occupied by others and that the site will not be fully closed from public access. All material delivery and operations associated with the Work shall be coordinated with other activities at the site in such a manner as to minimize the impedance on the site's tenants and the public, while maximizing the cost effectiveness and time of the Work. Coordination of equipment mobilization, construction, deliveries, etc. must be made with the Owner's Representative.

# 1.04 EXAMINATION OF EXISTING CONDITIONS

- A. Before submitting a proposal, it is a requirement of this Contract that each proposer visit the site to determine the conditions under which the Work is to be done. Such examination shall include, but not be limited to:
  - 1. Structural detail of the existing structures and related facilities.
  - 2. Various on-site utilities and structures not within the Scope of this Contract, but that may impact the execution of the Work. These will remain fully operational throughout the construction period.
  - 3. The layout and structural and finish condition of the existing structures.
  - 4. Access space, possible work areas, and load restrictions.

# 1.05 CONTRACTOR-FURNISHED MATERIALS

- A. The Contractor shall furnish all materials for installation in the completed Work as specified hereinafter.
- B. The Contractor shall handle these materials as they are delivered to the site or off-site work areas, and shall store them in a designated storage area by the Owner. If sufficient room is not available, the Contractor shall store materials at his own cost.
- C. The Contractor-furnished material is subject to review by the Owner or Owner's Representative at the plant of manufacture at the Owner's option. Review by the Owner or Owner's Representative is not to be construed as technical in nature and in no way shall be deemed to relieve the Contractor from his/her obligation herein to insure the quality and integrity of the materials supplied by the Contractor for this project.
- D. Project material furnished by the Contractor shall conform to the requirements of the Specifications stated hereinafter. The Contractor shall, as part of the Contract fee, also furnish all consumable materials necessary to complete the Work, such as, but not limited to, welding electrodes, safety equipment, etc.

#### 1.06 LAYOUT

- A. The Contractor shall be solely responsible for the accuracy of all locations, dimensions, and levels and no plea as to instructions or order received from any other sources other than information contained on Contract Drawings, Specifications or in written orders of the Owner or Owner's Representative shall justify departure from the dimensions and elevations required by the Contract Drawings.
- B. The Contractor shall take his own measurements at the site, verifying same with the Contract Drawings and existing facilities, and will be held responsible for the proper fit and alignment of completed work in position.

# 1.07 GUARANTEE

- A. The Contractor shall guarantee to the Owner all materials and workmanship against original defects, or against injury from proper and usual wear when used for the purpose intended, for twelve (12) months after date of final payment certifications, and shall maintain all items in perfect condition during the period of guarantee.
- B. Defects appearing during the period of guarantee shall be made good by the Contractor at his expense upon written demand of the Owner, it being required that all work shall be in perfect condition when the period of guarantee shall have elapsed. In the event of default by the Contractor, the Company shall have the right to make good any and all defects and bill the Contractor as per the contract for administration fees. The Owner shall provide notice of correction along with time frame for correction prior to taking action regarding guarantee bonds or penalties.
- C. The Proposer 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 Proposer'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.

# 1.08 PARKING, STORAGE AND ACCESS TO WORK AREA

- A. The Contractor shall coordinate with the Owner for available parking, storage and access to the work area. In no event shall these areas interrupt or disturb the Owner's operations. The Contractor shall protect the stored equipment and material from the elements in such a manner as to be satisfactory to the manufacturer of the equipment or material and the Owner.
- B. Should questions of labor jurisdiction arise, this Proposer 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.
- C. The Contract includes the cost of all standby trades and Owner Representative fees should Proposer work prior to or later than normal working hours and on Saturdays, Sundays and Holidays, if Proposer desires to work outside of normal working hours. That includes the additional cost for inspections by the engineer.
- D. As a State Agency, Proposer shall be aware that all BPCA projects require the employment of labor at prevailing wage rates. Outside State and Federal Agencies will closely monitor all projects.
- E. Contractor shall be responsible for providing all equipment required for unloading, installation, clean-up and hauling of debris. Contractor is to be aware that due to the spacing limitations of the surrounding area of work there is to be no staging of equipment on site, unless approved in the Contractor's Staging Plan.
- F. Contractor shall not use the site for staging of construction materials or equipment, unless approved in the Contractor's Staging Plan.
- G. Proposer shall not store any material or equipment on site unless directed by the Owner's Representative.
- H. Proposer shall not use the site for staging of installation materials or equipment except as approved by the Owner.

## 1.09 SUBCONTRACTORS

- A. A list of Subcontractors, pre-qualified by the Contractor, shall be submitted to the Owner by the Contractor with his proposal. The Owner has the ultimate right to accept or reject any one or more of the subcontractors, and must do so in writing after receipt of said list from the Contractor. Valid insurance certificates for subcontractors shall be submitted by the Contractor to the Owner.
- B. The Owner shall receive, upon completion of this Contract in full from the Contractor, any reduction in the Subcontractor's price, which may result from a reduced scope of the Contractor's work.

- A. At the Contractor's expense, the Contractor's working areas shall be cleaned by him on a day-to-day basis, with all rubbish removed from the site and all work areas cleaned at the end of each day. At final completion of all work, the Contractor shall leave the entire premises, within the site of his operations, clean and free from the rubbish resulting from his construction operations.
- B. Each Proposer is responsible for progress cleaning of its own areas on a daily basis. All Proposers are responsible for consolidating any debris caused by their work. The proposer for General Construction (G) shall be responsible for cleanup of the entire site which includes removal of debris for ALL proposers on site on a daily basis. The proposer for General Construction (G) shall legally dispose consolidated debris off-site. Each Proposer is advised that failure to comply with cleaning requirements will result in backcharges and/or reductions in payments.
- C. Contractor shall perform site cleanup and removal of debris on a daily basis and broom clean all installation areas at completion of the day. Surplus equipment, parts & installation materials are to be removed by contractor upon completion of installation unless it is mutually agreed, in writing, from Owner or the Owner's Representative that this material can remain on site.
- D. Contractor shall be responsible for ice, snow and frost removal at site during construction in order to accommodate performance of work.
- E. The Proposer 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 Proposer shall be repaired or replaced to the satisfaction of the Owner and at no cost to the Owner.

# 1.11 COMPENSATION

- A. Compensation shall be based upon the Owner-accepted Schedule of Values and authorized Change Orders thereto.
- B. Contractor shall provide interim As-Built documents in PDF format and a hard copy with each application for payment. These will be incorporated into the final As-Built documentation.
- C. Requisitions for this project shall be due to the Owner's Representative by the 5th of every month as a "pencil copy". The final signed and sealed requisition is then due to the owner by the 15th of every month in the format specified in the Owner's contract.

### 1.12 UTILITIES

A. The Contractor is responsible to provide and maintain any and all utilities he deems necessary to affect the Work. Should existing site utilities be made available for the Contractor's use by the Owner, it is the responsibility of the Proposer to verify the suitability of existing site utilities for their needs. The Contractor may use such provided utilities at his own risk. Damages shall be the sole responsibility of the Contractor and repairs shall be made immediately at no additional cost to the Owner.

### 1.13 FIRE PROTECTION

A. The Contractor shall provide and maintain at his expense all required fire protection systems and devices as necessary to safely perform the Work in accord with the applicable regulations. They shall be operational throughout the period of construction. The Contractor shall also maintain sufficient means for fire and emergency rescue vehicles to access the site.

### 1.14 COMPLIANCE WITH CONTRACT

A. The Owner shall have the right to withhold without penalty any payment described above, or sections referenced herein, for completed work should the Contractor fail to meet any obligations or requirements of the Contract, cause damage to the existing site, structures or facilities, or violate a condition of the Permits. Any withheld payment shall be promptly made upon the Contractor's full compliance with the Contract, or resolution of impending fines or damage claims.

### 1.15 ENVIRONMENTAL PROTECTION

- A. The Contractor shall comply with all local, state, and federal requirements for protection of:
  - 1. The environment during the Work. No later than fifteen (15) days following award of contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit a comprehensive plan describing the means and methods to be employed for protection, containment, and clean up. Contractor shall ensure that personnel are properly trained and that sufficient equipment and materials are readily available for use if required. Contractor shall abide by state and federal spill-reporting requirements. Clean-up required as a result of Contractor negligence shall be the sole responsibility of the Contractor at no additional cost to the Owner.
  - 2. The work by the Contractor shall conform to the applicable section of the New York City Noise Code regarding the sound level standards and the time and duration of construction activities.

# 1.16 TEMPORARY WORK

A. Labor, equipment, materials, and services required to perform the Work that, upon completion, are not a part of the Work, shall be furnished, installed, and subsequently removed from the site by the Contractor.

## 1.17 SAFETY PLAN

A. No later than ten (10) days following award of Contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit two (2) copies of his project-specific Safety Plan by the Owner.

# 1.18 MATERIAL SAFETY DATA SHEETS

A. No later than ten (10) days following award of contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit two (2) three-ring bound sets of all Material Safety Data Sheets (MSDS) for materials anticipated for use in execution of the Work. As the Work

000005 - GENERAL

Page 8 of 11

Pier A Rehabilitation Battery Park City Authority

CONDITIONS

progresses and new materials are used on the project, Contractor shall submit two (2) copies of the corresponding MSDS's for these new materials no later than the time of arrival of the materials on site. ALL MSDS sheets regarding materials used in the execution of the Work shall be up-to-date and stored in the Contractor's onsite job trailer or office.

# 1.19 WORK SCHEDULE REQUIREMENTS

A. Access to the site and acceptable working hours are to be determined by the Owner, specified prior to the commencement of Work, and strictly adhered to throughout contract Work. Work shall be in compliance with local noise restriction ordinances.

# 1.20 ENGINEERING SERVICES CHARGEABLE TO THE CONTRACTOR

A. The Owner reserves the right to charge the Contractor for additional engineering and inspection services if required, including, but not limited to, Contractor's actions or inactions, delays, quality assurance failures, re-work, etc.

#### 1.21 CONTRACTOR'S REPRESENTATIVE

A. The Contractor shall assign an individual to be the single point of contact for all job-related correspondence and issues. This individual shall be assigned to the project from start to finish, and shall not be replaced without permission from the Owner whose permission should not be unreasonably withheld. This individual shall be responsible to disseminate information to other members of the Contractor's staff and to applicable subcontractors as necessary. This individual shall be the Contractor's designated representative at the site, and shall be authorized to conclude all matters, financial and otherwise, on the Contractor's behalf. The Contractor's Representative shall attend all project meetings and shall be on site at all times while the Contractor or his Subcontractors are present on site.

#### 1.22 MEANS AND METHODS

A. The furnishing of this work is solely the responsibility of the Contractor. Review of construction by the Engineer of Record is for general conformance with the Contract Documents only. Lack of comment by the Owner and Owner's Representative with regard to construction procedures shall not be interpreted as approval or acceptance of any such procedures.

### 1.23 PRECEDENCE

A. It is expressly understood and agreed that failure by the Owner or Owner's Representative to exercise his authority or prerogative to order the Contractor for any duly authorized purpose shall not be considered to set a precedent for any other activities.

### 1.24 SAFETY OF PERSONS AND PROPERTY

- A. The Contractor is solely responsible for the safety of his operations. The Contractor shall take precautions for the safety of, and shall provide protection to prevent damage, injury or loss to:
  - 1. Persons employed by the Contractor in performance of the Work, and persons nearby that may be affected by the Contractor's operations or the Work;
  - 2. The Work, including all equipment and materials which will be incorporated in the Work;
  - 3. Other properties and structures at the site, or on adjacent properties.

# 1.25 UNCOVERING WORK

A. The Contractor shall notify the Owner's Representative prior to covering any Work. The Contractor shall not proceed to cover the Work until formal approval from the Owner's Representative is provided in writing. If any Work is covered prior to acceptance by the Owner or Owner's Representative, the Work shall, if requested by the Owner, be uncovered for the Owner's observation and then be re-covered at the Contractor's sole cost and expense.

#### 1.26 DAILY CONSTRUCTION REPORTS

- A. For each day that Work is performed at the site, the Contractor shall prepare and submit a Daily Construction Report to the Owner's Representative. Contractor shall include the following information in the report, as a minimum:
  - 1. Project name
  - 2. Contractor name
  - 3. Date
  - 4. Hours worked
  - 5. Weather conditions
  - 6. Subcontractors working on site
  - 7. Material deliveries (material, quantity, and vendor)
  - 8. Trades working on site (trade and number of workers per trade)
  - 9. Equipment on site (manufacturer and model number, with notation of whether the equipment was idle or was used in the Work)
  - 10. Specific work performed, location and type of work
  - 11. Visitors to the site
  - 12. Materials or equipment leaving the site (including debris removal)
  - 13. Incident descriptions
  - 14. Contractor shall submit reports no later than 12 hours for the previous day's work.

### 1.27 MONITORING OF EXISTING STRUCTURES DURING CONSTRUCTION

- A. The Owner reserves the right to establish an independent monitoring program in order to evaluate the effect of the Work on the existing structures to remain on site. Such monitoring may include, but is not necessarily limited to, settlement gauges, tilt plates, and crack gauges.
- B. The Owner reserves the right to suspend the Contractor's operations at any time based upon the monitoring data.

### 1.28 EXCAVATED MATERIAL (not used)

### 1.29 ENGINEERING REVIEW AND SPECIAL INSPECTION

A. At key stages throughout the Work, engineering inspections are required to ensure the Work is being performed in accordance with the Contract Documents. These inspections will be performed by a Special Inspector, as selected by the Owner's Representative at the discretion of the Owner. The final acceptance of the Work will be performed by the Engineer of Record. The key stages are specific to each repair type. Additional pre and post inspection criteria may be required at the discretion of the Special Inspector, Engineer of Record.

# 1.30 EQUIPMENT

A. Proposers shall use ultra-low sulfur diesel fuel or compressed natural gas (CNG) for all construction vehicles with a carrying capacity in excess of 5 tons and for all portable generators, consistent with Local Law 77 for Lower Manhattan. All diesel engines of greater than 50 horsepower must use ultra-low sulfur diesel fuel with a sulfur content no greater than 15 ppm. Equip the above vehicles with high performance engines and diesel oxidation catalyst (DOC) filters or another previously demonstrated advanced retrofit technology, consistent with NYC Local Law 77 for Lower Manhattan. On-road vehicles used in construction may not idle for more than five consecutive minutes except under practical considerations such as during vehicle maintenance, while stopped in traffic, and in cold weather conditions below 25 degrees F.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

### SECTION 01 11 00

#### SUMMARY OF WORK

For more project specific information, refer to SECTION 011100-A SUMMARY OF WORK technical supplement.

PART 1 - GENERAL

### 1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Work as described herein, and shown on the Construction Drawings.

### 1.02 EXAMINATION OF DOCUMENTS AND SITE OF WORK

- A. The Proposer acknowledges the following:
  - 1. The Proposer has reviewed and examined the Proposal Documents to the degree which he is satisfied that the Proposal submitted includes the cost to perform the Work as set forth in the proposed Contract Documents.
  - 2. The Proposer has informed himself of the existing conditions and limitations under which the Work is to be performed and that the Proposal submitted includes the cost to account for these existing conditions and limitations.
  - 3. The Proposer acknowledges that any substructure and subsurface condition information provided with the Proposal Documents is for information only.
  - 4. The Proposer is permitted to perform his own investigation solely for purposes of development of a Proposal. Any site investigation that the Proposer performs, including subsurface, hydrographic, above or below water, or any other non- destructive or destructive testing, shall be documented by the Proposer at the time of the investigation. Results of any investigation performed by the Proposer, which is not representative in the Proposal Documents, and which impact the Proposal, shall be submitted with the Proposal. This information shall be kept confidential during the Contractor selection process.
  - 5. Proposers are permitted to perform investigations at the site by appointment prior to submitting a proposal. Appointment requests shall be in writing and shall be made through the Owner's Representative at least seventy-two hours prior to the intended time of visit. The Proposer shall provide all required insurance and forms to the Owner's Representative and receive authorization prior to performing any investigation.

#### 1.03 PROOF OF COMPETENCY OF PROPOSER

A. A Proposer may be required to furnish evidence satisfactory to the Owner that he and his proposed subcontractors have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner. Such evidence includes representative project information, similar to the scope and magnitude of this project, consisting of references, contract value, and other pertinent information.

### 1.04 EXECUTION OF AGREEMENT

- A. Certificates of Insurance shall be approved by the Owner before the successful Proposer may proceed with the Work. Failure or refusal to provide Certificates of Insurance in a form satisfactory to the Owner shall subject the successful Proposer to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.
- B. Certificates of Insurance shall name, at a minimum, the Owner, Owner's Representative and Consulting Engineer as additional insured parties.

# 1.05 INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO PROPOSING

- A. If any person contemplating submitting a Proposal for construction of the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies in or omissions from any part of the proposed Contract Documents, he must submit to the Owner's Representative, with copy to the Owner, a written request for interpretation thereof by not later than seven (7) days prior to the Proposal due date. The person submitting the request shall be responsible for its prompt delivery.
- B. Interpretation or correction of Contract Documents will be made only by Addendum and will be mailed or delivered to each Proposer of Record. The Owner and Owner's Representative will not be responsible for any other explanations or interpretations of the Contract Documents.

### 1.06 CONSTRUCTION TIME

- A. The Contractor shall commence and perform the Work expeditiously in accordance with the Contractor's construction schedule with adequate, trained forces and shall achieve substantial completion and final completion within the times stated within the schedule.
- B. Within the Form of Proposal, provide the total number of days which the Proposer proposes to complete the Work. The schedule is to commence with issuance of the Owner's Executed Contract.

### 1.07 BASE BID

- A. Base Bid provided shall be complete, including all mark-up, and shall include all appropriate overheads, profit, and cost of labor, materials, equipment, required permits to perform the Work and costs associated with services necessary to complete this work in accordance with the Contract Documents.
- B. For Work to be performed on a unit price based on linear footage, or as specifically directed by the Owner, the estimated quantities are not guaranteed and are solely for the purpose of comparison of proposals and determining an initial Contract price.
- C. Payment for unit price work shall be based upon the total quantity completed and accepted by the Owner.

# D. SPECIAL CONDITIONS

- 1. The Proposer acknowledges and shall include the cost for the following in the Proposal:
  - a. Quantities for each Typical repair item are estimates based on limited field visits and lack of access to the entire structure. The contractor is responsible for satisfying themselves of the existing conditions to provide a complete job, regardless of the lack of data presented herein.

### 1.08 GENERAL CONDITIONS

- A. The Contractor shall commence and perform the Work expeditiously in accordance with the Contractor's construction schedule with adequate, trained forces and shall achieve substantial completion and final completion within the times stated within the schedule.
- B. Within the Form of Proposal, provide the total number of days which the Proposer proposes to complete the Work. The schedule is to commence with issuance of the Owner's Executed contract.

### 1.09 EXISTING WORK

- A. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work that remains.
- B. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the Owner. At the completion of operations, existing work shall be in a condition equal to or better than that which existed before new work started.

# 1.10 QUALITY ASSURANCE

- A. Use adequate number of skilled work personnel who are thoroughly trained and experienced in the necessary trades, and familiar with the specified requirements and methods required for proper performance of the work outlined in this specification.
- B. The Contractor shall coordinate the work to ensure no conflicts occur to compromise the timely completion of all work specified.

### 1.11 WORKING CONDITIONS

- A. The Contractor is responsible for any precautions and scheduling necessary in order to maintain this status. Work may begin only after a schedule representing an acceptable plan is approved by the Owner.
- B. The Contractor shall coordinate day-to-day activities with the Owner. All conflicts will be resolved by the Owner's representative.

# 1.12 WORKING HOURS

A. The Contractor is permitted to perform construction work between the hours of 7:00 AM and 4:30 PM Mondays through Fridays, excluding Saturdays, Sundays, and Federal Holidays. Work performed at any other time other than these periods will only be allowed pending approval of the Owner, following a 48 hour advanced request (72 hour for Sundays and Holidays) a DOB after hours work permit, and approval from BPCA.

#### 1.13 AVAILABILITY OF UTILITIES

A. Electrical: The Contractor shall provide its own electrical power and equipment. OSHA requirements will govern the use of such utility.

- B. Water: The Contractor will be responsible for supplying its own water and equipment, including all hoses, adapters and backflow preventer as required.
- C. Sanitary Facilities: The Contractor shall be responsible for furnishing and maintaining temporary toilet facilities for their employees, and for the Owner's Engineer.
- D. The Contractor is responsible for the cost of all utilities.

# 1.14 EQUIPMENT

A. The Contractor shall supply all equipment necessary to perform all work, including but not limited to cleaning materials, ladders, etc.

### 1.15 RECEIPT OF MATERIALS

A. Shipments of equipment, materials, and supplies shall be addressed to the Contractor, not the Owner. The Contractor shall provide all equipment, materials and labor for off-loading. The Owner will not accept shipments for the Contractor.

### 1.16 STORAGE OF MATERIALS

A. Contractor's materials may be stored on site at a location that is approved by the Owner.

### 1.17 EXISTING MATERIALS

A. The Owner shall have the opportunity to salvage all materials removed prior to disposal by Contractor.

### 1.18 SITE OFFICE FACILITIES AND STORAGE SHED

#### A. Permits

- 1. The Contractor shall make the necessary arrangements for, and obtain all permits required for this work.
- B. The Contractor shall provide his own storage. No equipment or materials storage will be provided by the Owner.

### 1.19 POWER OUTAGE

A. Needed power outages shall be arranged only with prior approval from the Owner, with duration and affected areas held to a minimum.

#### 1.20 FINAL INSPECTION

A. Final Inspection will not be made until all work under the contract is complete. The Contractor shall notify the Owner in writing 48 hours prior to the date on which the project will be ready for final inspection.

### 1.21 DUMPING AREA

- A. All discarded material shall be removed from the Owner's property and disposed of in an approved site complying with Local, State, and Federal regulations. Certified weight tickets shall be supplied to the Owner within 15 days of the date of the weight ticket for all trash and construction debris disposed. All dumpsters/containers shall be supplied by the Contractor. The contractor shall provide appropriate signs or covers to prevent use by Tenants.
- B. No material shall be washed or swept out of equipment or vehicles (including concrete from chutes of trucks, loose debris, etc.) onto Owner property or in the water. Any material spilled from Contractor furnished dumpsters/containers shall be immediately cleaned up by the Contractor.

# 1.22 RECYCLABLES

A. The Contractor shall recycle or reuse all material designated as recyclable or prohibited from landfilling. Definitions for recyclables and landfill prohibited material can be obtained from the contracted trash hauler. Certified weight tickets shall be supplied to the Owner within 15 days of the date of removal from the facility for all material recycled or reused, and for landfill prohibited materials.

#### 1.23 AS-BUILT DRAWINGS

- A. The Owner will furnish one complete set of black and white prints of all drawings which shall be used to indicate any changes from the contract set. Each sheet shall be marked "AS-BUILT DRAWINGS" in red pencil, and all changes or modifications shall be noted thereon by the Contractor.
- B. Changes shall be noted during the construction process for all trades.
- C. Keep "AS-BUILT DRAWINGS" current. Do not permanently conceal any work until the required information has been accurately recorded.
- D. Use colored pencils or pens for graphic work conforming to the following color code:
  - 1. Red Architectural and Structural Work
  - 2. Green Electrical Work
  - 3. Use blue pen for written work
- E. Submit a complete set of "AS-BUILT DRAWINGS" to the Owner when all work has been completed, or as directed.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

#### **SECTION 01 14 00**

#### WORK RESTRICTIONS

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to this section.

# 1.02 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
  - 1. Limits: Confine construction operations to those areas delineated as included in the Construction Documents.
  - 2. Owner Occupancy: Allow for Owner occupancy of portions of the site and for use by the public at any and all times during the life of the contract. The Owner reserves the right to maintain and provide full public access to the Site within the contract limits at any time during the entire life of the contract. Contractor will be responsible for securing and maintaining temporary construction fencing as necessary to achieve and maintain this access.
  - 3. Contractor shall, throughout the life of the contract, maintain clear access to all areas of the pier to personnel of Battery Park City Authority (Owner) for maintenance and repair operations. Specifically, the Owner and/or its agents shall be unencumbered from performing all required maintenance operations for all areas adjacent to and within the contract limits.
  - 4. Construction Gates / Entrances: Keep all construction gates / entrances, if required, serving the premises clean, clear and available to the Owner, Owner's employees, emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize use of construction gates and entrances.
    - b. Schedule deliveries to coordinate with other contractor's gaining access to the site.
    - c. Provide flag-person services for all deliveries into and out of the site so as to protect the public.
    - d. Secure all construction entrances and gates to the site at all times.
    - e. Provide durable signage limiting public access to the construction site at all construction gate / entrances as directed by the Construction Manager.
    - f. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- B. Use of Existing Site: Maintain existing site throughout the construction period. Repair damage caused by construction operations.

# 1.03 OCCUPANCY REQUIREMENTS

A. Partial Owner Occupancy: Owner may occupy portions of the site during the construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

### **SECTION 01 31 00**

#### PROJECT MANAGEMENT & COORDINATION

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to this section.

### 1.02 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General project coordination procedures.
  - 2. Conservation.
  - 3. Coordination Drawings.
  - 4. Administrative and supervisory personnel.
  - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 1 Section "Construction Progress Documentation" for preparing and submitting the Contractor's Construction Schedule.
  - 2. Division 1 Section "Submittal Procedures" for means and methods of submitting product data, shop drawings, and construction operations to perform the Contract Work.

## 1.03 COORDINATION

- A. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where performance of one part of the Work depends on performance of other components, before or after its own completion.
  - 2. Coordinate performance of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later Contract Work.
  - 4. Provide detailed written construction work plans within 5 days of award in a format and containing information as requested by the Construction Manager.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

- 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's Construction Schedule.
  - 2. Preparation of the Schedule of Values for payment of completed work.
  - 3. Installation and removal of temporary facilities and controls.
  - 4. Delivery and processing of submittals.
  - 5. Progress meetings.
  - 6. Pre-installation conferences.
  - 7. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure 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 into, the Work.

