ADVERTISEMENT FOR BIDS

Project No: **P1179-00 – Dock Replacement**
Location: **Liberty State Park, Jersey City, Hudson County, NJ**

A MANDATORY PRE-BID MEETING IS SCHEDULED FOR 10:00 A.M. SEPTEMBER 24, 2019. LOCATION: BOAT DOCK, MORRIS PESIN DRIVE, LIBERTY STATE PARK, JERSEY CITY, HUDSON COUNTY, NJ. (GPS Coordinates: 40.697043, -74.063656) *****Entrance to the Boat Ramp parking lot is located near the intersection of Morris Pesin Drive and Edward Hart Drive*. CONTACT PERSON: GENE CARDONE VIA OFFICE (609) 633-2648 OR VIA CELL (609) 306-2574. ONLY BIDS SUBMITTED BY CONTRACTORS WHO ATTEND THIS MEETING WILL BE ACCEPTED.**

Sealed proposals must be received and time-stamped in the Plan Room, Division of Property Management & Construction, 33 West State Street, 9th Floor, (PO Box 034) Trenton, NJ 08625 until 2:00 p.m. on October 10, 2019 for:

Single Bid (lump sum all trades)
General Construction (C008) or
General Construction/ Alterations and Additions (C009) or
Site Work (C054) or
Bulkhead and Docks (C083) or
Pile Driving (C086)
$515,750

Bid Documents may be examined at the above address or obtained for a document fee based on the individual trade estimate shown above, as follows: Trade Estimate up to $100,000 – No Fee, in excess of $100,000 - $65.00. An additional $25.00 fee is required for mailing of bid documents Via United States Postal Service. All fees are non-refundable and must be received by the Division before documents will be released. A company check payable to the "Treasurer, State of New Jersey" is required. Contact **Shawn Taylor at (609) 292-5229** for further information. Mailing address is as follows: Regular Mail (DPMC, P.O. Box 034, Trenton, NJ 08625) or Overnight Mail (DPMC, 33 West State St, 9th Fl, Trenton, NJ 08608).

Bidders must be classified by the Division under N.J.S.A. 52:35-1 et seq and must submit bid security as provided in Instructions to Bidders and General Conditions, Revised December 2015. No bidder may withdraw his bid for 60 calendar days after the opening. The State may reject any and all bids.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27.

RICHARD M. FERRARA, ASSISTANT DEPUTY DIRECTOR
CONTRACTS & PROCUREMENT
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
STATE OF NEW JERSEY
DEPARTMENT OF THE TREASURY
P. O. BOX 034
TRENTON, NJ 08625-0034

State of New Jersey

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
P O BOX 034
TRENTON NJ 08625-0034

ELIZABETH MAHER MUOIO
State Treasurer

CHRISTOPHER CHIANESE
Director

October 1, 2019

SUBJECT: **Bulletin "C" Dated October 1, 2019**

PROJECT #: **P1179-00**

DESCRIPTION: Dock Replacement
Liberty State Park Office
Jersey City, Hudson County, NJ

Gentlemen:

WE ARE FORWARDING A COPY OF THE ABOVE REFERENCED BULLETIN. PLEASE ACKNOWLEDGE RECEIPT BY RETURNING THIS FORM TO:

Division of Property Management and Construction
Attention: R. Ferrara
Contracts & Procurement
PO Box 034
Trenton NJ 08625-0034
Fax #: 609-777-1970

Very truly yours,

Richard M. Ferrara
Assistant Deputy Director
Contracts and Procurement

_____
Date Received

_____
Firm Name

_____
Address

_____
Signature

_____
Title

Project #P1179-00
Bulletin C
Revised 2019-8-6

STATE OF NEW JERSEY DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
PO BOX 034, TRENTON, NJ 08625-0034

PROJECT#: P1179-00

A/E: Maser Consulting PA

DATE: October 1, 2019

BULLETIN C

Bidder must acknowledge receipt of this Bulletin on bid form in the space provided therefor.

This Bulletin is issued for the purpose of amending certain requirements of the original Contract Documents, as noted hereinafter, and is hereby made part of and incorporated in full force as part of the Contract Documents. Unless specifically noted or specified hereinafter, all work shall comply with the applicable provisions of the Contract Documents.

ATTACHMENTS

1. Revised Bid Proposal Form for Contractor use.
2. Mandatory Pre-Bid Meeting Minutes dated September 24, 2019.
3. Mandatory Pre-Bid Meeting Sign-In Sheet dated September 24, 2019.

CLARIFICATIONS TO DRAWINGS / SPECIFICATIONS

1) Steel Pipe Pile thickness shall be ½" wall thickness.

2) Steel Pipe piles are to be open ended per Drawing S-5, Detail A, Note 3. Delete the Paragraph 2.2-E of Specification Section 34 62 00.

3) The top of the lower 8x8 waler on Sheet S-5, Detail E, should be set at Elev. -1.0, and not Elev. 0.0.

4) The concrete strength specified for the floating dock in Specification Section 33 42 20, Subsection 2.2 C.4 shall be changed to 5,000 psi.

5) The preservative treatment for the timber walers for the floating dock in Specification Section 33 42 20, Subsection 2.2 K.2 shall be changed to CCA. ACQ and ACZA shall not be permitted.

6) Subsection 2.1 – E, of Specification Section 31 62 00 shall be deleted.

CONTRACTORS QUESTIONS

AGATE Construction Co, Inc.

1. Q: Are there as-built drawings of the existing structure that can be provided for review?

   Response: No.

2. Q: Shall the steel pipe piling bottoms be open ended (as per S-5 detail A note 3) or be fitted with driving points (as per specification section 34 62 00 paragraph 2.2-E)? What shall be the required wall thickness for the steel pipe piles?

   Response: See Clarifications above.

3. Q: What color shall the composite decking and composite wave screen boards be required?

   Response: Color to be determined by Owner during construction based on samples provided by Contractor.

4. Q: Will 2" x 4" composite lumber be required on multiple sides of the 4" x 4" timber posts be ACQ treated (as per S-5 detail D), or just the South facing side?

   Response: Just one side of the 4x4 post.

5. Q: How many bays of 3" x 10" blocking are to be installed at each railing post (plan S-5 detail D shows 2, whereas plan S-5 detail E shows 3)?

   Response: 2 bays of blocking.

6. Q: Plan S-5 detail E does not properly scale the elevation for the top of bottom 3" x 8" timber waler (EL. 0.00), scaled drawing has the top of bottom 3" x 8" timber waler to be at EL. -1.00. Please verify this is correct, or if top of bottom 3" x 8" timber waler should in fact be installed at EL. 0.00.

   Response: See Clarifications above.

Trevcon

1. Q: Is there a specification on the Buoy's required for the Archaeological protection? We did not see any specifications in the documents

   Response: Only as described in Note 5 on Sheet S-3a.

2. Q: What is the wall thickness of the 12" diameter pipe piles?

   Response: See Clarifications above.

3. Q: Is there a specific color for the plastic pile caps?

   Response: Black.

4. Q: On drawing S-5, Note 3 on "A" – Typical Breakwater Section", states "steel pile bottoms may be open ended". Spec. section 31-62-00, page 4 of 6, section 2.5: Pile Accessories, call for standard 60-degree conical points to be welded on piles? Please advise if conical points are required on the steel piles.

   Response: See Clarifications above.

5. Q: Is there a M/WBE requirement for this project?

Response: There are no M/WBE or SBE requirements for this project.

6. Q: Can the owner provide a Bidder's checklist indicating what needs to be included in the bid documents?

   Response: As stated at the Pre-Bid Meeting, the bidder is only required to provide a completed, signed, and executed bid proposal form as well as a 50% bid bond within the pink envelope provide with the bid documents. Please refer to meeting minutes dated September 24, 2019 attached to this Bulletin.

7. Q: Are there special bid bond or performance and payment bonds that need to be used? If so, please provide copies.

   Response: Bidder is required to provide a 50% Bid Bond. Refer to Section IB 6 Deposit and Bid Bond, of the Instructions to Bidders and General Conditions Revised December 2015 for more information. Information regarding Payment and Performance Bonds can be found in Section IB 7 Performance and Payment Bond of the Instructions to Bidders and General Conditions Revised December 2015.

8. Q: Will the Owner accept an installation Floater in lieu of the Bidder having to provide a Builder's Risk Policy (assuming the installation floater limit exceeds the contract amount)?

   Response: No.

9. Q: One of the dock supplier has forwarded a question; Could the owner live with a 3 meter wide float (9.84') with a 24" freeboard? The 8 foot wide won't perform. Please advise.

   Response: No. The maximum permitted float width would be 8'-0" with up to additional 7" (3.5" each side) of timber waler beyond.

10. Q: On Dwg. S-7, Timber Framing Notes 6 & 8, what is the grade of stainless steel required? It's not addressed in the specifications.

    Response: Grade 316.

11. Will the contractor be afforded a lay down area in the parking lot for his equipment/office trailer and materials?

    Response: Yes. The Owner will coordinate with the Contractor and provide a reasonable area for lay down, storage in the parking lot adjacent to the ramp.

<u>J.E. Hannon Inc / Bird Construction</u>

1. Is there any drawing of the existing dock pile lengths and boat ramp construction?

   Response: No.

2. Is the existing concrete boat ramp connected to the dock support piles?

   Response: Unknown. Contractor may visit site and inspect as required prior to submitting bid.

3. Can you provide the wall thickness on the 12" steel piles?

   Response: See Clarifications above.

4. Steel pile coating, we are not familiar with the coating in Section 316200 Paragraph 2.3 ABCD. We have used a PPG 2/400 coating with glass flake for NJDEP before but without the 5 mils top coating of polyester modified, aliphatic, acrylic polyurethane. Can you please provide the recommended manufacturer and the paint numbers you are requiring?

   Response: Manufacturers are listed in Specification Section 31 62 00. Paint Numbers shall be submitted by Contractor as part of the material submittal phase.

5. Are steel piles being installed open end or with a pile shoe or drive point?

   Response: See Clarifications above.

6. Driving of piles Section 316200 Part 3 Paragraph 3.2 says all piles to be driven with a gravity, steam or diesel hammer. Please supply the capacity the piles will be driven to.

   Response: Piles shall be driven to the pile tip elevations shown on the plans.

7. Usually when driving to tonnage a test pile is driven to determine the length of the piles before they are ordered. Will you drive a test pile?

   Response: No.

8. In the drawings the lengths are given for the specified piles. If the piles are driven to tonnage and they exceed the length on the drawings how will this be addressed?

   Response: *Piles shall be driven to the pile tip elevations shown on the plans.*

9. Since you are supplying the lengths of the piles you want to install, can they be installed with a vibratory hammer to the provided elevation?

   Response: No.

10. The photocell lights and reflectors that are on Page S-3 of the plans look like they are mounted on the fendering of the floating dock and on the outside of the dock piles and clusters. Can you provide a detail of where and how these lights will be mounted?

    Response: The plans simply show a symbol that represents the general location of the photocell lights. The lights are to be installed on the dock, piles, etc. in a traditional fashion and not on the fendering or outside of dock piles. The photocell lights shall be secured to dock, piles, etc. using stainless steel screws and per the manufacturer's recommendations.

11. With the FEMA/HUD funding is there any other paperwork that will need to be filled out by the contractor for the funding for the job?

    Response: No.

12. Section 334220 Floating Dock and Gangway
    a) Specifications call out 6K PSI concrete, will 5K be acceptable which is Bellingham's standard?

    Response: See Clarifications above.

b) Utility Raceway. Says as needed on plans and spec. Please verify they are not needed.

Response: Raceways are not needed.

c) Will a one piece concrete float be acceptable instead of multiple modules?

Response: Yes.

d) Overall Width of 8' called out. If we do a single 8' wide, can fendering extend beyond this? Or will 7' be needed with lumber to achieve overall width? We can put cleats in concrete and put a 3" fendering direct to rods if no lumber is needed?

Response: 8'-0" out to out of concrete is acceptable, with up to 7" (3.5" each side) of timber extending beyond.

e) Will FRP be allowed in place of HDG called out in Spec for thru-rods?

Response: No.

f) Will lumber treatment of CCA be accepted? Calls out ACQ or ACZA which is not typical in this area.

Response: See Clarifications above.

g) Fendering shown on both sides of dock. Please verify it is needed on one side only?

Response: Fendering shall be provided on all sides of dock.

h) Gangway manufacturer is called out. Is an or equal acceptable?

Response: Yes.

i) Drawings call out HDG cleats. Specifications call out Almag. Are standard HDG acceptable?

Response: Yes.

j) Is there to be Tax, or is this project Tax Exempt?

Response: This project is Tax Exempt.

Atlantic Subsea, Inc

1. Please provide the wall thickness of the 12" steel piling.

   Response: See Clarifications above

2. Is a WEAP analysis required prior to pile driving?

   Response: No.

3. Are Geotech reports/soil borings available? If so, please provide.

   Response: No.

4. Drawing S-4, "framing plan at end of dock" detail shows end stringer at a 127° angle. Drawing S-5 "end of fixed pier stringer to end stringer detail" shows 90° angle. Please clarify.

   Response: Detail on Sheet S-5 is generic and intended to illustrate the connection hardware. As Detail Note 2 states, for Plan Layout of dock, see Construction Plans.

5. Specifications call out 6K PSI concrete, will 5K be acceptable which is Bellingham Marine's standard.

   Response: See Clarifications above

6. Utility Raceway. Says as needed on plans and spec. Please verify they are not needed.

   Response: Raceways are not needed.

7. Will a one piece concrete float be acceptable instead of multiple modules.

   Response: Yes.

8. Overall Width of 8' called out. If we do a single 8' wide, can fendering extend beyond this? or will 7' be needed with lumber to achieve overall width. We can put cleats in concrete and put a 3" fendering direct to rods if no lumber is needed?

   Response: 8'-0" out to out of concrete is acceptable, with up to 7" (3.5" each side) of timber extending beyond.

9. Will FRP be allowed in place of HDG called out in Spec for thru-rods.

   Response: No.

10. Will lumber treatment of CCA be accepted. Calls out ACQ or ACZA which is not typical in this area.

    Response: See Clarifications above.

11. Fendering shown on both sides of dock. Please verify it is needed on one side only.

    Response: Fendering shall be provided on all sides of dock.

12. Gangway manufacture is called out. Is an or equal acceptable.

    Response: Yes.

13. Drawings call out HDG cleats. Specifications call out Almag. Are standard HDG acceptable?

    Response: Yes.

END OF BULLETIN C

**** Revised****

BID PROPOSAL FORM

"Bulletin C"

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
P O BOX 034
TRENTON NEW JERSEY 08625-0034

The bid proposal is to be returned in the pre-addressed envelope and will be accepted no later than 2:00 p.m., **October 10, 2019** after which time the bid proposals will be publicly opened and read.

FIRM NAME:
(Please Type or Print)
(Business Street Address ONLY – No P O Box)

PROJECT NO P1179-00
PROJECT: Dock Replacement – Liberty State Park
LOCATION: Jersey City
COUNTY: Hudson

The undersigned Single Prime Contractor proposes to be responsible for all work shown in the contract plans and specifications.

☒ Single Bid $ _____
lump sum all trades (Numerical Figures Only)

In accordance with N.J.S.A. 52:35-1 et seq., the Contractor will be classified with the Division of Property Management and Construction (DPMC) in one of the following trades: General Construction (C008) or General Construction / Alterations and Additions (C009) or Site Work (C054) or Bulkhead and Docks (C083) or Pile Driving (C086)

The proposal is based upon the bid documents listed below.

1. Instructions to Bidders and General Conditions Revised December, 2015
2. Specifications dated: August 12, 2019
3. Drawing(s)#: See Cover Sheet T-1 Dated August 12, 2019

This project will be fully completed and ready for occupancy within 120* calendar days.

(*No in-water work is permitted from March 1, 2020 through June 30, 2020)

Liquidated damages will be assessed at 1/20 of one percent (.05%) of the value of this contract (minimum of $250.00).

The above price is good through sixty (60) days after the bid opening date.

Submit only one bid proposal and bid bond form.

A bid bond in the amount of fifty percent (50%) of the TOTAL bid, including alternates if applicable, must accompany this proposal form.

The Contractor must include prices for the base bid and all alternates and unit prices when requested, otherwise the bid may be considered non-responsive.

Having examined the bid documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, the Contractor hereby proposes to furnish all labor, materials and supplies, and to construct the project as submitted, within the time set forth therein, and at the price stated. This price is to cover all expenses incurred in performing the work required, of which this proposal is a part.

The Contractor acknowledges and affirms that it has personal knowledge of or has obtained and reviewed a copy of the valid prevailing wage rates for all trades involved in the project for the geographical location of the project as issued by the Commissioner of the Department of Labor, P O Box 389,Trenton, New Jersey, 08625 (609) 292-2259.

The Contractor acknowledges receipt of the following Bulletins:

BULLETIN NUMBER	DATE OF BULLETIN
A	September 4, 2019
B	September 12, 2019
C	October 1, 2019

EXECUTION OF CONTRACT

Upon receipt of written notice of the acceptance of this bid, the Contractor shall execute the formal contract within 10 calendar days and deliver a Performance and Payment Bond as well as other information as required in the bid solicitation.

COMMENCEMENT OF WORK

Contractor acknowledges that the work is to commence upon receipt of the Notice to Proceed with the exception of permit activities.

BID SECURITY

Bid Bond is fifty percent (50%) of the TOTAL bid, including alternates if applicable, and is to become the property of the State in the event the contract and bond are not executed within the time set forth as liquidated damages for the delay and additional expense incurred by the Owner.

PROJECT NO.: P1179-00

CERTIFICATION

I certify that the below named firm is classified by the Division of Property Management and Construction in the approved amount of $ _____ for (trade) _____ until _____ (expiration date).

I further certify that this firm's bid for this project does not cause the firm to exceed its aggregate rating limit, including consideration of uncompleted construction work (please refer to N.J.A.C. 17:19-2.13, which describes how certain major trade subcontract work is discounted 85% for purposes of calculating whether a contractor is within its rating).

Respectfully submitted,

(Seal-if Bid proposal is by a corporation)

By: _____
(Name of Firm)

_____
(Signature)

_____
(Title)

_____
(Business Street Address ONLY – No P O Box)

_____
(City State County Zip)

Phone No. _____

Fax No. _____

Federal Identification No. _____

Any change in ownership information since filing your Request for Classification (Form DPMC 27)

☐ Yes

☐ No

If yes, attach explanation.

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION

NON-COLLUSION AFFIDAVIT

PROJECT: P1179-00
Dock Replacement – Liberty State Park
Jersey City, Hudson County, NJ

Bid Due Date **October 10, 2019** 02:00 PM

STATE OF NEW JERSEY [
[**SS.**
COUNTY OF [

I, _____ of the City of _____

in the County of _____ and the State of _____

of full age, being duly sworn according to law on my oath depose and say that:

I am _____

of the firm of _____

the Contractor making the Bid Proposal for the above named project, and that I execute the said Bid Proposal with full authority so to do; that said Contractor has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said bid proposal and in this affidavit are true and correct, and made with full knowledge that the State of New Jersey relies upon the truth of the statements contained in said Bid Proposal and in the statements contained in this affidavit in awarding the contract for the said project.

_____
SIGNATURE OF PRINCIPAL

Subscribed and sworn to before me this day
of 20 ,

_____
Notary Public

My Commission expires _____ , _____.

PROJECT NO.: P1179-00

Public Law 2005, Chapter 92
Formerly: Executive Order 129

In accordance with Public Law 2005, Chapter 92 (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)) all bidders submitting a proposal shall be required to submit a Source Disclosure Certification that all services will be performed in the United States. The bidder shall disclose the location by country where services under the contract will be performed and any subcontracting of services under the contract and the location by country where any subcontracted services will be performed.

SOURCE DISCLOSURE CERTIFICATION FORM

Bidder: _____

I hereby certify and say:

I have personal knowledge of the facts set forth herein and am authorized to make this Certification on behalf of the Bidder.

The Bidder submits this Certification as part of a bid proposal in response to the referenced solicitation issued by the State of New Jersey, Department of Treasury, Division of Property Management and Construction (DPMC), in accordance with the requirements of Public Law 2005, Chapter 92, (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)).

The following is a list of every location where services will be performed by the bidder and all subcontractors.

Bidder or Subcontractor	Description of Services	Performance Location(s) by Country

Any changes to the information set forth in this Certification during the term of any contract awarded under the referenced Project Number will be immediately reported by the Bidder to the Contract Compliance Unit in the DPMC, Department of Treasury, State of New Jersey, PO Box 034, Trenton, NJ 08625.

I understand that, after award of a contract to the Bidder, it is determined that the Bidder has shifted services declared above to be provided within the United States to sources outside the United States, prior to a written determination by the Director, Division of Property Management and Construction, that extraordinary circumstances require the shift of services or that the failure to shift the services would result in economic hardship to the State of New Jersey, the Bidder shall be deemed in breach of contract, which contract will be subject to termination for cause under its contract with DPMC.

I further understand that this Certification is submitted on behalf of the Bidder in order to induce DPMC to accept a bid proposal, with knowledge that the State of New Jersey and DPMC are relying upon the truth of the statements contained herein.

I certify that, to the best of my knowledge and belief, the foregoing statements by me are true. I am aware that if any of the statements are willfully false, I am subject to punishment.

Bidder: _____
[Name of Organization or Entity]

By: _____ Title: _____

Print Name: _____ Date: _____

STATE OF NEW JERSEY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

BIDDER _____

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division of Purchase and Property's website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders ***must*** *review this list prior to completing the below certification.* ***Failure to complete the certification may render a bidder's proposal non-responsive.*** *If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.*

PLEASE CHECK THE APPROPRIATE BOX:

☐ I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, C. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

OR

☐ I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Part 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the box(es) below.

Name _____ Relationship to Bidder/Offeror_____
Description of Activities _____
Duration of Engagement _____ Anticipated Cessation Date _____
Bidder/Offeror Contract Name _____ Contact Phone Number _____

List Additional Activities on Separate Sheet

PROJECT NO.: P1179-00
P.L. 2012 c. 25

CERTIFICATION: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): _____ Signature: _____

Title: _____ Date: _____

MASER CONSULTING P.A.

Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

Corporate Headquarters
331 Newman Springs Road, Suite 203
Red Bank, NJ 07701
T: 732.383.1950
F: 732.383.1984
www.maserconsulting.com

Maser Project # 18007448G

PRE-BID MEETING MINUTES

Dock Replacement
Liberty State Park
Jersey City, Hudson County, New Jersey

Project No. P1179-00

State Of New Jersey
Department of the Treasury
Division of Property Management and Construction

DATE: **Tuesday at 10:00 am, September 24, 2019**

LOCATION: **Boat Ramp at Liberty State Park, Jersey City, NJ**

ATTENDEES: **See attached Sign-in Sheet**

The below outlines the items that were discussed:

- Eugene Cardone (State of NJ) and Shawn Taylor (State of NJ) started the meeting and reviewed the Bid Proposal Form and some of the administrative requirements of bidding the project, such as:
    - All Bidders were asked to sign in.
    - Prime Contractor must be DPMC classified for one of the following to submit a bid on the project:
        - C008 - General Construction or
        - C009 - General Construction - Alterations and Additions or
        - C054 – Site Work or
        - C083 - Bulkhead and Docks or
        - C086 - Pile Driving
    - **Bids are due Thursday, October 10, 2019 no later than 2:00 PM** to the DPMC Plan Room located on the 9th floor of 33 West State Street, Trenton, NJ.
        - If sending by Regular mail, the address is: Department of Treasury, Division of Property Management and Construction, Contracts & Procurement Unit, PO Box 034 Trenton, NJ 08625-0034.
        - If sending by Delivery Service (FedEx, UPS etc.) or hand delivering, the address is: Department of Treasury, Division of Property Management and

Construction, Contracts & Procurement Unit, 33 West State Street, 9th Floor Plan Room, Trenton, NJ 08608.

- If delivering in person be aware that parking is difficult, building is secure so allow enough time to deliver bid.

- Contract performance period is 120 calendar days. ***No in-water work is permitted from March 1, 2020 through June 30, 2020 – See Bid Proposal Form and Bulletin A***)
- Bids must be good for 60 days.
- Bid is a single bid (lump sum all trades). There are no alternates, unit prices or allowances.
- Bid Bond is 50% of the bid.
- If submitting a bid, only a completed, signed and executed bid proposal form and 50% bid bond are needed within the pink Bid Envelope that is provided with the bid documents.
- Bulletins "A" and "B" are included with original bid package.
- Bulletin "C" will be issued after pre-bid meeting with answers to contractor's question and revisions/changes to bid documents.
- Email all questions to Gene Cardone at eugene.cardone@treas.nj.gov, Shawn Taylor at shawn.taylor@treas.nj.gov and Richard Maloney at rmaloney@maserconsulting.com by Friday, September 27, 2019 no later than 12:00 PM. All questions must be submitted in MSWord. Only Prime bidders may submit questions.
- Post Bid meeting is scheduled for Wednesday, October 16, 2019 at NJ DPMC Office in Trenton, (exact address will be provided to low bidder).
- Contact Anthony Mangine at 609.292.7201 for contract documents.

- Richard Maloney (Maser Consulting) explained the scope of work for the project.

- A quick walking tour was made of the project site. Contractors were informed that they could re-visit the site as required to prepare their bid.

End of Meeting Minutes

MANDATORY PRE-BID MEETING
SIGN-IN SHEET

PROJECT # P1179-00 **DATE & TIME:** 24 Sept 2019 @ 10:00 AM

PROJECT TITLE: Dock Replacement – Liberty State Park

COMPANY NAME (PRINT)	REPRESENTATIVE (PRINT)	SIGNATURE	TELEPHONE NUMBER	email
DPMC	Gene Cardone		609.633.2648	eugene.cardone@treas.nj.gov
DPMC	Shawn Taylor		609.292.5229	Shawn.taylor@treas.nj.gov
DEP	Don DeLuca		609.306.3731	
Maser Consulting	Richard Maloney		732.383.1950	rmaloney@maserconsulting.com
DPMC	John Forgione			John.forgione@ytreas.nj.gov

MANDATORY PRE-BID MEETING
SIGN-IN SHEET

PROJECT # P1179-00 **DATE & TIME:** 24 Sept 2019 @ 10:00 AM

PROJECT TITLE: Dock Replacement – Liberty State Park

COMPANY NAME (PRINT)	REPRESENTATIVE (PRINT)	SIGNATURE	TELEPHONE NUMBER	email
Intercontinental Construction	Ishan Shah		2012893370	ishan.shah@iccincorporated.com
Union Paving and Construction	Chris Woods		609-413-9379 (C) 908-232-4100 (W)	cwoods@unionpaving.com
Bellingham Marine	Jay Varga		203-257-6013	jvarga@bellingham-marine.com
XYLEM DEWATERING	JOHN P. BAIRD		6093520884	JOHN.BAIRD@XYLEMINC.COM
ATLANTIC SUBSEA, INC	NIKHIL A. MENEZES		856-241-3544 x18	OPERATIONS@ATLANTICSUBSEA.COM
Agate Construction	Sean Milachowski		201-675-1553	smilachowski@agateconstruction.net estimating@agateconstruction.net

MANDATORY PRE-BID MEETING
SIGN-IN SHEET

PROJECT # P1179-00 **DATE & TIME:** 24 Sept 2019 @ 10:00 AM

PROJECT TITLE: Dock Replacement – Liberty State Park

COMPANY NAME (PRINT)	REPRESENTATIVE (PRINT)	SIGNATURE	TELEPHONE NUMBER	email
Bird Construction	Jim Hannon		732-269-1337	Jim@Birdconstructionco.com
K-T	Jim McHeffey		732-850-2931	JAMES.McHeffey@KT marineny.com
TRAVCON	Ray Lijo		908 580-0200	rlijo@TRAVCON.com rlijo@TRAVCON.com
TRICON	Mike Hamilton		732-890-3310	mHAMILTON@goTRICON.Com

** Revised**
BID PROPOSAL FORM
"Bulletin B"

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
P O BOX 034
TRENTON NEW JERSEY 08625-0034

The bid proposal is to be returned in the pre-addressed envelope and will be accepted no later than 2:00 p.m., **October 10, 2019** after which time the bid proposals will be publicly opened and read.

FIRM NAME:
(Please Type or Print)
(Business Street Address ONLY – No P O Box)

PROJECT NO P1179-00
PROJECT: Dock Replacement – Liberty State Park
LOCATION: Jersey City
COUNTY: Hudson

The undersigned Single Prime Contractor proposes to be responsible for all work shown in the contract plans and specifications.

☒ Single Bid $ _____
lump sum all trades (Numerical Figures Only)

In accordance with N.J.S.A. 52:35-1 et seq., the Contractor will be classified with the Division of Property Management and Construction (DPMC) in one of the following trades: General Construction (C008) or General Construction / Alterations and Additions (C009) or Site Work (C054) or Bulkhead and Docks (C083) or Pile Driving (C086)

The proposal is based upon the bid documents listed below.

1. Instructions to Bidders and General Conditions Revised December, 2015
2. Specifications dated: August 12, 2019
3. Drawing(s)#: See Cover Sheet T-1 Dated August 12, 2019

This project will be fully completed and ready for occupancy within 120* calendar days.

(*No in-water work is permitted from March 1, 2020 through June 30, 2020)

Liquidated damages will be assessed at 1/20 of one percent (.05%) of the value of this contract (minimum of $250.00).

The above price is good through sixty (60) days after the bid opening date.

Submit only one bid proposal and bid bond form.

A bid bond in the amount of fifty percent (50%) of the TOTAL bid, including alternates if applicable, must accompany this proposal form.

The Contractor must include prices for the base bid and all alternates and unit prices when requested, otherwise the bid may be considered non-responsive.

Having examined the bid documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, the Contractor hereby proposes to furnish all labor, materials and supplies, and to construct the project as submitted, within the time set forth therein, and at the price stated. This price is to cover all expenses incurred in performing the work required, of which this proposal is a part.

The Contractor acknowledges and affirms that it has personal knowledge of or has obtained and reviewed a copy of the valid prevailing wage rates for all trades involved in the project for the geographical location of the project as issued by the Commissioner of the Department of Labor, P O Box 389,Trenton, New Jersey, 08625 (609) 292-2259.

The Contractor acknowledges receipt of the following Bulletins:

BULLETIN NUMBER	DATE OF BULLETIN
A	September 4, 2019
B	September 12, 2019

EXECUTION OF CONTRACT

Upon receipt of written notice of the acceptance of this bid, the Contractor shall execute the formal contract within 10 calendar days and deliver a Performance and Payment Bond as well as other information as required in the bid solicitation.

COMMENCEMENT OF WORK

Contractor acknowledges that the work is to commence upon receipt of the Notice to Proceed with the exception of permit activities.

BID SECURITY

Bid Bond is fifty percent (50%) of the TOTAL bid, including alternates if applicable, and is to become the property of the State in the event the contract and bond are not executed within the time set forth as liquidated damages for the delay and additional expense incurred by the Owner.

PROJECT NO.: P1179-00

CERTIFICATION

I certify that the below named firm is classified by the Division of Property Management and Construction in the approved amount of $ _____ for (trade) _____ until _____ (expiration date).

I further certify that this firm's bid for this project does not cause the firm to exceed its aggregate rating limit, including consideration of uncompleted construction work (please refer to N.J.A.C. 17:19-2.13, which describes how certain major trade subcontract work is discounted 85% for purposes of calculating whether a contractor is within its rating).

Respectfully submitted,

(Seal-if Bid proposal is by a corporation)

By: _____
(Name of Firm)

_____
(Signature)

_____
(Title)

_____
(Business Street Address ONLY – No P O Box)

_____
(City State County Zip)

Phone No. _____

Fax No. _____

Federal Identification No. _____

Any change in ownership information since filing your Request for Classification (Form DPMC 27)

☐ Yes

☐ No

If yes, attach explanation.

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION

NON-COLLUSION AFFIDAVIT

PROJECT: P1179-00
Dock Replacement – Liberty State Park
Jersey City, Hudson County, NJ

Bid Due Date **October 10, 2019** 02:00 PM

STATE OF NEW JERSEY [
[**SS.**
COUNTY OF [

I, _____ of the City of _____

in the County of _____ and the State of _____

of full age, being duly sworn according to law on my oath depose and say that:

I am _____

of the firm of _____

the Contractor making the Bid Proposal for the above named project, and that I execute the said Bid Proposal with full authority so to do; that said Contractor has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said bid proposal and in this affidavit are true and correct, and made with full knowledge that the State of New Jersey relies upon the truth of the statements contained in said Bid Proposal and in the statements contained in this affidavit in awarding the contract for the said project.

_____
SIGNATURE OF PRINCIPAL

Subscribed and sworn to before me this day
of 20 ,

_____
Notary Public

My Commission expires _____, _____.

Public Law 2005, Chapter 92

Formerly: Executive Order 129

In accordance with Public Law 2005, Chapter 92 (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)) all bidders submitting a proposal shall be required to submit a Source Disclosure Certification that all services will be performed in the United States. The bidder shall disclose the location by country where services under the contract will be performed and any subcontracting of services under the contract and the location by country where any subcontracted services will be performed.

SOURCE DISCLOSURE CERTIFICATION FORM

Bidder: _____

I hereby certify and say:

I have personal knowledge of the facts set forth herein and am authorized to make this Certification on behalf of the Bidder.

The Bidder submits this Certification as part of a bid proposal in response to the referenced solicitation issued by the State of New Jersey, Department of Treasury, Division of Property Management and Construction (DPMC), in accordance with the requirements of Public Law 2005, Chapter 92, (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)).

The following is a list of every location where services will be performed by the bidder and all subcontractors.

Bidder or Subcontractor	Description of Services	Performance Location(s) by Country

Any changes to the information set forth in this Certification during the term of any contract awarded under the referenced Project Number will be immediately reported by the Bidder to the Contract Compliance Unit in the DPMC, Department of Treasury, State of New Jersey, PO Box 034, Trenton, NJ 08625.

I understand that, after award of a contract to the Bidder, it is determined that the Bidder has shifted services declared above to be provided within the United States to sources outside the United States, prior to a written determination by the Director, Division of Property Management and Construction, that extraordinary circumstances require the shift of services or that the failure to shift the services would result in economic hardship to the State of New Jersey, the Bidder shall be deemed in breach of contract, which contract will be subject to termination for cause under its contract with DPMC.

I further understand that this Certification is submitted on behalf of the Bidder in order to induce DPMC to accept a bid proposal, with knowledge that the State of New Jersey and DPMC are relying upon the truth of the statements contained herein.

I certify that, to the best of my knowledge and belief, the foregoing statements by me are true. I am aware that if any of the statements are willfully false, I am subject to punishment.

Bidder: _____
[Name of Organization or Entity]

By: _____ Title: _____

Print Name: _____ Date: _____

STATE OF NEW JERSEY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

BIDDER _____

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division of Purchase and Property's website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders ***must*** *review this list prior to completing the below certification.* ***Failure to complete the certification may render a bidder's proposal non-responsive.*** *If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.*

PLEASE CHECK THE APPROPRIATE BOX:

☐ I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, C. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

OR

☐ I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Part 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the box(es) below.

Name _____ Relationship to Bidder/Offeror_____
Description of Activities _____
Duration of Engagement _____ Anticipated Cessation Date _____
Bidder/Offeror Contract Name _____ Contact Phone Number _____

List Additional Activities on Separate Sheet

CERTIFICATION: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): _____ Signature: _____

Title: _____ Date: _____

STATE OF NEW JERSEY DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
PO BOX 034, TRENTON, NJ 08625-0034

PROJECT#: P1179-00

A/E: Maser Consulting PA

DATE: September 4, 2019

BULLETIN A

Bidder must acknowledge receipt of this Bulletin on bid form in the space provided therefor.

This Bulletin is issued for the purpose of amending certain requirements of the original Contract Documents, as noted hereinafter, and is hereby made part of and incorporated in full force as part of the Contract Documents. Unless specifically noted or specified hereinafter, all work shall comply with the applicable provisions of the Contract Documents.

A) DIANE B. ALLEN EQUAL PAY ACT

Pursuant to N.J.S.A. 34:11-56.14(b), any employer, regardless of the location of the employer, who enters into a contract with a public body to perform any public work for the public body shall provide to the Commissioner of the New Jersey Department of Labor and Workforce Development, through certified payroll records required pursuant to P.L.1963, c.150 (C.34:11-56.25 et seq.), information regarding the gender, race, job title, occupational category, and rate of total compensation of every employee of the employer employed in the State in connection with the contract. The employer shall provide the commissioner, throughout the duration of the contract or contracts, with an update to the information whenever payroll records are required to be submitted pursuant to P.L.1963, c.150 (C.34:11-56.25 et seq.).

Information regarding the Diane B. Allen Equal Pay Act and its requirements may be obtained from the New Jersey Department of Labor and Workforce Development (LWD) web site at: https://nj.gov/labor/equalpay/equalpay.html

LWD forms may be obtained from the online web site at: https://nj.gov/labor/forms_pdfs/equalpayact/MW-562withoutfein.pdf

B) NOTICE OF POST-BID MEETING:

a. After the bids are received and opened, the Apparent Low Bidder is required to attend a Post- Bid meeting at the State's offices at the date, time and location listed herein.

b. The Apparent Low Bidder must bring the following to the Post-Bid meeting concerning the work they are performing by their own forces:

   i. The itemized estimate used in preparation of the bid submission;
   ii. The estimator, or other authorized person who can discuss the itemized estimate;
   iii. An employee of the company who is authorized to sign the Post-Bid Review meeting minutes.

c. Each of the Apparent Low Bidder's "Named Sub-Contractors" must attend the meeting and bring the following concerning the work they are performing by their forces:
   i. The itemized estimate used in preparation of the bid submission;
   ii. The estimator, or other authorized person who can discuss the itemized estimate;

d. A Mandatory Post-Bid meeting will be held:

DATE: Wednesday 16 October 2019
TIME: 10:00AM
LOCATION: DPMC Office, 20 West State St, 3rd Floor North Conference Room, Trenton, NJ.

C) AMENDMENTS TO THE GENERAL CONDITIONS OF THE CONTRACT

Amend the General Conditions of the Contract as follows:

ARTICLE 4 – THE CONTRACTOR

4.18 PROJECT SIGN

Delete 4.18 in its entirety

Add the following paragraphs and sub-paragraphs:

4.18.1 SIGNS AT THE PROJECT SITE

4.18.1.1 The Contractor is not required to provide a project sign.

4.18.1.2 Signs provided by others will not be permitted at the site.

4.20 DPMC FIELD OFFICE

Delete 4.20 in its entirety:

Delete 4.20.2 in its entirety:

Add the following sub-paragraph:

4.20.3 *A separate on-site field office for the use of DPMC personnel is not required for this project.*

4.20.4 *If required, a separate on-site field office for the use by the Contractor is specified elsewhere in the construction documents.*

4.21 PHOTOGRAPHS

Delete 4.21.1 in its entirety:

Delete 4.21.2 in its entirety:

Add the following sub-paragraph:

4.21.3 *Project Photographs are not required for this project.*

ARTICLE 6 - CONSTRUCTION PROGRESS SCHEDULE
Revise Article 6 as follows:

6.1 GENERAL

Delete 6.1 in its entirety

Add the following sub-paragraph:

The Contractor shall be required to provide Graphic Format progress schedules, as defined in section 6.4 below.

6.2 CONSTRUCTION PROGRESS SCHEDULE (CRITICAL PATH METHOD - CPM CONSULTANT RETAINED BY THE STATE).

Delete 6.2 in its entirety:

6.3 CONSTRUCTION PROGRESS SCHEDULING PROVIDED BY THE CONTRACTOR.

Delete 6.3 in its entirety:

Replace with the following:

6.4 CONSTRUCTION PROGRESS SCHEDULING:

6.4.1 Schedule Format: The contractor shall be responsible for preparing, updating and distributing a Gantt chart progress schedule constructed using either Microsoft Project or a Microsoft Project compatible software ["Schedule"] for the project work in accordance with this Sub- paragraph.

6.4.1.1 The Schedule must be furnished as a Microsoft Project file and in paper format if required.

6.4.2 Requirements for what is included in the Schedule: The Schedule shall fully describe the project work in sufficient detail to satisfy the architect/ engineer and the Director.

6.4.2.1 The Schedule must be accurate in its depiction of all project activities.

6.4.2.2 The Schedule shall, at a minimum, indicate in suitable detail, all significant features of the work or work activities to be performed, including the placing of orders and anticipated delivery dates for critical items, dates for submissions and approvals of submittals and shop drawings, all change order work , all necessary inspections, the beginning and time duration for all tasks, predecessors and successors for each task , contract milestones, , the NTP, the dates of

substantial and final completion of the work and significant Agency or State milestones, when applicable.

6.4.2.3 The Schedule must show the project's critical path.

6.4.2.4 The contractor may be required to add other information to the Schedule including, but not limited to, costs and resources.

6.4.2.5 The Schedule must show the durations in calendar day and acknowledge weekends and State holidays as non-working days, unless otherwise required by the contract.

6.4.2.6 The Schedule must show the date of Substantial Completion occurring on or before the contract duration end date unless otherwise approved by the architect / engineer and the Director.

6.4.3 The Schedule as the project record: The contractor agrees that the Schedule shall constitute the official historical record of project's progress.

6.4.4 Approved Schedule: All references herein to the Schedule shall mean a Schedule that is approved by the Project Team including, but not limited to the architect/engineer and the Director.

6.4.4.2 The architect/engineer or Director can request the addition of information to the schedule when it is, in their opinion, necessary to better describe the contractor's work effort prior to granting their approval.

6.4.5 Complying with the Schedule: The contractor shall furnish sufficient labor, materials and equipment to ensure the prosecution of the work in accordance with the Schedule.

6.4.6 Recovery Schedule: The contractor is required to provide a recovery schedule if the completion time for any task deemed necessary for Substantial Completion is not scheduled to be complete prior to the contract duration allotted in the contract.

6.4.6.1 To create the recovery schedule the contractor shall, among other things, revise the sequence of tasks and /or the time for performance of tasks through concurrent operations, additional manpower or, when allowable, overtime or additional shifts etc. until it is assured that Substantial Completion will occur on or before the contract completion date.

6.4.6.2 The State will not allow any additional charges for work performed or made necessary in order for the contractor to comply with the dates shown in the recovery schedule i.e. no additional charges will be allowed the contractor for overtime, additional manpower, equipment, additional shifts, etc., except as provided for elsewhere in the contract.

6.4.6.3 The contractor is required to perform in accordance with the tasks and durations as shown in the recovery schedule including meeting the dates shown for Substantial and Final Completion.

6.4.6.4 The recovery schedule must comply with all requirements of this section and all references to and requirements for the Schedule shall also apply to the recovery schedule.

6.4.7 Submission and review requirements for the project schedule:

6.4.7.1 The contractor must submit and obtain approval of the initial schedule within 30 days after the Notice to Proceed, but in no case later than the first application for payment.

6.4.7.2 Subsequently the contractor must update and submit the project schedule immediately upon the occurrence of a change in an activity or event that may, in the architect's/engineers/s opinion, significantly change the current approved schedule, but at a minimum the schedule must be updated every two weeks and submitted at the bi-weekly progress meeting.

6.4.7.3 The updated schedule must include any activities that were added for any reason including, but not limited to change order work approved to date.

6.4.7.4 The updated progress schedule shall include the progress achieved for each activity that was scheduled including the actual dates the work was started and completed.

6.4.7.5 The project schedule shall be reviewed in detail at every bi-weekly progress meeting.

6.4.7.6 The absence of bi-weekly meetings does not relieve the contractor of his obligation to provide a schedule every two weeks.

6.4.7.7 The architect/engineer or Director reserves the right to cancel or reschedule the bi- weekly meeting or otherwise take preemptive action if the contractor does not have an approved progress schedule ready for submission as described herein.

6.4.8 Schedules and payments or extensions of time:

6.4.8.J The contractor will make no claim for, and have no right to, additional payment or extension of time for completion of the work in accordance with the schedule, or any other concession because of any misinterpretation or misunderstanding on the contractor's part of the project schedule, or because of any failure on the contractor's part to become fully acquainted with all conditions relating to the project schedule and the manner in which it will be used on the project, or because of any other contractor's failure to properly participate in the development of a schedule or to perform the contract in accordance with the schedule.

6.4.8.2 A copy of the current, updated and approved schedule is a required attachment to each application for payment.

6.4.8.3 Failure to include a copy of the current, updated and approved schedule with the payment request shall be cause for rejection of the progress payment request.

6.4.9 Two week look ahead/look behind work plan: In addition to the project schedule requirements, the contractor is required to submit a two week look ahead/look behind work plan at every bi-weekly project meeting.

6.4.9.1 The work plan shall focus on the activities that have been completed in the last two weeks and those planned for the next two weeks.

6.4.9.2 The work plan shall be in greater depth than the overall project schedule.

6.4.9.3 The work plan shall identify the contractor's activities that impact the operations and occupants of the State building or facility of the subject project.

6.4.9.4 The work plan shall be a subset of the current schedule and all activities shall coordinate between them.

6.4.9.5 The absence of a bi-weekly meeting shall not relieve the contractor of his responsibility to provide this work plan.

6.4.9.6 This work plan is in addition to and not in lieu of the schedule requirements described in Sub-paragraph 6.4 et al.

6.4.10 The Contractor agrees that no time extension will be granted for time lost due to normal seasonal weather conditions. In order to qualify for consideration for a time extension due to adverse weather conditions, it must be shown by clear and convincing evidence that the weather conditions during a given quarterly period (summer, fall, winter, spring) were more severe than the previous five-year (5) average for the Project geographical area, and that these weather conditions critically impacted the final Project completion date by delaying the performance of work. If abnormal weather losses can be shown to have impacted the Project completion date, a non-compensable time extension will be considered for that portion of the proven weather-related delays, which exceeded normal weather losses that should have been anticipated for the quarterly period in question.

6.4.11 The "Construction Duration" identified on the Bid Proposal Form shall be from the Notice To Proceed to Substantial Completion.

