FOI #14917

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May 6, 2014

FREEDOM OF INFORMATION LAW REQUEST

05-13-14P01:41 RCVD

Port Authority of New York & New Jersey
225 Park Avenue South
New York, NY 10003

Re: John Michaels
D/A: 8/24/10
Employer: Agate Construction, Inc.
Location: Port Newark-Elizabeth Marine Terminal, Berth 36, on float stage in water off of Tent 16

Dear Sirs/Madams:

This firm represents John Michaels who sustained an injury while working as a heavy construction worker for Agate Construction, Inc., on a construction project at the Port Newark-Elizabeth Marine Terminal.

Under the Freedom of Information Law, we request the following:

1. Copies of any written notices received by your Department concerning the accident and/or injuries to Mr. Michaels which occurred on Port Authority property on August 24, 2010 (this request includes, but is not limited to, all accident reports received).

2. All safety meeting minutes for the period from April 1, 2010 through January 1, 2011 (this request includes, but is not limited to, all safety committee meetings during the period).

3. MURK daily reports regarding Agate Construction work covering the period from April 1, 2010 through January 1, 2011

4. Port Authority of New York & New Jersey (Port Authority) Project Diary for the period from April 1, 2010 through January 1, 2011.

5. Port Authority Resident Engineer's Daily Report for the project covering the period from April 1, 2010 through January 1, 2011.

6. Port Authority's Investigation file regarding Mr. Michaels' accident.

7. Investigation file of any entity and/or safety consultant relating to Mr. Michaels' accident.

8. Agate Construction Supervisor's Incident Report pertaining to Mr. Michaels' accident.

9. Agate Construction Safety Program Notice of Recordable Injury pertaining to Mr. Michaels' accident.

9. Agate Construction Accident Investigation Report pertaining to Mr. Michaels' accident.

10. Contracts and/or subcontracts for Agate Construction with either the Port Authority or those entities on whose behalf contracted with them for the Port Authority, relating to contracts which Berth 16 reconstruction work was being performed on the project on or before August 24, 2010.

11. Employer's first report of accident to the Department of Labor.

12. Port Authority's internal operating memos, regarding prevention of injuries, and other safety issues at the site.

13. Correspondence between the Port Authority and Agate Construction regarding accidents or safety issues on the job site for the period of April 2, 2010 through January 1, 2011.

14. Copies of all contracts for work performed by Agate Construction on the project.

15. Any and all photographs of the Berth 16 construction site, including but not limited to, job progress photographs.

16. Any documents relating to police or emergency services related to the incident whereby Mr. Michaels was injured.

Please preserve all documents, physical evidence, event data recorder records, video or audiotapes, voice tapes, and any documents or things related to my client's injury. Failure to do so may result in a claim on my client's behalf that evidence favorable to this case has been negligently or intentionally destroyed.

If you have any questions, please contact the undersigned at your convenience.

If there is a charge for this information, please advise and we will remit the appropriate payment. An authorization from our client is enclosed permitting you to provide information related to him.

Very truly yours,

HOFMANN & SCHWEITZER

PTH/gh

By: _____
Paul T. Hofmann

enc.

OCA Official Form No.: 960

AUTHORIZATION FOR RELEASE OF HEALTH INFORMATION PURSUANT TO HIPAA

[This form has been approved by the New York State Department of Health]

Patient Name **John Michaels**	Date of Birth [redacted]	Social Security Number
Patient Address		

I, or my authorized representative, request that health information regarding my care and treatment be released as set forth on this form:

In accordance with New York State Law and the Privacy Rule of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), I understand that:

1. This authorization may include disclosure of information relating to **ALCOHOL** and **DRUG ABUSE, MENTAL HEALTH TREATMENT**, except psychotherapy notes, and **CONFIDENTIAL HIV* RELATED INFORMATION** only if I place my initials on the appropriate line in Item 9(a). In the event the health information described below includes any of these types of information, and I initial the line on the box in Item 9(a), I specifically authorize release of such information to the person(s) indicated in Item 8.
2. If I am authorizing the release of HIV-related, alcohol or drug treatment, or mental health treatment information, the recipient is prohibited from redisclosing such information without my authorization unless permitted to do so under federal or state law. I understand that I have the right to request a list of people who may receive or use my HIV-related information without authorization. If I experience discrimination because of the release or disclosure of HIV-related information, I may contact the New York State Division of Human Rights at (212) 480-2493 or the New York City Commission of Human Rights at (212) 306-7450. These agencies are responsible for protecting my rights.
3. I have the right to revoke this authorization at any time by writing to the health care provider listed below. I understand that I may revoke this authorization except to the extent that action has already been taken based on this authorization.
4. I understand that signing this authorization is voluntary. My treatment, payment, enrollment in a health plan, or eligibility for benefits will not be conditioned upon my authorization of this disclosure.
5. Information disclosed under this authorization might be redisclosed by the recipient (except as noted above in Item 2), and this redisclosure may no longer be protected by federal or state law.
6. **THIS AUTHORIZATION DOES NOT AUTHORIZE YOU TO DISCUSS MY HEALTH INFORMATION OR MEDICAL CARE WITH ANYONE OTHER THAN THE ATTORNEY OR GOVERNMENTAL AGENCY SPECIFIED IN ITEM 9 (b).**

7. Name and address of health provider or entity to release this information:
Port Authority of New York & New Jersey, 225 Park Avenue South, New York, NY 10003

8. Name and address of person(s) or category of person to whom this information will be sent:
Hofmann & Schweitzer, 360 West 31st Street, Suite 1506, New York, NY 10001-2727

9(a). Specific information to be released:

- ☐ Medical Record from (insert date) _____ to (insert date) _____
- ☑ Entire Medical Record, including patient histories, office notes (except psychotherapy notes), test results, radiology studies, films, referrals, consults, billing records, insurance records, and records sent to you by other health care providers.
- ☐ Other: FOIA documents, accident reports, photographs, investigation materials

Include: (*Indicate by Initialing*)

_____ **Alcohol/Drug Treatment**
_____ **Mental Health Information**
_____ **HIV-Related Information**

Authorization to Discuss Health Information

(b) ☐ By initialing here _____ (Initials) I authorize _____ (Name of individual health care provider) to discuss my health information with my attorney, or a governmental agency, listed here:

_____ (Attorney/Firm Name or Governmental Agency Name)

10. Reason for release of information:	11. Date or event on which this authorization will expire:
☐ At request of individual ☒ Other: **Litigation**	**At the end of litigation**
12. If not the patient, name of person signing form:	13. Authority to sign on behalf of patient:

All items on this form have been completed and my questions about this form have been answered. In addition, I have been provided a copy of the form.

_____ Date: 10/4/2013

Signature of patient or representative authorized by law.

* **Human Immunodeficiency Virus that causes AIDS. The New York State Public Health Law protects information which reasonably could identify someone as having HIV symptoms or infection and information regarding a person's contacts.**

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

November 4, 2014

Mr. Paul T. Hofmann
Hofmann & Schweitzer
360 West 31st Street
New York, NY 10001-2727

Re: Freedom of Information Reference No. 14917

Dear Mr. Hofmann:

This is in response to your May 6, 2014 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code"), for copies of records related to Agate Construction, Inc. regarding a construction project at Port Newark-Elizabeth Marine Terminal, Berth 36, on float stage in water off of Tent 16, including copies of records related to John Michaels's accident on 8/24/10.

Material responsive to items 1, 3, 4, 5, 8, 10, 14 and 16 of your request and available under the Code can be found on the Port Authority's website at http://www.panynj.gov/corporate-information/foi/14917-C.pdf. Paper copies of the available records are available upon request. Certain portions of the material responsive to your request are exempt from disclosure pursuant to exemptions (1) and (4) of the Code.

We have searched the Port Authority's files and found no records responsive to items 2, 6, 7, 9, 11, 12, 13, and 15 of your request.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,

Daniel D. Duffy
FOI Administrator

225 Park Avenue South, 17th Floor
New York, NY 10003
T: 212 435 3642 F: 212 435 7555

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THE PORT AUTHORITY OF NY & NJ

P05-800.219

FF
CM

PORT NEWARK

BERTHS 36 AND 63 WHARF RECONSTRUCTION

CONTRACT PN-800.219

CONFORMED

MAY 2008

This proposal is not complete unless bidder's Signature appears on page 22

THE PORT AUTHORITY OF NY & NJ

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ADVERTISEMENT

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

Sealed proposals for the following contract will be received by The Port Authority of New York and New Jersey in the office of the Director of Procurement, Attn: Bid Custodian, One Madison Avenue, 7th Floor, New York, NY 10010, until 2:30 P.M. on the date indicated and will then be publicly opened and read in the Bid Room.

Contract documents may be seen at the Contract Desk on the 3rd Floor, 3 Gateway Center, Newark, NJ and may be obtained upon receipt of a non-refundable payment of $100.00 per set. Only company checks or money orders payable to the order of The Port Authority of New York and New Jersey will be accepted. If checks or money orders for documents are mailed, they should be addressed to The Port Authority of New York and New Jersey, Contract Desk, 3rd Floor, 3 Gateway Center, Newark, NJ 07102. For availability of contract documents, call (973) 792-3935. Questions by prospective bidders concerning the contract should be directed only to the person whose name and phone number is listed.

A VALID PHOTO ID IS REQUIRED TO GAIN ACCESS INTO EITHER BUILDING.

Contract PN-800.219 – Port Newark – Berths 36 and 63 Wharf Reconstruction. Estimate Range: $5M – $10M. Bids Due Tuesday, May 20, 2008*. The work under this contract consists generally of removal and disposal of existing wharf structures, dredging, upland disposal of dredged materials, steel pipe piles, sheet piles, other marine construction, paving, utilities and related work. For questions, call Jessamma Vatakencherry at (212) 435-3953 or email – jvataken@panynj.gov.

New York, MONDAY, April 28, 2008

*The bid due date has been changed to Tuesday, May 27, 2008.

INFORMATION FOR BIDDERS

1. FORM AND SUBMISSION OF PROPOSALS

The Port Authority of New York and New Jersey, hereinafter called "the Authority", invites Proposals in the annexed form. Proposals will be received until 2:30 P.M. on Thursday, July 31, 2008 in the office of the Director of Procurement, Attn: Bid Custodian, One Madison Avenue, 7th Floor, New York, NY 10010 at which time they will be opened and publicly read in the Bid Room. Each Proposal must be contained in the envelope furnished by the Authority, which shall be sealed and conspicuously endorsed with the bidder's name and the number of this Contract in the space provided. This Contract booklet shall not be unstapled or taken apart.

The Proposal must be submitted upon the blank form bound herewith and must give all information required. [1] The Proposal must be signed and the acknowledgment taken on the appropriate form following the Proposal.

No effort is made to emphasize any particular provision of the Contract, but bidders must familiarize themselves with every provision and its effect.

2. PAPERS ACCOMPANYING PROPOSALS

Each Proposal must be accompanied by the following papers, which, unless otherwise indicated, should be enclosed with the Proposal:

A. If the bidder be a corporation, a statement of the names and residences of its officers, which should be included on the page following the Proposal.

If the bidder be a partnership, a statement of the names and residences of its members, indicating which are general and which are special partners, which should be included on the page following the Proposal.

If the bidder be an individual, a statement of his residence, which should be included on the page following the Proposal.

B. Either the Bid Bond bound herewith, duly executed by the bidder as principal and by one or more surety companies duly authorized to carry on the business of suretyship in the state(s) in which the construction site is located, whose names appear on the current list of the Treasury Department of the United States as acceptable as sureties upon federal contracts; or, in lieu of a Bid Bond.

A certified check, payable to the order of The Port Authority of New York and New Jersey, in the same amount appearing in the Bid Bond form, which check shall be placed in an envelope marked "Bid Security" and enclosed with the Proposal.

---

[1] While two or more copies of this booklet may be furnished to each prospective bidder, only one should be submitted. The extra copies are for the bidders use.

C.

1.) Certified financial statements, including applicable notes, reflecting the bidder's assets, liabilities, net worth, revenues, expenses, profit or loss and cash flow for the most recent calendar year or the bidder's most recent fiscal year.

2.) Where such certified financial statements are not available, then either reviewed or compiled statements from an independent accountant setting forth the information described in Paragraph 1, above.

3.) Where neither certified financial statements nor financial statements from an independent accountant are available, then financial statements containing the information described in Paragraph 1, above, prepared directly by the bidder. However, such financial statements must be accompanied by a signed copy of the bidder's most recent Federal income tax return and a statement in writing, signed by a duly authorized representative of the bidder, that such statements accurately reflect the current financial condition of the bidder.

Where statements submitted pursuant to either Paragraph 1 or 2, above, show the position of the bidder as of a date more than forty-five (45) days prior to the date on which Proposals are opened, the bidder shall also submit a statement in writing signed by a duly authorized representative of the bidder, that the present financial condition of the bidder is at least as good as that shown on the statements submitted.

4.) A statement of work which the bidder has on hand, including any work on which a bid has been submitted, containing a description of the work, the dollar value, the location by city and state, the current percentage of completion and the expected date for completion.

5.) Fill in below the name and address of the bidder's chief banking representative handling the bidder's account.

Banking Institution: National City

Address: Philadelphia, PA

Bank Representative: Ken Jamison

Telephone Number: 267-256-4000

6.) Fill in below the bidder's Federal Employer Identification Number (i.e., the number assigned to firms by the Federal Government for tax purposes); the bidder's Dun and Bradstreet number, if any; the name of any other credit service to which the bidder has furnished information and the number, if any, assigned by such service to the bidder's account.

Exemption (1/4)

Federal Employer Identification No.

[redacted]

Dun and Bradstreet No.

Other Credit Service

Account No

D. The Form of Contract bound herewith, with the bidder's prices inserted in the clause thereof entitled "Unit Prices and Lump Sum". The amounts must be given both in figures and in writing and, in case of discrepancy, the writing shall control. The unit prices must be extended and totaled. The Estimated Total for Classified Work and the Lump Sum must be entered in the recapitulation and totaled. One copy of each addendum, if any, issued during the bidding period shall be initialled and attached to the Proposal, but any Proposal submitted without such addendum initialled and attached will nevertheless be construed as though such addendum had been initialled and attached.

E. The bidder's analysis of bid filled in on the form furnished herewith. The Contractor will be required to furnish a more detailed analysis of bid at a later date in accordance with the requirements of the Section of Division 1 of the Specifications referring to the Analysis of Bid.

3. QUALIFICATION INFORMATION

At any time after the opening of Proposals, the Chief Engineer may give oral or written notice to one or more bidders to attend a pre-award meeting and to furnish the Authority with information relating to his qualifications to perform the Work, including the following, which information shall be furnished within seven (7) days thereafter:

A. The bidders MBE/WBE Participation Plan submitted on the form annexed hereto as Schedule C (see the clause hereof entitled "Minority and Women's Business Enterprises Program") and a detailed list of the plant and equipment which the bidder proposes to use, indicating which portions it already possesses.

B. Detailed information relating to work which the bidder has completed for others, including personal and corporate references, sufficient to the Authority to determine the Contractor's responsibility, experience and capacity to perform the Work. If required by the Chief Engineer, the foregoing information shall include information to demonstrate to the satisfaction of the Chief Engineer that the Contractor has within the past five years been a contractor on at least one contract of the same general type, extent and complexity as the Contract on which the Proposal has been submitted, and completed the work skillfully, in a satisfactory manner and on time.

C. Information to supplement a) data shown in the financial statements and the statement of work on hand required to be submitted with the Proposal; and b) any statement submitted under the clause hereof entitled "Certification of No Investigation (Criminal or Civil Anti-Trust), Indictment, Conviction, Suspension, Debarment, Disqualification, Prequalification Denial or Termination, etc, Disclosure of Other Required Information", or "Non-Collusive Bidding and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee".

D. Moreover, in the event that the bidder's performance on a past Port Authority or PATH contract or contracts has been rated less than satisfactory, the Chief Engineer may give oral or written notice to the bidder to furnish information demonstrating to the satisfaction of the Chief Engineer that, notwithstanding such rating, such performance was, in fact, satisfactory, or that the circumstances which gave rise to such unsatisfactory rating have changed or will not apply to performance of the Contract, and that such performance will be satisfactory.

E. If the bidder has performed a contract for the States of New York or New Jersey, or any governmental entity within such States and has filed a questionnaire or other document required to be submitted in order for the bidder to qualify to perform the contract, the bidder may be requested by the Chief Engineer to submit the most recent completed questionnaire or other such document, or if the most recent completed questionnaire or other such document is not available, to submit a written statement indicating the approximate date of the contract and the name of the governmental entity which awarded them the contract.

F. Any additional information relevant to the bidder's Proposal including information to supplement the bidder's initial analysis of bid.

G. Detailed information in writing setting forth the affirmative action which the bidder proposes to take to ensure equal employment opportunities as required by clause A of the clause of the Form of Contract entitled "No Discrimination in Employment". This action which for the purpose of convenience is referred to as an "Affirmative Action Program", shall be in addition to the action required under clauses B through G thereof. Solely for the information of the bidder and without in any way limiting or defining the affirmative action program to be proposed by the bidder, there are available for inspection in the office of the General Manager, Business and Job Opportunity, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, copies of sample affirmative action programs.

In the event that any of the foregoing is requested and is not furnished within seven days thereafter or within such additional time as the Chief Engineer, in his sole discretion, may allow, the Authority may not be in a position to determine whether the bidder is qualified, whether the bidder understands the requirements of the contract or whether the bid is responsive and may, in its sole discretion, reject the bidder's Proposal.

The giving of such notice to the bidder in connection with any of the foregoing lists, statement or information shall not be construed as an acceptance of his Proposal. However, the Authority reserves the right in its sole and absolute discretion, to accept the Proposal of a bidder despite the fact that said bidder has not submitted any information, list or statement required pursuant to this Section within the above-stated time period.

4. ACCEPTANCE OR REJECTION OF PROPOSAL

Within ninety (90) days after the opening of the Proposals, the Authority will accept one of the Proposals, if it accepts any. The acceptance of a Proposal will be only by mailing to or delivering at the office designated in the Proposal a notice in writing specifically indicating acceptance signed by an authorized representative on behalf of the Authority who is at present the Authority's Director of Procurement. No other act of the Authority, its Commissioners, officers, agents, or employees shall constitute acceptance of a Proposal. Such notice will state whether or not the Authority elects to require the bidder to furnish a Performance and Payment Bond. Rejection of a Proposal will be only by either (a) a notice in writing specifically stating that the Proposal is rejected, signed by an authorized representative on behalf of the Authority who is at present the Authority's Director of Procurement and mailed to or delivered at the office designated in the Proposal or (b) omission of the Authority to accept a Proposal within ninety (90) days after the opening of Proposals; and no other act of the Authority, its Commissioners, officers, agents or employees shall constitute rejection of a Proposal, including any counter offer or other act of the Authority, its Commissioners, officers, agents or employees.

The Authority reserves the unqualified right, in its sole and absolute discretion, to reject all Proposals or to accept that Proposal if any, which in its judgment will under all the circumstances best serve the public interest and to waive defects in any Proposal.

