



State of New Jersey

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

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

ANDREW P. SIDAMON-ERISTOFF
State Treasurer
STEVEN SUTKIN
Director

March 15, 2013

SUBJECT: Bulletin "A" dated March 15, 2013
RE: Project #P1095-00 -- Spicers Creek Boat Ramp Repairs
Lower Township, Cape May County

Gentlemen:

We are forwarding a copy of the above referenced bulletin. Please acknowledge receipt by returning this form to the address listed below. Fax copy will also be acceptable.

Division of Property Management & Construction
Attention: Richard Ferrara
Contracts & Procurement
P. O. Box-034
Trenton, New Jersey 08625-0034
FAX #: 609-777-1970

Very truly yours,

Richard Ferrara, Assistant Deputy Director
Contracts & Procurement

Date Received

Firm Name

Address

Signature

Title

Attachment (s)



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

PROJECT # P1095-00
Spicers Creek Boat Ramp Repairs
Lower Township, Cape May County

A/E: Taylor Wiseman & Taylor

DATE: 15 March 2013

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.

1. Attached Mandatory Pre-Bid meeting sign-in sheet.
2. Project sign and DPMC office trailer not required.
3. Contractor shall remove existing floating docks, as per Specification Section 010100, paragraph 1.2. Contractor shall place floating docks upside down on wood blocks out of the fenced-in construction site.
4. Post bid review meeting is scheduled for Thursday, 28 March 2013. Location of meeting to be determined.

END OF BULLETIN "A"

P1095 SPICERS CREEK BOAT RAMP

PRE-BID MTG., 13 MARCH 2013 @ 10AM

NAME COMPANY FAX

GREG CARDONA DPINC

GREG FONDACARO NINSA LLC 609-561-6294

DAVID SOUTHERO WALTERS MARINE 609-624-8703

George Helmer G. Helmer Const 856-629-0386

Charles Gager T&W Const. 856-694-1328

Chris Cummins Crown Pipeline 856-694-1328

FRANK PASOLUNO HILSON VALLEY 782-967-0060

BOB DUFFIN/ARY INDOOR MARINE 908-902-3930

THOMAS BARRY Thomas Barry Marine Constr. Inc 609-861-0222

SALLY BARRY Thomas Barry Marine Constr. Inc 609-861-0222

TERA WINGATE TWT 852-295-7240

BILL HAMILTON DPINC 856-690-5365

JOHN PEECELE DEP/ORD

ADVERTISEMENT FOR BIDS

Project No: P1095-00 – Spicers Creek Boat Ramp Repairs
Location: 3rd & Wissahickon Avenues, Lower Township, NJ – Cape May County

A MANDATORY PRE-BID MEETING IS SCHEDULED FOR 10:00 A.M. ON WEDNESDAY, MARCH 13, 2013. LOCATION: SPICERS CREEK BOAT RAMP, 3RD & WISSAHICKON AVENUES, LOWER TOWNSHIP, CAPE MAY COUNTY, NJ CONTACT PERSON: EUGENE CARDONE (609) 633-2648 (OFFICE) OR (609) 306-2574 (CELL). 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 Tuesday, March 26, 2013 for:

**Single Bid (lump sum all trades)
General Construction (C008) or
Site Work (C054) or
Bulkhead & Docks (C083)
\$144,050**

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 \$10.00 fee is required for mailing of bid documents. 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 **Catherine Douglass at (609) 777-3094** 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 and must submit bid security as provided in Instructions to Bidders and General Conditions/Supplementary Instructions to Bidders and General Conditions, Revised March 18, 2011. 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 P.L. 1975, c. 127, N.J. Law Against Discrimination.

**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**

C: Jenise Henson

SPECIFICATION

FEB 22 2013

Spicers Creek Boat Ramp Repairs

Spicers Creek Boat Access
Lower Township, Cape May County, N.J.

PROJECT NO. P1095-00

STATE OF NEW JERSEY

Honorable Chris Christie, Governor
Honorable Kim Guadagno, Lieutenant Governor



DEPARTMENT OF THE TREASURY

Andrew P. Sidamon-Eristoff, State Treasurer

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Steven Sutkin, Director

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bob Martin Commissioner

TAYLOR WISEMAN & TAYLOR

124 Gaither Drive, Suite 150
Mount Laurel, New Jersey 08054

Date: March 2013

FINAL

P1095-00

20

TWT # 05391 1000.00

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Spicers Creek Boat Ramp Repairs
Lower Township
Cape May County, NJ

DPMC Project No P1095.00

- Instructions to Bidders and General Conditions – Amended January 1995
- Supplementary Instruction to Bidders and General Conditions, March 2011
- Technical Specifications, Prepared by Taylor Wiseman & Taylor

State of New Jersey
Department of Treasury
Division of Property Management & Construction



AMENDED
JANUARY 1995
INSTRUCTIONS TO BIDDERS
AND
GENERAL CONDITIONS

INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS

DATED APRIL 1993

Are hereby superseded

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I 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 Bid Room, Division of Building and Construction (DBC), 8th Floor, Taxation Building, CN 235, West State and Barrack Streets, Trenton, NJ 08625. The closing date and time for bids will be stated in the Advertisement and Invitation to 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 DBC by the prescribed time will result in a return of the unopened submission.

IB 1.2 Bids will be received on the following branches of work, as applicable:

- Contract No. 1 - General Construction
 2 - Structural Steel
 3 - Plumbing
 4 - Heating, Ventilating and Air Conditioning
 5 - Electrical
 6 - Special Categories as may be required

IB 1.3 Contractors prequalified by DBC may obtain contract documents at the Office of the Division of Building and Construction or upon written request, subject to payment of applicable fees. Each bidder is herewith put on notice that its general classification by DBC 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, DBC 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.

DBC BID DOCUMENTS FEE SCHEDULE (PER PACKAGE):

<u>TRADE ESTIMATE</u>	<u>DOCUMENT FEE</u>	<u>MAILING FEE</u>
\$100,000 or less	No charge	\$10.00
Greater than \$100,000	\$ 65.00	\$10.00

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 DBC, enclosed in a sealed envelope issued by DBC. The name and address of the bidder must be indicated on the envelope, as well as indication of the DBC 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, and (3) bid security as further described in Section IB6 hereafter.

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 considered informal and rejected as non-responsive.

IB 2 Bid Modification

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

IB 2.2 Telegraphic 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.
- 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 conduct of 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 of New Jersey 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.

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, the awards 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 Department of State. No award of contract will be made until the Department of State 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 prequalified by DBC 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 6 Deposit and Bid Bond

IB 6.1 Each proposal shall be accompanied by a bid bond or by a certified check, made payable to the State of New Jersey, equal to five percent of the amount of the proposal, as evidence of good faith, which guarantees that if the proposal submitted by the bidder is accepted, the bidder will enter

into the contract and furnish the required contract documents and surety bonds. If a bid bond is submitted, it shall also provide that the surety issuing the bid bond be bound to issue the required payment and performance bonds if the bidder is awarded the contract. 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 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 State reserves the right to retain any certified check deposited hereunder as reimbursement for the difference as described above and shall return any un-required balance to the bidder. Should there be a deficiency in excess of the bid deposit, the bidder shall make immediate payment to the State for any such deficiency. If a bid bond has been submitted, the bidder and the surety shall pay, upon demand, the entire amount of the State's difference in cost. Nothing contained herein shall be construed as a waiver of any other legal remedies that the State may have by reason of a default or breach by the contractor. Certified checks or bonds submitted by unsuccessful bidders will be returned after the contract has been executed. Contractors electing to furnish a bid bond must include Consent of Surety, both in forms acceptable to DBC.

IB 6.2 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 calendar days after notice of award both a performance bond in statutory form in an amount equal to 100 percent 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 100 percent 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. 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.

IB 7.2 The cost of bonds shall be paid for by the contractor.

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:44143 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 DBC Director, and must be received at least five 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 telegraphic notice to all prospective bidders not later than three

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 on account 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 Under Chapter 32 of the Internal Revenue Code, an exemption certificate must be on file with the Director of the Division of Purchase and Property (Number 22-75-005).

IB 10.3 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.

IB 10.4 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 10.5 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.

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 NJAC 17:19-3.1 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 officer 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 Executive Commission on Ethical Standards may promulgate under paragraph IB12.1.c. above.

II. GENERAL CONDITIONS

ARTICLE 1

CONTRACT DOCUMENTS

1.1 Definitions for the purpose of this contract:

1.1.1 Administration: As used in this contract shall mean the General Services Administration in the Department of the Treasury, State of New Jersey.

1.1.2 Administrator: As used in this contract shall mean the General Services Administrator.

1.1.3 Architect/Engineer: The architectural or the engineering (A/E) consultant engaged by the State to act as the authorized representative of the contracting officer.

1.1.4 Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provided complete in place," that is, "furnished and installed."

1.1.5 Bulletin or Addendum: A document, issued by DBC prior to opening of bids, which supplements, revises or modifies the solicitation document(s) furnished for bidding purposes.

1.1.6 Change Order Request: A request for equitable adjustment made by the contractor in response to written direction by the contracting officer pursuant to Article 14 entitled "Changes to Contract."

1.1.7 Claims: Differences between the State and a contractor concerning extra work, alleged errors or omissions in the specifications or drawings, unreasonable delays, damages to work, informal suspensions or interference by State personnel, and like matters.

1.1.8 Contract Documents: This contract, together with any plans, drawings, specifications or other documents which are attached hereto or incorporated herein by reference, together with any such plans, drawings, specifications, schedules, or other documents which may be produced pursuant to or derived from this contract and which are intended to bind the contractor hereunder.

1.1.9 Contract Limit Lines: Refers to those lines shown on the contract drawings which limit the boundaries of the project, and beyond which no construction work or activities shall be performed by the contractor unless otherwise noted on the drawings or specifications.

1.1.10 Contract Line Item Number (CLIN): A specifically described unit of work for which a price is provided in this contract.

1.1.11 Contractor: The person or persons, partnership or corporation named as contractor in this contract, operating as an independent contractor and not as an agent of the State in the performance of its functions. Whether referred to as "contractor," "prime contractor," "prime," "separate contractor," or "single contractor," it shall be understood to mean contractor. It does not include suppliers or materialmen.

1.1.12 DBC: The abbreviation for the Division of Building and Construction, Department of the Treasury, State of New Jersey.

1.1.13 Department: As used in this contract shall mean the Department of the Treasury, State of New Jersey.

1.1.14 Director: The Director of the Division of Building and Construction, who is authorized 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 architect/engineers. This includes a duly appointed successor or an authorized administrative contracting officer acting within the limits of his or her authority. The Director is the interpreter of the conditions of the contract and the judge of its performance. The Director shall not take arbitrary positions benefiting either the State or the

contractor, but shall use the powers specified under the contract to enforce its faithful performance by both.

1.1.15 Wherever in the specifications or upon the drawings the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription" of the Director is intended. Similarly, the words "approved," "acceptable," "satisfactory," or words of like import shall mean "approved by," or "acceptable to," or "satisfactory to" the Director unless otherwise expressly stated.

1.1.16 General Construction Contractor: Either the contractor for general construction whenever separate prime contractors are involved in a project, or the sole contractor if there are no other prime contractors involved.

1.1.17 Notice: A written directive or communication served on the contractor to act or perform work or carry out some other contractual obligation. It shall 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 delivery by courier or registered or certified mail or telegram to the business address cited in the contract documents.

1.1.18 Plans: Any drawings or reproductions thereof pertaining to the details of the work contemplated by this contract.

1.1.19 Project: A general term for identification of the total contract. It includes the work and all administrative aspects required to fully satisfy the contract requirements.

1.1.20 Public Contract: Any contract or agreement entered into by the State of New Jersey or any instrumentality of the State to purchase goods, services, or both.

1.1.21 Site, Construction Site or Project Site refers to the geographical area of the entire State facility or property at which the work under the contract is to be performed.

1.1.22 Specifications: All written agreements, instructions or other documents in or pursuant to this contract pertaining to the method of performing the work and the results to be obtained.

1.1.23 State, Owner, Agency of the State or Division of Building and Construction (DBC) means the State of New Jersey.

1.1.24 Subcontractor: The person or persons, partnership, or corporation that enters into a contract with the contractor for the performance of work under this contract, or the subcontractors of any tier of such individual or corporation.

1.1.25 Substantial Completion: The date the building or facility is operational or capable of serving its intended use even though all permanent installations are not in place. The determination as to the date of substantial completion shall be made pursuant to article 8.3 of these General Conditions.

1.1.26 Systems Assurance: The totality of all quality control and assurance requirements specified in the contract 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 or equipment, and the prices associated with them.

1.1.28 Using Agency: The State agency for which the project is being undertaken.

1.1.29 Work: All construction efforts required by the contract documents, including the work and all supervision, labor, material and equipment necessary to complete such construction.

1.2 Intent of the Contract

1.2.1 The drawings and specifications of the contract are intended to require the contractor to provide for everything reasonably necessary to accomplish the proper and complete finishing of the work. 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 as if described in both. Any incidental materials and/or work not specified in the drawings and/or the specifications which is, nevertheless, necessary for the true development thereof and reasonably inferable therefrom, the contractor shall understand the same to be implied and required, and shall perform all such work and furnish all such materials as if particularly delineated or described therein. Should there be an obvious error or omission in the drawings or specifications, it shall be the contractor's responsibility to complete the work as reasonably required, consistent with the intent of such drawings and specifications as may be interpreted by the Director.

1.2.2 Each contractor shall abide by and comply with the true intent and meaning of the drawings, the specifications and other contract documents taken as a whole, and shall not avail itself of any unintentional error or omission, should any exist. Should any error, omission or discrepancy appear or should any doubt exist, or any dispute arise as to the true intent and meaning of the drawings, specifications or other contract documents, or should any portion thereof be obscure, or capable of more than one interpretation, the contractor shall immediately notify the architect/engineer and seek correction or interpretation thereof prior to commencement of affected work. The architect/engineer shall issue a written interpretation with reasonable promptness. However, the contractor shall make no claim against the State for expenses incurred or damages sustained on account of any error, discrepancy, omission, or conflict in the contract documents unless and only to the extent that the contractor has submitted a written request for interpretation, clarification, or correction to the architect/engineer and the Director, and such written request has been received by the architect/engineer and the Director at least five working days prior to the date fixed for the opening of bids. In addition, such claim shall only be recognized by the State if the matter raised by the written request has not been addressed by the State through the issuance of a bulletin interpreting, clarifying, and/or correcting such error, discrepancy, omission or conflict. In case of dispute, the matter shall be referred to the Director for a decision.

1.2.3 Each and every provision required by law to be inserted in the contract documents shall be 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 shall be physically amended to provide for such insertion or correction.

1.2.4 The organization of the specifications into divisions, sections and articles, and the arrangement of drawings shall not be construed by the contractor as being intended to divide or allocate the work among subcontractors in any manner or to establish the extent of the work to be performed by any trade.

1.2.5 Unless otherwise provided in the contract documents, the Director will furnish to each contractor free of charge three copies of the drawings and specifications, and additional instructions by means of supplemental drawings as otherwise necessary for the proper execution of the work. Upon request, additional drawings will be furnished at the contractor's expense.

1.2.6 The contractor shall do no work without proper drawings and instructions, unless written authorization to proceed from the Director is received by the contractor. In giving such additional instructions, the Director may make minor changes in the work, not involving extra cost.

1.2.7 All drawings referred to, and any supplementary details as may be furnished and approved from time to time as the work progresses, are understood as being included as part of the contract to which they relate.

1.2.8 The sequence of precedence pertaining to interpretation of contract documents is as follows:

- a. Executed Contract
- b. Addenda/Bulletins/Instructions

- c. Supplemental General Conditions
- d. Specifications, including General Conditions
- e. Drawings, in the following order of precedence:
 - (1) Notes on drawings
 - (2) Large scale details
 - (3) Figured dimensions
 - (4) Scaled dimensions

Where there may be a conflict in the specifications or drawings not resolvable by application of the provisions of this paragraph, then the more expensive labor, materials, or equipment shall be assumed to be required and shall be provided by the contractor.

1.2.9 On all work involving alterations, remodeling, repairs or installation within existing buildings, it shall be the responsibility of each contractor, by personal inspection of the existing building, facility, plant or utility system, to ascertain the accuracy of any information given which may affect the quantity, size and/or quality of materials required for a satisfactorily completed contract, whether or not such information is indicated on the drawings or included in the specifications. All contractors shall include the costs of all material and labor required to complete the work based on reasonably observable conditions.

ARTICLE 2

DIRECTOR

2.1 Director's Right to Stop the Work

2.1.1 If the contractor fails to correct defective work or persistently fails to carry out the work in accordance with the contract documents, the Director or the Director's authorized representative may order the contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated. Stoppage of the work of one or more contractors, however, shall not render the State liable for claims of any kind, including delays sustained by one contractor as the result of the stoppage of the work of another contractor.

2.2 Director's Right to Terminate

2.2.1 If the contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, 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; if the contractor fails to make prompt payment to subcontractors or for materials or labor; or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction; or if the contractor or any of its subcontractors is guilty of a substantial violation of a provision of the contract documents or otherwise defaults or neglects to carry out the work in accordance with the contract documents, then the Director may, without prejudice to any right or remedy, and after giving the contractor and its surety three working days written notice to forthwith commence and continue correction of such default or neglect 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 both or either of them fail to comply with the demands of the original above mentioned three day notice.

2.2.2 Upon such termination, the Director may take possession of the site and of all the materials, equipment, and tools on the site, and may finish the work by whatever method the Director may deem expedient. In such case, the contractor shall not be entitled to receive any further payment until the work is finished. The person or firm designated to carry out such work will be paid as authorized by the Director, without entailing any personal liability upon the officers of the State issuing certificates or making such payments.

2.2.3 If the unpaid balance of the contract sum exceeds the cost of finishing the work (including liquidated damages for delays and all consequential 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/or its surety shall pay the difference to the Department of the Treasury promptly upon receipt of billing from the State, and this obligation shall survive the termination of the contract.

2.2.4 If, within three working days following receipt of Notice of Termination by the contractor's surety (the issuer of the performance and payment bonds), the said surety exercises its right to take over the work and expeditiously commences to prosecute the same to completion, the Director shall permit the surety to do so under the following terms and conditions:

- a. Evidence of the surety's intention to take over and complete the contract shall be in writing over the signature of an authorized representative and served upon the Director within three working days after receipt by the surety of the Notice of Termination.
- b. The execution of a written agreement by the Director, between the State and the surety, whereby the latter undertakes and assumes the obligation to complete the balance of the work of its defaulting contractor in accordance with the terms and conditions of the Director-Contractor agreement, is to be performed by a substituted contractor satisfactory to the Director at the surety's sole cost and expense. Provision for payments to the surety or to the substituted contractor of unpaid contract balances, if any, then in the hands of the State.

- c. The said agreement shall also expressly provide that the surety shall not be relieved from any of its obligations under the performance and payment bonds, and that it furnish the State with an additional performance and payment bond to secure the faithful performance of the substituted contractor.
- d. All current obligations for labor and materials incurred and outstanding by the defaulting contractor on this project shall be paid without delay, subject to allowance of reasonable time to verify such claims by the surety.
- e. The parties expressly understand and agree that this agreement is without prejudice and is subject to such rights and remedies as either party (including the contractor) may elect to assert after final completion and acceptance of the work.

2.3 Director's Representation

2.3.1 The Director will be represented on the construction site by DBC engineers and project inspectors or other designated representatives. This technical staff will conduct on-site inspections, maintain logs of construction progress and problems encountered, review and process contractors' invoices including stored materials on site, attend job meetings, serve as liaison between the architect/engineer and contractors, prepare and submit reports on special problems associated with the job, evaluate and process change orders, and generally remain fully cognizant and informed by the contractors of every aspect of ongoing construction. The Director's representatives have only those duties which are required of an owner; responsibility for completion of this project, pursuant to the contract documents, remains that of the contractor(s).

2.4 Review of Contractor Claims and Disputes

2.4.1 Upon presentation by the contractor of a request in writing, the Director 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 Director 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 shall be afforded the opportunity to be heard on the matter in question. Following review of the contractor's request, the State and the contractor may settle or resolve the disputed matter, provided however that any such settlement or resolution shall be subject to all requirements imposed by law, including where applicable, the New Jersey Contractual Liability Act (NJSA 59:13-1 *et seq.*).

ARTICLE 3

ARCHITECT/ENGINEER

3.1 The Architect/Engineer

3.1.1 When the State provides full supervision and management of a project, the architect/engineer's role is that of consultant to DBC.

3.2 Administration of the Contract

3.2.1 The architect/engineer will provide a certain portion of the administration of the contract as hereinafter described.