#### 1.04 SUBMITTALS

- A. Coordination Drawings / Work Plans: Prepare Coordination Drawings and/or detailed work plans where careful coordination is needed for performance of repair by separate entities and/or as requested by the Owner. Prepare coordination drawings and/or work plans where limited space availability necessitates utilization of space for efficient installation of different components.
  - 1. Indicate relationship of components shown on separate Shop Drawings and/or work plans.
  - 2. Indicate required installation sequences.
- B. Staff Names: Within 5 days of award, submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.

# 1.05 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide the resumes of other administrative and supervisory personnel as required for proper performance of the Work, including but not limited to.
  - 1. Project Manager
  - 2. Project superintendent
  - 3. Site Safety Representative
  - 4. Staff Engineer

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

### **SECTION 01 32 00**

#### CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

A. Specification section 013300, submittal procedures.

#### 1.02 SUBMITTALS

- A. The Contractor shall submit the following to the Approving Authority in accordance with Section entitled "Submittal Procedures, Section 013300."
- B. Schedules
  - 1. Construction schedule
  - 2. Material delivery schedule

### 1.03 CONSTRUCTION SCHEDULE

A. Within 5 days after receipt of the Notice of Award, prepare and submit to the Owner's representative for approval a Critical Path Method (CPM) Schedule.

### 1.04 MATERIAL DELIVERY SCHEDULE

- A. Initial Schedule
  - 1. Within 10 calendar days after approval of the proposed construction schedule, submit for Owner's representative approval a schedule showing procurement plans for materials and equipment. Submit in the format and content as prescribed by the Owner's representative, and include as a minimum the following information:
    - a. Description.
    - b. Date of the purchase order.
    - c. Promised shipping date.
    - d. Name of the manufacturer or supplier.
    - e. Date delivery is expected.
    - f. Date the material or equipment is required, according to the current construction schedule.

# 1.05 NETWORK ANALYSIS SYSTEM (NAS)

- A. As an alternative to the critical path method (CPM) schedule, the Contractor may use, subject to the approval of the Owner's Representative, some other computer generated network analysis system affording similar and equal information and control to that provided by the CPM.
- B. The schedule shall have a minimum of 15 activities and a maximum of 200 activities. The schedule shall identify as a minimum:
  - 1. Construction time for all major systems and components;

- 2. Manpower requirements for each activity;
- 3. Major submittals and submittal processing time; and
- 4. Major material and equipment lead time.

### C. CPM Submittals and Procedures

1. Submit all network analysis and updates electronically via e-mail. The network analysis system shall be submitted in Microsoft Project 2010. The network analysis system shall be kept current, with changes made to reflect the actual progress and status of the construction.

# 1.06 UPDATED SCHEDULES

A. Update the construction schedule and material delivery schedule at monthly intervals to correspond to payment applications or when schedule has been revised. Reflect any changes occurring since the last update. Submit copies of the purchase orders and confirmation of the delivery dates as directed by the Owner's representative.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

### **SECTION 01 33 00**

#### SUBMITTAL PROCEDURES

For more project specific information, refer to SECTION 013300-A SUBMITTAL PROCEDURES technical supplement.

### PART 1 - GENERAL

### 1.01 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

#### 1.02 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer and Construction Manager's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

### 1.03 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and Construction Manager and additional time for handling and reviewing submittals required by those corrections.

# 1.04 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- B. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  - Initial Review: Allow 10 working days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.

- 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
- 3. Resubmittal Review: Allow 5 working days for review of each resubmittal.
- C. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
  - 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  - 2. Name file with submittal number or other unique identifier, including revision identifier.
  - 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Engineer and Construction Manager.
  - 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
    - a. Project name.
    - b. Date.
    - c. Name and address of Engineer.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Name of firm or entity that prepared submittal.
    - g. Names of subcontractor, manufacturer, and supplier.
    - h. Category and type of submittal.
    - i. Submittal purpose and description.
    - j. Specification Section number and title.
    - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
    - 1. Drawing number and detail references, as appropriate.
    - m. Location(s) where product is to be installed, as appropriate.
    - n. Related physical samples submitted directly.
    - o. Indication of full or partial submittal.
    - p. Transmittal number, numbered consecutively.
    - q. Submittal and transmittal distribution record.
    - r. Other necessary identification.
    - s. Remarks.
- D. Deviations: Identify deviations from the Contract Documents on submittals.
- E. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  - 1. Note date and content of previous submittal.
  - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  - 3. Resubmit submittals until they are marked with approval notation from Engineer and Construction Manager's action stamp.
- F. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- G. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Engineer and Construction Manager's action stamp.

### 2.01 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements:
  - 1. Submit electronic submittals via email as PDF electronic files.
    - a. Engineer, through Construction Manager, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  - 2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically- submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
- D. 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.

PART 3 - EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer and Construction Manager.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

# 3.02 ENGINEER AND CONSTRUCTION MANAGER'S ACTION

- A. General: Engineer and Construction Manager will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer and Construction Manager will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineer and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
  - 1. Submission is in general conformance with design concept: When the Engineer of Record marks the submittal "Submission is in general conformance with design concept"; the Work covered by the submittal may proceed, provided it complies with the requirements of the Contract Documents. Final payment depends on that compliance.
  - 2. Submission is in general conformance with design concept, except as noted: When the Engineer of Record marks the submittal "Submission is in general conformance with design concept, except as noted", the Work covered by the submittal may proceed provided it complies with the notations on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
  - 3. Revise and Resubmit: When the Engineer of Record marks the submittal "Revise and Resubmit", the Work covered by the submittal may proceed provided it complies with the notations on the submittal and requirements of the Contract Documents. The submittal must be revised to comply with the notations on the submittal and requirements of the Contract Documents, and must then resubmit to the Engineer of Record. Final payment depends on that compliance.
  - 4. Submission is rejected for non-conformance with design concept: When the Engineer of Record marks the submittal "Submission is rejected for non- conformance with design concept", do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise and prepare a new submittal according to the notations, resubmit without delay. Repeat if necessary to obtain a different action mark.
- C. Informational Submittals: Engineer and Construction Manager will review each submittal and will not return it, or will return it if it does not comply with requirements Construction Manager will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Owner's Representative or Engineer's approval of shop drawings, product data, or material samples.

#### **SECTION 01 36 10**

#### **TURBIDITY CURTAINS**

### PART 1 - GENERAL

#### 1.01 SUMMARY

A. This Section specifies requirements for Turbidity Curtains. These requirements establish minimum standards and material requirements for the performance of the work. The Contractor is responsible for the design, furnishing, fabrication, and installation of the Turbidity Curtains. Additional specifications include:

### 1.02 REFERENCES

- A. The following is a listing of the publications referenced in this Section:
  - 1. New York State Department of Environmental Conservation Standards and Specifications for Erosion and Sediment Control.

# 1.03 DESIGN AND PERFORMANCE REQUIREMENTS

# A. Quality Assurance

- 1. The Contractor shall submit certification from the manufacturer that all Turbidity Curtains were fabricated, inspected, and shipped in accordance with the manufacturer's requirements.
- 2. The Contractor shall maintain a quality control program to assure that all installations conform to the requirements of the Contract Drawings, Specifications, field inspection, and testing.
- 3. The manufacturer of Turbidity Curtains shall have been in business of manufacturing Heavy Duty Turbidity Curtains for at least 10 years and shall show proof of three installations each having been in service for at least 1 year.

## B. Job Conditions

- 1. The Contractor is responsible for taking field measurements as required for correct fit. In the event discrepancies are found, the Contractor is responsible for contacting the Engineer immediately.
- 2. The Contractor is responsible for maintaining the Turbidity Curtains, anchors, anchor lines, buoys, and surroundings as recommended by the manufacturer.

### 1.04 SUBMITTALS

- A. Submit the following in accordance with the requirements of "Submittal Procedures" of Division 1 GENERAL REQUIREMENTS.
  - 1. Product Data manufacturer's data showing materials, fabrication, installation instructions, and recommendations.
  - 2. Shop Drawings and catalog cuts indicating material and dimensions.
  - 3. Field measurements.
  - 4. Layout Plan including proposed materials, dimensioned drawings, and installation procedure.

5. Certified test report or certificate of conformance or compliance furnished by the manufacturer's testing laboratory or independent testing agency attesting that each product or material furnished under this specification meets the requirements herein.

### PART 2 - PRODUCTS

#### 2.01 MATERIALS

- A. Turbidity Curtains shall meet the following requirements:
  - 1. The visible portion shall be a bright color (safety orange recommended) that will attract the attention of nearby boaters.
  - 2. The fabric, connections, cables, and anchors must be of sufficient strength to resist the load imparted by a 3 knot current acting perpendicular to the boom.
  - 3. Sufficient buoyancy must be provided to support the boom and generate a continuous minimum freeboard of 6 inches.
  - 4. Load cables shall be fabricated into the top and bottom hem of every boom. The cables shall be vinyl coated steel and possess an ultimate capacity of 10,000 pounds. The lower cable shall support ballast of sufficient quantity as to maintain a vertical boom position.
  - 5. Bottom anchors shall be placed fore and aft to resist ebb and flood currents. Bottom anchors must be sufficient to hold the boom in the same position relative to the bottom of the watercourse without interfering with the action of the boom. The anchors shall be attached to a floating anchor buoy. The manufacturer's specifications shall be followed when choosing anchor points on the boom.
  - 6. The boom should have a height that is greater than 20% the depth of water. This will allow for fluctuations in water level.
  - 7. If water depths allow, the toe of the boom may be anchored by means of staking.

### 2.02 ACCESSORIES

A. Steel shall conform to ASTM A36 or stronger.

# 2.03 FABRICATION

A. All Turbidity Curtains shall be fabricated in strict accordance with manufacturer's specifications.

# PART 3 - EXECUTION

# 3.01 INSTALLATION

- A. Install in accordance with manufacturer's recommendations and instructions.
- B. Take care to protect the boom from abrasion, tearing, and puncture.
- C. Install Work in accordance with approved shop drawings.
- D. Shallow installations can be made by securing boom with stakes instead of floatation system.

E. Turbidity Curtains are not to be used across flowing waterways.

# 3.02 PROTECTION

A. Protect and maintain protection of completed Work to ensure that the Work is undamaged at the time of delivery

### **SECTION 03 20 00**

#### CONCRETE REINFORCEMENT

### PART 1 - GENERAL

#### 1.01 WORK SPECIFIED

A. Provide all labor, materials, equipment, and services necessary for furnishing and installing all steel reinforcement, welded steel wire fabric, and accessories for concrete required for the completion of the Work.

#### 1.02 SUBMITTALS

- A. The Contractor shall submit the following items, in accordance with Section 013300:
  - 1. Shop Drawings that indicate sizes, spacing, locations, and quantities of reinforcing steel, wire fabric, bending and cutting schedules, splicing, stirrup spacing, supporting, and spacing devices.
  - 2. Mill test certificates of supplied concrete reinforcing indicating physical and chemical analysis.

### 1.03 WELDING

- A. Only AWS (American Welding Society) qualified welders shall be employed for welding. Submit a Welding Personnel Qualification Record (WPQR), containing all variables listed in AWS Table 6.2, to the Engineer for review at least three (3) weeks prior to using the welder. If the qualification test listed on the WPQR is more than six (6) months old, a detailed employment history and letter must accompany the WPQR to certify that the welder has been engaged in the welding process in question since the date of original qualification.
- B. For each anticipated class of weld, submit Weld Procedure Specifications, containing joint geometries and all variables listed in AWS Table 4.12, to the Engineer for review at least three (3) weeks prior to welding. In general, only Welding Procedures that are prequalified, or have been qualified in accordance with AWS, shall be used.

## 1.04 REFERENCES

- A. American Concrete Institute (ACI)
  - 1. 301 Specifications for Structural Concrete for Buildings.
  - 2. 315 Details and Detailing of Concrete Reinforcement.
  - 3. 315R Manual of Engineering and Placing Drawings for Reinforced Concrete Structures.
  - 4. 318 Building Code Requirements for Reinforced Concrete.
- B. American Society for Testing and Materials (ASTM)
  - 1. A185 Welded Steel Wire Fabric for Concrete Reinforcement.
  - 2. A615 Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
  - 3. A706 Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
  - 4. E329 Recommended Practice for Inspection Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

- C. Concrete Reinforcing Steel Institute (CRSI)
  - 1. CRSI Manual of Practice.
  - 2. 63 Recommended Practice for Placing Reinforcing Bars.
  - 3. 65 Recommended Practice for Placing Bar Supports, Specifications and Nomenclature.
- D. American Welding Society (AWS)
  - 1. D1.4 Reinforcing Steel Welding Code for Reinforcing Steel.

# 1.05 QUALITY CONTROL

- A. Perform concrete reinforcement Work in accordance with referenced Standards.
- B. Welders and Weld Procedure Specifications shall be qualified in accordance with AWS D1.4. Note that personnel qualification to AWS D1.1 alone does not satisfy this requirement.

### PART 2 - PRODUCTS

#### 2.01 MATERIALS

- A. Reinforcing Steel:
  - 1. General Applications: ASTM A615, 60 ksi yield grade billet-steel deformed bars, uncoated finish.
  - 2. Welding Applications: ASTM A706, 60 ksi yield grade billet-steel deformed bars, uncoated finish,
- B. Welded Steel Wire Fabric: ASTM A185 plain type; in flat sheets, coiled rolls, uncoated finish.
- C. Stirrup Steel: ASTM A82.

## 2.02 ACCESSORY MATERIALS

- A. Tie Wire: Minimum 16 gage annealed type.
- B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during installation and placement of concrete, including load bearing pad on bottom to prevent vapor barrier puncture.
- C. Chairs, Bolsters, Bar Supports, Spacers Adjacent to Architectural Concrete Surfaces: Plastic tipped-type, sized and shaped as required.

## 2.03 FABRICATION

A. Unless otherwise shown or directed, the following minimum concrete cover shall be provided for reinforcement.

Minimum

Cover (inches)

1. Concrete cast against and permanently

3

2.	Concrete exposed to earth or weather: No. 6 through No. 18 bar No. 5 bar and smaller	2 1-1½
3.	Concrete not exposed to weather or in contact with ground	
	Slabs, nails, joists: No. 14 and No. 18 bars	1½
	No. 11 and smaller	3/4
	D 1	

## Beams, columns:

Primary reinforcement, ties, stirrups, spirals 1½

- 1. Concrete exposed to water or sewerage slabs, walls
- 2. Concrete hooks or development bars 2½
- B. Locate reinforcing splices not indicated on Drawings at points of minimum stress. Indicate the proposed location of splices on the Shop Drawings for approval. Splices shall be staggered such that adjacent bars located in the same plane of reinforcement are not lapped at the same location. The projecting ends of horizontal bars that extend across construction joints shall be furnished at different lengths, such that in no place will laps in adjoining bars occur in the same plane.
- C. Unless noted otherwise, longitudinal reinforcing shall be closed off at end faces and cold joints of all concrete elements by 90 degree bends, U-stirrups, or some other engineer-approved method such that the faces of the element normal to the longitudinal reinforcing are laterally reinforced against cracking. In all cases, the lateral reinforcement shall be adequately developed or lapped with the longitudinal reinforcement. This provision may not apply where longitudinal reinforcing is continued across the plane of construction joints.

# PART 3 - EXECUTION

## 3.01 INSTALLATION

- A. Before placing concrete, clean reinforcement of foreign particles or coatings.
- B. Place, support, and secure reinforcement against displacement. Do not deviate from alignment or measurement.
- C. Do not displace or damage vapor barrier, if required.
- D. The Contractor shall follow the requirements of ACI 306R "Cold Weather Concreting" when applicable.
- E. Do not flame-cut rebar.

### 3.02 WELDING

- A. All welds shall be performed in accordance with AWS D1.4 in accordance with a prequalified or approved qualified Weld Procedure Specification.
- B. Except for tack welding, GMAW shall not be used for welding. When GMAW is used for tack welding, the electrode shall not be deposited by short circuit transfer.
- C. All welding shall be in accordance with AWS D1.4, using low-hydrogen E80XX electrodes, unless noted otherwise on Contract Drawings or specifically approved by the Engineer.
- D. In general, electrodes shall be new, or reconditioned, at the start of each work shift. The Contractor shall strictly adhere to the atmospheric exposure and baking requirements of Table 5.3 of AWS D1.4, and shall provide suitable holding and conditioning ovens onsite, as necessary.
- E. Welds shall not be water quenched.
- F. Field welds shall be permitted only at air temperatures above zero (0) degrees F. When welding, surfaces of pile within 3 inches, laterally and in advance of weld shall be preheated and maintained to the temperature recommended by AWS D1.4. Welding shall not be permitted during rain or snow, or when surfaces are wet.
- G. The Contractor shall be responsible for the adequacy of welds in addition to the service life of the weld. The Contractor shall be responsible for visual inspection and necessary correction of all weld deficiencies in material and workmanship in conformance with AWS D1.4. The Contractor shall maintain records of these visual inspections and submit if requested by the Engineer.
- H. All connections shall be welded unless noted otherwise on the Contract Drawings. Field fabricated members shall be cut to within 1/4" of required dimensions, fitted and welded completely along the perimeter of intersecting members on both sides using a 3/8" filet weld, unless shown otherwise on the Contract Drawings. No separate measurement or payment will be made for this work.
- I. The Owner, at his own discretion, may perform visual and ultrasonic testing of up to 20 percent of the welds on the project, using an independent agency. The contractor shall not be compensated for any delays due to the testing of welds. Contractor shall cooperate and provide access to the welds to the testing agency. The Contractor shall correct the deficient welds at no cost to the Owner.

### **SECTION 03 30 00**

#### CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Provisions of this section apply to furnishing and placing all cast-in-place cement concrete indicated on the Drawings, described in these Specifications or otherwise required for proper completion of the Work.
- B. This section does not include pre-cast, post-tensioned or pre-stressed concrete work.

### 1.02 SUBMITTALS

- A. The Contractor shall submit the following for approval in accordance with the Contract:
  - 1. Submit shop drawings of proposed construction two (2) weeks prior to fabrication of reinforcement. Shop drawings shall contain the following:
    - a. Meet requirements of applicable portions of "Details and Detailing of Concrete Reinforcement" by ACI 315, latest edition.
    - b. Show bending, assembly, splicing, sizes, bar lengths, and marking of bars. Indicate bar spacing by dimension.
    - c. Show reinforcing with necessary details in elevations, sections and plans. Locate sleeves, holes, accessories, and anchors by dimensions.
    - d. Furnish prints of approved shop drawings to trades that have items to be embedded in, or connected to concrete work.
  - 2. Submit a plan showing the location and details of proposed construction joints two (2) weeks prior to fabrication of reinforcement.
  - 3. Submit data on proposed concrete admixtures thirty (30) days before concrete placement.
  - 4. Submit Samples of materials as requested by the Engineer, including names, sources, and descriptions.
  - 5. Submit a brief plan stating the proposed method of pouring and testing concrete, providing details on site access for delivery trucks, staging area, means of conveyance, washout locations, testing and cylinder curing locations, and proposed curing procedures thirty (30) days before concrete placement.
  - 6. Submit proposed concrete mix design and supporting laboratory test reports for concrete materials and mix design test for approval thirty (30) days before concrete placement. Provide materials certificates in lieu of materials laboratory test reports. Materials certificates shall be signed by the manufacturer and contractor, certifying that each material item complies with, or exceeds specified requirements.
  - 7. Submit results of strength tests for samples taken at site within ten (10) days after test is completed

### 1.03 QUALITY ASSURANCE

#### A. CODES, STANDARDS & PROVISIONS

1. Comply with the provisions specified in the latest revision of the following ASTM standards, including all supplements and addenda:

- a. C31 Standard Method of Making and Curing Concrete Test Specimens in the Field
- b. C33 Standard Specification for Concrete Aggregates.
- C39 Standard Method of Test for Compressive Strength of Cylindrical Concrete Specimens.
- d. C94 Standard Specification for Ready-Mixed Concrete
- e. C138 Standard Method of Test for Unit Weight, Yield, and Air Content (Gravi-metric) of Concrete.
- f. C143 Standard Method of Test for Slump of Portland Cement Concrete.
- g. 7 C150 Portland Cement.
- h. C171 Standard Specification for Sheet Materials for Curing Concrete.
- i. C172 Standard Method of Sampling Fresh Concrete.
- C173 Standard Method of Test for Air Content of Freshly Mixed Concrete by the Volumetric Method.
- k. C192 Standard Method of Making and Curing Concrete Test Specimens in the Laboratory.
- 1. C231 Standard Method of Test for Air Content of Freshly Mixed Concrete by the Pressure Method.
- m. C260 Standard Specification for Air-Entraining Admixtures for Concrete.
- n. C309 Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- o. C494 Standard Specification for Chemical Admixtures for Concrete.
- p. C618 Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolans for Use in Portland Cement Concrete.
- q. C685 Specifications for Concrete Made by Volumetric Batching and Continuous Mixing.
- r. C1064 Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
- C1602 Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.
- t. D1751 Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- E329 Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.
- 2. Comply with the provisions specified in the latest revision of the following publications of the American Concrete Institute (ACI):
  - a. Committee 212 Report Guide for Use of Admixtures in Concrete.
  - b. ACI 214 Recommended Practice for Evaluation of Strength Test Results of Concrete.
  - c. ACI 301 Specifications for Structural Concrete for Buildings.
  - d. ACI 302 Recommended Practice for Concrete Floor and Slab Construction.
  - e. Committee 303 Report Guide to Cast-In-Place Architectural Concrete Practice, 1974.
  - f. ACI 304 Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete.
  - g. Committee 304 Report Placing Concrete by Pumping Methods.
  - h. Committee 305 Report Hot Weather Concreting.
  - i. Committee 306 Report Cold Weather Concreting.
  - j. ACI 308 Recommended Practice for Curing Concrete.
  - k. ACI 309 Recommended Practice for Consolidation of Concrete
  - 1. ACI 318 Building Code Requirements for Reinforced Concrete.
  - m. ACI 347 Guide to Formwork for Concrete.
  - n. ACI 357R Design and Construction of Fixed Offshore Concrete Structures
  - o. ACI 546.2R Guide to Underwater Repair of Concrete
  - p. SP-19 Cement and Concrete Terminology (Report of ACI Committee 116).
- 3. Comply with the provisions specified in the following:

- a. Concrete Plant Manufacturers Bureau: "Concrete Plant Mixer Standards of the Plant Mixer Manufacturers Division", 1970.
- b. National Ready Mixed Concrete Association: Check List for Certification of Ready Mixed Concrete Production Facilities, 1967.
- c. American Association of State Highway and Transportation Officials, "Standard Specification for Transportation Materials and Methods of Sampling and Testing". (AASHTO T260-78).

### PART 2 - PRODUCTS

### 2.01 MATERIALS

### A. Cement & Cementitious Materials

1. ASTM C 150, Portland Cement - Type II except as modified herein. The blended cement shall consist of a mixture of ASTM C 150, Type II, and ASTM C 618 Type F or C pozzolan or fly ash. The pozzolan or fly ash content shall not exceed 25% by weight of the total cementitous material. Use one manufacturer for each type of cement, fly ash, and pozzolan.

### B. Admixtures

- 1. When required or permitted, use admixtures conforming to the following specifications:
  - a. Air Entertaining ASTM C260
  - b. Water Reducing, Retarding and Accelerating ASTM C494.
- 2. When concrete is to be placed underwater, whether by tremie or another method, an antiwashout admixture shall be included in the concrete mix design to minimize material loss and segregation.

# C. Water

1. Water used in the mix shall conform to the requirements specified in ASTM C1602.

# D. Aggregates

1. Maximum nominal size of aggregate shall be ¾ inch, unless stated otherwise on the contract drawings, and shall conform to the requirements specified in ASTM C33. Regard fine and coarse aggregates as separate ingredients. Conform to the appropriate grading requirements for each size of coarse aggregate, as well as the combination of sizes when two or more are used.

# E. Curing Materials

- 1. Waterproof Sheets
  - a. Conform to the requirements specified in ASTM C171.
- 2. Liquid Membrane Forming Compounds
  - a. Conform to the requirements specified in ASTM C309.

#### F. Expansion Joint Filler

1. Conform to the requirements specified in ASTM D1751.

### PART 3 - EXECUTION

# 3.01 HANDLING

### A. Storage

- 1. Store cement in weathertight buildings, bins or silos which will exclude moisture and contaminants.
- 2. Arrange and utilize aggregate stockpiles in a manner to avoid excessive segregation and to prevent contamination with other materials or with other sizes of like aggregates. To insure that this condition is met, perform any test for determining conformance to requirements for cleanness and grading on samples taken from the aggregates at the point of batching. Do not use frozen or partially frozen aggregates.
- 3. Allow stockpiles of natural or manufactured sand to drain to ensure a relatively uniform moisture content throughout the stockpile.
- 4. To prevent excessive variations in moisture content, allow predampened aggregates to remain in the stockpiles for a minimum of 12 hours before use.
- 5. Store admixtures in such a manner as to avoid contamination, evaporation or damage. For those used in the form of suspensions or non-stable solutions, provide agitating equipment to assure thorough distribution of the ingredients. Protect liquid admixtures from freezing and from temperature changes which would adversely affect their characteristics.

#### 3.02 CONCRETE MIX

### A. General

1. Concrete for all parts of the work shall be of the specified quality capable of being placed without excessive segregation and, when hardened, of developing all characteristics required by these specifications.

# B. Strength

1. The minimum compressive strength of the concrete shall be as indicated on the drawings.

### C. Durability

1. Concrete shall be air-entrained and shall conform to the air content limits of the following table as measured by ASTM C 138 or ASTM C 173 or ASTM C231.