In the event that a successful bidder defaults upon the Contract by failing to furnish a satisfactory Performance and Payment Bond, if required, and the Authority terminates the Contract, the Authority reserves the option to accept the Proposal of any other bidder within ninety (90) days after the opening of Proposals, in which case such acceptance shall have the same effect as to such other bidder as though he were the originally successful bidder.

5. RETURN OF CERTIFIED CHECKS

Within ten (10) days after the opening of the Proposals the Authority will return all certified checks deposited by bidders, except those deposited by three bidders to be selected by the Authority, which will be returned within three days after one Proposal is accepted by the Authority; or if a Performance and Payment Bond is required, within three days after a satisfactory Performance and Payment Bond is furnished to the Authority; or if all Proposals are rejected, not later than three days after such rejection. The return of a bidder's check shall not, however, be deemed to be a rejection of his Proposal.

6. DISPOSAL OF CONTRACT DOCUMENTS

All recipients of Contract documents, including bidders and those who do not bid and their prospective subcontractors and suppliers who may receive all or a part of the Contract documents or copies thereof, shall make every effort to ensure the secure and appropriate disposal of the Contract documents to prevent further disclosure of the information contained in the documents. Secure and appropriate disposal includes methods of document destruction such as shredding or arrangements with refuse handlers that ensure that third persons will not have access to the documents' contents either before, during, or after disposal. Documents may also be returned for disposal purposes to the Contract Desk on the 3rd Floor, 3 Gateway Center, Newark NJ 07102 or the office of the Director of Procurement, One Madison Avenue, 7th Floor, New York NY 10010.

7. AVAILABLE DOCUMENTS

Certain documents, specified below, are available for reference and examination by bidders by contacting Gary Greer at (973) 792-3934, 3 Gateway Center, 3rd Floor, Newark, NJ 07102 during regular business hours. These documents were not prepared for the purpose of providing information for bidders upon the present Contract but they were prepared for other purposes, such as for other contracts or for design purposes for this or other contracts, and they do not form a part of this Contract. The Authority makes no representation or guarantee as to, and shall not be responsible for their accuracy, completeness or pertinence, and, in addition, shall not be responsible for the conclusions to be drawn therefrom. They are made available to the bidders merely for the purpose of providing them with such information as is in the possession of the Authority, whether or not such information may be accurate, complete or pertinent or of any value to the bidders.

Said documents are as follows:

*A. Drawings which bear the title "Port Authority of NY & NJ - Berth 36 and 63 Wharf Reconstruction - Port Newark, New Jersey" and which are separately numbered and entitled as follows:

PN-SL-318 Project Site Map, Boring Location Plan, General Notes, Legend, Abbreviations & Symbols, Soil Classifications

PN-SL-319 Presentation of Borings

PN-SL-320 Presentation of Borings

PN-SL-321 Presentation of Borings

B. Soil Samples, rock cores, field logs, and laboratory classifications, including of rock cores, for each boring presented on the drawings listed in Item "A".

C. Laboratory test reports, including consolidation tests, Atterberg limit tests and color photos of each unconfined compressive test run on soil samples from borings presented on the drawings listed in Item "A".

D. A report entitled, "The Port Authority of NY & NJ, Engineering Department Design

Division, Geotechnical Section, P.A. Soils Classification System SF-92".

*E. Drawings which bear the title "Port Authority of NY & NJ - Port Newark - Berths 34, 36 & 63 Wharf Construction - Contract No. PN-630.001" and are separately numbered and entitled as follows:

Dwg.	Title
1	Location Plan and Index
2	General Plan
3	Pile and Floor Plans Sheet No. I
4	Pile and Floor Plan Sheet No. II
5	Typical Cross Section
6	Details Sheet I
7	Details Sheet II
8	Fender System
R1	Pile and Floor Plan - Sheet 1A

*F. A report entitled, "The Port Authority of NY & NJ – Port Newark – Berths 36 and 63 Wharf Reconstruction – Contract PN-800.219 – Sediment Sampling and Testing Results".

* NOTE: For the Bidder's Convenience, these documents will be Transmitted with the Contract Documents

8. MINORITY AND WOMEN'S BUSINESS ENTERPRISES PROGRAM (MBE/WBE)

The Port Authority has a long-standing practice of making its contract opportunities available to as many firms as possible and has taken affirmative steps to encourage Minority Business Enterprises (MBEs) and Women's Business Enterprises (WBEs) to seek business opportunities with it.

"Minority-owned business" or "MBE" means a business entity which is at least 51 percent owned by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51 percent of the stock of which is owned by one or more members of one or more minority groups, and whose management and daily business operations are controlled by one or more such individuals who are citizens or permanent resident aliens.

"Women-owned business" or "WBE" means a business which is at least 51 percent owned by one or more women, or, in the case of a publicly held corporation, 51 percent of the stock of which is owned by one or more women, and whose management and daily business operations are controlled by one or more women who are citizens or permanent resident aliens.

"Minority group" means any of the following racial or ethnic groups:

A. Black persons having origins in any of the black African racial groups not of Hispanic origin;

B. Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central, or South American culture or origin, regardless of race;

C. Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands;

D. Native American or Alaskan native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

To ensure meaningful participation of MBEs and WBEs on this project, the Authority has set goals of 8 percent for firms owned and controlled by minorities, and 3 percent for firms owned and controlled by women.

In the event that the Contractor subcontracts any portion of the Work, the Contractor shall use and document every good faith effort to meet the above goals for MBE and WBE participation in the Work. Such good faith efforts shall include at least the following:

A. Attendance at pre-bid meetings, if any, scheduled by the Engineering Department;

B. Utilization of the Port Authority's Directory of certified MBE/WBEs available on-line (see Notification of M/WBE On-line Directory and Forms in back of Contract booklet) and/or proposing for certification other MBE/WBEs which appear to meet the Port Authority's criteria for MBE/WBE certification and which are technically competent to perform the Work which the bidder plans to subcontract;

C. Active and affirmative solicitation of bids for subcontracts from MBE/WBEs;

D. Advertisement in general circulation media, trade association publications and minority-focused media for a reasonable period before bids or proposals are due;

E. Dividing the work to be subcontracted into smaller portions or encouraging the formation of joint ventures, partnerships or similar arrangements among subcontractors in order to increase the likelihood of achieving the MBE/WBE goals;

F. Providing a sufficient supply of plans and specifications of prospective work to MBE/WBEs and providing appropriate materials to each in sufficient time to review; and

G. Utilizing the services of available minority and women's community organizations; contractor's groups; local, State and Federal business assistance/development offices and other organizations that provide assistance to MBE/WBEs.

Subsequent to Contract award, the Contractor shall use and document every good faith effort to comply with its MBE/WBE Participation Plan and to permit its MBE/WBE subcontractors to perform. Participation percentages shall be monitored throughout the performance of this Contract. Such good faith efforts shall include at least the following:

A. Ensuring that progress payments are made in a timely fashion in accordance with the requirements of this Contract;

B. Not requiring bonds from and/or providing bonds and insurance for subcontractors where appropriate;

C. Soliciting specific recommendations on methods for enhancing MBE/WBE participation from Port Authority staff responsible for such participation; and

D. Nominating subcontractors for participation in business assistance programs sponsored by the Authority or the Regional Alliance of Small Contractors such as the Loaned Executive Assistance Program (L.E.A.P.).

Subsequent to Contract award, the Contractor shall also provide the Engineer, at his request, with a trade breakdown schedule showing when the Contractor's MBE/WBE subcontractors are scheduled to perform. The Contractor shall also submit to the Engineer, on a monthly basis, the Statement of Subcontractor's Payments annexed hereto as Schedule D.

In the event that, prior to Contract award and following review of the MBE/WBE Participation Plan submitted by the bidder pursuant to the clause hereof entitled "Qualification Information", the Chief Engineer determines that the Contractor has not made a good faith effort to meet the MBE/WBE participation goals set forth above and that the Contractor has not demonstrated that a full or partial waiver of such goals is appropriate, the Chief Engineer may advise the bidder that it is not responsible and may reject the bidder's Proposal.

If, during the performance of the Contract, the Contractor fails to demonstrate good faith in carrying out its MBE/WBE Participation Plan and in permitting its MBE/WBE subcontractors to perform and the Contractor has not demonstrated that a full or partial waiver of the above referenced MBE/WBE participation goals is appropriate, then, upon receipt of a future proposal or proposals from the Contractor, the Chief Engineer may advise the Contractor that it is not a responsible bidder and may reject such proposal(s).

Either prior or subsequent to acceptance of the bidder's Proposal, the bidder may request a full or partial waiver of the above described MBE/WBE participation goals by providing a reasonable demonstration to the Chief Engineer that its good faith efforts will not result in compliance with the goals set forth above because participation by eligible MBE/WBEs could not be obtained at a reasonable price or that such MBE/WBEs were not available or refused to perform as subcontractors. The bidder shall provide such documentation to support its request as the Chief Engineer may require.

Once approved, the MBE/WBE Participation Plan submitted by the bidder may be modified only with the written approval of the Engineer.

Following approval by the Engineer under the clause entitled "Assignments and Subcontracts" of one or more subcontractors who are either MBEs or WBEs and listed in the MBE/WBE Directory or determined to be "eligible" by the Chief Engineer in accordance with this numbered clause, the Authority may, at its sole option, provide to said approved M/WBEs, without charge, whatever appropriate consultant services may be available under the L.E.A.P. Program; provided, however, that such consultant services will only be furnished pursuant to a request in writing from the Contractor to the General Manager, Small Business Programs, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, 233 Park Avenue South - 4th Floor, New York, NY 10003.

Such services will be discontinued following a written request from the Contractor to the General Manager, Small Business Programs, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, to discontinue them.

The L.E.A.P. services include advising on scheduling, purchasing, planning and other aspects of construction to firms to mitigate business or management problems which could negatively impact on their performance. These services do not include engineering or legal advice. The determination as to whether or not to follow the advice given lies solely with the M/WBE subcontractor. Prior to being accepted as a participant in the L.E.A.P. Program, the M/WBE subcontractor will be required to release the Authority and the individuals furnishing consultant advice of all liability and responsibility in connection therewith.

The Authority has compiled and made available on-line an MBE/WBE Directory which specifies the firms the Authority has determined to be (1) MBEs/WBEs and (2) experienced in performing work in the trades and contract dollar ranges indicated in the Directory. The Authority makes no representation as to the financial responsibility of such firms or their ability to perform Work required under this Contract. Subject to the following paragraph, only MBEs/WBEs listed in the Directory will count toward the required MBE/WBE participation.

If the Contractor wishes to perform a portion of the Work through a firm not listed in the Directory [2] but which the Contractor believes should be eligible because it is (1) an MBE/WBE, as defined above and (2) technically competent to perform portions of the Work or the Contractor believes it is such a firm, the Contractor shall submit to the General Manager, Small Business Programs, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, a written request for a determination that the proposed firm is eligible. This shall be done by completing and forwarding a) the form labeled "Schedule A" and, if appropriate, "Schedule B" which are annexed hereto and form a part hereof and b) technical references of jobs completed of similar scope and complexity on the form annexed hereto and made a part hereof labeled "MBE/WBE Approval Request" and such other information as may be necessary to permit the Authority to determine whether the firm is in fact an MBE/WBE and technically competent to perform portions of the Work.

1. Queens Air Services Development Office
JFK International Airport
Building #141
Federal Circle, First Floor
Jamaica, NY 11430
(718) 244-6852
Fax (718) 244-7371

2. Hispanic American Chamber of Commerce of Essex County
P.O. Box 9146
Newark, NJ 07104
(973) 484-5441
Fax (973) 350-9238

3. Association of Minority Enterprises of NY, Inc.
135-20 Liberty Avenue
Richmond Hill, NY 11419
(718) 291-1641
Fax (718) 297-2986

4. Statewide Hispanic Chamber of Commerce of New Jersey
150 Warren Street, Suite 110
Jersey City, NJ 07302
(201) 451-9512
Fax (201) 451-9547

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[2] The following organizations may be able to refer the Contractor to MBEs/WBEs who are technically competent to perform portions of the Work. Any referrals which are not listed in the Directory shall be submitted to the Authority for a determination as to eligibility as provided above.

5. Newark Opportunity Center
17 Academy Street, Suite 501
Newark, NJ 07102
(973) 622-4537
Fax (973) 622-3914

6. Jamaica Business Resource Center
90-33 16th Street
Jamaica, NY 11432
(718) 206-2255
Fax (718) 206-3693

7. Council for Airport Opportunity
90-04 161st Street Jamaica,
NY 11432
(718) 523-7100
Fax (718) 526-3472

8. Urban Business Assistance Corp.
New York University Stern School of Business
44 West 4th Street, Suite 5-61
New York, NY 10012
(212) 995-4404
Fax (212) 995-4255

9. Greater Jamaica Development Corp.
90-04 161st Street
Jamaica, NY 11432
(718) 291-0282
Fax (718) 291-7918

10. NYS Assn. Of Minority Contractors
Brooklyn Navy Yard
Building 280, 4th Floor, Suite 414
Brooklyn, NY 11205
(212) 246-8380
Fax (718) 246-8376

11. Professional Women in Construction
315 E. 56th Street, Suite 202
New York, NY 10022
(212) 486-7745
Fax (212) 486-0228

12. NY/NJ Minority Purchasing Council
205 East 42nd Street
New York, NY 10017
(212) 573-2385
Fax (212) 522-4004

13. Jamaica Chamber of Commerce
90-25 161st Street, Room 505
Jamaica, NY 11432
(718) 657-4800
Fax (718) 658-4642

14. Queens Overall Economic Development Office
120-55 Queens Boulevard, Suite 309
Kew Gardens, NY 11424
(718) 263-0546
Fax (718) 263-0594

15. York College Small Business Development Center
94-50 159th Street
York College,
Room S 107
Jamaica, NY 11451
(718) 262-2880
Fax (718) 262-2881

16. Small Business Development Center - Rutgers University, University Heights
49 Bleeker Street
Newark, NJ 07102
(973) 353-1927
Fax (973) 353-1110

17. Small Business Development Center - Kean University
East Campus, Room 242
Union, NJ 07083
(908) 527-2946
Fax (908) 527-2960

18. New Jersey Air Services Development Office
Newark Liberty International Airport
Building #80 - Second Floor
Newark, NJ 07114
(973) 961-4278
Fax (973) 961-4282

19. Caribbean-American Chamber of Commerce
Brooklyn Navy Yard Brooklyn,
NY 11205
(718) 834-4544
Fax (718) 834-9774

20. Manhattan Hispanic Chamber of Commerce
14 Wall Street, 20th Floor
New York, NY 10005
(212) 683-5955
Fax (212) 683-5999

21. Asian Women in Business
358 Fifth Avenue, Suite 504
New York, NY 10001
(212) 868-1368
Fax (212) 868-1373

22. Asian American Business Development Center
80 Wall Street, Suite 418
New York, NY 10005
(212) 966-0100
Fax (212) 966-2786

23. New York State Federation of Hispanic Chambers of Commerce
2710 Broadway
New York, NY 10025
(212) 222-8300
Fax (212) 222-8412

All such requests shall be in writing addressed to the Chief Engineer. If any such firm is determined to be eligible it shall only be by a writing over the name of the Chief Engineer. In the event that such firm is found not to be eligible, the Chief Engineer will only consider as a substitute for such firm, a firm listed in the Port Authority's MBE/WBE Directory available on-line.

The Contractor shall submit the names of proposed MBEs/WBEs for work on this Contract if their names do not appear in the Port Authority's MBE/WBE Directory available on-line in accordance with the requirements of this clause and all other requirements of this Contract. MBEs/WBEs proposed as lessors of equipment or materialmen shall be deemed "subcontractors" for the purpose of this numbered clause and the clause hereof entitled "Assignments and Subcontracts" but shall not be deemed subcontractors for any other purpose. However only 60% of the amounts paid by the Contractor to such materialmen who are MBEs/WBEs, except in the case of firms who themselves manufacture materials for use under the Contract, shall be allowed in computing the percentages of the Contract Price required to be paid to MBEs/WBEs hereunder.

Nothing herein shall be deemed to supersede or to otherwise modify the clause of the Form of Contract entitled "Assignments and Subcontracts".

9. INSPECTION OF SITE

Each bidder or his authorized representative must make proper arrangements with the Resident Engineer at the construction site before inspecting the construction site. To make such arrangements call Alex Flores, at (973) 589-5010.

10. QUESTIONS BY BIDDERS

Questions by prospective bidders concerning the Contract may be addressed to Jessamma Vatakencherry, at (212) 435-3953 or email at jvataken@panynj.gov, who however is authorized only to direct the attention of prospective bidders to various portions of the Contract so that they may read and interpret such portions for themselves. Neither Jessamma Vatakencherry nor any other employee or representative of the Authority is authorized to give interpretations of any portion of the Contract or to give information as to the requirements of the Contract in addition to that contained in the Contract. Interpretations of the Contract or additional information as to its requirements, where necessary, shall be communicated to bidders only by written addendum issued over the name of the Chief Engineer, which addendum shall be considered part of this Contract. Accordingly, nothing contained herein and no representation, statement or promise, oral or in writing, of the Authority, its Commissioners, officers, agents, representatives or employees shall impair or limit the effect of the warranties of the Contractor contained in the clause of the Form of Contract entitled "Contractor's Warranties" or elsewhere in this Contract. The provisions of this clause shall apply to questions addressed by prospective bidders both before and after their receipt of Contract Documents.

11. PORT AUTHORITY SECURITY REQUIREMENTS

The Port Authority of New York and New Jersey operates facilities and systems at which terrorism or other criminal acts may have a significant impact on life safety and key infrastructures. The Authority reserves the right to impose multiple layers of security requirements on the performance of the Contract Work, including on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, as determined by the Authority. The Contractor shall, and shall instruct its subcontractors, to cooperate with Authority staff in adopting security requirements. These security requirements may include, but are not limited to, the following.

A. Identity Checks and Background Screening:

Contractor/subcontractor identity checks and background screening shall include but shall not be limited to: (1) inspection of not less than two forms of valid and current government issued identification (at least one having an official photograph) to verify staff's name and residence; (2) screening federal, state and local criminal justice agency information databases and files; (3) screening of any terrorist identification files; (4) multi-year check of personal, employment and/or credit history; (5) access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning.

The Contractor may be required to have its staff, and any subcontractor's staff, authorize the Authority or its designee to perform background checks. Such authorization shall be in a form acceptable to the Authority. If the Engineer directs the Contractor to have identity checks and background screening performed by a particular firm designated by the Engineer, the Authority will compensate the Contractor for the cost of such screening at the Net Cost of such screening. "Net Cost" shall be computed in the same manner as is compensation for extra work, including any percentage addition to cost, as set forth in the clause of the contract providing compensation for extra work. Performance of such Net Cost work shall be as directed by the Engineer and shall be subject to all provisions of the contract relating to performance of extra work. Compensation for said Net Cost work shall not be charged against the total amount of compensation authorized for extra work.

B. Issuance of Photo Identification Badges:

No person will be permitted on or about the construction site without a photo identification badge approved by the Engineer. The Contractor shall provide such badges for employees, subcontractors and materialmen. All employees of the Contractor, subcontractors and materialmen shall wear identification badges in a conspicuous and clearly visible position whenever they are working at the construction site.