3.2.2 The architect/engineer will monitor the execution and progress of the work and will immediately notify the Director of any related problems. The architect/engineer will at all times be provided access to the work. The general construction contractor shall provide facilities for such access so as to enable the architect/engineer to perform its functions under the contract documents.

3.2.3 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 contractors, subcontractors, or any of their agents or employees, or any other person performing any of the work, but shall have the obligation to immediately inform the Director of any inadequate performance of the project.

3.2.4 The architect/engineer will recommend rejection of work which it believes does not conform to the contract documents. Whenever the architect/engineer considers it necessary or advisable, it may request the Director to provide special inspection or testing of the work, whether or not such work has been fabricated, installed or completed.

3.2.5 The architect/engineer will review, approve or take other appropriate action relating to contractors' submittals, such as shop drawings, product data and samples, to assure conformance with the design requirements and the plans and specifications of the work. 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.

3.2.6 The architect/engineer will periodically review the contractors' as-built drawings to ensure that they are up to date.

3.3 Inspections - Substantial and Final Completion

3.3.1 The architect/engineer, accompanied by the contractor and the Director's authorized representative, will conduct site inspections to determine the dates of substantial and final completion and will receive and compile written warranties and all other requisite documents assembled and supplied by the contractor. The architect/engineer will forward these documents to the Director for review and certify final contract acceptance.

ARTICLE 4

THE CONTRACTOR

4.1 Review of Contract

4.1.1 The contractor has the duty to do the following: to thoroughly examine and become familiar with all the contract documents, including but not limited to the complete set of drawings and specifications of the entire project; to note cases where it is specified that certain work or materials or both are to be omitted by one contractor and to be furnished or installed by another; to carefully examine the site; to investigate and accurately determine the nature and location of the work, the current equipment, labor and material conditions, and all matters which may in any way affect the work or its performance. The contractor is responsible to check and verify reasonably observable conditions outside the contract limit lines to determine whether any conflict exists with the work the contractor is required to perform under the contract. This includes a check on elevations, utility connections and other site data. As a result of such examination and investigation, the contractor warrants and represents the full understanding of the intent and purposes of the contract documents and the contractor's obligation thereunder and that the contractor accepts responsibility for, and is prepared to execute and fulfill completely, by its construction work, the intent of the contract, without exception and without reservation, at the price specified in the contract.

4.1.2 The contractor shall carefully study and compare the contract documents during the progress of the work and shall immediately report any error, inconsistency or omission to DBC upon discovery. The contractor shall immediately report any error, inconsistency or ambiguity detected during the course of the project to the State, and shall not continue with any work which may be affected by such error until the State has had the opportunity to respond to and clarify the work it wants performed in view of this information. Wherever any error, inconsistency or omission appears, it shall be disposed of pursuant to appropriate procedures set forth elsewhere herein.

4.1.3 Unless otherwise ordered in writing by the Director, the contractor shall perform no portion of the work without approved change orders, approved shop drawings, samples, or other approvals as may be applicable and required by the contract documents.

4.1.4 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 and completion of the work, whether or not incorporated or to be incorporated in the work.

4.1.5 The contractor shall at all times enforce strict discipline and good order among its employees and shall not employ on the work any unfit person or anyone not skilled in the task assigned to him.

4.1.6 The contractor shall be obligated to pay the prevailing wage rates set forth in the specifications and shall abide by the requirements of the State's Affirmative Action Program. The contractor also shall be responsible to ensure that all principles of safety are carried out, as detailed in article 12 of this document.

4.2 New Jersey Prevailing Wage Act

4.2.1 Each contractor and subcontractor shall comply with the New Jersey Prevailing Wage Act Laws of 1963, Chapter 150, (NJSA 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 Division of Building and Construction, 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 Division of Building and Construction is a party shall be paid not less than the prevailing wage rate as designated by the Commissioner, Department of Labor or his or her duly authorized representative.

- (1) Each contractor and subcontractor performing public work for the Division of Building and Construction on behalf of the Department of the Treasury, 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, Department 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) The contractor's signature on the proposal is its guarantee that neither the contractor nor any of its subcontractors is currently listed or on record by the Commissioner, Department of Labor, as one that has failed to pay the prevailing wages according to the Prevailing Wage Act.
- b. In the event it is found that any worker, employed by any contractor or subcontractor covered by any contract in excess of \$2,000 for any public work to which the Division of Building and Construction is a party, has been paid a rate of wages less than the prevailing wage required by such contract, the Director of the Division of Building and Construction may terminate the contractor's or subcontractor'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 prosecute the work to completion.
 - c. Nothing contained in the Prevailing Wage Act shall prohibit the payment of more than the prevailing wage rate to any worker employed on a public work.

4.3 Supervision and Construction Procedures

4.3.1 The contractor shall supervise and direct the work as skillfully and attentively as possible. 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.

4.3.2 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 as binding as if given to the contractor. Important communications shall be confirmed in writing. The State reserves the right to require a change in superintendent if the superintendent's performance, as judged by the Director, is deemed to be inadequate. Upon application in writing to the Director, this requirement for a full-time superintendent may be waived by the Director should the Director determine that such staffing is not required by the State.

4.3.3 Each contractor shall employ qualified competent craftsmen in their respective lines of work.

4.3.4 The various subcontractors shall likewise have competent superintendents and/or foremen in charge of their respective portions of the work at all times. They shall not employ a person unfit or unskilled in the assigned area of work. If it should become apparent that a subcontractor does not have its portion of the work under control of a competent foreman, the responsible prime contractor shall have the obligation to take appropriate steps to immediately provide proper supervision.

4.3.5 If, due to a trade 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 evaluate and include the costs thereof in its bid price and shall provide said services without additional charge.

4.4 Responsibility for the Work

4.4.1 The contractor shall be responsible to the Director and to any separate contractors having a contract with the State on this project, for the acts and omissions of its employees, subcontractors and their agents and employees which injure, damage or delay such other contractors in the performance of their work. This responsibility is not limited by the applicable provisions stated elsewhere in this document, but is in conjunction with and related to these provisions.

4.4.2 Each 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 Each contractor shall, at its own expense, protect all finished work liable to damage and keep the same protected until the project is completed and accepted. In the case of substantial completion accompanied by beneficial occupancy by the State, the contractor's obligation to protect its finished work shall cease simultaneously with the occupancy of the portion or portions of the structure.

4.4.4 Each contractor shall defend, protect, indemnify and save harmless the State from all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the performance of the contractor's work under this contract. This responsibility is not limited by the provisions of other indemnification provisions included elsewhere in this document.

4.4.5 In order to protect the lives and health of its employees, the contractor shall comply with all applicable statutes 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. The contractor alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances and methods, and for any damage or injury which may result from the contractor's failure or improper construction, maintenance or operation.

4.5 Permits - Laws - Regulations

4.5.1 Unless otherwise provided in the contract documents, the contractor shall secure and pay for all 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.

4.5.2 All general construction, plumbing and electrical work is to be done in accordance with the New Jersey Uniform Construction Code. No work requiring inspections and approval of construction code officials is to be covered or enclosed prior to inspection and approval by appropriate code enforcement officials.

4.5.3 The work under this contract is exempt from local ordinances, codes and regulations as related to the building and the site on which it is located, except where construction could adversely affect adjacent property, public sidewalks and/or streets. The contractor shall coordinate its activities with municipal and/or highway authorities having appropriate jurisdiction.

4.5.4 Soil conservation measures are to be in accordance with County Soil Conservation District requirements.

4.5.5 All sewage disposal work shall conform with the regulations of the State's Department of Environmental Protection and Energy.

4.5.6 The State will engage and pay for all code inspection; however, it is each contractor's responsibility to request inspections in a timely manner.

4.5.7 The State, upon the contractor's request, will name the inspector/inspection agency responsible for code enforcement at the time of project award. A Certificate of Electrical Code Compliance is to be obtained from the electrical code inspector prior to the issuance of the Certificate of Final Acceptance for electrical work.

4.5.8 Consistent with section 4.4.4 of this document, each contractor shall be responsible for and save harmless 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.

4.5.9 All contractors shall comply with the Federal Occupational Safety and Health Act of 1970 and all of the rules and regulations promulgated thereunder.

4.5.10 As a result of a finding by an appropriate finder of fact that a contractor caused a substantial violation of a State, local or federal statute or regulation on said project, DBC may declare the contractor to be in default.

4.5.11 Prior to the start of any crane equipment operations, each contractor shall make all necessary applications and obtain all required permits from the Federal Aviation Administration (F.A.A.). The sequence of operations, timing and methods of conducting the work shall be approved by the F.A.A. to the extent that it relates to its jurisdiction.

4.6 Storage, Cleaning and Final Clean Up

4.6.1 Each 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 limit as established in the contract documents, the rules and regulations of the Using Agency, or as ordered by the Director. The contractor shall not unreasonably encumber the site or the premises with materials, tools and equipment.

4.6.2 Each 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, 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 material, debris, etc. from the site and the State's premises. Loading, cartage, hauling and dumping will be at the contractor's expense.

4.6.3 At the completion of the work, all contractors shall remove all of their tools, construction equipment, machinery, temporary staging, falsework, formwork, shoring, bracing, protective enclosures, scaffolding, stairs, chutes, ramps, runways, hoisting equipment, elevators, derricks, cranes, etc. from the project site.

4.6.4 Should any contractor not promptly and properly discharge its obligation relating to cleaning and final clean up, the State shall have the right to employ others and to charge the resulting cost to the contractor(s) deemed by the Director to be responsible therefor, after first having given the contractor a three working day written notice of such intent.

4.6.5 The contractor's responsibilities in final clean up 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 putty stains from glass and mirrors. Glass shall be washed and polished inside and outside.
- c. Removal of marks, undesirable 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.

4.6.6 In each instance, the clean-up work shall be performed by the contractor responsible for the portion of the work requiring the clean-up service. In the event of dispute as to responsibility, the Director's representative shall make the determination, which shall be binding on all contractors.

4.6.7 All construction equipment, materials or supplies of any kind, character or description of value belonging to the contractor and which remain on the job site for more than 30 calendar days from the date of the Certificate of Final Acceptance and Completion issued by the State to the contractor, shall become the absolute property of the State. It will be disposed of in any manner the State shall deem reasonable and proper.

4.7 Cut-Overs, Interruptions to Existing Buildings

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

4.8 Non-Regular Workdays

4.8.1 Regular working hours shall be 8:00 a.m. to 4:30 p.m., Monday through Friday. Changes thereto may be granted with written approval of the Director's representative. Any work required to be performed after regular working hours or on Saturdays, Sundays, or legal holidays as may be reasonably required and consistent with contractual obligations, shall be performed without additional expense to the State. The contractor shall obtain approval of the Director's representative for performance of work after regular working hours or on non-regular work days at least 24 hours prior to the commencement of overtime, unless such overtime work is caused by an emergency.

4.9 Drawings, Specifications, Shop and As-Built Drawings

4.9.1 The Director will furnish, after becoming aware of such need, additional instructions for the proper execution of the work. All drawings and instructions issued by the Director shall be consistent with the contract documents and reasonably inferable from and executed in conformity with the contract documents. The contractor shall do no work without proper drawings and instructions. In giving such additional instructions, the Director will have the authority to make minor changes in the work, not involving extra cost. Drawings and instructions with such supplementary details furnished or approved are understood to be included and a part of the contract.

4.9.2 Where certain of the 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.

4.9.3 No contractor shall, at any time after the execution of its contract, make any claims whatever based upon insufficient data or the contractor's incorrectly assumed conditions, nor shall the contractor claim any misunderstandings with regard to the nature, conditions or character of the work to be done under the contract. The contractor shall assume all risks resulting from any changes in conditions not under the control of the State, which may occur during the progress of the work.

4.9.4 Each contractor shall, together with the Director or Director's representative, prepare a schedule of the proposed progress of the work, fixing the dates when the various details and supplemental drawings, if any, may be required. Within two weeks of the first field meeting, each contractor shall submit to the architect/engineer a shop drawing sample submission schedule which shall be used as a basis for complying with the overall progress schedule. Each contractor shall also promptly submit, so as to cause no delay in its own work or that of any other prime contractor, a reproducible transparent copy of all shop or setting drawings, details and schedules required for the work of the various trades. The architect/engineer will review them with reasonable promptness. The contractor shall promptly make any corrections, if required by the architect/engineer, and

resubmit a reproducible transparent copy for approval. Within five working days of final approval, the contractors shall send the architect/engineer a minimum of six prints of the finally approved drawings as well as six copies of all catalog cuts, plus the required number of approved prints for all other prime contractors. The architect/engineer will make proper distribution of all drawings as directed by the Director.

4.9.5 The contractor shall not use the contract drawings for submission of 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.

4.9.6 Attached to the contractor's initial submission of such drawings or catalog data shall be an itemized schedule listing dates by which all other submissions will be forwarded to the architect/engineer. The general construction contractor also has the responsibility to submit coordinated drawings whenever two or more trades are occupying common space. Any list of drawings prepared by the architect/engineer is for the Director's convenience only, and shall not be construed as limiting the number of drawings the contractor shall furnish.

4.9.7 Any contractor desiring to make any deviations or changes from the requirements of the contract documents shall obtain the consent of the Director to such changes before submitting drawings showing such proposed changes. All drawings submitted by the contractor shall have been checked and approved by the contractor before submission. The DBC project number and the drawings and specification references shall be noted on all submissions. Failure to comply with these instructions will be sufficient reason to return such drawings to the contractor without any action being taken.

4.9.8 Each contractor shall keep on the project site at all times one set of drawings to be marked "AS-BUILT." During the course of the project, the contractor shall mark these drawings with colored pencils to reflect any changes, as well as dimension the location of all pipe runs, conduits, traps, 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 metes and bounds survey performed by a licensed surveyor who shall certify as to its accuracy. These marked-up drawings and surveys shall be made available to the Director upon request at any time during the progress of the work. These shall include the drawings of principal sub-contractors as well.

4.9.9 In instances where sepias, shop drawings and/or erection drawings, of a scale larger than the contract drawings, are prepared by a contractor, such drawings and sepias will be acceptable in lieu of marked-up contract drawings, provided they are updated as per section 4.9.8 above. A master sheet of the same dimensions as the contract drawings shall be prepared by the contractor on a tracing which shall indicate, sheet by sheet, a cross-reference to all shop drawings pertaining to that drawing. All drawings and sepias as required in section 4.9.8 and this section shall be labeled "AS-BUILT" above the title block and dated.

4.9.10 Each contractor shall submit the "as-built" documents to the architect/engineer, whether altered or not, 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 and/or erection drawings used for "as-built" documentation.

4.9.11 The architect/engineer shall obtain original tracings at the office of the Division of Building and Construction. No original tracings will be mailed. All "as-built" drawings as submitted by contractors shall be labeled "AS-BUILT" above the title block and dated. This information shall be checked, edited and certified by the architect/engineer, which shall then transpose such information from the contractor's "as-built" drawings to the original tracings, certify that such tracings reflect as-built status, and deliver said tracings to DBC. Where shop drawings have been used by the contractor for "as-built" documentation, the tracing providing cross reference information, as described in section 4.9.9 of this document, shall be included in the set of "as-built" drawings furnished to DBC.

4.10 Samples

4.10.1 Each contractor shall furnish, for approval, all samples as directed. The work shall be in accordance with approved samples. Such samples shall be submitted promptly to the Director, through the architect/engineer, at the beginning of the work, so as to give the Director time to examine them. Any list of samples prepared by the architect/engineer is for the Director's convenience only, and shall not be construed as limiting the number of samples the contractor shall furnish upon request of the architect/engineer.

4.11 Miscellaneous Drawings, Charts and Manuals

4.11.1 Roughing Drawings and Operating Manuals: Plumbing, HVAC, electrical and other machinery and mechanical equipment items requiring utility service connections shall have their respective shop drawings accompanied by manufacturer's certified roughing drawings, indicating accurate locations and sizes of all service utility connections.

4.11.2 Sleeve and Opening Drawings: Prior to installing service utilities or other piping, etc. through structural elements of the building, the contractor shall prepare and submit, for approval of the architect and structural 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 sufficient time to allow proper coordination with reinforcing steel shop drawings and proper placing in the field.

4.11.3 Control Valve and Circuit Location Charts and Diagrams: Plumbing, HVAC and electrical contractors 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 appropriately designated equipment rooms, as directed. These contractors shall also furnish one-line diagrams, as well as such color coding of piping and wiring and identifying charges as specified or required. This information is to be framed under glass and displayed where directed.

4.11.4 Operating and Manuals: Four copies of all operating and maintenance manuals, as identified and described in the contract specifications, are to be furnished by the appropriate contractors. Operating and maintenance manuals shall include a complete description of all systems and equipment; diagrams indicating connectors, coiling requirements and types of lubricants to be used; and method of operating equipment. These manuals must be submitted to the architect/engineer for review and approval at the earliest date possible, but in all cases prior to final acceptance. Included within the manuals shall be a list of names, addresses and telephone numbers of subcontractors involved in the installations and of firms capable of performing services for each mechanical item.

4.11.5 As a pre-condition to the acceptance of a facility for beneficial use, contractors shall provide a "throwaway" 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 the contract.

4.12 Openings - Channels - Cutting and Patching

4.12.1 Each contractor shall be responsible for furnishing and setting of sleeves, built-in items, anchors, inserts, etc. 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. Where applicable, the contractor for general construction shall build these items into the construction.

4.12.2 The contractor for general construction shall build recesses, channels, chases, openings and flues and shall leave or create holes where indicated on drawings, or where directed, for steam, water or other piping, electrical conduits, switch boxes, panel boards, flues and ducts, or any other feature of the heating and ventilating work. All contractors requiring recesses, channels, chases, openings, etc. shall furnish to the contractor for general construction, through the architect/engineer, complete detailed drawings for all such openings required in connection with such work in ample time to allow the construction work to proceed without interruption or delay. At least three copies shall be furnished to the Director.

4.14.1 The contractor warrants to the Director and the architect/engineer 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 in conformance with contract documents. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective and rejected by the Director or the architect/engineer. If required by the architect/engineer or the Director, the contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of the other paragraphs contained in this document.

4.14.2 The original and six copies of the request for approval of materials prepared on the appropriate DBC form shall be forwarded to the architect/engineer for approval. Each item of material listed shall be marked "As Specified" or "Unspecified" as the case may be.

4.14.3 Each 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.

4.14.4 Each 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 prosecuting the work under this contract, unless expressly specified otherwise. The contractor shall make arrangements to have its representatives at the site to accept delivered materials. State agencies will not accept materials, nor will they be held responsible for damage, theft, or disappearance of contractor's materials, equipment, tools, etc.

4.14.5 Manufactured products of the United States, whenever available, shall be used in this work. 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.

4.14.6 No materials, equipment, or supplies for the work shall be purchased by the contractor or any subcontractor subject to any lien or encumbrance or other agreement by which an interest is retained by the seller. 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.

4.15 Substitutions

4.15.1 In the event a contractor should propose a substitution of the specified equipment or materials, it shall be its responsibility to submit proof of equality and to provide and pay for any tests which may be required by the Director in order to evaluate such proposed substitution.

4.15.2 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, in the opinion of the Director, will be accepted if approved.

4.15.3 On forms supplied by the State, the application for approval of a substitution by the contractor shall include or conform to the following requirements:

- a. Furnish full and complete identification information.
- b. Note whether the item is included in the specifications; in which case, identify the specification paragraph and section.
- c. Attach data indicating in detail whether and how the substitution differs, if at all, from the article specified.
- d. If a credit is to be offered for the substitution, provide a detailed itemization of the amount of credit.
- e. If the proposed substitution involves a change in scope of the work of this or any other contractor or trade under the contract documents, then the contractor requesting

approval undertakes and agrees to be responsible for any and all resulting added costs in its work, the work of other contractors and trades, including any redesign.

- f. When requesting approval of an out-of-state subcontractor or material manufacturer or supplier, include a statement indicating that reasonable effort was first made to find and utilize New Jersey firms and/or materials, at comparable costs, terms and performance capabilities.
- g. Submit documents which 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 Director or the architect/engineer.
- h. No contractor shall base a bid on substitutions which may have been approved on previous projects. Bids shall be based solely on plans and specifications of the subject project.

4.15.4 Since substitutions are primarily for the financial benefit of the contractor, a credit change order shall accompany each request for substitution.

4.16 Subcontractor Approvals

4.16.1 Approval of a subcontractor or material supplier by the Director 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 does not imply approval of any material, equipment or supplies.