Nominal maximum size	Size number	Total air content
of coarse aggregate, in		percent by volume
3/8	8	6 - 10
1/2	7	5.5 – 7.5
3/4	67	5 - 7
1	57	4.5 - 6.5
Nominal maximum size	Size number	Total air content
of coarse aggregate, in		percent by volume
1-1/2	467	4.5 - 6
2	357	4 - 5.5
3	-	3.5 - 4.5

- 2. Concrete of normal weight shall have a water-cement ratio not exceeding 0.40.
- 3. For all concrete in which aluminum or galvanized metal is to be embedded, demonstrate by tests that the mixing water of the concrete, including that contributed by the aggregates and admixture used, will not contain a deleterious amount of chloride ion.

### D. Slump

1. Except as specified for floors, proportion and produce concrete to have a slump of 4 in. or less if consolidation is to be by vibration, and 5 in. or less if consolidation is to be by methods other than vibration. A tolerance of up to 1 in. above the indicated maximum shall be allowed for

individual batches provided the average for all batches or the most recent 10 batches tested, whichever is fewer, does not exceed the maximum limit. Concrete of lower than usual slump may be used provided it is properly placed and consolidated. The slump shall be determined by ASTM C 143.

- 2. If concrete slabs are used, proportion and produce concrete to have a slump of 3 inches or less.
- 3. A slump of 6 to 9 inches is typically used for concrete that will be pumped or tremie-poured.

## E. Aggregate Size

1. The nominal maximum size of the aggregate shall be ¾ inch, but shall not exceed one-fifth of the narrowest dimension between sides of forms, one-third of the depth of slabs, or three-fourths of the minimum clear spacing between reinforcing bars.

#### F. Admixtures

- 1. Except for air-entraining admixtures, or anti-washout admixtures for underwater placement, do not use admixtures unless specifically approved by the Engineer.
- 2. When its use is allowed by the Engineer, the amount of calcium chloride shall not exceed 2 percent by weight of cement. Determine the amount of calcium chloride by the method described in AASHTO T260-78.
- 3. When their use is permitted, use all admixtures in accordance with the manufacturer's instructions except as otherwise specified herein.

# G. Proportions

- 1. Proportion the ingredients so as to produce a mixture which will work readily into the corners and angles of the forms and around reinforcement by the methods of placing and consolidation employed on the work, but without permitting the materials to segregate or excessive free water to collect on the surface.
- 2. Use of the proposed mixture proportions shall be subject to approval by the Engineer based on their demonstrated ability to produce concrete meeting all requirements of the specifications. Determine ability to produce the required average strength on the basis of the strength test record of 30 or more tests made during the past 24 months from a similar mix, representing similar materials and conditions to those expected, in accordance with section 5.3 of ACI 318.
- 3. The strength test history used to determine standard deviation will be considered to comply with the above requirement for 30 consecutive strength tests if the tests represent either a group of 30 consecutive batches of the same class of concrete or the statistical average for two groups totaling 30 or more batches. The tests used in establishing the standard deviation shall represent concrete produced for a specified strength or strengths within 1000 psi of that required for the proposed work; changes in materials and proportions within the population of background tests shall not have been more closely restricted than will be the case for the proposed work.

# H. Temperature

- 1. The temperature of concrete to be placed shall not exceed 90 degrees F.
- 2. The temperature of concrete to be placed in cold weather shall conform to the requirements of the following table.

Nominal Section Size, in	Minimum Concrete Temperature, as placed, F
<12	55
12-36	50
36-72	45
>72	40

3. The temperature of ready-mix concrete shall be determined in accordance with ASTM C 1064.

### 3.03 PRODUCTION OF CONCRETE

- A. Batch, mix and transport ready-mixed concrete in accordance with ASTM C94, except as otherwise specified herein. Plant equipment and facilities shall conform the "Check List for Certification of Ready Mixed Concrete Production Facilities" of the National Ready Mixed Concrete Association.
- B. Batch and mix concrete produced by on-site volumetric batching and continuous mixing in accordance with and conforming to all requirements of ASTM C 685.
- C. Charge air-entraining admixtures, calcium chloride, and other chemical admixtures into the mixer as solutions and measure by means of an approved mechanical dispensing device. Consider the liquid a part of the mixing water. Admixtures that cannot be added in solution may be weighed or may be measured by volume if so recommended by the manufacturer.
- D. If two or more admixtures are used in the concrete, add them separately to avoid possible interaction that might interfere with the efficiency of either admixture or adversely affect the concrete.
- E. Complete the addition of retarding admixtures within 1 minute after addition of water to the cement has been completed, or prior to the beginning of the last three-quarters of the required mixing, whichever occurs first.
- F. Mix concrete only in quantities for immediate use. Do not re-tamper concrete which has partially set.
- G. When concrete arrives at the project with slump below that suitable for placing, as indicated by the specifications, water may be added only if neither the maximum permissible water-cement ratio nor the maximum slump is exceeded. Incorporate the water by additional mixing equal to thirty revolutions or more, if necessary, at mixing speed. Water shall not be added to the batch at any later time.

### H. Cold Weather

- 1. Comply with the applicable requirements of "Cold Weather Concreting", ACI 306.
- 2. Do not place concrete if temperature is below 40 degrees F, except with specific approval. For concrete placed or cured below 40 degrees F, provide heat, insulation and moisture to maintain concrete temperature and curing conditions as recommended by ACI 306.
- 3. Do not use frozen materials, or materials containing ice. Do not allow concrete to come into contact with frost.

#### I. Hot Weather

- 1. Comply with the applicable requirements of "Hot Weather Concreting", ACI 305.
- 2. Cool the ingredients before mixing.
- 3. Flake ice or well-crushed ice of a size that will melt completely during mixing may be substituted for all or part of the mixing water if, due to high temperature, low slump, flash set or cold joints are encountered.
- 4. Reduce concrete temperatures to prevent rapid evaporation of water in hot weather.

# 3.04 PREPARATION BEFORE PLACING

- A. Remove hardened concrete and foreign materials from the inner surfaces of the conveying equipment.
- B. Complete the formwork and remove snow, ice, frost, water, dirt or other foreign materials.

- C. All material that is to come in contact with the fresh concrete, including formwork, reinforcement and inserts, must be at a temperature above 32 Degrees Fahrenheit at the time the concrete is poured, in accordance with ACI 306 "Cold Weather Concreting".
- D. Place all sleeves, inserts, anchors and embedded items including reinforcing bars. Approved bar chairs shall be used where required to vertically position reinforcing bars. The use of large aggregate or brick will not be permitted to provide clearance between the formwork and reinforcing steel.
- E. Give ample notice and opportunity to Engineer before starting to place concrete in any unit of the structure to permit proper inspection of forms and reinforcement by the Engineer.
- F. Give ample notice and opportunity to all other contractors whose work is related to or supported by the concrete to furnish embedded items before the concrete is placed.
- G. Sprinkle semiporous subgrades sufficiently to eliminate suction, and seal porous subgrades in a manner approved by the Engineer.
- H. Do not place concrete on frozen ground or fill material, or on subgrades containing frost.

### 3.05 CONVEYING

- A. Convey concrete from the mixer to the place of final deposit as rapidly as practicable by methods which will prevent segregation or loss of ingredients and in a manner which will assure that the required quality of the concrete is maintained.
- B. Use conveying equipment which is approved by the Engineer and of a size and design such that detectable setting of the concrete does not occur before adjacent concrete is placed.
- C. Clean conveying equipment at the end of each operation or work day.
- D. For truck mixers, agitators and non agitating units, conform to the applicable requirements of ASTM C94.
- E. For belt conveyors, use units which are horizontal or at a slope which will not cause excessive segregation or loss of ingredients. Protect concrete against undue drying or rise in temperature. Use an arrangement approved by the Engineer at the discharge end to prevent apparent segregations. Do not allow mortar to adhere to the return length of the belt. Discharge long runs into a hopper or through a baffle.
- F. For chutes, use metal or metal lined equipment having a slope not exceeding 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal. Chutes more than 20 ft. long and chutes not meeting the slope requirements may be used provided they discharge into a hopper before distribution.
- G. For pumping or pneumatic conveying, use equipment of suitable kind with adequate pumping capacity, and pump the concrete directly to the structure with no intermediate transfer points.
  - 1. Do not convey concrete through pipe made of aluminum or aluminum alloy.
  - 2. Control pneumatic placement so that segregation is not apparent in the discharged concrete.
  - 3. When concrete is being conveyed to the pump by delivery trucks, the Contractor shall test the slump and entrained air of the first batch of concrete on each shift in which concrete will be poured. Tests will be conducted on the concrete being discharged from the truck into the pump, and on the concrete being discharged from the end of the pumping line at the point of final placement. These tests shall be performed at no additional cost to the Owner.

- a. The loss of slump due to the pumping or pneumatic conveying of concrete shall not exceed 3 inches. Concrete exhibiting larger slump losses, or a resulting slump outside the specified range shall not be accepted.
- b. The loss of entrained air due to the pumping or pneumatic conveying of concrete shall not exceed 5%. Concrete with a resulting air entrainment below the specified range shall not be accepted.
- 4. The Contractor shall ensure that pump and pipeline washout-blowout procedures are performed safely and cleanly to prevent personnel injury and to prevent concrete contact with river water or other natural environments.

## 3.06 PLACING CONCRETE

- A. Deposit concrete continuously, or in layers of such thickness that no concrete will be deposited on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness within the section. If a section cannot be placed continuously, locate construction joints as shown on the drawings or as approved by the Engineer.
- B. Deposit concrete at such a rate that the concrete which is being integrated with fresh concrete is still plastic.
- C. Do not deposit concrete which has partially hardened or has been contaminated by foreign materials.
- D. Remove temporary spreaders in forms when the concrete placing has reached an elevation rendering their service unnecessary. They may remain embedded in the concrete only if made of metal or concrete, and if prior approval has been obtained from the Engineer.
- E. Do not begin placing of concrete in supported elements until the concrete previously placed in columns and walls is no longer plastic and has been in place at least two hours.
- F. Deposit concrete as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. Do not subject the concrete to any procedure which will cause segregation.
  - 1. Do not allow concrete to drop free more than four feet. Where greater drops are required use a tremie or "elephant's trunk". Control the discharge of such devices so that the concrete can effectively be compacted in horizontal layers not more than 12 inches thick. Space the devices such that excessive segregation does not occur.
- G. Consolidate all concrete by vibration, spading, rodding or forking so that the concrete is thoroughly worked around the reinforcement, around embedded items, and into corners of forms, eliminating all air or stone pockets which may cause honeycombing, pitting, or planes of weakness. Use international vibrators of the largest size and the most powerful that can be properly used in the work, as described in Table 5.1.4 of ACI 309. They shall be operated by competent workmen. Do not use vibrators to transport concrete within forms. Insert vibrators and withdraw at points approximately 18 in. apart. At each insertion, the duration shall be sufficient to consolidate the concrete but not sufficient to cause segregation, generally from 5 to 15 seconds. Keep a spare vibrator on the job site during all concrete placing operations. Where the concrete is to have an ascast finish, bring a full surface of mortar against the form by the vibration process, supplemented if necessary by spading to work the coarse aggregate back from the formed surface.
- H. Unless adequate protection is provided, do not place concrete during rain, sleet or snow.
- I. Do not allow rainwater to increase the mixing water or damage the surface finish.

- J. The temperature of the concrete as placed shall not be so high as to cause difficulty from loss of slump, flash set, or cold joints and should not exceed 90F. When the temperature of the concrete exceeds 90 F, use precautionary measures approved by the Engineer. When the temperature of steel forms is greater than 120 F, spray steel forms and reinforcement with water just prior to placing the concrete.
- K. When required or permitted, deposit concrete underwater by an approved method in such a way that the fresh concrete enters the mass of previously placed concrete from within, causing water to be displaced with minimum disturbance at the surface of the concrete.
  - 1. A tremie pipe (8 to 12 inches in diameter) shall be used to deposit the concrete. The tremie pipe shall be water tight. No water shall be allowed to enter the tremie pipe. The tremie pipe shall be sealed and lowered into the base of the formwork and filled with concrete. The tremie shall be raised no more than 6 inches off the bottom to break the seal and initiate the flow of concrete. The end of the tremie pipe shall remain embedded in the fresh concrete from 3 to 5 feet after pouring is started. The tremie pipe shall be lifted slowly to avoid disturbance to the concrete. Concrete placement shall be as continuous as possible through each tremie.
  - 2. The tremie pipe must remain fixed horizontally while concrete is flowing. Horizontal movement of the pipe will damage the surface of concrete already in place. Horizontal distribution of the concrete is accomplished by halting placement, moving the pipe, reestablishing the seal and resuming placement. A tremie pipe injection point spacing of 2 to 3 times the depth of concrete shall be used.
- L. After the introduction of the mixing water to the cement and aggregates, each batch of concrete will be discharged within 1.5 hours, or before the mixing drum has completed 300 revolutions, whichever comes first.
  - 1. These limitations may be waived by the Owner, or Engineer, if, after the limits stated above, the concrete slump remains sufficient to allow it to be placed without the addition of water to the batch.
  - 2. These limitations may reduced by the Owner, or Engineer, if hot weather, or other conditions that may contribute to rapid stiffening of the concrete mix, are present.
- M. Provide all material, manpower and equipment necessary for the safe washout and cleaning of all concrete-related equipment, including trucks, pumps, pipes, and forming tools. Dispose of all hardened washout concrete. Rivers and other aquatic environments shall not be used for washout or cleaning.

# 3.07 CONSTRUCTION JOINTS

- A. Make construction joints only as shown on the Drawings, or as approved by the Engineer.
- B. Locate joints not shown on the Drawings only as approved by the Engineer. Locate those joints as least to impair the strength of the structure. In general, locate construction joints near the middle of the spans of slabs, beams and girders. Locate joints in walls and columns at the underside of floors, slabs, beams or girders and at the tops of footings or floor slabs. Place beams, girders, brackets, column capitals, haunches and drop panels at the same time as slabs. Make joints perpendicular to the main reinforcement.
- C. Continue reinforcement across joints unless shown otherwise on the drawings.
- D. Provide keys and inclined dowels as directed by the Engineer.
- E. For all transverse and longitudinal construction joints, provide a keyway 2 inches deep by 4 inches wide with a rubber dumbbell-type waterstop.

- F. Clean the surface of concrete at all joints and remove all laitance before placing adjoining concrete.
- G. Immediately before new concrete is placed, all construction joints shall be wetted and standing water removed.
- H. Obtain bond by one of the following methods:
  - 1. The use of an approved adhesive. Prepare and apply adhesive to joints receiving an adhesive in accordance with the manufacturer's recommendations.
  - 2. The use of an approved chemical retarder which delays but does not prevent setting of the surface mortar. Remove mortar within 24 hours after placing to produce a clean exposed aggregate bonding surface. Prepare surfaces of joints to be treated in accordance with the manufacturer's recommendations.
  - 3. Roughening the surface of the concrete in an approved manner which will expose the aggregate uniformly and will not leave laitance, loosened particles of aggregate or damaged concrete at the surface.
  - 4. Dampen (but do not saturate) the hardened concrete of construction joints and of joints between footings and walls or columns, between walls or columns and beams or floors they support, joints in unexposed walls and all others not mentioned below immediately prior to placing of fresh concrete.
  - 5. For horizontal construction joints in exposed work; horizontal construction joints in the middle of beams, girders, joists and slabs; and horizontal construction joints in work designed to contain liquids, dampen (but do not saturate) the hardened concrete and thoroughly cover the joint with a coat of cement grout of similar proportions to the mortar in the concrete. Place the fresh concrete before the grout has attained its initial set.

## 3.08 EMBEDDED ITEMS

- A. Expansion Joints Do not extend reinforcement or other embedded metal items bonded to the concrete (except dowels in slabs bonded on only one side of joints) continuously through any expansion joint.
- B. Position expansion joint material, waterstops and other embedded items accurately, and support them against displacement. Fill voids in sleeves, inserts and anchor slots temporarily with readily removable material to prevent the entry of concrete into the voids.

## 3.09 SLABS

- A. Set edge forms and intermediate screed strips accurately to produce the designated elevations and contours of the finished surface, and construct them sufficiently strong to support vibrating screeds or roller pipe screeds if the nature of the finish specified requires the use of such equipment. Align the concrete surface to the contours of screed strips by the use of strike-off templates or approved compacting type screeds.
- B. Carefully coordinate mixing and placing with finishing. Do not place concrete on the subgrade or forms more rapidly than it can be spread, straightened, and darbied or bull floated. These operations must be performed before bleeding water has an opportunity to collect on the surface.
- C. To obtain good surfaces and avoid cold joints, plan the size of finishing crews with due regard for the effects of concrete temperature and atmospheric conditions on the rate of hardening of the concrete.

- D. If saw-cut joints are required or permitted, time cutting properly with the set of the concrete: start cutting as soon as the concrete has hardened sufficiently to prevent aggregates being dislodged by the saw, and complete before shrinkage stresses become sufficient to produce cracking.
- E. Thoroughly consolidate concrete in slabs. Use internal vibration in beams and girders of framed slabs and along the bulkheads of slabs on grade. Obtain consolidation of slabs with vibrating screeds, roller pipe screeds, internal vibrators, or other approved means.

# 3.10 FINISHES

- A. Provide the following finishes as applicable and in accordance with ACI 301 unless specified otherwise herein or shown otherwise on the Drawings:
  - 1. Smooth Form Finish for all formed concrete surfaces.
  - 2. Broom or Belt Finish for sidewalks, driveways, ramps and exterior platforms.
  - 3. Provide smooth form finish where type of finish is not certain from above.
- B. Smooth Form Finish Use form facing materials which produce a smooth, hard, uniform texture on the concrete. it may be plywood, tempered concrete-form-grade hardboard, metal, plastic, paper, or other approved material capable of producing the desired finish. The arrangement of the facing material shall be orderly and symmetrical, with the number of seams kept to the practical minimum. Support it with study or other backing capable of preventing excessive deflection. Do not use material with raised grain, torn surfaces, worn edges, patches, dents, or other defects which will impair the texture of the concrete surface. Patch tie holes and defects. Completely remove all fins.
- C. Broom or Belt Finish First, float finish the surface as described above. Do not trowel. Give the surface a coarse transverse scored texture by drawing a broom or burlap belt across the surface.

#### 3.11 TOLERANCES

- A. Tolerance in finished elevation shall be ¼ inch per 100 feet of length. This tolerance is non additive.
- B. Produce formed surfaces which result in concrete outlines within the tolerances of applicable standards.
- C. Depressions in slabs between high spots shall not be greater than 3/16 in. below a 10 ft. long straightedge.

## 3.12 CURING

- A. Beginning immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury, and maintain the concrete with minimal moisture loss at a relatively constant temperature for the period necessary for hydration of the cement and hardening of the concrete.
- B. For concrete surfaces not in contact with forms, apply one of the following procedures immediately after completion of placement and finishing:
  - 1. Ponding or continuous sprinkling.
  - 2. Application of absorptive mats or fabric kept continuously wet.
  - 3. Application of sand kept continuously wet.
  - 4. Continuous application of steam (not exceeding 150F) or mist spray.
  - 5. Application of waterproof sheet materials conforming to ASTM C171.

- 6. River water and other non-potable water sources shall not be acceptable for use in curing.
- 7. Application of a curing compound conforming to ASTM C309. Apply the compound in accordance with the recommendations of the manufacturer immediately after any water sheen which may develop after finishing has disappeared from the concrete surface. Do not use on any surface against which additional concrete or other material is to be bonded unless it is proved that the curing compound will not prevent bond, or unless positive measures are taken to remove it completely from areas to receive bonded applications. Minimize moisture loss from surfaces placed against wooden forms or metal forms exposed to heating by the sun by keeping the forms wet until they can be safely removed. After form removal, cure the concrete for at least seven days.
- C. Cold Weather When the mean daily outdoor temperature is less than 40 F, maintain the temperature of the concrete between 50 and 70 F for seven days. When necessary, make arrangements for heating, covering, insulating, or housing the concrete work in advance of placement and maintain the required temperature without injury due to concentration of heat. Do not use combustion heaters during the first 24 hours unless precautions are taken to prevent exposure of the concrete to exhaust gases which contain carbon dioxide.
- D. Hot Weather When necessary, make provision for windbreaks, shading, fog spraying, sprinkling, ponding, or wet covering with a light colored material in advance of placement, and take such protective measures as quickly as concrete hardening and finishing operations will allow.
- E. Rate of Temperature Change Keep changes in temperature of the air immediately adjacent to the concrete during and immediately following the curing period as uniform as possible and do not exceed 5 F in any 1 hour or 50 F in any 24 hour period.
- F. During the curing period, protect the concrete from damaging mechanical disturbances, such as load stresses, heavy shock, and excessive vibration. Protect all finished concrete surfaces from damage by construction equipment, materials, or methods, by application of curing procedures, and by rain or running water. Do not load self-supporting structures in such a way as to overstress the concrete.
- G. Proper curing methods shall be maintained, including curing methods for side faces once forms are stripped, for a minimum of seven (7) days.
- H. No external loads shall be applied to the concrete until seven (7) days after concrete is cast.
- I. No piles shall be driven or vibrated within fifty feet (50 ft) of new concrete until seven (7) days after concrete is cast.

## 3.13 REPAIR OF SURFACE DEFECTS

- A. Repair surface defects, including tie holes immediately after form removal.
- B. Remove all honeycombed and other defective concrete down to sound concrete. If chipping is necessary, form the edges perpendicular to the surface or slightly undercut. No featheredges will be permitted. Dampen the area to be patched and an area at least 6 in. wide surrounding it to prevent absorption of water from the patching mortar. Prepare a bonding grout using a mix of approximately 1 part cement to 1 part fine sand passing a No. 30 mesh sieve, mixed to the consistency of thick cream, and then well brushed into the surface.
- C. Make the patching mixture of the same materials and of approximately the same proportions as used for the concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than 1 part cement to 2 1/2 parts sand by damp loose volume. Substitute white portland cement

for a part of the gray portland cement on exposed concrete in order to produce a color matching the color of the surrounding concrete as determined by a trial patch. Use no more mixing water than necessary for handling and placing. Mix the patching mortar in advance and allow it to stand with frequent manipulation with a trowel, without addition of water, until it has reached the stiffest consistency that will permit placing.

- D. After surface water has evaporated from the area to be patched, brush the bond coat well into the surface. When the bond coat begins to lose the water sheen, apply the premixed patching mortar. Consolidate the mortar.
- E. After cleaning and thoroughly dampening the tie holes, fill them solid with patching mortar.
- F. If permitted or required, proprietary compounds for adhesion or as patching ingredients may be used in lieu of or in addition to the foregoing patching procedures. Use such compounds in accordance with the manufacturer's recommendations.

# 3.14 TESTING

- A. Concrete materials and operations will be tested and inspected as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such a defect is discovered, nor shall it obligate the Engineer for final acceptance.
- B. Additional testing and inspection required by failure to meet specification requirements or by changes in materials or proportions requested by the Contractor shall be paid for by the Contractor.
- C. Testing of concrete for mix design purposes shall be paid for by the Contractor.
- D. All testing agencies shall meet the requirements of ASTM E 329.
- E. Contractor shall engage an independent field and laboratory testing agency to perform all test required by the Contract Documents.
- F. To facilitate testing and inspection,
  - 1. Furnish any necessary labor to assist the designated testing agency in obtaining and handling samples at the project or other sources of materials.
  - 2. Advise the designated testing agency sufficiently in advance of operations to allow for completion of quality tests and for the assignment of personnel.
  - 3. Provide and maintain for the sole use of the testing agency adequate facilities for safe storage and proper curing of concrete test cylinders on the project site for the first 24 hours as required by ASTM C 31.
- G. The first batch of concrete to be poured during a shift shall have its air content, slump and temperature tested, prior to initiating a pour, and will be rejected if values outside accepted ranges are obtained.
- H. One strength test sampling shall be randomly taken from each 50 cu. yds. of concrete poured in a given shift. A minimum of five (5) strength test samplings shall be performed on randomly selected batches for each class of concrete on the project. If fewer than five (5) batches of concrete are used, strength test sampling shall be performed on each batch. If the total quantity of a given class of concrete is less than 50 cu. yds., strength tests may be waived at the engineer's discretion.
- I. A strength test sampling shall consist of enough cylinders to perform a minimum of two strength tests, as defined below in 5.14.I.1. All strength test sampling shall be performed in accordance with

ASTM C-172. Cylinders will be made and cured in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

- 1. A valid strength test shall consist of the breaking of a minimum of two (2) 6"x12" concrete cylinders, or three (3) 4"x8" concrete cylinders. At a minimum, strength tests shall be performed after seven (7) days and twenty-eight (28) days.
- 2. Additional test cylinders may be taken at the time of sampling, at the Engineer's or Contractor's discretion, in order to:
  - a. Perform an additional strength test after less than seven (7) days for consideration of form removal.
    - 1) Forms shall not be removed until the concrete has achieved at least 70% of the design strength.
  - b. Perform an additional strength test after fourteen (14) days for evaluation of strength gain.
  - c. Perform an additional strength test after either seven (7) days or twenty-eight (28) days to confirm those strength tests results.
  - d. Perform an additional strength test after forty-five (45) days should the twenty-eight (28) day strength test results be below the specified strength.
  - e. Allow for the discarding of outlying strength results for any strength test, in accordance with ACE 214R.
  - f. Perform strength tests of cylinders cured under field conditions to demonstrate the adequacy of the curing and protection undertaken in the field.
    - The strength test results of field-cured cylinders will not be used for evaluation and acceptance of the concrete strength. However, a field-cured strength test that results in less than 85% of the strength of companion laboratory-cured cylinders will necessitate the improvement of field protection and curing procedures. This 85% limitation will not apply if the field-cure strength exceeds the specified compressive strength by more than 500 psi.
    - 2) No additional compensation will be allowed to accommodate the requirement to perform the additional sampling and testing under this prevision, and to improve field curing and protection procedures as necessary.
- J. The air content, temperature, and slump of the concrete shall be measured for each strength test sampling performed. All sampling shall be performed in accordance with ASTM C 172.
  - 1. These properties tests may be conducted more frequently than the test strength sampling, and may be performed on every arriving batch prior to its placement, at the Engineers discretion.
  - 2. If the measured slump, or air content, or both are found to be above the specified upper limit, a check test shall be immediately performed on a fresh sample. If the check test fails, the concrete shall be considered to have failed the requirements of this specification, and shall be rejected.
  - 3. If the measured slump, or air content, or both are found to be below the specified upper limit, adjustments shall be permitted in accordance with ASTM C 94. If the adjusted concrete subsequently fails, a check test shall be immediately performed on a fresh sample. If the check test fails, the concrete shall be considered to have failed the requirements of this specification, and shall be rejected.
- K. All concrete testing, whether properties testing or strength test sampling, shall be conducted on concrete at the point of placement. The Contractor shall take all necessary measures to efficiently and safely allow the representative of the testing agency to take samples at the point of placement. No additional compensation will be allowed to accommodate this requirement.
- L. Representatives of the testing agency will inspect, sample and test the materials and the production of concrete as required by the Engineer. When it appears that any material furnished or work performed by the Contractor fails to fulfill specification requirements, the testing agency will report such deficiency to the Engineer and the Contractor.