If the Authority requires facility-specific identification badges for the Contractor's and subcontractors' staffs, the Authority will supply such identification badges at no cost to the Contractor.

C. Construction Site Access Control:

1.) The Authority may provide for construction site access control, inspection and monitoring by Authority retained security guards. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work at the construction site at its own expense.

2.) At the beginning of each work period the Contractor shall furnish to the security guards, if any, or to the Engineer a memorandum showing for that work period:

a. The name and company affiliation of each employee of the Contractor or of a subcontractor who is expected to enter the site and,

b. The name of any firm anticipated to be delivering materials or servicing equipment that day and a description of such materials or services.

The Authority may impose, increase, and/or upgrade security requirements for the Contractor, subcontractors and their staffs during the term of this contract to address changing security conditions and/or new governmental regulations.

12. PREVAILING RATE OF WAGE CERTIFICATION

The bidders' attention is directed specifically to the clause of the Form of Contract entitled "Prevailing Rate of Wage" and to the fact that the Authority requires a certification in writing from the successful bidder, in such form as may be required pursuant to such clause, that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause. This certification is required prior to his receipt of any payment from the Authority hereunder as provided in the clauses of the Form of Contract entitled "Monthly Advances" and "Final Payment" or at any other time.

13. CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, SUSPENSION, DEBARMENT, DISQUALIFICATION, PREQUALIFICATION DENIAL OR TERMINATION, ETC; DISCLOSURE OF OTHER REQUIRED INFORMATION

By bidding on this Contract, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that the bidder and each parent and/or affiliate of the bidder has not (a) been indicted or convicted in any jurisdiction; (b) been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts with any governmental agency or been denied a government contract for failure to meet prequalification standards; (c) had a contract terminated by any governmental agency for breach of contract or for any cause related directly or indirectly to an indictment or conviction; (d) changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or had a contract terminated as more fully provided in (a), (b) and (c) above; (e) ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal; (f) been denied a contract by any governmental agency for failure to provide the required security, including bid, payment or performance bonds or any alternative security deemed acceptable by the agency letting the contract; (g) failed to file any required tax returns or failed to pay any applicable federal, state or local taxes; (h) had a lien imposed upon its property based on taxes owed and fines and penalties assessed by any agency of the federal, state or local government; (i) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency, including an inspector general of a governmental agency or public authority; (j) had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation; and (k) shared space, staff, or equipment with any business entity.

The foregoing certification as to "(a)" through "(k)" shall be deemed to have been made by the bidder as follows: if the bidder is a corporation, such certification shall be deemed to have been made not only with respect to the bidder itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if the bidder is a partnership, such certification shall be deemed to have been made not only with respect to the bidder itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate bidder, shall be deemed to have been authorized by the Board of Directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the reasons therefor. If the bidder is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its bid, setting forth an explanation for its uncertainty.

Notwithstanding that the certification may be an accurate representation of the bidder's status with respect to the enumerated circumstances provided for in this clause as requiring disclosure at the time that the bid is submitted, the bidder agrees to immediately notify the Authority in writing of any change in circumstances during the period of irrevocability, or any extension thereof.

The foregoing certification or signed statement shall be deemed to have been made by the bidder with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority determines at any time prior or subsequent to the award of the Contract that the bidder has falsely certified as to any material item in the foregoing certification; willfully or fraudulently submitted any signed statement pursuant to this clause which is false in any material respect; or has not completely and accurately represented its status with respect to the circumstances provided for in this clause as requiring disclosure, the Authority may determine that the bidder is not a responsible bidder with respect to its bid on this Contract or with respect to future bids and may, in addition to exercising any other rights or remedies available to it, exercise any of the rights or remedies set forth in the clause of the Form of Contract entitled "Rights and Remedies of Authority". In addition, bidders are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g., New York Penal Law, Section 175.30 et seq.). Bidders are also advised that the inability to make such certification will not in and of itself disqualify a bidder, and that in each instance the Authority will evaluate the reasons therefor provided by the bidder.

Under certain circumstances the bidder may be required as a condition of this contract award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Port Authority. Said Monitor shall be charged with, among other things, auditing the actions of the bidder to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Port Authority.

As used in this clause, the following terms shall mean:

Affiliate - An entity in which the parent of the bidder owns more than fifty percent of the voting stock, or an entity in which a group of principal owners which owns more than fifty percent of the bidder also owns more than fifty percent of the voting stock.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, quasi-public agencies, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Employer Identification Number - The tax identification number assigned to firms by the Federal government for tax purposes.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting or investigative agency, including an inspector general of a governmental agency or public authority, and any inquiries concerning civil anti-trust investigations made by any federal, state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or Federal, state, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the bidder by whatever titles known.

Parent - An individual, partnership, joint venture or corporation which owns more than 50% of the voting stock of the bidder.

Space Sharing - Space shall be considered to be shared when any part of the floor space utilized by the submitting business at any of its sites is also utilized on a regular or intermittent basis for any purpose by any other business or not-for-profit organization, and where there is no lease or sublease in effect between the submitting business and any other business or not-for-profit organization that is sharing space with the submitting business.

Staff Sharing - Staff shall be considered to be shared when any individual provides the services of an employee, whether paid or unpaid, to the bidder and also, on either a regular or irregular basis, provides the services of an employee, paid or unpaid, to one or more other business(es) and/or not-for-profit organization(s), if such services are provided during any part of the same hours the individual is providing services to the bidder or if such services are provided on an alternating or interchangeable basis between the bidder and the other business(es) or not-for-profit organization(s). "The services of an employee" should be understood to include services of any type or level, including managerial or supervisory. This type of sharing may include, but is not limited to, individuals who provide the following services: telephone answering, receptionist, delivery, custodial, and driving.

Equipment Sharing - Equipment shall be considered to be shared whenever the bidder shares the ownership and/or the use of any equipment with any other business or not-for-profit organization. Such equipment may include, but is not limited to, telephones or telephone systems, photocopiers, computers, motor vehicles, and construction equipment. Equipment shall not be considered to be shared under the following two circumstances: when, although the equipment is owned by another business or not-for-profit organization, the bidder has entered into a formal lease for the use of the equipment and exercises exclusive use of the equipment; or when the bidder owns equipment that it has formally leased to another business or not-for-profit organization, and for the duration of such lease the bidder has relinquished all right to the use of such leased equipment.

14. NON-COLLUSIVE BIDDING AND CODE OF ETHICS CERTIFICATION; CERTIFICATION OF NO SOLICITATION BASED ON COMMISSION, PERCENTAGE, BROKERAGE, CONTINGENT FEE OR OTHER FEE

By bidding on this Contract, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that: (a) the prices in its bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; (b) the prices quoted in its bid have not been and will not be knowingly disclosed, directly or indirectly, by the bidder prior to the official opening of such bid to any other bidder or to any competitor; (c) no attempt has been made and none will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition; (d) this organization has not made any offers or agreements, or given or agreed to give anything of value (see definition of "anything of value" appearing in the clause of the Form of Contract entitled "No Gifts, Gratuities, Offers of Employment, etc.") or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics and Financial Disclosure dated as of April 11, 1996 (a copy of which is available upon request to the individual named in the clause hereof entitled "Questions by Bidders"), nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code; (e) no person or selling agency, other than a bona fide employee or bona fide established commercial or selling agency maintained by the bidder for the purpose of securing business, has been employed or retained by the bidder to solicit or secure this Contract on the understanding that a commission, percentage, brokerage, contingent or other fee would be paid to such person or selling agency; (f) the bidder has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or from a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Contract.

The foregoing certification as to "(a)", "(b)", "(c)", "(d)", "(e)" and "(f)" shall be deemed to have been made by the bidder as follows: if the bidder is a corporation, such certification shall be deemed to have been made not only with respect to the bidder itself, but also with respect to each parent, affiliate, director and officer of the bidder, as well as, to the best of the certifier's knowledge and belief, each stockholder of the bidder with an ownership interest in excess of 10%; if the bidder is a partnership, such certification shall be deemed to have been made not only with respect to the bidder itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate bidder, shall be deemed to have been authorized by the Board of Directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the reasons therefor. If the bidder is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its bid, setting forth in such statement the reasons for its uncertainty. As a result of such disclosure, the Port Authority shall take appropriate action up to and including a finding of non-responsibility.

Failure to make the required disclosures shall lead to administrative actions up to and including a finding of non-responsibility.

Notwithstanding that the bidder may be able to make the foregoing certification at the time the bid is submitted, the bidder shall immediately notify the Authority in writing during the period of irrevocability of bids on this Contract or any extension of such period, of any change of circumstances which might under this clause make it unable to make the foregoing certification or required disclosure. The foregoing certification or signed statement shall be deemed to have been made by the bidder with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the bidder has falsely certified as to any material item in the foregoing certification or has willfully or fraudulently furnished a signed statement which is false in any material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certification required to be disclosed, the Authority may determine that the bidder is not a responsible bidder with respect to its bid on this Contract or with respect to future bids on Authority contracts and may, in addition to exercising any other rights or remedies it may have, exercise any of the rights or remedies set forth in the clause of the Form of Contract entitled "Rights and Remedies of the Authority".

In addition, bidders are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g., New York Penal Law, Section 175.30 et seq.). Bidders are also advised that the inability to make such certification will not in and of itself disqualify a bidder, and that in each instance the Authority will evaluate the reasons therefor provided by the bidder.

Under certain circumstances the bidder may be required as a condition of this contract award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Port Authority. Said Monitor shall be charged with, among other things, auditing the actions of the bidder to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Port Authority.

15. BIDDER ELIGIBILITY FOR AWARD OF CONTRACTS - DETERMINATIONS BY AN AGENCY OF THE STATE OF NEW YORK OR NEW JERSEY CONCERNING ELIGIBILITY TO RECEIVE PUBLIC CONTRACTS

Bidders are advised that the Authority has adopted a policy to the effect that in awarding its contracts it will honor any determination by an agency of the State of New York or New Jersey that a bidder is not eligible to bid on or be awarded public contracts because the bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a bidder whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a bid on a Port Authority contract and then to establish that it is eligible to be awarded the contract on which it has bid because (i) the state agency determination relied upon does not apply to the bidder, or (ii) the state agency determination relied upon was made without affording the bidder the notice and hearing to which the bidder was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state agency determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or a violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

PROPOSAL

To The Port Authority of New York and New Jersey:

The undersigned[3]

Agate Construction Co., Inc.

a corporation organized under the laws of the State of New Jersey

(hereinafter called "the Contractor") hereby offers to perform all the obligations and to assume all the duties and liabilities of the Contractor provided for in the annexed Contract, at the prices inserted by the undersigned in the clause of the Form of Contract entitled "Unit Prices and Lump Sum".

This offer shall be irrevocable for ninety (90) days after the date on which The Port Authority of New York and New Jersey opens this Proposal.

To induce the acceptance of this Proposal, the undersigned hereby makes each and every certification, statement, assurance, representation and warranty made by the Contractor in said Contract. Moreover as a condition to receipt and consideration by the Authority of the Proposal whether or not it is accepted, the undersigned agrees that all information of any nature whatsoever, regardless of the form of the communication, received from the undersigned (including its officers, agents, or employees) by the Authority, its Commissioners, officers, agents or employees, and notwithstanding any statement therein to the contrary, has not been given in confidence and may be used or disclosed by or on behalf of the Authority without liability of any kind except as may arise under letters patent of the undersigned, if any.

---

3 Insert bidder's name at the top of the page. After the bidder's name, insert one of the following phrases:

If a corporation, give state of incorporation, using the phrase, "a corporation organized under the laws of the State of ."

If a partnership, give full names of partners, using also the phrase, "co-partners doing business under the firm name of ."

If an individual using a trade name, give individual name, using also the phrase, "an individual doing business under the trade name of ."

If a joint venture, give the information required above for each participant in the joint venture.

Unless expressly stated otherwise, the Information for Bidders, all papers required by it and submitted in connection herewith at any time, said Form of Contract, and all papers made part of the Contract by the terms of the Form of Contract are made part of this Proposal.

The undersigned hereby designates the following as the bidders office[4]:

1030 Rt 83
Clermont, NJ 08210

The telephone number of the bidder is: 609-624-9090

The fax number of the bidder is: 609-624-0957

The E-Mail address of the bidder is: estimating@agateconstruction.net

[4] Insert office address.

SIGNATURE AND CERTIFICATE OF AUTHORITY[5]

Dated, July 22, 2008

(Signature of individual or name of corporation or partnership) Agate Construction Co., Inc.

(Signature of agent, partner or corporate officer) By[6] [7] Larry W. Zoerb

(Acknowledgment of signature to be taken on proper form on following page(s)) Senior Vice President

CERTIFICATE OF AUTHORITY, IF BIDDER IS A CORPORATION

I, the undersigned, as Secretary of the corporation submitting the foregoing Proposal, hereby certify that under and pursuant to the by-laws and resolutions of said corporation, each officer who has signed said Proposal on behalf of the corporation is fully and completely authorized so to do.

(Corporate Seal) James E. Johnston, III

Secretary/Treasurer

---

5 If bidder is a joint venture, insert signatures as appropriate for one participant of the joint venture on this page and attach and complete an additional signature sheet in the same form as appears on this page for each other participant as required.

6 If Proposal is signed by an officer or agent, give title.

7 NOTE: The foregoing signature shall be deemed to have been provided with full knowledge that the foregoing Proposal, the accompanying Contract booklet, as well as any certification, statement, assurance, representation, warranty, schedule or other document submitted by the bidder with the Proposal will become a part of the records of the Authority and that the Authority will rely in awarding the Contract on the truth and accuracy of such Proposal and each such certification, statement, assurance, representation, warranty and schedule made therein by the Contractor. Knowingly submitting a false statement in connection with any of the foregoing may be the basis for prosecution for offering a false instrument for filing (see, e.g., N.Y. Penal Law, Section 175.30 et seq.).

07-31-08P02:57 RCVD

SIGNATURE AND CERTIFICATE OF AUTHORITY[5]

Dated, July 22, 2008

(Signature of individual or name of corporation or partnership) AGATE CONSTRUCTION CO., INC.

(Signature of agent, partner or corporate officer) By[6 7] Larry W. Zoerb

(Acknowledgment of signature to be taken on proper form on following page(s)) Senior Vice President

CERTIFICATE OF AUTHORITY, IF BIDDER IS A CORPORATION

I, the undersigned, as Secretary of the corporation submitting the foregoing Proposal, hereby certify that under and pursuant to the by-laws and resolutions of said corporation, each officer who has signed said Proposal on behalf of the corporation is fully and completely authorized so to do.

(Corporate Seal)

James E. Johnston, III
Secretary / Treasurer

---

5 If bidder is a joint venture, insert signatures as appropriate for one participant of the joint venture on this page and attach and complete an additional signature sheet in the same form as appears on this page for each other participant as required.

6 If Proposal is signed by an officer or agent, give title.

7 NOTE: The foregoing signature shall be deemed to have been provided with full knowledge that the foregoing Proposal, the accompanying Contract booklet, as well as any certification, statement, assurance, representation, warranty, schedule or other document submitted by the bidder with the Proposal will become a part of the records of the Authority and that the Authority will rely in awarding the Contract on the truth and accuracy of such Proposal and each such certification, statement, assurance, representation, warranty and schedule made therein by the Contractor. Knowingly submitting a false statement in connection with any of the foregoing may be the basis for prosecution for offering a false instrument for filing (see, e.g., N.Y. Penal Law, Section 175.30 et seq.).

ACKNOWLEDGMENT[8]

07-31-08P02:56 RCVD

ACKNOWLEDGMENT OF BIDDER, IF A CORPORATION

State of New Jersey

SS:

County of Cape May

On this 22 day of July, 2008 before me personally came and appeared Larry W. Zoerb, to me known, who, being by me duly sworn, did depose and say that he resides at Exemption (1), that he is the Senior V.P. of Agate Construction Co., Inc., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

(Notary Seal)

Susan D. Sharp
Notary Public
State of New Jersey
My Commission Expires
April 23, 2013

Susan D Sharp
(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF A PARTNERSHIP

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be one of the members of the firm of _____, described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal)

_____
(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF AN INDIVIDUAL

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal)

_____
(Notary Signature)

---

8 If bidder is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Acknowledgment sheet in the same form as appears on this page for each other participant as required

ACKNOWLEDGMENT[8]

ACKNOWLEDGMENT OF BIDDER, IF A CORPORATION

State of New Jersey

SS:

County of Cape May

On this 22 day of July, 2008, before me personally came and appeared Larry W. Zoerb, to me known, who, being by me duly sworn, did depose and say that he resides at _____, that he is the Senior V.P. of Agate Construction Co., Inc., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

(Notary Seal)

Susan D. Sharp
Notary Public
State of New Jersey
My Commission Expires April 25, 2013

Susan D. Sharp

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF A PARTNERSHIP

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be one of the members of the firm of _____, described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal)

_____

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF AN INDIVIDUAL

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal)

_____

(Notary Signature)

---

8 If bidder is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Acknowledgment sheet in the same form as appears on this page for each other participant as required

STATEMENT ACCOMPANYING PROPOSAL[9]

Names and Residences of Officers, If Bidder is a Corporation

Name	Title	Residence[10]
James E. Johnston, III	President	
Larry W. Zoerb	Senior Vice President	Exemption (1)
James E. Johnston, III	Secretary	
James E. Johnston, III	Secretary	

Names and Residences of Partners, If Bidder is a Partnership

Name	General or Limited Partner	Residence[11]

Bidder's Residence, If an Individual[12]

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9 If bidder is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Statement Accompanying Proposal sheet in the same form as appears on this page for each other participant as required.

10 Give Street and Number of Residence. Do not give business address.

11 Give Street and Number of Residence. Do not give business address.

12 Give Street and Number of Residence. Do not give business address.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned[13] Agate Construction Co., Inc. a corporation udner the Laws of the State of New Jersey

as principal(s); and[14] Western Surety Company

as surety are hereby held and firmly bound unto The Port Authority of New York and New Jersey (herein called the "Authority") in the penal sum of One Million Dollars ($1,000,000), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this 22nd day of July , 2008

The condition of the above obligation is such that whereas the above named principal(s) has submitted to the Authority a certain Proposal, bound herewith and hereby made a part hereof, to perform the obligations of the Contractor under a contract in writing, known as Contract PN-800.219, "Port Newark - Berths 36 and 63 Wharf Reconstruction", now therefore:

A. If said Proposal shall not be accepted, or

B. If said Proposal shall be accepted and the Authority does not require the principal(s) to furnish a Performance and Payment Bond, or

C. If said Proposal shall be accepted and the Authority requires the principal(s) to furnish a Performance and Payment Bond and either the principal(s) furnishes a Performance and Payment Bond satisfactory to the Authority in accordance with the requirements of said Proposal or the Authority does not terminate the Contract as provided therein on account of the failure to furnish such a bond,

Then, this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

---

13 Insert bidder's name. If a corporation, give the state of incorporation using the phrase "a corporation organized under the laws of the ".