4.17 Pay Limits for Excavation

4.17.1 The method of measurement and establishment of pay limits for additions or deductions for excavation where expressly authorized in these General Conditions and/or specifications, shall be as follows:

- a. Basement excavations: Pay limit for excavation shall be in accordance with cross-section limited by vertical parallel planes extending 24 inches outside of foundation walls as shown on contract drawings, and horizontal plane along bottom of basement concrete slab or footings.
- b. All pipelines and encased utilities: Pay limit for trench excavation shall be limited to width of 36 inches or the largest diameter or pipe barrel plus 24 inches, whichever is greatest, and depth at bottom of pipe barrel. When rock is encountered, the contractor shall excavate to six inches below bottom of pipe barrel. A compacted granular fill for the pipe shall be provided by the contractor. No additional payment will be made for this additional six inches of granular fill.
- c. Encased electrical conduit, steam transmission lines, unformed foundation footings: Width and depth of trench shall be limited to same width and elevations of structure shown on contract drawings.
- d. Unsuitable foundation material: Where unsuitable foundation material is encountered, the contractor shall excavate to elevations as directed by the Director. Unit prices for additional excavation and replacement with approved compacted granular fill stated in the proposal form shall be used as a basis for additional payment by the State. In the event that no unit price is included in the proposal form, the unit prices shall be negotiated with the Director prior to performance of the work or shall be done, at the option of the Director, on a time and material basis plus ten percent profit.

4.18 Soil Borings

4.18.1 Soil borings or test pits or other subsurface information may be secured by an independent contractor for the State prior to design and construction of a project and may be included in the contract documents for the contractor's use. The contractor assumes full responsibility for

interpretation of said borings, and the State shall have no responsibility or liability should the data provided prove to be incorrect or not representative.

4.19 Separate Contracts

4.19.1 The State may execute this project by awarding separate contracts, the work of which shall proceed simultaneously.

- a. Each contractor shall coordinate its operations with those of other contractors under the supervision and general control of the contractor for general construction.
- b. Cooperation will be required of all contractors in the arrangements for the storage of materials and in the detailed execution of the work.
- c. The contractor, including its subcontractors, shall keep informed of the progress and the details of work of other contractors and shall notify the architect/engineer immediately of any lack of progress or defective workmanship on the part of other contractors as such may affect its work.
- d. Failure of a contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by the contractor of the status of the work as being satisfactory for proper coordination with its own work.
- e. It is agreed that no contractor shall be entitled to any damages or extra compensation from the owner on account of any work performed by other contractors, or any lack of coordination or supervision of the work of the contractors that in any way affects the work under its contract.
- f. The contractors shall rely upon the organization, management skill, cooperation and efficiency of the contractor for general construction to supervise, direct and manage the conduct of the construction and the efforts of all prime contractors so as to deliver the project as required under the contract.
- g. Project planning, scheduling and control ("critical path method"): As an aid to the contractor for general construction and all other contractors to bring the completion of the project within the time allocated, the owner may have contracted for the services of a critical path method (CPM) scheduling consultant for project planning, scheduling, and control. If such consultant has been retained, the general construction contractor shall incorporate and enforce the combined schedule as its own, and each contractor agrees to cooperate and coordinate its own operations in order to meet effectively all scheduled task deadlines, as further described in article 9 of these General Conditions.

4.20 Mutual Responsibility of Separate Contractors

4.20.1 The contractors shall cooperate with each other and secure the effective cooperation of the various craftsmen employed on the work, so that no portion of the work is delayed or not properly performed as a result of the failure of any workers to properly and efficiently perform the tasks assigned them. Should it at any time appear that the progress of the work is being delayed or adversely impacted by such failure, upon notice from the Director, the responsible contractor shall immediately discharge the delinquent workers and employ others for the tasks.

4.21 Protection of Contractor's Property

4.21.1 Each prime contractor shall adequately secure and protect its own tools, equipment, materials and supplies. The State assumes no liability for any damage, theft or negligent injury to the contractor's property.

4.22 Patents

4.22.1 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 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.

4.22.2 License and/or royalty fees for the use of a process 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.

4.22.3 If the contractor uses any design, device or materials covered by letters, patent or copyright, it shall provide for such use by suitable agreement with the State or 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, device or material in any way involved in the work. The contractor and/or its sureties shall indemnify and save harmless the State from any and all claims for infringement by reason of the use of such patented or copyrighted design, device or material, or any trademark or copyright in connection with work agreed to be performed under this contract, and shall 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 prosecution of the work or after the completion of the work.

4.23 Right to Audit

4.23.1 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 three years after receipt of final payment. "Generally accepted accounting principles" is defined as follows: Accounting records must identify all labor and material costs and expenses, whether they be direct or indirect. The identity must include at least the project number for direct expenses and/or account number for indirect expenses. All charges must be supported by appropriate documentation, including, but not limited to canceled checks.

4.23.2 The contractor shall develop, maintain and make available to the Director on request such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, change orders, all original estimates, takeoffs and other bidding documents, all subcontractors 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.

4.23.3 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 by the State except and to the extent that such actual costs are substantiated by records required to be maintained under these provisions.

4.23.4 The contractor shall require each subcontractor, to the extent of the work to be performed by the subcontractor, to be bound to the contractor to the terms of the State's contract documents, and to assume toward the contractor all the obligations and responsibilities which the contractor assumes, by these documents, to the State and its contractual parties.

4.23.5 The contractor shall not grant to any subcontractor terms more favorable than those extended to the contractor by the State.

4.23.6 The contractor shall not permit its subcontractors to subcontract work without the express written approval of the Director or the Director's designate.

4.23.7 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 subcontractor in performing work required under the contract or any supplemental agreement thereto. 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.

4.24 Control Wiring

4.24.1 The prime contractor which furnishes and installs mechanical equipment, including, but not limited to, heating, ventilating and air conditioning systems, ATC systems, boilers, remote monitoring systems, and so forth, which systems require electrical control wiring, shall include in its bid the cost of all such control wiring and its installation. The prime contractor shall employ a subcontractor approved by the Division of Building and Construction for all such control wiring. The subcontractor shall provide a Final Certificate of Electrical Inspection of the control wiring. Installed or control wiring must connect to a point of electrical power supply as shown on the contract documents.

4.25 Standby Personnel

4.25.1 Each prime contractor which is obligated to employ standby personnel by trade agreement to which it is a party shall determine and include all such costs thereof in its bid proposal. No contractor shall, 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. The State will not, under any condition, entertain or consider a claim in this regard unless such claim is made as a result of the State's unreasonable refusal to accept beneficial occupancy of the completed project.

ARTICLE 5

CONTRACTOR FOR GENERAL CONSTRUCTION: SPECIAL RESPONSIBILITIES

Wherever the term "general construction contractor" is used herein, it is intended to mean either the contractor for general construction whenever separate prime contracts are involved or the sole contractor if there are no other prime contractors engaged on the project.

5.1 Unique Role of Responsibility - Staffing

5.1.1 Wherever separate contracts are awarded to separate prime contractors for the different branches of the work or where there is a single prime contractor, the contractor for general construction (hereinafter referred to as the general construction contractor) has the responsibility for being the supervisor, manager, overseer, coordinator and expeditor of all of the contractors and of the total construction process and all of its parts, in accordance with the contract documents. In pursuance of these duties, the general construction contractor will have the right to request the denial or reduction of progress payments to other contractors, should the general construction contractor have cause to be dissatisfied with the performance of another contractor. The Director has the power to modify or reject the general construction contractor's recommendation. The general construction contractor shall not claim any damages resulting from the Director's exercise or failure to exercise these discretionary powers. In executing the duties assumed by these responsibilities, the general construction contractor shall provide sufficient executive and supervisory staff in the field to accomplish efficient and expeditious handling of these matters. There shall be at least one full-time project manager assigned by the general construction contractor, as well as the field staff referred to above, who shall attend each progress meeting at the site. The general construction contractor shall include in its bid a sum sufficient to perform these responsibilities.

5.2 Control and Coordination of Construction

5.2.1 The Director relies upon the organization, management, skill, cooperation and efficiency of the general construction contractor to supervise, direct, control and manage the general construction work and the efforts of the other contractors, so as to deliver the completed project in conformance with the contract documents and within the scheduled time.

5.2.2 The contractor for general construction shall include in its bid an amount sufficient to cover the cost of furnishing necessary administrative and supervisory forces to coordinate its own work and that of its subcontractors, and the work of the other prime contractors. All of the other prime contractors shall be responsible to the contractor for general construction for performance of their contract work and for meeting those dates within the final project progress schedule, as approved by all parties to the various multiple contracts. It must be clearly understood that the Director will rely on the fact that the contractor for general construction has included in its bid sufficient funds to perform this function. The other prime contractors must consider and reflect within their bids the impact of this requirement on their performance and their resulting responsibility to cooperate and coordinate their work as directed and required by the contractor for general construction.

5.3 Layout and Dimensional Control -- Surveying

5.3.1 The general construction contractor shall be responsible for locating and laying out the building and all of its parts on the site, in strict accordance with the drawings, and shall accurately establish and maintain dimensional control. The general construction contractor shall employ and pay for the services of a competent and licensed New Jersey engineer or land surveyor (who shall be approved by DBC) 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, etc., shall be tested and certified by the surveyor as the work progresses.

5.3.2 The engineer/surveyor, in the course of layout work both on the site and within the building, shall establish all points, lines, elevations, grades and bench marks for proper control and execution of the work. The engineer/surveyor shall establish a single permanent bench mark as directed, to which all three coordinates of dimensional control shall be referred. The engineer/surveyor shall verify all owner-furnished topographical and utility survey data and all points, lines, elevations,

grades and bench marks. Should any discrepancies be found between information given on drawings and the actual site or field conditions, the general construction contractor shall notify the architect/engineer of such discrepancy, and shall not proceed with any work affected until receipt of written instructions from the architect/engineer.

5.4 Construction Access Routes

5.4.1 The general construction contractor shall be responsible for providing and maintaining unobstructed traffic lanes on the designated construction access routes either shown on the contract drawings or reasonably required so as to perform the work, and shall provide and maintain all reasonably required safety devices. The general construction contractor shall provide any necessary additional materials, their grading and compaction, and shall remove snow and debris as necessary to provide and maintain the general serviceable condition of the access roadbed, as well as pedestrian ways.

5.5 Project Sign

5.5.1 The general construction contractor shall erect and maintain one sign at the project site, as shown on the drawings 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 Director, the general construction contractor shall remove the sign. Should there be a change in the listed State officials, the general construction contractor shall make appropriate changes to the sign at its expense.

5.6 Dust Control

5.6.1 The general construction contractor, at its expense, 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 Director.

5.7 Repair of Finished Surfaces, Applied Finishes, Glass

5.7.1 The general construction contractor accepts sole responsibility for repair of uncontrolled dislodging, cracking, delamination 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 paint, and special coatings, within the contract scope and the limits of specified guarantee periods, regardless of the cause.

5.7.2 The general construction contractor shall be responsible for replacement of all broken glass installed by it or by its subcontractors, after same has been installed, no matter by whom or what caused. The general construction contractor shall replace all broken, scratched or otherwise damaged glass before the completion and acceptance of the work. The general construction contractor shall wash all glass on both sides at completion, or when directed, removing all paint spots, stains, plaster, etc.

5.7.3 Nothing herein is intended to limit the right of the general construction contractor to seek payment from the party responsible for damages.

5.8 Photographs

5.8.1 With each application for payment until the exterior is completed, the general construction contractor shall submit monthly progress photographs of the building, in duplicate to the Director or the Director's representative, giving two views of each building as selected by the architect/engineer, taken from the same points each month. This requirement shall apply to the creation of the new space only.

5.8.2 The photographs shall be 8" by 10", mounted on muslin, and the negative shall bear the date of the exposure, the DBC project number and title and the names of the contractor and the architect/engineer.

5.9 Guarantee

5.9.1 Neither the final certificate of payment, nor any provision in the contract documents, nor partial or entire occupancy of the premises by the State shall constitute an acceptance of work not done in accordance with the contract documents, nor shall it relieve the contractor of liability with respect to any expressed or implied warranties or responsibility for faulty materials or workmanship. The State will give notice of observed defects with reasonable promptness.

5.9.2 In addition to guarantees otherwise specified in other sections of the specifications, each prime contractor and each individual subcontractor shall guarantee and warrant, in writing, the work to be performed and all materials to be furnished under this contract against defects in materials or workmanship, and shall pay for the value or repair of any damage to other work resulting therefrom for a period of one year from the date of project acceptance. All guarantees, bonds, etc. required by the specifications shall be in writing in requisite legal form and delivered to the Director at the time of submission of the invoice for final payment. All subcontractors' guarantees, bonds, etc. shall be underwritten by the prime contractor, which shall obtain and deliver same to the Director before the work shall be deemed finished and accepted.

5.9.3 The contractor shall, at its own expense and without cost to the State, within a reasonable time after receipt of written notice thereof, make good any defects in material or workmanship which may develop during stipulated guarantee periods, as well as any damage to other work caused by such defects or by their repairs. Any other defects in materials or workmanship not reasonably observable or 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.

5.9.4 It is anticipated that certain permanent equipment will have to be activated during construction of the project to support construction operations. This would particularly be the case with respect to service elevators and those portions of the permanent heating system which might be required to provide temporary heat for interior finish operations. Regardless of when equipment is activated for use during construction, all equipment warranties must extend for the time periods required in these specifications, starting as of the date of occupancy or final acceptance (whichever is the earliest) of the project by the State. All contractors shall include in their base bids all costs necessary to provide extended warranties as necessary for any equipment which may be activated prior to final building acceptance by the State.

5.10 Inspection of Roadway Subgrades

5.10.1 The general construction contractor shall notify the DBC representative at least 48 hours prior to the anticipated completion of all roadway subgrade work. DBC may request an inspection by an appropriate agency to ensure that the subgrade meets the compaction standards. All subgrade shall be proof-rolled for such inspection. If compaction soils tests are required, these tests will be done by soils testing laboratories through DBC, unless contrary provisions are made elsewhere in the specifications. The contractor shall not proceed with base course until the results of the compaction tests are determined and upgrade approved by DBC.

5.11 Security Services

5.11.1 The general construction contractor shall provide security services throughout the period of construction to adequately protect the work, stored materials and temporary structures located on the premises, and to prevent unauthorized persons from entering the construction site. The period of time and the hours of the day or night required for such services shall be established by the contractor for general construction and must be sufficient to insure all contractors adequate protection as described herein. If the Director determines that adequate protection is not being provided and directs the contractor for general construction to increase the service, such protection shall be provided at no extra cost to the State.

ARTICLE 6

TEMPORARY FACILITIES, UTILITIES AND SERVICES

6.1 Field Offices

6.1.1 Each contractor will provide on site and maintain during the project construction a suitable weather-tight insulated field office conveniently located for reception and continuous use, and shall maintain therein a complete set of contract documents including plans, specifications, CPM network diagrams, change orders, logs and other details and correspondence. The field office shall contain approved and safe heating facilities and lighting, convenience outlets, a fire extinguisher, a minimum of two operating windows of 15 square feet each, and an outside door with a handle, hasp and padlock. The field office may be removed upon enclosure of the building at a time directed by the architect/engineer; contents and operations will be transferred to the interior of the project building by the general construction contractor, and said offices shall be maintained by the general construction contractor until final acceptance of the project.

6.1.2 The general construction contractor will provide on site suitable, separate, weather-tight, insulated (floor, walls, ceilings) field office facilities for the use of DBC personnel, all to be conveniently located for the functions designated. The contractor shall also furnish in these facilities approved and safe means of heating (available beyond regular working hours), fire extinguishers, operating windows of 15 square feet each, 12,000 BTU air conditioning units, 3' x 5' plan tables, conference tables, folding chairs and an outside door with a handle and a hasp for a State-furnished padlock. At a time determined by the Director 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.

6.1.3 The general construction contractor shall be responsible for the maintenance of both offices and the meeting room, including the cost of heating, electric current, janitorial service and other incidentals.

6.1.4 Each contractor shall provide its own telephones. Coin-operated pay phones in the field offices are acceptable. The State will be responsible only for the cost of calls made by its employees.

6.2 Temporary Storage, Staging and Shelter Structures

6.2.1 Each contractor will provide and maintain, for its own use and as each deems necessary, suitable and safe temporary storage, tool shops, and employees' sheds for proper protection, storage work and shelter, respectively. Each contractor shall maintain these structures properly and remove them at the completion of work. Locations shall be directed by the general construction contractor. Rooms in the building may be used as shops and store rooms, with the approval of the general construction contractor and DBC. The contractor making use of these areas shall be responsible for correcting defects and damage caused by such use and for keeping these areas clear and clean.

6.3 Temporary Construction Operations/Services Facilities

6.3.1 Each contractor shall be responsible for providing for its own requirements relative to storage areas, employee vehicular parking, equipment marshaling areas, excavation borrow/spoils designated areas, commercial canteen areas, etc. The general construction contractor shall locate these areas to suit project requirements, with the State's concurrence.

6.4 Temporary Toilet Facilities

6.4.1 The general construction 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. They shall comply with State and local laws and regulations. The general construction contractor will be responsible for maintenance, removal and relocation as described hereinafter.

6.4.2 Toilets shall be serviced by a firm qualified and experienced in such functions.

6.4.3 Toilets shall be of the portable chemical type, mounted on skids, with screened enclosures with doors, each having a urinal and water closet.

6.4.4 One unit shall be provided for each 30 employees. In addition, one unit, together with a lavatory, shall be provided in DBC's office. The lavatory and toilet will be so arranged as to accommodate the meeting room and the architect/engineer's office, as well as DBC's office.

6.4.5 Each unit shall be serviced at least twice a week, including the removing of waste matter, sterilizing, recharging tank, refilling tissue holders, and thoroughly cleaning and scrubbing of entire interior, which shall be maintained in a neat and clean condition.

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

6.4.7 Toilet service shall be relocated inside the building and connected to water and sewer as soon as the progress of the work will allow.

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

6.4.9 The temporary toilet units shall be removed from the work site at the completion of the work, or when so directed by the Director or the architect/engineer.

6.4.10 Workers are not to use the finished bathroom and toilet facilities in the project buildings. Reasonable steps must be taken by the general construction contractor to enforce this rule.

6.5 Temporary Drives and Walks

6.5.1 The general construction contractor shall be responsible for keeping all roadways, drives and parking areas within or proximate to the site free and clear of debris, gravel, mud 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, etc., prior to exit from the construction site. Should such surface require cleaning, the general construction contractor will clean these surfaces without additional cost to the State. The general construction contractor will be held accountable for any citations, fines or penalties imposed on the State for failing to comply with local rules and regulations.

6.5.2 Should the general construction contractor elect to commence construction of permanent driveways, parking areas or walks (other than general grading of temporary shop areas), the contractor shall not do so without the approval of the Director or the Director's representative. The contractor shall not do so without having prepared the subgrade, as may be elsewhere required by the specifications, nor will the contractor be relieved from any responsibility for providing additional materials or for reworking the subgrade prior to completion of the work, if so required to make the improvements conform fully with the specifications.

6.5.3 The general construction contractor shall obtain permission in writing from the State before using any existing driveways or parking areas not specifically designated for such use in the contract documents for construction purposes. The contractor shall maintain such driveways and areas in good condition during the construction period, and at completion of the project shall leave them in the same condition as at the start of the work. Conditions before use should be carefully photographed or documented by the contractor.

6.6 Temporary Water

6.6.1 The plumbing contractor (or in the event there is no plumbing contract to be executed for the project, the general construction contractor) shall provide, protect and maintain an adequate valved water supply to a convenient location for the use of all contractors on the project during the period of construction, either by means of the permanent water supply line, or by the installation of a temporary water supply line. The water supply line shall be made available within 15 calendar days after the written request has been made to the plumbing contractor by any prime contractor requiring this service. Copies of the request will be sent to the architect/engineer and the Director. If the source of water supply is a well, provisions covering the supply water will include the installation of

necessary power-driven pumping facilities by the plumbing contractor. The well shall also be protected against contamination. The water supply shall be tested periodically by the plumbing contractor, and if necessary, shall be chlorinated and filtered. All costs in providing water, other than the cost of the water itself, will be borne by the plumbing contractor (or the general construction contractor if there is no plumbing contractor). Electrical services and hookups will be provided by the electrical contractor, which will pay all costs for this electrical work. Should pumps be installed in connection with this water supply, electrical connections will be provided and paid for by the electrical contractor.

6.6.2 Temporary water will be provided by the State using agency at no charge to the contractor, provided and to the extent it may be existing and available at the site immediately prior to and during construction. It is the obligation of any prime contractor requiring temporary facilities to investigate and make specific arrangements with the using agency for such facilities and to include in its proposal the cost of any additional facilities the contractor may require for proper conduct of its work.

6.6.3 The plumbing contractor shall install its temporary and/or permanent water lines to the boiler room and heating equipment in sufficient time to be available for supplying water for testing and operation of the heating system, when such are needed to supply heat for the project.

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

6.6.5 If the plumbing contractor fails to carry out its responsibility in supplying water as set forth herein, the plumbing contractor shall be held responsible for such failure, and the Director shall have the right to take such action as is deemed proper for the protection and conduct of the work and may deduct the cost involved in so doing from any sums due the plumbing contractor.