- M. The testing agency will report all test and inspection results to the Engineer and Contractor immediately after they are performed. All test reports will include the exact location in the work at which the batch represented by a test was deposited. Reports of strength tests will include detailed information on storage and curing of specimens prior to testing.
- N. The testing agency and its representatives are not authorized to revoke, alter, relax, enlarge or release any requirement of the contract documents, nor to approve or accept any portion of the work.

# 3.15 EVALUATION AND ACCEPTANCE

- A. Test results for standard molded and standard cured test cylinders will be evaluated separately for each portion of the structure.
- B. The strength level of the concrete will be considered satisfactory so long as the averages of all sets of three consecutive strength test results equal or exceed the specified strength, and no individual strength test result falls below the specified strength by more than 500 psi, or one tenth the specified strength, whichever is greater.
- C. Completed concrete work which meets all applicable requirements will be accepted without qualification.
- D. Completed concrete work which fails to meet one or more requirements but which has been repaired to bring into compliance will be accepted without qualification.
- E. Completed concrete work which fails to meet one or more requirements and which cannot be brought into compliance as determined by the Engineer may be accepted or rejected. Remove and replace (at Contractor's expense) all concrete work rejected by the Engineer.
- F. Formed surfaces resulting in concrete outlines smaller than permitted by the allowable tolerances shall be considered potentially deficient in strength and subject to the requirements stated below for concrete of deficient strength.
- G. Formed surfaces resulting in concrete outlines larger than permitted by the allowable tolerances may be rejected and the excess material shall be subject to removal. If removal of the excess material is permitted, it shall be accomplished in such a manner as to maintain the strength of the section and to meet all other applicable requirements of function and appearance.
- H. Concrete members cast in the wrong location may be rejected if the strength, appearance or function of the structure is adversely affected or misplaced items interfere with other construction.
- I. Inaccurately formed concrete surfaces exceeding the limits of applicable standards and which are exposed to view, may be rejected and shall be repaired or removed and replaced if required.
- J. Finished slabs exceeding the tolerances of this section may be repaired provided that strength, durability or appearance is not adversely affected. High spots may be removed with a terrazzo grinder, low spots filled with a patching compound or other remedial measures performed as permitted.
- K. Concrete with defects which adversely affect the appearance of the specified finish may be repaired, if possible. If, in the opinion of the Engineer, the defects cannot be repaired, the concrete may be either accepted or rejected.

- L. Concrete not exposed to view is not subject to rejection for defective appearance, except in those cases where concrete finish is specified.
- M. The strength of the structure in place will be considered potentially deficient if it fails to comply with any requirements which control the strength of the structure, including but not necessarily limited to the following conditions.
  - 1. Low concrete strength.
  - 2. Reinforcing steel size, quantity, strength, position, or arrangement at variance with the requirements of the contract drawings.
  - 3. Concrete which differs from the required dimensions or location in such a manner as to reduce the strength.
  - 4. Curing less than that specified.
  - 5. Inadequate protection of concrete from extremes of temperature during early stages of hardening and strength development.
  - 6. Mechanical injury, construction fires, accidents or premature removal of formwork likely to result in deficient strength.
  - 7. Poor workmanship likely to result in deficient strength.
- N. Structural analysis and/or additional testing may be required when the strength of the structure is considered potentially deficient.
- O. Core tests may be required when the strength of the concrete in place is considered potentially deficient.
- P. If core tests are inconclusive or impractical to obtain or if structural analysis does not confirm the safety of the structure, load tests may be required and their results evaluated in accordance with Chapter 20 of ACI 318.
- Q. Concrete work judged inadequate by structural analysis or by results of a load test shall be reinforced with additional construction if so directed by the Engineer, or shall be replaced at the Contractor's expense.

END OF SECTION

#### **SECTION 03 60 00**

#### **GROUTING**

## PART 1 - GENERAL

#### 1.01 SCOPE

- A. Provide all labor, materials, equipment, and services necessary to furnish and place all grout as shown and specified in the contract documents or otherwise required for proper completion of the Work.
- B. This specification covers the requirements for the furnishing and installation of non-shrink epoxy grout, sand-cement poured grout and sand-cement drypack grout, unless shown otherwise on the design drawings. The work shall include, but not be limited to the following:
  - 1. Concrete surface preparation.
  - 2. Furnishing and installation of all leveling plates, shims, wedges, and other approved adjusting materials.
  - 3. Furnishing and installation of all grout.

## 1.02 SUBMITTALS

- A. Contractor shall submit the following in accordance with the Contract:
  - 1. Submit with the bid, if not otherwise directed, copies of laboratory test reports, including all test data certifying that the selected products will produce grouts of the qualities specified herein. These certification documents shall be forwarded to the Engineer for review and authorization to proceed.
  - 2. Certify that the grout conforms to the test reports submitted with the bid.

## 1.03 QUALITY ASSURANCE

- A. Comply with the requirements of the latest edition of the following standards.
  - 1. ASTM Standards
    - a. C33 Specification for Concrete Aggregates
    - b. C150 Specification for Portland Cement
    - c. C191 Test for Time of Setting Hydraulic Cement by Vicat Needle
    - d. C579 Test Method for Compressive Strength of Chemical-resistant Mortars and Monolithic Surfacing
    - e. C827 Test Method for Early Volume Change of Cementitious Mixtures
  - 2. U.S. Army Corp. of Engineers (CRD) Standards
    - a. CRD-C79-77 Test Method for Flow of Grout Mixtures (Flow Cone Method)

## PART 2 - PRODUCTS

# 2.01 GENERAL REQUIREMENTS

A. Application of grout types shall be as follows unless noted otherwise on the drawings:

# 1. Non-shrink Epoxy Grout

- a. Compressors, generators, blowers, pumps, motors and all other rotating equipment, including grout inside equipment bases.
- b. Equipment with cast bases.
- c. Equipment on base frames or skids up to base of skid (space between beams shall be filled with sand-cement grout)
- d. Anchor bolts and structural elements, especially those mounted into existing concrete elements.

## 2. Sand-Cement Poured Grout

- a. Vessels, heat exchangers and other miscellaneous equipment
- b. Anchor bolts and structural elements subjected to static loading only.
- 3. Dry-pack Grout
  - a. Structural column base plates
  - b. Small equipment with flat plate bases
- B. Manufacturer's printed instructions accompanying epoxy grout containers and the installation instructions given on vendor equipment drawings shall be reviewed together with this specification prior to commencing any grouting. Any conflict among these three sources of information will be resolved by the Engineer. The Construction Manager will issue a revision to this specification, documenting the resolution.

## C. Work Prior to Setting Base Plates

- 1. Concrete foundations shall be at least 7 days old prior to surface preparation.
- 2. Concrete surfaces shall be prepared for grouting or drypacking by chipping back to sound concrete or to a dimension specified by the Engineer. The surface shall be clean with all laitance, grease, oil, dirt or loosened aggregate removed prior to setting the leveling plate and/or equipment to be grouted.
- 3. Water for surface soaking, mixing and curing cement-based grout or drypack shall be potable.
- 4. All leveling plates shall be set to the proper elevation prior to grouting. The number and type of leveling plates will be determined by the Construction Manager in accordance with the recommendations of the equipment manufacturer and other project documents. On subcontracted work, the number and type of leveling plates shall be submitted by the Equipment Installation Subcontractor to the Engineer for review two weeks prior to use. Leveling plates shall be removed after grout hardening and before tightening the anchor bolt nuts.
- 5. Concrete surfaces on which cement-based grout or drypack is to be placed shall be thoroughly soaked with water for 24 hours. Just prior to grouting, the water shall be removed. All standing water shall be removed from anchor bolt sleeves.
- 6. Concrete surfaces on which epoxy grout is to be placed shall be completely dry before grouting.
- 7. Metal surfaces in contact with the grout or drypack shall be clean and free of oil and grease, and foreign substances not associated with the grouting process.

## D. Grout Formwork

- 1. Form work shall be provided for grout and shall be compatible with the method of placing grout specified herein.
- 2. Forms shall be designed for rapid, continuous and complete filling of space to be grouted. Forms shall be of adequate strength to withstand the forces of the fluid grout, and shall be caulked or sealed with tape to prevent excessive leakage. The forms shall be coated with form oil or heavy wax to prevent grout adherence and absorption.
- 3. For other than epoxy grout applications, form placement shall allow at least 1 inch (25 mm) of space all around base plates or equipment bases. The top of the forms shall be a minimum of 1 inch (25 mm) above the bottom of the adjacent base plate. Forms shall have a chamfer strip attached to form a chamfered edge at all corners.

- 4. For all epoxy grout applications, form placement shall be such that the epoxy grout extends 1 ½ inch (38 mm) beyond the outside edge of the foundation, and 4 inches (100 mm) below the top of the poured concrete surface. Grout thickness below the equipment base shall be a minimum of 1 ½ inch (38 mm) for foundations 3 feet (.9m) in width and less, increasing by 1 inch for each additional 3 feet in foundation width. Forms shall have a chamfer strip attached to form a chamfered edge at all corners.
- 5. For rotating equipment, leveling and alignment shall be performed and witnessed by the Engineer on the same day that the grout is placed.

# E. Grout Material Storage

- 1. Epoxy grout materials shall be stored and handled in accordance with the manufacturer's printed instructions.
- 2. Cement-based grouting materials which becomes damp or air-set, prior to use, shall not be used.
- 3. Epoxy grout aggregate shall be delivered to the jobsite in sound, dry bags and epoxy grout liquids in sealed hardener and resin containers. The Contractor shall be responsible for storing the grout in a dry, weatherproof shelter.

# 2.02 REQUIREMENTS FOR EPOXY GROUT

#### A. Materials

1. Nonshrink epoxy grout shall be a proportioned, factory packaged product consisting of specially formulated resin, hardener and aggregate. Approved epoxy grouts are HILTI, Carter Waters, Five Star, Sika, and Escoweld. Substitutes shall not be permitted unless specifically approved by the Engineer. Epoxy grout shall be designed for injection in anchor bolt applications.

## B. Performance Characteristics

- 1. Epoxy grout shall have a minimum compressive strength of 5000 psi (350 kg/cm 2) at 24 hours when tested in accordance with ASTM C579.
- 2. Epoxy grout shall have a minimum working time of 45 minutes at 750 F (24 o C).
- 3. The grout shall show no shrinkage (0.0 percent) and a maximum of 2.5 percent expansion at all ages when tested in accordance with ASTM C827 (modified). The volume change test of epoxy grout, ASTM C827 (modified), requires an indicator ball with a specific gravity between 0.9 and 1.1
- 4. The grout shall be flowable, or injectable, depending on the application.

# 2.03 REQUIREMENTS FOR SAND-CEMENT POURED GROUT

#### A. Materials

- 1. Grout is a mixture of cement and sand with pouring consistency. The mix shall consist of 1 part of Portland cement and 2 parts of sand by volume.
- 2. The water-cement ratio shall be limited to 0.45 by weight.
- 3. Portland cement shall conform to ASTM C150, Types I, II, IV, or V.
- 4. Sand shall conform to ASTM C33.

# 2.04 REQUIREMENTS FOR DRYPACK GROUT

# A. Materials

1. Drypack shall be a mixture of one part cement and 2 ½ parts of sand by volume proportioned at the jobsite and mixed thoroughly with just enough water to produce a consistency such that when a sample is tightly squeezed in the hand only enough moisture will come to the surface to moisten the hand.

- 2. Portland cement shall conform to ASTM C150, Types I, II, IV or V.
- 3. Sand shall conform to ASTM C33.

## PART 3 - EXECUTION

## 3.01 EPOXY GROUT

# A. Mixing

- 1. All epoxy grout components shall be conditioned to a temperature range between 700 F to 850 F (210 C to 300 C) prior to mixing. The entire hardener component shall then be added to the entire resin component and thoroughly mixed for 2 to 3 minutes with a low speed mixer. Mixed resin and hardener shall then be put into a clean mortar mixer or wheelbarrow and the entire bag of aggregate added. The combination shall be mixed until aggregate is completely wetted. Nothing else shall be added to the mixture.
- 2. Mixing shall be adjacent to area being grouted, with sufficient manpower and equipment available for rapid and continuous mixing and placing.
- 3. Grout shall not be mixed in quantities larger than that which can be placed during the working time specified herein.

# B. Placing

- 1. Epoxy grout has a limited working time after mixing. This working time shall be specified by the grout manufacturer. The placing of grout shall be performed only during this specified working time and any unused grout remaining beyond this time shall be discarded.
- 2. Epoxy grout shall be injected for anchor bolt applications. In top-down vertical anchor bolt applications, grout may be gravity-poured with the Engineer's approval. Anchors shall be temporarily supported to prevent sagging until the grout is fully cured.
- 3. When placing epoxy grout, the temperature of the foundation, base plate and grout material shall be within the temporary range of 40o F to 90o F (5o C to 32o C) or as recommended by the manufacturer, determined by a surface thermometer.
- 4. Epoxy grout shall be placed from one long side of an equipment base to the other, in one direction only. The grout shall be poured into movable head box having an inclined plane to direct the grout beneath the equipment base in a manner which minimizes trapped air and bubble formation. The head box should be about a 3 foot (1 m) cube to allow large volumes of grout to be poured continuously. The use of vibrators is not permitted. The use of steel straps is permitted to move grout into position but chaining is not permitted because of air entrapment between the links.
- 5. Pumping epoxy grout is permitted and may eliminate the requirement for a head box.
- 6. Epoxy grout placing shall be continued until it oozes out along the entire perimeter and up through every interior air relief hole and grout hole. An exception occurs when grouting such equipment as pumps having an elevated interior base plate. In these situations, grout shall be placed under the entire equipment base to the top of the exterior base plate and then the grouting stopped for a short period of time to allow the grout to seal the periphery and then the grouting completed through one of the interior grout holes.
- 7. Expansion joints shall be installed as indicated on the design drawings for epoxy grout placements of long length or large area. In no case shall the poured length in any direction exceed 10 feet (3m) without an expansion joint.

# C. Finishing and Curing

1. Finishing and curing shall be in strict accordance with the manufacturer's printed instructions.

- 2. Epoxies cannot be trimmed after set. They must be left at the finished level with required chamfer strips built into the forms. Top surfaces may be trowelled with a steel trowel moistened with oil. Further finishing will require grinding.
- 3. The epoxy grout shall be maintained within the placing temperature range for a minimum of 24 hours after placing.
- 4. Epoxy grout shall not be wet-cured.
- 5. After 24 hours, the juncture between the equipment base or sole plate and the epoxy grout, and between the epoxy grout and the concrete foundation shall be sealed with a silicon such as R.T.V., as approved by the Engineer.

## 3.02 SAND-CEMENT POURED GROUT

# A. Mixing

- 1. Ingredients shall be thoroughly dry-mixed before adding water. After adding water, the batch shall be mixed for 3 to 5 minutes.
- 2. Batches shall be sized to allow continuous placement of freshly mixed grout. Grout not used within one hour or in accordance with manufacturer's recommendation, whichever is less, after mixing, shall be discarded.

# B. Placing

When placing grout the temperature of the foundation, base plate and grout shall be within the temperature range of 40o F to 90o F (5o C to 32o C) or as recommended by the manufacturer, determined by a surface thermometer. This temperature shall be maintained for 3 days following grouting. Preparations for maintaining this temperature shall be submitted to the Engineer.

## 3.03 DRYPACK GROUT

## A. Mixing

1. Ingredients shall be thoroughly dry-mixed before adding water. After adding water, the batch shall be mixed for 3 to 5 minutes. Batches shall be sized to allow continuous placement of freshly mixed drypack. Drypack grout not used within one hour, or in accordance with manufacturer's recommendation whichever is less, after mixing shall be discarded. Retampering will not be allowed.

# B. Placing

- 1. The space between the top of the flange of steel beam and the bottom of the concrete slab shall be filled with drypack grout by tamping with a bar until the voids are eliminated.
- 2. When placing drypack grout, the temperature of the concrete, steel, and drypack grout shall be within the temperature range of 40o F to 90o F (5o C to 32o C) or as recommended by the manufacturer, determined by a surface thermometer. This temperature shall be maintained for 3 days following grouting.

# 3.04 INSPECTION AND QUALITY CONTROL

A. For epoxy grouts, a manufacturer's technical representative shall be called to the field office for a pre-grouting conference to assure that all grouting steps are followed in accordance with the manufacturer's instructions. The representative should remain at the jobsite until the Construction Manager is assured that the correct procedures are being followed and the warranty is not in jeopardy. The Structural Engineer shall be advised if the manufacturer's representative recommends anything contrary to this specification.

- B. The Construction Manager and Contractor shall implement contract document procedures for inspection, testing, and documentation. These procedures shall define the documentation that will be employed to assure that the certifications, examinations, tests and approvals required by the contract specifications are accomplished.
- C. Vertical support for equipment having a structural steel base frame and a stiffened cover plate is provided by grouting under the base frame. Compliance with the installation procedure established herein will preclude unacceptable voids. Incidental voids under the cover plate may not be detrimental or witnessed and approved by the construction engineer. It is important that the cover plate is sealed by grout against foreign elements.

**END OF SECTION** 

#### **SECTION 05 12 00**

#### STRUCTURAL STEEL FRAMING

## PART 1 - GENERAL

#### 1.01 SCOPE

A. The provisions of this section are applicable to all the structural steel, miscellaneous metal work, and steel items required to complete the work as shown and specified in the contract documents.

# 1.02 SUBMITTALS

- A. The Contractor shall submit the following items in accordance with Section 013300, Submittal Procedures.
  - 1. Shop Drawings: Submit shop drawings for review prior to fabrication. Do not start fabrication until review of shop drawings by the engineer is complete. Prepare drawings in accordance with the latest edition of the AISC manual "Structural Steel Detailing" and including complete details, sections, materials, fabrication, assembly, and erection requirements, procedures and diagrams.
    - a. Indicate welds by standard AWS A2.1 and A2.4 symbols, and show size, length and type of each weld.
    - b. Provide setting drawings, templates and directions for installation of anchor bolts or other anchorages.
    - c. Include diameters of bolt holes, types, sizes and strengths of bolts; yield strength of steel; shop and field welding details; arc-welding electrode designation; and manufacturer's name, color, and number of coats of shop paint.
    - d. Include erection diagrams showing elevations and cross sections which will locate all members by piece mark and provide essential dimensions and necessary erection information.
    - e. Design all connections not shown on the contract drawings as per the AISC manual. Account for eccentricity in all connection designs.
    - f. Prohibit direct reproduction of the Contract Drawings for use as Shop drawings.
  - 2. Test Reports: Assist independent testing agency in submitting reports of inspections and testing of structural steel.
    - a. Furnish the testing agency with the fabrication plant's schedule, in order for appropriate inspections to be accomplished.
    - b. Request the testing agency to conduct both visual inspections and torque sampling of mill-fabricated connections, at the rate of one test and sampling for each 50 tons of steel fabricated.
  - 3. Manufacturer's Mill Certificate: The Fabricator is required to obtain mill certificates from the supplier for all structural steel and furnish copies of the certificates to the Construction Manager and/or Engineer prior to fabrication. Mill Certificates shall properly account for all project steel, and shall be accompanied by an inventory list that provides the quantities and lengths of the steel in each supplied heat.
  - 4. Weld & Welder Qualification Documents (See Section 5.06 of this specification for more details):
    - a. Only AWS (American Welding Society) qualified welders shall be employed for welding. Submit a Welding Personnel Qualification Record (WPQR), to the Engineer for review at least three (3) weeks prior to using the welder.

- b. For each anticipated class of weld, submit Weld Procedure Specifications (WPS) to the Engineer for review at least three (3) weeks prior to welding.
- 5. Bolt tensioning procedures for snug, pretensioned, and slip-critical bolts, including methods, equipment, and torque values.
- 6. Submit samples of materials as requested by the engineer, including names, sources, and description.

## 1.03 REFERENCE

- A. Comply with the requirements of the latest edition of the following standards (including all supplements and addenda), unless noted otherwise:
  - 1. AISC (American Institute of Steel Construction): "Steel Construction Manual"
    - a. "Specification for Structural Joints Using High-Strength Bolts" "Code of Standard Practice for Steel Buildings and Bridges".
  - 2. AWS (American Welding Society):
    - a. "Structural Welding Code-Steel" (AWS D1.1) "Welding Zinc-Coated Steel" (AWS D19.0) Other Applicable Standards
  - 3. BOCA (Basic Building Code)
  - 4. ASTM (American Society for Testing and Materials):
    - a. Applicable Referenced Specifications.
  - 5. OSHA (Occupational Safety and Health Administration):
    - a. As required by State and Federal Regulations.
- B. Where provisions of pertinent codes and standards conflict with these specifications, more stringent provisions shall govern.

## 1.04 QUALIFICATIONS

- A. Steel Fabricator shall be a member of the American Institute of Steel Construction or can further demonstrate at least ten (10) years of qualified experience, subject to the approval of the Engineer.
- B. Qualify welding procedures, welders and welding operators in accordance with AWS D1.1. See Section 5.06 of this specification for further details.
- C. Fabricate structural steel members in accordance with AISC Code of Standard Practice.
- D. Maintain one copy of each document on site.
- E. Erector: Company specializing in performing the work of this section with a minimum of 5 years documented experience.
- F. Design connections not detailed on the drawings under direct supervision of a professional structural engineer experienced in design of this work and licensed in the State of New York.
- G. An independent testing laboratory may be employed by the Owner for the final detailed inspection of the work under this section. The Engineer may also elect to undertake this work. In either case, the following items apply:
  - The testing agency (or Engineer) will inspect materials, workmanship, field welds, bolts and bolt tension and projection of bolt threads. The testing agency will follow specified and applicable AISC criteria and the inspection procedures specified in the "Specifications For Structural Joints Using ASTM A-325 or A-490 Bolts" for checking Hi-Tensile Bolt installation. Materials and workmanship not conforming to drawings and established standards of these

- specifications and/or references will be rejected by the Owner and shall be corrected at Contractor's expense.
- 2. The Contractor shall allow access for such testing at all times.
- 3. Testing on behalf of the Owner shall not relieve the Contractor of responsibility to comply with the provisions of these specifications.
- H. Inspection of material and workmanship in mill and shop, if required, will be performed by the Owner without expense to the Contractor, except as otherwise described in these Specifications. Contractor shall provide access to all areas of work to allow inspection as may be determined necessary by the Owner and Engineer. In either case, whether the Owner decides to require or omit Laboratory inspection in the shop, this shall not relieve the Contractor of the responsibility of providing and erecting steel in full accordance with the Specifications. Any steel not conforming may be rejected by the Engineer at any stage of construction, and shall be repaired or replaced by the Contractor, as required to satisfy all Contract requirements, all without additional cost to the Owner.

#### 1.05 SPECIAL INSPECTIONS

- A. Where fabrication of steel assemblies shall be performed offsite, the manufacturer shall:
  - 1. Be accredited by International Accreditation Services under its Fabricator Inspection Accreditation Program and hold a current certificate of accreditation indicating the scope of fabrication accreditation.

OR

2. Obtain approval from the Department of Licenses and Inspections as a fabricator that is exempt from special inspections at its fabrication facility, in accordance with Chapter 17 of the IBC.

# PART 2 - PRODUCTS

## 2.01 MATERIALS

- A. Plates, Shapes and Bars
  - 1. All structural steel shapes and bars, except wide flange and HP shapes, shall be purchased under the requirements of ASTM A36 "Standard Specification for Structural Steel," unless noted otherwise. Wide flange shapes shall conform to ASTM A992, GR-50. HP shapes shall conform to ASTM A572, GR-50.
  - 2. Plates shall be produced from cut lengths of flat product. Plates produced from coil are specifically disallowed. Plates shall be purchased oversized and cut to fabricated dimensions or purchased with sheared, gas, or plasma cut edges in exact sizes. Mill edge plates are not to be used in fabrication. Plates, shapes, and bars shall meet the dimensional requirement of ASTM A6.
- B. Structural Steel Tubing
  - 1. Structural Steel tubing shall be purchased under the requirement of ASTM A 500. Tensile requirements for square and rectangular tubing shall meet the requirements of Grade B (46 ksi minimum yield).
- C. Pipe
  - 1. Structural steel pipe shall be purchased under the requirements of ASTM A 53 Grade B, unless otherwise noted on the drawings.

## D. Grating.

# 1. Bar Grating

- a. Grating shall be welded galvanized steel bar grating, Irving type IWA or equal, with 1 ¼ in. x 3/16 in. bearing bars space 1-3/16 in. on centers, unless noted otherwise on Contract Drawings. Grating shall be serrated.
- b. Banding of grating edges not required, unless noted on Contract Drawings. However, provide load-carrying bands at all openings through grating. Grating panels shall be attached to the supporting structure by welding or using anchor and/or clamp assemblies. If welded, use 2 in. of 3/16-in. fillet weld at maximum 12 in. on centers. If using clips, the spacing of attachment clips shall not exceed two (2) feet and there shall be no less than six (6) clip assemblies in any one piece of grating.