If a partnership, give full names of partners, using also the phrase, "co-partners doing business under the firm name of ".

If an individual using a trade name, give individual name, using also the phrase, "an individual doing business under the trade name of ".

If a joint venture, give the information required above for each participant in the joint venture.

14 Insert name of surety.

The surety, for value received, hereby stipulates and agrees that the obligations of said surety and its bond shall be in no way impaired or affected by any extensions of the times within which the Authority may receive or accept such Proposal or within which the principal(s) may furnish a Performance and Payment Bond or by any waiver by the Authority of any of the requirements of said Proposal; and said surety does hereby waive notice of any such extensions or waivers.

IN WITNESS WHEREOF, the principal(s) and surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Agate Construction Co., Inc.

Principal [15]

(Seal)

By[16] Larry W. Zoerb

Senior Vice President

Western Surety Company

Surety

(Seal)

By[17] Patricia A. Rambo

Patricia A. Rambo
Attorney-In-Fact

---

15 If bidder is a joint venture, insert signature and information required as appropriate for one participant of the joint venture on this page and attach and complete an additional sheet in the same form as appears on this page for each other participant as required.

16 If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

17 If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

The surety, for value received, hereby stipulates and agrees that the obligations of said surety and its bond shall be in no way impaired or affected by any extensions of the times within which the Authority may receive or accept such Proposal or within which the principal(s) may furnish a Performance and Payment Bond or by any waiver by the Authority of any of the requirements of said Proposal; and said surety does hereby waive notice of any such extensions or waivers.

IN WITNESS WHEREOF, the principal(s) and surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Agate Construction Co., Inc.

Principal[15]

(Seal)

By[16] _____ Larry W. Zoerb
Senior Vice President

Western Surety Company

Surety

(Seal)

By[17] _____
Patricia A. Rambo
Attorney-in-Fact

---

15 If bidder is a joint venture, insert signature and information required as appropriate for one participant of the joint venture on this page and attach and complete an additional sheet in the same form as appears on this page for each other participant as required.

16 If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

17 If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

ACKNOWLEDGMENT[18]

ACKNOWLEDGMENT OF BIDDER, IF A CORPORATION

State of New Jersey

SS:

County of Cape May

On this 22 day of July, 2008 before me personally came and appeared Larry W. Zoerb, to me known, who, being by me duly sworn, did depose and say that he resides at Exemption (1), that he is the Senior Vice President of Agate Construction Company, Inc. the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

(Notary Seal)

Susan D. Sharp
Notary Public
State of New Jersey
My Commission Expires
April 25, 2013

Susan D. Sharp

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF A PARTNERSHIP

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be one of the members of the firm of _____, described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal)

_____

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF AN INDIVIDUAL

State of _____

SS:

County of _____

On this _____ day of. _____, 20 , before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal)

_____

(Notary Signature)

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

---

[18] If bidder is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Acknowledgment sheet in the same form as appears on this page for each other participant as required.

ACKNOWLEDGMENT[18]

ACKNOWLEDGMENT OF BIDDER, IF A CORPORATION

State of New Jersey

SS:

County of Cape May

On this 22 day of July, 2008, before me personally came and appeared Larry W. Zoerb, to me known, who, being by me duly sworn, did depose and say that he resides at exemption (1), that he is the Senior V.P. of Agate Construction Company, Inc., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

(Notary Seal)

Susan D. Sharp
Notary Public
State of New Jersey
My Commission Expires April 25, 2013

Susan D. Sharp

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF A PARTNERSHIP

State of _____

SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be one of the members of the firm of _____, described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal)

_____

(Notary Signature)

ACKNOWLEDGMENT OF BIDDER, IF AN INDIVIDUAL

State of _____

SS:

County of _____

On this _____ day of. _____, 20 , before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal)

_____

(Notary Signature)

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

---

[18] If bidder is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Acknowledgment sheet in the same form as appears on this page for each other participant as required.

FORM OF CONTRACT

CHAPTER I

GENERAL PROVISIONS

16. DEFINITIONS

To avoid undue repetition, the following terms whenever they occur in this Form of Contract or any of the other papers forming a part of the Contract shall be construed as follows:

"Contract" shall mean, in addition to this Form of Contract, the Information for Bidders, the Proposal, the Authority's acceptance, the Specifications and the Contract Drawings (including written addenda issued over the name of the Chief Engineer), all of which are made part hereof as though herein set forth in full. The Contract as so defined shall constitute the complete and exclusive statement of the terms of the agreement between the parties and the Contract may not be explained or supplemented by course of dealing, usage of trade or course of performance.

The term "days" or "calendar days" in reference to a period of time shall mean consecutive calendar days, Saturdays, Sundays and holidays, included.

The term "construction site" or words of similar import shall mean the wharf area along the corner of Berths 36 and 63 and the vicinity thereof at Port Newark.

"Work" shall mean all structures, equipment, plant, labor, materials (including materials and equipment, if any, furnished by the Authority) and other facilities and all other things necessary or proper for or incidental to performing removal of collapsed wharf structure, demolition of the remaining damaged wharf structure, earth fill excavation and disposal, limited dredging, steel pipe piles and sheet piling installation, relieving concrete platform construction, paving, utilities and related work at the construction site; and "performance of Work" and words of similar import shall mean the furnishing of such facilities and the doing of such things.

"Work required by the Contract Drawings and Specifications in their present form" or words of similar import shall include all Work required by the Specifications in their present form (whether or not shown upon the Contract Drawings), all Work shown upon the Contract Drawings in their present form (whether or not mentioned in the Specifications), and all Work involved in or incidental to the accomplishment of the results intended by the Specifications and Contract Drawings in their present form (whether or not mentioned therein or shown thereon)."

"Classified Work" shall mean the items of Work set forth in the Schedule of Unit Prices and shall include. any Work hereafter required which is of the same general character as that set forth in any of said items. In determining what is of the same general character, there shall be taken into consideration the provisions for measurement for payment appearing in said clause entitled "Unit Prices and Lump Sum", which provisions shall form a part of the items in said Schedules of Unit Prices.

"Unclassified Work" shall mean Work other than Classified Work.

"Extra Work" shall mean Work required by the Chief Engineer, Deputy Director of Construction or Engineer of Construction pursuant to the clause hereof entitled "Extra Work Orders", other than Classified Work, which is in addition to that required by the Contract Drawings and Specifications in their present form.

"Estimated Total for Classified Work" shall mean the result obtained by applying the prices quoted by the Contractor in the Schedule of Unit Prices to the estimated quantities given therein and totaling the results, whether or not such results are correctly shown in the Contractor's Proposal.

"Lump Sum" shall mean the Lump Sum for Unclassified Work quoted by the Contractor in the clause hereof entitled "Unit Prices and Lump Sum".

"Estimated Total Contract Price" shall mean the result obtained by adding together the Estimated Total for Classified Work and the Lump Sum, whether or not such result is correctly shown in the Contractor's Proposal.

"Contract Drawings" shall mean the Contract Drawings designated in the clause of the Specifications entitled "Contract Drawings" and, except as used in the phrase "Contract Drawings in their present form", shall include any future alterations and revisions of said drawings.

"Shop Drawings" shall mean all drawings, diagrams, illustrations, schedules, including supporting data, which are specifically prepared for this Contract and submitted by the Contractor pursuant to the requirements of the Specifications or the Engineer to illustrate some portion of the Work. The terms "shop drawings", "placing drawings" and "working drawings" are used interchangeably in this Contract.

"Catalog Cuts" shall mean all standard drawings, diagrams, illustrations, brochures, schedules, performance charts and instructions submitted by the Contractor pursuant to the requirements of the Specifications or the Engineer to illustrate some portion of the Work.

"Director of Procurement" shall mean the Director of Procurement of the Authority for the time being, or her successor in duties, acting either personally or through her duly authorized representatives acting within the scope of the particular authority vested in them.

"Chief Engineer" shall mean the Chief Engineer of the Authority for the time being, or his successor in duties, acting personally.

"Engineer" shall mean the Chief Engineer, acting either personally or through his duly authorized representatives acting within the scope of the particular authority vested in them.

"Deputy Director of Construction" shall mean the Deputy Director of Construction of the Authority for the time being, or his successor in duties, acting personally.

"Engineer of Construction" shall mean the designated Engineer of Construction for the facility at which the Work is being performed or his successor in duties, acting personally.

"Inspector" shall mean any representative of the Engineer designated by him as Inspector and acting within the scope of the particular authority vested in him.

The term "permanent construction" shall include all construction, installation, structures, equipment and materials (including materials and equipment, if any, furnished by the Authority to be constructed, installed or left by the Contractor at or about the construction site (or elsewhere in the possession of the Authority after the completion of the Work (whether or not they are yet delivered or installed), even though they are subsequently to be removed by others. The terms, "permanent installation", "permanent structure", "permanent materials", and words of similar import shall have the same meaning as the term "permanent construction".

"Subcontractor" shall mean anyone who performs Work (other than or in addition to the furnishing of materials, plant or equipment) at or about the construction site, directly or indirectly for or in behalf of the Contractor (and whether or not in privity of contract with the Contractor), but shall not include any person who furnished merely his own personal labor or his own personal services or who performs Work which consists only of the operation of construction equipment of which he is the lessor.

"Materialman" shall mean anyone who furnishes materials, plant or equipment (including temporary or consumable materials) to the Contractor or any subcontractor for use at or about the construction site in the performance of Work.

"Materialman" or "subcontractor", however, shall exclude the Contractor or any subsidiary or parent of the Contractor or any person, firm or corporation which has a substantial interest in the Contractor or in which the Contractor or the parent or the subsidiary of the Contractor, or an officer or principal of the Contractor or of the parent or the subsidiary of the Contractor has a substantial interest, provided, however, that for the purpose of the clause hereof entitled "Assignments and Subcontracts" the exclusion in this paragraph shall not apply to anyone but the Contractor himself.

"Workingman" or "workman" shall mean any employee of the Contractor or of a subcontractor who performs personal labor or personal services at the construction site.

"Notice" shall mean a written notice.

Whenever they refer to the Work or its performance, "directed", "required", "permitted", "ordered", "designated", "prescribed" and words of similar import shall mean directed, required permitted, ordered, designated or prescribed by the Engineer; and "approved", "acceptable", "satisfactory" and words of similar import shall mean approved by or acceptable or satisfactory to the Engineer; and "necessary", "reasonable", "proper", "correct" and words of similar import shall mean necessary, reasonable, proper or correct in the judgment of the Engineer.

Whenever "including", "such as" or words of similar import are used, the specific things thereafter enumerated shall not limit the generality of the things preceding such words.

17. GENERAL AGREEMENT

The Contractor agrees to perform removal of collapsed wharf structure, demolition of the remaining damaged wharf structure, earth fill excavation and disposal, limited dredging, steel pipe piles and sheet piling installation, relieving concrete platform construction, paving, utilities and related work at the construction site and to furnish all structures, equipment, plant, labor, materials and other facilities and to do all other things necessary or proper therefor or incidental thereto, all in strict accordance with the Contract Drawings and Specifications and any future changes therein; and the Contractor further agrees to assume and perform all other duties and obligations imposed upon him by this Contract.

The Authority agrees to pay to the Contractor and the Contractor agrees to accept from the Authority, in full consideration for the performance by the Contractor of his duties and obligations under this Contract and the whole thereof, a compensation consisting of the following amounts and such amounts only, subject only to the express provisions of this Contract specifically setting forth actual, defined additions to or deductions from such compensation.

A. An amount based upon the Classified Work performed, computed at the rates quoted in the Schedule of Unit Prices, said Classified Work to be measured and said amount to be computed in the manner provided in the clause hereof entitled "Unit Prices and Lump Sum"; and

B. The amount of the Lump Sum quoted in the clause hereof entitled "Unit Prices and Lump Sum".

This Contract is one entire contract for the accomplishment of the results and the doing of the things above specified and is not separable. Similarly, the Contractor's compensation is one entire compensation for entire performance on his part.

The enumeration in this Form of Contract and in the Specifications of particular things to be furnished or done at the Contractor's expense, or without cost or expense to the Authority without additional compensation to the Contractor shall not be deemed to imply that only things of a nature similar to those enumerated shall be so furnished and done, but the Contractor shall perform all Work as required, without other compensation than that specifically provided, whatsoever changes may be made in the Contract Drawings and Specifications whatsoever Work may be required in addition to that required by the Contract Drawings and Specifications in their present form, and whatsoever obstacles or unforeseen conditions may arise or be encountered.

18. AUTHORITY ACCESS TO RECORDS

The Authority shall have access during normal business hours to all records and documents of the Contractor relating to any amounts for which the Contractor has been compensated, or claims he should be compensated, by the Authority by payment determined on any basis other than by payment of a lump sum or unit price amount agreed upon in writing by the Contractor and the Authority; provided, however, such access shall extend to certified payroll records as described in the clause of the Form of Contract entitled "Prevailing Rate of Wage" regardless of the method by which the Contractor is compensated under this Contract. The Contractor shall obtain for the Authority similar access to similar records and documents of subcontractors. Such access shall be given or obtained both before and within a period of three years after Final Payment to the Contractor; provided, however, that if within the aforesaid three year period the Authority has notified the Contractor in writing of a pending claim by the Authority under or in connection with this Contract to which any of the aforesaid records and documents of the Contractor or of his subcontractors relate either directly or indirectly, then the period of such right of access shall be extended to the expiration of 6 years from the date of Final Payment with respect to the records and documents involved.

No provision in this Contract giving the Authority a right of access to records and documents is intended to impair or affect any right of access to records and documents which the Authority would have in the absence of such provision.

19. EXEMPTION FROM NEW JERSEY STATE SALES TAXES

The attention of the Contractor is directed to the following provision of the New Jersey State Sales and Use Tax Act:

Receipts from sales made to contractors or repairmen of materials, supplies or services for exclusive use in erecting structures or building on, or otherwise improving, altering or repairing real property of:

> (a) organizations described in subsections (a) and (b) of section 9 of the "Sales and Use Tax Act," P.L. 1966, c.30 (C. 54:32B-9);
>
> *** are exempt from the tax imposed under the "Sales and Use Tax Act," provided any person seeking to qualify for the exemption shall do so pursuant to such rules and regulations and upon forms as shall be prescribed by the director. N.J.S.A. 54:32B-8:22.

The Authority is an exempt organization of the type described in subsection (a) of section 9 of the act.

In view of the foregoing, the Contractor should not include in his price(s) any amounts for New Jersey State sales and use taxes on such materials, supplies and services. [19]

If (i) any claim is made against the Contractor by the State of New Jersey for such sales or compensating use taxes, or (ii) any claim is made against the Contractor by a materialman or a subcontractor on account of a claim against such materialman or subcontractor by the State of New Jersey for such sales or compensating use taxes, then the Authority will reimburse the Contractor in an amount equal to the amount of such tax required to be paid in accordance with the requirements of law, provided that:

A. the Contractor, or the Contractor and any such subcontractor, as the case may be, have complied with such rules and regulations as may have been promulgated relating to the claiming of the exemption from such taxes and have filed all the forms and certificates required by the applicable laws, rules and regulations in connection therewith; and

B. the Authority is afforded the opportunity before any payment of tax is made, to contest said claim in the manner and to the extent that the Authority may choose and to settle or satisfy said claim, and such attorney as the Authority may designate is authorized to act for the purpose of contesting, settling and satisfying said claim; and

C. the Contractor, or the Contractor and any such subcontractor, as the case may be, give immediate notice to the Authority of any such claim, cooperate with the Authority and its designated attorney in contesting said claim and furnish promptly to the Authority and said attorney all information and documents necessary or convenient for contesting said claim, said information and documents to be preserved for six years after the date of Final Payment or longer if such a claim is pending or threatened at the end of such six years.

If the Authority elects to contest any such claim, it will bear the expense of such contest.

20. PERFORMANCE AND PAYMENT BOND

If the Authority shall in its sole discretion so elect at the time of accepting the Contractor's Proposal, the Contractor shall furnish a bond for the faithful performance of all obligations imposed upon him by the Contract and also for the payment of all lawful claims of subcontractors, materialmen and workmen arising out of the performance of the Contract. Such bond shall be in the form bound herewith entitled, "Performance and Payment Bond", shall be in a penal sum equal to the Estimated Total Contract Price and such bond shall be signed by one or more sureties[20] satisfactory to the Authority. The bond may be executed on a separate copy of such form not physically attached to this Contract booklet. In any case, both the form of bond bound herewith and any unattached executed copy thereof shall form a part of this Form of Contract as though herein set forth in full.

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19 Note regarding equipment rentals: The attention of the Contractor is directed to the fact that the New Jersey State Sales Tax Bureau has ruled that the "rental of equipment is taxable whether or not the job is performed for an exempt organization." Therefore in the case of equipment rentals, if any, the Contractor should include in his prices an amount for taxes thereon.

20 Sureties must be corporations (commonly known as "surety companies"), authorized to do business as sureties in the state(s) in which the construction site is located, whose names appear on the current list of the Treasury Department of the United States in effect at the time of submission of the Performance and Payment Bond to the Authority as acceptable as sureties to the Treasury Department. In addition, the aggregate underwriting limitations on any one risk as set forth in the aforementioned list of the Treasury Department of the sureties shall equal or exceed the penal sum of the Performance and Payment Bond.

At any time after the opening of Proposals, the Authority may give notice to one or more bidders to advise the Authority as to the names of their proposed sureties. Within forty-eight hours thereafter each bidder so notified shall so advise the Authority. The giving of such notice to a bidder shall not be construed as an acceptance of his Proposal, and omission to give such notice shall not be construed as an election by the Authority not to require a bond.

If the Authority elects to require the Contractor to furnish a bond, he shall deliver such bond to the Authority within seven days after receipt by him of the acceptance of his Proposal, and the sureties thereon shall be as proposed by him, provided, that if the Authority has theretofore given notice to him that his proposed sureties or any of them are not satisfactory, the bond shall be executed by other sureties satisfactory to the Authority.

The Authority shall give notice to the Contractor within ten (10) days after receipt of the Performance and Payment Bond as to whether or not such bond is satisfactory.

In the event of a default by the Contractor in his obligation to furnish a satisfactory bond within seven (7) days after he received an acceptance of his Proposal, such default shall entitle the Authority in its discretion to terminate this Contract at any time within forty-five (45) days after the acceptance of the Proposal, without any liability on the part of the Authority. Inasmuch as the damages to the Authority resulting from a termination by it upon the failure of the Contractor to furnish a satisfactory bond will include items whose accurate amount will be difficult or impossible to compute, such damages shall be liquidated in the sum of the following amounts:

A. The excess, if any, of the Estimated Total Contract Price in the Proposal finally accepted over that in the Proposal of the Contractor; and

B. The expense of such new advertisement of the Contract, if any, as may be deemed necessary by the Authority; and

C. The sum of $1500 for each day after the receipt by the Contractor of the acceptance of his Proposal that the performance of the Contract is not commenced by reason of the failure of the Contractor to furnish the required bond.

In the recovery of the damages above specified, the Authority may proceed against the sum represented by the certified check deposited with it or against the Bid Bond and take such other action as it may deem best in the public interest.