6.7 Temporary Light and Power

6.7.1 The electrical contractor shall extend electrical service to the building or buildings at locations approved by the Director; temporary electrical service shall be independent of the existing permanent service. Initial temporary service shall be three phase or single phase, depending upon closest availability to the project. Temporary light and power installations, wiring, and miscellaneous electrical hardware must meet the electric code. This service shall be installed within 15 calendar days after written request has been made to the electrical contractor by any prime contractor regarding such service (with copies to the architect/engineer and the Director). When the contract calls for three phase permanent service, the electrical contractor shall install same within a reasonable time to permit use by any other prime contractors. Electrical characteristics shall be provided to meet all temporary light and power reasonably required as herein and hereafter specified, or as included under supplementary general conditions. The electrical 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 electrical contractor's bid.

6.7.2 The electrical contractor shall extend the service into the building and shall provide receptacles and lighting as described hereinafter, and one five horsepower 208, 220 or 230 volts power outlet for each building, and one separate power outlet for each contractor for the proper conduct of its work. Power outlets shall be fed independently of the temporary lighting system. The extension of service shall include the necessary wiring of sufficient capacity to the location of the well for the operation of the well pump in the event a water well is the source of water supply for the project. Where service of a type other than herein mentioned is required, the contractor requiring same 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.

6.7.3 The electrical contractor shall provide double sockets at a maximum of 30 feet on centers in large areas. One socket shall contain a 150 watt lamp, and the other socket shall be a grounding type to accept a receptacle plug for small single-phase loads to be used for short periods of time. The electrical contractor shall provide double sockets of the type described above in all individual

rooms, one double socket for each 500 square feet, or fraction thereof, of room area (for example: a room 30' by 30' is equal to 900 square feet and would require two double sockets).

6.7.4 The electrical contractor shall provide all electrical service for the operation of elevator equipment during construction, as well as for permanent installation.

6.7.5 The general construction contractor shall pay for the cost of all electric energy used on distribution lines installed by the electrical contractor until the project is accepted by DBC. The electrical contractor shall provide and pay for all maintenance, servicing, operation and supervision of the service and distribution facilities. The electrical contractor shall also connect, maintain and service any electrical equipment installed by the HVAC contractor which may be necessary for maintaining heat whenever heat is required in the building, whether from the temporary or permanent system.

6.7.6 Any contractor which fails to carry out its responsibility in the supplying of uninterrupted light and power or other utility as set forth herein shall be held responsible for such failure, and the Director shall have the right to take such action as is deemed proper for the protection and conduct of the work, and shall deduct the costs involved from the amount due the contractor at fault.

6.7.7 There shall be no additional cost to the State or other prime contractors because of standby requirements due to conflict in the normal working hours of the various trades. The electrical contractor shall provide temporary light and power to all trades during normal working hours of such trades. Where overtime work by any contractor necessitates standby electricians or other trades, such contractor shall be responsible for making appropriate arrangements, financial and otherwise, for such service at no cost to the State.

6.7.8 The electrical contractor shall observe the requirements of the Federal Occupational Safety and Health Act of 1970 with regard to temporary light and power.

6.8 Temporary Electric Service for Special Equipment

6.8.1 The electrical contractor shall provide, at locations acceptable to the prime contractors involved, two outlets -- 208, 220, or 230 volts, 60 cycle - three phase (single phase if three phase is not available), 7.5 horsepower maximum capacity -- for each of the prime contractors using electric welding equipment, terrazzo grinders, pipe threading equipment and/or floor sanders. Should any contractor desire additional outlets or service of this type beyond the specified two outlets, or service of a greater capacity or of different characteristics or for any other power equipment, that contractor shall arrange with the electrical contractor for the installation and shall pay all costs involved.

6.8.2 Any conflict arising among any of the prime contractors with regard to financial obligations for standby personnel or standby supervisory employees, should they be required by trade agreement, shall be resolved between the parties involved by allocating such costs in direct proportion to the number of standby units caused to be on the site by each of the respective contractors.

6.9 Temporary Heat

6.9.1 Prior to the building being enclosed by walls and roof, if the outside temperatures shall fall below 40 degrees F. at any time during the day or night, and heat is required for work in progress or for its protection, the respective contractors responsible for such phase of work shall furnish, at their expense, acceptable means to provide sufficient temporary heat to maintain a temperature of not less than 45 degrees F. for that portion of the work for which they are directly responsible.

6.9.2 Heating of field offices, storage spaces, concrete and masonry materials and working area, as required, shall be provided by the responsible contractors. Field offices shall be heated to a minimum of 68 degrees F. and shall be air conditioned in the summer.

6.9.3 As soon as the Director determines that the building, or a major unit thereof, is "generally enclosed" by walls and roof, the responsibility of supplying working area heat shall rest with the general construction contractor. When the outside temperature falls below 40 degrees F. at any time during the day or night, the general construction 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 45 degrees F. within the enclosed area of the building at all times, and shall remove such heaters when no longer required. The general construction contractor will be held responsible for providing temporary heat for all damages resulting from freeze-ups, for a period which will extend 60 calendar days beyond the date the Director determines that the building is temporarily enclosed (without the use of temporary enclosures or materials, except in circumstances having the prior written approval of the Director). The general construction 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 contractors shall not do any finish work until the areas are properly cleaned. The general construction contractor shall provide or arrange, at its own expense, supervision of the heating equipment at all times prior to the start of the HVAC contractor's obligation to provide heat, using the permanent heating system. This obligation shall commence 60 calendar days after the acknowledged permanent enclosure of the building or buildings, as confirmed by the Director. The general construction contractor shall furnish and pay for all fuel for heat required during the entire construction period.

6.9.4 The general construction 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 the responsibility of the general construction contractor. The general construction contractor's base bid price shall therefore include the cost of all equipment necessary for providing temporary heat as required under these specifications.

6.9.5 All heating equipment shall be NFPA-approved and connected to approved flues to the atmosphere. Gas cylinders within the building shall not exceed 100 pounds capacity, shall have Interstate Commerce Commission approval, and shall be fitted with a permanent cap to protect the valve when not in use. Heaters shall be approved by a recognized testing laboratory and must be equipped with a positive shut-off safety valve. Cylinders and heaters shall stand at least six feet apart, and shall be connected with two braid neoprene hoses that will withstand 250 psi test pressure.

6.9.6 Storage of cylinders within the building will not be permitted at any time. Fire extinguishers shall be provided by the general construction contractor on each floor where heaters are used, and the areas must be adequately ventilated.

6.9.7 Contractors responsible for providing temporary heat shall train at least two dependable persons to oversee temporary heat operations.

6.9.8 For the purposes of establishing the beginning of the general construction 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 watertight condition, and (c) temporary or permanent doors are hung and window openings are closed with either permanent or temporary weather-tight enclosures (cardboard or woven materials are not to be used; however, any impervious transparent material reasonably intended for such purpose is acceptable). 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 a least 50 percent of the total floor area of the project.

6.9.9 On the 60th calendar day after the building, buildings or major unit thereof is (are) permanently enclosed and the Director has determined that heat is required for the proper execution of the construction work, the HVAC contractor shall provide the heat. A building or major unit thereof shall be considered "permanently enclosed" when (a) the exterior and enclosure work including walls, windows, glazing, louvers, and doors have been permanently installed, (b) a permanent building roof has been completed and satisfactorily tested, (c) the permanent building roof drain system has been completed and made operational, and (d) all building openings have been closed such that the building is weather tight. Regardless of whether the boiler room is within the confines of the major unit or not, it must be enclosed and its floor installed at least 60 calendar days prior to the time when the HVAC contractor becomes responsible to supply heat.

6.9.10 When the building or major unit thereof, including the boiler room area, is generally enclosed as herein defined, and appropriate notice has been given, it shall be the obligation of the Director or the Director's authorized representative to so acknowledge at a job conference at the site. The minutes of said meeting shall contain any such acknowledgment. If the architect/engineer and Director's representative at the site concur that the building or major unit is properly generally enclosed, then as of the date of the job conference at which notice was given, the supply of heat (including cost of fuel) and the payment of any repair costs for damage created by freeze-ups shall become the responsibility and obligation of the general construction contractor. Confirmation of the time that such responsibility and obligation becomes effective shall be incorporated in the minutes of the job conferences, as prepared by the architect/engineer. The contractors so notified shall give due attention to their obligations in connection with the transfer of said responsibility and obligation to the general construction contractor.

6.9.11 When the building or a major unit thereof, including the boiler room area, is permanently enclosed as herein defined, and appropriate notice has been given, it shall be the obligation of the Director or the Director's authorized representative to so acknowledge at a job conference at the site. The minutes of said meeting shall contain any such acknowledgment. If the architect/engineer and Director's representative at the site concur that the building or major unit is properly permanently enclosed, then on the 60th calendar day from the date of the job conference at which notice was given, the supply of heat (not including cost of fuel) and the payment of any repair costs for damage created by freeze-ups shall become the responsibility and obligation of the HVAC contractor. Confirmation of the time that such responsibility becomes effective shall be incorporated in the minutes of the job conference, as prepared by the architect/engineer. The contractors so notified shall give due attention to their obligations in connection with the transfer of said responsibility and obligation to the general construction contractor.

6.9.12 The general construction contractor shall continue to provide acceptable means of heat until the obligation of the HVAC contractor to supply heat becomes effective, as herein stated. At the time the HVAC contractor becomes responsible for providing heat, if the permanent heating system is not acceptable to the Director or the Director's representative, and therefore may not be used for providing temporary heat, the general construction contractor shall continue to provide temporary heat as may be ordered by the Director. The costs involved, however, shall be paid by the HVAC contractor. The fuel costs shall be paid by the general construction contractor regardless of which entity provides and maintains the heat or equipment.

6.9.13 The State reserves the right to permit the substitution of limited temporary enclosures in lieu of permanent construction for the attainment of a permanently tight building if such action is deemed by the State to be in the best interest of the project. This action will not be such as to create a future jeopardy to the environmental integrity of the building as construction proceeds.

6.9.14 On the 60th calendar day after notice has been given (and confirmed by the job meeting minutes) that the building, or a major unit thereof, is permanently enclosed, the HVAC contractor shall operate the permanent heating system, if the system has been completed to the extent necessary to allow such use. The HVAC Contractor shall provide such heat to a minimum temperature of 45 degrees F., or to such higher temperature, not to exceed 75 degrees F., as may be directed by the Director for the proper conduct and protection of the work. The HVAC 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 Director. Should the HVAC contractor fail to meet this obligation, the Director has the discretion to take any action deemed necessary to have the heating system operated, or will authorize the general construction contractor to continue use of temporary units as described in 6.9.9 above. All costs involved shall be deducted from any moneys due the HVAC contractor. The HVAC contractor shall pay for and be responsible for the maintenance, operation and supervision of the heating system, not including the cost of fuel, throughout the period that the heat is needed and until the Director's final acceptance of the work required by the HVAC contract, regardless of the contract completion date.

6.9.15 When the permanent heating system provided by the HVAC contractor is the source of the heat, the general construction contractor shall be responsible for paying for all water, electricity, and

fuel required for the operation of the permanent heating system until the State assumes beneficial occupancy/use of the project, except for the cost of fuel during the test period, as previously provided. The HVAC contractor shall install adequate controls and shall arrange, at its own cost, with the plumbing and electrical contractors for making such temporary connection as required for the operation of the heating system. Should the heating system provided by the HVAC contractor 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 any contractor, after tie-in is completed by the HVAC contractor.

6.9.16 Should electricians be required to supervise and maintain electrical equipment required for the provision of heat, the payment for the services of the supervisors and/or maintenance personnel shall be the responsibility of the electrical contractor. Should the proper type of electric service not be available to supply electrical energy for the operation of the heating system in supplying temporary heat, it shall be the responsibility of the electrical contractor to provide a motor-driven generator unit of sufficient capacity, voltage, and phasing to provide uninterrupted service for the operation of the heating system. The general construction contractor shall pay the cost of all fuel consumed in the operation of the generating unit for supplying temporary heat. The electrical contractor shall provide uninterrupted electrical service to the heating, water and pumping equipment.

6.9.17 Valves, traps and other parts of the heating system (except air filters) which are permanently installed by the HVAC contractor and used for supplying heat during the construction period need not be replaced, provided that the system was in acceptable condition prior to its use and was properly maintained. The system shall be properly cleaned and adjusted to operate after the permanent system is in use. Seven calendar days prior to acceptance by the State of the heating system as substantially complete, the HVAC contractor shall replace disposable filters with clean filters of the type specified, or turn over spare sets of filters to the using agency, as directed by the Director.

6.9.18 If plastering, parging or finishing of any surface is necessary to enable the HVAC contractor to install the heating system in a manner to permit its use for supplying heat during the construction period, the finishing, plastering and parging of such surfaces shall be done by the general construction contractor sufficiently in advance of the HVAC contractor's work so as not to delay the installation of the permanent system. In the event this plastering, parging or other finishing work is not completed in ample time to make possible the installation of permanent piping and heating units in a particular area, the HVAC contractor shall install temporary piping and heating units. The cost of such temporary installation and its removal shall be paid by the general construction contractor.

6.9.19 If additional heat is required beyond that specified herein, the contractor requiring such additional heat shall arrange and pay the additional costs thereof, at no expense to the State.

6.10 Temporary Enclosures

6.10.1 Whenever necessary in order to maintain proper temperatures for the prosecution or protection of the work, the general construction 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.

ARTICLE 7

SUBCONTRACTORS

7.1 Contractor - Subcontractor Relationship

7.1.1 Within 30 calendar days after award of the contract, each contractor shall provide written notification to the Director, through the architect/engineer, of the names of subcontractors, other than those required to be listed in the bid, proposed to perform the principal parts of the work and of such others as the Director may direct. Contractors shall not employ any subcontractor without prior written approval of the Director, or any subcontractor that the Director may reject within a reasonable time. The original and six copies of the appropriate DBC form shall be forwarded to the architect/engineer for approval. The list of proposed contractors may be considered approved by the Director if no reply is forwarded to the contractor within 15 calendar days following receipt of the list by the Director.

7.1.2 If the Director has reasonable objection to any such proposed subcontractor, the contractor shall substitute another subcontractor to which the Director has no reasonable objection. Under no circumstances shall the State be obligated for additional cost due to such substitution.

7.1.3 The contractor shall make no substitution for any subcontractor, person or firm previously selected and approved, without written notification to the Director and receipt of the Director's written approval for such substitution.

7.1.4 Each contractor acknowledges its full responsibility to the State for the acts and omissions of its 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. Each contractor acknowledges that it remains fully responsible for the proper performance of its contract irrespective of whether work is performed by the contractor's own forces or by subcontractors engaged by the contractor.

7.1.5 Nothing contained in the contract documents shall create any contractual relationship between any subcontractor and the State.

7.1.6 By an appropriate agreement, written where legally required for validity, the contractor shall require each subcontractor, to the extent of the work performed by the subcontractor, to be bound to the contractor by the terms of the contract documents, and to assume toward the contractor all the obligations and responsibilities which the contractor, by these documents, assumes toward the State, the architect/engineer and the other separate prime contractors. Where appropriate, the contractor shall require each subcontractor to enter into similar agreements with its sub-subcontractors.

7.1.7 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.

7.1.8 Approval by the Director or architect/engineer of a subcontractor or material supplier shall not relieve the contractor, the subcontractor or the material supplier of the responsibility of complying with all provisions of the contract documents. The approval of a subcontractor does not imply approval of any material, equipment or supplies.

ARTICLE 8

RELATIONSHIP BETWEEN OWNER AND PRIME CONTRACTORS

8.1 Owner's Right to Perform Work

8.1.1 The State 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 installing any apparatus or carrying on any construction not included in these specifications or for any other reasonable purpose.

8.1.2 Each contractor shall examine all work or materials installed by other contractors, the installation of which may affect the work in its contract, and should the same be imperfect, incorrect or insecure, the contractor shall notify the Director immediately in order that the same be rectified.

8.2 Mutual Responsibility

8.2.1 Each contractor shall afford the Director and other separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work. Each contractor shall coordinate its work with adjacent work and with other trades, so that no portion of the work is delayed or not properly undertaken due to such lack or failure of cooperation.

8.2.2 Each contractor shall lay out and install its work at such time or times and in such manner as to facilitate the general progress of the project.

8.2.3 If, based on a written report by the general construction contractor regarding another prime contractor or a written report of a prime contractor regarding the general construction contractor or upon notification from the CPM consultant, the Director is of the opinion that a contractor on the project is failing to coordinate its work with the work of another contractor or others or is delaying the project, the Director may issue such directions to the delinquent contractor(s) as the situation may require, including an order to accelerate as provided in section 8.5 herein. The State, however, shall not be liable for any damages suffered by any contractor by reason of another contractor's default, delinquency or timing of performances; it being understood that the State does not assume responsibility for the acts or omission of any contractors.

8.2.4 Before the completion of the work contemplated herein, should it be deemed necessary by the State to do any work whatsoever in or about the building or structure, other than as provided for in the contract documents, the contractor shall fully cooperate with such other individual or firm as the State may employ to do such work, so that such additional work may be performed without unreasonable interference. The contractor shall afford said other individual or firm all reasonable facilities for doing such work. Other than for an extension of time, the contractor shall make no claim to the State as a result of such work as is contemplated herein.

8.2.5 The Director shall at all times have access to the work whether it is in preparation or in progress, and the contractor shall provide proper facilities for such access and for inspection. The Director reserves the option to employ the services of a professional consultant to evaluate any phase of the work deemed to be in the best interest of the State, but no evaluation performed shall in any way relieve the contractor of its responsibilities under the contract. The contractor shall cooperate with the consultants and provide access to the work and facilities for inspection. Should any portion of the work or materials be found deficient or defective, the contractor will pay the applicable fees of such consultant and be responsible for replacing the deficient or defective work as required by the provisions stated elsewhere herein.

8.2.6 Any costs caused by defective or ill-timed work shall be borne by the responsible party.

8.2.7 If the contractor should destroy, damage or disturb the work of any other contractor in or about the building or premises, the contractor shall immediately either replace the destroyed work and make good the damaged and disturbed work to the satisfaction of the architect/engineer and the Director, or shall reimburse the contractor whose work has been destroyed, damaged or disturbed for the expense of replacing such work.

8.2.8 Should a contractor sustain any damage through any act or omission of any other contractor having a contract with the State, or through any act or omission of a subcontractor of any such contractor, or through any act or omission of the architect/engineer, the contractor shall have no claims against the State for such damage, but shall have a right of action to recover such damages from the causing party or parties, in accordance with section 8.4.2, which is included in the State's contract with all other such contractors and the architect/engineer.

8.3 Substantial Completion

8.3.1 At the request of the State, the architect/engineer, the contractor and the using agency representative shall make a joint inspection of the work, and if all determine that the work is substantially completed, the State shall give Notice of Substantial Completion for Beneficial Use. Such certification shall in no way relieve the contractor of any contractual obligation or in any way relieve the contractor from responsibility to promptly complete punch list work.

8.3.2 Standard guarantee period for equipment, workmanship and materials shall commence on the date of acknowledgment of substantial completion of the project or portions thereof so certified, or from the time of completion and acceptance of equipment, work or materials in question, whichever is later, unless specified to the contrary as a condition of partial acceptance.

8.3.3 Use and possession prior to completion: The State shall have the right to take possession of or use any completed or partially completed part of the work. Prior to such possession or use, the Director shall furnish the contractor with an itemized list of work remaining to be performed or corrected on such portions of the project as are to be possessed or used by the State, provided that failure to list any item of work shall not be deemed an acceptance of any work under the contract. While the State has such possession or use, the contractor, notwithstanding the provisions of section 4.5 of this contract entitled "Permits - Laws - Regulations," shall be relieved of the responsibility for the loss or damage to the work resulting from State possession or use. If such prior possession or use by the State delays the progress of the work or causes additional expense to the contractor, an equitable adjustment in the contract time of completion will be made and the contract shall be modified in writing accordingly.

8.4 Contractor's Claims for Damages

8.4.1 Any claims made by a contractor against the State for damages or extra costs 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.

8.4.2 Any contractor or architect/engineer having, or which shall hereafter have, a contract with the State, which by its own acts, errors or omissions, damages or unnecessarily delays the work of the owner or other contractors by not properly cooperating with them or by not affording them reasonably sufficient opportunity or facility to perform work as may be specified, by reason of which act, error or omission of the said contractor, the architect/engineer or any other contractor shall sustain damages, including delay damages, during the progress of the work hereunder, then and in the event, the culpable party agrees to pay all costs and expenses incurred by the damaged contractor(s) or architect/engineer due to any such delays and/or damages whether by settlement, compromise or arbitration and the injured contractor or architect/engineer shall have a right to redress enforcement in court directly against the culpable party. In addition, the culpable party 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 culpable contractor or architect/engineer from any liability or damage sustained on account of such acts, errors or omissions.