D) REVISIONS AND/OR CLARIFICATIONS TO THE SPECIFICATIONS, DRAWINGS AND/OR PROJECT REQUIREMENTS

1. All Technical Sections that reference manufacturers and products are hereby revised to include "Or Approved Equal." Technical Sections of the Specifications have not been reissued as part of this Bulletin A.
2. "Approved Equal" requests must be presented in writing during the Question and Answer period of the Bid Phase, after which they will not be considered. A response will be provided by the Consultant via Bulletin.
3. As it relates to testing and inspections, all testing and inspections indicated in the specifications shall be performed by a DPMC prequalified firm and arranged and paid for by the Contractor and in no situation by the Owner.
4. INSTALLER, MANUFACTURER & FABRICATOR QUALITY ASSURANCE & QUALIFICATIONS: Eliminate any and all references to "Installer" and/or "Fabricator" quality assurance requirements that pertain to minimum requirement statements such as years of experience, number of similar projects (ex. "5 similar projects"), etc. within the Quality Assurance & Qualifications sections of the specifications. Technical Sections of the Specifications have not been reissued as part of this Bulletin A.
5. All submittals shall be forwarded to the consultant's engineer within 30 calendar days of the Notice to Proceed.
6. No in-water work is permitted from March 1, 2020 through June 30, 2020.
7. All UCC and DEP Permits will be paid for by the State.
8. Specification Section 01 31 00 – PROJECT MANAGEMENT AND COORDINATION, 1.2, Item C, replace "01 77 00, Execution Requirements" with "01 73 00, Execution".
9. Specification Section 01 32 33 – PHOTOGRAPHIC DOCUMENTATION, 1.3 Item A, delete "...for not less than three years".
10. Specification Section 01 52 00 – CONSTRUCTION FACILITIES, 1.2, delete Item A.

11. Specification Section 01 57 19 – TEMPORARY ENVIRONMENTAL CONTROLS, 1.2, Item A, replace "02 40 00, Demolition" with "02 41 19, Demolition".
12. Specification Section 06 40 00: the pages are numbed incorrectly. On each page replace, 06 45 00 with 06 40 00.

END OF BULLETIN A

MANDATORY PRE-BID MEETING

PROJECT #	**P1179-00**
LOCATION	**BOAT DOCK – LIBERTY STATE PARK MORRIS PESIN DRIVE JERSEY CITY, HUDSON COUNTY, NJ**
DATE	**September 24, 2019**
TIME	**10:00 AM**
CONTACT PERSON	**GENE CARDONE**
PHONE #	**Office #: 609.633.2648 Cell #: 609.306.2574**
MEETING LOCATION	**BOAT DOCK – LIBERTY STATE PARK MORRIS PESIN DRIVE JERSEY CITY, HUDSON COUNTY GPS: 40.697043, -74.063656 **_Entrance to the Boat Ramp parking lot is located near the intersection of Morris Pesin Drive and Edward Hart Drive_**.**

MUST ATTEND TO HAVE VALID BID

NOTE: It is each bidder's responsibility to determine the way to the location of the announced Pre-Bid meeting and to assure their timely arrival at the meeting. A maximum fifteen-minute grace period may be granted by the DPMC Project Manager, at his/her discretion, in case of extenuating circumstances determined prior to the scheduled start time. Bidders will be required to sign in at the beginning of the meeting. After the meeting has officially started, no other bidders will be permitted to sign-in. Failure to sign pre-bid sign in sheet will prohibit the bidder's proposal from being accepted.

SPECIFICATION

DOCK REPLACEMENT

Liberty State Park
Jersey City, Hudson County, N.J.

PROJECT NO. P1179-00

STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor

Honorable Sheila Y. Oliver, Lieutenant Governor

DEPARTMENT OF THE TREASURY
Elizabeth Maher Muoio, State Treasurer

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
Christopher Chianese, Director

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Catherine R. McCabe, Acting Commissioner

MASER CONSULTING P.A.

331 Newman Springs Road, Suite 203
Red Bank, NJ 07701
732-383-1950

RICHARD C. MALONEY, P.E
LICENCSE NO.: GE39023

Date: August 12, 2019

MASER CONSULTING P.A.

Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

State of New Jersey

DOCK REPLACEMENT

Liberty State Park
Jersey City, Hudson County, N.J.

MC Project No. 18007448G

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STATE OF NEW JERSEY

DEPARTMENT OF THE TREASURY

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

R E V I S E D

DECEMBER 2015

INSTRUCTIONS TO BIDDERS

AND

GENERAL CONDITIONS

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INSTRUCTIONS TO BIDDERS

IB 1 Bid Proposals

IB 1.1 Sealed proposals for the work described herein must be received and time-stamped in the Plan Room, Division of Property Management and Construction (DPMC), 9th Floor, 33 West State Street, P O Box 034, Trenton, NJ 08625-0034. The closing date and time for bids will be stated in the Advertisement for Bid. Bidders are cautioned that reliance on the US Postal Service or other mail delivery or courier service for timely delivery of proposals is at the bidders' risk. Failure by a bidder to have a sealed proposal reach DPMC by the prescribed time will result in rejection of the unopened submission.

IB 1.2 Bids may be accepted on the following branches of work, as applicable:

a. Lump Sum All Trades
b. General Construction
c. Structural Steel
d. Plumbing
e. Heating, Ventilating and Air Conditioning
f. Electrical
g. Special Categories as may be required

IB 1.3 Contractors classified by DPMC may obtain contract documents at the DPMC address above, or upon written request, subject to payment of applicable fees. Each bidder is herewith put on notice that its general classification by DPMC is not the sole basis for qualification for the award of work. The Director reserves the right to deny award to any bidder that is not clearly responsible, based upon experience, past performance, financial capability or other material factors, to perform the work required herein.

IB 1.4 The schedule of non-refundable bid fees below is based upon individual trade construction cost estimates. Upon request and at no cost the DPMC will furnish a set of the contract documents for review in the offices of the division at the address noted in paragraph IB1.1 above.

DPMC BID DOCUMENTS FEE SCHEDULE (PER PACKAGE):

TRADE ESTIMATE	DOCUMENT FEE	MAILING FEE
$100,000 or less	No charge	$25.00
Greater than $100,000	$ 65.00	$25.00

IB 1.5 Bid proposals based upon the plans, specifications, general, special and supplementary conditions and bulletins shall be deemed as having been made by the contractor with full knowledge of the conditions therein. Bidders are required to visit the site prior to submitting proposals for the work herein described, and to have thoroughly examined the conditions under which the contract is to be executed, including those reasonably observable conditions of the premises which would hinder, delay, or otherwise affect the performance of the contractor required under the terms of the contract. The State will not allow claims for additional costs as a result of the contractor's failure to become aware of the reasonably observable conditions affecting its required performance. The bidder is required to make appropriate allowances in the preparation of the bid for the

accommodation of such conditions. Bidders must warrant in the bid documents that the bidder is familiar with conditions existing at the site at the time the bid is submitted.

IB 1.6 Bid proposals shall be submitted on the standard form provided by DPMC, enclosed in a sealed envelope issued by DPMC. The name and address of the bidder must be indicated on the envelope, as well as indication of the DPMC project number, project location and other appropriate identification.

IB 1.7 All amounts in the bid documents shall be stated in numerical figures only.

IB 1.8 The bidder must include in the bid envelope: (1) the proposal signed by the bidder, (2) the executed affidavit of non-collusion, (3) the executed Source Disclosure Certification Form as further described in section IB1.11, (4) the executed Disclosure of Investment Activities in Iran Form and (5) bid security as further described in Section IB6.

IB 1.9 Proposals shall remain open for acceptance and may not be withdrawn for a period of 60 calendar days after the bid opening date.

IB 1.10 Proposals not submitted and filed in accordance with instructions contained herein and in the Advertisement for Bids may be rejected as non-responsive.

IB 1.11 Procurement Reform

a. RESTRICTIONS ON POLITICAL CONTRIBUTIONS – In accordance with N.J.S.A. 19:44A-20.13, *et seq.*, bidders submitting a bid on or after October 15, 2004, shall be required to submit a Certification and Disclosure Form and Ownership Disclosure Form for all Business Entities. These forms must be submitted by the bidder and approved prior to contract award.

   N.J.S.A. 19:44A-20.13, *et seq*, prohibits State departments, agencies and authorities from entering into a contract that exceeds $17,500 with an individual or entity that has made a contribution to that political party committee. N.J.S.A. 19:44A-20.13, *et seq,* further requires the disclosure of all contribution to any political organization organized under section 527 of the Internal Revenue Code that also meets the definition of "continuing political committee" within the meaning of N.J.S.A. 19:44A-3(n) and N.J.A.C. 19:25-1.7. The successful bidder shall also be required to adhere to all continuing obligations contained in N.J.S.A. 19:44A-20.13, *et seq*, regarding contributions and disclosures as required in N.J.S.A. 19:44A-20.13, *et seq*.

b. Source Disclosure Certification - Pursuant to N.J.S.A. 52:34-13.2, *et seq.*, all bidders submitting a proposal shall be required to complete a Source Disclosure Certification that all services will be performed in the United States. The bidder shall disclose the location by country where services under the contract will be performed and any subcontracted services will be performed. The Source Disclosure Certification will be attached to the bid proposal.

c. MacBride Principles - Pursuant to N.J.S.A. 52:34-12.2, a bidder must complete a certification on the DPMC form provided prior to contract award to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates pursuant to N.J.S.A. 52:34-12.2, that the bidder has no ongoing business activities in Northern Ireland and does not maintain a physical

presence therein through the operation of offices, plants, factories, or similar facilities, either directly or indirectly, through intermediaries, subsidiaries or affiliated companies over which it maintains effective control; or will take lawful steps in good faith to conduct any business operations it has in Northern Ireland in accordance with the MacBride principles of nondiscrimination in employment as set forth in N.J.S.A. 52:18A-89.8 and in conformance with the United Kingdom's Fair Employment (Northern Ireland) Act of 1989, and permit independent monitoring of their compliance with those principles. If a contractor who would otherwise be awarded a contract or agreement does not complete the certification, then the Director may determine, in accordance with applicable law and rules, it is in the best interest of the State to award the contract or agreement to the next responsible bidder who has completed the certification. If the Director finds the contractor to be in violation of the principles which are the subject of this law, s/he shall take such action as may be appropriate and provided for by law, rule or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the contractor in default and seeking debarment or suspension of the contractor.

d. Investment Activities in Iran - Pursuant to N.J.S.A. 52, 32-55, *et seq.*, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete a certification with their bid on the DPMC form provided to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division of Purchase and Property's website at www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the certification. Failure to complete the certification may render a bidder's proposal non-responsive. If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

IB 2 Bid Modification

IB 2.1 A bidder may modify its bid proposal by electronic mail or letter at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the DPMC prior to such closing time. A mailed confirmation of any modification signed by the bidder must have been mailed and time-stamped by the US Postal Service prior to the specified closing time. Such confirmation, whether transmitted electronically or by mail, shall be accompanied by a newly executed affidavit of non-collusion.

IB 2.2 Communications shall not reveal the basic bid price but shall only provide the amount to be added, subtracted or modified so that the final prices or terms will not be revealed until the sealed proposal is opened. If written confirmation of the telegraphic modification is not received within two working days after the scheduled closing time, no consideration will be given to the telegraphic modification.

IB 2.3 Bids may be withdrawn upon receipt of a bidder's written request prior to the time fixed for the bid opening. A bidder's right to withdraw a bid is lost after a bid has been opened. If an error has been made in the bid amount, request for relief from the bid may be made in writing to the Director. The written request shall be signed by an authorized corporate officer. A determination of whether the bidder will be released shall be at the sole discretion of the Director, who shall issue a finding within five working days of receipt of all pertinent information relating to such request for relief.

IB 3 Consideration of Bids

IB 3.1 Award of Contracts or Rejection of Bids:

a. Contracts will be awarded to the lowest responsible bidder. The awards will be made, or the bids rejected, within 60 calendar days from the date of the opening of bids. At the discretion of the Director, a bid extension may be requested from the bidders if circumstances warrant an extension.

b. The Director reserves the right to award the contract on the basis of the single bid for the entire work, or on the basis of a separate bid and alternate, or any combination of separate bids and alternates, which the Director deems best serves the interest of the State.

c. The Director reserves the right to waive any bid requirements when such waiver is in the best interests of the State, and where such waiver is permitted by law. Such waiver shall be at the sole discretion of the Director.

d. The Director reserves the right to reject any and all bids when such rejection is in the best interests of the State. The Director also may reject the bid of any bidder which, in the Director's judgment, is not responsible or capable of performing the contract obligations based on financial capability, past performance, or experience. A bidder whose bid is so rejected may request a hearing before the Director by filing a written notice.

IB 3.2 The bidder to be awarded the contract shall execute and deliver the requisite contract documents, including payment and performance bonds, within the time specified. Upon the bidder's failure or refusal to comply in the manner and within the time specified, the Director may either award the contract to the next low responsible bidder or re-advertise for new proposals. In either case, the Director may hold the defaulting bidder and its surety liable for the difference between the applicable sums quoted by the defaulting bidder and the sum which the State may be obligated to pay to the contractor which is contracted to perform and complete the work of the defaulting bidder.

IB 4 Awards

IB 4.1 In executing a contract, the successful bidder agrees to perform the required work in a good and workmanlike manner to the reasonable satisfaction of the Director, and to complete all work within the number of calendar days specified in its contract.

IB 4.2 Successful bidders will be notified of the time and place for the signing of contracts. Key requirements in the contract, including, but not limited to, the number of days of performance of the contract, manner and schedule of payments, and other administrative details will be reviewed at the award meeting. The time and place of the first job meeting will be announced at the award meeting.

IB 4.3 The State reserves the right to award the contract upon the basis of a single bid for the entire work, or on the basis of separate bids for each prime trade when the total of the separate bids is less than the single bid. Alternates will be accepted or rejected in numerical sequence as cited in the bid documents and shall not be selected at random except as provided herein. Add alternates and deduct alternates will be specified separately. The State may choose from the add and deduct alternates without priority between the two groups so long as selection within each group is in numerical sequence from the first to the last. This limitation shall not apply, however, to any alternates concerning proprietary items. The Director, with the approval of the Using Agency, may accept alternates out of sequence, provided the Director states the reasons for so doing, in writing, within five working days following the opening of bids.

IB 4.4 Should submission of unit prices be required for specified items of work in bid proposals, they will be considered in the evaluation of bids as set forth in the bid proposal form.

IB 4.5 The successful bidder and all of its subcontractors are required to comply with the requirements of N.J.S.A. 10:5-31 et seq., regarding Equal Employment Opportunity in Public Works Contracts.

IB 5 Qualification of Bidders

IB 5.1 If the successful bidder is a corporation not organized under the laws of the State of New Jersey or is not authorized to do business in this State (foreign corporation), the award of the contract shall be conditioned upon the prompt filing by the said corporation of a certificate to do business in this State and complying with the laws of this State in that regard. This filing must be made with the Division of Revenue. No award of contract will be made until the Division of Revenue confirms this authorization.

IB 5.2 The State requires that each contractor, except in the case of a single contractor, shall perform a minimum of 35 percent of the contract work by the contractor's own forces. However, the Director has the sole discretion to reduce this percentage depending upon the nature and circumstances in any particular case, if the Director determines that to do so would be in the best interests of the State, and provided that the bidder submits a written request with the original bid proposal.

IB 5.3 The State reserves the right to reject a bidder at any time prior to the signing of a contract if information or data is obtained which, in the opinion of the Director, adversely affects the responsibility and/or the capability of the bidder to undertake and to complete the work, regardless of the bidder's previous qualification or classification. The State may

conduct any investigation as it deems necessary to determine the bidder's responsibility and capacity, and the bidder shall furnish all information and data for this purpose as requested by the State.

IB 5.4 Each bidder must be classified by DPMC in accordance with the provisions of the classification statute, NJSA 52:35-1, *et seq.*,. In the case of a single bid for all of the work, the bidder shall include in the bid the names of its principal subcontractors (in categories as listed in IB1.2 above), which must also be classified in accordance with the said statute.

IB 5.5 At the time of the bid due date, the bidder and the subcontractors must be registered in accordance with "The Public Works Contractor Registration Act", N.J.S.A. 34:11-56.48, *et seq.* All questions regarding registration shall be addressed to:

Contractor Registration Unit
New Jersey Department of Labor
Division of Wage & Hour Compliance
P O Box 389
Trenton NJ 08625-0389
Telephone: 609-292-9464
FAX: 609-633-8591

IB 5.6 In accordance with N.J.S.A. 52:32-44, *et seq.*Public Law 2001, Chapter 134, all contractors and subcontractors providing goods/services to State agencies and authorities are required to provide the contracting agency or authority with proof of registration with the Department of Treasury, Division of Revenue. The basic registration process involves the filing of Form NJ-Reg., which can be filed online at www.state.nj.us/njbgs/services.html or by calling (609) 292-7077 or (609) 292-1730.

IB 6 **Deposit and Bid Bond**

IB 6.1 The Proposal, when submitted, shall be accompanied by a Bid Bond satisfactory to the Director, for the sum of not less than fifty percent (50%) of the Total Bid including alternates, if applicable.

IB 6.2 The Bid Bond shall be properly filled out, signed, and witnessed.

IB 6.3 The Bid Bond shall be accompanied by a copy of the power of attorney executed by the surety company or companies. The power of attorney shall set forth the authority of the attorney-in-fact who has signed the bond on behalf of the surety company to bind the company and shall further certify that such power is in full force and effect as of the date of the bond.

IB 6.4 If the bidder whose proposal is accepted is unable to provide the performance and payment bonds or fails to execute a contract, then such bidder and the bid bond surety, where applicable, shall be obligated to pay to the State the difference between the amount of the bid and the amount which the State contracts to pay another party to perform the work. The bidder and the surety shall pay, upon demand, the entire amount of the State's difference in cost. Should there be a deficiency in excess of the bid deposit, the bidder shall make immediate payment to the State for any such deficiency. Nothing contained herein shall be construed as a waiver of any other legal remedies that the State may have against the contractor.

IB 6.5 Attorneys-in-fact who sign bid bonds or contract bonds must file a certified power-of-attorney with the State indicating the effective date of that power.

IB 7 Performance and Payment Bond

IB 7.1 The successful bidder shall furnish within ten (10) calendar days after notice of award both a performance bond in statutory form in an amount equal to one hundred percent (100%) of the total contract price as security for the faithful performance of this contract and a payment bond in statutory form in amount equal to one hundred percent (100%) of the contract price as security for the payment of all persons and firms performing labor and furnishing materials in connection with this contract. The performance bond and the payment bond may be combined or in separate instruments in accordance with law. If combined, they must be for 200% of the award amount. No contract shall be executed unless and until each bond is submitted to and approved by the State. The surety must be presently authorized to do business in the State of New Jersey. In addition to the other coverage provided, the Bond shall cover all Contract guarantees and any other guarantees/warranties issued by the Contractor.

IB 7.2 The cost of all performance and payment bonds shall be paid for by the successful bidder.

IB 7.3 If at any time the State, for justifiable cause, is dissatisfied with any surety which has issued or proposes to issue a performance or payment bond, the contractor shall, within ten calendar days after notice from the State to do so, substitute an acceptance bond (or bonds). The substituted bond(s) shall be in such form and sum and executed by such other surety or sureties as may be satisfactory to the State. The premiums on such bond(s) shall be paid by the contractor. No contract shall be executed and/or no payment made under a contract until the new surety or sureties shall have furnished such an acceptable bond to the State.

IB 7.4 Bonds must be legally effective as of the date the contract is signed. Each must indicate the contractor's name exactly as it appears on the contract. Current attorney-in-fact instruments and financial statement of the surety must be included with the bonds. Bonds must be executed by an authorized officer of the surety. Bonds furnished under this section shall conform in all respects to the requirement and language of NJSA 2A:44-143 to 147.

IB 8 Bulletins and Interpretations

IB 8.1 No interpretation of the meaning of the plans, specifications or other pre-bid documents will be provided to any bidder unless such interpretation is made in writing to all prospective bidders prior to the opening of bids. Any such interpretations must be identified in bid proposals submitted. Any interpretations which are not entered in accordance with this provision shall be unauthorized and not binding upon the State.

IB 8.2 Every request for an interpretation relating to clarification or correction of the plans, specifications, or other bid documents must be made in writing, addressed to the architect/engineer and the DPMC Director, and must be received at least five (5) working days prior to the date fixed for the opening of the bids. Any and all interpretations, clarifications or corrections and any supplemental instructions must be issued by the Director in the form of written bulletins and mailed by certified mail, return receipt requested, or by electronic notice to all prospective bidders not later than three (3) working days prior to the date of the opening of bids. All bulletins issued shall become part of the

contract documents and shall be acknowledged in all bid proposals. Failure of a bidder to acknowledge receipt of all such bulletins and interpretations by the time of bid opening shall result in its proposal being considered non-responsive, at the option of the Director.

IB 8.3 Each bidder shall be responsible for thoroughly reviewing the contract documents prior to the submission of bids. Bidders are advised that no claim for expenses incurred or damages sustained as a result of any error, discrepancy, omission, or conflict in the contract documents shall be recognized by the State unless, and only to the extent that, a written request for interpretation, clarification or correction has been submitted in compliance with Section IB8.2 and provided the matter has not been addressed by the State through the issuance of a bulletin interpreting, clarifying or correcting such error, discrepancy, omission or conflict.

IB 9 Assignments

IB 9.1 The contractor shall not assign all or any part of this contract without written consent of the State. Money due (or to become due) the contractor hereunder shall not be assigned for any purposes whatsoever.

IB 10 Federal Excise Taxes and State Sales Tax

IB 10.1 In general, bidders, in preparing bids, must take into consideration applicable Federal and State tax laws.

IB 10.2 Materials, supplies or services for exclusive use in erecting structures or buildings or otherwise improving, altering or repairing all State-owned property are exempt from the State sales tax. The successful bidder must submit Division of Taxation form ST13, Exempt Use Certificate, to the seller of all materials, supplies or services that will be incorporated into the Work.

IB 10.3 Bidders must determine the current status and applicability of any tax laws, and the contractor may make no claim based upon any error or misunderstanding as to the applicability of any tax laws.

IB 10.4 Purchases or rentals of equipment are not exempt from any tax under the State Sales Tax Act.

IB 11 Restrictive Specifications

IB 11.1 Should any bidder determine before the bid due date that any portion of the specifications or drawings specify a particular product which can be provided by only one supplier or manufacturer, with the result that competitive prices are not available, the bidder shall immediately notify the Director in writing of such fact.

IB 11.2 If such notice is not given in a timely manner, it shall be assumed that the bidder has included the estimate of such sole source in the bid. However, if the Director is notified in a timely manner of the sole source of supply or manufacture, the Director may order the product re-bid or take other lawful action. Such action shall be at the Director's sole discretion.

IB 12 Offer of Gratuities

IB 12.1 Bidders are advised that the laws of New Jersey (NJSA 52:34-19) make it a misdemeanor to offer, pay or give any fee, commission, compensation, gift or gratuity to any person employed by the State. Also, Executive Order #189 (1988) requires that all requests for proposals and contracts issued by the State specify prohibitions on vendor (contractor) activities, the violation of which shall render the vendor liable to ineligibility for State contracts, pursuant to the debarment procedures set forth in N.J.A.C. 17:19-4.1., *et seq.* These prohibited activities include the following:

a. No vendor shall pay, offer to pay, or agree to pay, either directly or indirectly, any fee, commission, compensation, gift, gratuity, or other thing of value of any kind to any State officer or employee or special State officer or employee, as defined by NJSA 52:34D-13b. and e., in the Department of Treasury or any other agency with which such vendor transacts or offers or proposes to transact business, or to any member of the immediate family, as defined by NJSA 52:13D-13i., of any such officer or employee, or any partnership, firm, or corporation with which they are employed or associated, or in which such officer or employee has an interest within the meaning of NJSA 52:13D-13g.

b. The solicitation of any fee, commission, compensation, gift, gratuity or other thing of value by any State officer or employee or special State officer or employee from any State vendor shall be reported in writing forthwith by the vendor to the Attorney General and the Executive Commission on Ethical Standards.

c. No vendor may, directly or indirectly, undertake any private business, commercial or entrepreneurial relationship with, whether or not pursuant to employment, contract or other agreement, express or implied, or sell any interest in such vendor to, any State officer or employee or special State officer or employee having any duties or responsibilities in connection with the purchase, acquisition or sale of any property or services by or to any State agency or any instrumentality thereof, or with any person, firm or entity with which he is employed or associated or in which he has an interest within the meaning of NJSA 52:13D-13g. Any relationships subject to this provision shall be reported in writing forthwith to the Executive Commission on Ethical Standards, which may grant a waiver of this restriction upon application of the State offer or employee or special State officer or employee upon a finding that the present or proposed relationship does not present the potential, actuality or appearance of a conflict of interest.

d. No vendor shall influence, or attempt to influence or cause to be influenced, any State officer or employee or special State officer or employee in his official capacity in any manner which might tend to impair the objectivity or independence of judgment of said officer or employee.

e. No vendor shall cause or influence, or attempt to cause or influence, any State officer or employee or special State officer or employee to use, or attempt to use, his official position to secure unwarranted privileges or advantages for the vendor or any other person.

f. The provisions cited above in paragraphs IB12.1.a. through e. shall not be construed to prohibit a State officer or employee or special State officer or employee from receiving gifts from or contracting with vendors under the same terms and conditions as are offered or made available to members of the general public subject to any guidelines the State Ethics Commission on Ethical Standards may promulgate under paragraph IB12.1.c. above.

END OF INSTRUCTIONS TO BIDDERS

GENERAL CONDITIONS

ARTICLE 1 - GENERAL PROVISIONS

1.1 DEFINITIONS:

1.1.1 Architect/Engineer: The Architect/Engineer ("A/E") is the consultant engaged by the DPMC to prepare the design and perform certain contract administration functions in accordance with the provisions of its contract with the DPMC.

1.1.2 Bulletin: A document, issued by DPMC prior to the opening of bids, which supplements, revises or modifies the bid document(s).

1.1.3 Change in the Work: A change in the Project and the Contract Documents, including, but not limited to, an increase or decrease in the Work, an acceleration or extension of time for the performance of the Work.

1.1.4 Change Order: A written order, directing or authorizing a Change in the Work executed by the DPMC and agreed to by the Contractor (except in the case of unilateral change orders executed by DPMC) that includes all adjustments to work, compensation and/or time warranted by the Change in the Work.

1.1.5 Code Official: the individual licensed by the NJ Department of Community Affairs authorized to enforce the NJ Uniform Construction Code (UCC) and approve or reject the Work for NJ UCC compliance.

1.1.6 Construction Management Firm or "CMF": A person or firm that may be engaged by the DPMC to assist DPMC in the administration of its contracts.

1.1.7 Contract: The entire and integrated agreement between the Contractor and the DPMC encompassing all of the Contract Documents.

1.1.8 Contract Documents: The executed form of Contract, General Conditions, Supplementary Conditions, Supplementary Instructions, Bulletins, plans, specifications, instructions to bidders, addenda, responses to requests for information, Price Proposal, Change Orders, other amendments, including construction change directives, and all exhibits, appendices and documents attached to or referenced in any of the foregoing materials.

1.1.9 Contract Limit Lines The lines shown on the Contract Drawings that define the boundaries of the Project, and beyond which no construction work or activities may be performed by the Contractor unless otherwise noted on the drawings or specifications.

1.1.10 Contractor: The business entity with whom the DPMC enters a contract for the performance of the construction of a construction Project by the terms set forth in the Contract Documents.

1.1.11 Contract Price: The sum stated in the Contract, as it may be adjusted in accordance with the Contract Documents, that represents the total amount payable by the DPMC to the Contractor for performance of the Work.

1.1.12 Day: A calendar day, unless otherwise designated.

1.1.13 Director: The person authorized by statute to administer the design, engineering and construction of all State buildings and facilities. The Director is the contracting officer representing the State personally or through authorized representatives in all relationships with Contractors, consultants and Architects/Engineers. This includes designees or an authorized administrative contracting officer acting within the limits of his or her authority. The Director or his or her duly authorized representative is the interpreter of the conditions of this contract and the judge of its performance.

1.1.14 Division of Property Management and Construction (DPMC): The State of New Jersey's contracting agency for the design and construction of State facilities.

1.1.15 Final Acceptance and Completion: The date following receipt and acceptance by DPMC of all administrative and close-out documents. Following acceptance, the DPMC will issue a Certificate of Final Acceptance and Completion for the Project.

1.1.16 Generally Accepted Accounting Principles: The common set of accounting principles, standards and procedures that companies use to compile their financial statements. Accounting records must identify all labor and material costs and expenses, whether they are direct or indirect. The identity must include at least the Project number for direct expenses and/or account number for indirect expenses.

1.1.17 NJUCC or Code: The New Jersey Uniform Construction Code which governs the permit and approval process for construction projects.

1.1.18 Notice: A written directive or communication given by DPMC to the Contractor to act or perform work or carry out some other contractual obligation, or a written communication to be served by the Contractor upon the State. A notice served on the Contractor will be deemed to have been duly served if delivered to an individual or member of the firm or entity or to an officer of the corporation for whom it was intended. This includes regular mail, e-mail, delivery by courier, or registered or certified mail, or facsimile to the Contractor's business address cited in the Contract documents. A notice from the Contractor to the State shall be deemed to have been duly served only if delivered to the Director or the Director's duly authorized representative.

1.1.19 Notice to Proceed: The written communication issued by the DPMC to the Contractor directing the Contractor to begin the Work. The contract calendar day duration period will commence on the effective date noted.

1.1.20 Project: The term for the entire public works engagement. It includes the design, construction work and all administrative aspects required to fully complete the engagement.

1.1.21 Punch List: The list of incomplete or defective Work, compiled by DPMC and/or its authorized representative, which remains to be completed after achievement of Substantial Completion.

1.1.22 Schedule: The time tracking mechanism that establishes the Project's allotted time requirements for completion as more specifically described in Article 6 of these General Conditions. When the construction activity items of the schedule have a monetary value associated with them, the schedule is referred to as a "costed" or "cost-loaded" schedule.

1.1.23 Site: The geographical location of the facility or property at which the Work under the Contract is to be performed.

1.1.24 State or Owner: The State of New Jersey, acting through DPMC.

1.1.25 Subcontractor: The business entity that enters into an agreement with the Contractor for the performance of work or materials under this Contract. Also refers to any agreement between a Subcontractor and any of lower tier Subcontractors. Such an agreement creates no relationship, legal or otherwise, between the DPMC and the Subcontractor(s) and/or lower tier Subcontractor(s).

1.1.26 Substantial Completion: The date when all essential requirements of the Contract Documents have been satisfied so that the purpose of the Contract Documents is accomplished, as determined by the DPMC including training of staff by the Contractor on all equipment, and resulting in the issuance of a temporary Certificate of Occupancy, a permanent Certificate of Occupancy or a permanent Certificate of Acceptance and when the Work and the facility can be safely occupied and used in accordance with its intended purpose. DPMC may condition issuance of a Certificate of Substantial Completion upon satisfactory receipt of critical documents.

1.1.27 Unit Schedule Breakdown: A detailed list of the Work activities required for Project construction, other elements associated with fulfilling the requirements of the Contract (bonds, insurance, etc.), major items of material, labor or equipment, and the prices associated with each of them.

1.2.28 Using Agency: The State department or agency for whom the construction project is being completed.

1.1.29 Work: All construction, supervision, labor, material and equipment necessary to complete the obligations under the Contract including Operation and Maintenance Manuals, Punch List completion, and As-Built Documents.

1.2 CONTRACT DOCUMENTS TO BE PROVIDED BY DPMC

Upon Contract award, the DPMC will furnish to the Contractor, free of charge, three copies of the drawings and specifications, and any additional instructions by means of supplemental contract documents as otherwise necessary for the proper execution of the Work, unless otherwise provided in the Contract Documents. Upon request, additional copies of the contract documents will be furnished at the Contractor's expense.

1.3 INTENT OF THE CONTRACT

1.3.1 The drawings, specifications and all of the Contract Documents are intended to require the Contractor to provide for everything necessary to accomplish the proper and complete finishing of all work. For the Project, the Contractor shall perform all of the obligations and work identified in the Contract Documents, regardless of the manner in which it is divided among the trades or the order in which it appears in the Contract Documents. All work and materials included in the specifications and not shown on the drawings, or shown on the drawings and not in the specifications shall be performed and/or furnished by the Contractor. The Contractor shall include any incidental materials

and/or Work not indicated in the drawings and/or the specifications which are nevertheless necessary for the development of the Project and are reasonably inferable from the contract documents and industry practice. The Contractor shall perform all such work and furnish all such materials as if particularly delineated or described in the contract documents as part of the bid proposal.

1.3.2 The Contractor acknowledges that in preparing its bid, the Contractor had the obligation to raise any reasonably observable errors, omissions, ambiguities or discrepancies and request an interpretation of the alleged errors, omissions, ambiguities or discrepancies. If the Contractor failed to do so, it will have waived all rights to a Change Order or claim and the Contractor will be responsible to complete the Work as required, consistent with the intent of the Contract Documents as interpreted by the DPMC, without additional compensation.

1.3.3 No interpretation of the meaning of the plans, specifications or other Contract Documents provided prior to bid submission shall be binding upon the State for any purpose unless issued in a Bulletin.

1.3.4 The Contractor shall abide by and comply with the intent and meaning of the Contract Documents taken as a whole, and shall not take advantage of any error or omission, should any exist. Should the Contractor become aware of the existence of any error, omission or discrepancy, the Contractor shall immediately notify the DPMC and the Architect/Engineer of any such errors, omissions, ambiguities or discrepancies and seek correction or interpretation thereof prior to commencement of the Work at issue. The Architect/Engineer shall issue a written interpretation. The Contractor shall do no work outside of the Contract Documents, unless written authorization to proceed from the DPMC is received by the Contractor.

1.3.5 Each and every provision required by law to be inserted in the Contract Documents is deemed to have been inserted therein. If any such provision has been omitted or has not been correctly inserted, then upon application of either party, the Contract may be modified to provide for such insertion or correction.

1.3.6 The order of precedence pertaining to interpretation of Contract Documents is as follows:

a. Executed Contract

b. Bulletins and Instructions

c. Supplemental General Conditions

d. Specifications and General Conditions

e. Drawings, in the following order of precedence:

(1) Notes on drawings

(2) Large scale details

(3) Figured dimensions

(4) Scaled dimensions

1.3.7 Where there may be a conflict in the Contract Documents not resolvable by application of the provisions of this Article, then the more expensive labor, materials, or equipment shall be assumed to be required and shall be provided by the Contractor.

1.3.8 On all work, it shall be the responsibility of the Contractor, by personal inspection of the existing building, facility, plant or utility systems, to ascertain the accuracy of any information given. This shall be the case, whether or not such information is indicated on the drawings, included in the specifications, or shown in any other documentation that is available. The Contractor shall have an affirmative duty to make reasonable inquiry for all available information. The Contractor shall include the costs of all material and labor required to complete the Work based on inspection and reasonably observable conditions.

1.4 WORKDAYS

Regular working hours will be defined in the Contract Documents. Changes thereto may be granted with written approval of the DPMC representative. Any work required to be performed after regular working hours or on Saturdays, Sundays, or legal holidays as specially set forth in the Contract documents, as may be reasonably required and consistent with contractual obligations, shall be performed at the amount set forth in the Contractor's bid without additional expense to the State. The Contractor shall obtain written approval of the DPMC representative for performance of work after regular working hours or on non-regular workdays at least forty-eight (48) hours prior to the commencement of overtime, unless such overtime work is caused by an emergency. If the Contractor seeks such approval for the overtime work, same shall be performed at no additional cost to the DPMC except in the event of an emergency, at which time, the DPMC, in its sole discretion, shall determine if the submitted overtime is compensable.

1.5 ASSIGNMENTS

The Contractor shall not assign all or any part of this Contract without the written consent of the Director. Money due (or to become due) the Contractor hereunder shall not be assigned for any purpose whatsoever without the written consent of the Director.

1.6 STATE SALES TAX

1.6.1 Materials, supplies or services for exclusive use in the construction of structures or buildings or otherwise improving, altering or repairing all State-owned property are exempt from the State sales tax.

1.6.2 Purchases or rentals of equipment are not exempt from any tax under the State Sales Tax Act.

ARTICLE 2 - OWNER/DPMC

2.1 DPMC'S REPRESENTATION

The DPMC will be represented on the Project by DPMC's designated representative(s). DPMC's designated representative(s) have only those duties that are required of the Owner under this Contract.

2.2 RIGHT TO PERFORM WORK

The DPMC may, and reserves the right to, enter upon the premises at any and all times during the progress of the Work, or cause others to do so, for the purpose of performing any work or installing any apparatus or carrying on any construction not included in the Contract Documents, or for any other reasonable purpose.

The DPMC shall have the right to defer the beginning of Work or to suspend the whole or any part of the Work whenever, in the sole discretion of the DPMC, it may be necessary or expedient for the State to do so.

2.3 MEANS AND METHODS

The State will not be responsible for, nor have control or charge of construction means, methods, techniques, sequences of procedures, or safety precautions and programs in connection with the Work. The State will not be responsible for, nor have control or charge of, the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other person performing any of the Work.

ARTICLE 3 - ARCHITECT/ENGINEER

3.1 DUTIES AND RESPONSIBILITIES

3.1.1 The Architect/Engineer ("A/E") is the consultant engaged by the DPMC to prepare the design and perform certain contract administration functions in accordance with the provisions of its contract with the DPMC.

3.2 PROGRESS MEETINGS

The Architect/Engineer will attend, chair and issue record minutes of bi-weekly job progress meetings.

3.3 SITE OBSERVATIONS

3.3.1 The Architect/Engineer will monitor the execution and progress of the Work. The Architect/Engineer will at all times be provided access to the Work. The Contractor shall provide facilities for such access so as to enable the Architect/Engineer to perform its functions.

3.3.2 The Architect/Engineer will not be responsible for, nor have control or charge of construction means, methods, techniques, sequences of procedures, or safety precautions and programs in connection with the Work. The Architect/Engineer will not be responsible for, nor have control or charge of, the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other person performing any of the Work.

3.4 SHOP DRAWINGS AND SUBMITTALS AND INVOICES

As more specifically described in Article 4, the Architect/Engineer will review, approve or take other appropriate action relating to Contractor's submittals, including shop drawings, product data and samples, and as – built drawings, to assure conformance with the requirements of the Contract. Such actions shall be taken with reasonable promptness. Approval of a specific item shall not indicate approval of an assembly of which the item is a component.

3.5 PAYMENT APPROVALS

3.5.1 The Architect/Engineer is responsible for the timely review of all invoices submitted by the Contractor. The Architect/Engineer shall inform the Contractor of any deficiencies therein. When the payment voucher is deemed accurate, the Architect/Engineer shall recommend approval of Contractor invoices.

3.5.2 The Architect/Engineer will review and recommend approval of Contractor closeout documentation in conjunction with the final application for payment.

ARTICLE 4 - THE CONTRACTOR

4.1 REVIEW OF THE CONTRACT DOCUMENTS AND FIELD CONDITIONS

4.1.1 The Contractor has the duty to thoroughly examine and be familiar with all of the Contract Documents and the Project site. The Contractor shall investigate and accurately determine the nature and location of the Work, the current building equipment and systems, labor and material conditions, and all matters which may in any way affect the Work or its performance.

4.1.2 The Contractor shall be deemed to have verified all reasonably observable conditions outside the Contract limit lines to determine whether any conflict exists with the Work that the Contractor is required to perform under the Contract. This includes but is not limited to a check on elevations, utility connections and other site data. If a condition changed from the time of the bid to the time of the issuance of the Notice to Proceed, the Contractor shall notify the Architect/Engineer immediately. The Contractor shall immediately report any conflicts prior to the bid proposal due date or waive any claim for additional compensation arising from such conflict.

4.1.3 During the progress of the Work, the Contractor shall immediately report in writing any alleged error, inconsistency, ambiguity or omission in the Contract Documents to DPMC. The Contractor shall not continue with any work that is affected by such alleged error, inconsistency, ambiguity or omission until the DPMC has had the opportunity to respond. Any error, inconsistency, ambiguity or omission shall be addressed pursuant to appropriate procedures set forth in these General Conditions.

4.1.4 Following notification of an alleged error, inconsistency, ambiguity or omission, the DPMC may issue supplemental instructions for the proper execution of the Work. The Contractor shall do no work without proper supplemental instructions. In giving such supplemental instructions, the DPMC will have the right to direct the Contractor to make minor changes in the Work without payment of additional monies. This provision is not intended to infringe upon or limit the DPMC's authority to otherwise direct changes in the Work, described elsewhere in these general conditions.

4.1.5 Where certain work is shown in complete detail, but not repeated in similar detail in other areas of the drawings, or if there is an indication of continuation with the remainder being shown only in outlines, the Work shown in detail shall be understood to be required in other like portions of the Project.

4.1.6 Unless otherwise directed in writing by the DPMC, the Contractor shall perform no portion of the Work without appropriate approvals as may be applicable and required by the Contract Documents.

4.1.7 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, equipment, materials, tools, construction equipment and machinery, water, heat, utilities, transportation and other facilities and services necessary for the proper execution, protection, and completion of the Work.

4.2 INSURANCE

The Contractor shall secure and maintain in force, for the term of the Contract, insurance coverage provided in Section 13.4. The Contractor shall provide the State of New Jersey with current certificates of insurance for all coverage and renewals thereof which must contain a provision that the insurance provided in the certificate shall not be canceled for any reason except after thirty (30) calendar day's written notice to the State of New Jersey. If cancellation occurs, the Contractor shall immediately procure new coverage, not allowing any lapse of coverage to occur.

4.3 PERMITS, LAWS, AND REGULATIONS

4.3.1 The DPMC shall obtain and pay for the construction permits and inspections (building, plumbing, electrical, elevator and fire), required by the Department of Community Affairs (DCA). When permits are issued by DCA, the appropriate licensed Contractors and/or Subcontractors shall be required to fill out the Contractor section of the Sub-Code Technical Section and sign and affix their raised seal thereto.

4.3.2 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work, and which are legally required at the time of receipt of bids.

4.3.3 All work must be done in accordance with the NJUCC. No work requiring inspections and approval by construction NJUCC code officials is to be covered or enclosed prior to inspection and approval by the appropriate NJUCC enforcement officials.

4.3.4 The Work performed pursuant to this Contract is exempt from local ordinances, codes and regulations as related to the building and the Site on which it is located, except in certain limited circumstances, where construction could adversely affect adjacent property, public sidewalks and/or streets. In those instances, the Contractor shall coordinate its activities with municipal and/or highway authorities having appropriate jurisdiction.

4.3.5 Immediately upon receipt of the contract award documents from the DPMC, the Contractor shall notify all utility companies involved regarding utility services required for completion of the Work. Such notification shall be in addition to any notification requirements imposed by law, including, without limitation, the Underground Facility Protection Act, N.J.S.A. 48:2-73, et seq.

4.3.6 The Contractor shall perform all soil conservation measures in accordance with County Soil Conservation District requirements.

4.3.7 The Contractor shall perform all sewage disposal work in conformance with the regulations of the State's Department of Environmental Protection.

4.3.8 The Contractor shall be responsible for obtaining timely NJUCC inspections of the Work from the applicable State agency. The Contractor shall request such

inspections through DPMC authorized representatives allowing for sufficient notice to enable NJUCC inspections to be scheduled without delay to the Work.

4.3.9 Consistent with section 4.4 of these General Conditions, the Contractor shall be responsible for its own actions and protect, defend and indemnify the State from all fines, penalties or loss incurred for, or by reason of, the violation of any municipal ordinance or regulation or law of the State while the said work is in progress.

4.3.10 The Contractor shall comply with the Federal Occupational Safety and Health Act of 1970 and all of the rules and regulations promulgated there under.

4.3.11 If the Contractor causes a substantial violation of a State, local or federal statute or regulation on the Project, DPMC may declare the Contractor to be in default, and/or terminate the Contract.

4.3.12 Prior to the start of any crane equipment operations, the Contractor shall make all necessary applications and obtain all required permits from the Federal Aviation Administration (F.A.A.). When the F.A.A. has jurisdiction, the sequence of operations, timing and methods of conducting the Work shall be approved by the F.A.A.

4.3.13 The Contractor will establish an approved Silica Health and Safety Program when tasks generating crystalline silica dust are being performed. This program shall include engineering, work practice, and respiratory protection controls to reduce worker exposure to airborne respirable crystalline dust to levels that are as low as reasonably achievable. When tasks are performed that generate airborne crystalline dust, the Contractor will minimize worker exposure to dust by one, or a combination of the following methods: 1) dust suppression with water, 2) local exhaust ventilation to a high-efficiency dust collector, and/or 3) appropriate respiratory protection devices. The Contractor shall provide a trained, competent person, as defined by OSHA 29 CFR 1926, on site at all times to implement the Silica Health and Safety Program when tasks generating crystalline silca dust are being performed.

4.4 RESPONSIBILITY FOR THE WORK

4.4.1 The Contractor shall be responsible to the State and to any separate Contractors and/or consultants including, without limitation, the Architect/Engineer, for the acts, errors and omissions of its employees, Subcontractors and their agents and employees that injure, damage or delay such other Contractors and/or consultants in the performance of their work.

4.4.2 The Contractor shall be responsible for all damage or destruction caused directly or indirectly by its operations to all parts of the Work, both temporary and permanent, and to all adjoining property.

4.4.3 The Contractor shall, at its own expense, protect all finished work and keep the same protected until the Project (or identifiable portions thereof, that are declared as substantially complete and being used) is completed and accepted.

4.4.4 The Contractor shall be responsible for safety and for any damage or injury which may result from the Contractor's failure or improper construction, maintenance or operation.

4.4.5 In order to protect the lives and health of its employees, the Contractor shall comply with all applicable statutes and regulations and pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc. and shall maintain accurate records 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 the Contract. If a conflict should exist with the requirements of the Federal Occupational Safety and Health Act of 1970, then the most stringent statute or pertinent provision shall apply.