If the Contractor furnishes a bond in accordance with the requirements of the Authority under this numbered clause, the Authority shall reimburse the Contractor for the net amount actually paid by him to the surety or sureties as the premium on such bond. The Contractor shall deliver to the Engineer receipts from the surety or sureties evidencing such payment and the amount thereof. Within fifteen days after receipt of such evidence satisfactory to the Engineer, the Authority shall pay to the Contractor by check the amount provided in this numbered clause.

If at any time the Authority shall be or become dissatisfied with any surety or sureties then upon any bond furnished in accordance with the requirements of the Authority, or if for any other reason such bond shall cease to be adequate security to the Authority, the Contractor shall, within five days after notice from the Authority so to do, substitute a new bond in such form and sum and signed by such other sureties as may be necessary in the opinion of the Authority to constitute adequate security.

CHAPTER II

COMPENSATION AND PAYMENTS

21. UNIT PRICES AND LUMP SUM

The following Schedule of Unit Prices for Classified Work does not constitute an outline of the Work required by the Contract Drawings and Specifications in their present form, but is merely a list of all the items of Classified Work to be used in computing the Contractor's compensation insofar as it is based upon Classified Work, together with the rates at which such compensation will be computed. In the case of each item of Classified Work, the Work performed will be measured and the Contractor's compensation will be computed as hereinafter provided in this numbered clause. In case of discrepancy between the prices quoted in writing and those quoted in figures, the writing shall control.

The Estimated Total Contract Price is solely for the purpose of fixing the amount of security to be maintained by the Contractor for the faithful performance of the Work. Prior to the signature of the Contract by the parties, it was for the purpose of facilitating the comparison of Proposals and of computing damages in the event of a default by the successful bidder in the agreement created by the acceptance of his Proposal. The estimated quantities are given solely as a basis for the computation of the Estimated Total Contract Price. The Authority makes no representation as to what the actual quantities will be and shall not be held responsible even though the estimated quantities are not even approximately correct. Insofar as the Contractor's compensation is based upon Classified Work, it will be computed from the actual quantities of Work performed, whether greater or less than the estimated quantities.

I. SCHEDULE OF UNIT PRICES FOR CLASSIFIED WORK				
			Figures	
Item No.	Estimated Quantities	Items of Classified Work With Unit Prices Written	Unit Prices	Amounts[21]
1	45 TONS	AZ14-770 STEEL SHEET PILING, PER TON Four thousand two hundred DOLLARS No CENTS	$4,200.00	$189,000.00
2	4,650 L.F.	CONCRETE FILLED 12 3/4-IN OD X 3/8-INCH OPEN ENDED STEEL PIPE PILES WITH FULL LENGTH REINFORCING, PER LINEAR FOOT Seventy two DOLLARS No CENTS	$72.00	$334,800.00
3	19,500 C.Y.	DREDGING, TRANSPORTATION AND DISPOSAL, PER CUBIC YARD One hundred ten DOLLARS No CENTS	$110.00	$2,145,000.00
4	1,600 TONS	DISPOSAL OF DREDGED REINFORCED CONCRETE, PER TON Seventy five DOLLARS No CENTS	$75.00	$120,000.00
5	175 TONS	DISPOSAL OF DREDGED TIMBER, PER TON One thousand seven hundred DOLLARS No CENTS	$1,700.00	$297,500.00
6	2,700 TONS	DISPOSAL OF DREDGED BOULDERS, PER TON Seventy DOLLARS No CENTS	$70.00	$189,000.00
7	6,100 L.F.	CONCRETE FILLED 12 3/4-IN OD X 3/8-INCH OPEN ENDED STEEL PIPE PILES WITH PARTIAL LENGTH REINFORCING, PER LINEAR FOOT Sixty two DOLLARS No CENTS	$62.00	$378,200.00
ESTIMATED TOTAL FOR CLASSIFIED WORK[22] $3,653,500.00				

21 The amount for each item shall be computed by multiplying the estimated quantity of that item by the unit price for the item.

22 The Estimated Total for Classified Work shall be computed by totaling the amounts inserted in the "Amounts" column.

II. LUMP SUM FOR UNCLASSIFIED WORK	
Writing	Figures
Five million one hundred seventy ..... Two thousand five hundred eighty one .....Dollars no .....Cents	5,172,581.00

III. RECAPITULATION	
	Figures
ESTIMATED TOTAL FOR CLASSIFIED WORK.....	3,653,500.00
LUMP SUM FOR UNCLASSIFIED WORK.....	5,172,581.00
ESTIMATED TOTAL CONTRACT PRICE:	[23] $8,826,081.00

The following provisions are applicable to the Schedule of Unit Prices for Classified Work. The quantity for payment described in the following provisions shall be the quantity of Classified Work furnished, installed, performed and/or placed in accordance with the Specifications, as shown on the Contract Drawings and where ordered by the Engineer.

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[23] The Estimated Total Contract Price shall be computed by adding the Estimated Total for Classified Work to the Lump Sum for Unclassified Work.

No quantity of work will be included under more than one item of Classified Work.

In the case of Item No. 1 (AZ14-770 Steel Sheet Piling), the quantity of payment shall be the number of tons (2,000 lbs.) of AZ14-770 steel sheeting piling installed. Sheet piles which do not conform to the requirements of the Contract Documents shall not be included in the quantity measured for payment.

In the case of Item No. 2 (Concrete Filled 12 3/4-inch OD x 3/8-inch Open Ended Steel Pipe Piles with Full Length Reinforcing), the quantity for payment shall be the number of linear feet of 12 3/4 -inch OD x 3/8- inch open ended steel pipe piles with full length reinforcing actually installed. The number of linear feet for payment will be measured by the Engineer from the final as driven tip elevation of the pile to the cutoff elevation. The length of any piles which do not conform to the requirements of the Contract Drawings and Specifications shall not be included in the length for payment, except that piles which do not conform to such requirements due to encountering during driving an underground obstruction consisting of a rock or manufactured or construction material as shown by the Contractor, and as determined by the Engineer on the basis of all field information, will be included in the quantity for payment.

In the case of No. 3 (Dredging, Transportation, and Disposal) the quantity for payment shall be the number of cubic yards of material dredged from within the area bounded by the limits of dredging shown on the Contract Drawings, where: (1) the number of cubic yards will be established by computing the volume of material actually dredged from within the Limit of Dredging shown on the Contract Drawings, (2) the existing bottom will be established by soundings prior to the commencement of dredging, (3) the new bottom will be established by soundings after completion of dredging, (4) the quantity for payment will not include material dredged from below the 2 foot allowable overdredge limit, and (5) the quantity for payment will be computed by the Engineer using the Average End Area method.

In the case of Item No. 4 (Disposal of Dredged Reinforced Concrete), the quantity for payment shall be the number of tons of reinforced concrete or extracted from the materials dredged and deemed as unsuitable for upland placement with the dredged material, as certified by weight tickets.

In the case of Item No. 5 (Disposal of Dredged Timber), the quantity for payment shall be the number of tons of timber or extracted from the materials dredged and deemed as unsuitable for upland placement with the dredged material, as certified by weight tickets.

In the case of Item No. 6 (Disposal of Dredged Boulders), the quantity for payment shall be the number of tons of boulders or extracted from the materials dredged and deemed as unsuitable for upland placement with the dredged material, as certified by weight tickets.

In the case of Item No. 7 (Concrete Filled 12 3/4-inch OD x 3/8-inch Open Ended Steel Pipe Piles with Partial Length Reinforcing), the quantity for payment shall be the number of linear feet of 12 3/4 -inch OD x 3/8- inch open ended steel pipe piles with partial length reinforcing actually installed. The number of linear feet for payment will be measured by the Engineer from the final as driven tip elevation of the pile to the cutoff elevation. The length of any piles which do not conform to the requirements of the Contract Drawings and Specifications shall not be included in the length for payment, except that piles which do not conform to such requirements due to encountering during driving an underground obstruction consisting of a rock or manufactured or construction material as shown by the Contractor, and as determined by the Engineer on the basis of all field information, will be included in the quantity for payment.

22. ADJUSTMENTS OF LUMP SUM

If any Unclassified Work required by the Contract Drawings and Specifications in their present form shall be countermanded or reduced, the Engineer shall have full authority on behalf of both parties to make such adjustment by way of reduction in the Lump Sum as he may in his sole discretion deem equitable and reasonable, and in making such adjustment, no allowance to the Contractor shall be made for anticipated profits.

The Chief Engineer shall have authority to agree in writing with the Contractor for adjustments by way of reduction in the Lump Sum in lieu of those for which provision is heretofore made in this numbered clause.

23. COMPENSATION FOR EXTRA WORK

The Chief Engineer shall have authority to agree in writing with the Contractor on behalf of the Authority upon lump sum or other compensation for Extra Work in lieu of the compensation for which provision is hereinafter made in this numbered clause.

If such agreement on compensation is not made, and Extra Work be performed, the Contractor's compensation shall be increased by the following amounts and such amounts only:

1.) For Extra Work consisting of refuse container services, an amount equal to the actual net cost in money of the labor and materials required for the provision of such services, plus seven per cent (7%) of such net cost.

2.) For Extra Work consisting of performance of construction work at the construction site, an amount determined as follows:

   a. In the case of Extra Work performed by the Contractor personally, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost, plus such rental for equipment (other than small tools) required for such Extra Work as the Engineer deems reasonable.

   b. In the case of Extra Work performed by a subcontractor, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost plus such rental for equipment (other than small tools) required for such Extra Work as the Engineer deems reasonable, plus seven per cent (7%) of the sum of the foregoing cost, percentage of cost, and rental.

As used in this numbered clause (and in this clause only):

"Refuse Container Services" means the delivery, removal and emptying of refuse containers as required during the performance of Extra Work subject to approval by the Engineer.

"Labor" means foremen, surveyors, laborers, mechanics and other employees below the rank of superintendent, exclusive of timekeepers, directly employed at the construction site, whether employed by the Contractor or by the subcontractors, subject to the Engineer's authority to determine what employees of any category are "required for Extra Work" and as to the portion of their time allotted to Extra Work; and "cost of labor" means the wages actually paid to and received by such employees; however, all wages actually paid that are in excess of the prevailing wages in the performance of Extra Work shall be subject, on each occasion, to the initial and continuing approval of the Engineer in advance of the performance of such Extra Work; plus a proper proportion of (a) vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages, and (b) taxes actually paid by the employer pursuant to law upon the basis of such wages. "Employees" as used above means only the employees of one employer.

"Materials" means temporary and consumable materials as well as permanent materials; and "cost of materials" means the price (including taxes actually paid by the Contractor pursuant to law upon the basis of such materials) for which such materials are sold for cash by the manufacturers or producers thereof, or by regular dealers therein, whether or not such materials are purchased directly from the manufacturer, producer or dealer (or if the Contractor is the manufacturer or producer thereof, the reasonable cost to the Contractor of the manufacture and production), plus the reasonable cost of delivering such materials to the construction site in the event that the price paid to the manufacturer, producer or dealer does not include delivery and in case of temporary materials, less their salvage value, if any.

"Work day" in reference to an item of equipment means a day other than a Saturday, Sunday or legal holiday except that if the particular item of equipment is actually utilized at the construction site by the Contractor or subcontractors under this or any other Contract with the Authority on a Saturday, Sunday or legal holiday said day shall be deemed a work day.

The rental for equipment, whether owned by the Contractor or subcontractors or rented from others and notwithstanding the actual price of any rental or actual costs associated with such equipment, shall be computed by the Engineer on the basis of the following:

A.

1.) Hourly rental for those items of equipment listed in the "Rental Rate Blue Book" (published by Machinery Information Division, K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95110), (hereinafter called "the Blue Book"), shall be 100% of the applicable rates as listed in said book, reduced to an hourly basis (see formula below) except that such applicable rates shall be reduced by 50% for all hours of rental payable hereunder in excess of 8 hours each day. The edition of this publication to be used shall be the one in effect on the date of the actual rental of the equipment. The "Estimated Operating Cost per Hour" as set forth for such item of equipment in the Blue Book shall be added to the hourly rental for each hour that such equipment is actually engaged in performing Extra Work. No amount for operating cost will be allowed during periods when such equipment is not actually engaged in performing Extra Work (i.e., standby rental time). None of the provisions of the Blue Book shall be deemed referred to or included in this Contract except as specifically set forth in this Section.

2.) If no listing of rental rate and/or hourly operating cost for the item of equipment is in the Blue Book, the Engineer shall determine the reasonable rate of rental and/or hourly operating cost of the particular item of equipment by such other means as he finds appropriate.

3.) In the event the Contractor is directed by the Engineer to immediately perform Extra Work within 24 hours of the direction to proceed, the Engineer shall determine the reasonable rate of rental and/all hourly operating cost of the items of equipment necessary to perform such Extra Work by such means as he finds appropriate. However, if the equipment is owned by the Contractor or owned by a subsidiary of the Contractor, the Blue Book rates will apply as set forth in this clause.

B. When utilizing the rental rates appearing in the Blue Book, the Engineer shall determine the applicable rate and the hourly rental determined therefrom by applying the following criteria:

1.) The rate to be applied for an item of equipment used on a particular Extra Work order shall be the monthly rates from the foregoing publication.

The pro rata portion which one hour bears to the applicable rate shall be determined in accordance with the following formula:

Hourly rate based on monthly rental.	1/176 of monthly rental from Blue Book

2.) The rental rate shall be multiplied by the applicable regional adjustment factor shown for such item of equipment in the Blue Book. The adjustment factor shall not apply to the hourly operating cost.

3.) If the Engineer should determine that the nature or size of the equipment used by the Contractor in connection with Extra Work is larger or more elaborate, as the case may be, than the size or nature of the minimum equipment determined by the Engineer to be suitable for the Extra Work, the reasonable rental will not be based upon the equipment used by the Contractor but will be based on the smallest or least elaborate equipment determined by the Engineer to have been suitable for the performance of the Extra Work.

C. In the case of equipment utilized only for Extra Work: (a) in addition to amounts determined as provided in subparagraphs A and B above, there will be added to the rental as computed above the taxes on the rental actually paid by the Contractor or subcontractor and the reasonable cost of transporting such equipment to and from the construction site, including applicable tolls, and (b) notwithstanding the number of hours during which such equipment is utilized, the minimum rental therefor will be for a period of eight hours.

In computing the Contractor's compensation insofar as it is based upon Extra Work, and notwithstanding any provision to the contrary appearing in the Blue Book, no consideration shall be given to any items of cost or expense not expressly set forth above, it being expressly agreed that the costs and percentage additions hereinbefore provided cover items of cost and expense to the Contractor of any type whatsoever, including administration, overhead, taxes (other than those enumerated above), clean-up, consumables including gas and oil, drafting (including printing or other reproduction), coordination, field measurements, maintenance, repairs, insurance, profit to the Contractor and small tools.

Whenever any Extra Work is performed (whether by the Contractor directly or through a subcontractor), the Contractor shall, at the end of each day, submit to the Engineer (a) daily time slips showing the name and number of each workman employed on such Work, the number of hours which he is employed thereon, the character of his duties, and the wages to be paid to him, (b) a memorandum showing the state and federal taxes based on such wages, and vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages (c) a memorandum showing the amount and character of the materials furnished for such Work, from whom they were purchased and the amount to be paid therefor, and (d) a memorandum of equipment used in the performance of such Work, listing the actual hours of operation for each piece of equipment, together with the rental claimed therefor. Such memoranda and time slips are for the purpose of enabling the Engineer to determine the amounts to be paid by the Authority under this numbered clause; and accordingly, they shall constitute a condition precedent to such payment and the failure of the Contractor or his subcontractors to furnish them with respect to any Work shall constitute a conclusive and binding determination on his part that such Work is not Extra Work and shall constitute a waiver by the Contractor of claims for payment for such Work. The Contractor's compensation for Extra Work shall be subject to audit review by the Authority. The Engineer will notify the Contractor that an audit review will be conducted no later than 90 days from the date of such notification. The Engineer will also provide the Contractor with an estimated duration of the audit. During the audit review, the Contractor shall provide records to substantiate the memorandum and time slips submitted to the Engineer. Failure to provide such Contractor or subcontractor records may result in a reduction or total denial of material, equipment and labor costs for Extra Work. Upon completion of the audit review, the Contractor will be provided with the audit findings of the Authority. If the Contractor disagrees in whole or in part with the audit findings, the Contractor shall notify the Authority of such disagreement in writing within 30 days of receipt of said audit findings or the Authority will deem the audit findings to be final and acceptable to the Contractor. In the event that the Chief Engineer and the Contractor shall agree in writing upon a lump sum or other compensation for Extra Work in lieu of compensation as provided in the second paragraph of this clause, the daily time slips and memoranda required by this paragraph shall not be required subsequent to the date on which such agreement has been reached.

24. COMPENSATION FOR PREMIUM TIME

Where the Engineer directs that the Contractor perform Work at times other than those elsewhere specified in the Contract, and the Contractor directly or through a subcontractor is obligated by the provisions of its applicable collective bargaining agreement to pay premium time rates for such Work then, the Contractor shall be compensated for the cost differential between regular time rates and premium time rates at an amount equal to the total of the following:

A. For premium time rates paid by the Contractor to its own forces, an amount equal to the premium time portion of the salaries and wages which the employer is required to pay and actually pays to its employees pursuant to the terms of its applicable collective bargaining agreement for the overtime period or periods described above, plus a proper proportion, if any, computed upon the basis of premium time salaries and wages of (1) taxes actually paid by the employer pursuant to law, (2) vacation allowances, other fringe benefits and union dues and assessments which the employer actually pays pursuant to contractual obligations, and (3) increased premiums paid by the Contractor personally, specifically allocable to the insurance required by this Contract, plus five per cent (5%) of such premium portion.

B. For premium time rates paid by a subcontractor, an amount equal to the premium time portion of the salaries and wages which the employer is required to pay and actually pays to its employees pursuant to the terms of its applicable collective bargaining agreement for the overtime period or periods described above, plus a proper proportion, if any, computed upon the basis of premium time salaries and wages of (1) taxes actually paid by the employer pursuant to law, (2) vacation allowances, other fringe benefits and union dues and assessments which the employer actually pays pursuant to contractual obligations, and (3) increased premiums paid by a subcontractor, specifically allocable to the insurance required by this Contract, plus five per cent (5%) of such premium portion, plus two per cent (2%) of the foregoing cost.

All additions to the Contractor's compensation provided for in this clause require the prior written approval of the Engineer and are conditioned on the Contractor's verifiable by the Authority payment of such amounts to his subcontractor.

The additions to the Contractor's compensation provided in this clause shall not apply where the Engineer directs the Contractor to perform work at times other than those specified elsewhere in the Contract and also determines that such work is required to mitigate previous delays in the Contractor's performance of Work.