8.4.3 The State shall not be liable to any contractor for any damages or extra costs caused by any acts or omissions as specified in the above paragraph, and the contractor's exclusive remedy shall be against the culpable party.

8.5 Director's Right to Accelerate

8.5.1 The Director may order and direct the contractor responsible for delay as described in section 8.2.3 of this document or as may be apparent as a result of observation of the work, to

accelerate that contractor's work at any particular place or places by increasing its forces, working overtime and/or on Saturdays, Sundays, and holidays as may be required to enable others to carry on with their own work in accordance with the project progress schedule. The cost of such acceleration efforts shall be borne entirely by the responsible contractor and shall not be billed to the State.

8.6 Time of Completion - Delay - Liquidated Damages

8.6.1 In the event of the failure of the contractor to complete the said work within the time stated in its proposal, the contractor shall be liable to the State in the sum of \$250.00 per day, or the sum equal to 1/20 of one percent (0.05%) per day of the total consideration provided for under this contract, or that sum mentioned in the contract, whichever is greater, for each and every calendar day that the said work remains incomplete. This sum shall be treated as liquidated damages (and not a penalty) 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 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.

8.6.2 It is hereby understood and mutually agreed by and between the contractor and the State that the date of the initiation, the dates of required intermediate milestones, and the time for completion, as specified in the contract of the work to be done hereunder are essential conditions of this contract.

8.6.3 The contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof 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 climatic range and usual industrial 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 Director, then the contractor does hereby agree, as a part consideration for the awarding of its contract, to pay the State the amount specified in section 8.6.1 above, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the contractor may be held in default after the stipulated date in the contract for completing the work.

8.6.4 The said amount is fixed and agreed upon by and between the contractor and the State because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the State would in such event sustain, and said amount is agreed to be the amount of damages which the State would sustain, and said amounts shall be retained by the State as necessary to cover projected untimely completion of the contract work due to contractor-caused delays.

8.6.5 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 should be of the essence of this contract.

8.6.6 If job progress has been adversely affected by nonattendance of any contractor at a scheduled job meeting of which it has been duly notified, such adverse effect shall be considered as job delay, and the contractor shall be subject to payment of damages to the State in an amount not to exceed \$100.00 for each occurrence.

8.6.7 The contractor shall not be charged with liquidated damages, or any excess cost when the State determines that the contractor is without fault and the contractor's reasons for the time extension are acceptable to the State; provided further, that the contractor shall not be charged with liquidated damages or any excess cost when the delay in the completion of the work is due:

- a. To any preference, priority or allocation order duly issued by the government;

- b. To unforeseen cause(s) beyond the control and without the fault or negligence of the contractor including, but not restricted to, acts of God or of the public enemy, acts of the State, acts of another contractor in the performance of a contract with the State which acts are contrary to the terms of such contract, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather; and
- c. To any delays of subcontractors or suppliers occasioned by any of the causes specified in the immediately preceding subsections a. and b.

8.6.8 The contractor shall, within five calendar days from the beginning of such delay, unless the Director shall grant a further period of time prior to the date of final settlement of the contract, notify the State in writing of the causes of the delay. The Director shall first ascertain the facts and the extent of the delay and shall notify the contractor within a reasonable time that good cause has been shown to warrant the granting of such extension.

8.7 No Damage for Delay

8.7.1 The State 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 Director, it may be necessary or expedient for the State to do so. If the contractor is delayed in the completion of the work by act, neglect or default of the State, of the architect/engineer or of any of the contractors employed by the State upon the work; by changes ordered in the work; by strikes, lockouts, fire, unusual delay by common carriers, unavoidable casualties or any cause beyond the contractor's control; or by any cause which the Director shall decide to justify the delay; then for all such delays and suspensions, the contractor shall be allowed one 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 in section 8.6 above, the same to be determined by the Director, and a similar allowance of extra time will be made for such other delays as the Director may find to have been caused by the State. No such extension shall be made for any one or more of such delays unless, within ten calendar days after the beginning of such delay, a written request for additional time shall be filed with the Director. Apart from extension of time, no payment or allowance of any kind shall be made to the contractor as compensation for damages on account of hindrance or delay from any cause in the progress of the work, whether such delay be avoidable or unavoidable.

8.7.2 The contractor shall not be entitled to any damages or extra compensation from the State on account of any work performed by the State or any other contractor or the architect/engineer or any other party, or by reason of any delays whatsoever, whether caused by the State or any other party including, but not limited to, the delays mentioned in this contract.

8.8 Indemnification

8.8.1 The contractor shall assume all risk of and responsibility for, and agrees to indemnify, defend and save harmless the State of New Jersey 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 performance of the project or through the negligence of the contractor, or through any improper or defective machinery, implements or appliances used by the contractor in the project, 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 agreement.

8.8.2 In any and all claims against the State or the architect/engineer or any of their agents or employees by 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 8.8 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 or workmen's compensation acts, disability benefit acts, or other employee benefit acts.

8.9 Contract Time - Notice to Proceed

8.9.1 Contract time shall commence on the date of the contractor's receipt of a written Notice to Proceed issued by the Director. The Notice to Proceed will be issued by the State after the Director's receipt and acceptance of properly executed contract documents, including performance and payment bonds. Unless otherwise ordered by the Director in writing, the contractor shall initiate its contract work at the site no later than 30 calendar days after its receipt of the Notice to Proceed.

8.9.2 Provided the contract is not terminated pursuant to section 3.2 of the Instructions to Bidders if, in the opinion of the Director, the contractor's delay in furnishing financial responsibility and performance or payment bonds causes a delay in the issuance of the Notice to Proceed, the time to complete the work as specified in the contract may be reduced to reflect such delay.

8.9.3 The contractor shall perform no work under this contract until the required evidence of financial responsibility and bonds has been furnished. Thereafter, work at other than the contract site may be undertaken. The contractor shall perform no work at the contract site except pursuant to a Notice to Proceed given by the Director.

8.9.4 A Notice to Proceed may be issued by the State at its convenience. Any right of the contractor to any adjustment because of a delay in issuing a Notice to Proceed shall be determined in accordance with section 2.1 entitled "Director's Right to Stop Work."

ARTICLE 9

CONSTRUCTION PROGRESS

9.1 CPM Consultant

9.1.1 The State may have contracted for the services of a Critical Path Method (CPM) scheduling consultant for project planning, scheduling and control. If such has been arranged, then section 9.3 shall be applicable. In the event that a CPM consultant has not been retained by the State, then section 9.2 shall pertain. In the absence of a statement in the bid documents that a CPM consultant has been retained, the contractor shall assume that there will be no CPM consultant associated with the project.

9.2 Construction Progress Schedule (No CPM)

9.2.1 This program shall be completed within the specified number of calendar days from date of execution of the Notice to Proceed.

9.2.2 The general construction contractor shall be responsible for preparing and furnishing to the Director through the architect/engineer, before the first contract requisition date or other date specified by the State, a coordinated combined progress schedule which incorporates the progress schedules of all prime contractors engaged on the project. The schedule shall be in the form of an arrow network diagram, bar chart or other recognized graphic progress schedule format, in sufficient detail to satisfy the architect/engineer and the Director.

9.2.3 The general construction contractor shall submit copies of its initial draft of this schedule to all prime contractors. Each prime contractor shall then prepare a progress schedule for its own work, properly coordinated with the general construction contractor's initial draft, and then submit to the general construction contractor for its preparation of the final draft of a single coordinated progress schedule. Contract requisitions will not be processed by the State until and unless such a single coordinated progress schedule has been submitted to and approved by the architect/engineer and the Director. This submission shall be no later than thirty (30) calendar days after the award of the contract. If any contractor delays its submission, the project schedule will be submitted without this input and any payments otherwise due the contractor will be withheld pending compliance.

9.2.4 The progress schedule, based upon the contractor's logic and time estimates, shall indicate in suitable detail for display, all significant features of the work of each contractor, including the placing of orders and anticipated delivery dates for critical items, submissions and approvals of shop drawings, all work activities to be performed by each contractor, the beginning and time duration thereof, and the dates of substantial and final completion of the various branches of the work.

9.2.5 Immediately upon such approval, the general construction contractor shall prepare and distribute ten copies of the progress schedule to the Director plus two copies to each prime contractor and to the architect/engineer. In the event a new prime contractor is added to the job, the general construction contractor shall furnish a revised schedule immediately with copies as indicated. The final coordinated schedule shall be signed and dated by all prime contractors involved.

9.2.6 Each contractor shall furnish sufficient labor and construction plant and equipment to ensure the prosecution of the work in accordance with the project schedule. If the latest completion time for any significant job does not come within the time allowed by the project schedule, the sequence of jobs and/or the time for performance of jobs shall be revised by the contractor and the general construction contractor through concurrent operations, additional manpower, additional shifts, overtime, etc. until it is assured that the contract completion date will be met. No additional charges to the State will be allowed the contractor(s) 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 agreed completion date.

9.2.7 Each contractor agrees that it will 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 project 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 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.

9.3 Construction Progress Schedule (CPM)

9.3.1 Critical Path Method (CPM):

- a. The project shall be monitored by a detailed critical path method scheduling system. This system shall be the basis for the evaluation of all contractors' performance and for progress payments to all contractors.
- b. The CPM consultant shall be retained by DBC. The duty of the CPM consultant is to aid all contractors in efficiently coordinating their work. If the CPM consultant becomes aware of any inefficiencies, it shall report same to DBC. If such inefficiencies cannot be voluntarily resolved among the contractors, the matter shall be referred to the DBC representative on the project. The Director shall order the resolution of the problem by requiring each contractor to undertake certain activities to ameliorate the inefficiency. The CPM consultant is not an agent of the State but is an independent contractor.
- c. All contractors shall provide all the information necessary for the CPM consultant employed by DBC to develop a CPM network plan demonstrating complete fulfillment of all construction contract requirements as necessary for the CPM consultant to keep the network plan up to date in accordance with the requirements of this section. Construction logic and activity time duration shall be established by all contractors consistent with contract requirements and reflective of proper coordination between trades. The level of detail to be reflected on the CPM schedule shall be established by the CPM consultant. All contractors shall utilize the plan in planning, coordinating and performing the work under this contract (including all activities of subcontractors, equipment vendors and suppliers).
- d. A pre-bid conference will be conducted at the discretion of DBC to explain to prospective bidders how this section will be implemented and to answer questions regarding the scheduling operations.
- e. Upon completion of the CPM system, as defined in this section, all contractors agree that the CPM consultant's project network schedule is the designated plan for completion of all work in the allotted time, and each contractor will assume full responsibility for the prosecution of the work as shown. All contractors shall indicate formal acceptance of the schedule by signing the finalized initial network diagrams and computer schedule listing.
- f. All contractors shall furnish sufficient labor and construction plant and equipment to ensure the prosecution of the work in accordance with the approved progress schedule. If, in the opinion of the Director, a contractor falls behind the progress schedule, the contractor shall take such steps as may be necessary to improve its progress, and the Director may require the contractor to increase the number of shifts, days of work and/or the amount of construction plant and equipment, all without additional cost to the State and as provided in section 8.5.1.

9.3.2 Initial Submittal

- a. To the extent necessary for the CPM consultant to reflect in the arrow diagrams the plan for completion of this contract, all contractors shall meet with and assist the CPM consultant and furnish, within ten calendar days after award of this contract, all necessary information for the preparation of the scheduling system. 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.

The contractor shall be responsible to reflect on the network diagram all subcontractor work, as well as its own work, in proper coordinated sequence with the work of all other prime contractors and their subcontractors. The contractor shall be prepared to meet as many times as necessary with the CPM consultant and all other prime contractors to develop the information required for the timely development of the project CPM schedule.

The initial CPM schedule that is submitted to DBC will show a coordinated plan for work for all contractors, thereby providing a common basis of acceptance, understanding, and communication. This schedule shall be approved by all prime contractors prior to submittal for DBC review.

The CPM consultant will submit for DBC review an arrow diagram describing the activities to be accomplished and their dependent relationships, together with a computer-produced calendar-dated schedule showing starting and completion dates for each work item. All completion dates shown shall be within the period specified for contract completion and in compliance with all intermediate milestones.

In conformance with article 10 of these General Conditions relating to "Payments," each prime contractor shall furnish a breakdown of the total contract price by assigning dollar values (costs estimates) to each applicable network activity, which cumulatively equals the total contract amount. Upon acceptance by DBC, the values will be used as a basis for determining progress payments. The contractor's overhead and profit shall be prorated through all activities. Progress payments to the contractor shall be dependent upon final acceptance by DBC of the costed CPM system.

- b. The arrow diagram shall show the sequence and interdependence of activities required for complete performance. In preparing the arrow diagram, all contractors shall assist the CPM consultant by breaking up the work into activities of a duration of no longer than ten 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 consultant may approve the showing of longer duration. The diagram shall show not only the activities for actual construction work for each category of the project but also such activities as the contractor's submittal of shop drawings, templates and equipment, material fabrication, delivery of equipment and material, and the delivery of owner-furnished equipment, if applicable. Activity duration (i.e., the contractor's single best estimate, considering the scope of the activity) shall be furnished by the contractor to the CPM consultant for each activity on the diagram. 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. To the extent that the arrow diagram or revised arrow diagram shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by DBC. 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 DBC approval of the arrow diagrams. The level of detail to be reflected in the CPM system shall be established by the CPM consultant.
- c. 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 time. In addition, appropriate allowances shall be made for anticipated time losses due to normal rain and snow conditions by statistically expanding the estimated time duration for weather-sensitive activities.

Accompanying the arrow diagram and computer scheduling listing, the CPM consultant shall furnish a computer-generated cost requisition listing, which shall 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 DBC. This listing shall show, for each activity,

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 shall also contain monthly activities reflecting the cost of project overhead and administrative expenses, and activities reflecting the monthly cost of administering project General Conditions.

The cost requisition listing shall generate the contractor's monthly payment requisition directly from the CPM updating, utilizing the cost information furnished by the contractor and approved by DBC, and current project status determined in accordance with the requirements of section 9.3.4.

9.3.3 Review and Approval:

Within ten calendar days after receipt of the initial arrow diagram, computer-produced schedule and cost requisition listing, the DBC representative shall meet with the contractor and CPM consultant for joint review, correction, or adjustment of the proposed plan and schedule to evaluate the cost values assigned to each activity. Within ten calendar days after the joint review, the CPM consultant will revise the arrow diagram and/or computer-produced schedule in accordance with agreements reached during the joint review, and shall submit two copies each of the revised arrow diagram, computer-produced schedule and cost requisition listing to DBC. The re-submission will be reviewed by DBC and, if found to be as previously agreed upon, will be approved. An approved copy of each will be returned to the CPM consultant. Each contractor shall approve the schedule at that time. However, if any contractor objects to the schedule to be adopted, the contractor shall, within ten calendar days, state these objections in writing to the Director, specifying the precise position of the schedule to which the contractor objects and the reasons therefor, and identifying the basis of the objection. Each contractor will be deemed to have accepted the schedule as adequate, proper and binding in all respects and shall not raise objections to the schedule except to the extent as required in this article. The contractor will then meet with the DBC representative, the CPM consultant, and all other contractors as necessary to develop a contractually compliant schedule which removes all of the contractors' objections. The CPM consultant will revise the arrow diagram and the computer-produced schedule in accordance with the agreements reached during this final review and shall submit two copies each of the revised arrow diagram, computer-produced schedule and cost requisition listing to DBC. The re-submission will be reviewed by DBC and, if found to be as previously agreed upon, will be approved. An approved copy of each will be returned to the CPM consultant. Each contractor shall review the schedule to ensure that it reflects all charges agreed to and if all changes have been made, each contractor shall approve and sign the network diagrams, computer-produced schedule and cost requisition listing at that time. Approval will be without reservation, and each contractor will be deemed to have accepted the schedule as adequate, proper and binding in all respects and shall not raise objections to the schedule. After the network diagrams and computer-produced schedule have been signed, the CPM consultant shall forward to each contractor one set of copies of the network diagrams and computer-produced schedule. The arrow 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.

9.3.4 Progress Reporting and Changes:

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

- (1) Approved changes in activity sequencing;

- (2) Changes in activity duration for not started or partially completed activities where agreed upon;
- (3) The effect to 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 DBC since the last revision of the CPM schedule.

The CPM schedule shall accurately reflect the manner in which the contractors intend to proceed with the project and shall incorporate the impact of all delays and change orders as soon as these factors can be defined. All changes made to the schedule shall be subject to approval by DBC prior to inclusion in the CPM schedule. If the DBC 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 arrow diagram, the CPM consultant shall reflect the logic and time duration furnished by the contractor for the change order work pending final DBC decision. If non-approved contractor logic and time duration 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 DBC regarding the manner in which the change order work is to be reflected on the schedule. When this final decision has been made by DBC, 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.

If the contractor desires to revise the logic of the approved CPM schedule so as to reflect a sequence of construction which differs from that originally agreed to, the contractor must first obtain the approval of the general construction contractor and all contractors whose work may be affected by the changes, and then must obtain the approval of DBC. If this change extends the completion date of the project or delays the work of other trades, the contractor agrees that these impacts and all associated costs will be considered a claim to be assessed against the contractor initiating the change and will not be the basis for a project time extension.

- b. Once each month, at the same time the network is updated, the CPM consultant, the contractor and the DBC representative(s) shall jointly make entries on the proceeding 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 arrow diagram approved in accordance with the preceding paragraph. After completion of the joint review and DBC'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 DBC and all contractors.

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, except that portion affected by interim DBC decision.

- c. In addition to the foregoing, once each month all contractors will receive a narrative report prepared by the CPM consultant. The narrative report will include a description of

the amount of progress 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 their estimated impacts on the performance of other activities and completion dates, and recommendations on corrective action for the contractor. Within seven calendar days after receipt of this report, the contractor shall submit to DBC a written explanation of corrective action taken or proposed. The Director, after reviewing written submissions, shall make a decision binding all parties.

9.3.5 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 10 of these General Conditions. The contractor shall be entitled to progress payments only upon receipt by DBC of an updated computer-produced calendar-dated schedule and cost requisition listing as mentioned under 9.3.4b above.
- b. Payments to all contractors 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. Wherever required by the DBC-authorized representative, the contractors shall provide sufficient documentation to confirm reported progress for any costed items appearing in the scheduling and requisition system (e.g., bills of lading for delivered material and equipment).
- c. Payments to contractors shall be dependent upon the contractor furnishing all of the information and data which in the judgment of DBC 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 arrow diagram. DBC's determination that the contractor has failed or refused to furnish the required information and data shall constitute a basis for withholding payments until the required information and data is furnished and the schedule and/or diagram is prepared or revised on the basis of such information and data.

9.3.6 Biweekly Progress Meetings:

- a. Every two weeks the CPM consultant will conduct a coordination and scheduling meeting on the job site. At this meeting, each contractor shall provide detailed information regarding the work schedule to be performed during the upcoming two weeks so that the CPM consultant can prepare bar chart schedules for the period. Biweekly scheduling by the contractors shall be in accordance with the priorities and degree of concurrent work required by the official CPM schedule for the project. Each 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.

At the biweekly scheduling meeting, the CPM consultant shall review the bar charts for the proceeding two weeks, and each 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. All contractors agree that this information shall constitute the official historical record of project progress.

At each biweekly scheduling meeting, each contractor shall document any current delays to work operations. In addition, contractors shall provide any available information regarding any potential delays which they anticipate (i.e., procurement delays, expected strikes, etc.).

- b. Following the biweekly scheduling meeting, the CPM consultant shall issue to each contractor a set of biweekly bar charts as developed at the meeting which shall constitute the construction schedule for the coming two weeks. The CPM consultant shall 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.

- c. Each prime contractor shall be represented at the biweekly scheduling meeting by its project manager, who shall have complete authority to provide the information required for the development of the next two weeks bar chart schedule, documentation of past progress and documentation of delays. Contractor representatives shall also be authorized to discuss at these meetings corrective action planned to overcome delaying conditions.

9.3.7 Responsibility for Completion:

Each contractor agrees that whenever it becomes apparent from the current monthly computer-produced calendar-dated schedule that any contract completion date will not be met, the contractor will take some or all of the following actions at no additional cost to the State:

- a. Increase construction manpower in such trades and numbers as will substantially eliminate, in the judgment of the Director, the backlog of work.
- b. 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 sufficiently to substantially eliminate, in the judgment of the Director, the backlog of work; and/or
- c. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.