4.5 INDEMNIFICATION

4.5.1 The Contractor shall assume all risk of and responsibility for, and agrees to protect, defend and indemnify the State of New Jersey, its agents, and its employees, from and against, any and all claims, demands, suits, actions, recoveries, judgment and costs of expenses in connection therewith on account of the loss of life, property, injury or damage to the person, body or property of any person or persons whatsoever, resulting from the Contractor's performance on the Project or through the use of any improper or defective machinery, implements or appliances, or through any act or omission on the part of the Contractor or its agents, employees or servants, which shall arise from or result directly or indirectly from the Work and/or materials supplied under this Contract. This indemnification obligation is not limited by, but is in addition to, the insurance obligations contained in this Contract.

4.5.2 In any and all claims against the State or any of its agents or employees, any employees of the Contractor or Subcontractor or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this section shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under worker's compensation acts, disability benefit acts, or other employee benefit acts.

4.6 SUPERVISION

4.6.1 The Contractor shall attentively supervise and direct the Work. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

4.6.2 The Contractor shall employ a full-time competent superintendent and necessary foremen and assistants, who shall be in attendance on the Project Site during the progress of the Work. The superintendent shall represent the Contractor, and all communications given to the superintendent shall be binding upon the Contractor. The State reserves the right to require a change in superintendent if the superintendent's performance, as judged by the DPMC, is deemed to be inadequate. Upon application in writing, and if deemed appropriate and expressly approved by the DPMC, the requirement for a full-time superintendent may be waived. If such a waiver is permitted, the Contractor shall employ a full-time competent foreman who shall be in attendance on the site during the progress of work and shall represent the Contractor, and all communications given to the foreman

shall be binding upon the Contractor. The Contractor shall not employ persons unfit or unskilled in the assigned area of work.

4.6.3 The Contractor shall ensure that its Subcontractors shall likewise have competent superintendents in charge of their respective portions of the Work at all times. Upon application in writing, and if deemed appropriate and expressly approved by the DPMC, the requirement for a full-time superintendent may be waived. If such a waiver is permitted, the Subcontractor shall employ a full-time competent foreman who shall be in attendance on the site during the progress of work and shall represent the subcontractor, and all communications given to the foreman shall be binding upon the subontractor. The Subcontractor shall not employ persons unfit or unskilled in the assigned area of work. If it becomes apparent that a Subcontractor does not have its portion of the Work under control of a competent foreman, the Contractor shall have the obligation to take appropriate steps to immediately provide proper supervision.

4.6.4 The Contractor shall employ qualified competent craftsmen in their respective lines of work. The State may require evidence that all employees have received sufficient training to execute the Work.

4.6.5 If, due to a trade agreement or project labor agreement, standby personnel are required to supervise equipment installation or for any other purpose during the normal working hours of other trades, the Contractor normally required to provide the standby services shall be deemed to have evaluated and included the costs thereof in its bid price and shall provide said services without additional charge.

4.6.6 The Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ any unfit person or anyone not skilled in the task assigned.

4.7 SHOP DRAWINGS AND OTHER SUBMITTALS

4.7.1 The Contractor shall, within two weeks of the Notice to Proceed, submit to the Architect/Engineer, shop drawings and sample submission schedule for approval, which shall be used as a basis for complying with the overall progress schedule. The Contractor shall obtain, from its Subcontractor(s), all submittals including shop drawings, details, and schedules. The Contractor shall review the submittals for completeness and conformity with the Contract Documents, and shall stamp the submittals “approved”. The Contractor shall promptly forward two copies of each submittals in reproducible form to the Architect/Engineer, so as to cause no delay in its own work or that of any other contractor The DPMC Project number and the drawing and specification references shall be written or typed on all submissions. Failure to comply with these instructions will be sufficient reason to return the drawing to the Contractor without approval and any resulting delay in the Project shall be the sole responsibility of the Contractor.

4.7.2. The Architect/Engineer will review shop drawings and other submittals with reasonable promptness. The Contractor shall promptly make any corrections, if required by the Architect/Engineer, and resubmit a reproducible copy for approval. Within five (5) working days of final approval, the Contractor shall send the Architect/Engineer a

minimum of seven (7) prints of the finally approved shop drawings as well as seven (7) copies of all catalog cuts.

4.7.3 The Contractor shall prepare original shop drawings, and not simply copy the Contract Drawings for submission as shop drawings. All shop drawing sizes shall be in multiples of 9" x 12" (e.g., 18" x 24", 24" x 27", 24" x 36", etc.) as approved by the Architect/Engineer.

4.7.4 Any deviations or changes from the requirements of the Contract Documents, must be approved by the Architect/Engineer. A Contractor seeking approval for any deviations or changes must: a) make a written request for the proposed change; b) provide to the Architect/Engineer a detailed narrative description of the proposed change; c) highlight on the applicable drawing the proposed change; and d) furnish a detailed description of all potential impacts on the schedule and project budget.

4.7.5 Substitutions

4.7.5.1 Where any particular brand or manufactured article is specified, it shall be regarded as a standard. Similar products of other manufacturers, capable of equal performance and quality, may be accepted if approved by the Architect/Engineer and accepted by DPMC in writing.

4.7.5.2 In the event that a Contractor proposes a substitution to the specified equipment or materials, it shall be the Contractor's responsibility to submit proof of equality and to provide and pay for any tests which may be required by the DPMC in order to evaluate the proposal. If there is a substantial cost savings between the substitution and the specified equipment or material, the difference will be returned to the State in the form of a credit Change Order.

4.7.5.3 The application for the approval of a substitution must be submitted on the State form within 10 days of Notice to Proceed. Further, the submission shall include the following requirements:

a. A Full and complete identification information;

b. The identification of the paragraph and section of the specifications for which the substitution is proposed. The attachment of data indicating in detail whether and how the equipment or material differs, if at all, from the article specified;

d. A detailed explanation of any effect the proposed substitution will have on the scope of the Work and a certification that the Contractor agrees to be responsible for any and all resulting added costs to its Work and to any additional costs incurred by the Architect/Engineer in time, labor and/or redesign of the Contract Documents;

e. The submission of documents that demonstrate proof of equality, along with an agreement to have such tests performed at the Contractor's own expense as may be required for approval by the DPMC and/or the Architect/Engineer. The Contractor shall be responsible for the cost of reviews by the Architect/Engineer of subsequent submissions of additional information.

4.7.5.4 No Contractor shall base a bid on a substitution that may have been approved on previous Projects. Bids shall be based solely on plans and specifications of this Project.

4.7.5.5 The Contractor shall not proceed with the purchase or installation of a substitution without the written approval of DPMC. Any such installation may result in the assessment of costs for its removal at the Contractor's expense, and/or other damages and/or termination of the Contract for default.

4.7.6 Additional Submissions

4.7.6.1 Samples: The Contractor shall furnish, for approval, all required samples. Such samples shall be submitted in accordance with the shop drawing and sample submittal schedule. All work must be installed in accordance with approved samples.

4.7.6.2 Utility Service Connections: With respect to plumbing, fire-protection, HVAC, electrical and other machinery and mechanical equipment items requiring utility service connections, the Contractor must submit the respective shop drawings with the manufacturer's certified rough-in drawings, indicating accurate locations and sizes of all service utility connections.

4.7.6.3 Sleeve and Opening Drawings: Prior to installing service utilities or other piping, through structural elements of the building, the Contractor shall prepare and submit, for approval by the Architect/Engineer, accurate dimensional drawings indicating the positions and sizes of all sleeves and openings required to accommodate the Work and installation of the Contractor's piping, equipment, etc. All such drawings must contain reference to the established dimensional grid of the building. Such drawings must be submitted in accordance with the approved shop drawing and sample submission schedule.

4.7.6.4 Control Valve and Circuit Location Charts and Diagrams: For all plumbing, fire-protection, HVAC and electrical work, the Contractor shall prepare a complete set of inked or typewritten control valve and circuit location diagrams, charts and lists identifying and locating all such items, and shall place the charts, diagrams and lists under frame glass in designated equipment rooms. The Contractor shall also furnish one-line diagrams, as well as such color-coding of piping, wiring and other necessary identifications as specified or required. This information is to be framed under glass and displayed where directed.

4.7.6.5 Coordination Drawings: The Contractor shall create and update a complete, composite set of Coordination Drawings. The purpose of these drawings is to identify coordination and interference problems prior to installation. Coordination Drawings are required for all equipment rooms, above ceiling spaces, shared chases, and other areas where the Work of two or more trades is to be installed. The drawings shall be drawn to a scale not smaller than 1/4"=1'-0" (30"x42" sheet size) and shall show clearly in both plan and elevation that all Work can be installed without interference. At a minimum these drawings shall indicate:

a. The interrelationship of equipment and systems;

b. Required installation sequences;

c. Equipment foundations and pads, equipment, piping, conduits, racks, ductwork, insulation, panels, control centers, sprinkler and fire protection systems etc. and required clearances.

The Contractor shall prepare the coordination drawings based on the submitted shop drawings and Contract Documents. The Contractor shall prepare, submit and receive approvals for the Coordination Drawings before any sleeves or inserts are set, any floor openings are core drilled, or any equipment, equipment foundations, or related work is installed. The cost of preparing approved Coordination Drawings shall be included in the Contractor's price. DPMC may require the Contractor to identify Coordination Drawings as an item within the Schedule of Values, and incorporate them into in the Project schedule.

4.8 AS-BUILT DRAWINGS

4.8.1 The Contractor and each Subcontractor shall maintain on the Project Site at all times one set of drawings to be marked "AS-BUILT." The DPMC has the right to rely on accuracy of the “as-built” drawings provided by the Contractor. During the course of the Project, the Contractor shall mark these drawings with colored pencils to reflect any changes, as well as the dimension and the location of all pipe runs, conduits, traps, sprinkler and fire protection lines, footing depths or any other information not already shown on the drawings or differing therefrom. All buried utilities outside the building shall be located by a survey performed by a licensed surveyor who shall certify as to its accuracy. These marked-up drawings and surveys shall remain current and shall be made available to the DPMC or Architect/Engineer at all times during the progress of the Work.

4.8.2 In instances where shop drawings and/or erection drawings, of a scale larger than the Contract Drawings, are prepared by the Contractor, such drawings may be acceptable “as-built” drawings provided they are updated. A master sheet of the same dimensions as the Contract Drawings shall be prepared by the Contractor that shall indicate, sheet by sheet, a cross-reference to all shop drawings pertaining to that drawing.

4.8.3 The Contractor shall submit the "as-built" documents to the Architect/Engineer with a certification as to the accuracy of the information thereon at the time of Contract completion and before final payment will be made to the Contractor. After acceptance by the Architect/Engineer, the Contractor will furnish two sets of all shop drawings used for "as-built" documentation.

4.8.4 All "as-built" drawings as submitted by Contractors shall be dated and labeled "AS-BUILT" above the title block. This information shall be checked, edited and certified by the Architect/Engineer, who will then transpose such information from the Contractor's "as-built" drawings to the original drawings. Where shop drawings have been used by the Contractor for "as-built" documentation, the master sheet providing cross reference information, as described in section 4.8.2, shall be included in the set of "as-built" drawings furnished to DPMC.

4.9 EXCAVATIONS, CUTTING AND PATCHING

4.9.1 Soil borings, test pits or other subsurface information may be secured by an independent Contractor retained by the State prior to design and construction of the Project and, if obtained, may be included in the Contract Documents for the Contractor's use. The Contractor assumes full responsibility for interpretation of said information.

4.9.2 The Contractor shall be responsible for furnishing and setting of sleeves, built-in items, anchors, inserts, and other necessary materials for its work and for all cutting, fitting, closing in, patching, finishing, or adjusting of its work in new and/or existing construction, as required for the completed installation.

4.9.3 Approval in writing from the DPMC and the Architect/Engineer must first be obtained by the Contractor before cutting or boring through any roof, floor beams, floor construction or structural members.

4.10 TESTING

4.10.1 The Contractor shall notify the DPMC in writing of all work required to be inspected or tested. The notice shall be provided no later than five working days prior to the scheduled inspection or test. The Contractor shall bear all costs of such inspections or tests, except for Code inspections as stated in section 4.3 of this document.

4.10.2 When mechanical, electrical or other equipment is installed, it shall be the responsibility of the installing Contractor to maintain, warrant and operate it for such period of time as required by the Contract Documents or as necessary for the proper inspection and testing of the equipment and for adequately instructing the State's operating personnel. All costs associated with the maintenance, warranty, operations, inspection and testing of equipment, as well as instructing State personnel, shall be borne by the Contractor installing the equipment. All tests shall be conducted in the presence of, and upon timely notice to, the DPMC, prior to acceptance of the equipment.

4.10.3 DPMC shall have the authority to direct in writing that special or additional inspections or tests be performed. The Contractor shall comply and give notice as detailed above.

4.10.4 In the event such special or additional inspections or testing reveal a failure of the Work to comply with the terms and conditions of the Contract, the Contractor shall bear all costs thereof, including all costs incurred by the State made necessary by such failures.

4.10.5 The Contractor shall utilize inspection or testing from those firms/entities pre-qualified by DPMC. Failure to use a firm/entity pre-qualified by DPMC shall be grounds for rejection of the inspection or test as non-conforming.

4.10.6 All submittals of inspections, test reports or requests for approval shall be accompanied by a certification signed by the Contractor, attesting to: the Contractor's knowledge of the submittal; acceptance of its findings; acknowledgment that material testing meets the required standards; and a certification of the report's representation of

the facts. Failure to provide the written certification shall be grounds for rejection of the submittal.

4.10.7 The Contractor shall ensure that a copy of the inspection report is transmitted directly to the Architect/Engineer and the DPMC. The Contractor shall ensure that it includes in all of its subcontracts and purchase orders for inspection and testing, the requirement for the inspection or testing firm/entity to submit a copy of the report directly to the DPMC representative. The Contractor shall ensure that all such reports are submitted within fourteen (14) calendar days of the test or inspection.

4.10.8 In addition to tests performed by the Contractor, the State reserves the right to engage an independent testing agency or firm to perform testing inspections. The Contractor shall provide full access, provide samples, and cooperate fully with this testing agency.

4.10.9 Testing requirements for real property installed equipment (RPIE) to be furnished by the Contractor, when such testing is required by Code, Contract, or the manufacturer, shall be performed by a testing laboratory pre-qualified by DPMC, or in the absence of such, by the manufacturer or its authorized representative. The Contractor shall provide five working days' notice to the DPMC representative, to allow sufficient opportunity to witness the test.

4.10.10 The DPMC may order that any part of the Work be re-examined by the DPMC, and if so ordered, the Contractor shall open or uncover such work for re-inspection by the DPMC. If such work is found to be in accordance with the Contract, the DPMC shall pay the cost of re-inspection; however, if such work is not found to be in accordance with the Contract, the Contractor shall be responsible for the cost of re-inspection and replacement of any defective or non-conforming work.

4.11 EQUIPMENT AND MATERIALS

4.11.1 The Contractor warrants that all materials and equipment furnished under the Contract will be new, unless otherwise specified, and that all work will be of good quality, free from faults, defects, and installed in conformance with the Contract Documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective and rejected by the DPMC or the Architect/Engineer. If required by the Architect/Engineer or the DPMC, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty shall be in addition to but not in lieu of any other warranty or guarantee provided for in the Contract.

4.11.2 The Contractor shall submit to the Architect/Engineer an original and six copies of the request for approval of materials on the form provided by DPMC for approval. Each item of material listed shall be marked "As Specified", "Substitution" or "Unspecified" as appropriate.

4.11.3 The Contractor shall furnish and deliver the necessary equipment and materials in ample quantities and as frequently as required to avoid delay in the progress of the Work and shall store them so as not to cause interference with the orderly progress of the Project.

4.11.4 The Contractor shall furnish and pay for all necessary transportation, storage, scaffolding, centering, forms, water, labor, tools, light and power and mechanical appliances and all other means, materials and supplies for properly executing the Work under this Contract, unless expressly specified otherwise in the Contract Documents. The Contractor shall have its representatives at the Site to accept delivered materials. State agencies employees and/or representatives will not accept materials, nor will State agency employees and/or representatives be responsible for damage, theft, or disappearance of the Contractor's materials, equipment, tools, or other property.

4.11.5 Products manufactured in the United States shall be used in this work, whenever available. Wherever practicable, preference shall be given at all times to material and equipment manufactured or produced in the State of New Jersey, where such preference is reasonable and will best serve the interest of the State.

4.11.6 No materials, equipment, or supplies for the Work shall be purchased by the Contractor subject to any lien or encumbrance or other agreement by which an interest is retained by the seller. This clause shall be a condition included in all agreements between the Contractor and its Subcontractors. The Contractor warrants, by signing its invoice, that it has good and sufficient title to all such material, equipment and supplies used by it in the Work, free from all liens, claims or encumbrances.

4.12 TEMPORARY FACILITIES

The Contractor shall be responsible for providing for its own storage areas, employee vehicular parking and staging areas, excavation borrow/spoils designated areas, commercial canteen areas, and all other areas necessary for use by the Contractor. The Contractor shall locate these areas to suit Project requirements, subject to DPMC approval.

4.12.1 Field Offices - The Contractor will provide and maintain during the contract duration an on-Site suitable weather-tight insulated field office conveniently located, and shall maintain therein a complete set of Contract Documents including plans, specifications, CPM network diagrams, Change Orders, logs and other details and Project correspondence. Subject to the DPMC's written approval and at a date designated by DPMC, the field office may be removed upon enclosure of the building and space may be allocated for field offices within the building. The contents and operations will be transferred to the interior of the Project building by the Contractor, and said office(s) shall be maintained by the Contractor until final acceptance or until the DPMC approves its removal. The Contractor will be responsible to obtain and pay for all permits required for the Contractor's field offices.

4.12.2 Telephones - The Contractor shall provide its own telephones. The State will be responsible only for the cost of calls made by State employees. if there is a documented cost for same.

4.12.3 Storage - The Contractor will provide and maintain, for its own use suitable and safe temporary storage, tool shops, and employees' sheds for proper protection, storage work and shelter. The Contractor shall maintain these structures properly and remove the structures at the completion of work. The Contractor shall be responsible to maintain

these facilities and the areas around the facilities in a clear and clean manner. The Contractor shall be responsible for correcting defects and damage caused by such use. Rooms in buildings at the Project Site may be used as shops and storerooms, conditioned upon written approval from DPMC.

4.12.4 Toilet Facilities

a. The Contractor shall provide and pay for suitable temporary toilets at an approved location on the Site and prior to the start of any field work. The toilet facilities shall comply with federal, State and local laws and regulations. The Contractor will be responsible for maintenance, removal and relocation as described hereinafter.

b. The Contractor shall provide a temporary toilet and/or indoor toilet connected to water and sewer to accommodate the meeting room and the Architect/Engineer's office, as well as the DPMC office.

c. Toilets shall be serviced by a qualified and experienced firm authorized to maintain services.

d. Each portable toilet facility shall be maintained in a neat and clean condition and serviced at least twice a week, including the removal of waste matter, sterilizing, recharging tank, refilling tissue holders, and thoroughly cleaning and scrubbing entire interior.

e. Toilet facilities in a multiple-story building shall be located on no less than every other floor, unless otherwise directed in writing.

f. Toilet service shall be relocated inside the building and connected to water and sewer as the progress of the Work will allow.

g. When temporary toilets are connected to water and sewer lines, precautions shall be taken to prevent freezing.

h. The Contractor shall remove the temporary toilet units from the Work Site at the completion of the Work, or when so directed by the DPMC or the Architect/Engineer.

i. Workers are not to use the finished bathroom and toilet facilities in the Project buildings. Reasonable steps must be taken by the Contractor to enforce this rule.

4.12.5 Access, Roads and Walks

a. The Contractor shall be responsible for providing and maintaining unobstructed traffic lanes on the designated construction access routes shown on the Contract Drawings or as reasonably required so as to perform the Work. The Contractor shall provide and maintain all reasonably required safety devices. The Contractor shall provide any necessary additional materials, grading and compaction, and shall remove snow and debris as necessary to provide and maintain the access roadbed and pedestrian ways in serviceable condition.

b. The Contractor shall be responsible for constructing and maintaining all roadways, drives and parking areas within or proximate to the Site free and clear

of debris, gravel, mud, snow, ice, or any other Site materials, by ensuring that all reasonably necessary measures are taken to prevent such materials from being deposited on such surfaces. This includes, as may be appropriate, the cleaning of vehicle wheels and/or other necessary maintenance, prior to exit from the Construction Site. Should such surface require cleaning, the Contractor will clean these surfaces without additional cost to the State. The Contractor will be held accountable for any citations, fines, or penalties imposed on the State for failing to comply with local rules and regulations related to Site and off-Site maintenance.

c. The Contractor shall not commence final construction of permanent driveways, parking areas or walks without the written approval of the DPMC. The Contractor shall provide additional materials and labor for maintaining and reworking the sub-grade prior to completion of the Work, to ensure improvements conform fully to the specifications.

d. The Contractor shall obtain written permission from the State for the use of any existing driveways or parking areas not specifically designated for such use in the Contract Documents. If permission is granted, the Contractor shall maintain such driveways and areas in good condition during the construction period, and at the completion of the Project, shall leave them in the same or better condition as at the start of the Work. Conditions before use shall be carefully photographed and documented by the Contractor.

4.12.6 Light and Power

a. The Contractor shall extend electrical service to the building or buildings at locations approved by the DPMC. Temporary electrical service shall be independent of the existing permanent service. Initial temporary service shall be three phase or single phase as indicated in the Contract Documents. The Contractor is responsible to investigate and verify the appropriateness and availability of electrical service with the local utility company prior to the bid date. The Contractor’s bid shall be deemed to include all costs associated with providing this power. Temporary light and power installations, wiring, and miscellaneous electrical hardware must meet the electrical Code and will be inspected by NJUCC officials. The Contractor shall provide the necessary distributing facilities and a meter, and shall pay the cost of running temporary services from the nearest utility company power pole. All costs shall be included in the Contractor's bid.

b. In the event that a water well is the source of water supply for the Project, the extension of electrical service shall include the necessary wiring of sufficient capacity to the location of the well for the operation of the well pump. Where service of a type other than herein mentioned is required, the Contractor requiring it shall install and pay all costs of such special service. The size and incoming service and main distribution switch and panel shall be sized as any service by NEC requirements.

c. The Contractor shall provide all electrical service for the operation of elevator equipment during construction.

d. The Contractor shall pay for the cost of all electric energy used on distribution lines installed.

e. The Contractor shall provide and pay for all maintenance, servicing, operation and supervision of the service and distribution facilities.

f. If the Contractor fails to carry out its responsibility in the supplying uninterrupted light and power as set forth herein, the Contractor shall be held responsible for such failure, and the DPMC shall have the right to take such action as is deemed proper for the protection and conduct of the Work. Any costs associated with DPMC obtaining or supplying light and power shall be deducted from any payment due to the Contractor.

g. The Contractor shall comply with the requirements of the Federal Occupational Safety and Health Act of 1970 with regard to temporary light and power.

4.12.7 Temporary Enclosures

Whenever necessary in order to maintain proper temperatures for the execution or protection of the Work, the Contractor shall furnish and maintain temporary enclosures for all openings in exterior walls that are not enclosed with finished materials. Temporary wood doors shall be provided at door openings.

4.12.8 Temporary Heating, Ventilation and Air Conditioning

a. Prior to Enclosure - Prior to the building being enclosed by walls and roof, if the outside temperatures falls below 45 degrees Fahrenheit ("F") at any time during the day or night, and heat is required for work in progress or for its protection or curing, the Contractor shall furnish, at its expense, acceptable means to provide sufficient temporary heat to maintain a temperature required by the Work being performed but in no case less than 45 degrees F.

b. Generally Enclosed

(1) For the purposes of establishing the beginning of the Contractor's obligation to provide temporary heat, a building or major unit thereof shall be considered generally enclosed when (a) the exterior walls have been erected, (b) a temporary roof or permanent roof is installed and in a watertight condition, and (c) temporary or permanent doors are hung and window openings are closed with either permanent or temporary weather-tight enclosures. A major unit of buildings as referred to herein shall be: (a) an entire separate structure, or (b) a fully enclosed wing which shall have a floor area equal to at least 50% (fifty percent) of the total floor area of the Project.

(2) As soon as the DPMC determines that the building, or a major unit thereof, is "generally enclosed" by walls and roof, and when the outside temperature falls below 55 degrees F. at any time during the day or night, the Contractor shall furnish sufficient heat by the use and maintenance of LP gas heaters or other acceptable means to maintain a temperature of not less than 55 degrees F. within the enclosed area of the building at all

times, and shall remove such heaters when no longer required. The Contractor will be held responsible for providing temporary heat and for all damages resulting from freeze-ups, for the duration of the Project from the time the building is generally enclosed to final acceptance and occupancy. The Contractor shall remove soot, smudges, and other deposits from walls, ceilings, and all exposed surfaces which are the result of the use of heating equipment, including the permanent heating system, during the period of its use for supplying heat. The Contractor shall not do any finish work until the areas are properly cleaned. The Contractor shall provide or arrange, at its own expense, supervision of the heating equipment at all times prior to providing heat, using the permanent heating system. This obligation shall commence immediately after the acknowledged permanent enclosure of the building or buildings, as confirmed by the DPMC. The Contractor shall furnish and pay for all fuel for heat required during the period when the building is generally or permanently enclosed.

(3) The Contractor shall not assume that the permanent heating system or any part thereof will be available for furnishing of temporary heat during the period for which temporary heat is required. The Contractor's base bid price shall therefore include the cost of all equipment necessary for providing temporary heat as required by the Contract Documents. The Contractor may use the permanent heating system, with written approval from DPMC. Such use however does not cause to commence the equipment's warranties and guarantees. The equipment's warranties and guarantees shall not commence to run until the State takes beneficial use of the Project and facility for the purposes intended.

(4) All heating equipment shall be NFPA-approved and connected to approved flues to the atmosphere. Heaters shall be approved by a recognized testing laboratory and must be equipped with a positive shut-off safety valve.

(5) Storage of gas cylinders within the building will not be permitted at any time.

(6) The Contractor shall provide fire extinguishers on each floor where heaters are used, and the areas must be adequately ventilated.

c. Permanent Enclosure

(1) When the building enclosure has been confirmed by the Architect/Engineer has been completed in accordance with the Contract Documents, and to the satisfaction of DPMC, it shall be considered permanently enclosed. The Architect/Engineer will also confirm in the job meeting minutes that the building, or a major unit thereof, is permanently enclosed.

(3) The Contractor shall install adequate controls to make such temporary connection as required for the operation of the HVAC system.

Should the heating system be designed for the tie-in to existing steam lines for resource of heat, the State will provide steam for temporary heat through the Project permanent heating system, at no cost to the Contractor, after the tie-in is completed by the Contractor.

(4) When the building enclosure has been confirmed by the A/E as completed, the Contractor may request permission to operate the permanent HVAC system to meet its temporary HVAC obligation. The Contractor shall maintain a minimum temperature of 55 degrees F., or a higher temperature, not to exceed 75 degrees F., as may be directed by the Contract Documents for the proper conduct and protection of the Work. The Contractor shall do so until such time as its work is completed and accepted and the Contractor is relieved of this requirement in writing by the DPMC. The Contractor shall pay for and be responsible for the maintenance in accordance with the manufacturer's recommendations, operation and supervision of the HVAC system, including the cost of all water, electricity, and fuel, until the State assumes beneficial occupancy/use of the Project.

4.12.10 Temporary Water

a. The Contractor shall provide, protect and maintain an adequate valved water supply. If the source of water supply is a well, provisions covering the supply water will include the installation of necessary power-driven pumping facilities. The well shall be protected against contamination. The water supply shall be tested periodically by the Contractor, and if necessary, shall be chlorinated and filtered. All costs of providing water will be paid for by the Contractor.

b. The Contractor is responsible to protect all temporary and permanent water lines from damage or freezing. Should water connections be made to an existing line, the Contractor shall provide a positive shut-off valve at its own cost and expense.

4.12.11 Standby Personnel

If, pursuant to trade agreement to which the Contractor is a party, the Contractor is obligated, to employ standby personnel then the Contractor shall determine and include all such costs thereof in its bid proposal. The Contractor shall not, at any time, make a claim to the State for costs relating to standby maintenance or standby supervision for electric motor-driven or other equipment.

4.12.12 Dust Control

a. The Contractor shall provide and maintain necessary temporary dust-proof partitions around areas of Work in any existing building or in new building areas as directed by the Architect/Engineer or the DPMC.

b. The Contractor shall provide and maintain Site dust control of Projects with on-Site construction as directed by the Architect/Engineer or the DPMC.

4.13 STORAGE AND SITE MAINTENANCE

4.13.1 The Contractor shall confine its apparatus, the storage of its equipment, tools and materials, and its operations and workers to areas permitted by law, ordinances, permits, and Contract as set forth in the Contract Documents, the rules and regulations of the State, or as ordered by the DPMC. The Contractor shall not unreasonably encumber the Site or the premises with materials, tools and equipment.

4.13.2 The Contractor shall, at all times during the progress of the Work keep the premises and the job Site free from the accumulation of all refuse, rubbish, scrap materials and debris caused by its operations and/or the actions of its employees, Subcontractors and/or workers, to ensure that, at all times, the premises and Site shall present a neat, orderly and workmanlike appearance. This is to be accomplished as frequently as is necessary by the removal of such refuse, rubbish, scrap materials and debris from the Site and the State's premises. Loading, cartage, hauling and dumping of same will be at the Contractor's expense.

4.13.3 At the completion of the Work, the Contractor shall remove all of its tools, construction equipment, machinery, temporary staging, false work, mock-ups, form work, shoring, bracing, protective enclosures, scaffolding, stairs, chutes, ramps, runways, hoisting equipment, elevators, derricks, cranes, and any other materials and equipment brought onto the Project Site.

4.13.4 Should the Contractor not promptly and properly discharge its obligation relating to Site maintenance and/or final clean up, the State shall have the right to employ others and to charge the resulting cost to the Contractor after first having given the Contractor a three-working day written notice of such intent.

4.13.5 The Contractor's responsibilities for final clean up shall include:

a. Removal of all debris and rubbish resulting from or relating to the Contractor's work. Rubbish shall not be thrown from building openings above the ground floor unless contained within chutes.

b. Removal of stains from glass and mirrors. Glass shall be washed and polished inside and outside.

c. Removal of marks, stains, fingerprints, soil, dust or dirt from painted, decorated or stained woodwork, plaster or plasterboard, metal acoustic tile and equipment surfaces.

d. Removal of spots, paint and soil from resilient, glazed and unglazed masonry and ceramic flooring and wall work.

e. Removal of temporary floor protections; and cleaning, washing or otherwise treating and/or polishing, as directed, all finished floors.

f. Cleaning of exterior and interior metal surfaces, including doors, window frames and hardware, of oil stains, dust, dirt, paint, etc. Polishing and removal of fingerprints or blemishes from such surfaces shall be completed, as applicable.

g. Restoration of all landscaping, roadways and walkways to preexisting condition. Damage to trees and plantings shall be repaired in the next planting season, and such shall be guaranteed for one year from the date of repair and/or replanting.

4.13.6 All construction equipment, materials and/or supplies of any kind, character or description, regardless of value, which remain on the job Site for more than 30 (thirty) calendar days from the date of the Certificate of Final Acceptance, shall become the property of the State. Such construction equipment, materials and/or supplies will be disposed of in any manner the State shall deem reasonable and proper. The cost of this disposal will be deducted from any sums due the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the State.

4.14 CUT-OVERS AND INTERRUPTIONS

All cut-overs of mechanical and electrical services to existing buildings shall be approved, scheduled and coordinated in advance with the DPMC's representative and performed at a time convenient to the occupants of said buildings so as not to unreasonably interfere with its operations.

4.15 PROTECTION/SAFETY

4.15.1 Safety Precautions and Programs – The Contractor shall be responsible for initiating, maintaining and supervising all required safety precautions and programs in connection with the Work. The Contractor shall designate a responsible member of its organization at the Site whose duty shall be the prevention of accidents. This person shall be competent to review, implement and coordinate the safety programs being performed as required by Occupational Safety and Health Administration (OSHA) or any other agency having authority over safety on a State Construction Site.

4.15.2 Protection of Persons

a. The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

(1) Every employee on the Site and all other persons who may be affected thereby;

(2) All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody or control of the Contractor, or any of its Subcontractor(s) or lower tier sub-Subcontractor(s); and

(3) Other property at the Site or adjacent thereto (whether owned by the State or not), including but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

b. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

c The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including but not limited to rails, night-lights, aircraft warning lights, the posting of danger signs and other warnings against hazards, promulgating safety regulations, notifying Owners and users of adjacent utilities and other means of protection against accidental injury or damage to persons and property.

d. The Contractor shall not load or permit any part of the Work to be loaded so as to endanger the safety of the project, its employees, or any other person on the project Site.

e. The Contractor shall promptly remedy all damage or loss to any property caused in whole or in part by the Contractor, any of its Subcontractors, lower tier Subcontractors, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible. These obligations are in addition to those stated elsewhere herein.

4.15.3 Protection of Property

The Contractor shall have full responsibility to install, protect, and maintain all materials and supplies in proper condition whether in storage or off the site and to immediately repair and/or replace any such damage until Final Acceptance. The Contractor shall maintain an inventory of all materials and supplies for the Work at the Site, that are delivered to the site, or delivered to approved off-site storage facilities. The State shall not be liable for any damage, theft or negligent injury to the Contractor's property.

4.15.4 Hazardous Materials

a. When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

b. The Contractor shall maintain all records, reports and files of the general storage and handling of hazardous materials as required by any and all federal, State and/or local regulatory agencies.

4.16.5 Emergencies

In any emergency affecting the safety of persons or property, the Contractor shall act with diligence to prevent threatening injury, damage or loss. In such case, the Contractor shall immediately, but in no case, not more than 24-hours following the emergency, notify the DPMC and the Architect/Engineer of the action taken.

4.16 UNCOVERING AND CORRECTION OF WORK

4.16.1 Uncovering of Work

a. The Contractor is obligated to provide reasonable notice to the DPMC and/or the Architect/Engineer of all work scheduled to be covered, to permit DPMC and the Architect/Engineer the opportunity to inspect the Work prior to actual covering. If any portion of the Work is covered prior to inspection by the DPMC or the Architect/Engineer, it shall be uncovered for observation. Uncovering and replacement of the covering shall be at the Contractor's expense.

b. The DPMC and/or the Architect/Engineer may request any work be uncovered by the Contractor for inspection. If such work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be reimbursed to the Contractor. If such work is found not to be in accordance with the Contract Documents, the Contractor shall pay all associated costs.

4.16.2 Correction of Work

a. The Contractor shall promptly correct all work rejected by the DPMC or the Architect/Engineer as defective or failing to conform to the Contract Documents, whether observed before or after final acceptance and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected work, including the costs of all consultant services including but not limited to the Architect/Engineer's additional services.

b. The Contractor shall remove from the site, at its own expense, all portions of the Work which are defective or non-conforming and which have not been corrected, unless removal is waived by the DPMC.

c. If the Contractor fails to correct defective or non-conforming work in a reasonable time fixed by written notice from DPMC, then DPMC may make arrangements for such correction by others and charge the cost of so doing to the Contractor.

d. If the Contractor does not proceed with the removal and correction of such defective or non-conforming work within a reasonable time, fixed by written notice from the DPMC or the Architect/Engineer, any materials or equipment shall become the property of the State and the DPMC may remove and dispose the non-conforming work in any manner to best meet the interest of the State. If such material is sold and the proceeds of the sale do not cover all costs which the Contractor should have borne and any additional cost incurred by the State in the uncovering, removal, disposal and correction of non-conforming work, the difference shall be charged to the Contractor and an appropriate credit Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the State.

e. The Contractor shall be responsible for the cost of making good all work destroyed or damaged by such correction or removal.

f. Notwithstanding other obligations within the Contract Documents, nothing contained herein shall be construed to establish a time or date limitation upon which the DPMC must discover non-conforming work.

4.16.3 Acceptance of Non-Conforming Work

The DPMC may determine that the best interests of the State will be served by accepting defective or non-conforming work instead of requiring its removal and correction. In such instance, the DPMC may, by any means available, exact an appropriate reduction in the Contract sum. Such adjustment shall be effected regardless of final payment having previously been made, and the Contractor and/or its surety shall be responsible for promptly remitting any funds due the State as a result thereof.

4.17 LAYOUT AND DIMENSIONAL CONTROL

4.17.1 The Contractor shall be responsible for locating and laying out the building and all of its parts on the site, in strict accordance with the Contract Documents, and shall accurately establish and maintain dimensional control. The Contractor shall employ and pay for the services of a competent and licensed New Jersey engineer or land surveyor who shall be pre-qualified by DPMC to perform all layout work, and to test the level of excavations, footing base plates, columns, walls and floor and roof lines, and furnish to the Architect/Engineer, as the Work progresses, certifications that each of such levels is as required by the drawings. The plumb lines of walls, shall be tested and certified by the surveyor as the Work progresses.

4.17.2 The Contractor's engineer/surveyor, in the course of layout work either on the site or within any building, shall establish all points, lines, elevations, grades and bench marks for proper control and execution of the Work. The Contractor's engineer/surveyor shall establish a single permanent benchmark as set forth in the Contract Documents to which all three coordinates of dimensional control shall be referenced. The Contractor's engineer/surveyor shall verify all Owner-furnished survey data including but not limited to topographical and utility location points, lines, elevations, grades and benchmarks, and buildings. Should any discrepancies be found between information given on the Contract Documents and the actual site or field conditions, the Contractor shall notify DPMC and the Architect/Engineer in writing of such discrepancy, and shall not proceed with any work affected until receipt of written instructions from the DPMC.

4.18 PROJECT SIGN

The Contractor shall erect and maintain one sign at the Project Site, as set forth in the Contract Documents and located as directed by the Architect/Engineer. Painting shall be done by a professional sign painter, with two coats of exterior paint, colors, letter face and layout as shown. No other sign will be permitted at the site. Upon completion of the Project, and when directed by the Architect/Engineer or the DPMC, the Contractor shall remove the sign.

4.19 SECURITY

4.19.1 The Contractor shall provide all locks, doors and security construction and personnel as required to secure the Project building throughout the period of construction.

4.19.2 The Contractor shall be responsible for the security of any temporary structures located on the premises outside of the building and/or any stored materials.

4.20 DPMC FIELD OFFICE

4.20.1 The Contractor will provide on-site, suitable, separate, weather-tight, insulated (floor, walls, ceilings) field office facilities for the use of DPMC personnel, as more fully described in the Contract Documents. At a minimum, the Contractor is to supply this field office with toilet facilities, heating and air conditioning, tables and chairs, and phone and data communication lines. At a time determined by the DPMC or the Architect/Engineer, the Contractor shall remove field facilities upon enclosure of the Project building and shall relocate the contents and operations of the field office to the interior of the Project building until completion of the Project.

4.20.2 The Contractor shall be responsible for the maintenance of both offices and the meeting room, including the cost of heating, air conditioning, electric current, and janitorial service.

4.21 PHOTOGRAPHS

4.21.1 The Contractor shall submit monthly progress photographs in duplicate to the DPMC, giving six (6) views of the Work with each application for payment until the Project is completed,.

4.21.2 The photographs shall be 8" by 10" shall bear the date and time of the exposure, the DPMC Project number and title, the names of the Contractor and the name of the Architect/Engineer. All photographs shall also be submitted in digital format.

4.22 REPAIR OF FINISHED SURFACES, APPLIED FINISHES, GLASS

4.22.1 The Contractor accepts sole responsibility for repair of uncontrolled dislodging, cracking, delaminating or peeling of finished surfaces such as concrete, pre-cast concrete, cast and natural stone, unit masonry, millwork, plaster, glass and applied finishes such as compound, paint, and special coatings, within the Contract Work and the limits of specified guarantee periods, regardless of the cause.

4.22.2 The Contractor shall be responsible for replacement of all broken glass, regardless of the cause. The Contractor shall replace all broken, scratched or otherwise damaged glass before the completion and acceptance of the Work. If breakage is caused by the Owner, the Contractor will be reimbursed for the replacement costs. The Contractor shall wash all glass on both sides at completion, or when directed, removing all paint spots, stains, plaster, and other materials.

ARTICLE 5 - SUBCONTRACTORS

5.1 SUBCONTRACTORS AND MATERIAL SUPPLIER APPROVALS

5.1.1 Upon their execution, but not less than fourteen (14) calendar days prior to Subcontractor mobilization on the site, and/or Subcontractor billing, the Contractor shall forward to the Architect/Engineer on the form provided by the DPMC the names of all its Subcontractors and suppliers, of such others as the DPMC may direct, proposed to perform the principal parts of the Work. The Contractor shall forward the appropriate DPMC form to the Architect/Engineer for approval. Department of Labor Contractor Registration and New Jersey Business Registration Certificate are required for all Subcontractors.

5.1.2 If the DPMC has objection to any proposed or approved Subcontractor and/or material supplier, the Contractor shall substitute another Subcontractor and/or material supplier acceptable to DPMC. Under no circumstances shall the State be obligated for additional cost due to such substitution.

5.1.3 After the acceptance of bids, the Contractor shall make no substitution of any Subcontractor person or firm previously selected and approved, without prior written approval from the Architect/Engineer and DPMC. A Contractor seeking to substitute a Subcontractor person or firm shall provide written request for substitution no less than fourteen (14) calendar days prior to the execution of Work by the Subcontractor or material supplier.

5.1.4 Approval of a Subcontractor or material supplier by the DPMC and Architect/Engineer shall not relieve the Contractor of the responsibility of complying with all provisions of the Contract Documents. The approval of a Subcontractor or material supplier does not imply approval of any construction, material, equipment or supplies.

5.2 CONTRACTOR-SUBCONTRACTOR RELATIONSHIP

5.2.1 The Contractor acknowledges its full responsibility to the State for the acts and omissions of its Subcontractors and lower tier subcontractors, and of persons and firms either directly or indirectly employed by them, equally to the extent that the Contractor is responsible for the acts and omissions of persons and firms directly or indirectly employed by it. The Contractor acknowledges that it remains fully responsible for the proper performance of its Contract regardless of whether work is performed by the Contractor's own forces or by Subcontractors engaged by the Contractor.

5.2.2 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the State. Further, no Subcontractor or material supplier shall be deemed an intended third party beneficiary under this Contract.

5.2.3 The Contractor and all Subcontractors agree that, in the employment of both skilled and unskilled labor, preference shall be given to residents of the State of New Jersey, if such labor force is available.

5.2.4 The Contractor shall require, in its agreements with Subcontractors and as a condition of agreement, that each Subcontractor require in its agreement(s) with lower tier Subcontractors and Suppliers, that the Subcontractor understands that there is no contractual obligation of any kind between the State and Subcontractor and the Subcontractor's sole recourse lies with the Contractor and/or the surety, and not with the State, that each Subcontractor and lower tier Subcontractor, bound by the terms of the Contract Documents for this Contract, and assume toward the Contractor all the obligations and responsibilities which the Contractor assumes, pursuant to the Contract Documents.

ARTICLE 6 - CONSTRUCTION PROGRESS SCHEDULE

6.1 GENERAL

The State may contract for the services of a Critical Path Method (CPM) scheduling consultant for Project planning, scheduling and cost control. If such has been arranged, then section 6.2 shall apply to the Contract between the State and the Contractor. In the absence of a statement in the bid documents that a CPM consultant has been retained by the State, then section 6.3 shall apply.

6.2 CONSTRUCTION PROGRESS SCHEDULE (CRITICAL PATH METHOD -- CPM CONSULTANT RETAINED BY THE STATE)

6.2.1 Critical Path Method

a. The Project will be monitored by a detailed critical path method scheduling system. This system shall be the basis for the evaluation of the Contractor's performance and for progress payments to the Contractor.

b. The Contractor shall provide all the information necessary for the CPM consultant employed by DPMC to develop a CPM network plan demonstrating complete fulfillment of all construction Contract requirements and, as necessary, for the CPM consultant to maintain an accurate CPM schedule throughout the Project. The Contractor, in consultation with the CPM consultant, will establish construction logic and activity time duration consistent with Contract documents and Project requirements. The CPM consultant will establish the level of detail to be reflected on the CPM schedule. The Contractor shall utilize the schedule in planning, coordinating and performing the Work, including all activities of Subcontractors, equipment vendors and material suppliers.

c. The Contractor agrees that the CPM consultant's Project network schedule is the designated plan for completion of all work in the allotted time, and the Contractor will assume full responsibility for the execution of the Work as shown. The Contractor shall indicate formal acceptance of the schedule by signing the final initial (baseline) network diagrams and computer schedule listing.

d. The Contractor shall furnish sufficient labor and construction equipment to ensure the execution of the Work in accordance with the approved CPM progress schedule. If, in the opinion of the DPMC, a Contractor falls behind the CPM progress schedule, the Contractor shall take any and all such steps as may be necessary to bring its work into compliance with the CPM progress schedule. The DPMC may require the Contractor to increase the number of shifts, days of work and/or the amount of construction labor, plant and equipment, all without additional cost to the State.

e. The Contractor shall make no claim for, and have no right to, additional payment or extension of time for completion of the Work, or any other concession because of any misinterpretation or misunderstanding on the Contractor's part of the CPM progress schedule, the Contractor's failure to attend the pre-bid

conference, or because of any failure on the Contractor's part to become fully acquainted with all conditions relating to the CPM progress schedule and the manner in which it will be used on the Project, or because of any Subcontractor's failure to properly participate in the development of a CPM progress schedule or to perform the Contract in accordance with the CPM progress schedule.

6.2.2 Initial Submittal

a. To the extent necessary for the CPM consultant to reflect in the network diagrams the plan for completion of this Contract, the Contractor shall meet with and assist the CPM consultant and furnish, within ten (10) calendar days after award of this Contract, all necessary information for the preparation of the CPM progress schedule. This information shall include, but not necessarily be limited to, a logical sequencing of work operations, activity time estimates, intended crew flow, activity costs and estimated manpower requirements for each activity.