25. COMPENSATION FOR EMERGENCY DELAYS

If the Contractor is specifically directed by the Engineer to suspend his operations as stipulated in the Specifications entitled "Conditions and Precautions" or if the Contractor is specifically directed not to start his operations at a time when operations are permitted to start as stipulated in such Section, and if solely because of such suspension or direction not to start any of the Contractor's or subcontractor's employees or equipment then engaged in or about to start such Work are necessarily kept idle at the construction site, during the hours when they would otherwise be engaged in the performance of the Work, then the Contractor's compensation shall be increased by an amount equal to the salaries and wages in amounts approved by the Engineer which the employer is required to pay and actually pays to such employees for the period or periods of such idleness, plus a proper proportion of (a) taxes actually paid by the employer pursuant to law upon the basis of such salaries and wages, and (b) vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligations upon the basis of such salaries and wages, and in addition thereto such rental as the Engineer deems reasonable for such equipment during the period or periods of such idleness. The rental for idle equipment shall be computed by the Engineer in accordance with the provisions of the clause of the Form of Contract entitled "Idle Salaried Men and Equipment".

In the event that the Contractor deems that any payment should be made pursuant to this numbered clause, he shall give prompt written notice to the Engineer stating the reasons why he believes such payments should be made and shall moreover, furnish to the Engineer at the end of each day, a memorandum showing the name, payroll title, salary rate and employer of each of the workingmen, and description, owner and claimed rental rate for each item of equipment claimed to have been kept idle. Said notice and memorandum are for the purpose of enabling the Engineer to verify the Contractor's claim at the time. Accordingly, notwithstanding any other provisions hereof, the failure of the Contractor to furnish such notice and memorandum shall constitute a conclusive binding determination on his part that he is not entitled to compensation as provided herein and shall constitute a waiver by the Contractor of all claims for such payment, such notice and memorandum being conditions precedent to payment under this numbered clause.

26. MONTHLY ADVANCES

On or about the first day of each month, the Engineer shall (upon receipt from the Contractor of such information as he may require, including a certification in writing, in such form as may be required pursuant to the clause hereunder entitled "Prevailing Rate of Wage", that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause) estimate and certify to the Authority the approximate amount of Work performed and compensation earned by the Contractor up to that time showing separately:

A. The approximate amount of Classified Work performed by the Contractor up to that time and a sum determined from such Work in accordance with the units of measurement and unit prices specified in the Schedule of Unit Prices.

B. The approximate amount of Unclassified Work (other than Extra Work) performed by the Contractor up to that time and a sum bearing the same proportion to the Lump Sum as the Unclassified Work performed (other than Extra Work) bears to the total amount of such Work performed and to be performed (other than Extra Work), and

C. The increases, if any, in the Contractor's compensation for which provision is specifically made elsewhere in this Contract.

As an aid to the Contractor and to facilitate his performance, the Authority shall, within fifteen days after the receipt of each such monthly certificate, advance to the Contractor by check the sums so certified, minus, however, either ten per cent (10%) of the sum certified pursuant to subparagraph A and B of this numbered clause or five percent (5%) of the Estimated Total Contract Price, whichever is less, and minus all prior advances and payments to the Contractor or for his account.

Within seven days of receipt of any sum attributable to Work performed by a subcontractor or materialman or within such later period as is provided in the subcontract or purchase agreement, the Contractor shall advance to the subcontractor or materialman said sum, less such amount, if any, as the Contractor is authorized to retain under the subcontract or purchase agreement.

Notwithstanding the above, the Authority shall have the right, at its sole discretion, to directly pay the subcontractors and material suppliers who perform Work for or furnish materials to the Contractor in connection with the Work of this Contract.

Prior to certifying any amount for payment hereunder, the Engineer may require that the Contractor submit a certification accurately and fully setting forth the total amount due and payable to each subcontractor and supplier for Work performed or materials provided by such subcontractor or supplier in connection with the Work of this Contract. Any payment made by the Authority to a subcontractor or supplier pursuant to the provisions of this numbered clause shall be made in reliance upon such certification and all such payments shall be considered as advances to the Contractor of the compensation payable hereunder. No such payment shall relieve the Contractor of any of its obligations hereunder.

Furthermore, within fifteen (15) days of the Contractor's receipt of the Authority acceptance of the Contractor's Proposal, the Contractor shall submit to the Engineer a listing of all subcontract and material supply agreements entered into by the Contractor for the performance of Work required by this Contract. Such listing shall include the names and addresses of each such subcontractor and supplier and the amounts payable under each such agreement. As and when any modifications are made to such agreements or any additional subcontracts or supply agreements are entered into, the Contractor shall inform the Engineer of such and shall indicate the amounts payable thereunder.

Nothing contained herein shall be deemed to create any additional rights in such subcontractors or suppliers or to alter the rights of the Authority as such are set forth in the clause hereof entitled "Withholding of Payments"

27. RELEASE OF MONIES PREVIOUSLY WITHHELD FROM MONTHLY ADVANCES UPON RENDITION OF A CERTIFICATE OF SUBSTANTIAL COMPLETION

After the rendition of the Certificate of Substantial Completion and with the approval of the Engineer, an amount up to 80% of the total amount of monies withheld from the Contractor's monthly advances in accordance with the preceding clause may be released to the Contractor. If, in the Engineer's judgment, no monies, or less than 80% of the total amount of monies withheld should be released it will be based on, but not limited to, the estimated value of the remaining Work, unresolved claims by subcontractors, the estimate of possible audit adjustments and an assessment of the risks to the Authority in making such a release of monies. This clause does not create a right to such a release of monies or to any specific percentage release, all of which shall remain purely the discretionary decision of the Engineer.

Prior to the release of any amount withheld from the Contractor's monthly advances by the Authority, the Contractor shall submit to the Engineer a certification of all unresolved requests for additional compensation including all items in dispute and potential claims which the Contractor had actual knowledge of or by reasonable inspection and inquiry should have known of, to the date of the certification. Any such items not made known to the Authority by inclusion in the certification of additional compensation requests submitted by the Contractor will be deemed to have been released by the Contractor. Notwithstanding the above provisions, before making any release of monies the Engineer may require the Contractor to submit further information for the Engineer's review and analysis, and shall require the Contractor to execute a separate written release of claims as described above in a form acceptable to the Authority.

Nothing contained herein shall be deemed to alter or diminish the rights of the Authority as such are set forth in the clauses hereof entitled "Withholding of Payments", "Final Payment", "Monthly Advances" or under any other clause of this Contract relating to compensation to the Contractor, any release of monies hereunder being purely at the discretion of the Engineer.

28. FINAL PAYMENT

After the rendition of the Certificate of Final Completion and upon receipt from the Contractor of such information as may be required, the Engineer shall certify in writing to the Authority and to the Contractor the total compensation earned by the Contractor.

If so required, the Contractor shall thereupon (i) certify to the Authority in writing, in such form as may be required pursuant to the clause hereunder entitled "Prevailing Rate of Wage", that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause and (ii) furnish to the Authority a detailed sworn statement of all claims, just and unjust, of subcontractors, materialmen and other third persons then outstanding and which he has reason to believe may thereafter be made on account of the Work.

Within thirty days after issuance of such certificate of total compensation earned (or within thirty days after receipt of the documents provided for in the immediately preceding paragraph, if required), the Authority shall pay to the Contractor by check the amount stated in said certificate, less all other payments and advances whatsoever to or for the account of the Contractor. All prior estimates and payments shall be subject to correction in this payment, which is throughout this Contract called the Final Payment.

The acceptance by the Contractor, or by anyone claiming by or through him, of Final Payment shall be and shall operate as a release to the Authority of all claims and of all liability to the Contractor for all things done or furnished in connection with the Contract and for every act and neglect of the Authority and others relating to or arising out of the Contract, including claims arising out of breach of contract and claims based on claims of third persons, excepting only his claims for reimbursement for certain sales taxes as hereinbefore provided. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations in connection with this Contract or the Performance and Payment Bond.

The Contractor's agreement as provided in the immediately preceding paragraph above shall be deemed to be based upon the consideration forming part of this Contract as a whole and not to be gratuitous; but in any event even if deemed gratuitous and without consideration, such agreement as provided in the immediately preceding paragraph above shall nevertheless be effective. Such release shall include all claims, whether or not in litigation and even though still under consideration by the Authority or the Engineer. Such release shall be effective notwithstanding any purported reservation of right by the Contractor to preserve such claim. The acceptance of any check designated as "Final Payment" or bearing any similar designation shall be conclusively presumed to demonstrate the intent of the Contractor that such payment was intended to be accepted as final, with the consequences provided in this numbered clause, notwithstanding any purported reservation of rights.

The Contractor agrees that he shall not be entitled to, and hereby waives any right he might otherwise have to, and shall not seek any judgment whether under this Contract or otherwise for any such Final Payment or for an amount equivalent thereto or based thereon, or for any part thereof, if such judgment would have the effect of varying, setting aside, disregarding or making inapplicable the terms of this numbered clause or have the effect in any way of entitling the Contractor to accept such Final Payment or an amount equivalent thereto or based thereon or any part thereof other than in the same fashion as a voluntary acceptance of a Final Payment subject to all the terms of this Contract including this numbered clause, unless and until the Contractor should obtain a judgment on any claim arising out of or in connection with this Contract (including a claim based on breach of contract) for an amount not included in said Final Payment. In any case in which interest is allowable on the amount of the Final Payment, such interest shall be at the rate of 6% per annum for the period, if any, in which such interest is due.

29. WITHHOLDING OF PAYMENTS

If (1) the Contractor fails to perform any of his obligations under this Contract or any other agreement between the Authority and the Contractor (including his obligation to the Authority to pay any claim lawfully made against him by any materialman, subcontractor or workman or other person which arises out of or in connection with the performance of this Contract or any other agreement with the Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor is made against the Authority or (3) any subcontractor under this Contract or any other agreement between the Authority and the Contractor fails to pay any claims lawfully made against him by any materialman, subcontractor, workman or other third person which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor or if in the opinion of the Chief Engineer any of the aforesaid contingencies is likely to arise, then the Authority shall have the right, in its discretion, to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as the Chief Engineer may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Chief Engineer may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Authority to withhold out of any payment, final or otherwise, a sum for any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Authority to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by the Authority shall create any obligation of any kind to such materialmen, subcontractors, workmen or other third persons.

Until actual payment to the Contractor, his right to any amount to be paid under this Contract (even though such amount has already been certified as due) shall be subordinate to the rights of the Authority under this numbered clause.

In the event that wages and/or supplements have been paid in an amount less than as required by this Contract, the Authority shall also have the right to withhold from the Contractor out of any payment, final or otherwise, on this, or any other open contract that the Contractor has with the Authority, so much as may be necessary to pay to laborers, mechanics, architects, draftsmen, engineers and technical workers, and others employed on the Work, the difference between the sums such persons should have received as wages and/or supplements and the amounts they actually received, and to pay such sums over to such persons. All such payments shall be deemed to be payments for the Contractor's account. In addition, the Contractor shall be required to pay to the Authority an amount equal to the Authority's cost of any investigation conducted by or on behalf of the Authority, that discovers a failure to pay wages and/or supplements as required by this Contract by the Contractor or its subcontractors, the cost of such investigation to be determined by the Chief Engineer personally. If the Contractor fails or refuses to pay for the cost of any such investigation after demand by the Authority, the Authority may deduct from any amount payable to the Contractor by the Authority, under the Contract or under any other open contract between the Contractor and the Authority, an amount equal to the cost of such investigation.

If, however, the payment of any amount due to the Contractor shall be improperly delayed by the fault of the Authority, the Authority shall pay the Contractor interest thereon at the rate of six percent (6%) per annum for the period of delay, it being agreed that such interest shall be in lieu of and in liquidation of any damages to the Contractor because of such delay.

CHAPTER III

PROVISIONS RELATING TO TIME

30. TIME FOR COMPLETION AND DAMAGES FOR DELAY

The Contractor shall complete the performance of all Work under this Contract within 365 calendar days after receipt by him of the acceptance of his Proposal.

The Contractor shall not commence the performance of the Work until the later of the following dates:

A. If a Performance and Payment Bond is required, the date of receipt by him of notice from the Authority that the Performance and Payment Bond furnished by him is satisfactory;

B. If Chapter V of the "Form of Contract" contains a clause entitled "Insurance Procured by Contractor", the date of receipt by him of notice from the Authority that the insurance procured by him pursuant to said clause is satisfactory, as evidenced by the certificate to be furnished in accordance with said clause.

The time for completion shall not be extended on account of the time required to furnish the documents referred to in subparagraphs A and B above, but the Authority shall give notice to the Contractor within ten days after receipt of the Performance and Payment Bond or certificate of insurance as to whether or not such bond or insurance is satisfactory.

The Contractor's obligations for the performance and completion of the Work within the time or times provided for in this Contract are of the essence of this Contract. The Contractor guarantees that he can and will complete the performance of the Work within the time hereinbefore stipulated or within the time as extended in accordance with the clause hereof entitled "Extensions of Time". Inasmuch as the damage and loss to the Authority which will result from delay in completing the performance of the Work within the time herein stipulated will include items of loss whose amount will be incapable or very difficult of accurate estimation, the damages to the Authority for each calendar day by which the Contractor does not complete performance of the Work within the time or times above stipulated or within such time or times as extended in accordance with the clause hereof entitled "Extensions of Time", shall be liquidated in the sum of One Thousand Five Hundred Dollars ($1500) per calendar day.

31. EXTENSIONS OF TIME

The time above provided for completion of any part of the Contract shall be extended (subject, however, to the provisions of this numbered clause) only if in the opinion of the Engineer the Contractor is necessarily delayed in completing such part by such time solely and directly by a cause which meets all the following conditions:

A. Such cause is beyond the Contractor's control and arises without his fault;

B. Such cause comes into existence after the opening of Proposals on this Contract and neither was nor could have been anticipated by investigation before such opening.

Variations in temperature and precipitation shall be conclusively deemed to have been anticipated before opening of such Proposals on this Contract except to the extent that the actual monthly average temperature varies from a temperature which is 10 per cent (10%) above or below the monthly normal temperature and except to the extent that the actual number of days of precipitation (of 0.1 inch or more) per month exceeds a number equal to two plus the normal number of days of precipitation per month.

In any case, the variations in temperature and precipitation described in the immediately preceding sentence will be cause for an extension of time only if occurring between the actual time of commencement of the Work at the construction site and the time for completion stipulated in the clause hereof entitled "Time for Completion and Damages for Delay" (or such time as extended as provided for herein). In the case of portions of months the number of days will be pro-rated by the Engineer. Temperature and precipitation shall be as recorded by the U. S. Weather Bureau in its publications, including that entitled "Local Climatological Data with Comparative Data", which is applicable to the area in which the Work is to be performed, and in the case of precipitation, the normal number of days of precipitation (of 0.1 inch or more) per month as abstracted from the aforementioned publications are as follows:

Month	**Normal number of days per month on which precipitation exceeds 0.1 inch**
January	7
February	7
March	8
April	7
May	6
June	6
July	5
August	7
September	6
October	6
November	7
December	7

In any event, even though a cause of delay meets all the above conditions, an extension shall be granted only to the extent that (i) the performance of the Work is actually and necessarily delayed and (ii) the effect of such cause cannot be anticipated and avoided or mitigated by the exercise of all reasonable precautions, efforts and measures (including planning, scheduling and rescheduling), whether before or after the occurrence of the cause of delay, and an extension shall not be granted for a cause of delay which would not have affected the performance of the Contract were it not for the fault of the Contractor or for other delay for which the Contractor is not entitled to an extension of time.

Any reference herein to the Contractor shall be deemed to include subcontractors and materialmen, whether or not in privity of contract with the Contractor, and employees and others performing any part of the Contract and all the foregoing shall be considered as agents of the Contractor.

The period of any extension of time shall be that necessary to make up the time actually lost, subject to the provisions of this numbered clause, and shall be only for the portion of the Contract actually delayed. The Engineer may defer all or part of his decision on an extension and any extension may be rescinded or shortened if it subsequently is found that the delays can be overcome or reduced by the exercise of reasonable precautions, efforts and measures.

As a condition precedent to an extension of time, the Contractor shall give written notice to the Engineer within 48 hours after the time when he knows or should know of any cause which might under any circumstances result in delay for which he claims or may claim an extension of time (including those causes which the Authority is responsible for or has knowledge of), specifically stating that an extension is or may be claimed, identifying such cause and describing, as fully as practicable at the time, the nature and expected duration of the delay and its effect on the various portions of the Contract. Since the possible necessity for an extension of time may materially alter the scheduling, plans and other actions of the Authority, and since, with sufficient opportunity, the Authority might if it so elects attempt to mitigate the effect of a delay for which an extension of time might be claimed, and since merely oral notice may cause disputes as to the existence or substance thereof, the giving of written notice as above required shall be of the essence of the Contractor's obligations and failure of the Contractor to give written notice as above required shall be a conclusive waiver of an extension of time.

It shall in all cases be presumed that no extension, or further extension, of time is due unless the Contractor shall affirmatively demonstrate to the satisfaction of the Engineer that it is. To this end the Contractor shall maintain adequate records supporting any claim for an extension of time, and in the absence of such records, the foregoing presumption shall be deemed conclusive.

32. IDLE SALARIED MEN AND EQUIPMENT

If any salaried men or equipment of the Contractor or any subcontractor are necessarily kept continuously idle and wholly unoccupied at the construction site for a full day on each of two or more full days on which they would be engaged in the performance of the Work but for causes due solely to acts or omissions of the Authority or the Engineer occurring after the opening of Proposals on this Contract, and if such idleness is not due to any cause within the control of the Contractor or of any of his subcontractors or materialmen or his or their employees, then the Authority shall pay to the Contractor and the Contractor shall accept (in addition to any sums otherwise payable under this Contract, and in full satisfaction of and in liquidation of all claims for damages because of such act or omission of the Authority or the Engineer) an amount equal to that which the employer actually pays such salaried employees during such full days of idleness, plus a proper proportion of vacation allowances and union dues and assessments actually paid by the employer pursuant to contractual obligations on the basis of such salaries, and a proper proportion of the taxes actually paid by the employer pursuant to law upon the basis of such salaries and plus such rental for such idle equipment as the Engineer deems reasonable. The rental for idle equipment shall be computed by the Engineer in accordance with the provisions of the clause of the Form of Contract entitled "Compensation for Extra Work"; provided, however, that the seven per cent (7%) of the rental to be paid in accordance with said clause in the case of equipment utilized by subcontractors shall not be payable in connection with such idle equipment; and provided further that the provisions of subparagraph C of said clause shall not be applicable to such idle equipment.

The Contractor shall give written notice to the Engineer before the end of the second of the above mentioned 2 or more full days (whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for payment under this numbered clause), specifically stating that salaried men or equipment have been kept idle under circumstances which might result in payment under this numbered clause; and he shall furnish with such notice, for all the days that have occurred, and shall in addition furnish at the end of each additional day of the above mentioned 2 or more full days, (a) a memorandum showing the name, payroll title, salary rate and employer of each of the salaried men claimed to have been kept idle at the construction site, and taxes based upon their salaries and the holiday and vacation allowances and union dues and assessments which the employer must actually pay pursuant to contractual obligations based on their salaries, and (b) a memorandum of the equipment claimed to be kept idle, together with the amount claimed as rental therefor. Said notice and memoranda are for the purpose of enabling the Engineer to verify the Contractor's claim at the time, and of enabling him to take such steps as may be necessary to remedy the conditions upon which the claim is based. The furnishing of such notice and memoranda shall be a condition precedent to payment under this numbered clause, so that the day on which notice is given shall be counted as not later than the second of the above mentioned 2 or more full days and no subsequent day shall be counted for which the above memoranda are not furnished at the end of such day.