9.3.8 Adjustment of Contract Completion Time:

- a. The contract completion time or times will be adjusted only for causes specified in this contract. In the event a contractor requests an extension of any contract completion date, the contractor shall furnish such justification and supporting evidence that DBC requires to evaluate the contractor's request. The Director shall then make a finding of fact and advise the contractor in writing thereof. If the Director 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 shall be based upon the currently approved computer-produced calendar-dated schedule and on all data relevant to the extension. Such data will be included in the next updating of the schedule.
- b. Two types of time extensions may be issued for this project as follows:
 - (1) A total project time extension may be issued if delays which are determined to be beyond the control of the contractor affect the main project critical path shown on the CPM schedule, thereby directly extending the final project completion date.
 - (2) A concurrent project time extension may be issued in those instances where it is found that specific delays beyond the control of the contractor would have affected the final project completion date were it not for overriding delays due to other causes. If a concurrent project time extension is issued, it will cover that time which would have been lost due to the specific issues cited if no other delays have occurred, according to the CPM consultant's analysis. A concurrent project time extension will also excuse the contractor from responsibility for liquidated damages for the period of time extension.
- c. All contractors acknowledge and agree 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 CPM schedule is not for the exclusive use of either the contractor or DBC. It is agreed that float time is available for use by all parties to facilitate the effective use of available resources and to minimize the impact of problems of change orders which may arise during construction. Each contractor specifically agrees that float time may be used by DBC or their representatives or consultants in conjunction with their review activities or to resolve project problems. Each 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. Each 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 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. Float time shown on the CPM schedule shall not be used arbitrarily by any contractor in a manner which, in the opinion of the Director, unnecessarily delays other contractors from proceeding with their work in a way which is detrimental to the interests of the State. If any contractor refuses to perform work which is available to it, the Director may, regardless of the float shown to be available for the work, consider the contractor to be in violation of the contract documents. In such instances, the Director may, without prejudice to any right or remedy, and after giving the contractor and its surety a three working day written notice to forthwith commence and continue with the work 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 at any time subsequent to three working days thereafter, should either or both of them fail to comply with the directive of the original three working day notice mentioned above.
- (2) Each 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 that the weather conditions during a given quarterly period (summer, fall, winter, spring) were more severe than the previous five-year 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 which should have been anticipated for the quarterly period in question.
- No time extensions will be considered for any weather impacts which do not affect work on the main project critical path. Each 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.
- (3) In order for a given issue (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.
- (4) Each contractor acknowledges and agrees that actual delays to activities which, according to the computer-produced calendar-dated schedule, do not directly affect the main project critical path do not have any effect on the contract completion date or dates and will not be the basis for a change therein.

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

- (a) If the current CPM schedule shows two or more concurrent delays, with one analyzed to be the responsibility of DBC 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 their impacts 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-DBC caused delays. For example, if an excusable impact delays the project by 100 calendar days and concurrent contract-caused slippage independently delays the final completion date by 90 calendar days, a time extension will only be considered for a maximum of ten 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.

ARTICLE 10

PAYMENTS

10.1 Contractor Payment Process

10.1.1 The State will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Director, on estimates approved by the Director. Unless otherwise directed, the contractor shall furnish a schedule of amounts for contract payments (Unit Schedule Breakdown, Form DBC-12A) of the total contract price, showing the amount included therein for each principal category of the work, 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 Director 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 Director or the Director's authorized representative.

10.1.2 In the preparation of estimates, the Director has the discretion to authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the contractor at locations other than the site may also be taken into consideration if (a) such consideration is specifically authorized by the contract and (b) the contractor furnishes Form DBC 11-3 and 11-3A entitled "Prime Contractors Summary of Stored Materials" and "Agreement and Bill of Sale Certification for Stored Materials," respectively.

10.1.3 In making such progress payments for contract work completed, the State will retain ten percent of the approved invoice amount until final acceptance and completion of all work covered by the contract.

The contractor may, after 50 percent of the contract work is in place and if such work is proceeding on schedule, apply for a reduction in the amount to be retained by the State for the duration of the contract. Such application must be in writing and accompanied by documentation denoting formal consent of surety to the reduction in retainage. If the Director determines that the contractor's performance has been satisfactory and that the reduction is warranted and appropriate, the State will, with the next progress payment, release any portion of the accumulated retainage in excess of five percent of the adjusted contract amount and retain an amount equal to five percent of the adjusted contract amount for the duration of the contract. If progress of the work is not maintained in accordance with the approved schedule, the Director may elect to re-institute retainage of ten percent of the work in place for the duration of the contract.

Upon acceptance and completion of each building or other clearly definable severable portion of the contract work for which the price is stated separately within the contract, payment may be made in full at the discretion of the Director, including retained amounts thereon, minus authorized deductions.

All material and work covered by progress payments made shall hereupon become the sole property of the State, but this provision shall not be construed as relieving the contractor from the sole responsibility for all material and work upon which payments have been made, or 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.

10.1.4 If performance or payment bonds are required under this contract, the State shall pay to the contractor the total premiums paid by the contractor to obtain the bonds. This payment shall be paid at one time to the contractor together with the first progress payment otherwise due after the contractor has (1) furnished the bonds (including coinsurance and reinsurance agreements, when applicable), (2) furnished evidence in full payment to the surety company, and (3) submitted a request for such payment. This payment of the bond premiums by the State to the contractor shall not be made as increments of the individual progress payments and shall not be in addition to the contract price.

10.1.5 Upon completion and acceptance of all work, the amount due the contractor under this contract shall be paid 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 claim 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.

10.1.6 Upon satisfying the above conditions, the contractor shall submit a properly executed invoice for final payment to the DBC project representative who will initiate the process of final payment review and approval. The invoice will be considered properly executed when it is received and time-stamped by DBC's project accounting unit.

10.1.7 If for any reason the contractor refuses final payment, the project shall be closed out by the State by the processing of a Final Contract Acceptance certification. All residual funds will be held in escrow by the State until all claims of the State and all contractors are satisfied.

10.1.8 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, either upon incorporation into the construction or upon receipt of payment by the contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances. 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.

10.1.9 Recommendation for approval of an invoice will constitute a representation by the architect/engineer to the Director, based on inspections at the site and data contained in the invoice, that the work has progressed to the point indicated; that, to the best of the architect/engineer's knowledge, information and belief, the quality of the work is in accordance with the contract documents; and that the contractor is entitled to payment in the amount certified. By recommending approval of the invoice, however, the architect/engineer shall not thereby 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 on account of the contract sum.

10.1.10 If any corporation licensed to do business in New Jersey shall be or become delinquent in the payment of taxes due the State, unless under an active appeal process, the Director may withhold moneys due the said corporation for the purpose of assuring the payment to the State of such taxes.

10.2 Invoices

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

- a. DBC Form 11/AR50-1 - DBC Invoice;
- b. DBC Form 11-2 - Monthly Estimate for Payment to Contractor;
- c. DBC Form 11-2A - Certification of Prime Contractor;
- d. DBC Form 11-3 - Prime Contractors Summary of Stored Materials;*
- e. DBC Form 11-3A - Agreement and Bill of Sale Certification for Stored Materials;*
- f. Consent of Surety forms;*
- g. Certified Payroll Records;*
- h. Any other information or documentation required by other provisions of the contract as applicable or required

10.2.2 The contractor shall submit the completed request for payment packet to the DBC project representative as instructed at the pre-construction conference. Receipt of a properly completed request for payment packet will start the prompt payment clock, unless it is subsequently discovered to be incomplete or otherwise unacceptable and returned to the contractor within 30 calendar days for correction (see section 10.2.4d. below).

10.2.3 Request for payment packets shall be prepared and submitted in original plus two copies unless otherwise specified.

10.2.4 For purpose of determining if interest begins to accrue under the State's Prompt Payment Act (N.J.S.A. 52:32-32 et seq.):

- a. A proper invoice will be deemed to have been received when it is received by the office designated in the pre-construction conference for receipt of invoices and acceptance of the materials delivered or services rendered has occurred;
- b. Payment shall be considered made on the date on which a check for such payment is dated;
- c. Payment terms (e.g., "net 20") offered by the contractor will not be deemed a "required payment date"; and
- d. The following periods of time will not be included:
 - (1) After receipt of an improper invoice and prior to notice of any defect of impropriety, but not to exceed 30 calendar days; and
 - (2) Between the date of a notice of any defect or impropriety and the date a proper invoice is received. When the notice is in writing, it shall be considered made on the date shown on the notice.

10.3 Interest

10.3.1 Interest shall be paid on the amount due the contractor pursuant to a properly executed State invoice (see preceding section 10.2) if the required payment is not made on or before the required payment date.

10.3.2 The required payment date shall be 60 calendar days from the receipt of a properly executed State invoice or 60 calendar days from receipt of supplies or services, whichever is later.

10.3.3 Interest on amounts due shall be paid 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. The interest shall be paid at a rate which the State Treasurer shall specify as applicable on the 30th calendar day after the end of each fiscal year.

10.3.4 In determining the rate, the Treasurer shall take into consideration current private commercial rates of interest for new loans maturing in approximately five years. The Treasurer shall publish the new rate.

10.3.5 No interest charge as required by this provision shall become a debt of the State until it exceeds \$5.00.

10.3.6 Interest may be paid by separate payment to the contractor, but shall be paid within 30 calendar days of payment of the original invoice.

10.3.7 The State Treasurer shall have the right to waive the interest payment for delinquencies due to circumstances beyond the control of the Director (or other State representatives involved in the processing of contractor invoices) including but not limited to strikes and natural disasters, and for contracts entered into prior to the effective date of the law.

10.3.8 Nothing in the provision nor the New Jersey Prompt Payment Act shall be construed as permitting the accrual of prejudgment interest in the case of a disputed contract for which notice of claim has been filed pursuant to N.J.S.A. 59:13-1 et seq., as provided in N.J.S.A. 59:13-8.

10.3.9 Withholding Payment for Non-Delivery of Data:

- a. If technical data such as "As Built" drawings, reports, spare parts lists, repair parts lists, etc., 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 Director 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	10.0%
\$250,000 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.

10.3.10 Allowances

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 Director on the basis of the lowest acceptable quote from at least three competitive offers. If the actual cost of the "allowed materials" is more or less than the stipulated allowance, the contract price shall 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.

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; and
- c. Should the actual cost vary from the allowance, the contract sum shall be adjusted accordingly by change order, the amount of which will recognize changes, if any, of handling costs on the site, labor, installation costs, overhead, profit and other expenses resulting to the contractor from any change in quantity only (not price) beyond that contemplated by the allowance.

ARTICLE 11

UNCOVERING AND CORRECTION OF WORK

11.1 Uncovering of Work

11.1.1 If any portion of the work is covered prior to inspection by the Director or the architect/engineer, especially work specifically required by the contract documents to be inspected, it shall be uncovered for observation. Uncovering the replacement of covering shall be at the installation contractor's expense. The contractor is obligated to advise the Director or the architect/engineer of all work scheduled to be covered which is reasonably subject to prior inspection before actual covering.

11.1.2 If any other portion of the work not specifically required to be inspected has been covered, which the Director or the architect/engineer did not request to observe prior to being covered, a request may subsequently be made to inspect such work, and it shall be uncovered by the installation contractor. 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 by the Director. If such work is found not to be in accordance with the contract documents, the contractor shall pay all associated costs, unless it is found that this condition was caused by the State, in which event the Director shall be responsible for the payment of such costs.

11.2 Correction of Work

11.2.1 The contractor shall promptly correct all work rejected by the Director 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 architect/engineer's additional services, if any.

11.2.2 The contractor shall remove from the site all portions of the work which are defective or non-conforming and which have not been corrected, unless removal is waived by the Director.

11.2.3 If the contractor fails to correct defective or non-conforming work in a timely manner, the Director may make arrangements for such correction by others and charge the cost of so doing to the responsible contractor and/or its sureties.

11.2.4 If the contractor does not proceed with the correction of such defective or non-conforming work within a reasonable time, fixed by written notice from the Director or the architect/engineer, the Director may remove it and may store the materials or equipment at the expense of the contractor. If the contractor does not pay for the cost of such removal and storage within 14 calendar days thereafter, the Director may, upon 14 calendar days additional written notice, sell such material and equipment at auction or at private sale and shall account for the net proceeds thereof, after deducting all of the costs which are the responsibility of the contractor, including compensation for the architect/engineer's additional services, if any. If such proceeds of sale do not cover all costs which the contractor should have borne, 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 and/or its surety shall pay the difference to the State.

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

11.2.6 Nothing contained herein shall be construed to establish a period of limitation, with respect to any other obligation which the contractor might have under the contract documents.

11.3 Acceptance of Defective or Non-Conforming Work

11.3.1 The Director 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 a change order will be issued to reflect an appropriate and equitable 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 providing any funds due the State as a result thereof.

ARTICLE 12

PROTECTION OF PERSONS AND PROPERTY

12.1 Safety Precautions and Programs

12.1.1 Each prime contractor shall be responsible, in cooperation with and under the leadership of the general construction contractor, for initiating, maintaining and supervising all safety precautions and programs in connection with the work. Each prime contractor shall designate a responsible member of its organization at the site, whose duty shall be the prevention of accidents. This person shall be the contractor's superintendent unless otherwise designated by the contractor, in writing, to the State and the architect/engineer.

12.2 Safety of Persons and Property

12.2.1 Each prime contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

- a. Every employee on the work and all other persons who may be affected thereby;
- b. 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 subcontractors or sub-subcontractors; and
- c. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

12.2.2 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.

12.2.3 The contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including rails, night-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.

12.2.4 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.

12.2.5 No contractor shall load or permit any part of the work to be loaded so as to endanger its safety.

12.2.6 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, sub-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, except damage or loss attributable to the acts or omissions of the State or architect/engineer, or anyone directly or indirectly employed by either of them or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the contractor. The foregoing obligations of the contractor are in addition to its obligations stated elsewhere herein.

12.3 Emergencies

12.3.1 In any emergency affecting the safety of persons or property, the contractor shall act with diligence, at its discretion, to prevent threatening injury, damage or loss. In such case, the contractor shall immediately notify the Director, through the architect/engineer, of the action taken, and shall forthwith prepare and submit a detailed and documented request through the

architect/engineer to the Director for any additional compensation or extension of time claimed by the contractor on account of emergency work.

12.3.2 Wherever the contractor has taken no action, but has notified the Director or the architect/engineer, or wherever the Director has otherwise been made aware of any emergency threatening injury to persons, or loss or damage to work or adjacent property, the contractor shall act only as instructed or authorized by the Director.

ARTICLE 13

INSURANCE AND INDEMNITY

13.1 Contractor Insurance Requirements

The contractor shall secure and maintain in force, for the term of the contract, insurance coverages provided herein. The contractor shall provide the State of New Jersey with current certificates of insurance for all coverage and renewals thereof which must contain the provision that the insurance provided in the certificate shall not be canceled for any reason except after 30 calendar days written notice to the State of New Jersey, Division of Building and Construction.

13.1.1 Comprehensive General Liability

Comprehensive general liability insurance for the benefit of the contractor and any subcontractors is to be written as broad as the standard coverage form currently in use in the State of New Jersey, which shall not be circumscribed by any endorsements limiting the breadth of coverage. The policy shall include an endorsement (broad form) for contractual liability insurance, an endorsement for completed operations insurance, and an endorsement eliminating the explosion, collapse and underground (XCU) exclusion. Limits of liability shall not be less than \$1,000,000 per occurrence for bodily injury liability and \$1,000,000 per occurrence for property damage liability.

13.1.2 Comprehensive Automobile Liability

Comprehensive automobile liability insurance covering owned, non-owned, and hired vehicles must be carried by all contractors. The limits of liability shall not be less than \$1,000,000 per occurrence for bodily injury liability and \$500,000 per occurrence for property damage liability.

13.1.3 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 \$250,000.

13.1.4 Owner's and Contractor's Protective Liability Insurance (OCPL)

In addition to the insurance required above, the contractor shall obtain and maintain a separate owner's and contractor's protective liability insurance policy for the same limits of liability as specified for the comprehensive general liability insurance. The policy shall provide for the State of New Jersey to be named insured. The policy shall be maintained in force for the term of the contract or one year, whichever is longer.

13.2 Insurance to be Carried by the State of New Jersey

13.2.1 Fire Insurance

The State of New Jersey shall provide insurance protection for the benefit of the contractor and its subcontractors in the form of a builders' risk insurance policy, providing protection against the perils of fire with extended coverage (which is limited to destruction caused by fire and lightening, wind, storm and hail, leakage from fire protective equipment, explosion, smoke damage caused by vehicles colliding with the structure, and damage caused by aircraft, sonic shock, riot and civil commotion, damage resulting from civil and military authority, and vandalism and malicious mischief) upon the structure on which the work on this contract is to be done to 100 percent of the insurable value thereof, including items of labor and materials connected therewith, whether in or adjacent to the structure insured, and materials in place or to be used as part of the permanent construction including surplus materials.

13.2.2 Exclusions

The above insurance shall apply only to the construction of new buildings and new additions to existing buildings which result in the creation of additional habitable space; 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, contractor's materials stored on site which are not part of the construction project, and sheds or other temporary structures erected for use by the contractor and subcontractors. 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.

13.2.3 Deductible Provisions

The insurance protection described herein may contain a deductible clause. The State of New Jersey agrees to indemnify the contractor against any insurable to the extent that such loss exceeds \$5,000 per occurrence. In these instances, the contractor shall assume responsibility for the first \$5,000 of any loss.

13.2.4 Loss Reporting and Loss Adjustment

In the event of loss, the contractor shall immediately notify the State of New Jersey, Division of Building and Construction, 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.

13.2.5 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.

13.2.6 The contractor shall not include any cost for builders' risk insurance premiums as described herein. However, 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.

ARTICLE 14

CHANGES IN THE WORK

14.1 Changes to Contract

14.1.1 The Director may at any time, by written order designated or indicated to be a change order, make any change in the work within the general scope of the contract, including, but not limited to, changes:

- a. In the specifications (including drawings and designs);
- b. In the method or manner of performance of the work;
- c. In the State-furnished facilities, equipment, materials, services, or site; or
- d. Directing acceleration in the performance of the work.

14.2 Requests for Equitable Adjustment

14.2.1 The contractor agrees to prepare and submit, within 20 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 DBC form entitled "Request for Change Order" to the Director or, if so instructed, to the Director's designated project representative. An original and two copies shall be submitted.

14.2.2 All requests for contract time extensions must be accompanied by copies of the current (approved) progress schedule and copies of the revised (proposed) progress schedule detailing the incorporation of the changed work and the effects of such incorporation on progress. Failure to provide the schedule data shall be grounds for rejection of the request.

14.2.3 Notwithstanding any other portion of this contract, any time extensions for changes in the work depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The contract modification making such time extension will provide for an extension of contract completion date only for those specific elements so delayed, and will not alter the contract completion dates for other portions of the work. This contract modification may further provide for an equitable readjustment of liquidated damages pursuant to the new completion schedule.

14.2.4 The contractor, in connection with any request it makes for an equitable adjustment, shall furnish a price breakdown, itemized as required by the Director. Unless otherwise directed, the breakdown shall cover all work involved in the change whether such work was deleted, added or changed. Further, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract and overhead costs, as well as profit. Any amount proposed for subcontracts shall be supported by a similar price breakdown. In addition, if the request includes a time extension, a justification (see section 14.2.2) shall also be furnished. The request, together with the price breakdown and time extension justification, shall be furnished by the date specified.

14.2.5 If any change under this article causes an increase or decrease in the contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, an equitable adjustment may be made in the contract price or delivery schedule or both, and the contract modified in writing accordingly.

14.2.6 The following rates shall apply in computing indirect costs and profit for the negotiation of equitable adjustments, under all provisions of this contract which provide for such adjustments that do not exceed \$25,000. When the contract time is increased as a result of a change, the resulting change in contract amount will include the indirect impact cost of extended performance, computed in accordance with the terms of this article, and no further consideration of such costs arising from the specific modification will be given. The percentages for overhead and profit shall be negotiated and may vary according to the nature, extent and complexity of the work involved. 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) 15 percent of direct labor costs. NOTE: For the purpose of this article, the term "direct labor" shall include all foremen, 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) 15 percent 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 by using the monthly rental rates taken from the current edition of the Rental Rate Blue Book for Construction Equipment 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 aforesaid Rental Book. The contractor will be allowed only 65 percent of the rental rate on contractor-owned equipment.
- c. Bond premiums, insurance, payroll taxes, and travel subsistence, if applicable, will be allowed at actual cost for the equitable adjustment allowed.
- d. The prime contractor's profit on the subcontractor's work will be six percent of the subcontractor's costs. Subcontractor indirect costs will be computed in the same manner as for the prime contractor. The prime contractor agrees to incorporate this article in each of its subcontracts. NOTE: When more than one tier of subcontractors exists, for the purpose of markups, they shall be treated as one subcontractor.
- e. A profit of six percent, where profit is allowable by the terms of the applicable contract provision, shall be added to the contractor's total cost for the equitable adjustment allowed. Indirect costs will not be duplicated in direct costs.