(1) The network diagram shall show the sequence and interdependence of activities required for the Project. In preparing the network diagram, the Contractor shall assist the CPM consultant by breaking up the Work into activities of a duration of no longer than ten (10) working days each, except as to non-construction activities (such as procurement of materials, delivery of equipment and concrete curing) and any other activities for which the CPM consultant may approve the showing of longer duration. The diagram shall show not only the activities for actual construction but also such activities as the Contractor's submittal of shop drawings, templates and equipment, material fabrication, delivery of equipment and material, substantial completion, final completion, punch list and closeout, and the delivery of Owner-furnished equipment, if applicable. The Contractor shall provide activity durations to the CPM consultant for each activity on the diagram.

(2) If requested by the CPM consultant, the Contractor shall furnish any information needed to justify the reasonableness of activity time duration. Such information shall include, but not be limited to, estimated activity manpower, unit quantities, and production rates.

(3) Failure by either the Contractor or the CPM consultant to include any element of work required for the performance of the Contract shall not excuse the Contractor from completing all work required within any applicable date, notwithstanding DPMC approval of the network diagrams.

(4) The CPM consultant will establish the level of detail to be reflected in the CPM system.

(5) Seasonal weather conditions shall be considered in the planning and scheduling of all work influenced by high or low ambient temperatures for the completion of all Contract work within the allotted Contract duration. In addition, appropriate allowances shall be made for anticipated time losses due to normal rain and snow conditions based on

the previous five year average for that geographical area, by statistically expanding the estimated time duration for weather-sensitive activities, to ensure that the required completion date is achieved.

b. The Contractor shall be prepared to meet as many times as necessary with the CPM consultant to develop the information required for the timely development of the progress CPM schedule.

c. The Contractor shall furnish a breakdown of its total Contract price by assigning dollar values to each applicable network activity, coded for the Contractor and each Subcontractor, which cumulatively equals the total Contract amount. Upon acceptance by DPMC, the values will be used as a basis for determining progress payments. Progress payments to the Contractor shall be dependent upon final acceptance by DPMC of the cost-loaded progress CPM schedule.

d. Accompanying the network diagram and computer scheduling listing, the CPM consultant will furnish a computer-generated cost requisition listing, which will provide a separate tabulation of each activity shown on the CPM schedule in order of bid item or trade responsibility code as agreed to by DPMC. This listing will show, for each activity, the Contractor and each Subcontractor, the estimated dollar value of Work in place for totally or partially completed activities, including subtotals by bid items and grand totals for the entire Project. The cost requisition listing will also contain monthly activities reflecting the cost of Project overhead and administrative expenses, and activities reflecting the monthly cost of administering Project General Conditions.

6.2.3 Review and Approval:

a. After receipt of the initial network diagram, computer-produced schedule and cost requisition listing, the DPMC representative shall meet with the Contractor and CPM consultant for joint review, correction, or adjustment of the proposed plan and progress CPM schedule to evaluate the cost values assigned to each activity. Within ten (10) calendar days after the joint review, the CPM consultant will revise the network diagram and/or computer-produced schedule in accordance with agreements reached during the joint review, and shall submit two (2) copies each of the revised network diagram, computer-produced schedule and cost requisition listing to DPMC. The revised schedule documents will be reviewed by DPMC and, if found to be as agreed upon, will be approved. A copy of each will be returned to the CPM consultant for distribution and the CPM consultant shall forward same to the Contractor by email and/or overnight mail. The Contractor shall review these documents and shall indicate acceptance by signing the schedule documents. If the Contractor objects to the schedule documents, the Contractor shall forward these objections in writing to DPMC within ten (10) calendar days of the date of receipt of same or be deemed to have accepted the schedule documents. Objections shall include the precise activities of the schedule to which the Contractor objects and identify the basis of the objection. The Contractor will then meet with the DPMC representative and the CPM consultant to review the Contractor's objections. The CPM consultant may

revise the network diagram and the computer-produced schedule in accordance with the agreements reached during this final review and shall submit two (2) copies each of the revised network diagram, computer-produced schedule and cost requisition listing to DPMC. The re-submission will be reviewed by DPMC and, if found to be as agreed upon, will be approved and a copy of each will be returned to the CPM consultant for distribution and the CPM consultant shall forward same to the Contractor by email and/or overnight mail. The Contractor shall review these schedule documents to ensure that that the documents reflect all changes agreed upon, accept and sign. The Contractor shall indicate its acceptance by signing the scheduling documents, computer-produced schedule and cost requisition. Approval will be without reservation, and the Contractor will be deemed to have accepted the schedule as adequate, proper and binding in all respects and shall not raise further objections to the schedule.

b. After the network diagrams and computer-produced schedule have been signed by the Contractor, the CPM consultant shall forward to the Contractor and DPMC one set of copies of the network diagrams and computer-produced schedule. The network diagram and the computer-produced schedule with approved signatures shall constitute the Project work schedule until subsequently revised in accordance with the requirements of this section.

6.2.4 Progress Reporting and Changes:

a. Once every month, or more often if required by DPMC, the Contractor shall meet with the CPM consultant and DPMC's representative(s) and provide the information necessary for the CPM consultant to prepare and submit to DPMC a revised (updated) network diagram and computer-generated schedule listing showing:

(1) Approved changes in activity sequencing;

(2) Changes in activity duration for activities not started or partially completed where agreed upon;

(3) The effect on the network of any delays in any activities in progress, and/or the impact of known delays which are expected to affect future work;

(4) The effect of Contractor modifications (activity duration, logic and cost estimates) to the network;

(5) Changes to activity logic, where agreed upon, to reflect revision in the Contractor's work plan, i.e., changes in activity duration, cost estimates, and activity sequences for the purposes of regaining lost time or improving progress; and

(6) Changes to milestones, due dates, and the overall Contract completion date which have been agreed upon by DPMC since the last revision of the CPM schedule.

b. The CPM schedule shall accurately reflect the manner in which the Contractor intends to proceed with the Project and shall incorporate the impact of

all delays, Change Orders and change events as soon as these factors can be defined. All changes made to the schedule shall be subject to approval by DPMC prior to inclusion in the CPM schedule. If the DPMC representative and the Contractor are unable to agree as to the amount of time to be allowed for Change Order work, or the manner in which the Work is to be reflected on the network diagram, the CPM consultant will reflect the logic and time duration furnished by the Contractor for the Change Order work pending final DPMC decision. If non-approved Contractor logic and time durations are used, the Contractor agrees that any time which is projected to be lost on the Project as a result of these schedule changes will be considered the responsibility of the Contractor until a final agreement has been made or a final decision rendered by DPMC regarding the manner in which the Change Order work is to be reflected on the schedule. When this final decision has been made by DPMC, the CPM consultant shall revise the CPM schedule in accordance with such decision and issue a final analysis of the effect of the change on the Project.

c. If the Contractor desires to revise the logic of the approved progress CPM schedule to reflect a sequence of construction that differs from that to which was previously agreed, the Contractor must first obtain the approval of DPMC.

(1) Once each month, at the same time the network is updated, the CPM consultant, the Contractor and the DPMC representative(s) shall jointly make entries on the preceding network diagram schedule to show actual progress, identify those activities started by date and those completed by date during the previous period, show the estimated time required to complete each activity started but not yet completed, show activity percent completed and/or dollars earned, and reflect any changes in the network diagram approved in accordance with the preceding paragraph. After completion of the joint review and DPMC's approval of all entries, the CPM consultant will submit updated network diagrams, an updated computer-produced calendar-dated schedule and cost requisition listing to DPMC.

(2) The resultant monthly CPM computer printout and network diagrams shall be recognized by the Contractor as its sole updated construction schedule to complete all remaining Contract work.

(3) In addition to the foregoing, once each month the Contractor will receive a narrative report prepared by the CPM consultant. The narrative report will include a description of the amount of progress made during the last month in terms of completed activities in the plan currently in effect, a description of problem areas, current and anticipated delaying factors and the estimated impacts the delays have on the performance of other activities and completion dates, and recommendations on corrective action for the Contractor. Within seven (7) calendar days after receipt of this report, the Contractor shall submit to DPMC a written explanation of corrective action taken or proposed. The DPMC, after reviewing the written submission, may take appropriate action.

6.2.5 Payments to Contractor

a. The monthly submission of the computer-produced calendar-dated schedule shall be an integral part and basic element of the estimate upon which progress payments shall be made pursuant to the provisions of Article 9 of these General Conditions. The Contractor shall be entitled to progress payments only upon receipt by DPMC of an updated computer-produced calendar-dated schedule and cost requisition listing.

b. Payments to the Contractor shall be based upon the results of the computer-generated cost requisition listing which shall be prepared in conjunction with each updating of the CPM system as described above. The Contractors shall provide sufficient documentation to confirm reported progress for any cost items appearing in the scheduling and requisition system.

c. Payments to the Contractor shall be dependent upon the Contractor furnishing all of the information which, in the judgment of DPMC, is necessary to ascertain actual progress, and all the information and data necessary to prepare any necessary revisions to the computer-produced calendar-dated schedule, cost requisition listing and/or the network diagram. DPMC's determination that the Contractor has failed or refused to furnish the required information shall constitute a basis for withholding payments until the required information is furnished and the schedule and/or diagram is prepared or revised on the basis of such information.

6.2.6 Biweekly Progress Meetings

a. Every two (2) weeks or as otherwise directed by DPMC, the Contractor shall attend a coordination and CPM scheduling meeting on the job site. At this meeting, the Contractor shall provide detailed information regarding the Work schedule to be performed during the upcoming two weeks to permit the CPM consultant to prepare schedules for the subsequent two week period. Biweekly scheduling by the Contractor shall be in accordance with the priorities and degree of concurrent work required by the official CPM schedule for the Project. The Contractor shall be prepared to explain any difference between the Contractor's biweekly schedules and the priorities required by the latest updating of the official CPM schedule.

b. At the biweekly scheduling meeting, the CPM consultant shall review the schedule for the preceding two (2) weeks, and the Contractor shall report the progress actually achieved for each activity which was scheduled to be performed during the two weeks, including the actual dates on which the Work was performed. The Contractor agrees that this information shall constitute the official historical record of Project progress.

c. At each biweekly scheduling meeting, the Contractor shall document any current delays to work operations. In addition, the Contractor shall provide any available information regarding any potential delays.

(1) Following the biweekly scheduling meeting, the CPM consultant will issue to the Contractor a two-week look-ahead schedule as developed

at the meeting that shall constitute the construction schedule for the coming two weeks. The CPM consultant will also issue a narrative biweekly progress analysis documenting progress achieved during the preceding two weeks and analyze delays reported to constitute current or anticipated impacts to timely construction.

(2) The Contractor shall be represented at the biweekly scheduling meeting by its superintendent, who shall have complete authority to provide the information required for the development of the next two (2) weeks schedule, which includes documentation of past progress and documentation of delays. The Contractor's representatives shall also be authorized to commit to the implementation of corrective action planned to overcome delaying conditions.

6.2.7 Responsibility for Completion

a. The Contractor agrees that, when it becomes apparent from the current project CPM schedule that any Contract completion date will not be met, the Contractor will take any or all of the following actions, as required, at no additional cost to the State:

(1) Increase construction manpower.

(2) Increase the number of working hours per shift, shifts per working days, working days per week, or the amount of construction equipment, or any combination of the above; and/or

(3) Reschedule activities to achieve maximum practical concurrence.

6.2.8 Adjustment of Contract Completion Date

a. The Contract completion dates will not be adjusted except under the specific and limited conditions set forth in the Contract Documents. In the event that the Contractor requests an extension of any Contract completion date, the Contractor shall furnish a justification of such extension and provide any and all supporting evidence that DPMC requires to evaluate the Contractor's request. The DPMC shall either approve, in whole or in part, or reject the Contractor's request and will advise the Contractor in writing of its decision. If the DPMC finds that the Contractor is entitled to any extension of any Contract completion date under the provisions of this Contract, the determination as to the total number of calendar days extension permitted shall be based upon the currently approved Project CPM schedule and on all data relevant to the extension request. Such data will be included in the next updating of the CPM schedule.

b. The Contractor acknowledges and agrees that the evaluation of Project delays and determinations regarding Project time extension will be based upon the Project CPM schedule and the following criteria:

(1) Float time shown on the Project CPM schedule is not for the exclusive use of either the Contractor or DPMC. It is agreed that float time is available for use by all performing Work on the Project, including the Contractor, other contractors, subcontractor, lower tier subcontractors,

and suppliers to facilitate the effective use of available resources and to minimize the impact of problems of Change Orders which may arise during construction. The Contractor specifically agrees that float time may be used by DPMC or its representatives or consultants in conjunction with the review activities or to resolve Project problems. The Contractor agrees that there will be no basis for a Project time extension as a result of any Project problem, Change Order or delay which only results in the loss of available positive float on the Project CPM schedule. The Contractor further agrees that there will be no basis for a claim for cost escalation for any activity which is completed on or before its initially required late end date as shown on the initial approved Project CPM schedule, regardless of the justifiability or any delaying factors which might have resulted in the elimination of float which was originally available for the activity. If the Contractor refuses to perform work that is available to it, the DPMC may consider, the Contractor to be in breach of the Contract, regardless of the float shown to be available for the Work. In such instances, the DPMC may, without prejudice to any other right or remedy, declare the Contractor to be in default and terminate the employment of the Contractor pursuant to Article 12 of the General Conditions.

(2) The Contractor agrees that no time extension will be granted for time lost due to normal seasonal weather conditions. In order to qualify for consideration for a time extension due to adverse weather conditions, it must be shown by clear and convincing evidence that the weather conditions during a given quarterly period (summer, fall, winter, spring) were more severe than the previous five-year (5) average for the Project geographical area, and that these weather conditions critically impacted the final Project completion date by delaying the performance of work on the main Project critical path. If abnormal weather losses can be shown to have affected the Project critical path, a non-compensable time extension will be considered for that portion of the proven weather-related delays, which exceeded normal weather losses that should have been anticipated for the quarterly period in question.

(3) No time extensions will be considered for any weather conditions that do not affect work on the Project critical path as set forth on the current Project CPM schedule. The Contractor agrees that there will be no basis for a claim for any additional compensation resulting from any time extension issued for weather-related delays.

(4) In order for a given cause (i.e., delay, Change Order, etc.) to be considered as a basis for a total Project time extension, it must meet both of the following criteria:

(a) It must be totally beyond the control of the Contractor and due to no direct or indirect fault of the Contractor; and

(b) It must result in a direct delay to work on the main Project critical path.

(5) The Contractor acknowledges and agrees that actual delays to activities that, according to the Project CPM schedule, do not directly affect the main Project critical path and do not have any effect on the Contract completion date or dates, will not be the basis for a change therein.

(6) Concurrent delays are defined as two or more delays or areas of work slippage that are totally independent of one another and which, if considered individually, would each affect the final Project completion date according to the Project CPM schedule. Where the CPM consultant determines that concurrent delays exist, the Contractor acknowledges and agrees that the following criteria will be used to evaluate time extension:

(a) If the current Project CPM schedule shows two (2) or more concurrent delays, with one analyzed to be the responsibility of DPMC and the other analyzed to be the responsibility of the Contractor, a non-compensable time extension will be considered only if the excusable delay affects the main Project critical path and this delay is shown to be a greater amount than the other concurrent delays when the impacts of the concurrent delays are independently considered. In this event, a compensable time extension will be considered only for that portion of time by which the excusable delay exceeds all concurrent non-DPMC caused delays. For example, if an excusable impact delays the Project by one-hundred (100) calendar days and concurrent contract-caused slippage independently delays the final completion date by ninety (90) calendar days, a time extension will only be considered for a maximum of ten (10) calendar days, provided the excusable delay is on the project critical path.

(b) If the CPM schedule shows concurrent delays with some excusable delays and some the fault of the Contractor, and if the Contractor-caused delays are analyzed to be the main determining impact to the main Project critical path, then there will be no basis for a total Project time extension regardless of the nature of the concurrent excusable delays. A concurrent time extension may, however, be considered for that portion of the total Project slippage which is shown on the CPM schedule to be totally attributable to excusable delays.

(c) If a time extension request is being made for concurrent delays which did not affect the Project critical path, this must be clearly stated in the Contractor's time extension request and all CPM activities which are claimed to have been affected by the cited delay must be specifically identified with all applicable impact dates.

6.3 CONSTRUCTION PROGRESS SCHEDULING PROVIDED BY THE CONTRACTOR

6.3.1 The Project shall be completed within the specified number of calendar days from the effective date of the Notice to Proceed.

6.3.2 The Contractor shall be responsible for preparing and furnishing to the DPMC through the Architect/Engineer before the first Contract requisition date, but in no event later than 30 (thirty) days after the effective date of the Notice to Proceed, a coordinated combined progress schedule that incorporates the progress schedules of the Contractors and all Subcontractors engaged on the Project. The schedule shall be in the form of a network diagram or other recognized graphic critical path progress schedule format that indicates, among other things, predecessor and successor activities, and major and intermediate milestones, in sufficient detail to satisfy the DPMC. (See also section 6.3.4 below.) The Contractor's initial invoice will not be processed by the DPMC until and unless such a single coordinated progress schedule has been submitted to and approved by the DPMC. Thereafter, the Contractor shall submit an updated coordinated progress schedule on a monthly basis. Receipt and approval of the updates will be a mandatory condition to payment.

6.3.3 Once each month, or more often if required by the DPMC, the Contractor shall meet with the Architect/Engineer and the DPMC representative to gather the information necessary for the Contractor's preparation of the revised/updated computer generated scheduling reports.

6.3.4 The progress schedule, based upon the logic and time estimates, shall indicate in suitable detail for display, all significant features of the Work of the Contractor and each Subcontractor, including but not limited to, the placing of orders, manufacturing durations, anticipated delivery dates for critical and long-lead items, submissions and approvals of shop drawings, construction activities, all work activities to be performed by the Contractor and its Subcontractors, the beginning and time duration thereof, and the dates of all milestones, substantial and final completion of the various elements of the Work, including punch list and close-out. Reports shall be in booklets, indexed and separated as categorized below. Each activity listed on the Schedule shall include, as a minimum, the following:

a. The activity description;

b. The trade (A/E, Owner, GC, Electrical, Plumbing, HVAC);

c. The duration in calendar days;

d. The Early Start date;

e. The Late Start Date;

f. The Early Finish date;

g. The Late Finish date;

h. The Total Float

6.3.5 The Contractor agrees that no time extension will be granted for time lost due to normal seasonal weather conditions. In order to qualify for consideration for a time extension due to adverse weather conditions, it must be shown by clear and convincing evidence that the weather conditions during a given quarterly period (summer, fall, winter, spring) were more severe than the previous five-year (5) average for the Project geographical area, and that these weather conditions critically impacted the final Project completion date by delaying the performance of work. If abnormal weather losses can be shown to have impacted the Project completion date, a non-compensable time extension will be considered for that portion of the proven weather-related delays, which exceeded normal weather losses that should have been anticipated for the quarterly period in question.

6.3.6 Immediately upon approval by DPMC, the Contractor shall prepare and distribute four copies of the progress schedule to the DPMC plus two copies to the Architect/Engineer. Each monthly updated coordinated schedule shall be signed and dated by the Contractor.

6.3.7 The Contractor shall furnish sufficient labor and construction plant and equipment to ensure the execution of the Work in accordance with the approved progress schedule. If any updated completion time or date for any activity does not conform to the durations or milestones shown in the approved progress schedule, the sequence of activities and/or the time for performance of activities shall be updated on the progress schedule to be approved by the DPMC and cured by the Contractor by any means, including performing concurrent operations, additional manpower, additional shifts, and overtime. No additional charges to the State will be allowed the Contractor for overtime, additional manpower, equipment, additional shifts, etc. (except as may be provided elsewhere in the Contract), if such expediting procedures or measures are necessary to meet the Contract completion date.

6.3.8 The progress schedule shall show:

a. Recommended Changes in activity sequencing;

b. Changes in activity duration for activities not started or partially completed, where agreed upon;

c. The effect on the network of the modifications (activity duration, Predecessors and Successors);

d. Changes for the purposes of regaining lost time or improving progress, and;

e. Changes to milestones, due dates, and the overall Contract completion date, which have been agreed upon by the DPMC's project manager since the last revision of the progress schedule.

6.3.9 The progress schedule shall accurately reflect the manner in which the Contractor intends to proceed with the Project and shall immediately incorporate and reflect the impact of all delays and change orders. All changes made to the schedule shall be subject to approval by the DPMC.

6.3.10 The DPMC will not authorize or approve any claims for additional payment or extension of time for completion of the Work, or any other concession because of any alleged misinterpretation or misunderstanding on the Contractor's part of the Project schedule, the Contractor's failure to attend the pre-bid conference, because of any failure on the Contractor's part to become fully acquainted with all conditions relating to the Project schedule and the manner in which it will be used on the Project, or because of any other failure by the Contractor to properly participate in the development of a progress schedule or to perform the Contract in accordance with the progress schedule.

ARTICLE 7 - TIME OF COMPLETION

7.1 CONTRACT DURATION/NOTICE TO PROCEED

7.1.1 Contract duration shall commence on the effective date set forth on the written Notice to Proceed. The Notice to Proceed will be issued by the DPMC after the DPMC's receipt and acceptance of properly executed Contract Documents, including performance and payment bonds, proof of insurance and permit technical information submitted by the Contractor and/or Subcontractors. The Contractor shall not be entitled to delay, disruption, acceleration or any other claims arising from a deferred issuance of the Notice to Proceed.

7.1.2 The Contractor shall perform no work at the Contract Site prior to the issuance of the Notice to Proceed.

7.2 SUBSTANTIAL COMPLETION

7.2.1 At the request of the Contractor, the Architect/Engineer or the DPMC, the Contractor and the DPMC representative may make a joint inspection of the Work for the purpose of determining if the Work is substantially completed in accordance with the definition provided in Article 1. If DPMC, in its sole discretion, finds that the Work is substantially complete, then the DPMC will issue a written Notice of Substantial Completion for Beneficial Use. Such Notice shall in no way relieve the Contractor of any contractual obligation(s) or relieve the Contractor from responsibility to promptly complete all remaining Contract Work including, but not limited to, punch list items.

7.2.2 The standard guarantee period for equipment, workmanship and materials shall commence on the date DPMC issues the Notification of Substantial Completion for Beneficial Use, or from the time of completion and acceptance of equipment, work or materials in question, whichever is later.

7.2.3 In the event that the Project is completed in phases or stages, and/or in the event that the DPMC takes possession of any part of the Work pursuant to Section 7.4 of these General Conditions, no part of the Project shall be deemed substantially complete for purposes of the New Jersey Statute of Repose, N.J.S.A. 2A:14-1.1, prior to the issuance of a formal Notice of Substantial Completion for Beneficial Use for the all of the Work.

7.3 FINAL COMPLETION

7.3.1 Final completion of the Contract shall occur when:

a. The DPMC and the Architect/Engineer have determined that the punch list has been completed;

b. The Contractor has complied with the Contract Document's closeout requirements;

c. The Contractor has submitted all Contract deliverables as required by the Contract Documents including but not limited to the following: "as-built"

documents, operating and maintenance manuals, attic stock, parts lists, repair source lists, training and certificates; and

d. The Contractor has submitted all warranties, guarantees and/or maintenance bonds required under the Contract.

7.4 PARTIAL OCCUPANCY FOR USE

7.4.1 Use and possession prior to completion: The DPMC shall have the right to take possession or use of any completed or partially completed part of the Project. Said possession or use shall not be deemed acceptance of the Work performed on the Project.

7.4.2 Prior to such possession or use, the DPMC shall furnish the Contractor with an itemized list of Work remaining to be performed or corrected on such portions of the Project that are to be possessed or used by the State. Failure by the DPMC to list any item of work shall not be deemed an acceptance of any Work under the Contract.

7.4.3 The Contractor shall not be entitled to recovery of money damages for any delays, disruptions or inefficiencies caused by such partial occupancy.

7.5 DELAY, DISRUPTION AND INTERFERENCE

7.5.1 Delay - Time Extension. If the Contractor's work is delayed, disrupted or interfered with by act, neglect or default of any party, including the State, the Architect/Engineer, or by strikes, lockouts, fire, unusual delay by common carriers, natural disasters, or by any cause for which the Contractor is not responsible; then for all such delays and suspensions, the Contractor shall be allowed one (1) calendar day addition to the time herein stated for each and every calendar day of such delay so caused in the completion of the Work as specified above, the same to be determined by the DPMC. No such extension shall be granted for any delay unless, within ten (10) calendar days after the beginning of such delay, a written request for additional time shall be filed with the DPMC.

7.5.2 Contractor's Damages for Delay, Disruption or Interference

The Contractor shall not be entitled to recovery of money damages from the DPMC caused by delay, disruption or interference with the Contractor's Work except as expressly provided under section 7.5.2 of these General Conditions paragraph. The Contractor expressly agrees that the Contractor's remedy for delay, disruption of interference shall be limited to an extension of time only and that there shall be no recovery of money damages by the Contractor for any delay, disruption or interference with the Contractor's work attributable to any cause whatsoever (other than the State's negligence, bad faith, active interference or other tortuous conduct). The Contractor expressly agrees that it shall not be entitled to recover damages due to delay, disruption or interference caused by any of the following:

a. Delayed execution of the contract or any of the causes referenced in paragraph 7.5.2;

b. Any act or omission by any party other than the State, including, but not limited to, the Architect-Engineer, any other Contractor or Subcontractor, any

CPM or other consultant retained by the State, any construction manager retained by the State, any agency or instrumentality of the federal government or of any local governmental entity or any utility (e.g., gas, electric, telephone, cable);

c. Any act or omission of any agency or instrumentality of the State , other than the DPMC, including, without limitation, the Department of Environmental Protection and the Department of Community Affairs;

d. Weather;

e. Subsurface conditions of any type including, without limitation rock and underground utilities, whether or not such conditions were reasonably ascertainable to the Contractor at the time of bidding;

f. Use of all or any portion the Project premises prior to completion of the Work to the extent that such use is permitted under the terms of the Contract;

g. Delay in obtaining any permit or approval;

h. Delay caused by the issuance of any court order, injunction or restraining order;

i. Any delay which does not entitle the Contractor to an extension of the Contract Completion Time under Section 6.2.8 of these General Conditions; or

j. Delay attributable to any other cause, other than a cause for which the State is legally restricted from enforcing a contractual "no damage for delay" clause under N.J.S.A. 2A:58B-3 or any other provision of law restricting or barring the enforcement of such clauses.

In interpreting this provision, the negligence or other wrongful conduct of others, including, without limitation, the Architect/Engineer, the CPM consultant, any construction management firm and any other firm or person retained by the State shall not be imputed to the State. Further, to the extent that the Contractor is entitled to recover monetary damages for delay under this Contract, such recovery shall be limited to actual direct costs incurred on account of the delay, and shall not include profit or other markup on such costs, home office overhead calculated under the Eichleay formula or any other kind of consequential or indirect cost or damage, including but not limited to any alleged cost or damage under the total cost method, the modified total cost method, or productivity factors (costs for inefficiency based on industry productivity factors such as those provided by the Mechanical Contractors Association of America (MCAA) Factors Affecting Labor Productivity).

7.5.3 In the event of the failure of the Contractor to complete its work within the time stated in its Contract, the Contractor shall be liable to the State in the sum as set forth as liquidated damages in the Contract, for each and every calendar day that the Contractor fails to attain contract completion of the work. This sum shall be treated as liquidated damages to compensate for the loss to the State of the use of premises in a completed state of construction, alteration or repair, and for added administrative and inspection costs to the State on account of the delay; provided, however, that the said liquidated damages shall be in addition to other compensatory or consequential losses or damages

that the State may incur by reason of such delay, such as, but not limited to, added costs of the Project and the cost of furnishing temporary services, if any. Any such sums for which the Contractor is liable may be deducted by the State from any moneys due or to become due to the Contractor.

7.5.4 It is hereby understood and mutually agreed by and between the Contractor and the State that the start date in the Notice to Proceed, the dates of all required intermediate milestones, and the times for substantial and final completion, as specified in the Contract Documents, are essential conditions of this Contract.

7.5.5 The Contractor agrees that said work shall be executed diligently, at such rate of progress as will ensure full completion of the Work within the time specified. It is expressly understood and agreed, by and between the Contractor and the State, that the time for the completion of the Work herein is a reasonable time, taking into consideration the average climactic range and usual industry conditions prevailing in this locality. If the said Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, or any proper extension thereof granted by the DPMC, then the Contractor does hereby agree, as a part of the consideration for the awarding of its Contract, to pay the State the amount specified in section 7.5.3 above, as liquidated damages for loss of use of the Project as hereinafter set forth, for each and every calendar day that the Contractor may have exceeded the stipulated date in the Contract for substantially completing the Work.

7.5.6 It is further agreed that time is of the essence of each and every portion of this Contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any Work, the new time limit fixed by such extension shall similarly be of the essence.

ARTICLE 8 - CLOSE-OUT

8.1 CLOSE-OUT PROCEDURES/FINAL PAYMENT

As part of the final completion procedures described in Article 7 and the requirements for payment as described in Article 9, the Contractor must complete all of the Close-out procedures as follows:

a. Submit the “as-built” record documents as described in Article 4;

b. Submit all operating and maintenance manuals, parts lists, repair source parts, and certificates as defined in 8.2 below;

c. Provide the necessary training for operating systems and equipment as defined in 8.3 below; and

d. Submit all guarantees as defined in 8.4 below.

8.2 OPERATIONS, EQUIPMENT AND MAINTENANCE MANUALS

8.2.1 The Contractor shall provide six (6) copies of all operating, equipment and maintenance manuals, and applicable warranties, as identified and described in the Contract Documents. The operating, equipment and maintenance manuals and warranties, including contact personnel, addresses and telephone numbers, must include a complete description of all systems and equipment and the method of operating and maintaining the equipment. These manuals must be submitted to the Architect/Engineer for review and approval at the earliest date possible following substantial completion, but in all cases prior to final acceptance. Included within the manuals shall be a list of names, addresses and telephone numbers of all the Subcontractors involved in the installations and of firms capable of performing services for each mechanical item.

8.2.2 As a pre-condition to the Final acceptance of a facility for beneficial use, the Contractor shall provide a "throw-away" copy of operations and maintenance manuals to allow the Using Agency's staff to operate the equipment prior to receiving the hard bound copies required by this Contract.

8.3 TRAINING

The Contractor shall provide formal instruction for DPMC-designated personnel, addressing the operation and maintenance of the facilities and all installed equipment for each operating system or major item of equipment or as otherwise specified. The operations and maintenance manuals shall be used as training materials. Unless otherwise accepted by the DPMC, training course format shall be split equally between classroom instruction and field exercise. All classroom instruction may be videotaped by the DPMC. Classroom instruction may be supported by professionally made videotapes. If used, a copy of each professional video that was utilized shall be provided to the DPMC at no cost for future training and reference.

8.4 GUARANTEE

8.4.1 The issuance of a final certificate for payment and/or partial or complete occupancy of the premises shall not be deemed an acceptance of Work not completed in accordance with the Contract Documents. The issuance of a final certificate for payment and/or partial or complete occupancy of the premises shall not relieve the Contractor or its surety of liability with respect to any express or implied warranties or responsibility for faulty materials or workmanship.

8.4.2 The Contractor shall guarantee and warrant, in writing, the Work performed and all materials furnished under this Contract against defects in materials and/or workmanship The Contractor shall be responsible for the value or repair of any damage to other Work or to the building premises resulting from the performance of the Contract.

8.4.3 The Contractor is responsible for the above-stated obligations for a period of one (1) year from the date established in 7.2.2 above. All guarantees, including bonds and registrations, required by the Contract Documents shall be in writing and delivered to the DPMC with submission of the invoice for final payment.

8.4.4 The Contractor shall, at its own expense and without cost to the State, promptly after receipt of written notice thereof, make good any defects in materials or workmanship which may develop during stipulated guarantee periods, as well as any damage to other Work caused by such defects or by repairs. Any other defects in materials or workmanship not discovered during the guarantee period shall be repaired and/or replaced at the Contractor's expense, and such shall be completed within a reasonable time after written notice is given to the Contractor.

8.4.5 Pursuant to the Contract Documents, certain permanent equipment, including elevators and HVAC systems, will have to be activated during construction of the Project to support construction operations. Despite any early activation during the construction of the Project, any and all equipment warranties must extend for the time periods required in the Contract Documents, starting at the date set forth in paragraph 7.2.2.

8.4.5 It is expressly acknowledged and agreed that the express and implied warranties and guarantees to which the State is entitled as well as all warranty and guarantee bonds issued by any surety, shall be in addition to and not in lieu of the State's right to seek recourse against the Contractor and the Contractor's surety for defective work.

ARTICLE 9 - PAYMENTS

9.1 INVOICES

9.1.1 Requests for payment under the Contract for materials delivered or services rendered require the proper completion and submittal of specific forms including, but not limited to, the following:

a. DPMC Form 11/AR50-1 - DPMC Invoice;

b. DPMC Form 11-2 - Monthly Estimate for Payment to Contractor;

c. DPMC Form 11-2a - Certification of Prime Contractor;

d. DPMC Form 11-2b – Certification of Subcontractor;

e. Copies of Subcontractor(s) invoices;

d. DPMC Form 11-3 - Prime Contractors Summary of Stored Materials;

e. DPMC Form 11-3A - Agreement and Bill of Sale Certification for Stored Materials;

f. Consent of Surety forms;

g. Certified Payroll Records;

h. Updated project schedule

i. Any other information or documentation required by other provisions of the Contract documents.

9.1.3 The Contractor shall submit the completed request for payment on a monthly basis for all properly completed billable work to the DPMC Project representative and at the address identified at the pre-construction conference.

9.1.4 One (1) original and one (1) copy of the request for payment packets shall be prepared and submitted unless otherwise specified.

9.1.2 No request for payment shall be deemed to be formally submitted and received for payment until all dollar amounts and completion percentages for each line item in the invoice has been determined and agreed upon by the State and the Contractor.

9.1.5 For the purpose of the State's Prompt Payment Act (N.J.S.A. 2A:30A-1 et seq.):

a. A proper invoice will be deemed to have been received by the owner when it is received by the person or entity designated by the State to review and sign the invoice on the State's behalf at the address designated in the pre-construction conference for receipt of invoices. Receipt of an invoice by such person or entity shall commence the running of the 20-day period for formal approval and certification as provided under N.J.S.A. 2A:30A-2(a);

b. The "billing date", as the term is used in N.J.S.A. 2A:30A-2, shall be the earlier of the date upon which an invoice for payment is approved for payment or twenty (20) days after the invoice is received, unless within such 20-day period

the invoice is found to be incomplete or otherwise unacceptable and returned to the contractor, with a written explanation of deficiencies;

c. In the event that an invoice is found to be deficient and returned to the contractor, the "billing date" shall be calculated from the date that a corrected invoice is received.

d. Payment shall be considered to have been made on the date on which a check for such payment is dated;

e. Payment terms (e.g., "net 20") offered by the contractor shall not govern the State's obligation to make payment;

f. The following periods of time will not be included in the calculation of the due date of any contractor invoice:

(1) Any time elapsed between receipt of an improper invoice and its return to the contractor, not to exceed twenty (20) calendar days; or

(2) Any time elapsed between the State's return of an improper invoice to the contractor and the State's receipt of a corrected invoice.

9.1.6 The provisions of this Article 9 shall not govern the State's payment obligations nor shall they supersede or modify any other contractual provision allowing the withholding of monies from the contractor to the extent that the contractor has not performed in accordance with the provisions of the contract. Nor shall this Article 9 govern the State's payment obligations nor supersede or modify any other contractual provision governing contractor claims for additional compensation beyond the base contract price and approved change orders.

9.2 INTEREST

9.2.1 Interest shall be payable on amounts due the contractor if not paid within thirty (30) calendar days after the billing date specified in the above subparagraph 9.1.5(b), as provided under the State's Prompt Payment of Contractors and Subcontractors Act (N.J.S.A. 2A:30A-01, et seq.) Interest on amounts due shall be payable to the contractor for the period beginning on the day after the required payment date and ending on the date on which the check for payment is drawn.

9.2.2 Interest may be paid by separate payment to the contractor, but shall be paid within thirty (30) calendar days of payment of the principal amount of the approved invoice.

9.2.3 Nothing in this Article 9 shall be construed as entitling the Contractor to payment of interest on any sum withheld by the State for any reason permitted under the contract or applicable law, or on any claim for additional compensation, over and above sums due under the base contract or approved change orders.

9.3 SCHEDULE OF VALUES AND FINAL PAYMENT

9.3.1 Unless otherwise directed, the Contractor shall furnish a schedule of amounts for Contract payments (Unit Schedule Breakdown,) of the total Contract price, showing the amount included therein for each principal category of the Work and for each Contractor

and Subcontractor, in such detail as requested, to provide a basis for determining progress payments. The schedule, as approved, shall be used only as a basis for the Contractor's estimates for progress payments, and approval by the DPMC does not constitute acceptance of the allocability and allowability of costs to a specific element of Work. The Contractor is cautioned that no payment requests shall be approved until the Unit Schedule Breakdown has been approved in writing by the DPMC.

9.3.2 The State will make progress payments monthly as the Work proceeds based upon the Unit Schedule Breakdown.

9.3.2 All material and Work paid pursuant to progress payments shall thereupon become the sole property of the State. This provision shall not be construed as relieving the Contractor from the sole responsibility for the protection of all material and Work upon which payments have been made for the restoration of any damaged work, or as waiving the right of the State to require the fulfillment of all of the terms and conditions of the Contract.

9.3.3 Following completion and acceptance of all work, the amount due the Contractor under this Contract shall be paid only upon satisfactory completion, by the Contractor, of all Contract close-out requirements, completion of a State audit on all Contract values and payments, and after the Contractor has furnished the State with a release of claims against the State, arising by virtue of this Contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the release.

9.3.4 If for any reason the Contractor refuses final payment, the Project may be closed out by the State by the processing of a Final Contract Acceptance certification. The lack of such certificate shall not toll the limitations period applicable to Contractor claims against the State.

9.3.5 In addition to other warranties required by provisions of the Contract and specifications, the Contractor warrants that title to all Work, materials and equipment covered by an application for payment will pass to the State free and clear of all liens, claims, security interests or encumbrances, either upon incorporation into the construction or upon receipt of payment to the Contractor, whichever occurs first. This provision shall not be construed as relieving the Contractor from sole responsibility for the care and protection of materials and work upon which payments have been made, or for the restoration of any damaged work, or as a waiver by the State of its rights to require fulfillment of all terms of the Contract.

9.3.6 By recommending approval of any invoice, the Architect/Engineer shall not be deemed to represent that it has made exhaustive or continuous on-Site inspections to check the quality or quantity of the Work, or that it has reviewed the construction means, methods, techniques, sequences or procedures, or that it has made any examination to ascertain how and for what purpose the Contractor has used the moneys previously paid. The payment of an invoice does not constitute an acceptance of the Work. The State reserves the right to further inspect the Work and to withhold retainage and any additional funds required to pay for any corrective action for non-conforming work.

9.3.7 If any corporation licensed to do business in New Jersey shall be or become delinquent in the payment of taxes, assessments or fees due the State, unless under an

active appeal process or any final judgment in the State's favor against the Contractor, the DPMC may, in accordance with N.J.S.A. 54:49-19 or other applicable law withhold moneys due the said corporation for the purpose of assuring the payment to the State of such taxes, assessments, fees or judgment.

9.4 CERTIFICATION OF PAYMENTS TO SUBCONTRACTOR

Pursuant to N.J.S.A. 52:32-40, 41 and N.J.S.A. 2A:44-148; the Contractor shall submit a Certification of Prime Contractors form and a Certification of Subcontractor form for each Subcontractor identified in the Unit Schedule Breakdown, as part of the submission for each invoiced progress payment.

9.5 STORED MATERIALS

9.5.1 Unless specifically allowed in the Contract Documents, all materials and equipment must be delivered and installed or stored on the Site prior to payment for such material or equipment.

9.5.2 The DPMC may at its discretion allow payment for equipment stored off Site provided that the following has occurred:

a. The DPMC has approved the Contractor's written request;

b. The equipment has been properly stored in an approved location;

c. The Contractor has established the Owner's title to the specific equipment;

d. The Contractor has provided sufficient proof of insurance for the materials, equipment and the storage facility;

e. The Contractor has submitted a release of liens on said stored equipment;

f. The Contractor has submitted a statement agreeing to assume all costs for storage of material and equipment off Site, including, if required by the DPMC, the cost of storing such material and equipment in a bonded warehouse; and

g. The Contractor furnishes the "Prime Contractor's Summary of Stored Materials" and "Agreement and Bill of Sale Certification for Stored Materials," forms respectively.

9.6 ALLOWANCES

9.6.1 The Contractor shall include in its bid all allowances as may be set forth in the Contract Documents. The Contractor shall purchase the "allowed materials" as directed by the DPMC on the basis of the lowest acceptable quote from at least three competitive offers or as a negotiated cost subject to DPMC approval. If the actual cost of the "allowed materials" is more or less than the stipulated allowance, the Contract price may be adjusted accordingly. The adjustment in Contract price shall be made on the basis of the actual purchase cost without additional charges for overhead, profit, bond premium or any other incidental expenses. The cost of installation of the "allowed materials," unless

otherwise specified, is to be included as the responsibility of the Contractor in whose Contract the allowance is included, and the Contractor installing such "allowed materials" shall not be entitled to additional payment for such installation.

9.6.2 Unless otherwise provided in the Contract Documents:

a. These allowances shall cover the Contractor's true costs, including credit for any trade discount, of the materials and equipment required by the allowance, delivered at the Site, including all applicable taxes;

b. The Contractor's costs for unloading and handling, labor, installation costs, overhead, profit and other expenses reasonably required in connection with such allowance items shall be included in the Contract sum and not as part of the allowances.

9.7 RETAINAGE

9.7.1 In making progress payments for Contract work completed, the State will retain ten percent (10%) of the approved invoice amount until final acceptance and completion of all work covered by the Contract.

9.7.2 The Contractor may, after 50% (fifty percent) of the Contract work is in place, and if the Work is proceeding on schedule, apply for a reduction in the amount retained by the State for the duration of the Contract. Such application must be in writing and accompanied by documentation granting formal consent of surety to the reduction in retainage request. If the DPMC determines that the Contractor's performance has been satisfactory and that the reduction is warranted and appropriate, the State may, with the next progress payment, release any portion of the accumulated retainage in excess of five percent (5%) of the Work in place and retain an amount equal to five percent (5%) of the Work in place for the duration of the Contract. If progress of the Work is not maintained in accordance with the approved schedule, the DPMC may elect to re-institute retainage of ten percent (10%) of the Work in place for the duration of the Contract.

9.7.3 Withholding Payment for Non-Delivery of Data:

a. If technical data such as "as-built" drawings, reports, spare parts lists, repair parts lists, or instruction books (including additional and maintenance manuals), or any part thereof, are not delivered within the time specified by this Contract or are deficient upon delivery, the DPMC has the discretion to withhold from each invoice a percentage (in addition to any other retainage required by the Contract) of the Contract price in accordance with the following table:

When total contract price is:	Percentage to be withheld is:
Less than $250,000.	10%
$250,000.01 through $1,000,000	5.0%
Over $1,000,000	2.0%

b. The withholding of any sums pursuant to this article shall not be construed as, or constitute in any manner, a waiver by the State of the Contractor's obligation to furnish the data required under this Contract. In the event the

Contractor fails to furnish these items, the State shall have those rights and remedies provided by law and pursuant to this Contract, in addition to, and not in lieu of, the sums withheld in accordance with this article.

9.8 MISCELLANEOUS

9.8.1 Disputes regarding nonpayment of a Contractor's invoice under this Article 9 may be submitted to non-binding Alternative Dispute Resolution (ADR) upon mutual agreement of the State and the Contractor. In such event, the State and the Contractor shall share equally the fees and expenses of the selected mediator, arbitrator, umpire or other ADR neutral. Provided, however, that nothing herein shall be construed, in whole or in part, as a waiver, release or modification of the provisions of the New Jersey Contractual Act, N.J.S.A. 59:13-1, et seq., which governs claims against the DPMC.

9.8.2 A Contractor not paid sums due under an approved invoice within thirty (30) days of the billing date may suspend performance without penalty for breach of contract, but only after providing the State with seven (7) days written notice of non-payment, and only in the event that the State fails to furnish the Contractor, within that seven-day period, a written statement of the amount withheld and the reasons for the withholding. Nothing herein shall be construed to excuse the Contractor's nonperformance, or to limit the State's rights and remedies relating to such non-performance, with regard to any monies withheld from the Contractor upon the proper notice provided under this Article 9, or with regard to any Contractor claim disputed by the DPMC.

ARTICLE 10 - CHANGES IN THE WORK

10.1 CHANGES IN THE WORK

10.1.1 The DPMC may at any time, issue a written Change Order which shall direct a change in the Work within the general scope of the Contract, including, but not limited to, changes:

a. In the plans and/or specifications;

b. In the method or manner of performance of the Work;

c. In the State-furnished facilities, equipment, materials, services, or site; or directing acceleration in the performance of the Work; and/or

d. In the time for the completion of the Work.

10.1.2 Change Orders

10.1.2.1 The Contractor agrees to prepare and submit, within ten (10) calendar days of encountering any conditions it considers a change, or upon receiving official notice of a proposed change or written direction to proceed with a change, a current DPMC form entitled "Contractor Change Order Request," to the DPMC. The Contractor shall submit an original of the form. Failure to submit a timely form may be grounds for rejection of the request for Change Order, at the DPMC's discretion.

10.1.2.2 All requests for Contract time extensions must be submitted in accordance with the requirements set forth in Articles 6 and 7, accompanied by copies of the current approved progress schedule and copies of a proposed progress schedule detailing the incorporation of the changed work and the effects of such incorporation on progress. Failure to provide all required information shall be grounds for rejection of the request.

10.1.2.3 DPMC will only consider a contract duration extension Change Order request arising from changes in the Work, if that change is proven by the Contractor to have caused a delay in the completion of the Project. When the Contract duration is increased as a result of a change, the resulting change in Contract amount will include the costs of extended performance, computed in accordance with the terms of this Section, and no further consideration of such costs arising from the specific modification will be given.