33. DELAYS TO CONTRACTOR

As between the Contractor and the Authority, the Contractor assumes the risk of all suspensions of or delays in performance of the Contract, regardless of the length thereof, arising from all causes whatsoever, whether or not relating to this Contract, including wrongful acts or omissions of the Authority, its officers, agents, employees and contractors, except only to the extent, if any, that compensation or an extension of time may be due as expressly provided for elsewhere in this Contract for such suspension or delays and except to the extent, if any, that compensation may be agreed to by the Chief Engineer in writing pursuant to the clause hereof entitled "Compensation for Extra Work" for impact costs incurred by the Contractor in connection with the performance of Extra Work. Subject only to such exceptions, the Contractor shall bear the burden of all costs, expenses and liabilities which he may incur in connection with such suspensions or delays, and all such suspensions, delays, costs, expenses and liabilities of any nature whatsoever, whether or not provided for in this Contract, shall conclusively be deemed to have been within the contemplation of the parties.

Notwithstanding any provisions of this Contract, whether relating to time of performance or otherwise, the Authority makes no representation or guaranty as to when the construction site or any part thereof will be available for the performance of the Contract or as to whether conditions at the construction site will be such as to permit the Contract to be performed thereon without interruption or by any particular sequence or method or as to whether the performance of the Contract can be completed by the time required under this Contract or by any other time.

Wherever in connection with this Contract it is required, expressly or otherwise, that the Authority shall perform any act relating to the Contract, including making available or furnishing any real property, materials, or other things, no guaranty is made by the Authority as to the time of such performance and the delay of the Authority in fulfilling such requirement shall not result in liability of any kind on the part of the Authority except only to the extent, if any, that an extension of time or compensation may be due as expressly provided for elsewhere in this Contract.

34. CANCELLATION FOR DELAY

If the performance of the Contract or any portion of it shall, in the opinion of the Chief Engineer, be materially delayed, whether or not through the fault of the Contractor, by any cause which affects the Contractor's ability to perform the Contract without affecting to the same degree the Authority's own ability to perform it, either directly or through others, the Authority shall have the right at any time during the existence of such delay to cancel this Contract as to any portion not yet performed, without prejudice to the rights, liabilities and obligations of the parties under this Contract arising out of portions already performed, provided, however, that such right of cancellation shall not exist if the delay be due to any wrongful act or omission of the Authority. In the event of such cancellation, no allowance shall be made for anticipated profits.

CHAPTER IV

CONDUCT OF CONTRACT

35. AUTHORITY OF CHIEF ENGINEER

Inasmuch as the public interest requires that the project to which this Contract relates shall be performed in the manner which the Authority, acting through the Chief Engineer, deems best, the Chief Engineer shall have absolute authority to determine what is or is not necessary or proper for or incidental to the portion thereof specified in the clause hereof entitled "General Agreement" and the Contract Drawings and Specifications shall be deemed merely his present determination on this point. In the exercise of this authority, he shall have power to alter the Contract Drawings and Specifications; to require the performance of Work not required by them in their present form, even though of a totally different character from that now required; and to vary, increase and diminish the character, quantity and quality of, or to countermand, any Work now or hereafter required. Such variation, increase, diminution or countermanding need not be based on necessity but may be based on convenience.

If at any time it shall be, from the viewpoint of the Authority, impracticable or undesirable in the judgment of the Chief Engineer to proceed with or continue the performance of the Contract or any part thereof, whether or not for reasons beyond the control of the Authority, he shall have authority to suspend performance of any part or all of the Contract until such time as he may deem it practicable or desirable to proceed. Moreover, if at any time it shall be, from the viewpoint of the Authority impracticable or undesirable in the judgment of the Chief Engineer to proceed with or continue the performance of the Contract or any part thereof whether or not for reasons beyond the control of the Authority, he shall have authority to cancel this Contract as to any or all portions not yet performed and as to any materials not yet installed even though delivered. Such cancellation shall be without prejudice to the rights and obligations of the parties arising out of portions already performed, but no allowance shall be made for anticipated profits.

To resolve all disputes and to prevent litigation the parties to this Contract authorize the Chief Engineer to decide all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal and claims of a type which are barred by the provisions of this Contract) and his decision shall be conclusive, final and binding on the parties. His decision may be based on such assistance as he may find desirable. The effect of his decision shall not be impaired or waived by any negotiations or settlement offers in connection with the question decided, whether or not he participated therein himself, or by any prior decision of the Engineer or others, which prior decisions shall be deemed subject to review, or by any termination or cancellation of this Contract provided, however, that notwithstanding the decision reached by the Chief Engineer in a review of determinations by the Assistant Chief Engineer for Construction or Engineer of Construction that a particular item of Work is not Extra Work the Contractor shall be compensated therefor as provided in written orders of the Assistant Chief Engineer for Construction or Engineer of Construction expressly and unmistakably indicating his intention to treat Work described therein as Extra Work issued in accordance with the provisions of the clause hereof entitled "Extra Work Orders" for amounts not in excess of $25,000 and subject to the aggregate limit specified in said clause.

All such questions shall be submitted in writing by the Contractor to the Chief Engineer for his decision, together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. In any action against the Authority relating to any such question the Contractor must allege in his complaint and prove such submission, which shall be a condition precedent to any such action. No evidence or information shall be introduced or relied upon in such an action that has not been so presented to the Chief Engineer.

This numbered clause shall be governed by and construed in accordance with the law of the State of New York, without giving effect to its choice of law provisions.

36. AUTHORITY AND DUTIES OF ENGINEER

In the performance of the Contract, the Contractor shall conform to all orders, directions and requirements of the Engineer and shall perform the Contract to the satisfaction of the Engineer at such times and places, by such methods and in such manner and sequence as he may require, and the Contract shall at all stages be subject to his inspection. The Engineer shall determine the amount, quality, acceptability and fitness of all parts of the Work and shall interpret the Contract Drawings, Specifications and any orders for Extra Work. The Contractor shall employ no equipment, materials, methods or men to which the Engineer objects, and shall remove no materials, equipment or other facilities from the construction site without permission. Upon request, the Engineer shall confirm in writing any oral order, direction, requirements or determination.

The Contractor is requested to orally advise the Engineer of questions as they arise. Although such advice will not substitute for the written notice and information for which requirements are set forth elsewhere herein, it is anticipated that it will facilitate prompt decisions on the part of the Engineer and others.

The enumeration herein or in the Specifications of particular instances in which the opinion, judgment, discretion or determination of the Engineer shall control or in which the Contract shall be performed to his satisfaction or subject to his inspection, shall not imply that only the matters of a nature similar to those enumerated shall be so governed and performed, but without exception the entire Contract shall be so governed and so performed.

37. NOTICE REQUIREMENTS

No claim against the Authority shall be made or asserted in any action or proceeding at law or in equity, and the Contractor shall not be entitled to allowance of such claim, unless the Contractor shall have complied with all requirements relating to the giving of written notice of the information with respect to such claim as provided in this numbered clause. The failure of the Contractor to give such written notice and information as to any claim shall be conclusively deemed to be a waiver by the Contractor of such claim, such written notice and information being conditions precedent to such claim. As used herein "claim" shall include any claim arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal and claims of a type which are barred by the provisions of this Contract) for damages, payment or compensation of any nature or for extension of any time for performance of any part of this Contract.

The requirements as to the giving of written notice and information with respect to claims shall be as follows:

A. In the case of any claims for Extra Work, extension of time for completion, idle salaried men and equipment, or any other matter for which requirements are set forth elsewhere in this Contract as to notice and information, such requirements shall apply.

B. In the case of all other types of claim, notice shall have been given to the Engineer, personally, as soon as practicable, and in any case, within 48 hours, after occurrence of the act, omission, or other circumstance upon which the claim is or will be based, stating as fully as practicable at the time all information relating thereto. Such information shall be supplemented with any further information as soon as practicable after it becomes or should become known to the Contractor, including daily records showing all costs which the Contractor may be incurring or all other circumstances which will affect any claim to be made, which records shall be submitted to the Engineer, personally.

The above requirements for notices and information are for the purpose of enabling the Authority to avoid waste of public funds by affording it promptly the opportunity to cancel or revise any order, change its plans, mitigate or remedy the effects of circumstances giving rise to a claim or take such other action as may seem desirable and to verify any claimed expense or circumstances as they occur, and the requirements herein for such notice and information are essential to this Contract and are in addition to any notice required by statute with respect to suits against the Authority.

The above referred to notices and information are required whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for a claim and whether or not the Authority has indicated it will consider a claim.

No act, omission, or statement of any kind shall be regarded as a waiver of any of the provisions of this numbered clause or may be relied upon as such waiver except only either a written statement signed by the Executive Director of the Authority or a resolution of the Commissioners of the Authority expressly stating that a waiver is intended as to any particular provision of this numbered clause, and more particularly no discussion, negotiations, consideration, correspondence, or requests for information with respect to a claim by any Commissioner, officer, employee or agent of the Authority shall be construed as a waiver of any provision of this numbered clause or as authority or apparent authority to effect such a waiver.

Since merely oral notice or information may cause disputes as to the existence or substance thereof, and since notice, even if written, to other than the Authority representative above designated to receive it may not be sufficient to come to the attention of the representative of the Authority with the knowledge and responsibility of dealing with the situation only notice and information complying with the express provisions of this numbered clause shall be deemed to fulfill the Contractor's obligation under this Contract.

38. EQUAL EMPLOYMENT OPPORTUNITY

In order to conform with the policy of the Authority the Contractor agrees that the provisions of N.J.S.A. 10:2-1 through 10:2-4, dealing with discrimination in employment on public contracts, and the Rules and Regulations promulgated pursuant thereto, are hereby made a part of this Contract and are binding upon him and that it shall not be a defense to the Contractor in any action arising directly or indirectly out of such legislation and Rules and Regulations that the Authority may not be subject thereto.

The provisions of this numbered clause are for the benefit of the Attorney General of the State of New Jersey, Division on Civil Rights in the Department of Law and Public Safety of the State of New Jersey, and the Director thereof, as well as for the benefit of the Authority, and said Division and Director shall have a right of action against the Contractor to effectuate the intent of this clause.

39. NO DISCRIMINATION IN EMPLOYMENT

During the performance of this Contract, the Contractor agrees as follows:

A. The Contractor will not discriminate against any employee or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, and will undertake or continue existing programs of affirmative action to ensure that minority group persons are afforded equal employment opportunity without discrimination. Such programs shall include but not be limited to, recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, rates of pay or other forms of compensation, and selections for training or retraining, including apprenticeships and on-the-job training,

B. The Contractor shall request such employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding and which is involved in the performance of the Contract to furnish a written statement that such employment agency, labor union or representative shall not discriminate because of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will cooperate in the implementation of the Contractor's obligations hereunder,

C. The Contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the Contractor in the performance of the Contract with the Port Authority, that all qualified applicants will be afforded equal employment opportunity without discrimination because of race, creed, color, national origin, sex, age, disability or marital status,

D. The Contractor will include the provisions of subparagraphs A through C of this paragraph in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to its work in connection with the Contract with the Port Authority,

E. The Contractor will submit to the Authority every two weeks a report indicating the number of workers employed at the construction site as of the lst and 15th days of each month and the projected number of workers to be so employed during the following month. This report shall also indicate the trade in which such workers are employed and, with respect to current employment (but not projected employment), shall indicate the number of such workers who are members of the following groups:

1.) Black persons having origins in any of the Black African racial groups not of Hispanic origin;

2.) Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central or South American culture or origin, regardless of race;

3.) Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands;

4.) American Indian or Alaskan Native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

F. The Contractor agrees that he will fully cooperate with the office of the Attorney General of the State of New Jersey and with the Authority which seeks to deal with the problem of unlawful or invidious discrimination, and with all other State efforts to guarantee fair employment practices under this contract, and said Contractor will comply promptly with all requests and directions from the Attorney General of the State of New Jersey and the Authority in this connection, both before and during construction.

G. Full cooperation as expressed in clause F foregoing shall include, but not be limited to, being a witness or complainant in any proceeding involving questions of unlawful or invidious discrimination if such is deemed necessary by the Attorney General of the State of New Jersey, permitting employees of said Contractor to be witnesses or complainants in any proceeding involving questions of unlawful or invidious discrimination, if such is deemed necessary by the Attorney General of the State of New Jersey, signing any and all documents involved in any proceeding involving questions of unlawful or invidious discrimination, the execution of which are deemed necessary by the Attorney General of the State of New Jersey, participating in meetings, submitting periodic reports on the racial aspects of present and future employment, assisting in inspection at the construction site, and promptly complying with all State directives deemed essential by the Attorney General of the State of New Jersey to insure compliance with all Federal and State laws, regulations and policies against racial or other unlawful or invidious discrimination.

H. Upon the basis of a finding by the Attorney General of the State of New Jersey that the Contractor has not complied with these nondiscrimination clauses and that by reason thereof there has been a material breach of this contract, the Executive Director of the Authority shall have the sole discretion and power to declare this contract null and void upon 10 days' notice to the Contractor. In such event the Contractor shall become liable for any and all damages which shall accrue to the Authority including, but not limited to, the difference between the total cost of completion and the contract price under this agreement.

I. The provisions of this numbered clause which refer to the Attorney General are inserted in this contract for the benefit of the Attorney General of the State of New Jersey as well as for the benefit of the Authority, and said Attorney General shall have a direct right of action against the Contractor to effectuate the intent of this clause.

40. AFFIRMATIVE ACTION REQUIREMENTS - EQUAL EMPLOYMENT OPPORTUNITY

The Contractor shall comply with the provisions set forth hereinafter. These provisions are modeled on the conditions for bidding on federal government contracts adopted by the Office of Federal Contract Compliance in 1978.

Each bidder, contractor or subcontractor (hereinafter called the Contractor) must fully comply with the clause entitled 'Equal Employment Opportunity' and these bid conditions. The Contractor commits itself to the goals for minority and female utilization set forth below and all other requirements, terms and conditions of these bid conditions by submitting a properly signed bid.

The Contractor shall appoint a company executive to assume the responsibility for the implementation of the requirements, terms and conditions of these bid conditions.

A. The goals for minority and female participation, expressed in percentage terms, for the Contractor's workforce at the construction site under this Contract are as follows:

Minority, except laborers	30%
Minority, laborers	40%
Female, except laborers	6.9%
Female, laborers	6.9%

These goals are applicable to all construction Work performed at the construction site under the Contract.

The Contractor's compliance with this Section shall be based on its implementation of the clause entitled 'Equal Employment Opportunity', and specific affirmative action obligations required herein of minority and female employment and training must be substantially uniform throughout the length of the Contract and in each trade. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract. Compliance with the goals will be measured against the total work hours performed.

B.

1.) The Contractor shall provide written notification to the General Manager, Business and Job Opportunity, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under this Contract. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

2.) The Contractor shall submit a Workforce Projection Schedule, which shall be correlated to the progress schedule, within thirty days after acceptance of the proposal, for the approval of the Engineer. The Contractor shall maintain and periodically update it at intervals as required by the Engineer. The Workforce Projection Schedule shall include the time period in which each trade shall be utilized, the average number of workers required per trade on a weekly basis, the peak period for each trade, and the number of workers required per trade for the peak period on a weekly basis.

C.

1.) As used in these specifications:

a. Omitted

b. "Manager" means General Manager, Business and Job Opportunity, Office of Regional and Economic Development of the Authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central or South American culture or origin, regardless of race;

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2.) Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the Work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 such provisions as are necessary for the Contractor to achieve the aggregate goals set forth above.

3.) Omitted.

4.) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p hereof. The goals set forth above are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in the total workforce at the construction site under the Contract including employees of the Contractor and the subcontractors. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified. These goals may be achieved through utilization of journeyworkers and apprentices. In the event they are not achieved through the utilization of journeyworkers, the maximum number of apprentices provided for in the applicable collective bargaining agreement may be utilized to achieve said goals.

5.) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations hereunder.

6.) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7.) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these provisions shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

b. Develop maximum job opportunities for apprentices appropriate to the conditions of the Work and subject to the applicable collective bargaining agreement, in conjunction with training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7a above.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Manager when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations hereunder with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth.

k. Tests and other selection requirements shall comply with 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations hereunder are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8.) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p hereof provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's non-compliance.

9.) Goals for minorities and for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation hereof if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation hereof if a specific minority group of women is under-utilized).

10.) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11.) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12.) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the clause entitled "Equal Employment Opportunity", including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered by the Authority. Any Contractor who fails to carry out such sanctions and penalties shall be in violation hereof.

13.) The Contractor, in fulfilling its obligations hereunder shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 hereof so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of these provisions, the Authority shall proceed accordingly.

14.) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports, including the Monthly Employment Utilization Report, relating to the provisions hereof as may be required and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15.) Nothing herein provided shall be construed as a limitation upon the application of any laws which establish standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

41. PREVAILING RATE OF WAGE

The Contractor shall pay or provide (and shall cause all subcontractors to pay or provide) to his or their workmen, laborers and mechanics (who are employed by him or them to work on an hourly or daily basis at any trade or occupation at or about the construction site) at least the prevailing rate of wage and supplements for others engaged in the same trade or occupation in the locality in which the Work is being performed as determined by the Engineer.

For purposes of this Contract, the Engineer has determined that the prevailing rates of wage and supplements are those established by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act (40 U.S.C.A. 276a) for the locality in which the Work is to be performed. The schedule of wages and supplemental benefits which are currently in effect is attached hereto. However, the applicable rates shall be those which are in effect on the date of opening of Proposals.

The provisions of this numbered clause are inserted in this Contract for the benefit of such workmen, laborers and mechanics as well as for the benefit of the Authority; and if the Contractor or any subcontractor shall pay or provide any such workman, laborer or mechanic less than the rates of wages and supplements above described, such workman, laborer or mechanic shall have a direct right of action against the Contractor or such subcontractor for the difference between the wages and supplements actually paid or provided and those to which he is entitled under this clause. If such workman, laborer or mechanic is employed by any subcontractor whose subcontract does not contain a provision substantially similar to the provisions of this clause (requiring the payment or provision of at least the above minimum, and providing for a cause of action in the event of the subcontractor's failure to pay or provide such wages and supplements) such workman, laborer or mechanic shall have a direct right of action against the Contractor. The Authority shall not be a necessary party to any action brought by any workman, laborer or mechanic to obtain a money judgment against the Contractor or any subcontractor pursuant to this numbered clause.

Nothing herein contained shall be construed to prevent the Contractor or any subcontractor from paying higher rates of wages or providing higher supplements than the minimum hereinbefore prescribed; and nothing herein contained shall be construed to constitute a representation or guarantee that the Contractor or any subcontractor can obtain workmen, laborers and mechanics for the minimum herein before prescribed. All wages actually paid that are in excess of the prevailing wages in the performance of Extra Work and Net Cost Work, if applicable, shall be subject, on each occasion, to the initial and continuing approval of the Engineer in advance of the performance of such Extra Work and Net Cost Work, if applicable.