## E. Ladders

1. Unless otherwise noted on Contract Drawings, vertical ladders shall be fabricated using 3 ½"x ½" side rails (with eased edges) spaced on eighteen (18) inch centers with 1" round bar rungs spaced on twelve (12) inch centers. Vertical ladders of more than twenty-four (24) feet in height shall have back cages installed beginning between seven and eight feet above the walkway or base elevation and extending to the upper extent of the vertical ladder stringers. The back cages shall be of form and construction to meet applicable OSHA requirements. Stringers shall extend above the top rung of the vertical ladders at least forty-two (42) inches to provide an adequate hand hold for entry and exit from the ladder, unless noted otherwise. Where required for safety, additional 1" square bar grip rungs shall be provided on adjacent structure to facilitate safe and convenient access to the vertical ladder. Support each ladder at top and bottom and at intermediate points where shown by means of welded or bolted steel brackets clear of the wall surface by not less than seven (7) inches.

## F. Handrails

- 1. Handrails are to be of the two-tier type with toe guard attached at grating level. Unless otherwise noted on Contract Drawings, handrail stanchions shall be 1½" O.D. schedule 80 structural steel pipe with a maximum spacing of six (6) feet on centers and where possible shall be aligned with the transverse supporting framing below the grating for increased rigidity. The top tier of horizontal rail is to be 1½" O.D. schedule 40 structural steel pipe. The intermediate tier of horizontal rail shall be 1½" O.D. schedule 40 structural steel pipe and shall be equidistant from the top rail, and walkway finished surface. For steel walkways, a galvanized L-6"x3½"x3/8" angle toe board is to be installed continuously between handrail stanchions with the bottom of the angle welded to the walkway stringer. For concrete installations, a four inch by one-quarter inch (4" x ¼") painted flat bar kick plate is to be installed continuously between handrail stanchions with the bottom of the bar not more than one quarter inch (¼") above the top of the finished surface.
- 2. Portable safety chain type rails are to be installed at all openings in the handrail perimeter. The chain rails are to be fabricated of ¼" hot dipped galvanized chain. Attachments are to be welded ¼" round bar eyelets at one end, and fitted with chain hooks with spring loaded safety clasp at the other end. Chain hooks and clasps are to be hot dipped galvanized. The chain hooks are to attach to ¼" round bar eyelets welded to the handrail stanchion.

## G. Bolts, Threaded Rods, Nuts, and Washers

All bolts, anchors, and threaded rods that are not a portion of vendor- furnished equipment packages shall be purchased under the following ASTM Designations, as indicated in the design drawings: ASTM A307, ASTM A325, ASTM A449, ASTM A490, ASTM A193, or ASTM F1554. Nuts shall conform to ASTM A563, and washers shall conform to ASTM F436, unless the grade of bolt, anchor or threaded rod calls for matching nuts and washers from another specification. Where necessary, bolts may be purchased under the equivalent SAE specification of grade eight (8) if mechanical properties are shown to be equivalent. Bolts that are a part

- and/or accessory to vendor-purchased items shall meet the manufacturer's requirements as modified by special protective coating stipulations in this specification.
- 2. All bolts shall be of the size indicated on the contract and detail drawings and shall be UNC coarse thread series. Nuts shall be heavy hex series and fitted with hardened washers, lock washers, and/or other washers as indicated on the drawings.
- 3. All bolts nuts, and threaded holes in structural steel shall be thoroughly cleaned of any foreign matter including machining chips and oil before the bolts are installed. The threaded portion of the bolt to engage with the nut and/or the threaded steel shall be coated with a thread locking compound suitable for disassembly with hand tools
- 4. All bolts in slip-critical connections shall be tensioned to seventy (70) percent of the minimum tensile strength of the bolts using the turn of the nut method, or an accurately calibrated torque wrench. Torque shall be applied to the bolts immediately after the application of the thread-locking compound. Bolts that are found to be under the required torque value shall be removed, thoroughly cleaned, and reinstalled with another application of thread locking compound.
- 5. Impact wrenches, or other tools whose torque is not easily controlled, shall not be used without the written permission of the engineer.
- 6. Bolts that have been torqued with a calibrated wrench shall be marked with a semi-permanent marker to indicate that they have been tightened to specified value.
- 7. The bolts, nuts, and washers are to receive the same surface preparation and protective coating systems as the surrounding steel unless otherwise noted on the drawings or in the specification. Note that hop dipped galvanized bolts, nuts, washers, screws, and other similar items are to be used in conjunction with grating, and sheet metal that is specified to be hot dipped galvanized.

## PART 3 - EXECUTION

## 3.01 FABRICATION

- A. Fabricate items of structural steel in accordance with AISC Specifications and as indicated on the approved Shop Drawings. Provide camber in structural members as shown.
- B. Properly mark and match-mark materials for field assembly and for identification as to structure and site for which intended. Fabricate for delivery sequence, which will expedite erection and minimize field handling of materials.
- C. All fabricated members shall have shop marks matching the member designations on the approved shop drawings. Any finished members arriving onsite that are unlabeled, or do not match the approved shop drawings, shall be rejected.
- D. Furnish main steel members in one piece without splicing, unless otherwise noted on Contract Drawings or approved by the Construction Manager.
- E. Exclude bolt threads from shear planes in bearing type connections using high-strength bolts.
- F. Provide either welded or bolted shop connections, except as noted on Contract Drawings. Provide bolted or welded field connections at contractor's option, except as noted on Contract Drawings.
- G. Remove all cracks, porosities, spatter, slag inclusions, incomplete fusions, and incomplete penetrations over ½ in. long in any 12 in. length of weld, and reweld as required.
- H. Mill ends of columns and other members in direct bearing.

- I. Contractor to verify all existing dimensions and elevations before fabrication. The completed structure shall be dimensionally accurate to the extent that parts shall move and function freely without unnecessary strain, wear, vibration or deflections.
- J. In regard to items not indicated on the drawings or referenced in the specifications or contract, the requirements of the Code of Standard Practice for Steel Buildings and Bridges as contained in the AISC Manual of Steel Construction Thirteenth Edition shall be applicable.
- K. General dimensional tolerances not specified on the drawings shall meet the requirements of the Code of Standard Practice referenced above. Dimensional tolerances for fitting at joints to be welded shall meet the requirements of AWS D1.1 for pre-qualified and/or Fabricator-qualified welding procedures.
- L. All workmanship must be first-class in all respects, and any exposed members not presenting a finished and workmanlike appearance will be rejected. All finished members shall be free from twist, bends or open joints.
- M. All members shall be true to length so that assembling may be done without fillers, except where same are required as detailed. There shall be no projecting edges or corners where different members are assembled.
- N. All coping, blocking and mitering shall be done with care.
- O. All welds on exposed surfaces shall be ground smooth and flush with the adjacent surfaces.
- P. All details and connections shall be carefully made and fitted and special care shall be exercised to produce a thoroughly neat and workmanlike appearance. All detail pieces shall be made in exact accordance with detail drawings and all projecting corners clipped and all filler pieces made flush.
- Q. Provide all lugs, clips, connections, bolts and the like, necessary for complete fabrication and erection, and to engage with the adjacent construction. Provide setting diagrams for loose items to be built into concrete work indicating location, elevation and projection of loose items. All bolts remaining in the finished, exposed work shall be hexagon head bolts with hexagon nuts. Bolts shall be of proper length to permit full thread in the nut, but shall not project more than 1/4" beyond the face of the nut.
- R. Burning shapes to length in the shop with a standard flame cutting machine will be permitted. There shall be no burning in the field without the consent of the Owner. If consent is given, burned members shall be finished to an acceptable appearance which shall be the equal of a sheared finish. Burning of holes will not be permitted in the shop or in the field.
- S. Cut, drill, or punch holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning. Drill holes in bearing plates.

#### 3.02 MATERIAL HANDLING

A. Where possible, material shall be handled with slings, straps, and/or plate clamps to minimize the attachment of welded plate clips and lifting lugs to the structure. Where necessary, lifting clips, eyes, and lugs may be fitted on a temporary basis and removed after member erection. Where this course is followed, the base material shall be refinished to original surface condition by welding gouges and grinding surface irregularities to a flush finished condition.

- B. In areas where lifting lugs may be left on the structure without detriment to the function or appearance to the structure, the Fabricator shall be permitted to leave the lifting attachments permanently in place. Where this course is followed, the lugs shall be fabricated using optical or numerically controlled burning equipment and shall have smooth finishes on all cut surfaces. In addition, the attachments shall be welded continuously and shall receive surface preparation and protective coating systems identical to the surrounding structure to which they are attached.
- C. Material shall be stored so as to avoid contact with the ground, and shall be protected against weathering. Material shall be stored in a manner to insure that no members, protruding flanges, stiffeners, gussets plates, and other attachments are bent or otherwise damaged during storage. During transport, material shall be similarly secured so as to protect it from excessive vibration, abrasion, impact, weather, and anything else which could damage the material or coating.
- D. If such defects or damage in material cannot be corrected in the field to the entire satisfaction of the Engineer, the material shall be returned to the shop, or new parts furnished, as the Engineer will direct. The Contractor shall pay all expenses for such actions.
- E. Material determined unacceptable by the Engineer shall be corrected or replaced as required, all at Contractor's expense.

## 3.03 MATERIAL PREPARATION

- A. Material shall be carefully cut to length and dimensioned using optical or numerical burning equipment, saws, shears, etc. where possible. Material that is cut using hand torches shall be carefully ground to finished dimensions and to remove any edge irregularities prior to fabrication.
- B. Holes for bolts, pins, and miscellaneous attachments shall be drilled or bored. Flame burning is not allowed to prepare holes in structural steel with the exception of using flame burning to remove excessive material prior to finishing the parts with machine tools.
- C. Where special grades of steel are required, those being steel grades other than ASTM A 36, the individual parts are to be clearly marked with semi-permanent markers to indicate the steel grade from which the part has been fabricated.
- D. The Fabricator shall protect all material from extended ground contact, exposure to corrosive environment, weld spatter, or other conditions that will adversely affect the milled surface finish on the material to be used in fabrication.

## 3.04 CLEANING AND PAINTING

- A. Clean and paint all structural steel as outlined in Sections 09900 and 09967, unless noted otherwise. If a structural steel section is designated to be hot-dip galvanized, galvanize in accordance with Section 09911.
- B. Do not shop coat:
  - 1. Surfaces within 2 in. of field welds.
  - 2. Contact surfaces of slip-critical high-strength bolted connections.
- C. After erection and inspection, erection contractor shall field paint all unpainted surfaces and abraded spots with primer and finish coats as outlined the appropriate Section.
- D. For galvanized steel that will be welded after galvanizing, refer to Section 05120.5.06.

#### 3.05 ERECTION

- A. Brace and maintain all steel in alignment until other parts of construction necessary for permanent bracing or support are completed.
- B. Install temporary guys and bracing to safely resist wind loading designated in applicable building code.
- C. Set threads of machine bolts to prevent loosening.
- D. Tighten bolts in slip-critical connections by the "turn-of-nut" or calibrated wrench methods as specified in the Specification for Structural Joints Using ASTM A325 or A490 Bolts.
- E. Contact surfaces of slip-critical connections shall be free of oil, grease, rust, mill scale, etc.
- F. After erection and inspection, paint with shop paint all unpainted surfaces, abraded spots, and bolt heads and nuts.
- G. Base plates, complete with anchor bolts shall be accurately located and leveled with instruments. When leveling bolts are not required by the drawings, proper steel shims shall be provided for leveling the base plates. Wood shims will not be permitted to be used for leveling steel base plates or masonry plates. Provide grout holes in base plates as shown on drawings.
- H. No shims will be allowed between compression/tension members and base plates.
- I. Compression members shall not be spliced except as shown on drawings or as authorized in writing by Engineer.
- J. Erect compression and tension members plumb and true, in positions indicated. All work shall be formed, fabricated and erected or installed true to lines, levels, and dimensions, plumb and square. Level and plumb individual members of the structure within specified AISC tolerances.
- K. All beams shall be fabricated with crown of mill camber at top.
- L. Do cutting, punching, drilling and tapping as required for attachment of other work coming in contact with miscellaneous metal work where so indicated or where directions for same are given prior to or with approval of shop drawings. Do necessary cutting, drilling and fitting required for installation of miscellaneous metal work. Execute drilling, cutting, fitting carefully and where required, fit work at job before finishing. Flame cutting or hole burning will not be accepted, unless specifically approved.
- M. Form all work true to detail, with clean, straight, sharply defined profiles. Metals shall have smooth finish surfaces except where otherwise specified. Finish curved work to true radii, using easy curves.
- N. Wherever exposed, welds shall be ground smooth and polished to match finish to adjacent metals using filler metal compatible with base metal.
- O. Install all supporting members, fastenings, framing, hangers, bracing brackets, straps, bolts, angles as required to set, connect work rigidly and properly to steel, masonry or other construction.
- P. Finished work shall be free from warp, twists, bends or open joints and shall present a clean and workmanlike appearance.
- Q. Faulty work shall be immediately corrected at no additional expense to the Owner.

R. Unless shown on drawings, Anchorage to concrete shall be accomplished by use of built-in anchors or expansion bolts. Expansion bolts or cartridge driven stud anchorage will be allowed only for fastening to concrete, but will not be permitted for fastening to masonry. Wood plugs will not be permitted for fastening in any walls.

## 3.06 WELDING

#### A. General

- 1. Welding details shall conform to the size and configurations indicated on the contract and Fabricator-prepared detail drawings. Unless otherwise noted and approved by the Engineer, all exterior welding shall be continuous.
- 2. All welding shall fully comply with the requirements of AWS D1.1 Structural Welding Code Steel. Other welding procedures may be considered by the Engineer on a per case basis; however, requests for variance from AWS code requirements will normally be denied.
- 3. Welds shall not be water quenched. For field welding to be performed in the tidal zone, the base metal within 3" of the proposed weld shall be preheated to fully dry the material prior to welding.
- 4. In general, electrodes shall be new, or reconditioned, at the start of each work shift. The Contractor shall strictly adhere to the atmospheric exposure and baking requirements of Clause 5 of AWS D1.1, and shall provide suitable holding and conditioning ovens onsite, as necessary.

# B. Welding Procedures

- 1. Formal written welding procedure specifications (WPS) shall be prepared by the Contractor and submitted to the Engineer for review prior to the commencement of fabrication. All WPS shall be either prequalified in accordance with AWS, or qualified by the Fabricator on a case-by-case basis.
- 2. The formal WPS shall contain all variables listed in AWS Table 3.8, including: sketches indicating joint geometry and access or backing holes; welding process; base material specification and thickness limits; backing material specification and dimensions; groove preparation dimensions and tolerances, permitted welding positions; electrode rod, wire, flux and gas shield information; current type, range and polarity; and preheat and interpass temperature ranges.
- 3. Welding procedures that are not pre-qualified by AWS D1.1, and are to be qualified by the Fabricator, shall be qualified in accordance with AWS D1.1 in the presence of the Engineer and/or his designated representative.
- 4. Allowable welding processes are shielded metal are welding (SMAW), gas metal arc welding (GMAW), flux core arc welding (FCAW), and submerged arc welding (SAW). As such, the following filler material requirements are to be used on all grades of steel used on this project:

SMAW E70X5(-X), E70X6(-X), E70X8(-X)

SAW F7X-EXXX-X GMAW ER70S-X FCAW E7XTX-X

(Except -2, -3, -1-, -GS)

Higher filler metal strengths may be required when welding materials in groups III and IV of AWS D1.1 Table 3.1.

- 5. Submerged arc welding, while being very efficient on thick material, sometimes produces excessive distortion on light gauge materials. Where the Fabricator desires to use submerged arc welding on material of less than one-half (1/2) inch in thickness, it shall be demonstrated to the Engineer that excessive distortion of the material can be effectively controlled.
- 6. Short circuiting transfer (short arc) welding produces low heat input into parent material and is useful for preventing excessive distortion when welding relatively thin steel shapes and plate. Penetration produced by short arc welding is minimal and often times insufficient for highly

- stressed parts. Short arc welding will only be considered on certain thin plate structures where stress levels are relatively low. Specific written approval of the engineer is required for the use of short arc welding.
- 7. All bevel welds shown without penetration size shall be complete joint penetration welds.
- 8. Backing bars shall be removed from all accessible complete joint penetration welds.
- 9. When the 'all-around' welding symbol is used at an end connection of a rolled shape, the Contractor shall terminate the weld at each of the flange edges, and one weld thickness away from each intersection of the web and flange, unless noted otherwise.
- 10. Parts to be joined by fillet welds shall be brought into close contact, and the root opening shall not be permitted to exceed 3/16 in, unless written permission is granted by the Engineer. If the root opening separation is greater than 1/16 in, the legs of the fillet weld shall be increased by the size of the root opening.

# C. Welders and Welding Operator Qualifications

- 1. Each welder or welding operator shall be qualified in accordance with AWS D1.1. Welding Personnel Qualification Records shall be submitted to the Engineer for review.
- 2. WPQRs shall contain all of the variables listed in AWS Table 4.12, and shall be applicable to the welds that a given welder proposes to perform on the project.
- 3. If the qualification test listed on the WPQR is more than six (6) months old, a detailed employment history and letter must accompany the WPQR to certify that the welder has been engaged in the welding process in question since the date of original qualification.

# D. Welding Galvanized Steel

- 1. Prior to welding surfaces that have been previously hot dip galvanized, all zinc coating must be removed from either side of the intended weld zone, and on both sides of the piece.
- 2. Zinc coating may be removed by grinding or burning. If the coating is removed by burning, the surface shall be further ground or cleaned to remove combustion byproducts and other impurities.
- 3. Welding shall be performed in Accordance with AWS D19.0.
- 4. In order to prevent excessive heat that could damage the adjacent galvanized coating, weave beads shall not be permitted.
- 5. Recoat areas after the completion of welding in accordance with the Contract Drawings and Section 09911.

## 3.07 REWORK AND FAIRING

A. Fabricated steel that is out of dimensional tolerances and/or not fair to the eye may be replaced and/or repaired by the Fabricator. If heat fairing is to be used, the material shall not be heated to more than twelve hundred (1200) degrees Fahrenheit. During heat fairing procedures, the Fabricator shall monitor the material temperature with temp sticks or lacquer, surface applied thermocouple gauges, or some other suitable form of temperature measuring system.

# 3.08 WELD INSPECTION

- A. Inspection of welded splices of main material and all complete penetration welds selected by the Engineer shall be by a testing laboratory selected by the Engineer and paid by the Owner, unless noted otherwise. All weld testing shall be in accordance with the AWS, unless otherwise modified hereinafter.
- B. The Contractor shall cooperate with and assist the Owner with the inspection of welds.

- C. Unless noted otherwise, visual inspection of all welds will be made by the Contractor. A record of this inspection shall be maintained by the Contractor.
- D. The Contractor shall correct improper workmanship and remove, replace or correct as instructed all welds found unacceptable or deficient by the Engineer. The Contractor shall pay for all corrections.
- E. Send five copies of reports on all required testing directly to the Engineer.

# 3.09 COMPLETION

- A. Upon Completion or when directed, conduct careful inspection and correct all defective work.
- B. Remove scrap, litter and debris resulting from operations specified herein, and leave work and the premises in clean satisfactory condition, ready to receive subsequent work.

**END OF SECTION** 

#### **SECTION 09 90 00**

#### PAINTING & COATING

## PART 1 - GENERAL

#### 1.01 SCOPE

## A. Work Included

1. Paint and finish all surfaces listed in the Painting Schedule, Part Five of this Section. Provide all touch up and remedial painting as required until the work is accepted by the Engineer.

## B. Work Not Included

- 1. Painting specified under other sections.
- 2. Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas.
- 3. Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished materials will not require painting under this Section except as may be specified herein.
- 4. Do not paint any moving parts of operating units; mechanical or electrical parts such as valve operators, linkages, sensing devices, and motor shafts, unless otherwise indicated.
- 5. Do not paint over any required labels or equipment identification, performance rating, name, or nomenclature plates.

#### C. Definitions

1. The term "paint", as used herein, means all coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

# 1.02 SUBMITTALS

- A. Contractor shall submit the following in accordance with Section 013300, Submittal Procedures:
  - 1. Submit recommended color, paint specifications, proposed application procedure, and manufacturer contact number three weeks prior to painting.

# 1.03 QUALIFICATIONS

## A. Qualification of Manufacturer

1. Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production acceptable to the Engineer.

# B. Qualifications of Workmen

- 1. Provide and identify by name, at least one person who shall be present at all times during execution of the work of this Section, who shall be thoroughly familiar with the specified requirements and the materials and methods needed for their execution, and who shall direct all work performed under this Section.
- 2. Provide adequate numbers of workmen skilled in the necessary crafts and properly informed of the methods and materials to be used.

3. In acceptance or rejection of the work of this Section, the Engineer will make no allowance for lack of skill on the part of workmen.

## C. Paint Coordination

- 1. Provide finish coats, which are compatible with the prime coats used.
- 2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrata.
- 3. Upon request, furnish information on the characteristics of the specific finish materials to ensure that compatible prime coats are used.
- 4. Provide barrier coats over non-compatible primers, or remove the primer and reprime as required.
- 5. Notify the Engineer in writing of anticipated problems in using the specified coating systems over prime coating supplied under other Sections.
- D. In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations contained in the latest revision of the following publications of the Steel Structures Painting Council:
  - 1. SSPC-SP-1 Solvent Cleaning
  - 2. SSPC-SP-2 Hand Tool Cleaning
  - 3. SSPC-SP-3 Power Tool Cleaning
  - 4. SSPC-SP-4 Flame Cleaning
  - 5. SSPC-SP-5 White Metal Blast Cleaning
  - 6. SSPC-SP-6 Commercial Blast Cleaning
  - 7. SSPC-SP-7 Brush Off Blast Cleaning
  - 8. SSPC-SP-8 Pickling
  - 9. SSPC-SP-9 Weathering Blast Cleaning
  - 10. SSPC-SP-10 Near White Metal Cleaning

## PART 2 - PRODUCTS

#### 2.01 MATERIAL

## A. Design

- 1. Design is based on use of paint products manufactured by Glidden or Rustoleum, and the materials of those manufacturers are named in the Painting Schedule.
- 2. Equal products of Sherwin-Williams or other manufacturers may be used if approved by Engineer.

#### B General

1. Provide the best quality grade of the various types of coatings as regularly manufactured by paint materials manufacturers approved by Engineer. Materials not displaying the manufacturer's identification as a standard best-grade product will not be acceptable.

# C. Durability

Provide paints of durable and washable quality. Do not use paint materials which will not withstand normal washing as required to remove pencil marks, ink, ordinary soil, and similar material without showing discoloration, loss of gloss, staining, or other damage.

#### D. Colors and Glosses

- 1. Paint colors shall be as specified below, or Owner approved equal, unless noted otherwise on the Contract Drawings:
  - a. Handrail Sherwin Williams Safety Yellow (SW 4084)

- b. Cleats Sherwin Williams Safety Yellow (SW 4084)
- c. Bollards Sherwin Williams Safety Yellow (SW 4084)
- d. Walkway Stringers Sherwin Williams Blueprint (SW 4058)
- e. All other structural steel Primer only.
- 2. The Construction Manager will be the sole judge of acceptability of the various glosses obtained from the materials supposed to be used in the Work.

#### E. Undercoats and Thinners

1. Provide undercoat paint produced by the same manufacturer as the finish coat. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.

#### F. Standards

Provide paint materials, which meet or exceed the standards listed for each application in the Painting Schedule in Part Five of this Section.

# 2.02 APPLICATION EQUIPMENT

#### A. General

1. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by Engineer.

# B. Compatibility

Prior to actual use of application equipment, use all means necessary to verify that the proposed equipment is actually compatible with the material to be applied and that the integrity of the finish will not be jeopardized by use of the proposed application equipment.

# 2.03 OTHER MATERIALS

A. All other materials, not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first-quality of their respective kinds, and as selected by the Contractor subject to the approval of the Engineer.

## PART 3 - EXECUTION

END OF SECTION

#### SECTION 01 10 00 - A

# SUMMARY OF WORK (supplement)

## PART 1 - GENERAL

#### 1.01 GENERAL PROJECT AND SITE DESCRIPTION

- A. The project is located on the Battery Park Terminal on the eastern shore of the Hudson River in New York, NY.
- B. The structure is a concrete and steel arched deck structure supported on timber piles.
- C. Recent surveys indicate that a portion of the timber piles exhibit signs of moderate to serious deterioration.
- D. The surveys also indicate areas of cracking and spalling on the underside of the concrete arches.
- E. The objective of the project is to protect the timber piles and concrete and retard the ongoing processes of deterioration.

#### 1.02 WORK INCLUDED IN THE CONTRACT

## A. GENERAL

1. Provide all labor, equipment, materials, and all other services and expenses as may be necessary for, and incidental to, the proper execution and completion of the tasks as described herein.

## B. MOBILIZATION & STARTUP

- 1. Perform a survey of the entire dock structure to verify conditions, quantities and dimensions.
- 2. Mobilize all personnel, equipment and materials to the site as needed. A laydown area for equipment and materials will be provided for by the Owner in the vicinity of the work site.
- 3. All equipment and materials shall be located in the laydown area(s) provided by the Owner, or as otherwise directed by the Owner. Bids shall include any specific laydown requirements required to perform the work.
- 4. Install all turbidity barriers and materials to comply with all permits and E&S plans.

## C. PROTECTIVE AND REPAIR WORK

- 1. Follow the procedures outlined on the drawings to clean and prepare the surfaces and install the proposed repair materials for the following items:
  - a. Protective Pile Wrapping
  - b. Concrete Crack and Spall Repair
  - c. Steel Coating Repair
  - d. Breakwater Repairs
  - e. Steel Fascia Repair

# D. DEMOBILIZATION & CLOSE-OUT

- 1. Demobilize from the site and leave the facility in a clean and satisfactory condition.
- 2. Submit as-built drawings to the Owner.