10.1.2.4 Every Change Order request submitted by the Contractor shall furnish a price breakdown, which shall cover all work involved in the change whether such work was deleted, added or changed and shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract, overhead costs and profit. Any amount proposed for subcontracts shall be supported by an equally detailed breakdown. In addition, if the request includes a time extension, a justification (see section 10.1.4.) shall also be furnished. The request, together with the price breakdown and time extension justification, shall be furnished by the date specified by the DPMC.

10.1.2.5 The following rates shall apply in computing overhead (indirect costs) and profit for Change Orders that do not exceed $25,000. The percentages shall be applicable for deleted work as well as additional work. When a change consists of both added and

deleted work, the applicable percentages shall be applied to the net cost or credit. In any event, the percentages shall not exceed the following:

a. Overhead will be the sum of:

(1) fifteen percent (15%) of direct labor costs. NOTE: For the purpose of this article, the term "direct labor" shall include all foremen (identified by name and not included in the Project as the full-time superintendent or full time foreman as required elsewhere in the contract documents), equipment operators and skilled, semi-skilled and common laborers directly assigned to the specified operation. The term "direct labor costs" shall consist of the Contract or actual payroll rate of wage per hour and fringe benefits paid for each and every hour that such employees are actually engaged in the performance of the Work.

(2) fifteen percent (15%) of direct material costs. NOTE: For the purpose of this article, the term "direct material costs" shall consist of the actual costs of the materials including applicable tax and transportation charges.

b. For rented equipment, an hourly rental rate will be used which will be determined based upon the monthly rental rates in the current edition of the Rental Rate Blue Book for Construction Equipment (Rental Book)and dividing it by 176. An allowance will be made for operating costs for each and every hour the equipment is actually operating in accordance with the rates listed in the Rental Book. The Contractor will be allowed only 65% (sixty-five percent) of the rental rate on Contractor-owned equipment.

c. Bond premiums and payroll taxes, if applicable, will be allowed at actual cost. The Contractor shall submit from the surety to DPMC a letter for the bond premiums.

d. The Contractor's profit on Subcontractor's work will be six percent (6%) of the Subcontractor's costs. Subcontractor indirect costs will be computed in the same manner as for the Contractor. The Contractor agrees to incorporate this article in each of its subcontracts. NOTE: When more than one tier of Subcontractor exists, for the purpose of markups, they shall be treated as one Subcontractor.

e. A profit of six percent (6%), where profit is allowable by the terms of the applicable Contract provision, shall be added to the Contractor's total cost. Indirect costs shall not be duplicated in direct costs.

10.1.2.6 For Change Orders in excess of $25,000 the maximum allowable percentages of 15% overhead and 6% profit applies unless negotiated lower based upon the nature, extent and complexity of the Work involved.

10.1.2.7 The DPMC, in order to avoid delays in the progress of work or when in the best interests of the State, has the discretion to direct the Contractor, in writing, to proceed with work claimed by the Contractor to be extra work , and/or to accelerate its work without a prior agreement on entitlement or costs. Such direction shall be in the form of a Letter of Direction. The Contractor may submit a claim for evaluation by

DPMC, for costs or for time on account of such work and/or acceleration on the form entitled "Contractor Change Order Request," completed in sufficient detail and in accordance with this article within ten (10) calendar days after receipt of the Letter of Direction. Nothing in this article shall excuse the Contractor from proceeding with the Work identified in the Letter of Direction and all other Contract Work. Issuance of a Letter of Direction under this article shall not be intended nor construed as an admission or acknowledgment by the State that the Contractor is entitled to additional compensation and/or time on account of such Work and/or acceleration.

10.2 ACCELERATION

The DPMC may order and direct the Contractor to accelerate its Work at any location(s) by increasing its forces, working overtime and/or working on Saturdays, Sundays, and holidays. If acceleration is required by the DPMC, and not due to any delays on the part of the Contractor, the Contractor will be reimbursed for additional costs.

ARTICLE 11 - CLAIMS AND DISPUTES

11.1 CONTRACTOR CLAIMS

11.1.1 Any claims made by a Contractor against the DPMC for damages, extra costs or any other claim made pursuant to the contract are governed by and subject to the New Jersey Contractual Liability Act, N.J.S.A. 59:13-1 et seq., as well as all the provisions in this Contract.

11.1.2 Upon presentation by the Contractor of a request in writing, the DPMC may review any decision or determination of the State or the Architect/Engineer as to any claim, dispute or any other matter in question relating to the execution or progress of the Work or the interpretation of the Contract Documents. Consistent with the intent of this Contract, the DPMC may schedule a conference for the purpose of settling or resolving such claims, disputes or other matters. Where such a conference is conducted, the Contractor and/or the Architect/Engineer shall be afforded the opportunity to be heard on the matter in question. Following review of the Contractor's request, the DPMC and the Contractor may settle or resolve the disputed matter, provided however that any such negotiations, conferences, settlement or resolution shall be subject to all requirements imposed by law, including where applicable, the New Jersey Contractual Liability Act (N.J.S.A. 59:13-1 et seq.). The DPMC's participation in any effort to negotiate, settle or resolve any such claim or dispute with the Contractor shall not operate to toll or extend the time limitations for notice or suit under the New Jersey Contractual Liability Act.

11.2 MUTUAL RIGHTS AND RESPONSIBILITIES OF ALL CONTRACTORS AND THE ARCHITECT/ENGINEER

11.2.1 Any Contractor or the Architect/Engineer which by its own acts, errors or omissions, damages or unnecessarily delays the Work or otherwise causes damage to the State, any other Contractor or the Architect/Engineer, shall be directly responsible to the aggrieved party or parties, for all costs and expenses incurred due to any such delays and/or damages whether by settlement, compromise or arbitration or judgment.

11.2.2 Any Contractor damaged by the actions of another Contractor or Architect/Engineer shall have a direct right to recovery against the party causing such damages, but shall not have a right to recover such damages against the State.

11.2.3 In addition, the party responsible for causing such damages agrees to defend, indemnify and save harmless the State from all such claims and damages. Nothing contained in this paragraph shall be construed to relieve the responsible party from any liability or damage sustained on account of such acts, errors or omissions.

11.2.4 The State shall not be held vicariously liable to any Contractor for any damages or extra costs caused by any acts or omissions by another party including but not limited to actions of the Architect/Engineer as specified in the above paragraph. The Contractor's exclusive remedy shall be against the party directly responsible for causing such damages or extra costs.

ARTICLE 12 - TERMINATION/SUSPENSION

12.1 SUSPENSION OF THE WORK / STOP WORK

12.1.1 If the Contractor fails to correct defective work or persistently fails to carry out the Work in accordance with the Contract Documents, or if the DPMC determines that it is in the best interest of the Project to do so, the DPMC may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated and the DPMC provides written notice to the Contractor that the stopped Work may resume.

12.1.2 The DPMC shall have the right to defer the beginning or to suspend the whole or any part of the Work herein contracted to be done whenever, in the opinion of the DPMC, it may be necessary or expedient for the State to do so.

12.2 TERMINATION FOR CAUSE

12.2.1 If the Contractor persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials so as to avoid or eliminate delays in the orderly progress of the Work in accordance with the approved schedule; or if the Contractor fails to make prompt payment to any Subcontractor or for materials or labor; or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction; or if the Contractor is guilty of a material breach of a provision of the Contract Documents or otherwise fails to carry out the Work in accordance with the Contract Documents, then the DPMC may, without prejudice to any other right or remedy, and after giving the Contractor and its surety three (3) working days written Notice to forthwith address such breach and default with diligence and promptness, terminate the employment of the Contractor by the issuance of a written Notice to that effect to the Contractor and its surety, should the Contractor fail to comply with the demands of the original above mentioned Three Day Notice.

12.2.2 Upon such termination, the DPMC may take possession of the Site and of all the materials, equipment, and tools on the Site and of any materials stored off Site paid for by DPMC, and may finish the Work by whatever method the DPMC may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.3 In the event of termination for default, the surety shall either complete the principal's work or finance the completion of the Work. The surety shall not have the right to do nothing. In the event of the surety's breach of its obligations to the State, the surety shall be subject to all available damages under the law, including but not limited to debarment and the penalties imposed by New Jersey's Consumer Fraud Act.

12.2.4 Within seven (7) calendar days following receipt of Notice of Termination by the surety, the surety shall submit in writing its intention to satisfy its bond obligation to the State as obligee, and to explain its plan to complete the Work, tender a completing Contractor or finance the completion of the Work.

12.2.5 If the surety elects to take over the Work and complete same or to tender a completing Contractor, it must furnish notice of its intent to do so in writing over the

signature of an authorized representative and such notice shall be served upon the DPMC within seven (7) calendar days after service upon the surety of the Notice of Termination. This document shall identify the Contractor to perform this work.

12.2.6 If the surety elects to satisfy its bond obligation by financing the completion of the Work, in lieu of taking over same, the surety and State shall enter into an agreement, within thirty (30) days of the termination Notice, setting forth the details of the payments to be made by the surety. All current obligations for labor and materials incurred and outstanding by the defaulting Contractor on this Project shall be paid by the surety without delay, subject to allowance of reasonable time to verify such claims by the surety.

12.2.7 If the surety fails to satisfy its bond obligations within the time frames established above, the DPMC may undertake the completion of the Project in any manner deemed appropriate. In that circumstance, the surety shall not be relieved of any of its payment and performance bond obligations.

12.2.8 If the unpaid balance of the Contract sum exceeds the cost of finishing the Work (including but not limited to liquidated damages for delays and all other remaining damages sustained by the State originating from such breach of Contract), such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor and its surety shall be obligated to pay the difference to the DPMC promptly upon receipt of billing from the State, and this obligation shall survive the termination of the Contract.

12.3 OWNER'S RIGHT TO COMPLETE THE WORK

12.3.1 Alternatively, should the Contractor fail or refuse to correct its breach and default after receiving the required notice as provided under Section 12.2 hereof, the DPMC, in lieu of terminating the Contractor's employment, may provide for the correction and completion of all remaining Work by other means, and deduct all costs associated with such correction and completion from any undisbursed balance of funds (including earned retainage) remaining under the Contract. Such deduction may be documented by issuance of one or more deductive change orders. DPMC's correction or completion of Work under this paragraph shall not operate to waive, release or diminish the liability of the Contractor and its surety to the State for any breach or default by the Contractor.

12.4 TERMINATION FOR CONVENIENCE

12.4.1 The DPMC may, at any time, terminate the Contract in whole or in any part for the DPMC's convenience and without cause when the DPMC in its sole discretion views termination to be in the public interest.

12.4.2 Upon receipt of an order of Termination for Convenience, the Contractor shall not proceed with any item of work which is not specified in the Order of Termination. The Contractor shall complete all items of work specified in the termination order. Such work shall include punch list items and all work necessary to ensure the safety of the public, to properly secure existing work already constructed or partially constructed and to secure the Project Site. This work so ordered shall be performed in accordance with the Contract Documents, and may include items of work not in the original Contract. The Work performed shall be considered substantially complete upon completion and

acceptance of all items of work specified in the Order, except punch list items. After completion of the punch list items and all documents required by the Contract, the Contract shall terminate upon issuance of a Final Certificate and payment. The DPMC reserves the right to declare in default a Contractor who fails to carry out the conditions set forth in an Order of Termination for Convenience.

12.4.3 When the DPMC orders termination of the Contract for Convenience, all completed items of work as of that date will be paid for at the Contract prices.

12.4.3.1Payment for partially completed work will be paid for at agreed prices.

12.4.3.2 Payment for new items, if any, will be made either at agreed prices or in accordance with Article 10.

12.4.3.3Materials obtained by the Contractor for the Work but which have not been incorporated therein may, at the option of the State, be purchased from the Contractor at actual cost delivered to a prescribed location, or otherwise disposed of as mutually agreed.

12.4.4 Within sixty (60) days of the effective termination date, the Contractor shall submit claims for additional costs actually incurred, not covered above or elsewhere in the Contract. Such claims may include reasonable mobilization costs, overhead expenses attributable to the Work performed, Subcontractor costs not otherwise paid for, actual idle labor costs if Work is stopped in advance of the termination date. The DPMC will not compensate the Contractor for costs prohibited under provisions of the Contract and/or anticipated profits on work not performed.

12.4.5 If the DPMC terminates the Contractor for cause as provided under Article 12.2 of the General Conditions, and if a court of law subsequently determines such termination for cause to have been undertaken without lawful justification, then such termination shall be deemed a termination for convenience governed by this Article 12.4. In that event, recovery by the Contractor and/or the Contractor's surety shall be limited to those costs which are recoverable following a termination for convenience under this Article 12.4.

ARTICLE 13 – OTHER REQUIREMENTS

13.1 PREVAILING WAGE

13.1.1 The Contractor shall comply with the New Jersey Prevailing Wage Act Laws of 1963, Chapter 150, (N.J.S.A. 34:11-56.25 et seq.) and all amendments thereto, and this act is hereby made a part of every Contract entered into on behalf of the State of New Jersey through the DPMC, except those Contracts which are not within the contemplation of the Act. Provisions of the Act include the following stipulations and requirements:

a. All workers employed in the performance of every Contract in which the Contract sum is in excess of $2,000 and to which the DPMC is a party shall be paid not less than the prevailing wage rate as designated by the Commissioner, Division of Labor or his or her duly authorized representative.

(1) The Contractor performing public work for the DPMC and which is subject to the provisions of the Prevailing Wage Act, shall post the prevailing wage rates for each craft and classification involved as determined by the Commissioner, Division of Labor. This posting shall include the effective date of any changes thereof, and shall be displayed in prominent and easily accessible places at the Site of the Work or at such place or places as are used by the Contractor/Subcontractor to pay workers' wages.

(2) At the time of the bid due date, the Bidder and any Subcontractors identified by the Bidder must be registered in accordance with "The Public Works Contractor Registration Act" (N.J.S.A. 34:11-56.48 et seq.) All questions regarding registration shall be addressed to:

Contractor Registration Unit
New Jersey Department of Labor
Division of Wage & Hour Compliance
P O Box 389
Trenton NJ 08625-0389
Telephone: 609-292-9464
FAX: 609-633-8591

b. In the event it is found that any worker, employed by any Contractor covered by any Contract in excess of $2,000 for any public work to which the DPMC is a party, has been paid a rate of wages less than the prevailing wage required by such Contract, DPMC may terminate the Contractor's right to proceed with the Work, or such part of the Work as to which there has been failure to pay required wages, and may otherwise execute the Work to completion.

c. In the event that any Subcontractor retained by a Contractor on any Contract in excess of $2,000 for any public work to which the DPMC is a party, has been paid a rate of wages less than the prevailing wage required by such Contract, DPMC may terminate the Contractor's right to proceed with the Work, or such part of the Work as to which there has been failure to pay required wages, and may

otherwise execute the Work to completion or may require that the Contractor immediately substitute a new Subcontractor at the costs set forth in the Contract.

d Nothing contained in the Prevailing Wage Act shall prohibit the payment of more than the prevailing wage rate to any worker employed on a Project.

e. The Contractor shall, as a condition of subcontract with any tier Subcontractor, require compliance with this section as a condition of Subcontract.

f. The State may audit the Contractor's conformance with the Prevailing Wage Act. If the result of such audit determines that the Contractor has not complied with the Prevailing Wage Act then such Contractor shall be responsible for the cost of this audit.

13.2 PATENTS

13.2.1 The Contractor shall hold and save the State and its officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses for or on account of any patented or non-patented design, devise, invention, process, article or appliance manufactured or used in the performance of the Contract, including its use by the State, unless otherwise specifically stipulated in the Contract Documents.

13.2.2 License and/or royalty fees for the use design, devise, invention, process, article or appliance which is authorized by the State must be reasonable, and paid to the holder of the patent or his or her authorized licensee directly by the State and not by or through the Contractor.

13.2.3 If the Contractor uses any design, devise, invention, process, article or appliance covered by letters, patent or copyright, it shall provide for such use by suitable agreement with the State of such patented or copyrighted design, device or material. It is mutually agreed and understood that, without exception, the Contract prices shall include all royalties or costs arising from the use of such design, devise, invention, process, article or appliance in any way involved in the Work.

13.2.4 The Contractor and/or its surety shall indemnify and save harmless the State from any and all claims for infringement by reason of the use of such patented or copyrighted devise, invention, process, article or appliance, or any trademark or copyright in connection with Work performed under this Contract, and shall defend and indemnify the State for any cost, expense or damage which it may be obliged to pay by reason of such infringement at any time during the execution of the Work or after the completion of the Work. This section shall survive the termination of the Contract.

13.3 RIGHT TO AUDIT

13.3.1 The State reserves the right to audit the records of the Contractor in connection with all matters related to its Contract. The Contractor agrees to maintain its records in accordance with "Generally Accepted Accounting Principles," for a period of not less than five (5) years after receipt of final payment. All charges must be supported by appropriate documentation, including, but not limited to canceled checks. All records

shall be made available to the New Jersey Office of the State Comptroller or other State audit agency upon request and at no cost to the State.

13.3.2 The Contractor shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller or other State audit agency upon request and at no cost to the State.

13.3.2 The Contractor shall develop, maintain and make available to the DPMC on request such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, Change Orders, all original estimates, takeoffs and other bidding documents, all Subcontractor and supplier Contracts and changes, all records showing all costs and liabilities incurred or to be incurred in connection with the Project (including all Subcontractor and supplier costs), all payment records and all records showing all costs incurred in labor and personnel of any kind, records and other data as the State may request concerning work performed or to be performed under this Contract.

13.3.3 The Contractor acknowledges and agrees that no claim for payment which is premised to any degree upon actual costs of the Contractor shall be recognized or payable by the State except and to the extent that such actual costs are substantiated by records required to be maintained under these provisions.

13.3.4 The Contractor acknowledges and agrees that its obligation to establish, maintain and make available records and the State's right to audit as delineated herein shall extend to actual costs incurred by Subcontractors in performing work required under the Contract Documents. The Contractor shall require in each subcontract that the Subcontractor establish, maintain and make available to the State all records as defined and delineated herein, relating to all work performed under the Subcontractor including work performed by a sub-Subcontractor.

13.4 INSURANCE

13.4.1 Insurance To Be Carried By The Contractor:

The Contractor shall obtain and maintain, at its expense and for the duration of the contract, minimum insurance coverage set forth below. By requiring such minimum insurance, the State of New Jersey shall not be deemed or construed to have assessed the risk that may be applicable to the Contractor under this contract. The Contractor shall assess its own risks and if it deems appropriate and/or prudent, maintain higher limits and/or broader coverage. The Contractor is not relieved of any liability or other obligations assumed or pursuant to the Contract by reason of its failure to obtain or maintain insurance in sufficient amounts, duration or types.

a Commercial General Liability:

(1) Commercial General Liability (CGL)-ISO occurrence form CG001 or a substitute form providing a minimum coverage of $2,000,000 per occurrence for bodily injury liability and $2,000,000 per occurrence for property damage liability and shall cover liability arising from:

- Premises/Operations

- Independent Contractors
- Products/Completed Operations
- Personal and Advertising Injury
- Liability assumed under an insured contract (including defense cost assumed)

(2) The State of New Jersey shall be included as an additional insured under the CGL using ISO additional insured endorsement CG 20 10 and CG 20 37 or a substitute providing equivalent coverage, which endorsement shall include coverage for the State of New Jersey arising out of the completed operations of the contractor, and which coverage shall be maintained in effect for the benefit of the State of New Jersey for a period of three (3) years following the completion of the work specified in section 7.3 of this contract. Additional Insured coverage as required in this subparagraph shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to the State of New Jersey.

(3) The CGL general aggregate shall apply separately to this project using ISO CG 2503 form – designated construction projects(s) General Aggregate Limit.

(4) There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from explosion, collapse or underground property damage.

(5) If not included in the policy form the CGL policy must be endorsed with a separation of insureds (severability of interests) endorsement.

(6) CGL policy must provide or be endorsed (ISO form CG 24 04) to provide for waiver of subrogation.

b Business Automobile Liability:

(1) Contractor and subcontractors shall maintain business auto liability insurance and such insurance shall cover liability arising out of any auto (including owned, hired and non-owned autos).

(2) The limits of liability shall be not less than $1,000,000 per occurrence for both bodily injury and property damage liability.

(3) Business Automobile coverage shall be written on ISO form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later additions of CA 00 01.

(4) If required by law, the business auto policy shall be endorsed to provide pollution liability coverage equivalent to that provided under the ISO pollution liability broadened coverage for covered autos form

CA 99 48 and the Motor Carrier Act endorsement (MCS 90) shall be attached.

(5) Waiver of Subrogation -- Contractor waives all rights against the State of New Jersey for recovery of damages to the extent these damages are covered by the business auto liability insurance obtained by Contractor pursuant to Paragraph 2.0 of this Agreement.

c Workers Compensation: Workers Compensation Insurance applicable to the laws of the State of New Jersey and other State or Federal jurisdiction is required to protect the employees of the Contractor or any Subcontractor who will be engaged in the performance of this Contract. This insurance shall include employers' liability protection with a limit of liability not less than $500,000.

d Umbrella Liability: Contractor must maintain an Umbrella Liability Policy excess of the Commercial General Liability, Automobile Liability and Employer Liability coverage.

(1) The coverages of the umbrella policy must be as broad as the primary policies covered by this policy and include a "drop-down" provision if the primary coverage becomes impaired or exhausted.

13.4.2 Insurance To Be Carried By The State of New Jersey:

a Builders Risk Insurance: Unless otherwise provided in this agreement the State of New Jersey shall provide and maintain, in a company or companies lawfully authorized to do business in the jurisdiction which this project is located, Builders Risk Insurance in the amount of the initial contract amount as well as subsequent modifications for the entire project at the site on a replacement cost basis.

(1) The Builders Risk coverage shall be on an "All Risk of direct physical loss or damage" or equivalent policy form and include theft, earthquake, flood, temporary structures, demolition and increased cost of construction, architects fees and expenses.

Also the insurance must include coverage for Equipment Breakdown Coverage (a.k.a. Boiler & Machinery) which shall cover insured Equipment during installation and testing. The Builders Risk insurance shall include the interest of the State of New Jersey, the general Contractor, subcontractors and sub-tier contractors in the project.

(2) The Builders Risk Policy shall cover all materials equipment and supplies, assemblies and furnishings intended for specific installation in the project while located at the site. The policy will cover portions of the work off site and portions of the work in transit subject to the policy sub-limits for these coverages.

(3) Waivers of Subrogation -- The State of New Jersey and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees and (2) the

Architect/Engineer, Architect/Engineer's Consultants, and any of their subcontractors, Sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent covered by the Builders Risk insurance or any other property insurance applicable to the work.

(4) The Builders Risk policy will provide for a waiver of subrogation against all interested parties covered by the policy but only to the extent the loss is covered by the policy.

(5) The above insurance shall apply only to the work described in this contract, and shall not apply to alterations, repairs, maintenance and installations of systems, equipment and other items of work which do not result in creating additional habitable space. This insurance shall not protect against damage or loss to any of the Contractor's or Subcontractor's tools, equipment, scaffolding, staging towers or forms and Contractor's materials stored on Site which are not part of the construction Project,. It is understood that the Contractor will, at its own expense, carry all insurance which may be required to provide the necessary protection against such loss or damage herein described which shall contain a waiver of any right of subrogation against the State of New Jersey.

(6) Deductible Provisions -- The insurance protection described herein may contain a deductible clause. The State of New Jersey agrees to bear the cost of all deductibles of the Builders Risk Policy.

(7) Loss Reporting and Loss Adjustment – The Contractor will receive a Loss Reporting Form whenever Builders' Risk Insurance is written. This form includes appropriate loss reporting instructions. In the event of loss, the Contractor shall immediately notify the State of New Jersey, DPMC, in writing, and take any other appropriate steps as may be required under the standard builders' risk insurance policy in effect. Upon the occurrence of any loss or damage prior to the acceptance of the building by the State, the Contractor shall, at the State's option, replace and repair the damaged work as originally provided in the drawings and specifications at no additional compensation to that provided in the original Contract.

(8) Status Trustee for Loss Adjustment -- All losses will be adjusted with, and payable to, the State of New Jersey, as trustee for the insured as their interests may appear. The Contractor shall be named jointly with the State in all policies of insurance, all of which shall be open to inspection by the State.

(9) This provision shall not relieve the Contractor from its obligation to complete, according to plans and specifications, the Project covered by the Contract, and the Contractor and its surety shall be obligated to full performance of the Contractor's undertaking.

13.5 ASSIGNMENT OF ANTITRUST CLAIMS

13.5.1 The Contractor recognizes that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the ultimate purchaser. Therefore, and as consideration for executing this Contract, the Contractor, acting herein by and through its duly authorized agent, hereby conveys, sells, assigns, and transfers to the State of New Jersey, for itself and on behalf of its political subdivisions, instrumentalities, and public agencies, all right, title and interest to all claims and causes of action it may now or hereafter acquire under the antitrust laws of the United States or the State of New Jersey, relating to the particular goods or services purchased or acquired by the State of New Jersey or any of its political subdivisions or public agencies pursuant to this Contract.

13.5.2 In connection with this assignment, the following are the express obligations of the Contractor:

a. The Contractor will take no action which will in any way diminish the value of the rights conveyed or assigned hereunder.

b. The Contractor will advise the Attorney General of New Jersey and DPMC:

(1) in advance of its intention to commence any action on its own behalf regarding any such claim or cause(s) of action; and/or

(2) immediately upon becoming aware of the fact that an action has been commenced on its behalf by some other person(s) of the tendency of such action.

c. The Contractor will notify the defendants in any antitrust suit of the fact of the within assignment at the earliest practicable opportunity after the Contractor has initiated an action on its own behalf or becomes aware that such an action has been filed on its behalf by another person. A copy of such Notice will be sent to the Attorney General of New Jersey and the DPMC.

13.5.3 It is understood and agreed that in the event any payment under any such claim or cause of action is made to the Contractor, it shall promptly pay over to the State of New Jersey the allotted share thereof, if any, assigned to the State hereunder.

END, GENERAL CONDITIONS

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SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

A. Bonds, Insurance, Employment of personnel.
B. Permits and fees, utility coordination.
C. General clean up.
D. Trench restoration.
E. Mobilization and demobilization.
F. Lighting work areas.
G. General Clean up.
H. Utility Locations.
I. Stockpiling/staging areas.
J. Site security.
K. Traffic Control.
L. Health and Safety Plan

PERMIT INFORMATION

1. The Contractor is directed to read, understand, and comply with all requirements of the associated permit approvals. Contractor shall construct project in accordance with all permit requirements, including but not limited to the permits included in the Appendix.

ADDITIONAL PROJECT INFORMATION:

A. The Contractor shall provide the Engineer and New Jersey Division of Property Management and Construction (NJDPMC) with a Health and Safety Plan that addresses the potentially hazardous on-site conditions. At a minimum, the Contractor's Health and Safety Plan must adhere to the requirements and precautions noted in these documents.

PART 2 - MATERIALS

2.1 MATERIALS

A. All necessary materials and equipment required to complete the work described in this section including protection of the remediation areas.

B. Materials shall include fence, lights, and other means necessary to prevent entry to the site of the work.

C. CONTRACTOR shall provide floating turbidity barriers where necessary for turbidity control as required.

D. CONTRACTOR shall provide demarcation buoys and buffer around nearby shipwreck site. If required, the CONTRACTOR shall be responsible for Archaeological Surveys if avoidance of the shipwreck is not possible.

PART 3 - EXECUTION

3.1 GENERAL CLEAN UP

A. CONTRACTOR shall remove and dispose of all debris, garbage, and other deleterious material on site at the conclusion of the project.

B. Minor details or incidental items not usually shown or specified, but necessary for a proper and complete construction and installation of any part of the work, shall be included as required, as if they were indicated on the drawings.

C. All work shall comply with all applicable standards including OSHA, local, state, and federal codes.

3.2 TRENCH/SURFACE RESTORATION

A. All trench restoration outside of the limits of work/construction shall be restored in kind to the satisfaction of the Engineer. All costs for trench restoration shall be included in the Lump Sum project cost. Trench restoration costs shall include the compaction and testing of any disturbed areas.

B. Surface restoration at locations of new electrical installation for any required conduit runs or additional electrical work, shall match existing surface in kind, to the satisfaction of the Engineer.

3.3 UTILITY MARKOUTS

A. The CONTRACTOR shall call New Jersey's "One Call" at 1-800-272-1000, not less than three nor more than ten full business days prior to the start of any excavation, to have all utilities marked and shall excavate, test pit, or otherwise determine the exact location and elevations of said utilities. The Contractor shall notify the ENGINEER of any conflicts. The CONTRACTOR shall arrange for any necessary utility relocations or plan changes and shall reschedule his operations appropriately.

3.4 SITE SECURITY

A. The CONTRACTOR shall be solely responsible for maintaining the security of the project site during working and non-working hours, seven days a week.

B. Do not close or obstruct streets, walks, walkways, or other adjacent facilities without permission from the Division of Property Management and Construction (DPMC/Owner).

C. CONTRACTOR shall provide protection for the general public and construction workers in and around the construction areas, and for the adjacent properties and persons. Adequate barriers shall be provided to exercise control of safe ingress and egress at all roadway intersections. The CONTRACTOR shall barricade all unsafe or injurious conditions.

D. The CONTRACTOR shall ensure free and safe passage of persons around the area of construction. All operations shall be conducted so as to prevent damage to adjacent buildings, structures, and other facilities and injury to persons, both pedestrian and workers alike.

E. The CONTRACTOR is responsible for all site security during construction. All site security and public safety are the responsibility of the CONTRACTOR.

3.5 TESTING

A. The CONTRACTOR shall be responsible for coordinating and the cost of any testing as required. The CONTRACTOR shall use a DPMC prequalified testing firm.

B. All testing shall be submitted to the ENGINEER and approved by the ENGINEER prior to the continuation of any work.

END OF SECTION 01 00 00

SECTION 01 14 00
WORK RESTRICTIONS

PART 1 - GENERAL

1.1 SECTION INCLUDES
- A. Site Access
- B. Contractor Use of Premises

1.2 RELATED SECTIONS
- A. Instruction to Bidders and General Conditions
- B. Supplementary Instruction to Bidders and General Conditions
- C. Division 01, Section 01 11 00, Summary of Work

1.3 SITE ACCESS

A. Contractor's access to the site shall be coordinated with the Owner.

1.4 CONTRACTOR'S USE OF PREMISES

A. Contractor's use of the premises is limited to those activities directly related to the Dock Replacement project.

B. Contractor's use of the premises, including type and location of temporary office and toilet facilities, equipment and material storage, and all other items is subject to the approval of the Owner.

C. Temporary facilities or equipment storage areas is subject to approval of the Owner.

PART 2 - PRODUCTS

A. Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION 01 14 00

SECTION 01 31 00
PROJECT MANAGEMENT AND CO ORDINATION

PART 1 - GENERAL

1.1 SECTION INCLUDES
- A. Administrative and Supervisory Personnel
- B. Project Coordination
- C. Project Meetings

1.2 RELATED SECTIONS
- A. Division 01, Section 01 11 00, Summary of Work
- B. Division 01, Section 01 33 00, Submittal Procedures
- C. Division 01, Section 01 70 00, Execution Requirements

1.3 SUBMITTALS

A. Submit name and resume of relevant experience for all key personnel listed in this section, as well as any other key personnel such as Quality Control Representative, Administrative Assistant, etc.

B. Submit a Project Team Organizational Chart, specific to this project, including the following contact information:
1. Name
2. Position (title, as well as a brief indication of duties/responsibilities)
3. Business Address
4. Business Phone Number (office)
5. Business Phone Number (mobile)
6. Emergency Phone Number (Administrative and Supervisory Personnel only) The Contractor shall at all times after regular working hours, including weekends and holidays, maintain a telephone where he or its representatives shall be reached on an emergency basis.
7. Business Fax Number
8. Business E-mail address

C. Submit shop drawings, product data, certifications, and all other submittals required by the individual Specification Sections, in accordance with the requirements of Section 01 33 00.

1.4 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. At a minimum, the Contractor shall provide the following position.

1. Project Manager: Experienced in administration, scheduling, supervision and quality control of construction projects similar to this project.

2. Field Superintendent: Experienced in field supervision of construction projects similar this project, including all aspects of site work and concrete work described in the Contract Documents

1.5 PROJECT COORDINATION

A. Coordinate scheduling, submittals and work described in the various sections of the Contract Documents to assure efficient and orderly sequence of all elements of the construction, including the installation of interdependent items.

B. Coordinate utility requirements for all aspects of the work described in the various sections of the Contract Documents.

C. Coordinate space requirements for all aspects of the work described in the various sections of the Contract Documents.

D. Coordinate all requests for additional information, interpretation and/or clarification in a timely manner, providing adequate time for the development of a response, while not adversely affecting the construction schedule.

E. Coordinate completion and clean-up of the work described in various sections in preparation for subsequent work by others in same area.

F. Coordinate project close-out operations for all aspects of the work described in the various sections of the Contract Documents

1.6 PROJECT MEETINGS

A. Preconstruction Meeting: DPMC will schedule a preconstruction meeting after the Contract has been awarded.

1. Location: To be determined by the DPMC.

2. Required Attendance: DPMC, Using Agency's representative, Engineer and the Contractor (Project Manager and the Field Superintendent)

3. Agenda:
   a. Execution of Owner-Contractor Agreement
   b. Submission of executed bonds and insurance certificates
   c. Distribution of Contract Documents
   d. Designation of personnel representing the parties during construction
   e. Establish relationships among parties, including lines of communication and lines of authority.
   f. Establish procedures for processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract Close-out procedures.
   g. Scheduling
   h. Project photograph requirements.

4. Minutes: The Engineer will record and distribute minutes to all attendees within 5 business days of the meeting. The minutes will include a list of attendees, items discussed, actions agreed upon, and responsible parties

B. Site Mobilization Meeting: DPMC will schedule and administer a site mobilization meeting immediately prior to the Contractor's occupancy of the site. At the discretion of DPMC, the items listed below for the site mobilization meeting may be incorporated into the preconstruction meeting described above.

1. Location: Project Site

2. Required Attendance: DPMC, Using Agency's representative, Engineer and the Contractor (Project Manager and the Field Superintendent)

3. Agenda:
   a. Safety
   b. Contractor's use of premises
   c. Facilities and utilities provided by the Owner
   d. Facilities and utilities provided by the Contractor
   e. Regulatory requirements
   f. Security and housekeeping procedures and requirements
   g. Schedules
   h. Application for payment procedures
   i. Testing procedures
   j. Record Document requirements and procedures
   k. Inspection procedures

C. Progress Meetings: DPMC will schedule and administer all construction progress meetings as necessary. In general, these meetings will be bi-weekly.

1. Location: Project Site, unless otherwise determined by the DPMC.

2. Required Attendance: DPMC, Using Agency's representative, Engineer and the Contractor (Project Manager and the Field Superintendent), as well as other sub-contractors, special consultants, etc., as might be required for specific issues at specific progress meetings, as determined by the DPMC.

3. Agenda:
   a. Safety
   b. Review of minutes of previous meetings
   c. Review of work progress
   d. Planned progress during the succeeding work period
   e. Field observations, problems and decisions
   f. Review of submittals schedule and status of submittals
   g. Quality Control
   h. Review of off-site fabrication and delivery schedules
   i. Maintenance of progress schedule and corrective measures to regain projected schedules
   j. Other business related to the work

4. Minutes: The Engineer will record and distribute minutes to all attendees within 5 business days of the meeting. The minutes will include a list of attendees, items discussed, actions agreed upon, and responsible parties.

1.7 EMERGENCY CONDITIONS

A. The Contractor or its representative shall be prepared to act to correct conditions on the site deemed to constitute an emergency by either the DPMC, or the Engineer, but shall not wait for instruction before proceeding to properly protect both life and property. If a condition on the site requires attention after working hours, either the DPMC, the Using Agency's representative, or the Engineer shall call the Contractor or its representative at the emergency telephone number, identify himself and describe the emergency condition. The Contractor is expected to adequately institute corrective measures within two (2) hours. If for some reason the Contractor or its agent cannot be reached at the emergency number after a reasonable time (1/2 hour), the State shall have the right to immediately initiate corrective measures in accordance with Section 0 1 70 00, Paragraph l.9A, Emergency Services to Correct Hazardous Conditions, and the Contractor shall have been considered to waive any right to perform emergency service

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 31 00

SECTION 01 32 33
PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

1. Pre-construction photographs.
2. Pre-construction videotapes.

1.3 SUBMITTALS

A. Qualification Data: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

B. Key Plan: Submit key plan of Project site with notation of vantage points marked for location and direction of each photograph. Include same label information as corresponding set of photographs.

C. Construction Photographs: Submit two prints of each photographic view within seven days of taking photographs.

1. Format: 8-by-10-inch smooth-surface matte prints on single-weight commercial-grade photographic paper, enclosed back to back in clear plastic sleeves that are punched for standard 3-ring binder.
2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:

a. Name of Project.
b. Name and address of photographer.
c. Name of Engineer.
d. Name of Contractor.
e. Date photograph was taken if not date stamped by camera.
f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
g. Unique sequential identifier.

D. Videotapes: Submit two copies of each videotape with protective sleeve or case within seven days of recording. Remove safety tab to prevent accidental re-recording.

1. Identification: On each copy, provide an applied label with the following information:

a. Name of Project.
b. Name and address of photographer.
c. Name of Engineer.

d. Name of Contractor.
e. Date videotape was recorded.
f. Description of vantage point, indicating location, and direction (by compass point).
g. Weather conditions at time of recording.

1.4 QUALITY ASSURANCE

A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects.

1.5 COORDINATION

A. Auxiliary Services: Cooperate with photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities, including temporary lighting required to produce clear, well-lit photographs without obscuring shadows.

1.6 USAGE RIGHTS

A. Obtain and transfer copyright usage rights from photographer to OWNER for unlimited reproduction of photographic documentation.

PART 2 - EXECUTION

2.1 CONSTRUCTION PHOTOGRAPHS

A. Photographer: Engage a qualified commercial photographer to take construction photographs.

B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

C. Film Images:

1. Date Stamp: Unless otherwise indicated, date and time stamp each photograph as it is being taken so stamp is integral to photograph.
2. Field Office Prints: Retain one set of prints of progress photographs in the field office at Project site, available at all times for reference. Identify photographs same as for those submitted to ENGINEER.

D. Pre-construction Photographs: Before starting construction, take color photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by ENGINEER.

2.2 CONSTRUCTION VIDEOTAPES

A. Videotape Photographer: Engage a qualified commercial videographer to record construction videotapes.

B. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each videotape, record weather conditions from local newspaper or television and the actual temperature reading at Project site.

C. Preconstruction Videotape: Before starting construction, record videotape of Project site and surrounding properties from different vantage points, as directed by ENGINEER.

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Requirements for submittal procedures to be followed by the Contractor.

1.2 RELATED SECTIONS

A. Division 01, Section 01 3 1 00, Project Management and Coordination
B. Division 01, Section 01 32 00, Construction Progress Documentation

1.3 SUBMITTALS CHECKLIST

A. Within 15 calendar days after the Notice to Proceed, the Engineer will submit a completed checklist of all submittals required by the Contract Documents, for review by the Contractor and DPMC.

B. The Engineer will revise and/or update the submittals checklist as required, in response to the review.

C. This checklist, in conjunction with the Submittals Log, will be used as the basis for the review of the status of submittals during the course of the project.

1.4 SUBMITTALS LOG

A. The Engineer will maintain an up-to-date log of all submittals and their status throughout the duration of the project.

B. The Engineer will distribute updated copies of this log to the DPMC and the Contractor at the Project Progress Meetings.

C. This checklist, in conjunction with the Submittals Checklist, will be used as the basis for the review of the status of submittals during the course of the project

1.5 SUBMITTAL PROCEDURES

A. Transmit 7 copies of each individual submittal with its own sequentially numbered transmittal form using the DPMC 12/13 form to the Engineer and DPMC.

B. Do not combine submittals for more than one product or section under one transmittal.

C. Sequentially number revised submittals using the original submittal number and a sequential alphabetic suffix per the Submittal Log.

D. Identify the Project, Contractor, Subcontractor or supplier, reference drawing, detail, and Specification Section, as appropriate, on the transmittal.

E. Affix a Contractor's stamp to each submittal, signed or initialed, certifying that the submittal has been reviewed by the Contractor, to determine its conformance with the requirements of the Contract Drawings and/or Specification Section as applicable.

F. Provide space for the Engineer's review stamp.

G. Clearly identify the particular product, type, model number, color, or other designation to be used whenever a submittal sheet contains multiple designations for similar items by the same manufacturer or supplier.

H. Clearly identify any and all variations from the requirements of the Contract Drawings and/or Specification Section, as applicable. Substantiate the reason for all such variations.

I. For re-submittals, clearly identify any and all changes made since the previous submission.

J. Schedule submittals to expedite the project schedule.

K. Deliver submittals to the DPMC, in accordance with the requirements for various types of submittals described below.

L. Allow 10 working days for each submittal review, excluding delivery time to and from the Contractor.

M. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with the requirements.

N. All submittals shall be forwarded to the Engineer with 30 calendar days of the Notice To Proceed (NTP).

1.5.2 APPROVED ALTERNATE SUBMITTAL PROCEDURE

A. The Contractor shall provide all submittals required by the Specifications. The Contractor shall also supply evidence by separate submittals that materials and equipment to be supplied meet the requirements of the Specifications.

B. DPMC 12/13: This form is to be used for submission and approval of all subcontractors, materials to be utilized in the construction, manufacturers/suppliers, and for professional services. Complete the Contractor Section as follows:

1. ***Submission Type:*** The Contractor is to place a check mark in the appropriate block(s) that applies to the submission.
2. ***Trade:*** The Contractor is to place a check mark in the appropriate block that identifies the trade related to the submission.
3. ***Contractor Name:*** The Prime Contractor submitting the form inserts his company name in the space indicated.
4. ***Description of Submittal:*** The Prime Contractor is to give a brief description of the submittal.
5. ***General Condition, Specification or Drawing section***: The Contractor is to identify the Article, Spec Section or Drawing that represents the submission type, i.e., *Article 4.11.2 Sleeve & Opening Drawing, or Spec Section 115575 Condensate Pump, or Drawing FP2.2 Ames Backflow Preventer.*

6. ***Vendor/Manufacturer/Supplier/Subcontractor:*** The Prime Contractor is to insert the name, address, and telephone number of the vendor/manufacturer/supplier or subcontractor for which he is requesting approval. (When required, insert the license number and registration number in the space provided, attach a copy of said license and certification.)

C. The A/E will prepare and submit a submittal log identifying all required submittals and distribute the log at the pre-construction meeting. Contractor may provide additional submittals in addition to those listed on the log.

D. All submittals shall be identified by the tracking number on the submittal log.

E. All submittals shall be made electronically. Utilize the electronic version of the DPMC 12/13 form and add additional pages containing the submittal data or drawings in a single .PDF file. The file name shall contain the tracking number and the submittal name, i.e. "301 Concrete Design Mix.pdf". Submittals shall be emailed to the A/E. The Subject line of the e-mails shall contain the Project number, submittal tracking number, and submittal description.

F. A/E approved submittals will be emailed to the Contractor and the DPMC Construction Project Manager (CPM). The Contractor will print three (3) copies of the A/E approved submittal and forward to the DPMC CPM.

G. A/E rejected copies will be emailed only to the Contractor.

H. Shop Drawings: Shop drawings and samples shall be dated and marked to show the name of the Project, Engineer, Contractor, originating subcontractor, manufacturer or supplier and detailer, if pertinent. Shop drawings shall completely identify Specification section and locations at which materials or equipment is to be installed. Reproduction of the contract drawings is acceptable as shop drawings only when specifically authorized in writing by the Engineer. Submission of shop drawings, manufacturer's specifications, installation instructions, material diagrams and samples shall be accompanied by the Contractor's transmittal form and DPMC form 12/13 as outlined in paragraph B of this section. **Where printed material describes more than one product or model, clearly identify which is to be furnished**. The Contractor is responsible for obtaining and distributing required prints of shop drawings to other prime contractors, subcontractors, and material suppliers after, as well as before, final approval. Prints of reviewed shop drawings shall be made which carries the Engineer's appropriate stamp.

I. Product Data:
   1. Submit only pages which are pertinent; mark each copy of standard printed data to specifically identify only pertinent products; identify each submittal by designated submittal reference number. Show standards, performance characteristics, and capacities; wiring and piping diagrams; controls; component parts; finishes; dimensions; and require clearances.
   2. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to work of this project. Delete information not applicable.

J. All submittals shall be made within thirty (30) calendar days of the Notice to Proceed.

K. Enforcement of Submittal Requirement:
   1. The Contractor will be required to provide shop drawings, testing, laboratory test reports, product samples and test installations in order to establish acceptable standards of workmanship.
   2. **The requirement for submittal and review of <u>all</u> specified shop drawings, test, product samples and test installations will be <u>rigorously enforced.</u>** General work of each section shall not commence prior to required review. All work conducted prior to the review of required submittals, including test installation, is subject to rejection by the Engineer. All rejected work shall be removed and replaced by the Contractor at no additional expense to the Owner.

L. Contractor's Examination of Submittals: Prior to forwarding submittals to the Engineer, the Contractor shall:

1. Review submittals to verify quantities, field measurements, field construction criteria, assembly and installation requirements, manufacturer's catalog numbers, and conformance of submittals with requirements of Contract Documents.

2. Review each submittal to determine that it is acceptable in terms of the means, methods, techniques, sequences and operations of construction, and in terms of safety precautions, all of which are the contractor's sole responsibility.

3. Clearly call to the Engineer's attention any submittal that varies from what the Contract Documents. Notify the Engineer in writing at time of submittal of any deviations from requirements of Contract Documents.

4. Clearly identify the products or product data which are pertinent to this Project. Clearly mark through or delete all information which is not applicable.

5. Stamp and sign each submittal to certify that the Contractor has checked for completeness and compliance with requirements of the contract documents and that the submittal has his/her approval.

    a. The stamp shall state: "I certify that I have reviewed the above submittal and have verified that products, field dimensions, quantities, and field construction criteria comply with and have been coordinated with the requirements of Work and Contract Documents".

    b. Samples or submittals which in the opinion of the Engineer have clearly not been checked for compliance by the Contractor will not be reviewed and it will be the responsibility of the Contractor to arrange for return of such submittals.