14.2.7 The Director, 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 a change without a prior agreement on costs. Such direction shall be in the form of an un-priced change order or letter of direction. If the contractor intends to assert a request for an equitable adjustment under this article, the contractor must submit to the Director or, if instructed, to the Director's designated project representative a DBC form entitled "Request for Change Order", completed in sufficient detail and in accordance with this article within 20 calendar days after receipt of an un-priced change order or letter of direction.

14.2.8 Where the cost of property made obsolete or excess as a result of a change is included in the contractor's request for adjustment, the Director shall have the right to prescribe the manner of disposition of such property.

14.2.9 In order to avoid delays in the progress of work, the Director has the discretion to order a contractor to proceed, even in the absence of a formal change order. The contractor shall submit a follow-up change order request within 20 calendar days following the date of authorization to proceed with the changed work. The cost of such work shall then be evaluated by the Director on the basis of the reasonable expenditures and savings for those performing the work.

14.2.10 Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of section 2.4 of this document. However, nothing in this article shall excuse the contractor from proceeding with the contract as changed.

ARTICLE 15

ASSIGNMENT OF ANTITRUST CLAIM(S)

15.1 Assignment of Antitrust Claim(s)

15.1.1 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 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.

In connection with this assignment, the following are the express obligations of the contractor:

- a. It will take no action which will in any way diminish the value of the rights conveyed or assigned hereunder.
- b. It will advise the Attorney General of New Jersey:
 - (1) in advance of its intention to commence any action on its own behalf regarding any such claim or cause(s) of action;
 - (2) immediately upon becoming aware of the fact that an action has been commenced on its behalf by some other person(s) of the pendency of such action.
- c. It 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.

Furthermore, 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.

ARTICLE 16

AFFIRMATIVE ACTION REQUIREMENTS

16.1 Policy Statement

The laws of New Jersey (N.J.S.A. 10:5-31 et seq.) provide that no public works contractor can be awarded nor any moneys paid until the prospective contractor has agreed to contract performance which complies with the approved Affirmative Action Plan. The law applies to each political subdivision and agency of the State and includes procurement and service contracts as well as construction contracts. This section was prepared to explain the affirmative action requirements and procedures for public agencies awarding contracts and for contractors bidding on contracts.

To assure effective application of the affirmative action law while allowing the business operations of government to proceed efficiently, these regulations (see N.J.A.C. 17:27) are designed to minimize administrative paperwork and delays.

16.2 Mandatory Language

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, sex, or affectional or sexual orientation. The contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment without regard to their age, race, creed, color, national origin, ancestry, marital status, sex, or affectional or sexual orientation. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. 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, sex or affectional or sexual orientation.
- c. The contractor or subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Public Agency Compliance 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 and all regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time.
- e. When hiring workers in each construction trade, the contractor or subcontractor agrees to attempt in good faith to employ minority and female workers in each construction trade consistent with the applicable employment goal prescribed by N.J.A.C. 17:27-7.3; provided, however, that the Affirmative Action Office may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions (1), (2) and (3), as long as the Affirmative Action Office is satisfied that the contractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Affirmative Action Office, that its percentage of active "card carrying" members who are minority and female workers is

equal to or greater than the applicable employment goal prescribed by N.J.A.C. 17:27-7.3 promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq. as amended and supplemented from time to time. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- (1) 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 working 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 the contract and in accordance with the regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as supplemented and amended from time to time. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five working days prior to the commencement of construction work, the contractor or subcontractor agrees directly to attempt to hire minority and female workers consistent with the applicable employment goal. 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 female workers consistent with the applicable employment goal, the contractor or subcontractor agrees to be prepared directly to hire minority and female workers consistent with the applicable employment goal by complying with the following hiring procedures prescribed under (2) below; and the contractor or subcontractor further agrees immediately to take said action if it determines or is so notified by the Affirmative Action Office that the union is not referring minority and female workers consistent with the applicable employment goal.
- (2) If the hiring of a work force consistent with the employment goal has not or cannot be achieved for each construction trade by adhering to the procedures of 1. above, or if the contractor or subcontractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions consistent with the applicable county employment goals:
 - (a) To notify the Public Agency Compliance Officer, Affirmative Action Office and at least one approved minority referral organization of its manpower needs, and request referral of minority and female workers;
 - (b) To notify any minority and female workers who have been listed with it as awaiting available vacancies;
 - (c) Prior to commencement of work, to request the local construction trade union, if the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, to refer minority and female workers to fill job openings.
 - (d) To leave standing requests for additional referral of minority and female workers with the local construction trade union, if 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, until such time as the work force is consistent with the employment goal.
 - (e) If it is necessary to lay off some of the workers in a given trade on the construction site, to assure, consistent with the applicable State and Federal statutes and court decisions, that sufficient minority and female employees remain on the site consistent with the employment goal; and to employ any minority and female workers so laid off by the contractor on any other construction site in the area on which its work force

composition is not consistent with an employment goal established pursuant to N.J.A.C. 17:27.

- (f) To adhere to the following procedure when minority and female workers apply or are referred to the contractor or subcontractor:
 - (i) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required, the contractor or subcontractor shall determine the qualifications of such individuals, and if the contractor's or subcontractor's work force in each construction trade is not consistent with the applicable employment goal, it shall employ such persons which satisfy appropriate qualification standards; provided however, that a contractor or subcontractor shall determine that the individual at least possesses the skills and experience recognized by any worker's skills and experience classification determination which may have been made by a Public Agency Compliance Officer, union, apprentice program or a referral agency, provided the referral agency is acceptable to the Affirmative Action Office and provided further that, if necessary, the contractor or subcontractor shall hire minority and female workers who qualify as trainees pursuant to these regulations. All of the requirements of this paragraph, however, are limited by the provisions of paragraph 3. below.
 - (ii) If the contractor's or subcontractor's work force is consistent with the applicable employment goal, the name of said female or minority group individual shall be maintained on a waiting list for the first consideration, in the event the contractor's or subcontractor's work force is no longer consistent with the applicable employment goal.
 - (iii) If, for any reason, said contractor or subcontractor determines that a minority individual or a female 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, maintain a copy in its files, and send a copy to the Public Agency Compliance Officer and to the Affirmative Action Office.
- (g) 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 Affirmative Action Office and shall be submitted promptly to that office upon request.
- (3) The contractor or subcontractor agrees that nothing contained in the preceding provision (2) shall preclude the contractor or subcontractor from complying with the hiring hall or apprenticeship provisions in any applicable bargaining agreement or 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; provided, however, that where the practices of a union or apprenticeship program will result in the exclusion of minorities and females or the failure to refer minorities and females consistent with the county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to said provisions (2) without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ minority and female advanced trainees and trainees in numbers which result in the employment of advanced trainees and

trainees as a percentage of the total work force 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 the proceeding provision (2), it shall, where applicable, employ minority and female workers residing within the geographical jurisdiction of the union.

- (4) The contractor agrees to complete an Initial Project Manning Report on forms provided by the Affirmative Action Office or in the form prescribed by the Affirmative Action Office and submit a copy of said form no later than three working days after signing a construction contract; and to submit a completed copy of a Monthly Project Manning Report to the Affirmative Action Office and to the public agency compliance officer once a month (by the seventh work day of each month) thereafter for the duration of this contract. The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary for on-the-job and off-the-job programs for outreach and training of minority and female trainees employed on the construction project.
- (5) The contractor and its subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office 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 Affirmative Action Office for conducting a compliance investigation pursuant to NJAC 17:27-10.1 et seq.

Provisions (e) and (f) are not required for subcontractors with four or fewer employees in the company or a contractor which has presented evidence of a federally approved or sanctioned affirmative action program.

END OF GENERAL CONDITIONS

SUPPLEMENTARY
INSTRUCTIONS TO BIDDERS
AND
GENERAL CONDITIONS

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**SUPPLEMENTARY
INSTRUCTIONS TO BIDDERS
AND
GENERAL CONDITIONS**

The following Supplementary to Instructions to Bidders and General Conditions reinstate, delete, modify or change the Instructions to Bidders and General Conditions of the State of New Jersey, Department of Treasury, Division of Building and Construction, amended January 1995. If no mention is made of an Article, Paragraph or Subparagraph, these clauses remain in force in their entirety.

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

GENERAL

All references in the specifications and drawings to the Division of Building & Construction (DBC) shall be changed to Division of Property Management and Construction (DPMC)

IB1 Bid Proposals

IB1.1 [Replace the first sentence ONLY with the following:]

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. ...

IB1.2 [Delete this paragraph in its entirety and replace with the following:]

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

- 1 – Lump Sum All Trades
- 2 – General Construction
- 3 – Structural Steel
- 4 – Plumbing
- 5 – Heating, Ventilating and Air Conditioning
- 6 – Electrical
- 7 – Special Categories as may be required

IB1.8 [Delete this paragraph in its entirety and replace with the following:]

The Prime 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, and (4) bid security as further described in section IB6.

IB1.11 [New] PROCUREMENT REFORM

- a. RESTRICTIONS ON POLITICAL CONTRIBUTIONS – In accordance with Public Law 2005, Chapter 51 (formerly Executive Order 134) the apparent low bidder submitting a bid on or after October 15, 2004, shall be required, prior to contract award, to submit a completed and signed Two Year Certification and Disclosure Form together with a completed Ownership Disclosure Form for all Business Entities.

Public Law 2005, Chapter 51 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 a political party committee. Public Law 2005, Chapter 51 further requires the disclosure of all contributions to any political organization organized under section 527 of the Internal Revenue Code that also meets the definition of a “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 Public Law 2005, Chapter 51 regarding contributions and disclosures as required in Public Law 2005, Chapter 51.

- b. Pursuant to 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 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 subcontracting of services under the contract and the location by country where any subcontracted services will be performed. The Source Disclosure Certification will be attached to the bid proposal.

IB4 Awards

IB4.5 [New] 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.

IB5 Qualification of Bidders

IB5.5 [New] 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 and Hour Compliance
P O Box 389
Trenton NJ 08625-0389
Telephone: 609-292-9464
FAX: 609-633-8591

IB5.6 [New] In accordance with 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.

IB6 Deposit and Bid Bond

[Delete this section in its entirety and replace with the following:]

IB6.1 The Proposal, when submitted shall be accompanied by a Bid Bond satisfactory to the Director, for a sum of not less than fifty percent (50%) of the TOTAL Bid, including alternates if applicable

IB6.2 The Bid Bond shall be properly filled out, signed, and witnessed.

IB6.3 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.

IB6.4 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.

SUPPLEMENTARY GENERAL CONDITIONS

ARTICLE 2 - DIRECTOR

2.5 [New] TERMINATION BY THE DIRECTOR FOR CONVENIENCE

2.5.1 The Director may, at any time, terminate the Contract in whole or in any part for the State's convenience and without cause when the Director in his sole discretion views termination is in the public interest.

2.5.2 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 Contract 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 Director reserves the right to declare in default a contractor whom fails to carry out the conditions set forth in an Order of Termination for Convenience.

When the State orders termination of the Contract for Convenience, all completed items of work as of that date will be paid for at the Contract price. Payment for partially completed work will be paid for at agreed prices. Items which are eliminated in their entirety by such termination will be paid for only to the extent provided in Paragraph 2.5.3. Payment for new items, if any, will be made either at agreed prices or in accordance with Article 14.

Materials 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.

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 such cost items as reasonable mobilization efforts, overhead expenses attributable to the Work performed, subcontractor costs not otherwise paid for, actual idle labor cost if Work is stopped in advance of the termination date. Costs, which are prohibited under provisions of the Contract and anticipated profits on work not performed, are not allowed.

2.5.3 If acceptable material is ordered by the Contractor for the eliminated item prior to the date of notification of such elimination and if orders for such material cannot be canceled, it will be paid for at the actual cost to the Contractor. In such case, the material paid for becomes the property of the State and the actual cost of any further handling will be paid for. If the material is returnable to the vendor, and if the State so directs, the material shall be returned and the Contractor will be paid for the actual cost or charges made by the vendor for returning the material. The actual costs of handling returned material will be paid for.

The actual costs or charges will be computed in the same manner as if the work were to be paid for as provided in the Contract. However, no profit will be allowed.

ARTICLE 4 THE CONTRACTOR

- 4.5.12 [New] Immediately upon receipt of the contract award documents from the Division of Property Management and Construction, the contractor shall notify all utility companies involved regarding utility services required for completion of the Work.
- 4.5.13 [New] 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 silica dust are being performed.

ARTICLE 10 PAYMENTS

10.1 Contractor Payment Process

10.1.3 [Delete Paragraph 2 under this section in its entirety. Replace with:]

The contractor may, after fifty percent (50%) of the contract work is in place and if such work is proceeding on schedule, apply for a reduction in the amount to be retained by the State for the duration of the contract. Such application must be in writing and accompanied by documentation denoting formal consent of surety to the reduction in retainage. If the Director 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 Director may elect to re-institute retainage of ten percent (10%) of the work in place for the duration of the contract.

10.1.6 [Strike last sentence only.]

10.2.2 [Strike everything after the first sentence and replace with the following:]

No invoice shall be deemed to be formally submitted and received for payment until all dollar amounts and completion percentages for all line items to be included in the invoice have been determined and agreed upon by the State and the contractor.

10.2.4 [Strike and replace with the following:]

For purposes of the State's Prompt Payment of Contractors and Subcontractors Act (N.J.S.A. 2A:30A-1, et seq.:

- a. An 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 that 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 20 days after the invoice is received, per subparagraph "a" above, 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 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.

10.2.5 [New] The Provisions of this Article 10 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 10 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.

10.3 Interest [Strike and replace with the following:]

10.3.1 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 10.2.4 (f), as provided under the State's Prompt Payment of Contractors and Subcontractors Act (N.J.S.A. 2A:30A-1, 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.

10.3.2 [New] Interest may be paid by separate payment to the contractor, but shall be paid within 30 calendar days of payment of the principal amount of the approved invoice.

10.3.3 [New] Nothing in this Article 10 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.

10.3.4 [Replace with old paragraph 10.3.9]

10.3.5 [Replace with old paragraph 10.3.10]

10.4 Miscellaneous [New]

10.4.1 Disputes regarding nonpayment of a contractor's invoice under this Article 10 may be submitted to non-biding 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., as it governs claims against the State.

10.4.2 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, with 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 10, or with regard to any contractor claim disputed by the State.

ARTICLE 13 INSURANCE AND INDEMNITY

13.2.4 Loss Reporting and Loss Adjustment [Replace the first sentence ONLY with:]

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, Division of Property Management and Construction, through the Architect/Engineer, in writing, and take any other appropriate steps as may be required under the standard builders' risk insurance policy in effect. ...

ARTICLE 16 AFFIRMATIVE ACTION REQUIREMENTS

[Strike entire article and replace with the following:]

16.1 Policy Statement

The laws of the State of New Jersey (N.J.S.A. 10:5-31 et seq.) provide that no public agency shall award a contract or pay money to any contractor or subcontractor which has not agreed and guaranteed to afford equal employment opportunity in performance of the contract in accordance with an affirmative action program approved by the State Treasurer. The law applies to each political subdivision and agency of the State and includes procurement and service contracts as well as construction contracts.

16.2 Mandatory Language

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 take affirmative action to ensure that

such applicants are recruited and employed, 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 action 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, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, 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 applicable employment goal prescribed by N.J.A.C. 17:27-7.3; provided, however, that the Division 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 Division is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, 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. 17:27-7.3. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:
 - (1) 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 attempt to hire or schedule minority and women workers directly, consistent with the applicable employment goal. 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 the applicable employment goal, the contractor or subcontractor agrees to be prepared to hire or schedule minority and women workers directly, consistent with the applicable employment goal, 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 or is so notified by the Division that the union is not referring minority and women workers consistent with the applicable employment goal.

- (2) If the hiring or scheduling of a workforce consistent with the employment goal has not or cannot be achieved 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 a construction trade, the contractor or subcontractor agrees to take the following actions consistent with the applicable county employment goals:
 - (a) To notify the public agency compliance officer, the Division, 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;
 - (b) To notify any minority and women workers who have been listed with it as awaiting available vacancies;
 - (c) Prior to commencement of work, to request that 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;
 - (d) To leave standing requests for additional referral to 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 until such time as the workforce is consistent with the employment goal;

- (e) If it is necessary to lay off some of the workers in a given trade on the construction site, to assure, consistent with the applicable State and Federal statutes and court decisions, that sufficient minority and women employees remain on the site consistent with the employment goal; and to employ any minority and women workers laid off by the contractor on any other construction site on which its workforce composition is not consistent with an employment goal established pursuant to rules implementing N.J.S.A. 10:5-31 et. seq.;
- (f) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:
 - (i) 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 determine the qualifications of such individuals and if the contractor's or subcontractor's workforce in each construction trade is not consistent with the applicable employment goal, it shall hire or schedule those individuals who satisfy appropriate qualification standards. 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 Division. If necessary, the contractor or subcontractor shall hire or schedule 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.
 - (ii) If the contractor's or subcontractor's workforce is consistent with the applicable employment goal, the name of any interested women or minority individual shall be maintained on a waiting list for the first consideration, in the event the contractor's or subcontractor's workforce is no longer consistent with the applicable employment goal.
 - (iii) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of

the determination in its files, and send a copy to the public agency compliance officer and to the Division.

- (g) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.
- (3) The contractor or subcontractor agrees that nothing contained in e(2) 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 county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to e(2) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and 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 e(2) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.
- (4) After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA 201) provided to the public agency by the Division 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.
- f 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.
 - g The contractor and its subcontractors shall furnish such reports or other documents to the Division of Contract Compliance & EEO as may be requested by the Division 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 Division of Contract Compliance & EEO for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (NJAC 17:27).

END OF
SUPPLEMENTARY INSTRUCTIONS TO BIDDERS
AND GENERAL CONDITIONS

TECHNICAL SPECIFICATIONS

SPICERS CREEK BOAT RAMP REPAIRS

LOWER TOWNSHIP
CAPE MAY COUNTY, N.J.

DPMC P1095-00



STATE OF NEW JERSEY

Honorable Chris Christie, Governor
Honorable Kim Guadagno, Lieutenant Governor

DEPARTMENT OF THE TREASURY

Andrew P. Sidamon-Eristoff, State Treasurer

Division of Property Management and Construction
Department of Environmental Protection

PREPARED BY:

TAYLOR WISEMAN & TAYLOR
124 Gaither Drive, Suite 150
Mount Laurel, New Jersey 08054

A handwritten signature in cursive script, reading "Edward P. Brady", is written over a horizontal line.

Edward P. Brady
NJ Professional Engineer No. 24G03283600
Certificate of Authorization No. 24GA28032900

TWT#03591.1000.00

Date: February 15, 2013

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Spicer Creek Boat Ramp Repairs

Lower Township
Cape May County, New Jersey
DPMC Project # P1095-00

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SECTION 010100 - SUMMARY OF WORK

PART 1 - GENERAL

The work of this project is known as: Spicers Creek Boat Ramp Repairs, Spicers Creek Boat Access, Lower Township, Cape May County, New Jersey, Division of Property Management & Construction Project Number P1095-00.

The work to be performed under this Contract includes, but is not necessarily limited to, the furnishing of all labor, materials, tools, equipment, supervision and services necessary to provide and install the structures and materials shown on the Contract Drawings ("Drawings" herein) and described in these Specifications. The work shall include any items of labor, material, services or equipment reasonably required for or incidental to the complete installation and proper operation of the work described in the Drawings and Specifications, whether explicitly called for or not.

Before submitting a Proposal, each Bidder must (a) examine the Proposal Documents thoroughly, (b) visit the site to familiarize himself with the conditions that may in any manner affect cost, progress or performance of the work, (c) make his own investigations to ascertain for himself all the facts concerning physical conditions above and below the surface of the ground at the site of the project, (d) study and carefully correlate the Bidder's observations with the Proposal Documents.

1.1 LOCATION

All the work described is located at the Spicers Creek Boat Access, Wissahickon Avenue, Cape May County, NJ.

1.2 SCOPE OF WORK

Major Items of Work

The work of this contract is to be bid upon and executed on a lump sum basis, and shall include all, equipment, supplies, tools, labor, services, hauling, superintendence and all material things required for, and will do and perform all work of installation, construction and completion of the entire project described in said specifications and/or illustrated on the drawings.

- Repair/Reconstruction of the Boat Ramp to include
 - Removal of the floating docks and placement adjacent to the work site for repair by others.