## 1.03 INCIDENTAL ITEMS

- A. Review the information available relating to the project, including, but not limited to, the construction drawings, drawings indicating previous repairs, investigation survey report(s), geotechnical investigation/report, tides and currents.
- B. Adhere to and abide by all the Owner's safety and security policies at all times.
- C. Provide and maintain all safety measures and devices to ensure public safety and prevent public access to the structure throughout construction.
- D. Include all required insurance documents with Bid.

# 1.04 EXCLUSIONS

- A. All exclusions shall be specifically stated in the Bid and shall become the basis for the Contract.
- B. No additional exclusions or modifications will be accepted after the award of work.

## 1.05 PERMITS

A. Obtain all permits required for performing the work under the Contract.

## 1.06 SCHEDULE

A. Bids shall include an approximate schedule of duration for the completion of the construction and associated activities.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

**END OF SECTION** 

#### SECTION 01 33 00 - A

# SUBMITTAL PROCEDURES (supplement)

## PART 1 - GENERAL

#### 1.01 SCOPE

A. The provisions of this section apply to the submittal of all information by the Contractor to the Engineer / Owner.

# PART 2 - PRODUCTS (not used)

#### PART 3 - EXECUTION

## 3.01 SUBMITTAL PROCEDURES

- A. Make Submissions in a timely manner. Do not initiate a construction activity prior to receiving ALL the submittals, reviewed by the Engineer, related to the construction activity, indicating an authorization to proceed with the construction activity. Any construction activity performed without this authorization shall be at Contractor's risk and cost. Delays arising due to the failure in making timely submittals shall be at Contractor's cost. No compensation will be paid for construction activities performed without the authorization of the Engineer.
- B. Submit a Submittal Log, documenting the list of submittals to be made during the project, prior to mobilization.
- C. Transmit each submittal with a letter of transmittal indicating the content of the submittal, quantity of submitted items and any special instructions.
- D. Submittals are to be sequentially numbered. Mark revised submittals with original number and sequential alphabetic suffix.
- E. Identify Project, Contractor, Subcontractor and Supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- G. Schedule submittals to expedite Project. All materials shall be submitted electronically either through email or other media. The Contractor shall coordinate with the Engineer and Owner as to the preferred submission procedures for the project.
- H. For each submittal, allow for a 10-working-day review period excluding delivery time to and from Contractor.

- I. Identify with highlighter and/or red ink variations from Contract Documents and product or system limitations, which may alter or be detrimental to successful performance of completed Work. Contractor shall provide an estimated cost for any proposed alternates.
- J. Allow space on submittals for Contractor and Engineer review stamps.
- K. When revised for resubmission, identify changes made since previous submission.
- L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- M. Submittals not requested will not be recognized or processed.
- N. No materials, supplies, equipment or labor shall be ordered for an item until the Engineer has reviewed the submittal.
- O. Update the submittal log and submit to the Engineer every month at a minimum.

#### 3.02 SUBMITTAL DATA

- A. Product Data: Submit to the Engineer, for the purpose of review and checking the conformance with information given and design concept expressed in Contract Documents.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project. Record this information in the submittal matrix.

**END OF SECTION** 

## **EXHIBIT C**

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

#### NEW YORK STATE LAW

Pursuant to New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations BPCA is required to promote opportunities for the maximum feasible participation of New York State-certified MBEs/WBEs (collectively, "MWBE(s)") and the employment of minority group members and women in the performance of BPCA contracts. Pursuant to New York State Executive Law Article 17-B and 9 NYCRR §252, BPCA recognizes its obligation under the law to promote opportunities for maximum feasible participation of certified SDVOBs.

# **Business Participation Opportunities for MWBEs**

For purposes of this solicitation, BPCA hereby establishes the following MWBE participation goals, based on the current availability of MWBEs:

Overall goal for total MWBE participation: 30%

NYS-Certified Minority-Owned Business ("MBE") Participation: 15%

NYS-Certified Women-Owned Business ("WBE") Participation: 15%

MWBE goal attainment is calculated based on the total Contract value, including change orders and amendments.

A contractor ("Contractor") on any contract resulting from this procurement ("Contract") must document its good faith efforts to provide meaningful participation by MWBEs as subcontractors and suppliers in the performance of the Contract. To that end, by submitting a response to this RFP, the Proposer agrees that BPCA may withhold payment pursuant to any Contract awarded as a result of this RFP pending receipt of the required MWBE documentation. The directory of MWBEs can be viewed at: <a href="https://ny.newnycontracts.com">https://ny.newnycontracts.com</a>. For guidance on how BPCA will evaluate a Contractor's "good faith efforts," refer to 5 NYCRR § 142.8.

The Proposer understands that only sums paid to MWBEs for the performance of a commercially useful function, as that term is defined in 5 NYCRR § 140.1, may be applied towards achievement of the applicable MWBE participation goal. The portion of a contract with an MWBE serving as a supplier that shall be deemed to represent the commercially useful function providing supplies shall be sixty percent (60%) of the total Contract value. The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be the monetary value for fees, or the markup percentage, charged by the MWBE.

In accordance with 5 NYCRR § 142.13, the Proposer further acknowledges that if it is found to have willfully and intentionally failed to comply with the MWBE participation goals set forth in a Contract resulting from this RFP, such finding constitutes a breach of contract and BPCA may withhold payment or collect liquidated damages.

Such liquidated damages shall be calculated as an amount up to, and including, the difference between: (1) all sums identified for payment to MWBEs had the Contractor achieved the contractual MWBE goals; and (2) all sums actually paid to MWBEs for work performed or materials supplied under the Contract.

By submitting a bid or proposal, a Proposer agrees to demonstrate its good faith efforts to achieve the applicable MWBE participation goals by submitting evidence thereof through the New York State Contract System ("NYSCS"), which can be viewed at <a href="https://ny.newnycontracts.com">https://ny.newnycontracts.com</a> – provided, however, that a Proposer may arrange to provide such evidence via a non-electronic method by contacting Thierry Byron, by email at <a href="mailto:Thierry.Byron@bpca.ny.gov">Thierry.Byron@bpca.ny.gov</a> or

212-417-4415. Please note that the NYSCS is a one-stop solution for all of your MBE/WBE and Article 15-A contract requirements. For additional information on the use of the NYSCS to meet the Proposer's MBE/WBE requirements, please see the attached MBE/WBE guidance from the New York State Division of Minority and Women's Business Development, "Your MWBE Utilization and Reporting Responsibilities Under Article 15-A.".

Additionally, a Proposer will be required to submit the following documents and information as evidence of compliance with the foregoing:

- A. An MWBE Utilization Plan with their bid or proposal. Any modifications or changes to an accepted MWBE Utilization Plan after the Contract award and during the term of the Contract must be reported on a revised MWBE Utilization Plan and submitted to BPCA for review and approval.
- B. BPCA will review the submitted MWBE Utilization Plan and advise the Proposer of BPCA acceptance or issue a notice of deficiency within thirty (30) days of receipt.
- C. If a notice of deficiency is issued, the Proposer will be required to respond to the notice of deficiency within seven (7) business days of receipt by submitting to Thierry Byron, by email at <a href="mailto:Thierry.Byron@bpca.ny.gov">Thierry.Byron@bpca.ny.gov</a>, 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 MWBE 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 an MWBE 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.

The successful Proposer will be required to attempt to utilize, in good faith, any MBE or WBE identified within its MWBE Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to 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.

The successful Proposer will be required to submit a M/WBE Contractor Compliance & Payment Report to BPCA via the New York State Contracting System https://ny.newnycontracts.com by the tenth  $(10^{th})$  day of each month over the term of the Contract documenting the progress made toward achievement of the MWBE goals of the Contract.

# **Business Participation Opportunities for SDVOBs**

For purposes of this solicitation, BPCA hereby establishes an overall goal of **six percent** (6%) for SDVOB participation. A Proposer must document good faith efforts to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract and Proposer agrees that BPCA may withhold payment pending receipt of the required SDVOB documentation. The directory of New York State-certified SDVOBs can be viewed at: https://sdves.ogs.ny.gov/. For guidance on how BPCA will determine a Contractor's "good faith efforts," refer to 9 NYCRR §252.2(f)(2).

In accordance with 9 NYCRR §252.2(s), the Proposer acknowledges that if it is found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in the Contract, such finding constitutes a breach of Contract and Contractor shall be liable for damages to be calculated based on the actual cost incurred by

BPCA related to BPCA's expenses for personnel, supplies and overhead related to establishing, monitoring and reviewing certified SDVOB programmatic goals.

- A. Additionally, a Proposer agrees to submit a Utilization Plan with their bid or Proposal as evidence of compliance with the foregoing. 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. Any SDVOB subcontractors entered on the Utilization Plan for the project in the NYSCS will be considered being done so in compliance with this requirement.
- B. BPCA will review the submitted Utilization Plan and advise the Proposer of BPCA's acceptance or issue a notice of deficiency within thirty (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's Thierry Byron, by email at <a href="mailto:Thierry.Byron@bpca.ny.gov">Thierry.Byron@bpca.ny.gov</a>, 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 SDVOB 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.

The successful Proposer shall attempt to utilize, in good faith, any SDVOB 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.

The successful Proposer is required to submit a Contractor's SDVOB Contractor Compliance & Payment Report to BPCA on a monthly basis over the term of the Contract documenting the progress made toward achievement of the SDVOB goals of the Contract.

# **Equal Employment Opportunity (EEO) Requirements**

By submission of a bid or proposal in response to this solicitation, the Proposer agrees with all of the terms and conditions of the attached MWBE Equal Employment Opportunity ("EEO") Policy Statement. The Proposer is required to ensure that it and any subcontractors awarded a subcontract 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 Proposer, 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.

The Proposer will be required to submit a MWBE and EEO Policy Statement, Form #4, to BPCA with its bid or proposal.

If awarded a Contract, Proposer shall submit a Workforce Utilization Report and shall require each of its Subcontractors to submit a Workforce Utilization Report, in such format as shall be required by BPCA on a monthly basis during the term of the Contract using the New York State Contract System or by other electronic means accepted by BPCA. Workforce Utilization Reporting shall be via the NYSCS Workforce Reporting Module. Monthly reports will be generated from the NYSCS for relevant contractors and must be completed in order to be in compliance with this requirement.

Pursuant to Executive Order #162, contractors and subcontractors may also be required to report the gross wages paid to each of their employees for the work performed by such employees on the contract utilizing the Workforce Utilization Report on a quarterly basis.

Further, pursuant to Article 15 of the Executive Law ("Human Rights Law"), all other 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 allowed by the Contract.



#### Your MBE/WBE Utilization and Reporting Responsibilities Under Article 15-A

The New York State Contract System ("NYSCS") is your one stop tool compliance with New York State's MBE/WBE Program. It is also the platform New York State uses to monitor state contracts and MBE/WBE participation.

#### **GETTING STARTED**

To access the system, please login or create a user name and password at <a href="https://ny.newnycontracts.com">https://ny.newnycontracts.com</a>. If you are uncertain whether you already have an account set up or still need to register, please send an email to the customer service contact listed on the Contact Us & Support page, or reach out to Thierry Byron at <a href="mailto:Thierry.Byron@bpca.ny.gov">Thierry.Byron@bpca.ny.gov</a> or 212-417-4415. For verification, in the email, include your business name and contact information.

#### **VENDOR RESPONSIBILITIES**

As a vendor conducting business with New York State, you have a responsibility to utilize minority- and/or womenowned businesses in the execution of your contracts, per the MBE/WBE percentage goals stated in your solicitation, incentive proposal or contract documents. NYSCS is the tool that New York State uses to monitor MBE/WBE participation in state contracting. Through the NYSCS you will submit utilization plans, request subcontractors, record payments to subcontractors, and communicate with your project manager throughout the life of your awarded contracts.

There are several reference materials available to assist you in this process, but to access them, you need to first be registered within the NYSCS. Once you log onto the website, click on the **Help & Support** >> link on the lower left hand corner of the Menu Bar to find recorded trainings and manuals on all features of the NYSCS. You may also click on the **Help & Tools** icon at the top right of your screen to find videos tailored to primes and subcontractors. There are also opportunities available to join live trainings, read up on the "Knowledge Base" through the Forum link, and submit feedback to help improve future enhancements to the system. Technical assistance is always available through the **Contact Us & Support** link on the NYSCS website (https://ny.newnycontracts.com).

For more information, contact Thierry Byron at Thierry.Byron@bpca.ny.gov or 212-417-4415.

# MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISES EQUAL EMPLOYMENT OPPORTUNITY (EEO) POLICY STATEMENT

I,	(the "Contractor"), agree to adopt the following policies with respect to the project
being developed at, or services re	ndered to, the Battery Park City Authority ("BPCA").

# MBE/WBE

This organization will and will cause its contractors and subcontractors to take good faith actions to achieve the MBE/WBE

contract participations goals set by the State for that area in which the State-funded project is located, by taking the following steps:

- Actively and affirmatively soliciting bids for contracts and subcontracts from qualified State certified MBEs or WBEs, including solicitations to MBE/WBE contractor associations.
- Requesting a list of State-certified MBEs/WBEs from BPCA and soliciting bids from these MBEs/WBEs directly.
- (3) Ensuring that plans, specifications, request for proposals and other documents used to secure bids will be made available in sufficient time for review by prospective MBEs/WBEs.
- (4) Where feasible, dividing the work into smaller portions to enhance participations by MBEs/WBEs and encourage the formation of joint venture and other partnerships among MBE/WBE contractors to enhance their participation.
- (5) Documenting and maintaining records of bid solicitation, including those to MBEs/WBEs and the results thereof. The Contractor will also maintain records of actions that its subcontractors have taken toward meeting MBE/WBE contract participation goals.
- (6) Ensuring that progress payments to MBEs/WBEs are made on a timely basis so that undue financial hardship is avoided, and that bonding and other credit requirements are waived or appropriate alternatives are developed to encourage MBE/WBE participation.

# (a) This organization will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing diversity programs to ensure that minority group members are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and

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

women in its work force on State contracts.

- (c) At the request of BPCA, this organization shall request that each employment agency, labor union, or authorized 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 this organization's obligations herein.
- (d) The Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. The 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.
- (e) This organization will include the provisions of sections (a) through (d) of this agreement in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the State contract.

#### Battery Park City Authority Request For Proposals

Buttery runk city reduction responsible
Agreed to this day of (month), 20 (year)
By
Print: Title:
is designated as the Contractor's Minority Business Enterprise Liaison responsible for administering the Minority and Women-Owned Business Enterprises - Equal Employment Opportunity (MBE/WBE - EEO) program.
Name:
Title:
Email:
Phone:
Company Street Address:
MBE/WBE Contract Goals
30% Minority and Women's Business Enterprise Participation
% Minority Business Enterprise Participation
% Women's Business Enterprise Participation
SDVOB Contract Goals
6% Service Disabled Veteran Owned Business Participation
<b>EEO Contract Goals</b> (if applicable) - "N/A" does not waive Workforce Reporting Requirements
N/A Minority Labor Force Participation
N/A Female Labor Force Participation
(Authorized Representative)
Title:
Date:

#### **Diversity Practices Questionnaire**

I,	, as	(title) of	company (the "Company").
swea	r and/or affirm under penalty of perjury	that the answers submitted to	the following questions are complete
and a	ccurate to the best of my knowledge:		

1. Does your Company have a Chief Diversity Officer or other individual who is tasked with supplier diversity initiatives? Yes or No.

If Yes, provide the name, title, description of duties, and evidence of initiatives performed by this individual or individuals.

- 2. What percentage of your Company's gross revenues (from your prior fiscal year) was paid to New York State certified MBEs/WBEs as subcontractors, suppliers, joint-ventures, partners or other similar arrangement for the provision of goods or services to your Company's clients or customers?
- 3. What percentage of your Company's overhead (i.e. those expenditures that are not directly related to the provision of goods or services to your Company's clients or customers) or non-contract-related expenses (from your prior fiscal year) was paid to New York State certified MBEs/WBEs as suppliers/contractors?<sup>2</sup>
- 4. Does your Company provide technical training<sup>3</sup> to MBEs/WBEs? Yes or No

If Yes, provide a description of such training which should include, but not be limited to, the date the program was initiated, the names and the number of MBEs/WBEs participating in such training, the number of years such training has been offered and the number of hours per year for which such training occurs.

5. Is your Company participating in a government approved M/WBE mentor-protégé program?

If Yes, identify the governmental mentoring program in which your Company participates and provide evidence demonstrating the extent of your Company's commitment to the governmental mentoring program.

6. Does your Company include specific quantitative goals for the utilization of MBEs/WBEs in its non-government procurements? Yes or No

If Yes, provide a description of such non-government procurements (including time period, goal, scope and dollar amount) and indicate the percentage of the goals that were attained.

7. Does your Company have a formal M/WBE supplier diversity program? Yes or No

If Yes, provide documentation of program activities and a copy of policy or program materials.

8. Does your Company plan to enter into partnering or subcontracting agreements with New York State certified MBEs/WBEs if selected as the successful Proposer? Yes or No

If Yes, complete the attached Utilization Plan

<sup>&</sup>lt;sup>2</sup> Do not include onsite project overhead.

<sup>&</sup>lt;sup>3</sup> Technical training is the process of teaching employees how to more accurately and thoroughly perform the technical components of their jobs. Training can include technology applications, products, sales and service tactics, and more. Technical skills are job-specific as opposed to soft skills, which are transferable.

# Battery Park City Authority Request For Proposals

All information provided fraudulent statements are s		iversity Practices Questionnaire is subject to audit and any tion and debarment.
Signature of Owner/Official Printed Name of Signatory Title		
Name of Business		
Address		
City, State, Zip		
STATE OF		
COUNTY OF	) ss:	
On the day of, personally a	, 20, before n	ne, the undersigned, a Notary Public in and for the State of, personally known to me or proved to vidual whose name is subscribed to this certification and said
me on the basis of satisfact person executed this instru		vidual whose name is subscribed to this certification and said
		Notary Public

# $\frac{\text{EXHIBIT D}}{\text{BPCA STANDARD FORM OF CONTRACT}}$

(ATTACHED)

# CONSTRUCTION AGREEMENT

between

# HUGH L. CAREY BATTERY PARK CITY AUTHORITY

and

# [NAME OF COMPANY, INC. CORP, CO.]

Dated as of [DATE]

Contract No. [ENTER CONTRACT NUMBER]

(PROJECT NAME)

# TABLE OF CONTENTS

# **Contents**

ARTICL	LE 1 - DEFINITIONS	1
ARTICL	LE 2 - SCOPE OF WORK, MATERIALS AND LABOR	4
2.1	DEFINITION OF WORK	4
2.2	Contract Documents	4
2.3	Intent of Contract Documents	4
2.4	COMPLETION OF DRAWINGS AND SPECIFICATIONS	6
2.5	TITLE TO MATERIALS	6
2.6	Contractor's Obligations	6
2.7	"OR EQUAL" CLAUSE	7
2.8	QUALITY AND LABELING	8
ARTICL	LE 3 - COMMENCEMENT AND COMPLETION OF THE WORK	9
3.1	COMMENCEMENT, COMPLETION AND PROGRESS SCHEDULE	9
3.2	COORDINATION WITH OTHER CONTRACTORS	11
3.3	NOTICE OF DELAY	11
3.4	EXTENSION OF TIME	12
ARTICL	E 4 - CONTRACT PRICE	12
ARTICL	LE 5 - METHOD, SCHEDULE AND TERMS OF PAYMENTS	13
5.1	PARTIAL PAYMENT	13
5.2	REQUISITIONS	13
5.3	Trade Payment Breakdown	13
5.4	Payment for Stored Materials	13
5.5	RECEIPTS AND RELEASES OF LIENS	14
5.6	TIME OF PAYMENT	14
5.7	REDUCTION OF RETAINAGE	15
5.8	FINAL PAYMENT	15
5.9	Release and Consent of Surety	16
5.10	BPCA'S RIGHT TO AUDIT AND INSPECT RECORDS	16
5.11	WITHHOLDING OF PAYMENTS	16
ARTICL	LE 6 – CONTRACTOR	17
6.1	SUPERINTENDENCE BY CONTRACTOR, DISCIPLINE AND EMPLOYEE SKILLS	17

6.2	REPRESENTATIONS AND WARRANTIES	17
6.3	VERIFYING DIMENSIONS AND SITE CONDITIONS	17
6.4	COPIES OF CONTRACT DOCUMENTS FOR CONTRACTOR	18
6.5	MEETINGS	18
6.6	RELATED WORK	18
6.7	SURVEYS AND LAYOUT	18
6.8	REPORTS AND ACCESS	18
6.9	FINANCIAL INFORMATION	. 18
ARTICL	E 7 - CONTRACT ADMINISTRATION	. 19
7.1	ARCHITECT'S RESPONSIBILITIES AND FUNCTIONS	. 19
7.2	CONSTRUCTION MANAGER'S RESPONSIBILITIES AND FUNCTIONS	. 19
7.3	Scope of Responsibility of Architect and Construction Manager	. 19
ARTICL	E 8 - INSPECTION AND ACCEPTANCE	. 19
8.1	ACCESS TO THE WORK	. 19
8.2	NOTICE OF REQUIRED INSPECTIONS AND TESTS	20
8.3	ADDITIONAL INSPECTIONS AND TESTS	20
8.4	Uncovering of Work	20
8.5	CORRECTION OF WORK	20
8.6	CERTIFICATE OF SUBSTANTIAL COMPLETION	21
8.7	COMPLETION OF WORK AND ACCEPTANCE	21
ARTICL	E 9 - CHANGES IN THE WORK	21
9.1	CHANGE ORDERS	21
9.2	CHANGE IN CONTRACT PRICE AND TIME	22
9.3	FIELD ORDERS	23
9.4	CHANGED CONDITIONS	23
ARTICL	E 10 - SUBCONTRACTS AND PURCHASE ORDERS	24
10.1	SELECTION OF SUBCONTRACTORS AND MATERIALMEN AND APPROVAL SUBCONTRACTS AND PURCHASE ORDERS	
10.2	ACCESS BY BPCA AND OTHERS	25
10.3	RETAINAGE	25
10.4	MISCELLANEOUS	25
ARTICL	E 11 - ASSIGNMENT	26
11.1	No Assignment of Duties	. 26

11.2	NO ASSIGNMENT OF MONIES	26
11.3	ASSIGNMENT BY BPCA	27
ARTICL	E 12 - MECHANICS' LIENS AND CLAIMS	27
ARTICL	E 13 – INSURANCE AND CONTRACT SECURITY	27
13.1	INSURANCE	27
13.2	Effect of Procurement of Insurance	31
13.3	Contract Security	31
13.4	ADDITIONAL OR SUBSTITUTE BOND	31
ARTICL	E 14 - CLAIMS FOR EXTRA WORK	32
ARTICL	E 15 - TERMINATION	33
15.1	TERMINATION FOR CAUSE	33
15.2	TERMINATION FOR CONVENIENCE OF BPCA	34
15.3	SUSPENSION OF WORK	35
ARTICL	E 16 - COMPOSITE DRAWINGS AND COOPERATION	36
ARTICL	E 17 - PROTECTION OF RIGHTS, PERSONS AND PROPERTY	36
17.1	ACCIDENT PREVENTION	36
17.2	SAFETY PROGRAMS	36
17.3	PROTECTION OF WORK AND PROPERTY	36
17.4	ADJOINING PROPERTY	37
17.5	RISKS ASSUMED BY CONTRACTOR	37
ARTICL	E 18 - USE PRIOR TO ACCEPTANCE BY BPCA	38
ARTICL	E 19 - EXEMPTION FROM SALES AND COMPENSATING USE TAXES	38
19.1	BPCA EXEMPT	38
19.2	CERTIFICATES	39
ARTICL	E 20 - WARRANTIES AND GUARANTIES	39
20.1	IN GENERAL	39
20.2	Additional Guaranties	39
20.3	REPAIR BY ANOTHER	39
ARTICL	E 21 - INDEMNITY	40
21.1	DELAY OR FAILURE	40
21.2	Inventions	40
21.3	LIABILITY	40
ARTICI	E 22 - PATENTS AND ROYALTIES	41

ARTICL	E 23 - AS-BUILT DRAWINGS	41
ARTICL	E 24 - SHOP DRAWINGS AND SAMPLES	42
24.1	Contractor Submittal	42
24.2	CONTRACTOR'S RESPONSIBILITY	42
ARTICL	E 25 – NOTICES	42
ARTICL	E 26 – EMPLOYMENT AND DIVERSITY	43
26.1	PARTICIPATION BY MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISES	43
26.2	PARTICIPATION BY SERVICE-DISABLED VETERAN-OWNED BUSINESSES	48
ARTICL	E 27 - STANDARD PROVISIONS	51
27.1	PROVISION REQUIRED BY LAW DEEMED INSERTED	51
27.2	COMPLIANCE WITH LAWS, RULES AND REGULATIONS	51
27.3	APPLICABLE LAW, FORUM AND JURISDICTION	52
27.4	NO THIRD PARTY RIGHTS	52
27.5	EXCULPATION; LIMITATION OF LIABILITY	52
27.6	PROTECTION OF LIVES AND HEALTH	52
27.7	Waiver of Immunity Clause	53
27.8	PROHIBITED INTERESTS	53
27.9	LABOR PROVISIONS	53
27.10	DISPUTES RESOLUTION PROCEDURE	55
27.11	ADDITIONAL PROVISIONS RELATING TO THE PROSECUTION OF CLAIMS FOR MC DAMAGES	
27.12	LIMITATION ON ACTIONS	57
27.13	WAIVER OF REMEDIES	57
27.14	MODIFICATION OF AGREEMENT	58
27.15	SIGNS AND PARKING	58
27.16	ENTIRE AGREEMENT	58
27.17	RIGHTS AND REMEDIES	58
27.18	PARTICIPATION IN INTERNATIONAL BOYCOTT PROHIBITED	58
27.19	COMPLIANCE WITH "BUY-AMERICAN" STATUTES	59
27.20	PERMITTED SUCCESSORS	59
27.21	MACBRIDE FAIR EMPLOYMENT PRINCIPLES	59
27.22	IRAN DIVESTMENT ACT	59
27.23	TERMINATION FOR FAILURE TO DISCLOSE UNDER STATE FINANCE LAW §139K	59

27.24	LABOR PEACE	60
27.25	COMPTROLLER'S APPROVAL	60
27.26	KEY PERSON/PERSONNEL	60
27.27	FORM OF AGREEMENT NOT AN OFFER	60
27.28	GENERAL RESPONSIBILITY	61
<b>EXHIBI</b>	<u>TTS</u>	
EXHIBI' EXHIBI' EXHIBI'	Γ A - SCOPE OF WORK Γ B - DRAWINGS Γ C - SPECIFICATIONS Γ D - MONTHLY UTILIZATION COMPLIANCE REPORTS Γ E - INCIDENT REPORT FORM	

#### CONSTRUCTION AGREEMENT

AGREEMENT made as of \_\_\_\_\_\_\_\_ by and between BATTERY PARK CITY AUTHORITY, d/b/a HUGH L. CAREY BATTERY PARK CITY AUTHORITY, ("BPCA"), a body corporate and politic, constituting a public benefit corporation and having a place of business at 200 Liberty Street, 24th Floor, New York, New York 10281, and [NAME OF COMPANY], formed under the laws of the State of [STATE], having an office at [Street Address, City, Zip Code] ("Contractor").