6. Do not fabricate products or begin work which requires submittal review until return of submittal with Engineer's acceptance. Work begun or completed prior to the Engineer's review of required submittals is subject to rejection. Remove and replace rejected work at no additional cost to the Owner.

M. Engineer's Review:

1 Allow fourteen (14) days (ten (10) business days) for Engineer's review of each submittal. Daily allowance is time in possession of Engineer and exclusive of delivery from and to Contractor and exclusive of resubmissions.

2. The Engineer's review is limited to aesthetics, general conformance with the project design intent, and general compliance with information contained in Contract Documents. The Engineer's review is neither a verification of Contractor's examination nor a substitution of Contractor's responsibilities. Engineer may inform Contractor of any conspicuous errors on a submittal without prejudice to being held harmless to Contractor's examinations and responsibilities.

3. Upon review, any action shown by the Engineer is subject to the requirements of the plans and specifications. The Engineer's review <u>does not</u> authorize changes in contract requirements unless a separate written directive or change order is issued. The Contractor is responsible for conforming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his or her work with that of all other trades, and performing all work in a safe and satisfactory manner.

4. **The Engineer will not review:**

    a. Any submittal which is not called for by the contract documents or not requested in writing by the Engineer.

B Any submittal which does not bear the Contractor's stamp and signature certifying that he has checked the submittal for completeness and compliance with the contract documents and that the submittal has his/her approval.

c. Any submittal which does not bear the project name and contract number and the contractors, subcontractors, and suppliers names, addresses, and phone numbers.

d. Any submittal which does not clearly identify pertinent product (if more than one are shown). Clearly mark through all information which is not applicable.

5. The Engineer will not accept and will not review "faxed" submittals or submittals copied from a telefaxed transmission unless previously authorized by the Engineer in the interest of the project.

N. The Contractor shall be required to make submittals, revise and resubmit as required and establish compliance with the specified requirements requested in all sections of these Technical Specifications that are a part of this Contract Document. These submittals include but are not limited to shop drawings, manufacturer's literature, samples, colors, mock-ups, inspection reports, certifications, and delivery receipts.

O. It is also the Contractor's responsibility, when so required by the Contract Documents or by written request from the State, to deliver all required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or industry standard.

P. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of the submittal and the Engineer has given approval of the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in the Shop Drawings or similar submittals by the Engineer's approval thereof.

1.6 CONTRACTOR'S PLANS AND PROCEDURES

A. Submit 7 copies of each plan/procedure, prepared in accordance with the specific requirements of the applicable Specification Section.

B. Unless otherwise specified in the applicable section, Contractor's plans and procedures are to be submitted to the DPMC a minimum of 15 calendar days prior to the scheduled commencement of the particular activity for which the plan has been developed.

1.7 PRODUCT DATA

A. Product Data includes printed information such as catalog cuts, manufacturer's instructions, performance curves, and other similar items.

B. Identify applicable products, models, options and other data whenever the product data sheets include multiple models or options.

C. Submit 7 originals of each product data sheet. If the data sheets do not contain color, shaded graphics or photographs, opaque copies may be submitted, rather than original data sheets.

1.8 SHOP DRAWINGS

A. Shop drawings include reinforcing steel placing drawings, structural steel or aluminum shop detail drawings and other similar items.

B. If the shop drawings are larger than 11x17-inches, submit one reproducible transparency and one opaque reproduction of each sheet. Otherwise, the submittal of 7 opaque copies of each sheet is acceptable.

1.9 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices, as required by individual Specification Sections.

B. Submit samples of finishes, textures and patterns for selection, as required by individual specification sections.

C. Each submittal must include 3 samples, one of which will be retained by the DPMC.

D. Include all project and Specification Section identification information on each sample.

1.10 DESIGN CALCULATIONS

A. Submit design calculations and/or design data, signed and sealed by the contractors licensed engineer when specified, as required by individual Specification Sections to demonstrate compliance with specification and/or drawing requirements.

B. Submit 7 sets of design calculations and/or design data.

C. The review of design calculations and/or design data by the Engineer does not constitute formal checking of these items, nor does it imply that the State assumes any responsibility for their accuracy, completeness or compliance with code requirements.

1.11 TEST REPORTS

A. Submit test reports as required by individual Specification Sections to demonstrate compliance with specification and/or drawing requirements.

B. Submit 4 sets of test results for each item specified.

C. Testing Agency shall be engaged by the Contractor pre-qualified by DPMC for required testing.

1.12 CERTIFICATES

A. Submit certificates as required by individual Specification Sections to demonstrate product source and compliance with specification and/or drawing requirements.

B. Submit 7 copies of each certificate.

1.13 OPERATION AND MAINTENANCE MANUALS

A. Submit operation and maintenance manuals for all equipment and other items, as required by individual Specification Sections.

B. Submit 6 copies of each manual.

1.14 ENGINEER'S REVIEW PROCEDURES

A. Submittals not specifically requested will not be recognized or reviewed.

B. Submittals for information or project close-out will be retained, but not reviewed.

C. Submittals that have not been reviewed by the Contractor prior to submission to the Owner will not be reviewed.

D. Submittals will generally be reviewed within 10 business days, not including delivery time to and from the Contractor, and returned to the Contractor for appropriate action.

E. The Review Stamp of the Engineer will indicate one of the following actions:

1. Approved: Proceed with work in compliance with Contract Documents.

2. Approved as Noted: Revise as noted and resubmit for record purposes; work may proceed in compliance with the Contract Documents and the comments indicated on the returned submittal.

3. Disapproved: Submittal is rejected; revise and resubmit. Do not proceed with work until the item has been resubmitted and has been Approved, or Approved as Noted, as described above.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION 01 33 00

SECTION 01 52 00
CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.1 SECTION INCLUDES
- A. Parking
- B. Staging and Storage Area
- C. Utilities

1.2 RELATED SECTIONS
- A. Division 01, Section 01 11 00, Summary of Work
- B. B. Division 01, Section 01 31 00, Project Management and Coordination

1.3 PARKING

A. Provide, maintain and restore a parking area suitable to accommodate off-street parking for Contractor's employees, as well as DPMC, Using Agency and Engineer's representatives.

B. Location of, and access to this parking area is to be coordinated with, and approved by the DPMC.

1.4 STAGING AND STORAGE

A. Provide and maintain staging and storage areas suitable to accommodate anticipated construction materials.

B. Location of and access to the staging and storage area is to be coordinated with and approved by the DPMC.

1.5 UTILITIES

A. Provide and maintain suitable temporary electric power.

B. Provide and maintain suitable temporary toilet facilities.

C. Provide and maintain temporary potable water service.

1.6 SECURITY

A. Provide and maintain suitable, lockable perimeter fencing to secure the construction area from unauthorized entry.

B. Security measures are the sole responsibility of the Contractor, and are to be coordinated with, and approved by the DPMC, prior to the start of work.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 Not Used

END OF SECTION 01 52 00

SECTION 01 57 19
TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Provide and maintain a suitable protection· for the natural environment, as described herein.

B. Control all forms of pollution, which develop during any and all phases of construction.

1.2 RELATED SECTIONS

A. Division 02, Section 02 40 00, Demolition

1.3 QUALITY ASSURANCE

A. Restrict construction and construction related activities (i.e. storage of equipment and materials) to those areas specifically designated on the Construction Drawings, or to other areas specifically approved by the Engineer.

B. Comply with all Federal, State and local environmental regulations.

C. Coordinate all environmental protection measures with the Engineer.

1.4 SUBMITTALS

A. Proposed equipment and procedures for providing and maintaining suitable protection for the natural environment, as described herein.

B. PRODUCTS

C. EQUIPMENT AND MATERIALS:

All equipment and materials for the protection of the natural environment must meet with the approval of the Engineer.

PART 2 - EXECUTION

2.1 The work to be performed shall include, but not be limited to the following:

A. Installation of temporary soil erosion controls including silt fence, inlet protection, stockpile protection, straw bales, sediment barriers, turbidity barriers, construction entrances, maintenance of soil erosion controls for the duration of construction, and removal and disposal of soil erosion controls at the conclusion of construction, and any other labor or materials required as required for soil erosion certification, and as depicted in the project plans and specified herein, and as directed by the Engineer.

B. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.

C. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

E. Standards for Soil Erosion and Sediment Control in New Jersey, N.J.A.C. 2:90-1.3, including the following Sections:

a. 3.11 Temporary Vegetative Cover for Soil Stabilization.

b. 3.31 Stabilization with Mulch Only.

c. 4.10.1 Dust Control.

d. 4.13.1 Sediment Barrier.

Materials and equipment shall be furnished in accordance with the Contract Documents, with attention to Paragraph 6.5 of the General Conditions, and shall meet the requirements of the reference or other standards as indicated below.

F. Materials must be as specified under "Standards for Soil Erosion and Sediment Control in New Jersey", N.J.A.C. 2:90-1.3.(2)

G. Temporary vegetative cover shall consist of annual ryegrass applied uniformly at a rate of 0.9 lbs. per 1,000 sq. ft. (40 lbs/ac). Limestone (pulverized dolomitic equivalent to 50 percent calcium plus magnesium oxides) shall be applied at the rate of 135 lbs/1,000 sq. ft. (3 tons/ac) and fertilizer (10-20-10 or equivalent) at the rate of 14 lbs/1,000 sq. ft. (600 lbs/ac).

H. When required for sites difficult to vegetate (sands, slopes, hydro-seeding and off-season operations), mulching shall be accomplished as follows:

A. Mulch Materials should be unrotted salt hay, hay, or small grain straw at a rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds per 1,000 sq. ft. Mulch blowers should not grind or chop material.

B. Spread Uniformly by hand or mechanically so that approximately 75% to 95% of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.

C. Mulch Anchoring shall be accomplished using either peg and twine, mulch netting, mulch-anchoring tool or liquid mulch-binder, per the accompanying "Stabilization with Mulch Only" specifications.

* Seeding dates: 2/15 - 5/1 and 8/15 - 10/15

I. Mulch materials should be unrotted salt hay, hay or small grain straw at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 lbs. per 1,000 sq. ft. Mulch blowers should not grind or chop the material.

J. Spread uniformly by hand or mechanically so that approximately 70 percent to 95 percent of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.

K. Mulch anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes and costs:

A. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 ft. in all drive directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a crisscross and a square pattern. Secure twine around each peg with two or more round turns.

B. Mulch Netting - Staple paper, jute, cotton or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

C. Mulch Anchoring Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Tool penetration should be about 3 to 4 inches. On sloping land, the operation should be done on the contour.

D. Liquid Mulch-binders - May be used to anchor salt hay, hay or straw mulches.

a. Applications should be heavier at edges where wind catches the mulch, in valleys and at crests of banks. Remainder of area should be uniform in appearance.

b. Use one of the following:

a) Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-2, CRS-1, and CRS-2).

Apply 0.04 gal/sq. yd. or 194 gal/ac on flat slopes and on slopes less than 8 ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.

b) Cutback asphalt rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800).

Apply 0.04 gal/sq. yd. or 194 gal/ac on flat areas and on slopes less than 8 ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.

c) Synthetic or Organic Binders - binders such as Curasol, DCA-70, Petro-set and Terra-tack may be used at rates recommended by the manufacturer to anchor mulch materials.

NOTE: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

L. Wood-fiber or paper-fiber mulch at the rate of 1,500 lbs. per acre may be applied by hydroseeder. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

M. Irrigation - (where feasible) - If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 in. twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

N. Install and maintain temporary measures for soil erosion and sediment control in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" and as shown on the plans. Quantities provided on the plans are estimated and may vary actual installation.

O. CONTRACTOR shall be responsible for immediate repairs of damages incurred by failure to maintain temporary measures for soil erosion and sediment control.

P. Install temporary seeding on all areas exposed for three (3) months or more.

Q. If applicable, CONTRACTOR must notify governing Soil Erosion Control Agency in writing at least 72 hours prior to beginning construction. Failure to do so may result in a fine by the Agency, which fine shall be the responsibility of the CONTRACTOR.

PART 3 - RESPONSIBLE TRADE, MEASUREMENT AND PAYMENT

3.1 RESPONSIBLE TRADE: The General Contractor is responsible for all aspects of environmental protection as required by this specification, the Contract Drawings and all appropriate agencies.

3.2 MEASUREMENT: N/A

3.3 PAYMENT: Total payment for environmental protection will be made under the total lump sum contract price for this project. This total payment will constitute full compensation for all labor, materials, equipment, and all other items necessary and incidental to the completion of the work, regardless of the actual cost to the Contractor.

END OF SECTION 01 57 19

SECTION 01 61 00
PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including Instructions to Bidders and General Conditions, and other Division 1 Specification Sections, apply to this Section.

1.2 SUBMITTAL PROCEDURES

A. The Contractor shall provide all submittals required by the Specifications. The Contractor shall also supply evidence by separate submittals that materials and equipment to be supplied meet the requirements of the Specifications.

B. DPMC 12/13: This form is to be used for submission and approval of all subcontractors, materials to be utilized in the construction, manufacturers/suppliers, and for professional services. Complete the Contractor Section as follows:

1. ***Submission Type:*** The Contractor is to place a check mark in the appropriate block(s) that applies to the submission.
2. ***Trade:*** The Contractor is to place a check mark in the appropriate block that identifies the trade related to the submission.
3. ***Contractor Name:*** The Prime Contractor submitting the form inserts his company name in the space indicated.
4. ***Description of Submittal:*** The Prime Contractor is to give a brief description of the submittal.
5. ***General Condition, Specification or Drawing section***: The Contractor is to identify the Article, Spec Section or Drawing that represents the submission type, i.e., *Article 4.11.2 Sleeve & Opening Drawing, or Spec Section 115575 Condensate Pump, or Drawing FP2.2 Ames Backflow Preventer.*
6. ***Vendor/Manufacturer/Supplier/Subcontractor:*** The Prime Contractor is to insert the name, address, and telephone number of the vendor/manufacturer/supplier or subcontractor for which he is requesting approval. (When required, insert the license number and registration number in the space provided, attach a copy of said license and certification.)

C. The A/E will prepare and submit a submittal log identifying all required submittals and distribute the log at the pre-construction meeting. Contractor may provide additional submittals in addition to those listed on the log.

D. All submittals shall be identified by the tracking number on the submittal log.

E. All submittals shall be made electronically. Utilize the electronic version of the DPMC 12/13 form and add additional pages containing the submittal data or drawings in a single .PDF file. The file name shall contain the tracking number and the submittal name, i.e. "301 Concrete Design Mix.pdf". Submittals shall be emailed to the A/E. The Subject line of the e-mails shall contain the Project number, submittal tracking number, and submittal description.

F. A/E approved submittals will be emailed to the Contractor and the DPMC Construction Project Manager (CPM). The Contractor will print three (3) copies of the A/E approved submittal and forward to the DPMC CPM.

G. A/E rejected copies will be emailed only to the Contractor.

H. Shop Drawings: Shop drawings and samples shall be dated and marked to show the name of the Project, Engineer, Contractor, originating subcontractor, manufacturer or supplier and detailer, if pertinent. Shop

drawings shall completely identify Specification section and locations at which materials or equipment is to be installed. Reproduction of the contract drawings is acceptable as shop drawings only when specifically authorized in writing by the Engineer. Submission of shop drawings, manufacturer's specifications, installation instructions, material diagrams and samples shall be accompanied by the Contractor's transmittal form and DPMC form 12/13 as outlined in paragraph B of this section. **Where printed material describes more than one product or model, clearly identify which is to be furnished**. The Contractor is responsible for obtaining and distributing required prints of shop drawings to other prime contractors, subcontractors, and material suppliers after, as well as before, final approval. Prints of reviewed shop drawings shall be made which carries the Engineer's appropriate stamp.

I. Product Data:
   1. Submit only pages which are pertinent; mark each copy of standard printed data to specifically identify only pertinent products; identify each submittal by designated submittal reference number. Show standards, performance characteristics, and capacities; wiring and piping diagrams; controls; component parts; finishes; dimensions; and require clearances.
   2. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to work of this project. Delete information not applicable.

J. All submittals shall be made within fifteen (15) calendar days of the Notice to Proceed.

K. Enforcement of Submittal Requirement:
   1. The Contractor will be required to provide shop drawings, testing, laboratory test reports, product samples and test installations in order to establish acceptable standards of workmanship.
   2. **The requirement for submittal and review of <u>all</u> specified shop drawings, test, product samples and test installations will be <u>rigorously enforced.</u>** General work of each section shall not commence prior to required review. All work conducted prior to the review of required submittals, including test installation, is subject to rejection by the Engineer. All rejected work shall be removed and replaced by the Contractor at no additional expense to the Owner.

L. Contractor's Examination of Submittals: Prior to forwarding submittals to the Engineer, the Contractor shall:
   1. Review submittals to verify quantities, field measurements, field construction criteria, assembly and installation requirements, manufacturer's catalog numbers, and conformance of submittals with requirements of Contract Documents.
   2. Review each submittal to determine that it is acceptable in terms of the means, methods, techniques, sequences and operations of construction, and in terms of safety precautions, all of which are the contractor's sole responsibility.
   3. Clearly call to the Engineer's attention any submittal that varies from what the Contract Documents. Notify the Engineer in writing at time of submittal of any deviations from requirements of Contract Documents.
   4. Clearly identify the products or product data which are pertinent to this Project. Clearly mark through or delete all information which is not applicable.
   5. Stamp and sign each submittal to certify that the Contractor has checked for completeness and compliance with requirements of the contract documents and that the submittal has his/her approval.
      a. The stamp shall state: "I certify that I have reviewed the above submittal and have verified that products, field dimensions, quantities, and field construction criteria comply with and have been coordinated with the requirements of Work and Contract Documents".
      b. Samples or submittals which in the opinion of the Engineer have clearly not been checked for compliance by the Contractor will not be reviewed and it will be the responsibility of the Contractor to arrange for return of such submittals.

6. Do not fabricate products or begin work which requires submittal review until return of submittal with Engineer's acceptance. Work begun or completed prior to the Engineer's review of required submittals is subject to rejection. Remove and replace rejected work at no additional cost to the Owner.

M. Engineer's Review:

1 Allow fourteen (14) days for Engineer's review of each submittal. Daily allowance is time in possession of Engineer and exclusive of delivery from and to Contractor and exclusive of resubmissions.

2. The Engineer's review is limited to aesthetics, general conformance with the project design intent, and general compliance with information contained in Contract Documents. The Engineer's review is neither a verification of Contractor's examination nor a substitution of Contractor's responsibilities. Engineer may inform Contractor of any conspicuous errors on a submittal without prejudice to being held harmless to Contractor's examinations and responsibilities.

3. Upon review, any action shown by the Engineer is subject to the requirements of the plans and specifications. The Engineer's review <u>does not</u> authorize changes in contract requirements unless a separate written directive or change order is issued. The Contractor is responsible for conforming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his or her work with that of all other trades, and performing all work in a safe and satisfactory manner.

4. **The Engineer will not review:**

   a. Any submittal which is not called for by the contract documents or not requested in writing by the Engineer.

   B Any submittal which does not bear the Contractor's stamp and signature certifying that he has checked the submittal for completeness and compliance with the contract documents and that the submittal has his/her approval.

   c. Any submittal which does not bear the project name and contract number and the contractors, subcontractors, and suppliers names, addresses, and phone numbers.

   d. Any submittal which does not clearly identify pertinent product (if more than one are shown). Clearly mark through all information which is not applicable.

5. The Engineer will not accept and will not review "faxed" submittals or submittals copied from a telefaxed transmission unless previously authorized by the Engineer in the interest of the project.

N. The Contractor shall be required to make submittals, revise and resubmit as required and establish compliance with the specified requirements requested in all sections of these Technical Specifications that are a part of this Contract Document. These submittals include but are not limited to shop drawings, manufacturer's literature, samples, colors, mock-ups, inspection reports, certifications, and delivery receipts.

O. It is also the Contractor's responsibility, when so required by the Contract Documents or by written request from the State, to deliver all required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or industry standard.

P. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data, Samples, or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of the submittal and the Engineer has given approval of the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in the Shop Drawings or similar submittals by the Engineer's approval thereof.

END OF SECTION 01 61 00

SECTION 01 73 00
EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

B. Construction Layout and As-Builts shall be performed in accordance with Section 157 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 edition.

1.2 SECTION INCLUDES

1. Construction layout.
2. Field engineering and surveying.
3. General installation of products.
4. Coordination of Owner-installed products.
5. Progress cleaning.
6. Starting and adjusting.
7. Protection of installed construction.
8. Site Restoration.

1.3 SUBMITTALS

B. Qualification Data: Professional Land Surveyor licensed in the state of New Jersey.

C. Certificates: Submit certificate signed by a professional land surveyor certifying that location and elevation of improvements comply with requirements.

D. Certified Layout and Cut Sheets: Submit two (2) paper copies, signed by professional land surveyor, and one electronic drawing in AutoCADD format, latest version, of the layout plan and cut sheets before earthwork operations begin.

E. Certified Final As-Built: Submit two (2) paper copies, signed by professional land surveyor, and one electronic drawing in AutoCADD format, latest version, of the final as-built of the entire site, demonstrating that the site (walkway, upland improvements, structures, and grading) was constructed in accordance with the mitigation plans, after all construction operations are complete.

1.4 QUALITY ASSURANCE

B. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

B. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

1. Before construction, verify the location and points of connection of utility services.

C. Existing Utilities: It is the Contractor's responsibility to locate and protect all underground utilities within project work area and fully comply with New Jersey's Underground Facility Protection Act. The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
3. If a conflict between any proposed project work and existing utilities is found by the Contractor, he shall notify the project manager immediately and protect said utilities until direction is given regarding the disposition of the said utilities.

D. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

   a. Description of the Work.
   b. List of detrimental conditions, including substrates.
   c. List of unacceptable installation tolerances.
   d. Recommended corrections.

2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

B. Existing Utility Information: Furnish information to ENGINEER that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

C. Hauling Route: The Contractor shall submit a proposed hauling route to the Project Engineer for approval. All haul route roads utilized by the Contractor for the performance of the work under the project shall be regularly maintained by the Contractor for the duration of the project in a condition deemed safe and satisfactory by the Engineer. Road maintenance shall be performed promptly and as directed by the Engineer and shall include, but not be limited to, the filling of pot holes or depressions with cold-mixed bituminous concrete material; and the control of excessive road dust by watering, or applying calcium chloride, or by other means satisfactory to the Engineer.

D. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

E. Project Signs: The furnishing and maintaining of warning signs, signals, barricades, and watchmen, as necessary for the safety and protection of the public, particularly during construction. Barriers shall be provided as required along with 18”x24” “Danger Keep Out” signs attached at 15 foot spacing. Secured snow fencing may be used to secure the area at the end of each day. Also, the work area shall be sufficiently lightened with spotlights during the nighttime house and left on overnight, to prevent against trespassing and possible vandalism. Should the lights prove to be offensive to the homes/business in the surrounding area, the Contractor may need to modify the strength and/or orientation of the floodlights. It is the Contractor’s responsibility to furnish and maintain all required warning signs, signals, barricades, police officers and watchmen as necessary for the safety and protection of the general public and as further required in order to fully comply with all Local, State and Federal laws and regulations.

F. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

G. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to ENGINEER. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.3 CONSTRUCTION LAYOUT

B. Verification: Before proceeding to lay-out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify ENGINEER promptly. CONTRACTOR will be provided with electronic drawings of the entire project before construction begins. CONTRACTOR will be responsible for utilizing these drawings as he sees fit to create the layout plans as required by the ENGINEER.

C. General: Engage a professional land surveyor to lay-out the Work using accepted surveying practices.

1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
3. Inform installers of lines and levels to which they must comply.
4. Check the location, level and plumb, of every major element as the Work progresses.
5. Notify ENGINEER when deviations from required lines and levels exceed allowable tolerances.
6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.

D. Site Improvements: Locate and layout site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by ENGINEER.

3.4 CONSTRUCTION AS-BUILTS

B. All as-built submissions will be considered shop drawings and will be reviewed by the ENGINEER and returned to the CONTRACTOR within the time frame allowed by the contract documents. Each as-built must be approved by the ENGINEER before the CONTRACTOR can proceed with construction.

C. Before As-Builts begin, the CONTRACTOR shall verify the benchmark information provided by the ENGINEER and insure the as-builts will be performed in the same coordinate system that was provided by the ENGINEER.

D. Final As-Builts shall be performed as required to demonstrate that the entire site (walkway, grading, upland improvements, and site structures) has been constructed in accordance with the plans, after all construction is complete.

3.5 FIELD ENGINEERING

B. Identification: Owner will identify existing benchmarks, control points, and property corners.

C. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

1. Do not change or relocate existing benchmarks or control points without prior written approval of ENGINEER. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to ENGINEER before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

D. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.

1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

3.6 INSTALLATION

B. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.

C. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

D. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

E. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

F. Utilities: Temporary disconnection and subsequent reconnection if necessary of any utility, electric, cable T.V., telephone, and water that may be necessary for the construction of this project.

G. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

H. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

I. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by ENGINEER.
2. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

J. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

K. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.7 PROGRESS CLEANING

B. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

C. Site: Maintain Project site free of waste materials and debris.

D. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, provide water trucks to suppress dust.

E. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

F. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

G. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

J. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

K. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

C. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.

D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

E. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

B. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

C. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 SITE RESTORATION

1. Site Restoration shall be performed in accordance with the Ocean County Soil Conservation District Soil Erosion and Sediment Control Specifications, as well as Sections 804, 806, and 809 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 edition, and the Supplementary Specifications.
2. Contractor shall restore disturbed lawn areas in Project Area I ("Bara" Section) with topsoil, fertilizer and seed if no other material is defined.
3. Stone landscaping shall be installed adjacent to the Maintenance Building where indicated on the plans. Landscaping stone shall be placed at a minimum 6" in thickness. Contractor shall line landscaping rock beds with a double layer of geotextile weed barrier. Weed barrier layers shall be installed perpendicular to each other.

C. SUBMITTALS

1. Product Data: For each type of product indicated.
2. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
3. Qualification Data: For landscape Installer.
4. Material Test Reports: For existing surface soil and imported topsoil.
5. Planting Schedule: Indicating anticipated planting dates for each type of planting

D. QUALITY ASSURANCE

1. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.
2. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
3. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
4. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
5. Report suitability of topsoil for lawn growth. State recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.

E. DELIVERY, STORAGE, AND HANDLING

1. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

F. SCHEDULING

Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

1. Spring Planting: 3/1-4/30
2. Fall Planting: 8/15-11/15

Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

G. LAWN MAINTENANCE

1. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
2. Lawns: 3 months from date of Substantial Completion.

a. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.

3. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.
4. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch. Anchor as required to prevent displacement.
5. Watering: Provide and maintain temporary lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.
6. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
7. Water lawn at a minimum rate of 1 inch per week.
8. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 40 percent of grass height. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height.
   a. Mow grass 1 to 2 inches high.

   Lawn Post fertilization: Apply fertilizer after initial mowing and when grass is dry.
9. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. to lawn area.

H. SEED

1. Seed shall be Type A-3 Grass Seed Mixture as specified in Section 917.05 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 edition.

I. TOPSOIL

Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 6 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.

1. Topsoil Source: Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
   a. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.
2. Topsoil Source: Import topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.
3. Topsoil Source: Amend existing in-place surface soil to produce topsoil. Verify suitability of surface soil to produce topsoil. Clean surface soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
   a. Surface soil may be supplemented with imported or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.

J. INORGANIC SOIL AMENDMENTS

Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:

1. Class: Class T, with a minimum 99 percent passing through No. 8 sieve and a minimum 75 percent passing through No. 60 sieve.

K. ORGANIC SOIL AMENDMENTS

Compost is a widely used bulk organic soil amendment and a recycled product. Because it is applied at much greater rates than fertilizer, compost has a significant cumulative effect on nutrient availability and may reduce or eliminate initial fertilization.

1. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1/2-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
2. Organic Matter Content: 50 to 60 percent of dry weight.

L. FERTILIZER

Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

M. STRAW MULCH

1. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
   a. Asphalt Emulsion: ASTM D 977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.

N. EXAMINATION

1. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

O. PREPARATION

1. Final surface restoration within project limits to consist of evenly grading the site, and providing topsoil, fertilizer and seeding at disturbed areas, unless noted otherwise. Stone landscaping shall be provided where depicted on the plans, as directed by the Engineer.
2. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
3. Protect adjacent and adjoining areas from hydro seeding overspray.
4. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

P. LAWN PREPARATION

1. Limit lawn subgrade preparation to areas to be planted.
2. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 6 inches. Remove stones larger than 2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
   a. Apply fertilizer directly to subgrade before loosening.

b. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
   1) Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
   2) Mix lime with dry soil before mixing fertilizer.

c. Spread planting soil mix to a depth of 6 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

3. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future.
4. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
5. Restore areas if eroded or otherwise disturbed after finish grading and before planting.

Q. SEEDING

Seed shall be placed as specified in Section 806 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007 edition.

1. SATISFACTORY LAWNS

Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches.

2. CLEANUP AND PROTECTION

Promptly remove soil and debris created by lawn work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

Erect barricades and warning signs as required to protect newly planted areas from traffic. Maintain barricades throughout maintenance period and remove after lawn is established.

a. Remove erosion-control measures after grass establishment period.

END OF SECTION 01 73 00

SECTION 02 41 19
SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

A. Demolition and removal of selected portions of structures.
B. Demolition and removal of selected site elements.
C. Salvage of existing items to be reused or recycled.

1.3 DEFINITIONS

D. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

E. Remove and Salvage: Detach items from existing construction and deliver them to Owner, ready for reuse.

F. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

G. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity and any interruption of utility services.

B. Predemolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Comply with Division 01 Section "Photographic Documentation." Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1. Comply with submittal requirements in Division 01 Section "Construction Waste Management and Disposal."

1.5 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Contractor to take pre-demolition photographs and videotapes. Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.

C. Survey of Existing Conditions: Record existing conditions by use of measured drawings, preconstruction photographs, and preconstruction videotapes.

D. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

E. Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

B. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner. Owner will remove hazardous materials under a separate contract.

D. Storage or sale of removed items or materials on-site is not permitted.

E. Utility Service:

1. No utilities are anticipated to be affected by the proposed demolition.

2. If Contractor encounters utilities during selective demolition operations, work shall immediately be stopped, and the Engineer and Owner shall be notified for resolution.

1.7 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Engineer and Owner.

D. Survey of Existing Conditions: Record existing conditions by use of measured drawings, preconstruction photographs, and preconstruction videotapes.

1. Comply with requirements specified in Division 01 Section "Photographic Documentation."

E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems:

1. No utilities or mechanical/electrical systems are anticipated to be affected by the proposed demolition operations, except noted otherwise.

2. If Contractor encounters utilities or mechanical/electrical systems during selective demolition operations, work shall immediately be stopped, and the Engineer and Owner shall be notified for resolution.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, marine channels, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly.

B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition, cleaned**,** and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 41 19

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies cast-in place concrete associated with (but not limited to) concrete materials, mixture design, placement procedures, and finishes.

1.3 SUBMITTALS

B. Product Data: For each type of manufactured material and product indicated.

C. Design Mixes: For each concrete mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mix water to be withheld for later addition at Project site.

D. Steel Reinforcement Shop Drawings: Details of fabrication, bending, and placement, prepared according to ACI 315, "Details and Detailing of Concrete Reinforcement." Include material, grade, bar schedules, stirrup spacing, bent bar diagrams, arrangement, and supports of concrete reinforcement. Include special reinforcement required for openings through concrete structures. Provide documentation for conformance with ASTM A1035 requirements.

E. Welding Certificates: Copies of certificates for welding procedures and personnel.

F. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:

1. Cementitious materials and aggregates.
2. Form materials and form-release agents.
3. Steel reinforcement and reinforcement accessories.
4. Admixtures.
5. Curing materials.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed concrete Work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.

1. Manufacturer must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities.

C. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.

E. Welding: Qualify procedures and personnel according to AWS D1.4, "Structural Welding Code--Reinforcing Steel."

F. ACI Publications: Comply with the following, unless more stringent provisions are indicated:

1. ACI 301, "Specification for Structural Concrete."
2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings."

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

C. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

1. Furnish units that will leave no corrodible metal closer than 1 inch to the plane of the exposed concrete surface.
2. Furnish ties that, when removed, will leave holes not larger than 1 inch in diameter in concrete surface.

2.2 STEEL REINFORCEMENT

A. Reinforcing Bars: Deformed, galvanized or Steel reinforcing in accordance with ASTM A 615, Grade 60 minimum.

2.3 REINFORCEMENT ACCESSORIES

1. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, or plastic.

2.4 CONCRETE MATERIALS

A. Portland Cement: ASTM C 150, Type I/II.

B. Normal-Weight Aggregate: ASTM C 33, uniformly graded, and as follows:

1. Class 3S, Severe Weathering Region.
2. Nominal Maximum Aggregate Size: 1-1/2 inches.
3. Combined Aggregate Gradation: Well graded from coarsest to finest with not more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 sieve, and less than 8 percent may be retained on sieves finer than No. 50.

C. Water: Potable and complying with ASTM C 94.

2.5 ADMIXTURES

A. General: Admixtures certified by manufacturer to contain no more than 0.1 percent water-soluble chloride ions by mass of cementitious material and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride.

B. Air-Entraining Admixture: ASTM C 260.

C. Water-Reducing Admixture: ASTM C 494, Type A.

D. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.

E. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.

F. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

2.6 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film-forming, manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.

C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

E. Clear, Solvent-Borne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

F. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

2.7 RELATED MATERIALS

A. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

2.8 CONCRETE MIXES

A. Prepare design mixes for each type and strength of concrete determined by either laboratory trial mix or field test data bases, as follows:

1. Proportion normal-weight concrete according to ACI 211.1 and ACI 301.

B. Proportion normal-weight concrete mix as follows:

1. Compressive Strength (28 Days): 3500 psi.
2. Maximum Slump: 4 inches.
3. Maximum Slump for Concrete Containing High-Range Water-Reducing Admixture: 8 inches after admixture is added to concrete with 2- to 4-inch slump.

C. Maximum Water-Cementitious Materials Ratio: 0.40 for corrosion protection of steel reinforcement in concrete exposed to chlorides from deicing chemicals, salt, saltwater, brackish water, seawater, or spray from these sources.

D. Air Content: Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content as follows within a tolerance of plus 1 or minus 1.5 percent, unless otherwise indicated:

1. Air Content: 5.5 percent for 1-1/2-inch- nominal maximum aggregate size.

E. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

F. Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing admixture or high-range water-reducing admixture (superplasticizer) in concrete, as required, for placement and workability.
2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.50.

2.9 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.10 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94, and furnish batch ticket information.

B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94. Mix concrete materials in appropriate drum-type batch machine mixer.

1. For mixer capacity of 1 cu. yd. or smaller, continue mixing at least one and one-half minutes, but not more than five minutes after ingredients are in mixer, before any part of batch is released.
2. For mixer capacity larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd.
3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until concrete structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Limit concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
1. Class B, 1/4 inch
2. Class C, 1/2 inch

D. Construct forms tight enough to prevent loss of concrete mortar.

E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical. Kerf wood inserts for forming keyways, recesses, and the like, for easy removal.

1. Do not use rust-stained steel form-facing material.

F. Do not chamfer corners or edges of concrete, unless otherwise shown on design drawings.

G. Form openings, chases, offsets, and keyways required in the Work. Determine sizes and locations from trades providing such items.

H. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

I. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

J. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices, pipe sleeves, and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use Setting Drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 REMOVING AND REUSING FORMS

A. General: Formwork, for sides of beams, walls, columns, and similar parts of the Work, that do not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete provided concrete is hard enough to not be damaged by form-removal operations and provided curing and protection operations are maintained.

B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets.

3.4 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

E. Install welded wire fabric in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

3.5 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.

1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints, unless otherwise indicated.
2. Form from preformed galvanized steel, or plastic keyway-section forms with keys, unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
3. Locate joints for beams, slabs, joists, and girders in the middle third of spans.
4. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

3.6 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Comply with recommendations in ACI 304R for measuring, mixing, transporting and placing concrete.

C. Do not add water to concrete during delivery, at Project site, or during placement, unless approved by Engineer.

D. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation.

E. Deposit concrete in forms in horizontal layers no deeper than 24 inches and in a manner to avoid inclined construction joints. Place each layer while preceding layer is still plastic, to avoid cold joints.

1. Consolidate placed concrete with mechanical vibrating equipment. Use equipment and procedures for consolidating concrete recommended by ACI 309R.
2. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations no farther than the visible effectiveness of the vibrator. Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mix constituents to segregate.

F. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.

G. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows, when hot-weather conditions exist:

1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.7 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched. Remove fins and other projections exceeding ACI 347R limits for class of surface specified.

B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.8 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with recommendations of ACI 306.1 for cold-weather protection and with recommendations of ACI 305R for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

   a. Water.

b. Continuous water-fog spray.
c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.9 FIELD QUALITY CONTROL

A. Testing Agency: Engage a DPMC Pre-Qualified testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in ACI 301.

B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mix exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.

a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mix, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; ASTM C 173, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
6. Compression Test Specimens: ASTM C 31; cast and laboratory cure one set of four standard cylinder specimens for each composite sample.

a. Cast and field cure one set of four standard cylinder specimens for each composite sample.

7. Compressive-Strength Tests: ASTM C 39; test two laboratory-cured specimens at 7 days and two at 28 days.

a. Test two field-cured specimens at 7 days and two at 28 days.
b. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at age indicated.

C. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.

D. Strength of each concrete mix will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

E. Test results shall be reported in writing to the Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-and 28-day tests.

END OF SECTION

SECTION 06 05 73
WOOD TREATMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including Instructions to Bidders and General Conditions, and other Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

A. Requirements for wood preservative treatment for dimensional lumber, decking, and laminated lumber.

1.3 RELATED SECTIONS

A. Section 06 40 00 – Timber Dock and Breakwater Construction

1.4 REFERENCES

A. American Wood Protection Association (AWPA):
1. Standard U1, Wood treated with preservative system
2. Standard T1, Use Category System
3. Standard A, Analytical
4. Standard M, Quality Control

B. National Institute of Standards and Technology (NIST):
1. PS 1, U.S. Product Standard for Construction and Industrial Plywood
2. PS 20, American Softwood Lumber Standard

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping:
1. Provide waterproof covers for preservative treated wood during shipment.

B. Storage and Protection:
1. Store preservative treated wood off the ground and protected from the weather.

PART 2 - PRODUCTS

2.1 MATERIALS

Lumber for preservative treatment must conform to the following:

A. Lumber: In accordance with SPIB and as follows:
1. Grade: No. 2 Dense, or better
2. Species: Southern pine
3. Surfacing: S4S

2.2 PRESERVATIVE TREATMENT

A. UC5B - MARINE USE Central Waters – Wood, and wood based materials, exposed to salt and brackish water between New Jersey and Georgia on the east coast and south of San Francisco on the west coast to the extent that the marine borers can attack them. This includes areas where creosote tolerant Limnoria tripunctata is present, but lacks those borers listed under UC5C. This includes piling and bracing, bulk-heading, or other construction that is actually exposed at some time during the year to salt water.

2.3 SOURCE QUALITY CONTROL

A. Inspection:

1. Untreated Material:
   a. Lumber: Provide lumber that has been inspected and graded by an ALSC recognized grading agency.
   b. Plywood: Provide plywood that has been inspected and graded before treatment by a Code-recognized inspection and testing agency.

2. Treated Material: Provide treated material that bears the Natural Select trademark and the quality mark of an ALSC-recognized agency which maintains supervision, testing, and inspection of the quality of the product. Quality marks shall be affixed to each piece and include the following:
   a. Identification of the inspection agency
   b. Identification of the standard to which the material was treated
   c. Identification of the treating facility
   d. Identification of the preservative and retention
   e. Identification of the end use for which the product is suitable

2.4 MISCELLANEOUS MATERIALS

A. Fasteners and Anchorages: Provide size, type material, and finish as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers, and anchoring devices. Provide metal hangers and framing anchors of the size and type recommended by the manufacturer for each use, including recommending nails. Provide stainless steel fasteners and anchorages, or a hot-dip galvanized coating meeting ASTM A 153, ASTM Standard A653 (Class G-185)

PART 3 - EXECUTION

3.1 INSTALLATION

A. Surface Treatment of Field Cuts: Treat field cuts on members that provide structural support to a permanent structure in accordance with AWPA Standard M4.

END OF SECTION 06 05 73

SECTION 06 40 00
TIMBER DOCK AND BREAKWATER CONSTRUCTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. *"National Design Specification for Wood Structures" (NDS), 2015 Edition*, and all supplements, as published by the American Forest & Paper Association and the American Wood Council. (ANSI / AF&PA NDS-2015)

B. American Wood Preservers' Association (AWPA) Standards 2015

1.2 SUMMARY

A. The work under this item is to be bid upon and executed on a lump sum basis. Work shall include the reconstruction of the timber framed fixed dock and timber portions of the breakwater.
B. Work shall include timber framing and planks, timber piles, hardware, signage, accessories, and all associated incidental construction required for the reconstruction as shown on the project plans and specified herein.

1.3 GENERAL

A. Section Includes:
   (1) Timber framing.
   (2) Round timber piles (also reference Driven Piles – more stringent shall govern)
   (3) Hardware, connections, and accessories for timber construction.

B. Reference Standards:
   (1) Timber materials and design of timber structures shall be in complete accordance with the "National Design Specification for Wood Structures" (NDS), 2015 Edition, and all supplements, as published by the American Forest & Paper Association and the American Wood Council. (ANSI / AF&PA NDS-2015)

   (2) Preservative treatment of all timber materials shall be in complete accordance with the "American Wood Preservers' Association (AWPA) Standards 2005.

C. Submittals:
   (1) Product Data:
      a. For preservative-treated wood products.
      b. For prefabricated timber connectors.
      c. For each type of product indicated.

   (2) Material Certificates: For lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.

   (3) For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

   (4) Shop Drawings: Show fabrication and installation details for piles, including details of driving shoes, tips or boots, and pile butt protection.

   (5) Round timber pile treatment data.

   (6) Pile-Driving Equipment Data: Include type, make, and rated energy range; weight of striking part of hammer; weight of drive cap; and, type, size, and properties of hammer cushion.

   (7) Pile-driving records.

   (8) Field quality-control reports.

1.4 PRODUCTS AND MATERIALS

A. LUMBER, GENERAL:

(1) Lumber: Comply with DOC PS 20 and with applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by ALSC's Board of Review.

(2) Provide lumber graded by an agency certified by ALSC's Board of Review to inspect and grade lumber under the rules indicated. Factory mark each item with grade stamp of grading agency.

(3) For items that are exposed to view in the completed Work, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.

(4) Provide dressed lumber, S4S, unless otherwise indicated.

B. DIMENSION LUMBER, PLANKS AND BOARDS:

(1) Material shall be Southern Pine, No. 2 Grade or better per SPIB grading standards, and with all material properties and allowable stresses in accordance with NSD Supplement, Table 4B.

(2) Maximum Moisture Content: 19 percent.

C. PRESERVATIVE TREATMENT:

(1) Pressure treat all boards and dimension lumber with waterborne preservatives according to AWPA Standard U1-05.

(2) Preservative Chemicals: Preservative chemicals shall be acceptable to authorities having jurisdiction.

(3) Typical Timber Framing: Except as noted below, all timber material shall be treated as follows:

a. AWPA Use Category:UC5B for wood used in salt-water exposure, New Jersey.
b. Commodity: “Lumber/Timbers” per AWPA U1-05, Table 3-1
c. Treatment chemical shall be CCA preservative, in accordance with AWPA Standard P5-05, “Standard for Waterborne Preservatives”.
d. Treatment with CCA shall include post-treatment fixation process.
e. CCA treatment for sawn timber framing shall be to a rate of: 2.5 pcf in accordance with AWPA Standard U1-05, Table 3.0
f. No substitutions of other treatments shall be permitted.

(4) After treatment, redry all timber materials to 19 percent maximum moisture content.

(5) Application: Treat all exterior rough carpentry unless otherwise indicated.

(6) All field cuts shall be field-treated with preservative in accordance with applicable AWPA standards and procedures.

D. FASTENERS:

(1) General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate, or with length as shown on the design drawings.

(2) Use stainless steel fasteners complying with ASTM A 153, Class C, unless otherwise indicated.

(3) Bolts, Nuts, and Washers: ASTM A307 heavy hex steel bolts; ASTM A563 heavy hex carbon-steel nuts; and ASTM F436 hardened carbon-steel washers.

(4) All lag bolts shall be installed using pilot and clearance holes in connected timber elements in strict accordance with the requirements of NDS Section 11.1.3. (G=0.55)

(5) All bolts located towards the water, where contact by boats is possible, shall be recessed, countersunk, or otherwise protected and shall not extend past the faces of the timber framing to reduce the possibility of damage to boats.

(6) Nails: All nails shall be stainless steel, ringshanked or spirally-wound nails, of sizes as shown on the design drawings, or suitable for the connected elements if sizes not shown. Deck planks shall be attached to joists using two (2) screws at each supporting joist for 2x6 planks or two (2) nails at each supporting joist for 2x4 planks.

E. STEEL CONNECTIONS:

(1) Prefabricated Timber Connectors:

a. Contractor shall submit complete data on all prefabricated timber connectors proposed for use, for review by the Engineer. Submitted data shall include load capacities for all connectors.

b. Connector sizes and types shall be as shown on the design drawings and details.

c. Connectors shall be installed using all fasteners as recommended by the connector manufacturer to attain the maximum published connector load capacities.

Twist straps for connection of pier joists to girders shall be 14-ga. stainless steel, Type 304. Manufacturer's standard electro-galvanized or hot-dip galvanized prefabricated connectors will not be accepted. At Contractor's option, and with the specific approval of the Engineer, galvanized steel twist straps as specified in the following paragraph may be substituted for stainless steel prefabricated twist straps.