- Construction of a cofferdam to allow the enclosed area to be pumped out/dewatered, creating a dry work environment for the work to proceed.
- Removal and disposal of the Articulated Concrete Pavers (ACB's) that are currently used for the existing boat ramp surface.
- Regrading of the ramp to the lines and grades shown on the plans.
- Construction of synthetic sheet piling for scour protection around the base of the new ramp surface.
- Construction of a reinforced concrete ramp surface with an end curb and thrust deflector. Concrete surface to have a 1-inch V-tool finish.
- Removal of the cofferdam.
- Re-installation of the floating docks.
- Restoration of all disturbances as a result of the construction.

1.3 CONTRACT DRAWINGS

The work of this project is illustrated on plans entitled "Spicers Creek Boat Ramp Repairs, DPMC Project #P1095-00, Lower Township, Cape May County, New Jersey" prepared by Taylor Wiseman & Taylor.

The index of drawings is as follows:

Sheet 1	Title Sheet
Sheet 2	Existing Conditions
Sheet 3	Site Plan
Sheet 4	Details

1.4 CONTRACTOR USE OF PREMISES

The Contractor shall confine his operation within the Project Limits and staging areas shown on the plans. The work area is to be enclosed by a temporary construction fence with a prominently posted sign reading, "Boat Ramp Closed for Repairs until June 21, 2013". Use of the ramp during the construction period is prohibited. The construction fence shall not block or impede access of the rear entrance to the restaurant parking lot. All materials and equipment shall be stored within the fenced area.

Except for the placement and storage of the floating docks outside of the storage area, all other areas outside staging areas are not to be disturbed.

ACCESS TO THE JOB SITE

Access to the job site shall be achieved via Wissahickon Avenue. The Contractor shall at all times, especially during the delivery and hauling of materials to and from the job site, keep the construction area in a neat and orderly condition to the satisfaction of the Owner.

1.5 UNDERGROUND UTILITIES

The Contractor shall be responsible for locating all existing structures both above and below the ground surface. The Contractor shall contact the "One Call" at 1-800-272-1000, prior to commencement of the work in accordance with the New Jersey Underground Facility Protection Act. The Contractor shall coordinate and verify the method of utility location with the appropriate utility owner.

1.6 CONTRACT TIME

Work of this contract shall commence upon execution of the Contract and issuance of the Notice to Proceed and all work shall be completed and ready for final acceptance within 90 Calendar Days after the Notice to Proceed.

In accordance with the previously issued permit regulations, no activity is to take place in the waterway before May 1. The Contractor shall use the time between the issuance of the Notice to Proceed and the May 1 date for the procurement of material and mobilization of the project site. It is required that all work including demobilization and restoration will be completed and the project serviceable to the public prior to June 21, 2013.

1.8 PROJECT SIGN

The contractor shall furnish and erect one project sign, and shall maintain the sign throughout the contract operations. The sign shall be placed at a specific location designated by the Owner. The cost of the sign and its erection, maintenance and removal shall be included in the lump sum price bid for Item No. 1 Boat Ramp Repairs. The sign shall be a minimum of 24" x 36" with the text of 3 inches high and shall read as follows:

**BOAT RAMP
CLOSED FOR
REPAIRS UNTIL
JUNE 21, 2013**

All lettering shall be upper case standard block form.

1.9 DETERMINATION OF LOWEST BID AND CONTRACT AWARD

Bid will be compared on the basis of the Lump Sum Amount bid for Item No. 1 Boat Ramp Repairs.

1.10 NJ PREVAILING WAGE ACT

The provisions of N.J.S.A. 34:11-56.25 et seq. New Jersey State Prevailing Wage Act are applicable on this contract.

1.11 SUPPLEMENTARY TECHNICAL SPECIFICATIONS

The work to be performed shall include, but not be limited to the following:

1. All general and overhead work, materials, supplies, facilities and expenses not specifically provided for under any other item or sub-items and required to complete the project work as a whole.
2. 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 contractor is required to call 1-800-272-1000 three days prior to the start of construction to find locations of all utilities and will supply the Bureau representative with the confirmation number of the "One-Call" system prior to the start of construction. Utilities indicated on the project plans are for general reference only. The exact type, number and locations of existing utilities has not been shown on the plans, and it is therefore the full responsibility of the contractor to verify the exact location of all existing utilities and provide for their protection, or repair if damaged. 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.
3. All necessary excavation, clearing, dewatering and preparing of the sites for the proposed structure, including the removal and disposal of all existing structures, jetties, bulkheads, stumps, logs, rock or hulks which come within the lines of work, or which interfere with the execution of the work.
4. The construction and removal of all roads, runways and trestles; storage and facilities for protection of the work and construction material, and any other temporary structures or appliances necessary for proper execution of the work.

5. The restoration and repair of all private and public property and improvements disturbed, damaged, moved or changed in any way to their condition prior to the contractor's operations.
6. The removal of all debris, equipment and material created by the contractor's operation, or used by him, from the site of the work.
7. The furnishing of a project sign, as previously specified.
8. The furnishing and maintaining of warning signs, signals, barricades, and watchmen, as necessary for the safety and protection of the public, particularly during construction. Also, the work area shall be sufficiently secured during the nighttime hours to prevent against trespassing and possible vandalism.
9. The Contractor shall also be responsible for establishing and maintaining lines and levels and assuring that all proposed cuts and fills are at their correct elevations. The contractor will be responsible for the maintenance of stakes at all times throughout the construction process. Stakes shall remain in the ground until told by the Owners representative they can be removed. Site grades shall be laid out by a licensed land surveyor employed by the contractor, who shall certify in writing to the correctness of the layout of the stakes.
10. The Contractor is responsible for the removal from the site all facilities, tools, surplus materials, equipment, scrap, debris, and waste immediately prior to the acceptance inspection. Where materials or debris have washed or flowed into or have been placed in watercourses, ditches, gutters, drains, or elsewhere, debris shall be entirely removed and satisfactorily disposed of. The Contractor must conduct a final progress cleaning, rake clean soil areas, and completely remove resultant debris.

1.12 PROPOSAL ITEMS

Item No. 1 Repairs to Boat Ramp

The existing boat ramp was constructed of Articulated Concrete Block (ACB) as the driving surface of the ramp. The ACB has been undermined from "power loading" of recreational boats and other marine vessels. The thrust forces from the propeller stream have washed away support material beneath the block pavers and have created a very irregular surface that impedes the loading or launching of the boats from their trailers. The ACB are interconnected with a steel mesh cable system (aka cable concrete mats). The ACB cable system may be inter-connected with the poured in place concrete slab at the top of the ramp. The constructed in place concrete was poured directly against the ACB mats creating an irregular edge at the top of the ramp.

The work under this item will be to:

- Remove the ACB mat,
- Construct a temporary cofferdam,
- Construct a reinforced concrete ramp surface with vinyl sheeting surrounding the lower portion of the ramp to prevent scour,
- Removal and replacement of the existing floating docks.

The ACB may be removed either prior to, or after construction of the cofferdam. Removal of the ACB shall include cutting of any connection to the existing poured in place slab, and sawcutting the concrete slab to provide a straight uniform edge, perpendicular with the run of the ramp. The ACB mats once removed shall become the property of the Contractor, for his proper disposal.

Prior to any construction or removals, the Contractor shall remove the existing floating dock pier and place each section adjacent to his staging/work area. The area will be designated in the field at the time of construction. Each dock section shall be "disconnected" from the other sections of the dock at the hinge point and placed on top of temporary wood blocks and generally shall be straight and level. Dock sections shall not be stacked.

It is expected that the dock structure will be inspected and may receive repair work to be performed by others outside of this contract. After completion of the ramp repairs, the Contractor shall re-install the floating docks to their previous position.

The Contractor shall provide a temporary cofferdam and dewater the work site. The Temporary cofferdam shall conform as a minimum to the following:

A. Working Drawings. At least 15 days before beginning work, submit working drawings for approval. Include the following:

1. Size, cross-section, section modulus, and physical properties of the cofferdam that will provide the maximum longitudinal bending moment for proper functioning.
2. Bracing design to protect workers, adjoining properties, and the public.
3. The combined stress calculations to determine the maximum effect of the principal stresses on the cofferdam. Include a check for the principal stresses against the appropriate material yield point.
4. The effects of bending stresses in the longitudinal direction and the transverse direction.
5. The maximum forces that the cofferdam is subjected to during construction operations.

6. The Contractor may use the Hencky-Von Mises (Yield Distortion Energy) criterion to combine stresses and relate the principal stresses to a failure criterion (Material Yield Point).
 7. A complete description of the proposed cofferdam, including brochures or other literature that indicates a proven performance history of the proposed system.
 8. Dewatering plan, including method of dewatering and controlling sediment and contaminants from entering adjacent waterbodies, wetlands, and environmentally sensitive areas. Do not use earthen berms as a method of dewatering.
- B. Construction. Construct cofferdams to ensure the stability of the excavation and to keep the excavation free of water. Construct the cofferdam with interior dimensions that allow clearance for the construction and inspection of forms and for the handling and pumping of water outside of the work area. Extend the cofferdam below the bottom of the work and brace cofferdams in all directions and ensure that they are maintained free of water until the subsequent work has been completed.
- C. Dewatering. Continue dewatering operations until the temporary cofferdam is removed or as directed by the Owner.
- D. Removal. Remove temporary cofferdams when no longer required. Restore disturbed areas, including watercourse beds, to original conditions.

After construction of the cofferdam and dewatering of the site, and removal of the ACB, the contractor shall grade the site to the lines and grades shown on the plans and place and compact a 4-inch thick layer of Dense Graded Aggregate (DGA) base course. The DGA shall be placed on a layer of woven geo-textile support fabric.

Synthetic (vinyl) sheet piling shall be driven around the lower portion of the ramp to prevent scour and erosion. Synthetic piling shall have a tip depth of 10-feet below the surface of the ramp and stepped to following the slope of the ramp. The Upper portion of the sheeting shall be trimmed to follow the proposed grade of the ramp. A 2" x 10" timber wale shall be constructed along the outside perimeter of the sheeting. The timber wale shall be secured to the sheeting with galvanized anchor bolt that are coated to prevent interaction with the concrete.

Synthetic (vinyl) sheet pile shall comply with the following:

a) Acceptable Manufacturers

Sheet piling supplied for the project shall be manufactured by Crane Materials International, Everlast Synthetic Products, LLC, Creative Pultrusion.

i) Physical Characteristics

Sheet piling supplied for the project shall meet or exceed all required physical characteristics as defined below:

1.1.2.1 Sheet Pile Material

All sheet piling shall be manufactured entirely from a rigid, high impact, UV-inhibited, weatherable vinyl compound. All exposed surfaces of the sheet piling shall be UV resistant, and comprised of virgin material with a minimum ASTM D4216 Cell Classification of 1-42443-33 to ensure reliable performance and color consistency. If mono-extrusion technology is used, the entire sheet pile must be comprised of virgin material with a minimum ASTM D4216 Cell Classification of 1-42443-33.

Section Modulus: Not less than 14.3 in^3 per linear foot of wall.

Moment of Inertia: Not less than 57 in^4 per linear foot of wall.

Thickness: Minimum thickness of 0.285 inches.

Depth: Minimum of 8 inches

Coverage: 20 to 24 inches per sheet.

Locking System: Each sheet shall have integral male and female interlocks to resist lock separation and decrease seepage.

Surface Finish/Appearance: Grey

b) Installation

i) Install driving guide, template or wale system to aid in driving a straight and plumb wall.

ii) Drive sheet piling (preferably in pairs) by "Driving in Steps" or "Gang Driving". Direction of installation should be with the male side of the sheet when possible. Mandrel, helmet or drive shoes may be required if driving through hard soil strata or obstructions. The Contractor shall drive the sheets to required embedment depth. Under no circumstances shall the contractor cut-off or install shorter sheets without written authorization from engineer or the owner. Adequate precautions shall be taken to ensure that piles are driven plumb. Sheet piling shall not be driven more than $\frac{1}{2}$ inch per foot out of plumb in the plane of the wall, nor more than $\frac{1}{16}$ inch per foot "out" of plumb perpendicular to the plane of the wall, nor more than 1 inch per foot "in" of plumb perpendicular to the plane of the wall.

iii) Piles driven out of interlock with adjacent piles or otherwise damaged shall be removed and replaced by new piles at the contractor's expense.

iv) Install wales, as noted on the project plans.

The new ramp surface shall be reinforced concrete constructed to the lines, grades, depths and thickness shown on the plans. All joints shall have a preformed keyway to limit horizontal differential from expansion and contraction. Reinforcing steel shall be as shown on the plans.

The surface finish of the ramp shall have 1" deep x 1" wide V-grooves, set at 60 degrees from the run of the ramp as recommended by the Design Handbook for Recreational Boating and Fishing Facilities. The plans depict a tool for creating the V-Grooves is offered as a guide only. The Contractor shall determine his means, methods and tooling required to construct the desired finish. The V-Grooves shall extend to approximately 4-inches along the sides of the ramp, and 5-feet to the bottom of the ramp. At the base of the ramp, the Contractor shall construct a monolithic curb ramp and propeller thrust deflector. The concrete surface that is not V-grooved shall have a course broom swirl finish. This would include the areas within the box-shape of the synthetic sheets.

On the existing outermost southern concrete pile, the Contractor shall construct four (4) highly reflective signs, one on each face to indicate the end of the ramp. The signs shall be highway grade materials and shall be insulated from interaction with the concrete surface of the piling.

At the completion of construction, the Contractor shall demobilize and restore all disturbed areas to their original conditions.

-- END OF SECTION 010100--

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected site elements.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- C. 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.

1.3 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.
- B. Landfill Records: Indicate receipt and acceptance of wastes by a landfill facility licensed to accept wastes.
- C. Regulatory Requirements: Comply with governing regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.4 PROJECT CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by the Owner as far as practical.
- B. Notify the Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

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.

3.2 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- 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.

3.3 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction to the extent as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut 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.
 - 2. Dispose of demolished items and materials promptly.
- B. Removed and Reinstalled Items:
 - 1. Protect items from damage during transport and storage.

2. Reinstall items in locations indicated. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Engineer, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, remove demolished materials from Project site and legally dispose of them in an approved landfill.
- B. Disposal: Transport demolished materials off the Owner's property and legally dispose of them.

END OF SECTION 024119

SECTION 312319 - DEWATERING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes construction dewatering.

1.2 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground and/or surface water and permit excavation and construction to proceed on dry, stable subgrades.

1.3 SUBMITTALS

- A. Shop Drawings: For dewatering system. Show arrangement, locations, and details of wells and well points; locations of risers, headers, filters, pumps, power units, discharge lines, piezometers, and flow-measuring devices; and means of discharge, control of sediment, and disposal of water.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide temporary grading to facilitate dewatering and control of surface water.
- B. Monitor dewatering systems continuously.
- C. Protect and maintain temporary erosion and sedimentation controls, during dewatering operations.
- D. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
 - 1. Space well points or wells at intervals required to provide sufficient dewatering.

2. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.
- E. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until fill materials have been placed and structures have been constructed or until dewatering is no longer required.
- F. Provide an adequate system to lower and control ground/surface water to permit excavation, construction of structures, and placement of fill materials on dry subgrades.
- G. Provide standby equipment on site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to the Owner.
1. Remove dewatering system from the Project site on completion of dewatering.

END OF SECTION 312319

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Preparing subgrades for work areas.
2. Excavating and/or backfilling for ramp construction to the prescribed grades and slope.
3. Base Course.

1.2 DEFINITIONS

- A. Backfill: Soil material used to fill an excavation.
- B. Base Course: Course placed between the insitu soils and the proposed concrete surface.
- C. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Engineer. Authorized additional excavation and replacement material will be paid for according to the Contract provisions changes in the Work.
 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be without additional compensation.
- F. Fill: Soil materials used to raise existing grades.
- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- H. Subbase Course: Course placed between the subgrade and base course for hot-mix asphalt pavement, or course placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- I. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP, and SM, AASHTO M 145 Soil Classification Groups A-1, A-2-4, A-2-5, and A-3, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

- B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Division 31 Section "Site Clearing."
- C. Protect and maintain erosion and sedimentation controls, which are specified in Division 31 Section "Site Clearing" during earthwork operations.

3.2 EXCAVATION

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.3 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1/2 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.5 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by the Engineer.
 - 1. Fill unauthorized excavations under other construction or utility pipe as directed by the Engineer.

3.6 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of trees.

3.7 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 1. Under grass and planted areas, use satisfactory soil material.
 2. Under walks and pavements, use satisfactory soil material.
 3. Under footings and foundations, use engineered fill.

3.8 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.9 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.10 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Grading: Slope grades to direct water away to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 ½ inch.
 - 2. Walks: Plus or minus 1 ½ inch.
 - 3. Pavements: Plus or minus ½ inch

3.11 SUBBASE AND BASE COURSES

- A. Place subbase and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase and base course under pavements and walks as follows:
 - 1. Shape subbase and base course to required crown elevations and cross-slope grades.
 - 2. Compact subbase and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.12 FIELD QUALITY CONTROL

- A. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- B. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable.
- C. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.13 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before the Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.14 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.

END OF SECTION 312000

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Protecting existing trees, shrubs, groundcovers and grass to remain.
2. Removing existing trees shrubs and grass.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting and capping or sealing site utilities.
7. Temporary erosion and sedimentation control measures.

1.2 MATERIAL OWNERSHIP

A. Except for stripped topsoil or other materials indicated to remain the Owner's property, cleared materials shall become the Contractor's property and shall be removed from the Project site.

1.3 PROJECT CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. The boat ramp is to be posted, "Closed for Repairs until (date)".
2. Maintain public access to the rear parking lot of the adjacent restaurant.

B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on the Owner's premises where indicated.

C. Utility Locator Service: Notify utility locator service for area where the Project is located before site clearing.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 31 Section "Earth Moving."

1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to the Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. 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.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls; restore and stabilize areas disturbed during removal.

3.3 TREE PROTECTION

- A. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by the Engineer.

3.4 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by the 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 the Engineer not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without written permission.

3.5 CLEARING AND GRUBBING

- A. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 - 1. 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.

3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. 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.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.

3.8 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 the Owner's property.
 - 1. Separate recyclable materials produced during site clearing from other non-recyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 311000

SECTION 033053 - MISCELLANEOUS CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes. This shall include but is not limited to the following: concrete collars and footing for light posts.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94 requirements for production facilities and equipment.
- B. Comply with ACI 301, "Specification for Structural Concrete."
- C. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

PART 2 - PRODUCTS

2.1 FORMWORK

- A. Furnish formwork and formwork accessories according to ACI 301.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Plain-Steel Wire: ASTM A 82, as drawn.
- C. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- D. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
 - 1. Portland Cement: ASTM C 150, Type I/II Supplement with the following:
 - a. Fly Ash: ASTM C 618, Class C.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 120.
 - 2. Blended Hydraulic Cement: ASTM C 595, Type IS, portland blast-furnace slag, I (PM), pozzolan-modified Portland, I (SM), slag-modified portland cement.
- B. Normal-Weight Aggregate: ASTM C 33.
- C. Water: ASTM C 94; potable.

2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 - 1. Water-Reducing Admixture: ASTM C 494, Type A.
 - 2. Retarding Admixture: ASTM C 494, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.
 - 4. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
 - 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494, Type G.
 - 6. Plasticizing and Retarding Admixture: ASTM C 1017, Type II.

2.5 RELATED MATERIALS

- A. Vapor Retarder: Multi-ply reinforced polyethylene sheet, ASTM E 1745, Class C, or polyethylene sheet, ASTM D 4397, not less than 10 mils thick.
- B. Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber, or ASTM D 1752, cork or self-expanding cork.

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. when dry.

- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.
- F. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.
- G. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

2.7 CONCRETE MIXTURES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
 - 1. Minimum Compressive Strength: 4000 psi at 28 days.
 - 2. Maximum Water-Cementitious Materials Ratio: 0.50
 - 3. Slump Limit: 4 inches plus or minus 1 inch.
 - 4. Air Content: Maintain within range permitted by ACI 301. Do not allow air content of floor slabs to receive troweled finishes to exceed 3 percent.

2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94 and furnish batch ticket information.
 - 1. When air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

3.2 VAPOR RETARDERS

- A. Install, protect, and repair vapor retarders according to ASTM E 1643; place sheets in position with longest dimension parallel with direction of pour.
 - 1. Lap joints 6 inches and seal with manufacturer's recommended adhesive or joint tape.

3.3 STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.4 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness.
- C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 - 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

3.5 CONCRETE PLACEMENT

- A. Comply with ACI 301 for measuring, batching, mixing, transporting, and placing concrete.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
- C. Do not add water to concrete during delivery, at the Project site, or during placement.
- D. Consolidate concrete with mechanical vibrating equipment.

3.6 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces. Surface finish shall be as shown on the plans.

3.7 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to 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. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure formed and unformed concrete for at least seven days 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.
 - 4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a 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. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.8 FIELD QUALITY CONTROL

- A. Tests: Perform according to ACI 301.

3.9 REPAIRS

- A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 033053