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

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], consisting of the Work, as hereinafter defined, for the [structure] upon which work will be performed (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, upon the terms and conditions hereinafter provided; and

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 [include Name, Address, etc., as applicable].
- (d) Artist [include Name, Address, etc., as applicable].
- (e) BPCA as defined in the introductory clause of this Agreement. BPCA hereby designates [BPCA Person and Title], 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.

- (f) Certificate of Substantial Completion as defined in Section 8.6.
- (g) Change Order as defined in Section 9.1(b).
- (h) Construction Manager [include Name, Address, etc., as applicable].
- (i) Contract Documents as defined in Section 2.2.
- (j) Contract Price as defined in Article 4.
- (k) Contract Time the duration of time during which Construction Manager schedules and coordinates the Work of Contractor pursuant to Section 7.2 hereof.
- (l) Contractor as defined in the first Recital of this Agreement.
- (m) Drawings Project drawings comprising part of Exhibit [x].
- (n) Engineer [include Name, Address, etc., as applicable].
- (o) Extra Work any work in addition to the Work to be performed by Contractor pursuant to the Contract Documents.
- (p) Field Order as defined in Section 9.3.
- (q) Final Acceptance as defined in Section 8.7.
- (r) Final Requisition as defined in Section 5.2.
- (s) Guarantor as defined in Section 27.3.
- (t) 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.
- (u) Key Person/Personnel as defined in Section 27.25.
- (v) Materialman supplier of Materials.
- (w) Materials all products, materials, fixtures, tools, equipment, apparatus, and furnishings intended to form a part of the Work.
- (x) Minority Business Enterprise or Minority Owned Business Enterprise or MBE as defined in Article 26.

- (y) Minority or Minority Group Member as defined in Article 26.
- (z) Notice to Proceed a written directive from BPCA to Contractor signed by a duly authorized BPCA representative directing Contractor to begin performance of the Work set forth in this Agreement on a particular date.
- (aa) Payment Bond as defined in Section 13.3.
- (bb) Performance Bond as defined in Section 13.3.
- (cc) Preceding Covered Date as defined in Section 5.5.
- (dd) 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.
- (ee) Progress Schedule for the Work as defined in Section 3.1(a).
- (ff) Project as defined in the third Recital of this Agreement.
- (gg) Purchase Order as defined in Section 10.1(e).
- (hh) Requisitions as defined in Section 5.2.
- (ii) Samples physical examples which illustrate Materials or workmanship and establish standards by which the Work will be judged.
- (jj) Site as defined in the third Recital of this Agreement.
- (kk) Specifications the specifications comprising part of Exhibit [x].
- (II) Subcontract an agreement between the Contractor and a Subcontractor (as defined in subsection (mm) below) for work on the Site.
- (mm) Subcontractor a person, firm, partnership or corporation under contract with Contractor.
- (nn) Term as defined in Section 3.1(a).
- (oo) Trade Payment Breakdown as defined in Section 5.3.
- (pp) Women's Business Enterprise or Women Owned Business Enterprise or WBE as defined in Article 26.
- (qq) Work as defined in Section 2.1.
- (rr) 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 <a href="Exhibit A">Exhibit A</a> (the "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 SCOPE OF WORK (as applicable)
  - (2) EXHIBIT B DRAWINGS (as applicable)
  - (3) EXHIBIT C SPECIFICATIONS (as applicable)
  - (4) EXHIBIT D MONTHLY UTILIZATION COMPLIANCE REPORTS (as applicable)
  - (5) EXHIBIT E PROMPT PAYMENT POLICY (as applicable)
  - (6) EXHIBIT F INCIDENT REPORT FORM (as applicable)
  - (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. Architect 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 Architect and Construction Manager 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 Agreement.
- (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 Materials 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 Architect. 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 Architect 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/or 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 Architect 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 that 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.

- 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. Contractor has been advised and is aware that the Project is located in a congested metropolitan area, and there may not be sufficient space to store Materials on Site. If storage space is unavailable on Site, Contractor shall make arrangements to store Materials off Site at Contractor's own cost. Contractor shall not be entitled to additional compensation for moving Materials from one storage area to another, whether such storage areas are on or off Site. 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 Architect, 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 Architect 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 Architect 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 Architect; however, Materials of manufacturers, other than those specified, may be used if equivalent and approved by Architect, 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) Architect will initially judge the equivalency of proposed substitute Materials. Architect will make written recommendation of acceptance or rejection to Construction Manager and/or BPCA. Construction Manager and/or BPCA will then authorize Architect 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 Architect 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 Architect'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 Architect 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 Architect and its Contractors.
- (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

# ARTICLE 3 - COMMENCEMENT AND COMPLETION OF THE WORK

- 3.1 Commencement, Completion and Progress Schedule
- Schedule for the Work") and agrees to be bound by and comply with the Work Completion Date and the Progress Schedule for the Project (as the Progress Schedule for the Project shall be updated pursuant to subsection (b)) and waives any right to charge or claim damages or any increased cost, charges or expenses against BPCA, Construction Manager, or Architect, for delays or disruptions from any cause whatsoever. Contractor's sole remedy as against BPCA, Construction Manager, or Architect 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") (the period between the date of commencement of the Work and the Agreement Termination Date, the "Term").
- (b) The Progress Schedule for the Work shall be formatted in a detailed precedence-style critical path method, or such other format satisfactory to BPCA and Construction Manager and shall also (a) provide a graphic representation of all activities and events including float values that will affect the critical path of the Work, (b) incorporate and coordinate all pertinent information involving each phase of Work, and (c) identify dates that are critical to ensuring the timely and orderly completion of the work in accordance with the requirements of the Contract Documents, including the dates for Substantial Completion of each respective phase of the Work. The Progress Schedule for the Work shall be updated weekly, or at any other time at the request of Construction Manager or BPCA, and submitted to Construction Manager and BPCA for review and approval. Failure to submit any requested update shall constitute a material breach of this Agreement. The Contractor shall promptly give written notice of any actual or potential delays to BPCA and Construction Manager. After submission of the Progress Schedule for the Work, Construction Manager shall coordinate the Progress Schedule for the Work with the Progress Schedule for the 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 (the "Notice to Proceed"), 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 for the Work, and to the satisfaction of BPCA, Architect, and Construction Manager.
- (d) If, in the opinion of Construction Manager, Contractor falls behind the Progress Schedule for the Project 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 for the Project 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 on or before the Work Completion Date or any changes thereto in accordance with, or upon the expiration of, any proper extension granted by BPCA, Contractor agrees to pay to BPCA (\$\$\$\$), not as a penalty, but as liquidated damages for loss of beneficial use of the Project, for each and every calendar day that the Contractor is in default. Default shall include abandonment of the Work by Contractor.] [delete if no liquidated damages]
- BPCA because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages which BPCA would sustain for loss of beneficial use of the Project in the event of delay in completion, and said amount is agreed to be the amount of damages sustained by BPCA and said amount may be retained from time to time by BPCA. The foregoing liquidated damages are intended to compensate BPCA only for the loss of beneficial use of the Project. In addition,] [delete if no liquidated damages] Contractor shall be liable to BPCA, to the fullest extent permitted by law, for whatever actual damages (other than actual loss of beneficial use) BPCA may incur as a result of any actions or inactions of Contractor or its Subcontractors including, without limitation, interest expense and carrying costs, liabilities to other Contractors working on the Project or other third parties, job extension costs, and other losses incurred by BPCA. The provisions of this paragraph are exclusive to BPCA, and shall not accrue to other contractors or third parties.
- (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] [delete if no liquidated damages] any excess cost if BPCA determines that Contractor is without fault and that the delay in completion of the Work is due to:
- (1) any preference, priority or allocation order duly issued by the Government of the United States or the State of New York;
  - (2) causes 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, fires, epidemics, quarantine, strikes, freight embargoes and unusually severe weather; and

- (3) 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.
- (j) Notwithstanding anything to the contrary, a schedule submitted by Contractor showing a time of completion earlier than that specified in the Contract shall not entitle Contractor to any additional compensation in the event the earlier time of completion is not realized.

#### 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 Architect harmless from any and all claims or judgments for damages, costs and expenses to which BPCA, Construction Manager or Architect may be subjected or which they may suffer or incur by reason of Contractor's failure to promptly comply with Construction Manager's directions. 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 Architect shall not, however, be liable for any damages suffered by Contractor by reason of the other contractor's failure to promptly 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 Architect 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 shall reimburse such other contractor for all such damages and to indemnify and hold BPCA, Construction Manager and Architect 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 that is causing or is threatening to cause such delay or disruption notify Construction Manager in writing of the effect of such condition upon the Progress Schedule for the Project, 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 to strictly 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 for the Project then in effect established by Construction Manager.

# 3.4 Extension of Time

- (a) An extension of time under the Progress Schedule for the Project 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 for the Project 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 for the Project then in effect for delays in the performance of the Work, if caused:
- (1) solely by acts or omissions of BPCA, Construction Manager or Architect; or
- (2) by the acts or omissions of other contractors or 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 (\$\$\$\$), (such sum is herein sometimes referred to as the "Contract Price"), which amount shall include any monies earned by or paid to Contractor prior to the execution of this Agreement, 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 [x].

# 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 that have not been incorporated in the Work to date, 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 Architect 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

(a) <u>Submittal and Approval of Requisitions</u>: Requisitions (together with the documents required pursuant to Sections 5.2 and 5.5 hereof) 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. 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.

(b) <u>Submittal of Proper Invoice</u>: Upon approval of the Requisition, the Contractor shall submit a Proper Invoice, together with the approved Requisition, via email to:

BPCA Finance Ops <a href="mailto:bpca.ny.gov">bpca.ny.gov</a>
Office of the Treasurer
Battery Park City Authority
d/b/a Hugh L. Carey Battery Park City Authority
200 Liberty Street, 24th Floor
New York, NY 10281-1097
Attn.: Accounts Payable

A duplicate copy is to be sent via email to the Construction Manager and to the BPCA Representative identified in Article 1(e).

(c) <u>Time for Payment</u>: Following BPCA's receipt of a Proper Invoice, Owner shall pay Contractor in accordance with the Prompt Payment Policy, a copy of which can be found at <a href="http://bpca.ny.gov/wpcontent/uploads/2018/01/BPCA-Prompt-Payment-Policy-Fiscal-Year-2017.pdf">http://bpca.ny.gov/wpcontent/uploads/2018/01/BPCA-Prompt-Payment-Policy-Fiscal-Year-2017.pdf</a>. Owner may withhold from any payment amounts pursuant to Section 5.11 herein.

# 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 five percent (5%) of the total contract amount (including all approved Change Orders and pending Change Order proposals), 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 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 Architect 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;
  - (5) in the event that there is reasonable evidence that the Work will not be completed within the time provided; or
  - (6) 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, Discipline and Employee Skills

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 this 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 that 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 *Verifying Dimensions and Site Conditions*

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, BPCA 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 BPCA or Construction Manager and such other reports as may be required by BPCA or Construction Manager. BPCA, Construction Manager and Architect 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 Financial Information

During the Term, 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 [date] to [date]. 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 Architect's Responsibilities and Functions

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

Architect'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 Architect and Construction Manager

In no event shall any act or omission on the part of the Construction Manager or Architect relieve Contractor of its obligation to perform the Work in full compliance with the Contract Documents. Neither Architect 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, Architect 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 Architect at least five days prior written 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 Architect, it is desirable to require inspection or testing of the Work or its individual components in addition to any such testing that 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 Architect'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, Architect 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 Uncovering of Work

- (a) If any Work shall be covered or concealed contrary to the request of BPCA, Architect or Construction Manager, such Work shall, if required by BPCA, Architect 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, Architect 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, Architect 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 Materials 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, Architect 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 Architect 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.

The delivery of a Certificate of Substantial Completion shall not terminate or alter Contractor's obligation under this Agreement to complete the Work as expeditiously as practicable 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 Architect and Construction Manager as not having been acceptably completed in any punch list or otherwise, Architect and Construction Manager shall perform an inspection for purposes of determining whether the Work has been so performed. Architect 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").

Final Acceptance 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.

# **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 this Agreement, 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 for the Project, the Progress Schedule for the Work or to coordinate the Work with the work of other contractors. Contractor shall be obligated to perform changed Work promptly in conformity with any Change Order or Field Order issued in accordance herewith and may not suspend or otherwise refuse to perform the Work contained therein or any other aspect of the Work required under this Agreement because a Change Order has yet to be fully executed.

- (b) "Change Order" shall mean a written order issued by BPCA to Contractor after execution of this Agreement, authorizing or requiring:
  - (1) Extra Work,
  - (2) items that were erroneously deleted or omitted from the Work,
  - (3) items that were included in the Work but were subsequently deleted,
  - (4) an extension or decrease of time to complete Work,
  - (5) an increase or reduction in the payment to Contractor, or
- (6) 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) accepting an amount agreed upon by BPCA and Contractor;
- (2) applying the applicable unit prices and alternates where the Work involved is covered by unit prices in this Agreement;
- (3) 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 Materials 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 Materials 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) 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) adding to the Contract Price only the amount of the premium portion of overtime pay resulting from an acceleration of the Work; or
- (6) 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 that 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 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) BPCA assumes no responsibility for the correctness of any boring or other subsurface information and makes no representation of any kind regarding subsurface conditions and test borings, reports, rock cores, foundation investigation and topographical maps which may be made available to Contractor.
  - (b) 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.

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

# ARTICLE 10 - SUBCONTRACTS AND PURCHASE ORDERS

- 10.1 Selection of Subcontractors and Materialmen and Approval of Subcontracts and Purchase Orders
- (a) Contractor shall submit to Construction Manager, within 21 calendar days of the issuance of the 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 nor may BPCA be held responsible in any way for the performance of a Subcontractor or Materialman to whom BPCA gave its consent.
- (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 and identifying the invoice(s) for which payment is being made. 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 Miscellaneous

- (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 Architect. 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 New York Lien Law Article 3-A (the "**Lien Law**"), all funds advanced by assignee to Contractor;
- (2) assignee will file a copy of the assignment, containing the covenant required by the Lien Law, with the County Clerk of New York County and the head of the agency having charge of the underlying project;
- (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 New York Consolidated Laws Service Lien Law Article 3-A Section 75; 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 discharge such lien or claim within thirty days of receiving written notice of such lien or other 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: [name], 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 certificates shall also include riders providing that violation of any of the terms of any policy shall not by itself invalidate such policy. Such policies and certificates should name as additional insureds BPCA, Battery Park City Parks Conservancy Corporation ("BPCPC"), the State of New York, Construction Manager, and Architect.
- (d) All insurance required to be procured and maintained must be procured from insurance companies that 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 a form satisfactory to BPCA:
- (1) Worker's Compensation and Employer's Liability Insurance (including 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 (\$\$\$\$\$) 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, excavation 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 including, but not limited to indemnity obligations in an amount which shall not be less than the following limits:

Combined Single Limits, Bodily Injury and Property Damage Liability

(\$\$\$\$) per each occurrence and (\$\$\$\$) in the aggregate.

**Product and Completed Operations** 

(\$\$\$\$\$)

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 license plates, or under the circumstances that such vehicles are being used they are 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

#### (\$\$\$\$) per each occurrence.

- (5) Marine Protection and Indemnity insurance of not less than [amount] 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.
- (6) Pollution Liability Insurance, on an occurrence basis, providing coverage for bodily injury liability, property damage or environmental damage caused by pollution conditions with a limit of liability of not less than [amount] 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 [amount] per occurrence and in the aggregate. The policy shall include coverage for environmental clean-up on land, in air and on water.
- (8) Contractor shall secure, pay for, and maintain Property Insurance necessary for protection against the loss of owned, borrowed or rented equipment, tools and materials used in Contractor's performance of the Work. The requirement to secure and maintain such insurance is solely for the benefit of Contractor. Contractor's failure to secure such insurance or to maintain adequate levels of coverage shall not render BPCA or any other Additional Insureds, or their agents and employees, responsible for any such losses, and Owner, the other Additional Insureds, and their agents and employees shall have no such liability.
- (9) Valuable Papers Insurance insuring, for the benefit of Contractor and BPCA all plans, designs, drawings, specifications, and documents used under this Agreement by Contractor in a total amount of not less than [\$\$\$\$\$] Contractor may furnish full coverage under one policy, or may submit separate policies from any Subcontractor(s) for their proportionate shares of such coverage.
- (10) Comprehensive Crime/Employee Dishonesty Insurance in a reasonable amount or an amount which is customary in the applicable industry, trade or profession.
- (11) If the Work involves the removal, repair, installation or testing of underground petroleum storage tanks, or petroleum remediation operations, or the performance of work or services related to excavation, loading, transporting or unloading of hazardous or contaminated materials, Contractor shall provide Contractors Professional Liability Insurance with

a limit of [\$\$\$\$]. Coverage shall provide and encompass the following:

- (i) Contractor's negligent acts, errors or omissions in rendering or failing to render services of an engineering or consulting nature arising out of their environmental engineering or consulting.
- (ii) Maximum self-insured retention of [\$\$\$\$], or an amount acceptable to BPCA.
- (12) Umbrella Liability Insurance [excess of general liability, automobile liability, Marine protection and indemnity, pollution liability, vessel pollution liability and Employer's Liability] in an amount of not less than [amount].
- The insurance required under subsections 13.1(f) 3, 4 [and 5] shall be of a type 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, BPCPC, the State of New York, Construction Manager and Architect as additional insureds 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, BPCPC, the State of New York, Construction Manager, Architect, 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.
- (i) BPCA shall, at all times during the period of construction and until completion 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 TEN THOUSAND DOLLARS (\$10,000) and a deductible provision for flood and earthquake in the amount of TEN THOUSAND DOLLARS (\$10,000). BPCA recognizes that the deductible applicable to flood and earthquake may be greater than TEN THOUSAND DOLLARS

(\$10,000) due to insurance market conditions and shall notify Contractor if such deductible is greater than TEN THOUSAND DOLLARS (\$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 has not already done so, furnish to BPCA, with the execution of this Agreement, to BPCA, a bond in the form acceptable to BPCA in an amount at least equal to one hundred percent (100%) of the Contract Price for performance of the Work (the "**Performance Bond**"), and a labor and material payment bond in the form acceptable to BPCA 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"). The surety on said bond shall be a surety company authorized to do business in the State of New York and shall be rated at last B+ by A.M. Best and Company, or meet such other requirements as are acceptable to BPCA.

#### 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 that 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 Architect 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 Architect 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) 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 Architect in writing within 72 hours of such determination, order, act or omission that Contractor believes such will require it to perform Extra Work or incur additional expense and the basis for Contractor's conclusion 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) such work is Work required to be performed hereunder and not Extra Work, (y) such action or omission is proper, or (z) such 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 Architect 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 or damages 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(a).

# **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 for the Project or Progress Schedule for the Work then in effect in accordance with, or failing to discharge any of its responsibilities under, Section 3.1(d) hereof, including abandonment of the Work by Contractor, 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 if the Contractor fails to maintain the insurance required by the provisions of Section 13; or
- (2) any material adverse change shall take place in the financial condition of the Contractor;
- (3) Contractor takes any action which would result in it becoming the subject of any insolvency proceeding. The term "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 any 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 or 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 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 BPCA's option exercised by written notice to Contractor, title to any or all of Contractor's Materials, equipment, work product, 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 BPCA and BPCA 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 BPCA has taken possession of the same, then after BPCA has taken possession and the Work shall have been completed by or on behalf of BPCA, BPCA shall pay to Contractor, in respect to the items for which title has vested in BPCA, an amount equal to the sum of:

- (1) the direct costs of Contractor for such Materials and Work in progress, and
- (2) the depreciated book value of such tools and dies less, if BPCA elects to return the tools and dies to Contractor, the salvage value thereof. BPCA shall have the right to set off against such payment due to Contractor any amounts then due and payable by Contractor to BPCA which may accrue as damages owing by Contractor to BPCA 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 BPCA as set forth herein) required by BPCA 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.
- (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 BPCA or a court of competent jurisdiction that adequate grounds for such termination did not exist, then such termination shall be deemed 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.

### 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, work product, information and other property, which if this Agreement had been completed, would have been required to be furnished to BPCA; and
- (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 specifications 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 the Work in a manner that 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 Safety Programs

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 Architect drawings and calculations prepared by, and bearing the seal of a professional engineer, showing the proposed method for supporting such loads, for Architect'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 Architect's approval of such submitted drawings and calculations. The costs of the Architect'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 Architect'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 Architect 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 of such Materials or removal of such Materials from the Site following a determination that they will no longer be needed for the Project and delivery to the location at which they are to be subsequently stored or disposed of, 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 the: (i) jurisdiction of any court in which BPCA brings an action arising under this Agreement, (ii) the governmental nature of BPCA, or (iii) 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 17 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 that 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 shall not (1) constitute acceptance of space, systems, Materials or elements of the Work, (2) affect the start of any guaranty period, nor (3) affect the obligations of Contractor to complete the Work 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 that 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 that will become an integral component of

the completed Project pursuant to this Agreement.

# 19.2 Certificates

Contractor shall obtain and cause Subcontractors and Materialmen to 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 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 any and all damage to any Work affected by or from such defects and all expenses necessary to remove, replace and repair such Work that 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 that 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 that 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 that 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

To the fullest extent allowed by law, Contractor shall hold BPCA, BPCPC, the State of New York, Construction Manager and Architect 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 Contractors 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, BPCPC, the State of New York, Construction Manager, and Architect 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, BPCPC, the State of New York, Construction Manager, and Architect 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, BPCPC, the State of New York, Construction Manager, and Architect 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 Architect 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 all:
  - (1) United States patents and patents registered in any other foreign country;
  - (2) proprietary knowledge, data and trade secrets; and
  - (3) 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 Architect.

(b) After review by Architect 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 Architect, each of such items shall be returned in accordance with the procedures established therefor.

# 24.2 Contractor's Responsibility

Architect'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 Architect of the deviation in writing at the time of submission and has received from Architect written approval by separate letter of the specified deviations. Architect'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:

Battery Park City Authority

Attn: [Name], [Title] 200 Liberty Street, 24th Fl 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:

[Company] Attn: [Name], [Title] [Street Address] [City, State, Zip]

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

# (c) if to Construction Manager

[Company] Attn: [Name], [Title] [Street Address] [City, State, Zip]

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

# (d) if to Architect/Engineer/etc.

[Company] Attn: [Name], [Title] [Street Address] [City, State, Zip]

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

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 Participation by Minority and Women-Owned Business Enterprises

#### (a) General Provisions

- (1) Owner is required to implement the provisions of New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations ("NYCRR") for all contracts, as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.
- (2) Contractor agrees, in addition to any other nondiscrimination provision herein and at no additional cost to Owner, to fully comply and cooperate with Owner in the implementation of New York State Executive Law Article 15-A and the regulations promulgated thereunder. These requirements include equal employment opportunities for minority group members and women ("EEO") and contracting opportunities for New York State-certified minority and women-owned business enterprises ("MWBEs"). Contractor's demonstration of "good faith efforts" pursuant to 5 NYCRR § 142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the "Human Rights Law") and other applicable federal, state, and local laws.
- (3) Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the assessment of liquidated damages pursuant to Section 26.1(g) and such other remedies as are available to Owner.

#### (b) Contract Goals

- (1) For purposes of this Contract, Owner hereby establishes an overall goal of XX% for MWBE participation, XX% for New York State-certified minority-owned business enterprise ("MBE") participation and XX% for New York State-certified women-owned business enterprise ("WBE") participation (collectively, "MWBE Contract Goals") based on the current availability of MBEs and WBEs.
- (2) For purposes of providing meaningful participation by MWBEs on the Agreement and achieving the MWBE Contract Goals established in Section 26.1(b)(1) hereof, Contractor should reference the directory of MWBEs at the following internet address: https://ny.newnycontracts.com.
- (3) Additionally, Contractor is encouraged to contact the Division of Minority and Women's Business Development at (212) 803-2414 to discuss additional methods of maximizing participation by MWBEs on this Agreement.
- (4) Contractor understands that only sums paid to MWBEs for the performance of a commercially useful function, as that term is defined in 5 NYCRR § 140.1, may be applied towards the achievement of the applicable MWBE participation goal. [FOR CONSTRUCTION CONTRACTS The portion of a contract with an MWBE serving as a supplier that shall be deemed to represent the commercially useful function performed by the MWBE shall be 60% of the total value of the contract. The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be the monetary value for fees, or the markup percentage, charged by the MWBE]. [FOR ALL

OTHER CONTRACTS - The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be 25% of the total value of the contract.]