(2) Structural Steel Brackets and Connectors:

a. All plates, straps, angles, fabricated brackets, and similar structural steel elements shall be fabricated of steel material in accordance with ASTM A36.

b. All structural steel elements shall be hot-dip galvanized in accordance with ASTM A123, with 20 oz. zinc per square foot, minimum.

c. Twist straps used in lieu of prefabricated stainless steel twist straps shall be as follows:

i. Material shall be ASTM A36 steel
ii. Twist straps shall be minimum ¼" thick x 1 ¼" wide sections.
iii. Twist straps shall be hot-dip galvanized in accordance with ASTM A123.
iv. Twist straps shall be secured with a total of four (4) 3/8" diameter x 2" lag bolts, two (2) into each connected wood member. Lag bolts shall be hot-dip galvanized in accordance with ASTM A153, as noted above.

d. For additional specifications on Structural Steel, refer to requirements as specified in Section 11:05 of this specification.

F. TIMBER PILES

1. Round Timber Piles: ASTM D 25, Class B, unused, clean peeled, one piece from butt to tip; of the following species and size basis:

(1) Species: Southern yellow pine.
(2) Size Basis: Class B
(3) Timber piles shall have minimum tip diameter of 8 in. and butt diameter of 12" in all locations, unless otherwise noted on the design drawings.
(4) Length of piles shall be as required to attain top elevations as shown on the design drawings, and to attain the specified load capacities.
(5) Timber piles shall be air-seasoned prior to kiln drying.
(6) Pressure-treat round timber piles according to AWPA Standard U1-05 as follows:
a) AWPA Use Category: UC5B for wood used in salt-water exposure, New Jersey.
b) Commodity: "Piles, round" per AWPA U1-05, Table 3-1

c) Treatment chemical:
Treatment chemical shall be CCA preservative in accordance with AWPA Standard P5-05, “Standard for Waterborne Preservatives”.
Preservative chemicals shall be acceptable to authorities having jurisdiction.
Treatment with CCA shall include post-treatment fixation process.
CCA treatment for timber piles in designated timber species shall be to a rate of 2.5 pcf in accordance with AWPA Standard U1-05, Table 3.0.

G. PILE ACCESSORIES

1. Driving Shoes: Fabricate from ASTM A 1011/A 1011M, hot-rolled carbon-steel strip to suit pile-tip diameter.

1.5 FABRICATION

A. Pile Tips: Cut and shape pile tips to accept driving shoes. Fit and fasten driving shoes to pile tips according to manufacturer's written instructions.
B. Pile Butt: Trim pile butt and cut perpendicular to longitudinal axis of pile. Chamfer and shape butt to fit tightly to driving cap of hammer.
C. Field-Applied Wood Preservative: Treat field cuts, holes, and other penetrations according to AWPA Standard M4-02.
D. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals.

1.6 EXECUTION:

A. Driving Piles:
1. General: Continuously drive piles to elevations or penetration resistance indicated. Establish and maintain axial alignment of leads and piles before and during driving.
2. All piles shall be driven by an approved gravity, steam, or diesel hammer. Pile driving hammer shall have a reated energy of 15,000 ft-lbs per blow, minimum. Jetting of piles is not permitted. If extremely had driving materials exist and conditions persist, contractor shall contact the Engineer to determine the possible limited use of jetting.
3. Appropriate pile cushioning shall be provided during pile driving, in accordance with the pile supplier’s recommendations, in accordance with industry standards, and as approved by the Engineer.
4. Piles shall be driven vertically (plumb). Contractor shall use a piling guide as necessary to ensure piling is installed plumb.
5. Tolerance for pile setting and horizontal location shall be +/-2 in. in any direction. Tolerance for plumbness of piles
6. shall be 1” maximum per 10’-0” of pile length, or a maximum of 4”, measured when pile is aboveground in leads.
7. Withdraw damaged or defective piles and piles that exceed driving tolerances and install new piles within driving tolerances. Fill holes left by withdrawn piles as directed by Engineer.
8. Cut off butts of driven piles square with pile axis and at elevations indicated.
9. Pile-Driving Records: Maintain accurate driving records for each pile.

B. Field-treat cut-off ends of piles for weather protection. Use same chemical as used for original treatment of piles, or waterproof sealant. Submit sealant data for review by the Engineer.

C. Heaved Piles:
1. Redrive heaved piles to tip elevation at least as deep as original tip elevation with a driving resistance at least as great as original driving resistance.

END OF SECTION 06 40 00

SECTION 06 45 00
COMPOSITE DECKING

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Composite Decking

1.2 REFERENCES

A. ASTM D-7032-04: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails), ASTM International.
B. ASTM D-7031-04: Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products, ASTM International
C. ASTM E-84-01: Test Method for Surface Burning Characteristics of Building Materials, ASTM International.
D. ASTM D 570: Water Absorption of Plastics
E. ASTM D 1761: Mechanical Fasteners in Wood
F. ASTM D -1413-99: Test method for Wood Preservatives by Laboratory Soilblock Cultures
G. ASTM C177: Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus

1.3 DESIGN/PERFORMANCE REQUIREMENTS

A. Structural Performance
   (1) Deck: Uniform Load – 100lbf/sq. ft.

1.4 SUBMITTALS

A. Product Data Indicate sizes, profiles, surface style, and performance characteristics

B. Samples: For each product specified, one sample representing actual product color, size, and finish.

1.5 DELIVERY, STORAGE AND HANDLING

A. Store products on a flat and level surface. Adjust support blocks accordingly.

B. Support bundles on supplied dunnage.

C. When stacking bundles, supports should start approximately 8” from each end and be spaced approximately 2ft on center. Supports should line up vertically/perpendicular to the decking product.

D. Do not stack decking more than 14 bundles.

E. Keep material covered using the provided bundle cover until time of installation.

PART 2 – PRODUCTS

2.1 APPLICATIONS/SCOPE

A. Wood-PlasticComposite Lumber;
   a. Material Description: Composite Decing consisting of recycled Linear Low Density Polyethylene (LLDPE) and recycled wood. The product is to be extruded into shapes and sizes as follows:
      i. Board Size – 2x6 Nominal
      ii. Length – 12’
      iii. Color – Per Owner
      iv. Board Spacing – ½”
   b. Physical and Mechanical Properties as follows:

Test	Test Method	Value	
Flame spread	ASTM E 84	60(Transcend) / 85(Enhance)	
Thermal Expansion	ASTM D 1037	1.9 x 10-5 inch/inch/degreeF	
Moisture Absorption	ASTM D 1037	< 1%	
Screw Withdrawal	ASTM D1761	558 lbs/in	
Fungus Resistance	ASTM D1413	Rating - no decay	
Termite Resistance	AWPAE1-72	Rating = 9.6	
		Ultimate (Typical)Values *	Design Values
Compression Parallel	ASTM D198	1588 psi	540 psi
Compression Perpendicular	ASTM D143	1437 psi	540 psi
Bending Strength	ASTM D198	3280 psi	500 psi
Shear Strength	ASTM D143	1761 psi	360 psi
Modulus of Elasticity	ASTM D4761	412,000psi	200,000 psi
Modulus of Rupture	ASTM D4761	3280 psi	500 psi

2.2 ACCESSORIES

A. Fasteners according to manufacturers recommendations.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install according to manufacturers guidelines.

B. Cut, drill and rout using carbide tipped blades.

END OF SECTION 06 45 00

SECTION 06 49 00
COMPOSITE WAVE SCREEN BOARDS

PART 1 – GENERAL

1.1 GENERAL INFORMATION

A. Product must be made from 100% recycled plastic high density polyethylene (HDPE).
B. Product must be a continuous single piece construction.
C. Product to contain fiber reinforced polymer rebar.

1.3 SUBMITTALS

A. Product Data Indicate sizes, profiles, surface style, and performance characteristics

B. Samples: For each product specified, one sample representing actual product color, size, and finish.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store products on a flat and level surface. Adjust support blocks accordingly.

B. Keep material covered until time of installation.

PART 2 – PRODUCTS

2.1 PRODUCT SELECTION

A. Approved Manufacturers:
   a. Bar Force;
   b. Fiber Force;
   c. Bedford Technology;
   d. Or Approved Equal.

2.2 APPLICATIONS/SCOPE

B. Recycled Plastic Lumber;
   a. Material Description: Plastic Lumber consisting of recycled Plastic High Density Polyethylene (HDPE) and fiber reinforced polymer rebar. The product is to be as follows:
      i. Board Size – 4x12 Nominal (3 ½”x11 ¼”)
      ii. Rebar Size & Quantity – 2-¾”
      iii. Max. Length – 20’
      iv. Weight (lbs) per Foot – 16.5
      v. Color – Per Owner
   b. Product to be made to length, or if cut proper end treatment shall be provided.
   c. 4x12 Physical and Mechanical Properties as follows:

TEST	ASTM TEST	VALUE	ENGLISH UNITS
MOR	D6109-97	5487	PSI
Flexural Modulus	D6109-97	603000	PSI
Specific Gravity	D6111-97	0.99	g/cc
Flash Point		340	Deg C
Moisture Absorption		0.06	% by Weight
Average Screw Pull Out	D6117	646	Lbs
Static Coefficient of Friction –Dry	D2394-83(99)	.53	
Static Coefficient of Friction-Wet	D2394-83(99)	.51	
Sliding Coefficient of Friction-Dry	D2394-83(99)	.23	
Sliding Coefficient of Friction-Wet	D2394-83(99)	.51	
Flame Spread	E84(03a)	62	
Flame Spread Classification	E84(03a)	60	
Smoke Developed	E84(03a)	230	
Smoke Developed Classification	E84(03a)	250	
Tensile Test (skin)	D638	3623	PSI
Notched impact resistance method A	D256	2.77	Ft*LB/IN
Abrasion resistance	D4060	<0.02	Oz-with 2.2lb sample
Ultraviolet (skin)	D4329	<10	% Change in Type D durometer at 500 hours

2.2 ACCESSORIES

A. Fasteners according to manufacturers recommendations.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install according to manufacturers guidelines.

B. Cut, drill and rout using carbide tipped blades.

END OF SECTION 06 49 00

SECTION 31 10 00
SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Removing above- and below-grade site improvements.
   2. Disconnecting, capping or sealing, and removing site utilities.

B. Additional Information

   1. Explosives: The use of explosives will not be permitted for this Work.

C. General Requirements:

   1. Site Clearing shall be performed in accordance with Section 201 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.

1.3 MATERIAL OWNERSHIP

A. All materials indicated to remain on the OWNER's property shall be transported by the Contractor to stockpiles on site, as directed by the ENGINEER.

B. The Contractor shall dispose of all materials accumulated from clearing the site at approved locations outside the site of the project at no additional cost to the State of New Jersey.

1.4 SUBMITTALS

A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing. The preconstruction videos and/or photographs shall be submitted at the preconstruction meeting.

1.5 PROJECT CONDITIONS

A. Traffic: Minimize interference with walks and other adjacent occupied or used facilities during site-clearing operations.

B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on OWNER's premises where indicated.

C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

D. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - EXECUTION

2.1 PREPARATION

A. The CONTRACTOR shall be responsible for obtaining all permits unless noted otherwise. All expenses, including but not limited to, permit fees and associated cost for inspection, sampling, filing, monitoring, validation, handling, transportation, disposal shall be paid by the CONTRACTOR.

B. All work shall be performed in accordance with current Federal, State and local rules and regulations, Standard Engineering Practices and Principles, Safety and Health Requirements Manual, and Contract Plans and Specifications.

C. The amount of dust resulting from demolition shall be controlled to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area.

D. Before beginning any clearing work, the CONTRACTOR shall survey the site and examine the drawings and specifications to determine the extent of the work.

E. The use of burning at the project site for the disposal of refuse and debris will not be permitted.

F. Use of explosives will not be permitted.

G. Protect and maintain benchmarks and survey control points from disturbance during construction.

H. Site clearing shall include the removal of bituminous material if required, concrete curb, miscellaneous timber, pavement, and other items as required, and the clearing and removal of all other necessary items within the limits of disturbance of the project for proper construction of the project.

I. Site clearing shall include cutting, removing, cleaning and preparing the proposed bulkhead and pier locations prior to construction.

J. All materials and debris accumulated by clearing the site, including but not limited to timber, bituminous pavement, vegetation, debris, water service materials, electrical components, telephone components, conduits, and other miscellaneous debris, shall be removed as indicated on the plans and at the direction of the ENGINEER. All material and debris shall be disposed of at an approved location at no additional cost to the State of New Jersey.

K. During the performance of Site Clearing, the CONTRACTOR shall be responsible for the preservation of all public and private property and other improvements that are to remain within or adjacent to the work areas and shall use every precaution necessary to prevent damage or injury thereto. The CONTRACTOR, at no additional cost to the STATE OF NEW JERSEY shall replace any items that are damaged or destroyed that are not designated for removal.

L. All miscellaneous utility lines located on the bulkhead shall be removed and reinstalled after the installation of the new bulkhead as indicated on the project drawings.

M. All items the PROJECT ENGINEER wants to retain shall be removed and delivered by the Contractor to an area in the Marina as designated by the PROJECT ENGINEER.

N. CONTRACTOR shall neatly sawcut the existing pavement as shown on the plans utilizing proper equipment.

O. Test pits shall be excavated, if required by the ENGINEER, where necessary to obtain required utility information. Test pits shall be of adequate size to permit access to examination, location and measurement of designated underground facilities. Excavation shall be done with care to prevent any damage to existing facilities or to any other pipes, ducts or other underground items. Excavation adjacent to or immediately above pipes, ducts or other equipment shall be done by hand.

P. CONTRACTOR shall remove all debris in order to facilitate driving of all sheet piles and mooring piles.

Q. The CONTRACTOR is hereby advised that debris removal may include, but not be limited to, reinforced concrete, concrete, wood bulkhead, tie back system, pavement, steel or any other debris identified by the ENGINEER.

R. This item shall include all restoration to the site, including repair of any and all damage resulting from the CONTRACTOR'S work. All restoration shall match the material, texture and finish of original surfaces.

S. This item shall also include protecting existing plants to remain, stripping and stockpiling topsoil, and temporary soil erosion and sediment control measures.

T. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

U. Protect and maintain benchmarks and survey control points from disturbance during construction.

V. Locate and clearly flag trees and vegetation to remain or to be relocated.

W. Protect existing site improvements to remain from damage during construction.

X. Restore damaged improvements to their original condition, as acceptable to Owner.

2.2 UTILITIES

A. Underground utilities are the result of field location of surface features, utility markouts, or utility plans indicating location and may not be all inclusive. The Contractor is responsible for making his or her own determination as to the type and location of the underground utilities as may be necessary to avoid damage thereto.

B. The Contractor shall verify the exact location of all utilities by contacting the appropriate utility companies and contacting the NJ One-call System (1-800-272-1000). The location of all existing utilities are not necessarily shown on the plans.

C. Contractor shall notify all utility companies that demolition will pass through areas where their services exist. Notification to the utilities must be made in a sufficient amount of time in advance (min. 72 hrs) prior to the start of any demolition work in the affected areas.

D. Contractor shall verify that all utilities are disconnected prior to removal activities. It is the Contractor's responsibility to locate, identify, disconnect, and seal or cap off utilities indicated to be removed.

E. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Engineer not less than two days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Engineer's written permission.

2.3 SITE IMPROVEMENTS

A. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

B. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

C. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.

D. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.

E. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.

F. Refer to Contract Drawings for demolition and removal of existing site improvements.

G. Remove and store for re-use, all picnic tables and benches in construction area.

2.4 DISPOSAL

A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

B. Separate recyclable materials produced during site clearing, from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 31 10 00

SECTION 31 62 00
DRIVEN PILES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:
1. 12" diameter, concrete filled steel pipe guide piles
2. 12" diameter, concrete filled steel breakwater piles
3. 12" diameter, timber pilings

B. Related Sections:

1. Reference Standards:
   A. Timber materials and design of timber structures shall be in complete accordance with the "National Design Specification for Wood Structures" (NDS), 2005 Edition, and all supplements, as published by the American Forest & Paper Association and the American Wood Council. (ANSI / AF&PA NDS-2005)
   B. ASTM Standard D25, "Standard Specification for Round Timber Piles", latest edition.

1.3 UNIT PRICES

A. The Contract Sum: Base the Contract Sum on number and dimensions of piles indicated from tip to cutoff, plus not less than 12 inches of overlength for cutting piles at cutoff elevations.

1. Additional payment for pile lengths in excess of that indicated will not be made.
2. No payment will be made for rejected piles, including piles driven out of tolerance, defective piles, or piles damaged during handling or driving.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show fabrication and installation details for piles, including details and pile butt protection.

C. Round timber pile treatment data.

D. Pile-Driving Equipment Data: Include type, make, and rated energy range; weight of striking part of hammer; weight of drive cap; and, type, size, and properties of hammer cushion.

E. Pile-driving records.

F. Field quality-control reports.

1.5 INFORMATIONAL SUBMITTALS

A. Pile-Driving Equipment Data: Include type, make, and rated energy range; weight of striking part of hammer; weight of drive cap; and, type, size, and properties of hammer cushion.

B. Static Pile Test Reports: Submit within three days of completing each test.

C. Pile-Driving Records: Submit within three days of driving each pile.

D. Field quality-control reports.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

1. Installer's responsibility includes engaging a qualified professional engineer to prepare pile-driving records.

2. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated and must be DPMC prequalified.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver piles to Project site in such quantities and at such times to ensure continuity of installation. Handle and store piles at Project site to prevent breaks, cuts, abrasions, or other physical damage.

1. Do not drill holes or drive spikes or nails into pile below cutoff elevation.

1.8 PROJECT CONDITIONS

A. Protect structures, underground utilities, and other construction from damage caused by pile driving.

PART 2 - PRODUCTS

2.1 TIMBER PILES

A. Round Timber Piles: ASTM D 25, Class B, unused, clean peeled, one piece from butt to tip; of the following species and size basis:

A. Species: Southern Yellow Pine
B. Size Basis: Class B

B. Timber piles shall have minimum butt diameter of 12” in all locations, unless otherwise noted on the design drawings.

C. Length of piles shall be as required

D. to attain top elevations as shown on the design drawings, and to attain the specified load capacities and embedment depths.

E. If a driving resistance equal to or greater than 10 tons is attained at the minimum specified embedment length, pile driving may be stopped.

F. Timber piles shall be air-seasoned prior to kiln drying.

G. Following installation, breakwater and floating dock piles shall be fitted with a piling cap made from heavy duty polypropylene.

H. Pile Butt: Trim pile butt and cut perpendicular to longitudinal axis of pile. Chamfer and shape butt to fit tightly to driving cap of hammer.

I. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch (305-mm) intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven.

2.2 STEEL PIPE PILES

A. Steel Pipe: ASTM A 252, Grade 2; seamless or welded.

B. Fabricate and assemble piles in shop to greatest extent possible.

C. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven.

D. Fabricate full-length piles to eliminate splicing during driving.

E. Fit and weld driving points to tip of pile according to manufacturer's written instructions and AWS D1.1/D1.1M for procedures, appearance and quality of welds, and methods used in correcting welding work.

2.3 PAINT

A. First coat: 6.0 mils thick modified epoxy phenalkamine, formulated specifically for immersion and atmospheric service in marine and industrial environments. Coating to provide exceptional performance in corrosive environments and must be able to be applied at temperatures as low as 0 degrees Fahrenheit.

B. Second coat: 14.0 mils thick glass flake reinforces amine epoxy coating formulated for immersion service or where steel or concrete protection is desired, in a wide range of harsh industrial environments. Must be corrosion, impact and abrasion resistant.

C. Third coat: 5.0 mils thick polyester modified, aliphatic, acrylic polyurethane formulated specifically for immersion and atmospheric service in marine and industrial environments. Material to be fast drying urethane that provides color and gloss retention for exterior exposure.

D. Painting: Immediately after surface preparation, apply coat of paint according to manufacturer's written instructions to provide a dry film thickness.

1. Mark pile lengths after shop painting.

E. Material to be by Sherwin Williams, PPG, Dura-Plate or approved equal.

2.4 CONCRETE MATERIALS

A. Portland Cement: ASTM C 150/C 150M, Type I or II.

1. Fly Ash: ASTM C 618, Class C or F.
2. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.

B. Normal-Weight Aggregates: ASTM C 33, uniformly graded, 3/4-inch maximum aggregate size. Provide aggregates from a single source.

C. Water: Potable, complying with ASTM C 94 requirements.

D. Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent chloride ions by mass of cementitious material.

2.5 PILE ACCESSORIES

A. Driving Points: Manufacturer's standard 60-degree conical driving point, with integral reinforcing ribs, to provide full bearing of pipe pile tip.

PART 3 - EXECUTION

3.1 DRIVING EQUIPMENT

A. Pile Hammer: Air-, steam-, hydraulic-, or diesel-powered type capable of consistently delivering adequate peak-force duration and magnitude to develop the ultimate capacity required for type and size of pile driven and character of subsurface material anticipated.

B. Hammer Cushions and Driving Caps: Between hammer and top of pile, provide hammer cushion and steel driving cap as recommended by hammer manufacturer and as required to drive pile without damage.

C. Leads: Use fixed, semifixed, or hanging-type pile-driver leads that will hold full length of pile firmly in position and in axial alignment with hammer.

3.2 DRIVING PILES

A. General: Continuously drive piles to elevations or penetration resistance indicated. Establish and maintain axial alignment of leads and piles before and during driving.

B. All piles shall be driven by an approved gravity, steam, or diesel hammer. Pile driving hammer shall have a rated energy of 15,000 ft-lbs per blow, minimum. Jetting of piles is not permitted. If extremely hard driving materials exist and conditions persist, contractor shall contact the Engineer to determine the possible limited use of jetting.

C. Heaved Piles: Redrive heaved piles to tip elevation at least as deep as original tip elevation with a driving resistance at least as great as original driving resistance.

D. Appropriate pile cushioning shall be provided during pile driving, in accordance with the pile supplier's recommendations, in accordance with industry standards, and as approved by the Engineer.

E. Piles shall be driven vertically (plumb). Contractor shall use a piling guide as necessary to ensure piling is installed plumb.

F. Driving Tolerances: Drive piles without exceeding the following tolerances, measured at pile heads:

1. Location: +/-2 inches from horizontal location indicated, in any direction.
2. Plumb: Shall be 1" maximum per 10'-0" of pile length, or a maximum of 4", measured when pile is aboveground in leads.
3. Batter Angle: Maximum 1 inch in 4 feet from required angle, measured when pile is aboveground in leads.

G. Withdraw damaged or defective piles and piles that exceed driving tolerances and install new piles within driving tolerances.
1. Fill holes left by withdrawn piles as directed by Engineer.

H. Cutting Off: Cut off butts of driven piles square with pile axis and at elevations indicated.

1. Cover cut-off piling surfaces with caps overlapping pile end by minimum 2 inches or minimum three coats of preservative treatment according to AWPA M4.

I. Field-treat cut-off ends of piles for weather protection. Use same chemical as used for original treatment of piles, or waterproof sealant. Submit sealant data for review by the Engineer.

J. Pile-Driving Records: Maintain accurate driving records for each pile. Include the following data:

1. Project name and number.
2. Name of Contractor.
3. Pile species.
4. Pile location.
5. Pile dimensions.
6. Ground elevation.
7. Elevation of tips after driving.
8. Final tip and cutoff elevations of pile.
9. Records of redriving.
10. Elevation of splices.
11. Type, make, model, and rated energy of hammer.
12. Weight and stroke of hammer.
13. Type of pile-driving cap used.
14. Cushion material and thickness.
15. Actual stroke and blow rate of hammer.
16. Pile-driving start and finish times, and total driving time.
17. Time, pile-tip elevation, and reason for interruptions.
18. Number of blows for every 12 inches of penetration, and number of blows per 1 inch for the last 6 inches of driving.
19. Pile deviations from location and plumb.
20. Unusual occurrences during pile driving.

3.3 CONCRETE PLACEMENT

A. Do not place concrete until other piles within a radius of 20 feet have been driven and approved.

B. Inspection: Before placing concrete, allow testing and inspecting agency to visually inspect and verify that each pile pipe is clean, watertight, plumb, and free of distortion or other defects.

C. Place concrete in a continuous operation and without segregation immediately after cleaning out pile pipe.

D. Place concrete by means of bottom discharge bucket, flexible drop chute, or steep-sided funnel hopper or tremie or pump concrete into place.

E. Place concrete in a dry pile pipe unless placement underwater is approved by Engineer.

1. Place concrete underwater by tremie method or pumping. Control placement operations to ensure tremie is embedded no less than 60 inches into concrete, and flow of tremied concrete is continuous from bottom to top of pile pipe.
2. Other methods of depositing concrete may be used if approved by Engineer.

F. Consolidate final 10 feet of concrete during placement to ensure that concrete is thoroughly worked around steel reinforcement and into corners.

G. Screed concrete level at cutoff elevation and apply a scoured, rough finish.

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Contractor will engage a qualified independent, DPMC Pre-Qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Pile Driving logs with blows per foot, hammer data, conversion to capacity, etc.

3.5 DISPOSAL

A. Remove withdrawn piles and cutoff sections of piles from site and legally dispose of them off Owner's property.

END OF SECTION 31 62 00

SECTION 32 12 16
ASPHALT PAVING

PART 1 - GENERAL

This section is provided if such work is required.

1.1 RELATED DOCUMENTS

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

B. Hot-Mix Asphalt Paving shall be performed in accordance with Divisions 300, 400 and 900 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition. Sawcutting shall be performed in accordance with Division 200 of the NJDOT Standard Specifications, latest edition.

C. Line Striping and Markings shall be performed in accordance with Section 610 of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition

1.2 SUMMARY

A. Section Includes:

1. Hot-mix asphalt paving.

1.3 DEFINITION

A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
1. Job-Mix Designs: For each job mix proposed for the Work.

B. Shop Drawings: Indicate pavement markings, lane separations, and defined parking spaces. Indicate, with international symbol of accessibility, spaces allocated for people with disabilities.

C. Qualification Data: For qualified manufacturer and Installer.

D. Material Certificates: For each paving material.

E. Material Test Reports: For each paving material.

F. Load Tickets: The load ticket for each load of material that arrives on site specifying all requirements as set forth in NJDOT Division 400.

G. Product data for geotextile fabric.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by the NJDOT.

B. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of NJDOT for asphalt paving work.

1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.

B. Store pavement-marking materials in a clean, dry, protected location within temperature range required by manufacturer. Protect stored materials from direct sunlight.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Prime Coat: Minimum surface temperature of 60 deg F.
2. Tack Coat: Minimum surface temperature of 60 deg F.
3. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
4. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

B. Pavement-Markings: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F for oil-based materials, 55 deg F for water-based materials, and not exceeding 95 deg F. Comply with manufacturer’s recommended application temperatures and humidity levels.

PART 2 - PRODUCTS

2.1 AGGREGATES

A. All aggregates shall comply with Section 901 of the New Jersey Department of Transportation Specifications.

2.2 ASPHALT MATERIALS AND PAVING MIX

A. All asphalt materials shall comply with Section 902 of the New Jersey Department of Transportation Specifications.

B. All pavement markings shall comply with Section 912 of the New Jersey Department of Transportation Specifications.

2.3 MIXES

A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by the NJDOT and complying with the following requirements:

1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
2. Base Course: Hot-Mix Asphalt 19M64 Base Course.
3. Surface Course: Hot-Mix Asphalt 9.5M64 Surface Course.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to begin paving.

B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
2. Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

C. Place DGA Base Course on suitable sub-base only in accordance with Division 31.

D. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 SURFACE PREPARATION

A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

B. Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.15 to 0.50 gal./sq. yd. Apply enough material to penetrate and seal but not flood surface. Allow prime coat to cure.

1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
2. Protect primed substrate from damage until ready to receive paving.

C. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd.

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.3 HOT-MIX ASPHALT PLACING

A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
2. Place hot-mix asphalt surface course in single lift.
3. Spread mix at minimum temperature of 250 deg F.
4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

B. Place paving in consecutive strips not less than 12 feet wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete a section of asphalt base course before placing asphalt surface course.

C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.4 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.
2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
3. Offset transverse joints, in successive courses, a minimum of 24 inches.
4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations".
5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.5 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.

1. Complete compaction before mix temperature cools to 185 deg F.

B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density: 96 percent of reference laboratory density according to ASTM D 6927, but not less than 94 percent nor greater than 100 percent.
2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.

D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.

G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.6 INSTALLATION TOLERANCES

A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:

1. Base Course: Plus or minus 1/2 inch.
2. Surface Course: Plus 1/4 inch, no minus.

B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:

1. Base Course: 1/4 inch.
2. Surface Course: 1/8 inch. Ensure no ponding on final surface course.
3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

3.7 DISPOSAL

A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

B. Do not allow milled materials to accumulate on-site.

END OF SECTION 32 12 16

SECTION 32 31 13
CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Chain-Link Fences: Industrial.

B. Related Sections:

1. Division 03, Section 033000 – "Cast-In-Place Concrete" for concrete fill and footings at fence post installation locations.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Show locations, components, materials, dimensions, sizes, weights, and finishes of components. Include plans, sections, details of post anchorage, attachment, bracing, and other required installation and operational clearances.

1.3 QUALITY ASSURANCE

A. Fences shall be manufactured and installed by a Contractor experienced in industrial-grade chain-link fence installations.

PART 2 - PRODUCTS

2.1 CHAIN-LINK FENCE FABRIC

A. General: Heights as indicated on design drawings. Comply with ASTM A 392, CLFMI CLF 2445, and requirements indicated below:

1. Steel Wire Fabric: Polymer-coated galvanized wire with a diameter of 0.192 inch.

   a. Mesh Size: 2 inches.
   b. Polymer Coating: ASTM F 668, Class 2a over galvanized steel wire.

      1) Color: Black –complying with ASTM F 934.

2. Selvage: Twisted top and knuckled bottom.

2.2 INDUSTRIAL FENCE FRAMING

A. Posts and Rails: Comply with ASTM F 1043 for framing, and the following:

1. Group: IA, round steel pipe, Schedule 40
2. Fence Height: As indicated on design drawings; 4'-0"
3. Strength Requirement: Heavy industrial according to ASTM F 1043.
4. Metallic-Coated Steel: Posts, rails, and frames protected with an external coating of not less than 0.6 oz. of zinc/sq. ft., a chromate conversion coating, and a clear, verifiable polymer film; with an internal protective coating of not less than 0.6 oz. of zinc/sq. ft. or 81 percent, not less than 0.3-mil-thick, zinc pigmented coating.

2.3 TENSION WIRE

A. General: Provide horizontal tension wire at bottom of fence fabric.

B. Metallic-Coated Steel Wire: 0.1875 inch diameter, marcelled tension wire complying with ASTM A 817 and ASTM A 824.

1. Metallic Coating: Type III, Zn-5-Al-MM alloy.

C. Aluminum Wire: 0.192-inch- diameter tension wire, mill finished, complying with ASTM B 211, Alloy 6061-T94 with 50,000-psi minimum tensile strength.

2.4 FITTINGS

A. General: Comply with ASTM F 626.

B. Finish:

1. Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.
2. Aluminum: Mill finish.

2.5 CAST-IN-PLACE CONCRETE

A. Materials: Portland cement complying with ASTM C 150.

1. Refer to Division 03, Section 033000 – "Cast-In-Place Concrete" for information on concrete fill at fence post installation on masonry wall and concrete footings for fence at end of quay.

2.6 STRUCTURAL STEEL CONNECTIONS

A. Materials: ASTM A36 steel plates for fence post attachment connections; ASTM A307 bolts.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install chain-link fencing to comply with ASTM F 567 and more stringent requirements specified.

1. 4'-0"-high fence to be installed as indicated on the design drawings.

B. Post Setting:

1. Set posts into new concrete footings to be cast-in-place as indicated on the design drawings.
2. See Division 03, Section 033000 – "Cast-In-Place Concrete" for additional information on concrete materials.

C. Terminal Posts: Locate terminal end, and corner posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment.

D. Line Posts:

1. Space line posts uniformly at 8'-0" o.c. (maximum).

E. Post Bracing and Intermediate Rails: Install according to ASTM F 567. Install braces at end and gate posts and at both sides of corner and pull posts.

F. Top Rail: Install according to ASTM F 567.

G. Bottom Rails: Install, spanning between posts.

H. Chain-Link Fabric: Apply fabric to outside of enclosing framework. Leave 1 inch between finish grade at parking lot and bottom selvage, unless otherwise indicated.

I. Tie Wires: Attach wire per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

J. Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side. Score threads to prevent removal of nuts.

3.2 FIELD QUALITY CONTROL

A. Grounding-Resistance Testing: Contractor will engage a DPMC pre-qualified independent testing agency to perform field quality-control testing and/or inspections.

END OF SECTION 32 31 13

SECTION 33 42 20
FLOATING DOCK AND GANGWAY CONSTRUCTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:

1. Aluminum gangway
2. Prefabricated concrete floating dock

1.3 ACTION SUBMITTALS

A. Shop Drawings:
1. Dimensional layout of piers, docks, gangways and piles or anchorage systems to be furnished under this contract.
2. Engineering calculations showing compliance with the design criteria specified herein. All calculations will be stamped with the seal of a qualified licensed, professional engineer. Computations shall include as a minimum the following.
   a. Compliance with combined live and dead load requirements.
   b. Compliance with freeboard requirements under normal load conditions.
3. Typical sections or details of the following:
   a. Floating docks, including flotation.
   b. Gangways, including connections to bulkhead or fixed pier, handrails and handicap ramps.
   c. Anchorage system.
   d. Decking material and connection details.
   e. Cleats-location and connection details.

B. Prior to fabrication or construction, the Contractor shall furnish sufficient information to describe their concrete floating dock system and shall submit complete shop drawings and calculations for approval by the Owner. Dock and anchorage drawings and calculations shall be affixed with the appropriate stamps and signatures of a registered professional engineer, maintaining professional liability insurance with a minimum policy limit of $1,000,000.

C. Shop drawings shall show the layout of the dock system, layout of complete mooring/anchoring system, details of all connections, waler sizing and splice pattern, anchorage connections, utility routings and all other details necessary and pertinent to the construction of the floating dock system.

1.4 QUALITY ASSURANCE

A. The manufacturer(s) of the concrete floating dock system must have an ongoing quality management system. This quality system must be regularly assessed and currently certified as meeting the ISO 9001 Standard. The scope of this certification must be for the design and manufacture of floating docks and

pertain to the company or portion of the company providing the products and services for the project. The registrar providing this certification must be accredited according to EN 45012.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Schedule deliveries to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces.

1.6 TECHNICAL

A. The flotation system shall be concrete floating docks.

B. The dock system shall consist of modular sections designed in such a manner that concrete modules may be replaced with standard or similar modules in case of repairs.

C. Float modules shall be structurally connected by a treated timber or other approved waler system that will allow replacement without affecting the float modules or the structural integrity of the system. Concrete module connection methods that cause structural failure of the float module when over stressed will not be allowed.

D. Surface of float modules shall be broom finished concrete.

E. Sufficient flotation shall be provided to support a live load of fifty (50) pounds per square foot of deck area, with a minimum freeboard of not less than twenty-four (24) inches.

F. Contractor should exercise caution to ensure that all dead loads are accurately determined and included in buoyancy calculations. These loads should include appropriate safety factors if used and any specific manufacturing considerations that will affect the final freeboard. Should freeboard adjustments be necessary after installation they shall be accomplished with the use of supplemental flotation approved by the engineer of record. Supplemental flotation shall be installed such that it will not affect the performance or the longevity of the dock system.

G. Dead loads shall consist of the floats, framing, waler system, attachment steel, decking, miscellaneous connection devices, and all other permanently attached equipment such as utilities, boxes, fire protection equipment, etc. The weight of lumber for buoyancy calculations shall be assumed at no less than forty (40) pounds per cubic foot. Loads shall also include consideration for the gangway support.

H. Special floats must be designed within reason to support the additional concentrated loads as imposed by gangways, transformers, or other equipment. Floats with special loadings shall have the same freeboard as floats with no such loading, so that there will be little or no residual stresses or tilting when such floats are interconnected.

I. Walking surface of concrete floats shall be level and flush with respect to the adjacent floats.

J. Floats shall be designed to float level under dead load only. The decks of the floats shall be within the followings tolerances of being level:

1. Maximum transverse slope for main floats: one (1) inch per ten (10) feet of width.
2. Maximum longitudinal slope: one (1) inch per ten (10) feet of length.

K. Flotation units shall be located within the structure so as to be capable of supporting a 300-pound point load moving in any area on a float without excessive rolling or tilting on the dock. When a 400-pound

load is applied one foot from the end of the finger, that finger will lose no more than four inches of freeboard. When a 300-pound load is applied to one outer corner of the finger there should be no more than 2 inches in freeboard differential per three feet of width between the outer corners of the finger. These measurements should be taken after the dock system is totally connected and in its final intended condition.

L. Float and anchorage systems shall be designed for the following load cases as a minimum:

1. Wind pressure based on 115 MPH fastest mile wind IBC 2009 NJ Edition, Exposure C, per ASCE 7-05) acting on the projected area of all docks and moored vessels assuming full occupancy of the marina.
2. Minimum current pressure of 1.8 PSF (3 foot per second current velocity) acting on the projected area of all docks and moored vessels assuming full occupancy of the marina.
3. Vertical wave loads from a 3' high 3 second period wave.
4. Lateral wave loads for waves having a significant wave height of four (4) feet.
5. Load cases should be combined based upon the probability of simultaneous occurrence of the events.

1.7 STANDARDS

A. All docks, structures and components must be designed per one of the following codes or authorities, depending upon the application:

1. IBC – NJ Edition (International Building Code)
2. NEC (National Electrical Code)
3. NFPA (National Fire Protection Association)
4. City/State/County Building Code
5. Army Corps Manual SR-2
6. ASTM Standards
7. AISI (American Iron and Steel Institute)
8. AISC (American Institute of Steel Construction)
9. AWPA (American Wood Preservers Assoc.)
10. PCI (Prestressed Concrete Institute)
11. CRSI (Concrete Reinforcing Steel Institute)

1.8 PARAMETERS

A. Wind load calculations shall be based on an average vessel profile height equal to 15% of the slip length

B. Current load calculations shall be based on the average vessel draft determined by the intended vessel types.

C. Calculations are to be performed for wind and current loads both parallel to and perpendicular to the slips.

D. Full wind and current loads shall be applied to all exposed vessels. To account for sheltering effects, 15% of the full load shall be applied to all vessels sheltered by the exposed vessel.

E. Calculations shall assume that any given slip may be exposed to the loads created by a design event.

F. Allowable material stresses shall be based on the latest edition of the Uniform Building Code.

G. Minimum evaluation of the design wave environment shall include identifying the Significant Wave Height, Peak Spectral Wave Length, Wave Period and Wave Approach Angle.

1.9 CALCULATIONS

A. All design calculations shall assume that all slips are occupied, and all reasonable dead loads have been incorporated into the system.

B. Once the loads are determined by the applicable codes listed above, the design and calculations shall be prepared in accordance with AISI and AISC specifications and guidelines.

C. All engineering and calculations shall be done in accordance with these guidelines using the appropriate allowable capacities and safety factors. Calculations are to be stamped by a registered professional engineer, maintaining professional liability insurance with a minimum policy limit of $1,000,000.

D. In addition to sizing all members for these codes and specifications, the following calculations shall be submitted as a minimum for the dock system:
   1. Anchorage attachment points to insure reactions shall be appropriately and rationally distributed throughout the system.
   2. Finger lateral loads from current and wind in the shielded and unshielded condition for each finger length. Calculations will provide transfer assumptions for both cantilever and non-cantilever type fingers, including finger-to-walk connections.
   3. Overall system loads under full occupancy with consideration for shielding factors and deflections of the system and its effects on anchor loading.
   4. Vertical loading due to wave action and live load requirements including both walkways and fingers.

PART 2 - PRODUCTS

2.1 ALUMINUM GANGWAY

A. Design Criteria

   1. To be heavy duty, ADA-compliant gangway.

   2. General: Design of the aluminum gangway shall be in accordance with the Aluminum Association 'Specifications for Aluminum Structure'. Analysis of gangway truss shall utilize Holt's method for determining top chord buckling as outlined in 'Guide to Stability Design Criteria for Metal Structures', 4th Edition, by Theodore B. Galambos.

   3. Dead and Live Loads
      a. Gangway deck and structural components shall be designed to support the dead load of the gangway plus Utilities and a Uniform Live Load of 100 pounds per square foot for Public/Commercial Use. Maximum deflection under these loads shall not exceed L/360.
      b. The deck and structural components shall be designed to support a concentrated load of 400 pounds applied to any 12 inch by 12 inch area. Lateral design Wind Load shall be 115 mph, exposure 'C'.

4. Handrails:
   a. The gangway shall have continuous handrails along both sides of the walking surface and shall extend a minimum of one foot beyond the primary walking surface at each end. The top of the handrails shall not be less than 34 inches nor more than 38 inches above the walking surface. The ends shall be returned into the truss body or terminate with no sharp or catching edges.
   b. The handrail portion of the handrails shall not be less than 1 quarter inches nor more than 2 inches in cross-sectional dimension, or the shape shall provide an equivalent gripping surface. The handgrip portion of the handrails shall have a smooth surface with no sharp corners. A minimum of 1-1/2 inches clearance shall be provided between the gangway truss and the backside of the handgrip portion.
   c. The mounting and components of the handrails shall be capable of withstanding a load of 50 pounds per lineal foot, lateral.

5. Guard Rails:
   a. The top chord of the truss serves as the guardrail provided that it's not less than 42 inches above the walking surface of the gangway.
   b. Continuous full-length intermediate rails shall be provided to prevent passage of a 4-inch sphere, anywhere below the handrails, on both sides of the walking surface. Intermediate rails and supports shall be capable of withstanding a load of 25 pounds per square foot applied horizontally to the rails.

6. Transition Plates
   a. Full width, hinged transition plates shall be provided at both ends of the ramp. The length of both shall be long enough to provide a slope which does not exceed the maximum slope of the gangway. The leading edge of each transition plate shall be UHMW that has been profiled to create no more than a quarter inch rise.
   b. Transition plates shall have arc-sprayed "Thermion" Ceramic Core TH604 anti-skid aluminum garnet traction coating.

7. Rollers and Roller Guide Tracks
   a. The gangway shall be supplied with two solid UHMW rollers or UHMW skid shoes. Rollers shall have a solid stainless axle. Rollers, axles and skid shoes shall be designed to accommodate all loads to ramps and any job specific requirements.
   b. Roller/skid shoe tracks shall be provided ready to install to the float surface. These guide tracks shall be long enough to allow for full longitudinal movement through all water elevation changes. The guide tracks shall restrict any lateral movement of the gangway at the landing.

8. Shoremount
   a. The hinged connection at the shore end of the gangway shall be a swing-shackle utilizing an appropriately sized galvanized steel safety-pin anchor shackle. The shackle shall be isolated from any dissimilar metal contact with UHMW bushings and washers. This mounting arrangement shall provide a minimum of 3 axis of ramp movement. There shall not be a gap between the ramp deck and the shore mount. This shore mount shall be designed to be site specific and its design is to be included in the engineer's support calculations.

9. Submittals
   a. Shop drawings of all components and details shall be submitted for written approval prior to any fabrication.
   b. Sealed support calculations provided by a registered engineer experienced in the design of aluminum structures showing analysis and design review shall be submitted with the shop drawings.
   c. Catalog cuts and loading charts shall be provided for decking information.

B. Materials

1. General: All structural aluminum, including tubes, plates, angles, and pipe shall be alloy 6061-T6 per ASTM B308. All bolts shall be stainless steel appropriate for use with aluminum in marine environments. Isolators shall be used when connecting dissimilar metals.

2. Decking
   a. Gangway decking shall be per project specifications, or, shall be aggressively slip and skid resistant and made from aluminum or other marine grade material appropriate for this use.
   b. Samples and/or catalog cut sheets shall be provided for approval prior to fabrication. Method of securing the decking product to the ramp frame shall be described and approved prior to fabrication.

3. Structural Steel
   a. All structural steel shall be ASTM A36, hot dipped galvanized per ASTM A123 or A153 after fabrication. All steel bolts (if used) shall be grade ASTM A-307, minimum, and also hot dip galvanized finish.

C. Fabrication and Workmanship

1. General:
   a. Design, fabrication, delivery, handling and installation of the aluminum gangway shall conform to the latest revisions of the aluminum construction manual and all applicable standards and data as described by the Aluminum Association. Edges shall be cut true, smooth and free from burrs. Corner edges shall be ground smooth. Weld splatters, burrs and weld flash shall be removed from all exposed surfaces. Mill stamps shall be removed if required by project specification.
   b. Materials delivered and stored at the manufacturing facility shall be properly marked and inventoried on vertical racks located in a lockable heated warehouse.
   c. Completed gangways shall be stored on dunnage or by other appropriate means to prevent direct contact with the ground and unnecessary damage.
   d. Completed ramps shall bear an identification decal showing the date of manufacture, live load capacity and the identifying serial number. Every gangway ramp shall be directly traceable to the manufacturer.
   e. Gangway manufacturer to be GatorDock Marine Access Solutions, CMI Marine Structures, GatorBridge Prefabricated Aluminum Bridges or approved equal.
   f. Job files for every gangway ramp shall be kept, holding all information including shop drawings, submittals, material purchase orders, as-built shop drawings, material certifications for all components, shipping information and any correspondence. Also included shall be the QC report.
   g. Gangway Manufacturer must be regularly engaged in the design and fabrication of aluminum bridge and gangway structures and shall show proof of having successfully completed a minimum of twenty similar projects within the last two years. Additionally, the manufacturer shall show proof of having liability insurance for the manufacture of these structures. All gangway design, engineering and manufacturing process shall be performed by American tradesman. No out of country design, engineering or manufacturing shall be allowed.

2. Welding
   a. All connections to be welded shall be of new material, clean and free of any contaminants. All joints shall fit properly and be prepared for the appropriate weld as described in the shop drawings.
   b. All welding shall be performed by currently certified welders, per AWS D1.2- 97' for structural aluminum and per AWS D1.1-2000 for structural Steel. Welders proof of certification shall be provided upon request. Weld procedure qualifications shall be kept on file.