- (5) Contractor must document "good faith efforts," pursuant to 5 NYCRR § 142.8, to provide meaningful participation by MWBEs as Subcontractors and suppliers in the performance of this Agreement. Such documentation shall include, but not necessarily be limited to:
  - (A) Evidence of outreach to MWBEs:
  - (B) Any responses by MWBEs to Contractor's outreach;
  - (C) Copies of advertisements for participation by MWBEs in appropriate general circulation, trade, and minority or womenoriented publications;
  - (D) The dates of attendance at any pre-bid, pre-award, or other meetings, if any, scheduled by Owner with MWBEs; and,
  - (E) Information describing specific steps undertaken by Contractor to reasonably structure the Work to maximize opportunities for MWBE participation.

# (c) Equal Employment Opportunity ("EEO")

(1) The provisions of Article 15-A of the Executive Law and the rules and regulations promulgated thereunder pertaining to equal employment opportunities for minority group members and women shall apply to this Agreement.

# (2) In performing the Agreement, Contractor shall:

- (A) Ensure that each Contractor and Subcontractor performing work on the Agreement shall undertake or continue existing EEO 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, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.
- (B) Contractor shall submit an EEO policy statement to Owner within seventy-two (72) hours after the date of the notice by Owner to award the Agreement to Contractor.
- (C) If Contractor, or any of its Subcontractors, does not have an existing EEO policy statement, Owner may require Contractor or Subcontractor to adopt a model statement (see Exhibit D Equal Employment Opportunity Policy Statement).
- (D) Contractor's EEO policy statement shall include the following language:
- (i) Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, or marital status, will undertake or continue existing EEO programs to ensure that minority group

members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.

- (ii) Contractor shall state in all solicitations or advertisements for employees that, in the performance of the contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.
- (iii) 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.
- (iv) Contractor will include the provisions of Sections 26.1(c)(2)(D)(i) through (iii), which provides for relevant provisions of the Human Rights Law, in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each Subcontractor as to the Work.

[PLEASE NOTE THAT THIS REQUIREMENT "C" IS ONLY APPLICABLE WHERE A STATE AGENCY EXPECTS TO ENTER INTO A STATE CONTRACT WITH A TOTAL EXPENDITURE IN EXCESS OF \$250,000. NOTE: THIS LANGUAGE SHOULD BE DELETED FROM THE FINAL CONTRACT]

(3) Staffing Plan. 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 the Agreement by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractor shall complete the staffing plan form (<a href="https://www.ogs.ny.gov/MWBE/Docs/EEO100.docx">https://www.ogs.ny.gov/MWBE/Docs/EEO100.docx</a>) and submit it as part of their bid or proposal or within a reasonable time, as directed by Owner.

WORKFORCE UTILIZATION REPORTS SHALL BE COLLECTED ON A MONTHLY BASIS FOR CONSTRUCTION CONTRACTS AND A QUARTERLY BASIS FOR ALL OTHER CONTRACTS. NOTE: THIS LANGUAGE SHOULD BE DELETED FROM THE FINAL CONTRACT

#### (4) Workforce Utilization Report

- (A) Contractor shall submit a Workforce Utilization Report (<a href="https://its.ny.gov/sites/default/files/documents/eeo\_workforce\_utilization\_report.xlsx">https://its.ny.gov/sites/default/files/documents/eeo\_workforce\_utilization\_report.xlsx</a>) and shall require each of its Subcontractors to submit a Workforce Utilization Report, in such form as shall be required by Owner on a monthly/quarterly basis during the term of this Agreement.
- (B) Separate forms shall be completed by Contractor and any Subcontractors.

- (C) Pursuant to Executive Order #162, Contractors and Subcontractors are also required to report the gross wages paid to each of their employees for the work performed by such employees on the contract on a monthly/quarterly basis.
- (5) Contractor shall comply with the provisions of the Human Rights Law, and all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and its 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) MWBE Utilization Plan

- (i) Contractor represents and warrants that Contractor has submitted an MWBE Utilization Plan, or shall submit an MWBE Utilization Plan at such time as shall be required by Owner, through the New York State Contract System ("NYSCS"), which can be viewed at https://ny.newnycontracts.com, provided, however, that Contractor may arrange to provide such evidence via a non-electronic method to Owner, either prior to, or at the time of, the execution of the contract.
- (ii) Contractor agrees to adhere to such MWBE Utilization Plan in the performance of the Work.
- (iii) Contractor further agrees that failure to submit and/or adhere to such MWBE Utilization Plan shall constitute a material breach of the terms of the Agreement. Upon the occurrence of such a material breach, Owner shall be entitled to any remedy provided herein, including but not limited to, a finding that Contractor is non-responsive.

#### (e) Waivers

- (i) If Contractor, after making good faith efforts, is unable to achieve the MWBE Contract Goals stated herein, Contractor may submit a request for a waiver through the NYSCS, or a non-electronic method provided by Owner. Such waiver request must be supported by evidence of Contractor's good faith efforts to achieve the maximum feasible MWBE participation towards the applicable MWBE Contract Goals. If the documentation included with the waiver request is complete, Owner shall evaluate the request and issue a written notice of approval or denial within twenty (20) business days of receipt.
- (ii) If Owner, upon review of the MWBE Utilization Plan, quarterly MWBE Contractor Compliance Reports described in Section 26.1(c)(iv)(C), or any other relevant information, determines that Contractor is failing or refusing to comply with the MWBE Contract Goals, and no waiver has been issued in regards to such non-compliance, Owner may issue a notice of deficiency to Contractor. Contractor must respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of MWBE Contract Goals.

(f) Contractor is required to submit a quarterly MWBE Contractor Compliance Report through the NYSCS, provided, however, that Contractor may arrange to provide such report via a non-electronic method to Owner by the 10<sup>th</sup> day following the end of each quarter during the term of the Agreement.

## (g) Liquidated Damages - MWBE Participation

- (1) Where Owner determines that Contractor is not in compliance with the requirements of this Section 26.1 and Contractor refuses to comply with such requirements, or if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, Contractor shall be obligated to pay to Owner liquidated damages.
- (2) Such liquidated damages shall be calculated as an amount equaling the difference between:
- (A) All sums identified for payment to MWBEs had Contractor achieved the contractual MWBE goals; and
- (B) All sums actually paid to MWBEs for work performed or materials supplied under the Agreement.
- (3) In the event a determination has been made which requires the payment of liquidated damages and such identified sums have not been withheld by Owner, Contractor shall pay such liquidated damages to Owner within sixty (60) days after they are assessed. Provided, however, that if Contractor has filed a complaint with the Director of the Division of Minority and Women's Business Development pursuant to 5 NYCRR § 142.12, liquidated damages shall be payable only in the event of a determination adverse to Contractor following the complaint process.

#### 26.2 Participation by Service-Disabled Veteran-Owned Businesses

#### (a) General Provisions

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by New York State-certified Service-Disabled Veteran-Owned Businesses ("SDVOB"), thereby further integrating such businesses into New York State's economy. Owner recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of Owner contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Contractors are expected to consider SDVOBs in the fulfillment of the requirements of the Agreement. Such participation may be as Subcontractors or suppliers, as protégés, or in other partnering or supporting roles.

#### (b) Contract Goals

- Owner hereby establishes an overall goal of \_\_% for SDVOB participation, based on the current availability of qualified SDVOBs. For purposes of providing meaningful participation by SDVOBs, the Contractor should reference the directory of New York State Certified SDVOBs found at: http://ogs.ny.gov/Core/docs/CertifiedNYS\_SDVOB.pdf. Questions regarding compliance with SDVOB participation goals should be directed to Shinay Stewart at shinay.stewart@bpca.ny.gov or (212) 336-9353. Additionally, following execution of this Agreement, Contractor is encouraged to contact the Office of General Services' Division of Service-Disabled Veterans' Business Development at 518-474-2015 or VeteransDevelopment@ogs.ny.gov to discuss additional methods of maximizing participation by SDVOBs on the Agreement.
- (ii) Contractor must document "good faith efforts" to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract (see Section 26.2(d) below).

## (c) SDVOB Utilization Plan

- (i) In accordance with 9 NYCRR § 252.2(i), Contractors are required to submit a completed SDVOB Utilization Plan on Form SDVOB 100 (https://ogs.ny.gov/Veterans/Docs/2016/SDVOB\_100\_Utilization\_Plan.docx) with their bid.
- (ii) The Utilization Plan shall list the SDVOBs that Contractor intends to use to perform the Work, a description of the Work that Contractor intends the SDVOB to perform to meet the goals on the Agreement, the estimated dollar amounts to be paid to an SDVOB, or, if not known, an estimate of the percentage of Work the SDVOB will perform. By signing the Utilization Plan, Contractor acknowledges that making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Any modifications or changes to the agreed participation by SDVOBs after the contract award and during the term of the Agreement must be reported on a revised SDVOB Utilization Plan and submitted to Owner.
- (iii) Owner will review the submitted SDVOB Utilization Plan and advise the Contractor of Owner acceptance or issue a notice of deficiency within 20 days of receipt.
- (iv) If a notice of deficiency is issued, Contractor agrees that it shall respond to the notice of deficiency, within seven business days of receipt, by submitting to Owner a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by Owner to be inadequate, Owner shall notify Contractor and direct the Contractor to submit, within five business days of notification by Owner, a request for a partial or total waiver of SDVOB participation goals on Form SDVOB 200 (https://ogs.ny.gov/Veterans/Docs/2016/SDVOB 200 Waiver Form.docx). Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or proposal.
- (v) Owner may disqualify a Contractor's bid or proposal as being non-responsive under the following circumstances:

- (A) If Contractor fails to submit an SDVOB Utilization Plan;
- (B) If Contractor fails to submit a written remedy to a notice of deficiency;
- (C) If Contractor fails to submit a request for waiver; or
- (D) If Owner determines that Contractor has failed to document good faith efforts.
- (vi) Contractor certifies that it will follow the submitted SDVOB Utilization Plan for the performance of SDVOBs on the Agreement pursuant to the prescribed SDVOB contract goals set forth above.
- (vii) Contractor further agrees that a failure to use SDVOBs as agreed in the Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, Owner shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsibility.

#### (d) Waivers

- (i) Prior to submission of a request for a partial or total waiver, Contractor shall speak to Shinay Stewart at shinay.stewart@bpca.ny.gov or (212) 336-9353 for guidance.
- (ii) In accordance with 9 NYCRR § 252.2(m), a Contractor that is able to document good faith efforts to meet the goal requirements, as set forth in Section 26.2(e) below, may submit a request for a partial or total waiver on Form SDVOB 200 (<a href="https://ogs.ny.gov/Veterans/Docs/2016/SDVOB\_200\_Waiver\_Form.docx">https://ogs.ny.gov/Veterans/Docs/2016/SDVOB\_200\_Waiver\_Form.docx</a>), accompanied by supporting documentation. Contractor may submit the request for waiver at the same time it submits its SDVOB Utilization Plan. If a request for waiver is submitted with the SDVOB Utilization Plan and is not accepted by Owner at that time, the provisions of Section 26.2(c)(iii), (iv) and (v) will apply. If the documentation included with the Contractor's waiver request is complete, Owner shall evaluate the request and issue a written notice of acceptance or denial within 20 days of receipt.
- (iii) Contractor shall attempt to utilize, in good faith, the SDVOBs identified within its SDVOB Utilization Plan, during the performance of the Work. Requests for a partial or total waiver of established goal requirements made subsequent to award of the Agreement may be made at any time during the term of the Agreement to Owner, but must be made no later than prior to the submission of a request for final payment.
- (iv) If Owner, upon review of the SDVOB Utilization Plan and Monthly SDVOB Compliance Report determines that Contractor is failing or refusing to comply with the contract goals and no waiver has been issued in regards to such non-compliance, Owner may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of SDVOB contract goals. Waiver requests should be sent to Owner.
- (e) Required Good Faith Efforts. In accordance with 9 NYCRR § 252.2(n), Contractors must document their good faith efforts toward utilizing SDVOBs on the Agreement. Evidence of required good faith efforts shall include, but not be limited to, the following:

- (i) Copies of solicitations to SDVOBs and any responses thereto.
- (ii) Explanation of the specific reasons each SDVOB that responded to Contractors' solicitation was not selected.
- (iii) Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by Owner with certified SDVOBs whom Owner determined were capable of fulfilling the SDVOB goals set in the Agreement.
- (iv) Information describing the specific steps undertaken to reasonably structure the Work for the purpose of subcontracting with, or obtaining supplies from, certified SDVOBs.
  - (v) Other information deemed relevant to the waiver request.

# (f) Monthly SDVOB Contractor Compliance Report

In accordance with 9 NYCRR § 252.2(q), Contractor is required to report Monthly SDVOB Contractor Compliance to Owner during the term of the Agreement for the preceding month's activity, documenting progress made towards achieving the SDVOB goals. This information must be submitted using form SDVOB 101 available at <a href="https://ogs.ny.gov/Veterans/Docs/2016/SDVOB\_101\_Monthly\_Compliance%20\_Report.docx">https://ogs.ny.gov/Veterans/Docs/2016/SDVOB\_101\_Monthly\_Compliance%20\_Report.docx</a> and should be completed by the Contractor and submitted to Owner, by the 10th day of each month during the term of the Contract, for the preceding month's activity to: Shinay Stewart at <a href="mailto:shinay.stewart@bpca.ny.gov">shinay.stewart@bpca.ny.gov</a>.

# (g) Breach of Contract and Damages

In accordance with 9 NYCRR § 252.2(s), any Contractor found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in this Agreement, shall be found to have breached the Agreement and Contractor shall pay damages as set forth therein.

#### <u>ARTICLE 27 - STANDARD PROVISIONS</u>

#### 27.1 Provision Required by Law Deemed Inserted

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 and 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 Architect 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, Contractor or agent of BPCA, Construction Manager, or Architect. 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. Contractor shall also complete and submit to BPCA the "Incident Report Form" attached hereto and made a part hereof as Exhibit F within 48 hours of the occurrence of any such injury.
- (c) Contractor alone shall be responsible for the safety, efficiency and adequacy of contractor's work, plant, appliances and methods, and for any damage that 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 New York Public Authorities Law Section 2875, which require that 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 authority, that person must sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract. Upon the refusal of any person to comply with such provisions:

- (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 Contractor 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 New York 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 New York Labor Law Section 220, subdivision 3, as amended, or
  - (2) less than the stipulated minimum hourly wage scale as specified in Labor

#### Law, Section 220-d, as amended.

- (g) Contractor specifically agrees, as required by the New York 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 Disputes Resolution Procedure

- (a) The provisions of this Article shall constitute Contractor's sole means for challenging any determination, order or other act or omission 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 submissions 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.

- All Disputes shall be initiated through a written submission by either party (such (c) submission to be hereinafter referred to as the "Dispute Notice") to the Arbiter within ten (10) days of the determination, order or other act or omission 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 or money damages for any damage or loss sustained by reason of any determination, order or other act or omission 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 ten (10) 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 the information 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 ten (10) 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. 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.
- (c) Compliance with the provisions hereof shall constitute a condition precedent to the Contractor's submission of a Dispute pursuant to Section 27.10 with respect to any claim for compensation or monetary damages 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 Architect 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 monies 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 Architect 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 Architect.

# 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 Architect. Contractor agrees that no default, act or omission of BPCA, Construction Manager, or Architect 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. 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 Architect except as provided in this Section 27.13 and 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 Architect 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 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 New York State Finance Law Article XI Section 165(5), and shall permit independent monitoring of their compliance with such Principles.

#### 27.22 Iran Divestment Act

By signing this Agreement, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

#### 27.23 Termination for Failure to Disclose Under State Finance Law §139k

BPCA reserves the right to terminate this Agreement 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.

#### 27.24 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.

### 27.25 Comptroller's Approval

If this Agreement is considered an "eligible contract," as defined by New York Code, Rules and Regulations Title 2 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, the aggregate consideration under the contract may reasonably be valued in excess of one million dollars (including all reasonably anticipated renewals and amendments), AND the contract (A) was or shall be 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 that pays the money to a state authority.

### 27.26 Key Person/Personnel

The parties understand that in entering into this Agreement, BPCA has relied upon Contractor's representation that [name(s) and title(s)] (hereinafter the "**Key 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 Personnel is/are not available as described herein, or if the Key Personnel depart from the firm or severs his/her/their relationship with the Contractor, or for whatever other reason is/are 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 personnel available under the same conditions set forth herein.

#### 27.27 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 Agreement.

#### 27.28 General Responsibility

- (a) The Contractor shall at all times during the Agreement term remain responsible. The Contractor agrees, if requested by BPCA or its designee, to present evidence of Contractor's continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.
- (b) BPCA or its designee, in its sole discretion, reserves the right to suspend any or all activities under this Agreement, at any time, when BPCA discovers information that calls into question the responsibility of Contractor. In the event of such suspension, Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, Contractor must comply with the terms of the suspension order. Activity under the Agreement may resume at such time as BPCA or its designee issues a written notice authorizing a resumption of performance under the Agreement.
- (c) Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate BPCA officials or staff, the Agreement may be terminated by BPCA or its designee at Contractor's expense where Contractor is determined by BPCA or its designee to be nonresponsible. In such event, BPCA or its designee may complete the contractual requirements in any manner BPCA may deem advisable and pursue available legal or equitable remedies for breach.

### 27.29. Counterparts

This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one instrument, but the Agreement shall not be deemed effective unless signed by all parties.

#### **27.30.** Section Headings

Section headings contained in this Agreement are for convenience only and shall not be considered for any purpose in governing, limiting, modifying, construing or affecting the provisions of this Agreement and shall not otherwise be given legal effect.

# 27.31. Subordination of Terms in the Exhibits

In the event of a conflict of terms, the terms stated in Sections 1-27 herein, shall take precedence over and shall prevail over any printed, typed, or handwritten terms located in the Exhibits.

#### 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:		
[CONT	TRACTOR NAME]	
By:		
Name:		
Title:		
FEIN#	<del>!!</del>	

# EXHIBIT E COST PROPOSAL

(Proposer to submit executed Cost Proposal on its letterhead)

Date:
Battery Park City Authority 200 Liberty Street - 24th Floor New York, New York 10281
Attention: Mr. Michael LaMancusa Contracts Administrator
Dear Mr. LaMancusa,
The undersigned (the "Proposer") hereby proposes to provide all specified work necessary to perform the Work for the <b>Pier A Structural Repairs Project – Phase II Contractor Services</b> in accordance with the terms stipulated below and for the sum described below.
Base Proposal for Pier A Structural Repairs Project Phase II Contractor Services
Base Proposal: A total lump sum amount of \$ ( Dollars and Cents) to perform all Work as described in the Scope of Work in Exhibit A of BPCA's Request for Proposals for the Pier A Phase II Structural Repairs Project – Phase II Contractor Services.
Itemized Proposal
Itemized Proposal  The Proposer has submitted with its Proposal an itemized cost for the Work, according to the attached Bid Breakdown Form (attached hereto as <a href="Exhibit F">Exhibit F</a> ), for the Scope of Work, Drawings and Specifications (attached hereto as <a href="Exhibit A">Exhibit B</a> , respectively, to BPCA's Request for Proposals).
The Proposer has submitted with its Proposal an itemized cost for the Work, according to the attached Bid Breakdown Form (attached hereto as <a href="Exhibit F">Exhibit F</a> ), for the Scope of Work, Drawings and Specifications (attached hereto as <a href="Exhibit A">Exhibit B</a> , respectively, to BPCA's Request for Proposals).
The Proposer has submitted with its Proposal an itemized cost for the Work, according to the attached Bid Breakdown Form (attached hereto as <u>Exhibit F</u> ), for the Scope of Work, Drawings and Specifications (attached
The Proposer has submitted with its Proposal an itemized cost for the Work, according to the attached Bid Breakdown Form (attached hereto as <a href="Exhibit F">Exhibit F</a> ), for the Scope of Work, Drawings and Specifications (attached hereto as <a href="Exhibit A">Exhibit B</a> , respectively, to BPCA's Request for Proposals).

# EXHIBIT F FORM OF BID BREAKDOWN

Bid Submitted By:		

Item No.	Item Description	Estimated Quantity	Unit	Unit Price	Extended Price
1	Mobilization/Demobilization	1	LS		
2	General Conditions, Including Turbidity				
3	Seal and Wrap Piles	30	EA		
4	Type 1 Spall Repairs = 2" Deep</td <td>180</td> <td>SF</td> <td></td> <td></td>	180	SF		
5	Type 2 Spall Repairs > 2" Deep	290	SF		
6	Hairline Cracks < 1/16"	610	LF		
7	Cracks: 1/16"-1/4"	905	LF		
8	Pier Stem Void and Joint Repairs	3	CF		
9	Pier A Edge Void Repairs	90	CF		
10	Replace Failed Concrete Repairs	100	CF		
11	Girder Flange Repairs	30	SF		
12	Breakwater Void Repairs	75	CF		
13	Breakwater Spall Repairs	20	CF		
14	Breakwater Undermining Repairs TOTAL:	160	CF		

#### Notes:

- 1 Unit prices to include all work necessary to complete each listed item including, but not limited to, labor, materials, equipment, overhead, and profit.
- 2 Quantities provided above are estimated, and are provided solely for the purpose of facilitating the bid process. If quantities change during the course of the Project, the BPCA shall, in its sole discretion, adjust the Contract Price either using these Unit Prices, or by utilizing one of the other contractual mechanisms for change in the Contract Price set forth in Article 9 of the Contract.
- 3 The Total Amount identified on this Bid Breakdown will be deemed the Proposer's total price for performing all Work, as required by the Construction Documents. Omission of any Work items from the Bid Breakdown shall not constitute a limit on the obligation of the contractor to complete the Work, nor shall the performance of any portion of the Work not specifically called out in the Bid Breakdown entitle the selected Proposer to additional compensation.

# EXHIBIT G PREVAILING WAGE RATE SCHEDULE

Wage rates shall apply as shown in the Prevailing Wage Schedule prepared by the New York State Department of Labor for this Pier A Structural Repairs – Phase II Contractor Project (the Prevailing Wage Case Number (PRC#) assigned to this Project is 2022012925). The Schedule can be viewed at, and downloaded from, the following web site: <a href="https://www.nysbox.org/nysbo

Upon award of the Contract to the selected Proposer, a hard copy of the Schedule will be provided.

[NO FURTHER TEXT ON THIS PAGE]

# EXHIBIT H ACKNOWLEDGEMENT OF ADDENDA

RFP TITLE:	<del></del>			
Complete Part I or Part II, whichever is applicable, and sign your name in Part III.				
Part I				
Listed below are the dates of issue for each Addendum received in cor	nnection with this RFP:			
Addendum # 1, Dated				
Addendum # 2, Dated	,			
Addendum # 3, Dated				
Addendum # 4, Dated				
Addendum # 5, Dated				
Addendum # 6, Dated	,			
Part II Acknowledgement of No Receipt				
No Addendum was received in connection with this RFP				
Part III				
Proposer's Name:				
Proposer's Authorized Representative:				
Name:				
Title:				
Signatura:	Dota			

# $\frac{\text{EXHIBIT I}}{\text{LIST OF BPCA \& BPCPC BOARD MEMBERS AND EMPLOYEES}}$

# **LIST OF BOARD MEMBERS**

Martha J. Gallo

Donald Capoccia

Lester Petracca

Louis J. Bevilacqua

Catherine McVay Hughes

Anthony Kendall

#### **EMPLOYEES**

Betzayda Afzal Evelyn Gregg
Curtis Afzal Robert Hansen
Elsa Alvarez Jonathan Gross
Dana Anders Nimisha Patel-Haribaran
Sharmila Baichu Nicole Heater

Sharmila Baichu Nicole Heater Marie Baptiste Sankar Heerah **Brett Beecham** Raul Hernandez Freddy Belliard **Brendan Hoey** Marieke Bender Megan Hood Yipin Benon Craig Hudon Zachary Bergen Amy Jogie Marcus Billips William John

Emily Birdseye Jasmine Mikayla Johnson

Nidia Blake Benjamin Jones
Sully Bonnelly Ann Ketring
Jasmine Briggs Karl Koenig
Latoya Brooks-Jones Michael Lamancusa

Nancy Buivid John Lonie
Anthony Buquicchio Rene Lopcy
Thierry Byron Janira Lopez
Peter Campbell Roman Lora
Donna Canfield Rodolfo Machuca
Daniel Carmalt Robert Maggi

Monica Centeno Evelin Maisonet Alexis Torres Cid Maria Martinez

Sarah Curtin

Elizabeth Davis

Raymond Davy

Gwen Dawson

Nicole Dawson

Gilbert De Padua

Joshua DeVoto

Ismael Diaz

Justin McLaughlin-Williams

Princess McNeill

Vanessa Mesine

Ronnie Mohammed

Irene Moulketis

Eric Munson

Lauren Murtha

Jahmeliah Nathan

Ismael Diaz Paul Diaz-Larui Robert Nesmith Jan Pierre Diaz Siu May Ng Daniel Dickson Yoshihiro Nishida Tonasia Dopson Kevin O'Toole Abigail Ehrlich Stuart Ohleyer AnnMaria Ellison Maril Ortiz Richard Faraino Willem Paillant Claudia Filomena Jonathan Parker Tamara Flores Gladys Pearlman

Dahlia Pena

Rynell Pimentel

James Gallagher Abigail Goldenberg Anastasia Gonzalez Ned Greenberg

Pamela Frederick

Katherine Powell
Sandra Power
Robert Quon
Jason Rachnowitz
Madelin Ramirez
Ryan Ramlall
Aline Reynolds
Angel Rivera
Manuel Rivera
Nelson Rogers
Joel Rufino
Paul Russell
Carlos Santiago
Nicholas Sbordone
Jean Schwartz

Rekha Sewraj-Kumar Marcella Shanley Taft Sean Simon Kemnarine Singh Sarah Smedley

Shinay Stewart Jerome Sturiano Ryan Torres

Michelle Torres Davila Douglas Van Horn Noe Velasquez Yves Emmanuel Veve Evangelio Villalobos

Sharon Wade David Wallace John Wells Dwight Williams Jennifer Wisnewski

Al Wright Erin Yokoi