3. Installation
   a. The gangway shall be installed on the floating dock and the toe end adjusted as to allow the dock system free movement to travel the full range of water levels without binding or stressing the gangway or dock system.
   b. The gangway roller guide tracks shall be adjusted to suit the full range of lateral movement of the rollers and shall be adequately secured to the dock surface as per the gangway manufacturer recommendations.
   c. The gangway shore mount shall be installed as per the project specifications or as per the ramp manufacturer recommendations

2.2 CONCRETE FLOAT MODULES (Floating Dock)

A. Manufacturing
1. The float manufacturer shall have a experience in the design and manufacturing of concrete floats for use in areas susceptible to freeze-thaw conditions.
2. The manufacturing facility shall be designed to provide the proper environment and physical conditions necessary for float casting. The facility shall provide adequate work space, equipment, level casting surfaces, and protection from direct sunlight, wind, moisture and freezing. Floats shall be cast in an all-weather environment that includes an enclosed casting building with heated casting beds for use when ambient temperatures are below 60 degrees.
3. Float modules shall be cast monolithically in a single pour. There shall be no cold joints of any type.
4. Dock Manufacturer to be Bellingham Marine, Unifloat, Florida Floats or approved equal.
5. Float modules shall have a minimum deck thickness of 2 inches, minimum side wall, end wall thickness of 1.5 inches, and a minimum bottom thickness of 1.25 inches.

B. Forms
1. Floats shall be cast in steel forms, with a smooth, true surface. Forms shall be designed in such a way to prevent unsightly finished surfaces or definite lines that could result in crack planes. Any rough edges, form marks, or defects shall be cleaned, ground smooth, or patched.
2. Float forms shall have a tolerance of not more than 1/8 inch from the dimensions shown on the shop drawings. Floats cast from forms more than 3/4" out of square (when measured diagonally) shall be rejected.
3. Concrete shall be vibrated internally and/or externally to assure a smooth dense finish. The placement will be such that the concrete float module is monolithic with no cold joints in any part of the finished module.

C. Concrete Mix Design
1. Prior to the manufacturing of any flotation units, the concrete mix design shall be approved by the Owner
2. The concrete mix shall contain Type I or Type II modified, low alkali Portland Cement
3. Concrete for the top surface of the flotation units shall contain polypropylene fibrous reinforcement at a rate recommended by its supplier
4. Concrete shall have a minimum twenty-eight (28) day compressive strength of 6,000 PSI, per ASTM C-94. Floats made of concrete with less than specified strength may be rejected by the Owner.
5. The theoretical concrete unit weight shall not be more than 120 pounds per cubic foot
6. Coarse and fine aggregates shall conform to ASTM C-33-86, ASTM C-330 lightweight aggregates for structural concrete.
7. All concrete shall be air-entrained from five (5) to eight (8) percent and shall be tested in accordance with ASTM C-138, C-173, or C-231.
8. Water/cement ratio shall not exceed 0.45.

9. Slump range shall be three (3) inches to seven (7) inches when tested in accordance with ASTM C-143-78.

D. Concrete Reinforcement
1. Galvanized welded wire fabrication used as concrete reinforcement shall be a minimum size of 2" X 2" - 14/14. Welded wire fabric is required in the deck and the bottom sections with a minimum of a two (2) inch return to the sides and ends. Where splicing occurs, the overlap will be a minimum of four (4) inches. Galvanized wire mesh shall meet ASTM A-185.
2. Reinforcing steel bars (rebar) shall be grade 40 or 60, conform to ASTM 615, and shall be epoxy coated in accordance with ASTM A775 or galvanized in accordance with ASTM A 767.
3. Concrete decks shall contain fiber as a secondary reinforcement in accordance with the manufacturer's recommendations. Fiber shall be alkali proof and fully fire rated.

E. Expanded Polystyrene Core (EPS)
1. The closed cell expanded polystyrene core used inside the concrete unit shall conform to ASTM Standard Specification C-578. The EPS shall be Type I as listed in the ASTM Standard.
   a. Density weight minimum of 0.95 and a maximum of 1.10 pounds per cubic foot.
   b. Compressive strength minimum of 10 psi.
   c. Flexural strength minimum of 25 psi.
   d. Water absorption maximum of three (3) percent by volume as tested by ASTM Method C-272.
2. The EPS foam core may not have more than ten (10) percent reground EPS foam material. Reground foam pieces shall not exceed ½" in diameter.
3. The foam core shall be held in a true position during the casting operation with an allowable variation of 1/8 inch from the dimensions shown on the shop drawings.

F. Utility Raceway
1. Each walkway shall have utility sleeves embedded in the concrete float modules as required for electrical and mechanical systems with appropriate access boxes embedded it the decks of the concrete modules.
2. Access boxes, where required.
3. Access boxes shall be flush with the walking surface and have a slip-resistant finish. All bolts for lids on access boxes shall be stainless steel.
4. Utility sleeves shall remain above the water surface under dead load conditions and shall be designed to facilitate installation, removal, and servicing of the utilities. Access openings shall be provided at convenient locations if required for special access.

G. Thru-Rod Connections
1. The minimum dimension for all thru-rods for structural attachment is 3/4 inch rolled thread diameter.
2. Walers shall be securely fastened to the concrete floats using galvanized thru-rods, plate washers, split washers, and hex nuts. Thru-rods shall be placed through each float unit within six (6) inches of each end of that unit, and within six (6) inches of each lumber splice.
3. No connecting device shall protrude beyond the fascia into the berth area. Any connecting device protruding above the surface of the deck shall have a low, rounded profile. Any connecting device cast into the concrete modules shall be stainless steel.
4. A hot dipped galvanized coating shall be required on all thru-rods, bolts, miscellaneous hardware, cleats, steel plates, angles, and shapes in accordance with either ASTM A-123 or ASTM A-153 as the process applies to the specific material.

H. Deck Finish
1. The float deck surface shall be broom finished with a slip-resistant finish applied transversely to the walking surface. Manufacturer shall establish finishing methods and procedures to insure an even and consistent broom or screed finish on all deck surfaces. All top edges shall have a 3/8 inch tooled radius with a minimum 1-1/2 inch wide smooth hard steel finished face. Outside top

edges and corners shall be filed smooth. All work shall be performed by persons experienced and skilled in their trade.

I. Float Module Weight

1. The weight of the complete flotation units shall not vary from the theoretical weight or mean weight of all similar units by more than six (6) percent. As a part of their Quality Control program the Manufacturer shall weigh each float module and compare its actual weight with its design weight and take any necessary actions should the weights vary by more than six percent.

J. Float Identification

1. All floats are to be clearly identified on one side and one end between the bottom of the waler and the waterline with the date of manufacture, specific float type, and job number.

K. Timber

1. All timber walers and structural lumber shall meet one of the following standards:
   a. Southern Yellow Pine; "No. 1" or better in accordance with either the Southern Pine Inspection Bureau or the Timber Products Inspection Bureau grading rules.
2. All lumber shall be pressure preservative treated with ACQ or ACZA to .6 pound per cubic foot retention.
3. Lumber shall be fabricated accurately to provide uniform gaps and butt joint connections.
4. Tie bands used for delivery must have plates between the bands and the wood to prevent crushing. Bundle identification shall be done so as not to stain lumber surfaces.

L. Steel

1. All structural steel channels, angles, and plates shall be fabricated from mild steel conforming to ASTM A-36, and shall be hot dipped galvanized after fabrication.

M. Cover Panels

1. Triangle frame and other cover panels which provide continuous walking surfaces with the concrete deck shall be provided as required. All cover panels shall be installed flush with adjacent surfaces. Covers shall be installed with flat head stainless steel screws on a minimum of ten inch centers. On triangle frame cover panels exposed to wave action that will hit the bottom of the panel a minimum of two carriage bolts will be installed on each side securing the panel to the steel frame. Cover panels shall be fabricated from high density polyethylene (HDPE) specially formulated to provide toughness and durability in a marine environment.
2. Panels shall be Starboard AS brand or equal and shall contain UV stabilization for optimum performance in direct sunlight and weigh a minimum of .0342 lbs/cubic inch. Panels shall be fabricated with a skid resistant surface molded in the panels and be a minimum of 5/8” thick.

N. Fendering & Corner Bumpers

1. Fendering shall be provided as shown on the drawings. Unless otherwise specified fendering shall weigh a minimum of .9 pounds per lineal foot and made from a fungus and UV resistant PVC compound. Fendering shall be attached with stainless steel nails on four-inch centers on the top flange and six inch centers on the bottom flange.
2. Corner bumpers shall be mounted as shown on the drawings with stainless steel nails. Corners shall mate with the fendering as much as practical. Corners shall be made from a fungus and UV resistant PVC compound.

O. Dock Accessories

1. Pile Guides:
   a. Floating dock shall incorporate outboard pile guides capable of accepting round steel piles, which are 12 inches in diameter (verify with approved shop drawings).
2. Cleats:

a. Cleats shall be ALMAG (888-462-5624) or approved equivalent, cast aluminum alloy meeting the requirements of Federal Specification QQ-A-571F and QQ-A-601E.
b. Cleats shall be through bolted to the dock framing and shall withstand a mooring line load of 1500 lbs. in any direction.
c. A minimum of 5 cleats shall be provided.

PART 3 - EXECUTION

3.1 CONCRETE TESTING

A. The manufacturer will maintain an ongoing daily concrete testing program and its associated records. All concrete testing shall be done under the direct supervision of ACI (American Concrete Institute) certified testing technicians. All concrete testing shall be done in accordance with the respective ASTM specifications.

B. A minimum of three (3) compressive test cylinders shall be taken daily per mix design being used that day. The cylinders will be cured in a temperature-controlled water bath and tested by either an independent testing laboratory or by an on-site, Owner approved, certified testing facility. Test results will be submitted on one (1) each, seven (7) day; one (1) each, twenty-eight (28) day; and one (1) hold cylinder. Hold cylinders will be maintained at the casting facility for a period of five years.

C. Unit weight, slump and entrained air tests will be taken daily from the same material sample used for the compressive test cylinders.

D. All concrete testing shall be done at the Contractor's expense.

3.2 CURING, HANDLING, AND STORAGE

A. Except as otherwise approved, floats shall be cured for a minimum of seven (7) days or until the concrete has reached 70% of its design strength before transporting or assembling.

B. The Manufacturer shall select his own method of curing and be responsible for the result, except that all curing shall include the application of a curing compound as soon as practical after finishing and that the concrete modules be placed under cover with complete protection from direct sunlight, wind, and freezing for a period of three (3) days.

C. Manufacturer shall take care in establishing handling methods to avoid damage to float modules during form removal, storage, assembly, and installation. Storage of float modules shall be on level surfaces, and it shall be the responsibility of the Manufacturer to determine how high to stack modules to avoid damage. Care shall be taken to avoid damage caused by over-stacking.

D. Float modules shall be protected against damage from any cause. Any units damaged sufficiently to cause structural failure of the float module may be rejected and removed from the job.

3.3 CRACKS

A. Cracks that are determined to be structural in nature by the float system design engineer and not located in the deck of the module shall be V-cut out and patched with a non-shrink patching compound approved by the Owner. Cracks that are determined to be structural in nature by the design engineer which are located in the deck of the float module shall be patched in accordance with methods and materials approved by the owner and the float system design engineer on a case by case basis.

B. The float system design engineer shall determine if excessive cracking in a single flotation unit shall be cause for rejecting that unit.

C. Rock pockets exceeding one (1) inch in diameter and/or 1/2 inch in depth and/or honeycombing, shall be patched with an approved non-shrink grout of a color similar to the cured concrete. Any pockets which expose mesh or rebar shall be chipped out, cleaned, and filled with an approved epoxy patching compound.

END OF SECTION 33 42 20

SECTION 33 42 21
PHOTOCELL LIGHTS AND REFLECTORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes:

1. Photocell Lights and Reflectors

1.3 ACTION SUBMITTALS

A. Shop Drawings:
1. Cut sheet of Light
2. Layout of location of lights to be installed

1.4 DELIVERY, STORAGE, AND HANDLING

A. Schedule deliveries to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces.

PART 2 - PRODUCTS

2.1 CHARACTERISTICS

A. Light Characteristics:

1.	Light Source	4-Ultra-High Intensity LEDs
2.	Lumens Output	4 Lumens
3.	LED Color	White
4.	Light Mode	Constant
5.	Visible Range	300m-1000m
6.	Horizontal Output	180 Degrees Forwards and Backwards
7.	LED Life Expectancy	> 100,000 hours

B. Electrical Characteristics:

1.	Circuit Protection	Integrated
2.	Nominal Voltage	2.4v
3.	Autonomy	16-20 hours

C. Solar Characteristics:

1. Solar Mode Type Multicrystalline or Monocrystalline
2. Power 0.40 watts
3. Solar Module Efficiency 16-17%

2.2 POWER SUPPLY

A. Battery Type High Grade NiCdor NiMh-ECO Friendly

B. Battery Size 2x AAA

C. Battery Capacity 400-500 mAhr

D. Nominal Voltage 1.2v/Battery

E. Battery Service Life 1-3 years

2.3 PHYSICAL CHARACTERISTICS

A. Body Material Anodized Aluminum

B. Lens Material PC

C. External Lens Design Reflector

D. Internal Lens Design NA

E. Water Proof Rating IP 68

F. Mounting Flat Surface

G. Height 22mm

H. Width 104mm

2.4 ACCESSORIES

A. Fasteners according to manufacturer's recommendations.

B. All Fasteners to be stainless steel.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install according to manufacturer's guidelines.

END OF SECTION 33 42 21

APPENDIX I: PERMITS

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION
Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.state.nj.us/dep/landuse

PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date: JUN 17 2019

Expiration Date: JUN 16 2024

Permit Number(s):	Type of Approval(s):	Enabling Statute(s):
0906-13-0003.2 WFD190001	WFD IP In-Water WQC Water Quality Certificate	NJSA 12:5-3 et seq. WFD NJSA 58:10A-1 et.seq. WQC

Permittee:
NJDEP Office of Resource Development
Attn: Edward Mulvan
275 Freehold Englishtown Rd
Englishtown, NJ 07726

Site Location:
Block(s) & Lot(s): [24501, 3]
Municipality: Jersey City
County: Hudson

Description of Authorized Activities:

This permit authorizes the construction of a 5' x 94' fixed dock, 4' x 30' aluminum gangway, 8' x 60' concrete floating dock, 73 linear feet of breakwater and associated pilings and dolphins, as shown on the plans referenced on the last page of this permit.

This permit is authorized under and in compliance with the Rules on Coastal Zone Management, N.J.A.C. 7:7-1.1 et seq., as amended through March 6, 2019.

Prepared by:

Andrew Dromboski
Andrew Dromboski

If the permittee undertakes any regulated activity authorized under a permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the permit and all conditions therein.

Received and/or Recorded by County Clerk:

This permit is not valid unless authorizing signature appears on the last page.

SPECIAL CONDITIONS:

1. The permittee shall notify the Department in writing within five working days prior to commencement of operation of a CAFRA individual permit. At this time, the permittee shall certify that all conditions of the permit that must be met prior to operation of the development have been met.

2. The width of the structure shall not exceed twice the clearance between the structure and the surface of the ground below or the water surface at mean high tide (measured from the bottom of the stringers), except for floating docks whose width shall not exceed eight feet. Under typical circumstances the maximum width of the structure shall be eight feet over water and six feet over wetlands and intertidal flats. For the purposes of this section, an intertidal flat is a low lying strip of land along a shoreline located between spring high and spring low tides.

3. Spacing between horizontal planking of the dock shall be maximized and the width of the horizontal planking shall be minimized. Under normal circumstances, a minimum of 3/8 inch, 1/2 inch, 3/4 inch, or one inch space shall be provided for four inch, six inch, eight to 10 inch, or 12 inch wide planks on the dock, respectively.

4. Photocell lights and reflectors shall be placed along the dock and on mooring piles starting from a point that is 50 feet outshore of the mean high water line to the end of the dock at 10-foot intervals. The lights shall be installed and operational within 72 hours of completion of construction.

5. The shipwreck site located 160-feet southeast of the current dock shall be protected in place by an HPO-approved archaeological protection plan (APP). The APP shall be approved prior to the start of construction. The APP shall include a 50-foot buffer around the wreck site free of dredging, anchor drag lines, or any other bottom ground disturbance activities. The APP shall be referenced in project plans and documents with copies supplied to DLUR and the HPO for review and comment.

6. If avoidance of the shipwreck area is not possible, pursuant to NJAC 7:7-9.34, prior to the start of construction, a Phase I, and any Phase II, archaeological surveys shall be conducted to identify and evaluate the National Register of Historic Places eligibility of the shipwreck. Ways to avoid, minimize, and/or mitigate adverse effects to historic properties shall be conducted and completed with DLUR and the HPO prior to any work activities within the 50-foot buffer. All works shall be conducted by a professional maritime archaeologist meeting the Secretary of the Interior's *Professional Qualifications Standards* [48 CFR 44738-9] with all reporting meeting N.J.A.C. 7:4-8.5.

7. In order to prevent adverse impacts to shortnose and Atlantic Sturgeon, no in-water work is permitted from 3/1 through 6/30.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.

2. The issuance of a permit does not convey any property rights or any exclusive privilege.

3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.

4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District having jurisdiction over the site.

5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.

6. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (Warn DEP Hotline) of any noncompliance that may endanger the public health, safety, and welfare, or the environment. In addition, the permittee shall inform the Division of Land Use Regulation by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:
    a. A description of the noncompliance and its cause;
    b. The period of noncompliance, including exact dates and times;
    c. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and
    d. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

7. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.

8. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.

9. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.

10. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.

11. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:
    a. Enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit; and
    c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action.

12. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action under, as well as, in the appropriate case, suspension and/or termination of the permit.

13. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect so long as the regulated activity or project, or any portion thereof, is in existence, unless the permit is modified.

14. For Coastal Permits, Flood Hazard Permits and Flood Hazard Verifications, the permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to the Division of Land Use Regulation at the address set forth in the rules.

15. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

16. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.

17. A permit shall be transferred to another person only in accordance with the regulations.

18. A permit can be suspended or terminated by the Department for cause.

19. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.

20. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.

21. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, P.O. Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.

22. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the permittee shall remove and dispose of in a lawful manner, all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.

23. The regulated activity shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species, and shall not jeopardize the continued existence of any local population of a threatened or endangered species.

APPROVED PLANS:

The drawings hereby approved are one (1) sheet (SHEET NUMBER S-3) prepared by Maser Consulting, P.A., dated 01/31/19, last revised 03/13/19, unless otherwise noted, entitled: "DOCK REPLACEMENT PROJECT No. 1179-00 FOR LIBERTY STATE PARK JERSEY CITY HUDSON COUNTY STATE OF NEW JERSEY CONSTRUCTION PLAN".

In accordance with the applicable regulations, any person who is aggrieved by this decision or any of the conditions of this permit may request an adjudicatory hearing within 30 calendar days after public notice of the decision is published in the DEP Bulletin. This request must include a completed copy of the Adjudicatory Hearing Request form. The DEP Bulletin is available through the Department's website at http://www.nj.gov/dep/bulletin and the form is available through the Division's website at http://www.nj.gov/dep/landuse/download/lur_024.pdf. In addition to requesting a hearing, a request may be filed with the Department's Office of Dispute Resolution to determine whether the matter is suitable for mediation. Information concerning the dispute resolution process is available at www.nj.gov/dep/odr.

If you need clarification on any section of this permit or conditions, please contact the Division of Land Use Regulation's Technical Support Call Center at (609) 777-0454.

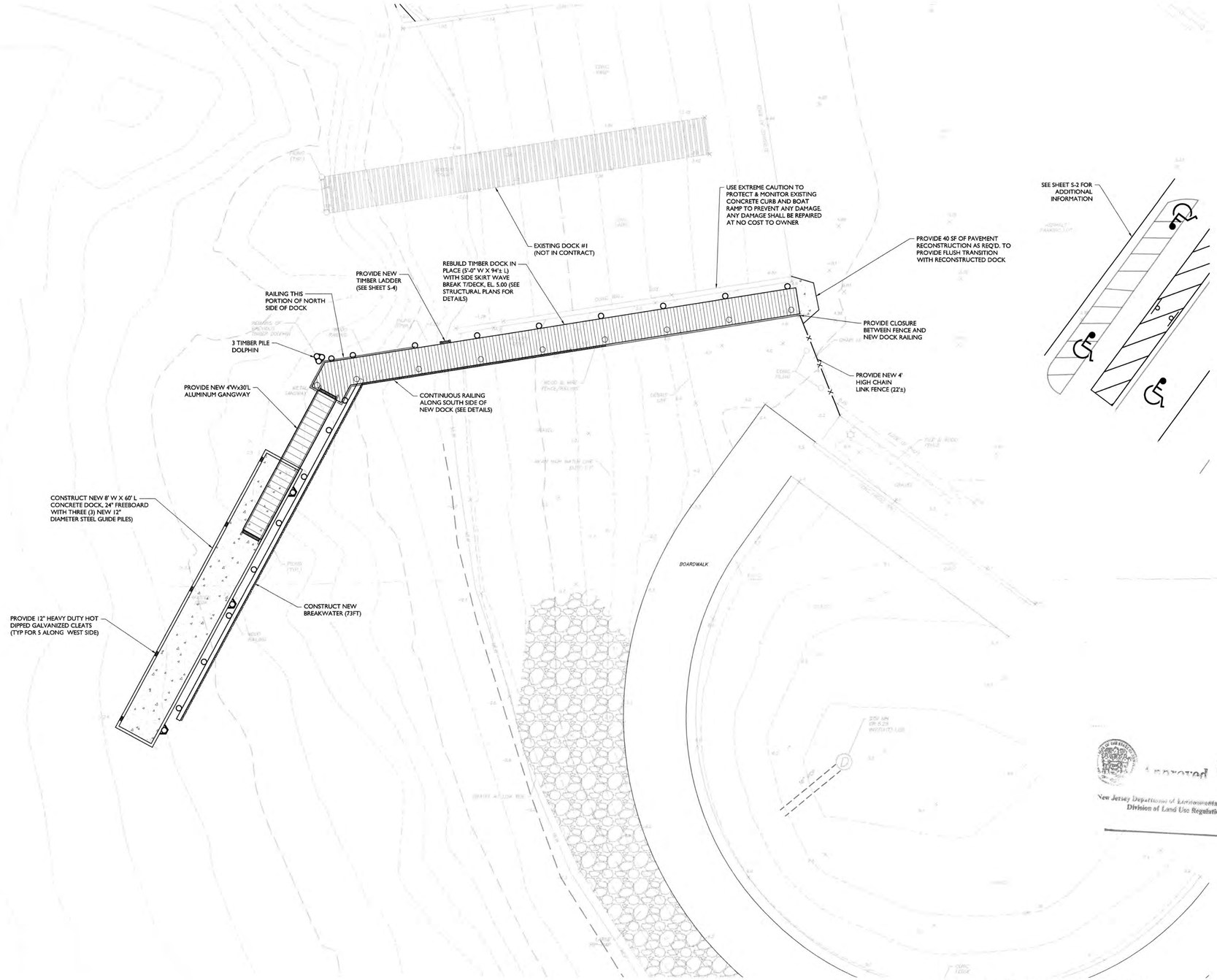
Approved By:

Christopher Jones, Manager
Division of Land Use Regulation

6/17/19
Date

Original sent to Agent to record
c: Permittee
Construction Official

RECEIVED
JUN 24 2019
MASER CONSULTING P.A.



10 0 10 20

SCALE : 1" = 10'

RANGE OF TIDE		
	MLLW DATUM	NAVD88
MEAN HIGH HIGH WATER (MHHW)	5.10	2.36
MEAN HIGH WATER (MHW)	4.77	2.03
NAVD (88)	2.74	0.00
MEAN LOW WATER (MLW)	0.22	-2.52
MEAN LOWER LOW WATER (MLLW)	0.00	-2.74
FEMA DATA: BASE FLOOD ELEVATION ZONE VE	15.0'	

CONSTRUCTION PLAN

SCALE: 1" = 10'-0"

NOTES:

1. SEE SHEET S-4 'STRUCTURAL PLANS' FOR DETAILS AND ADDITIONAL INFORMATION FOR ALL ITEMS.

1. FIELD WORK PERFORMED BY MASER CONSULTING, P.A. ON JANUARY 4, 2019.
2. MAP REFERENCES:
   a. FIRM (FLOOD INSURANCE RATE MAP) FOR HUDSON COUNTY NEW JERSEY FROM THE NATIONAL FLOOD INSURANCE PROGRAM. PANEL 108 OF 118, MAP NUMBER 34017C0108E, REVISED PRELIMINARY, DATED JANUARY 30, 2015.
   b. BEING KNOWN AS BLOCK 24501, A PORTION OF LOT 3 AS SHOWN SHEET NO. 243 OF THE CURRENT OFFICIAL TAX MAP OF THE CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY.
3. HORIZONTAL DATUM BASED UPON THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NAD 83 (NEAR SURFACE DERIVED COORDINATES UTILIZING KEYNET GPS)
4. HORIZONTAL DATUM = NORTH AMERICAN DATUM OF 1983 (NAD 83) (NEW JERSEY STATE PLANE COORDINATE SYSTEM) VERTICAL DATUM = NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) THE NEW JERSEY STATE PLANE COORDINATE SYSTEM (NJ S.P.C.S.) WAS ESTABLISHED AT THE PROJECT SITE BASED ON GPS OBSERVATIONS USING NATIONAL GEODETIC SURVEY MONUMENT STAMPED "LSP SOUTH" PID KV6856, ELEV. 9.00' NAD 1983(1996) AS A BASE STATION.
5. BATHYMETRY INFORMATION AND PLANIMETRICS SHOWN INSIDE THE UPPER NEW YORK BAY, BATHYMETRY SURVEY PERFORMED JANUARY 16, 2019.

MASER CONSULTING P.A.
Customer Loyalty *through* Client Satisfaction
www.maserconsulting.com
Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists
Office Locations:
■ New Jersey: Red Bank, Clinton, Hamilton, Egg Harbor, Monroe, Mt. Arlington, Mt. Laurel
■ New York: Albany, New Windsor, Westchester
■ Pennsylvania: Lehigh Valley, Exton, Philadelphia, Pittsburgh
■ Florida: Tampa, Orlando, Miami, Jacksonville
■ Maryland: Columbia
■ North Carolina: Charlotte, Raleigh
■ Virginia: Sterling, Norfolk
■ New Mexico: Albuquerque
■ Tennessee: Nashville
■ Texas: Bryan
State of N.J. Certificate of Authorization: 24GA27986500

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811 Know what's below. Call before you dig.

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
-	01/31/19	AEO	DESIGN DEVELOPMENT SUBMISSION.
-	03/13/19	AEO	PERMITTING SUBMISSION.

RICHARD C. MALONEY
NEW JERSEY PROFESSIONAL ENGINEER - LICENSE NUMBER: GE39023

Approved
New Jersey Department of Environmental Protection
Division of Land Use Regulation

DOCK REPLACEMENT
PROJECT No. 1179-00

FOR

LIBERTY STATE PARK

JERSEY CITY
HUDSON COUNTY
STATE OF NEW JERSEY

RED BANK OFFICE
Corporate Headquarters
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701
Phone: 732.383.1950
Fax: 732.383.1984

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/31/19	AEO	RCM
PROJECT NUMBER: 18007448G		DRAWING NAME: S-LAYT	

SHEET TITLE: CONSTRUCTION PLAN

SHEET NUMBER: S-3

2018\18007448G\Civil\Structural\LAYT.dwg\CNST By: AOUTWATER

BID PROPOSAL FORM

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION
P O BOX 034
TRENTON NEW JERSEY 08625-0034

The bid proposal is to be returned in the pre-addressed envelope and will be accepted no later than 2:00 p.m., **October 10, 2019** after which time the bid proposals will be publicly opened and read.

FIRM NAME:
(Please Type or Print)
(Business Street Address ONLY – No P O Box)

PROJECT NO P1179-00

PROJECT: Dock Replacement – Liberty State Park

LOCATION: Jersey City

COUNTY: Hudson

The undersigned Single Prime Contractor proposes to be responsible for all work shown in the contract plans and specifications.

☒ Single Bid $ _____
lump sum all trades (Numerical Figures Only)

In accordance with N.J.S.A. 52:35-1 et seq., the Contractor will be classified with the Division of Property Management and Construction (DPMC) in one of the following trades: General Construction (C008) or General Construction / Alterations and Additions (C009) or Site Work (C054) or Bulkhead and Docks (C083) or Pile Driving (C086)

The proposal is based upon the bid documents listed below.

1. Instructions to Bidders and General Conditions Revised December, 2015
2. Specifications dated: August 12, 2019
3. Drawing(s)#: See Cover Sheet T-1 Dated August 12, 2019

This project will be fully completed and ready for occupancy within 120* calendar days.

*(*No in-water work is permitted from March 1, 2020 through June 30, 2020)*

Liquidated damages will be assessed at 1/20 of one percent (.05%) of the value of this contract (minimum of $250.00).

The above price is good through sixty (60) days after the bid opening date.

Submit only one bid proposal and bid bond form.

A bid bond in the amount of fifty percent (50%) of the TOTAL bid, including alternates if applicable, must accompany this proposal form.

The Contractor must include prices for the base bid and all alternates and unit prices when requested, otherwise the bid may be considered non-responsive.

Having examined the bid documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, the Contractor hereby proposes to furnish all labor, materials and supplies, and to construct the project as submitted, within the time set forth therein, and at the price stated. This price is to cover all expenses incurred in performing the work required, of which this proposal is a part.

The Contractor acknowledges and affirms that it has personal knowledge of or has obtained and reviewed a copy of the valid prevailing wage rates for all trades involved in the project for the geographical location of the project as issued by the Commissioner of the Department of Labor, P O Box 389,Trenton, New Jersey, 08625 (609) 292-2259.

The Contractor acknowledges receipt of the following Bulletins:

BULLETIN NUMBER	DATE OF BULLETIN
A	September 4, 2019

EXECUTION OF CONTRACT

Upon receipt of written notice of the acceptance of this bid, the Contractor shall execute the formal contract within 10 calendar days and deliver a Performance and Payment Bond as well as other information as required in the bid solicitation.

COMMENCEMENT OF WORK

Contractor acknowledges that the work is to commence upon receipt of the Notice to Proceed with the exception of permit activities.

BID SECURITY

Bid Bond is fifty percent (50%) of the TOTAL bid, including alternates if applicable, and is to become the property of the State in the event the contract and bond are not executed within the time set forth as liquidated damages for the delay and additional expense incurred by the Owner.

CERTIFICATION

I certify that the below named firm is classified by the Division of Property Management and Construction in the approved amount of $ _____ for (trade) _____ until _____ (expiration date).

I further certify that this firm's bid for this project does not cause the firm to exceed its aggregate rating limit, including consideration of uncompleted construction work (please refer to N.J.A.C. 17:19-2.13, which describes how certain major trade subcontract work is discounted 85% for purposes of calculating whether a contractor is within its rating).

Respectfully submitted,

(Seal-if Bid proposal is by a corporation)

By: _____
(Name of Firm)

_____
(Signature)

_____
(Title)

_____
(Business Street Address ONLY – No P O Box)

_____
(City State County Zip)

Phone No. _____

Fax No. _____

Federal Identification No. _____

Any change in ownership information since filing your Request for Classification (Form DPMC 27)

☐ Yes

☐ No

If yes, attach explanation.

STATE OF NEW JERSEY
DEPARTMENT OF TREASURY
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION

NON-COLLUSION AFFIDAVIT

PROJECT: P1179-00
Dock Replacement – Liberty State Park
Jersey City, Hudson County, NJ

Bid Due Date **October 10, 2019** 02:00 PM

STATE OF NEW JERSEY [
[**SS.**
COUNTY OF [

I, _____ of the City of _____

in the County of _____ and the State of _____

of full age, being duly sworn according to law on my oath depose and say that:

I am _____

of the firm of _____

the Contractor making the Bid Proposal for the above named project, and that I execute the said Bid Proposal with full authority so to do; that said Contractor has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said bid proposal and in this affidavit are true and correct, and made with full knowledge that the State of New Jersey relies upon the truth of the statements contained in said Bid Proposal and in the statements contained in this affidavit in awarding the contract for the said project.

_____
SIGNATURE OF PRINCIPAL

Subscribed and sworn to before me this day
of 20 ,

_____
Notary Public

My Commission expires _____ , _____.

Public Law 2005, Chapter 92

Formerly: Executive Order 129

In accordance with Public Law 2005, Chapter 92 (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)) all bidders submitting a proposal shall be required to submit a Source Disclosure Certification that all services will be performed in the United States. The bidder shall disclose the location by country where services under the contract will be performed and any subcontracting of services under the contract and the location by country where any subcontracted services will be performed.

SOURCE DISCLOSURE CERTIFICATION FORM

Bidder: _____

I hereby certify and say:

I have personal knowledge of the facts set forth herein and am authorized to make this Certification on behalf of the Bidder.

The Bidder submits this Certification as part of a bid proposal in response to the referenced solicitation issued by the State of New Jersey, Department of Treasury, Division of Property Management and Construction (DPMC), in accordance with the requirements of Public Law 2005, Chapter 92, (N.J.S.A. 52:34-13.2 et seq., superseding Executive Order 129 (2004)).

The following is a list of every location where services will be performed by the bidder and all subcontractors.

Bidder or Subcontractor	Description of Services	Performance Location(s) by Country

Any changes to the information set forth in this Certification during the term of any contract awarded under the referenced Project Number will be immediately reported by the Bidder to the Contract Compliance Unit in the DPMC, Department of Treasury, State of New Jersey, PO Box 034, Trenton, NJ 08625.

I understand that, after award of a contract to the Bidder, it is determined that the Bidder has shifted services declared above to be provided within the United States to sources outside the United States, prior to a written determination by the Director, Division of Property Management and Construction, that extraordinary circumstances require the shift of services or that the failure to shift the services would result in economic hardship to the State of New Jersey, the Bidder shall be deemed in breach of contract, which contract will be subject to termination for cause under its contract with DPMC.

I further understand that this Certification is submitted on behalf of the Bidder in order to induce DPMC to accept a bid proposal, with knowledge that the State of New Jersey and DPMC are relying upon the truth of the statements contained herein.

I certify that, to the best of my knowledge and belief, the foregoing statements by me are true. I am aware that if any of the statements are willfully false, I am subject to punishment.

Bidder: _____
[Name of Organization or Entity]

By: _____ Title: _____

Print Name: _____ Date: _____

STATE OF NEW JERSEY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

BIDDER _____

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division of Purchase and Property's website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders ***must*** *review this list prior to completing the below certification.* ***Failure to complete the certification may render a bidder's proposal non-responsive.*** *If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.*

PLEASE CHECK THE APPROPRIATE BOX:

☐ I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, C. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

OR

☐ I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Part 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the box(es) below.

Name _____ Relationship to Bidder/Offeror _____
Description of Activities _____
Duration of Engagement _____ Anticipated Cessation Date _____
Bidder/Offeror Contract Name _____ Contact Phone Number _____

List Additional Activities on Separate Sheet

CERTIFICATION: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): _____ Signature: _____

Title: _____ Date: _____

CONTRACT

THIS AGREEMENT, made this _____ day of _____, **2018**

by and between _____ The State of New Jersey, _____herein called "owner," acting herein through its
(Corporate Name of Owner)

Division of Property Management and Construction, Deputy Director and
(Title of Authorized Official)

(a corporation)

of _____, City of _____, County of _____, and State of **New Jersey** hereinafter called "Contractor". (FID#XXXXXXXXX00)

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the **OWNER**, the **CONTRACTOR** hereby agrees with the **OWNER** to commence and complete the construction described as follows:

CONTRACT PROJECT NO.: **XXXXX-XX-CC01**
XXXXXXXXXXXXX
XXXXXXXXXXXXX
XXXXXXXX, COUNTY –XXXXXXXX, NEW JERSEY

LUMP SUM BID ... ...$000,000.

SPECIFICATIONS: Dated XX-XX-XX included as part of this contract

UNIT PRICES: Unit prices submitted on XXXXXXX of the Bid Proposal Form, included as part of this contract

BULLETINS: XXXXXXXXX have been acknowledged by the bidder and included as part of this contract

GEN.CONDITIONS: Instructions to Bidders & General Conditions revised December 2015, included as part of this contract

DRAWINGS: See Cover Sheet and Drawing Index dated XX-XX-XX, included as part of this contract

POST BID REVIEW CERTIFICATION: Dated XX-XX-XX, included as part of this contract

*Refer to Page 3.

hereinafter called the project, for the sum of _____Dollars (**$000,000.00**) and all extra work in connection therewith, under the terms as stated in the General and Special Conditions of the Contract Specifications, and at his (its or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendent, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, Supplementary General Conditions and Special Conditions of the Contract Specifications, the plans, which include all maps, plats, blue prints, and other drawings and printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by _____ herein entitled the Architect/Engineer, all of which are made a part hereof and collectively evidence and constitute the contract.

The contractor hereby agrees to commence work under this contract on **(See Notice to Proceed)** and to fully complete the project within ____ consecutive calendar days thereafter. This is of the essence for the completion of this contract. The contractor further agrees to pay, as liquidated damages, the sum of **$000.00,** for each consecutive calendar day thereafter as hereinafter provided in Article 7.5 of the General Conditions.

The **OWNER** agrees to pay the **CONTRACTOR** in current funds for the performance of the contract, subject to additions and deductions, as provided in the General Conditions of the Contract Specification, and to make payments on account thereof as provided in Article 10 of the General Conditions.

Only domestic materials shall be acquired or used for any public work unless the head of the department, or other public officer charged with the duty by law, shall determine it to be inconsistent with the public interest, or the cost to be unreasonable, or domestic materials of the class or kind to be used are not mined, produced or manufactured, as the case may be, in the United States in commercial quantities and of a satisfactory quality.

The Contractor shall conform to all provisions of "Law Against Discrimination" (P.L.1975,c.,127; N.J.S.A. 10:5-1 et seq.).

IN WITNESS WHEREOF, the parties to these presents have executed this contract in four (4) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

ATTEST:

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

_____ By _____
(Witness)

_____
(Title)

(Affix Corporate Seal)

_____
(Contractor)

_____ By _____
(Witness)

PRESIDENT
(Title)

_____
(Address)

WARRANTY:

It is hereby certified and warranted by the undersigned contractor and by the undersigned principals or officers thereof, for said Contractor and for themselves, personally and individually, that no person has been employed to solicit or secure this Contract in violation of the provisions of Section 10, Chapter 48 of the Laws of 1954, N.J.S.A. 52:34-15, or in violation of any other laws of the State of New Jersey; and it is further warranted that all applicable laws and regulations shall be complied within the performance of this contract.

Please be advised that pursuant to N.J.S.A. 54:49-19 et seq. and notwithstanding any provision of the law to the contrary, whenever any taxpayer, partnership or S corporation under contract to provide goods or services or construction projects to the State of New Jersey or its agencies or instrumentalities, including the legislative and judicial branches of State government, is entitled to payment for those goods or services at the same time the taxpayer, partner or shareholder of that entity is indebted for any State tax, the Director of the Division of Taxation shall seek to set off so much of that payment as shall be necessary to satisfy the indebtedness. The amount set-off shall not allow for the deduction of any expense or other deductions which might be attributable to the taxpayer, partner, or shareholder subject to set-off under this Act.

The Director of the Division of Taxation shall give notice of the set-off to the taxpayer, partner or shareholder and provide an opportunity for a hearing within 30 days of such notice under the procedures for protests established under N.J.S.A. 54:49-18. No request for conference, protest, or subsequent appeal to the Tax Court from any protest shall stay the collection of the indebtedness. Interest that may be payable by the State, pursuant to P.L. 1987, c 184 (c. 52:32-32 *et. seq.* to the taxpayer shall be stayed.

By signing this contract, I certify, pursuant to N.J.S.A. 52:34-12.2, that the entity for which I am authorized to bid:

has no ongoing business activities in Northern Ireland and does not maintain a physical presence therein through the operation of offices, plants, factories, or similar facilities, either directly or indirectly, through intermediaries, subsidiaries or affiliated companies over which it maintains effective control; or

will take lawful steps in good faith to conduct any business operations it has in Northern Ireland in accordance with the McBride principles of nondiscrimination in employment as set forth in N.J.S.A. 52:18A-89.5 and in conformance with the United Kingdom's Fair Employment (Northern Ireland) Act of 1989, and permit independent monitoring of their compliance with those principles.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

(Affix Corporate Seal)

_____
(Contractor)

_____ By _____
(Witness)

PRESIDENT
(Title)

_____
(Address)

This contract conforms to the standard form approved by the Attorney General.

GURBIR S. GREWAL
ATTORNEY GENERALOF NEW JERSEY

* Current Wage Rates dated **XX-XX-XX** and are included as part of this contract.

"THE MINORITY PERCENTAGE GOAL REQUIREMENT FOR THIS CONTRACT IS **XX%** PER SKILLED CRAFT."

"THE FEMALE PERCENTAGE GOAL REQUIREMENT FOR THIS CONTRACT IS **6.9%** PER SKILLED CRAFT."

"(The contract partner) shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request."

EXHIBIT B

(Revised December 2010)
MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.S.A. 10:5-31 et. seq. (P.L. 1975, C. 127)
N.J.A.C. 17:27-7.2

CONSTRUCTION CONTRACTS

During the performance of this contract, the contractor agrees as follows:

a. The contractor or subcontractor, where applicable will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following; employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

b. The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

c. The contractor or subcontractor will send to each labor union, with which he has a collective bargaining agreement a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

e. When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2, provided however, that the Dept. of LWD, Construction EEO Monitoring Program may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the applicable employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

(A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10.5-31 et seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly consistent with this chapter,

by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

(B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for construction trade, the contractor or subcontractor agrees to take the following actions:

(1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) Prior to commencement of work, to request the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement, or arrangement with a union for the construction trade;

(4) To leave standing requests for additional referral of minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade. The State Training and Employment Service and other approved referral sources in the area;

(5) If it is necessary to layoff some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) The contractor or subcontractor shall interview the referred minority or women worker.

(ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards, in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.

(iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractors shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a women is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing with the reasons for the determination and maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, and on forms made available by the Dept. of LWD, Construction EEO Monitoring Program upon request.

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ minority and women advanced trainees and trainees in numbers which result in the employment of advanced trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code (NJAC 17:27)**

ANTIDISCRIMATION PROVISIONS

Mandatory Language

N.J.S.A. 10:2-1 (2014)

The contractor agrees that:

Antidiscrimination provisions. Every contract for or on behalf of the State or any country or municipality or other political subdivision of the State, or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies, or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of $50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

No provision in this section shall be construed to prevent a board of education from designating that a contract, subcontract or other means of procurement of goods, services, equipment or construction shall be awarded to a small business enterprise, minority business enterprise or a women's business enterprise pursuant to P.L. 1985, c.490 (C.18A:18A-51 et seq.).

ADDITIONAL MANDATORY CONSTRUCTION CONTRACT LANGUAGE

It is the policy of the State of NJ Department of the Treasury, Division of Property Management & Construction (DPMC), that its contracts should create a workforce that reflects the diversity of the State of New Jersey. Therefore, contractors engaged by the DPMC, to perform under a construction contract shall put forth a good faith effort to engage in recruitment and employment practices that further the goal of fostering equal opportunities to minorities and women.

The contractor must demonstrate to the DPMC's satisfaction that a good faith effort was made to ensure that minorities and women have been afforded equal opportunity to gain employment under the DPMC's contract with the contractor. Payment may be withheld from a contractor's contract for failure to comply with these provisions.

Evidence of a "good faith effort" includes, but is not limited to:

1. The Contractor shall recruit prospective employees through the State Job bank website, managed by the Department of Labor and Workforce Development, available online at http://NJ.gov/JobCentralNJ;

2. The Contractor shall keep specific records of its efforts, including records of all individuals interviewed and hired, including the specific numbers of minorities and women;

3. The Contractor shall actively solicit and shall provide the DPMC with proof of solicitations for employment, including but not limited to advertisements in general circulation media, professional service publications and electronic media; and

4. The Contractor shall provide evidence of efforts described at 2 above to the DPMC no less frequently than once every 12 months.

5. The Contractor shall comply with the requirements set forth at N.J.A.C. 17:27.

AMERICANS WITH DISABILITIES ACTS
State Contract Language

Equal Opportunity for Individuals with Disabilities

The **CONTRACTORS** and the **STATE** do hereby agree that the provision of Title II of the Americans With Disabilities Act of 1990 (the "Act") (**42 U.S.C. S12101 et. seq.**), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the **STATE** pursuant to this contract, the **CONTRACTOR** agrees that the performance shall be in strict compliance with the Act. In the event that the **CONTRACTOR**, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the **CONTRACTOR** shall defend the **STATE** in any action or administrative proceeding commenced pursuant to this Act. The **CONTRACTOR** shall indemnify, protect, and save harmless the **STATE**, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The **CONTRACTOR** shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the **STATE**'s grievance procedure, the **CONTRACTOR** agrees to abide by any decision of the **STATE** which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the **STATE** or if the **STATE** incurs any expense to cure a violation of the **ADA** which has been brought pursuant to its grievance procedure, the **CONTRACTOR** shall satisfy and discharge the same at its own expense.

The **STATE** shall, as soon as practicable after a claim has been made against it, give written notice thereof to the **CONTRACTOR** along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the **STATE** or any of its agents, servants, and employees, the **STATE** shall expeditiously forward or have forwarded to the **CONTRACTOR** every demand, complaint, notice, summons, pleading, or other process received by the **STATE** of its representatives.

It is expressly agreed and understood that any approval by the **STATE** of the services provided by the **CONTRACTOR** pursuant to this contract will not relieve the **CONTRACTOR** of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the **STATE** pursuant to this paragraph.

It is further agreed and understood that the **STATE** assumes no obligation to indemnify or save harmless the **CONTRACTOR**, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the **CONTRACTOR** expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the **CONTRACTOR**'s obligations assumed in this Agreement, nor shall they be construed to relieve the **CONTRACTOR** from any liability, nor preclude the **STATE** from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

(Revised 4/10)

EXHIBIT A

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127)