The Contractor shall post at the Work site, in a place that is prominent, accessible and visible to all employees of the Contractor and its subcontractors during the daily time period that the Contractor and/or subcontractor performs Work at the site, the appropriate prevailing wage and supplement schedules. The Contractor must inform all employees, including those of its subcontractors, that they may obtain a copy of the prevailing wage and supplement schedule from the Contractor.

The Contractor and every subcontractor shall make and maintain weekly payroll records during the course of the Work and for the period set forth in the clause hereof entitled "Authority Access to Records" for all employees employed in the Work. Such records shall contain the name, address and social security number of each such employee, the employee's correct payroll classification, rate of pay and supplements, daily and weekly number of hours worked, deductions made and actual wages and supplements paid. The Contractor shall submit these weekly payroll records to the Authority (on forms furnished by the Authority) of all his payroll records and those of each of his subcontractors as the Authority may require with the Contractor's monthly Payment Application, together with an affidavit by the Contractor and by each subcontractor to the effect that such payroll records are correct and complete, the wage and supplement rates contained therein are not less than those required by the provisions of this Contract, and the classifications set forth for each employee conform with the work performed. Such copies and summaries and the original payroll records shall be available for inspection by the Authority (including its Inspector General), and the Contractor and its subcontractors shall permit such representatives to interview employees during working hours on the job site.

The Engineer may at any time request the Contractor to prepare a daily report on the Authority form entitled *Contractor Daily Sign-In Sheet*, copies of which can be obtained from the Engineer. The *Contractor Daily Sign-In Sheet* shall be completed as follows:

1.) At the beginning of each workday the Contractor shall:

   a. fill in the top of the *Contractor Daily Sign-In Sheet*, including the location, date, contractor/subcontractor name and contract number;

   b. ensure that each employee, including those of subcontractors, has printed and signed his or her name and indicated his or her work classifications, the last four digits of his or her social security number, and his or her starting time;

2.) At the end of each workday, the Contractor shall:

   a. ensure that each employee, including those of subcontractors, has signed out and indicated his or her ending time;

   b. sign the Certification Statement at the bottom of the form to indicate that the information contained in the *Contractor Daily Sign-In Sheet* is true and accurate; and

   c. submit the original completed form to the Engineer's representative.

In an area of his office at the Site of the Work which is accessible to his employees, the Contractor shall display such printed material as may be provided by the Engineer setting forth information for the employees of the Contractor and his subcontractors concerning the wage and supplemental benefit requirements set forth in this numbered clause. The Contractor shall also cause each of his subcontractors to display such material in a similarly accessible place in any office which the subcontractor maintains at the Site of the Work.

The Contractor's failure to comply with any provision of this numbered clause shall be deemed a substantial breach of this Contract.

42. EXTRA WORK ORDERS

No Extra Work of a cost in excess of $25,000 shall be performed except pursuant to written orders of the Chief Engineer expressly and unmistakably indicating his intention to treat the Work described therein as Extra Work; and, no Extra Work of a cost of $25,000 or less shall be performed except pursuant to written orders of the Chief Engineer, Deputy Director of Construction or the Engineer of Construction expressly and unmistakably indicating his intention to treat the Work described therein as Extra Work; and, exclusive of Extra Work expressly authorized by or pursuant to a resolution of the Commissioners of the Authority or its Committee on Construction, the Chief Engineer and, subject to the foregoing limitation, the Deputy Director of Construction and the Engineer of Construction, shall have authority to order any item of Extra Work, if the cost thereof to the Authority together with the cost of all other Extra Work previously ordered and not expressly authorized as aforesaid will not in the aggregate be in excess of the sum specified in the letter of acceptance of the Contractor's Proposal as the limit on such authority to order Extra Work; provided, however, that Extra Work in excess of such aggregate amount may be ordered as above provided to the extent expressly authorized in a writing signed by the Executive Director of the Authority delegating authority vested in him pursuant to the By-Laws or a resolution of the Commissioners of the Authority or its Committee on Construction and in the case of Extra Work ordered by the Deputy Director of Construction or Engineer of Construction to the extent expressly authorized in a writing signed by the Chief Engineer delegating authority vested in the Executive Director as aforesaid, which in turn was vested in him by the Executive Director.

In the absence of such an order signed by the Chief Engineer in the case of Extra Work of a cost in excess of $25,000 and by the Chief Engineer or Deputy Director of Construction or Engineer of Construction in the case of Extra Work of a cost of $25,000 or less, if the Engineer shall direct, order or require any Work, whether orally or in writing, which the Contractor deems to be Extra Work, the Contractor shall nevertheless comply therewith, but shall within twenty-four hours give written notice thereof to the Chief Engineer and the Engineer, stating why he deems it to be Extra Work, and shall moreover furnish to the Engineer time slips and memoranda as required by the clause hereof entitled "Compensation for Extra Work". Said notice, time slips and memoranda are for the purpose of affording to the Chief Engineer an opportunity to verify the Contractor's claim at the time and (if he desires so to do) to cancel promptly such order, direction or requirement of the Engineer, of affording to the Engineer an opportunity of keeping an accurate record of the materials, labor and other items involved, and generally of affording to the Authority an opportunity to take such action as it may deem desirable in light of the Contractor's claims. Accordingly, the failure of the Contractor to serve such notice or to furnish such time slips and memoranda shall be deemed to be a conclusive and binding determination on his part that the direction, order or requirement of the Engineer does not involve the performance of Extra Work, and shall be deemed to be a waiver by the Contractor of all claims for additional compensation or damages by reason thereof, such written notice, time slips and memoranda being a condition precedent to such claims.

43. PERFORMANCE OF EXTRA WORK

The provisions of this Form of Contract relating generally to Work and its performance shall apply without exception to any Extra Work required and to the performance thereof. Moreover, the provisions of the Specifications relating generally to the Work and its performance shall also apply to any Extra Work required and to the performance thereof, except to the extent that a written order in connection with any particular item of Extra Work may expressly provide otherwise.

44. TITLE TO MATERIALS

All materials to become part of the permanent construction shall be and become the property of the Authority upon delivery at the construction site or upon being especially adapted for use in or as a part of the permanent construction, whichever may first occur, subject however to the Contractor's assumption of risk under the clause hereof entitled "Risks Assumed by the Contractor", subparagraph A.

The Contractor shall promptly furnish to the Authority such bills of sale and other instruments as may be required by it, properly executed, acknowledged and delivered, assuring to it title to such materials, free of encumbrances and shall mark or otherwise identify all such materials as the property of the Authority.

45. ASSIGNMENTS AND SUBCONTRACTS

Any assignment or other transfer by the Contractor of this Contract or any part hereof or of any of his rights hereunder or of any monies due or to become due hereunder and any delegation of any of his duties hereunder without the express consent in writing of the Authority shall be void and of no effect as to the Authority, provided, however, that the Contractor may subcontract portions of the Work to such persons as the Engineer may, from time to time, expressly approve in writing. For each individual, partnership or corporation proposed by the Contractor as a subcontractor, the Contractor shall submit to the Authority a certification or, if a certification cannot be made, a statement by such person, partnership or corporation to the same effect as the certification or statement required from the Contractor pursuant to the clauses of the "Information For Bidders" entitled "Certification of No Investigation (Criminal or Civil Anti-Trust), Indictment, Conviction, Suspension, Debarment, Disqualification, Prequalification Denial or Termination, Etc; Disclosure of Other Required Information" and "Non-Collusive Bidding and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee". All further subcontracting by any subcontractor shall also be subject to such approval of the Engineer. Approval of a subcontractor may be conditioned on (among other things) the furnishing, without expense to the Authority, of a surety bond guaranteeing payment by the subcontractor of claims of materialmen, subcontractors, workmen and other third persons arising out of the subcontractor's performance of any part of the Work.

No consent to any assignment or other transfer, and no approval of any subcontractor, shall under any circumstances operate to relieve the Contractor of any of his obligations; no subcontract, no approval of any subcontractor and no act or omission of the Authority or the Engineer shall create any rights in favor of such subcontractor and against the Authority; and as between the Authority and the Contractor, all assignees, subcontractors, and other transferees shall for all purposes be deemed to be agents of the Contractor. Moreover, all subcontracts and all approvals of subcontractors shall be and, regardless of their form, shall be deemed to be conditioned upon performance by the subcontractor in accordance with this Contract; and if any subcontractor shall fail to perform the Contract to the satisfaction of the Engineer, the Engineer shall have the absolute right to rescind his approval forthwith and to require the performance of the Contract by the Contractor personally or through other approved subcontractors.

46. CLAIMS OF THIRD PERSONS

The Contractor undertakes to pay all claims lawfully made against him by subcontractors, materialmen and workmen, and all claims lawfully made against him by other third persons arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay all such claims lawfully made against them.

47. CERTIFICATES OF PARTIAL COMPLETION

If at any time prior to the rendition of the Certificate of Final Completion, any portion of the permanent construction has been satisfactorily completed, and if in the judgment of the Engineer such portion of the permanent construction is not necessary for the operations of the Contractor but will be immediately useful to and is needed by the Authority for other purposes, the Engineer may render to the Authority and to the Contractor a certificate in writing to that effect (herein called a Certificate of Partial Completion), and thereupon or at any time thereafter the Authority may take over and use the portion of the permanent construction described in such Certificate and exclude the Contractor therefrom.

The rendition of a Certificate of Partial Completion shall not be construed to constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates in the event that he has failed to complete the same in accordance with the terms of this Contract. Moreover, the acceptance of a Certificate of Partial Completion by the Authority shall not operate to release the Contractor or his sureties from any obligations under or upon this Contract or the Performance and Payment Bond.

48. CERTIFICATE OF SUBSTANTIAL COMPLETION

Prior to the rendition of the Certificate of Final Completion, the Engineer may deem the entire Work to be substantially completed when, in the judgment of the Engineer, the permanent construction has been satisfactorily completed to the point where the Work is fit for its intended purpose and use. The Engineer may, if such a determination of substantial completion is made and at such time, render to the Authority and to the Contractor a certificate in writing to that effect (herein called the Certificate of Substantial Completion), and thereupon or at any time thereafter the Authority may take over and use the permanent construction described in such Certificate and exclude the Contractor therefrom. Whether to make a determination of a substantial completion as to any portion of the Work, and whether to render such a Certificate, shall be the discretionary determination of the Engineer based upon an examination and appraisal of the completed Work, and no right to such a determination or certification is established in the Contractor by this provision.

The rendition of such Certificate of Substantial Completion shall not relieve the Contractor of his obligation hereunder to complete the Work of this Contract nor shall it be construed to constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates in the event that he has failed to complete the same in accordance with the terms of this Contract. Moreover, the acceptance of a Certificate of Substantial Completion by the Authority shall not operate to release the Contractor or his sureties from any obligations under or upon this Contract or the Performance and Payment Bond.

When the Contractor is of the opinion that the Work is substantially complete as described above, the Contractor may submit to the Engineer a written request that the Engineer inspect the Work so as to determine, in the Engineer's sole opinion, whether substantial completion has been achieved. The Contractor's written request shall list the specific items of Work that are incomplete. Upon such a request, the Engineer will respond within 30 days with a Certificate of Substantial Completion or provide a written explanation of the reasons why the Work is not substantially complete including a list of open items necessary to achieve substantial completion. Nothing contained herein shall be deemed to preclude the Engineer from making a determination of substantial completion in the absence of a request therefor by the Contractor.

49. CERTIFICATE OF FINAL COMPLETION

After the satisfactory completion of all Work whatsoever required and the making of such tests and inspections as may be necessary or desirable, the Engineer shall render to the Authority and to the Contractor a certificate in writing (herein called the Certificate of Final Completion) certifying that in his opinion all Work under this Contract, including Extra Work, has been completed in accordance with the Contract Drawings and Specifications and the requirements of the Engineer, and certifying the date as of which it was so completed.

The rendition of the Certificate of Final Completion shall not be construed to constitute an extension of the Contractor's time for performance in the event that he has failed to complete the Work in accordance with the terms of this Contract. Moreover, the acceptance of the Certificate of Final Completion by the Authority shall not operate to release the Contractor or his sureties from any obligations under or upon this Contract or the Performance and Payment Bond.

50. NO GIFTS, GRATUITIES, OFFERS OF EMPLOYMENT, ETC.

During the term of this Contract, the Contractor shall not offer, give or agree to give anything of value either to an Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the Authority, or to a member of the immediate family (i.e, a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, agent, job shopper, consultant, construction manager or other person or firm representing the Authority of duties involving transactions with the Contractor on behalf of the Authority, whether or not such duties are related to this Contract or any other Authority contract or matter. Any such conduct shall be deemed a material breach of this Contract.

As used herein "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by the Contract or any other Authority contract), etc., which might tend to obligate the Authority employee to the Contractor, and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Contract or any other Authority contract.

Where used in this clause, the term "Authority" shall be deemed to include all subsidiaries of the Authority. Currently, those subsidiaries are the Port Authority Trans-Hudson Corporation (PATH), the Newark Legal and Communications Center and the New York and New Jersey Railroad Corporation.

In addition, during the term of this Contract, the Contractor shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated as of April 11, 1996 (a copy of which is available upon request to the Office of the Secretary of the Authority).

The Contractor shall include the provisions of this clause in each subcontract entered into under this Contract.

CHAPTER V

WARRANTIES MADE AND LIABILITY ASSUMED BY THE CONTRACTOR

51. CONTRACTOR'S WARRANTIES

The Contractor represents and warrants:

A. That he is financially solvent, that he is experienced in and competent to perform the type of services contemplated by this Contract, that the facts stated or shown in any papers submitted or referred to in connection with his Proposal are true, and, if the Contractor be a corporation, that it is authorized to perform this Contract;

B. That he has carefully examined and analyzed the provisions and requirements of this Contract and inspected the construction site, that from his own investigations he has satisfied himself as to the nature of all things needed for the performance of this Contract, the general and local conditions and all other matters which in any way affect this Contract or its performance, and that the time available to him for such examination, analysis, inspection and investigations was adequate;

C. That the Contract is feasible of performance in accordance with all its provisions and requirements and that he can and will perform it in strict accordance with such provisions and requirements;

D. That no Commissioner, officer, agent or employee of the Authority is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder; and

E. That, except only for those representations, statements or promises expressly contained in this Contract, no representation, statement or promise, oral or in writing, of any kind whatsoever by the Authority, its Commissioners, officers, agents, employees or consultants has induced the Contractor to enter into this Contract or has been relied upon by the Contractor, including any with reference to: (1) the meaning, correctness, suitability, or completeness of any provisions or requirements of this Contract; (2) the nature, existence or location of materials, structures, obstructions, utilities or conditions, surface or subsurface, which may be encountered at the construction site; (3) the nature, quantity, quality or size of the materials, equipment, labor and other facilities needed for the performance of this Contract; (4) the general or local conditions which may in any way affect this Contract or its performance; (5) the price of the Contract; or (6) any other matters, whether similar to or different from those referred to in (1) through (5) immediately above, affecting or having any connection with this Contract, the bidding thereon, any discussions thereof, the performance thereof or those employed therein or connected or concerned therewith.

Moreover, the Contractor accepts the conditions at the construction site as they may eventually be found to exist and warrants and represents that he can and will perform the Contract under such conditions and that all materials, equipment, labor and other facilities required because of any unforeseen conditions (physical or otherwise) shall be wholly at his own cost and expense, anything in this Contract to the contrary notwithstanding.

Nothing in the Contract Drawings or Specifications or any other part of the Contract is intended as or shall constitute a representation by the Authority as to the feasibility of performance of this Contract or any part thereof. Moreover, the Authority does not warrant or represent either by issuance of the Contract Drawings and Specifications or by any provision of this Contract as to time for performance or completion or otherwise that the Contract may be performed or completed by the times required herein or by any other times.

The Contractor further represents and warrants that he was given ample opportunity and time and by means of this paragraph was requested by the Authority to review thoroughly all documents forming this Contract prior to opening of Proposals on this Contract in order that he might request inclusion in this Contract of any statement, representation, promise or provision which he desired or on which he wished to place reliance; that he did so review said documents, that either every such statement, representation, promise or provision has been included in this Contract or else, if omitted, that he expressly relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Contract without claiming reliance thereon or making any other claim on account of such omission.

The Contractor further recognizes that the provisions of this numbered clause (though not only such provisions) are essential to the Authority's consent to enter into this Contract and that without such provisions, the Authority would not have entered into this Contract.

52. RISKS ASSUMED BY THE CONTRACTOR

The Contractor assumes the following distinct and several risks, whether they arise from acts or omissions (whether negligent or not) of the Contractor, of the Authority, or of third persons, or from any other cause, and whether such risks are within or beyond the control of the Contractor, excepting only risks which arise solely from affirmative acts done by the Authority subsequent to the opening of Proposals on this Contract with actual and wilful intent to cause the loss, damage and injuries described in subparagraphs A through D below:

A. The risk of loss or damage to the permanent construction prior to the rendition of the Certificate of Final Completion (other than loss or damage to the portions of the permanent construction with respect to which Certificates of Partial Completion have been issued), and the Contractor shall forthwith repair, replace and make good any such loss or damage to the permanent construction without cost to the Authority;

B. The risk of loss, damage to or alterations of the structures to be demolished occurring prior to completion of demolition by the Contractor (such structures being still included, however, in the term "Work"). In the event of such loss, damage or alterations, the Contractor shall nevertheless complete the performance of the Work, including the demolition, without additional cost to the Authority and without compensation for lost salvage value;

C. The risk of claims, fines or penalties, just or unjust, made by third persons or assessed by courts or governmental agencies or entities against the Contractor or the Authority on account of injuries (including wrongful death), loss, damage or liability of any kind whatsoever arising or alleged to arise out of or in connection with the performance of the Work (whether or not actually caused by or resulting from the performance of the Work) or out of or in connection with the Contractor's operations or presence at or in the vicinity of the construction site or Authority premises, including claims against the Contractor or the Authority for the payment of workers' compensation, whether such claims, fines or penalties are made or assessed and whether such injuries, damage, loss and liability are sustained at any time both before and after the rendition of the Certificate of Final Completion;

D. The risk of loss or damage to any property of the Contractor, and of claims made against the Contractor or the Authority for loss or damage to any property of subcontractors, materialmen, workmen and others performing the Work, occurring at any time prior to completion of removal of such property from the construction site or Authority premises or the vicinity thereof.

The Contractor shall indemnify the Authority against all claims described in subparagraphs C and D above and for all expense incurred by it in the defense, settlement or satisfaction thereof, including expenses of attorneys, except where indemnity would be precluded by applicable law. If so directed, the Contractor shall defend against any claim described in subparagraphs C and D above, in which event he shall not without obtaining express advance permission from the General Counsel of the Authority raise any defense involving in any way jurisdiction of the tribunal, immunity of the Authority, governmental nature of the Authority or the provisions of any statutes respecting suits against the Authority , such defense to be at the Contractor's cost.

The provisions of this numbered clause shall also be for the benefit of the Commissioners, officers, agents and employees of the Authority, so that they shall have all the rights which they would have under this numbered clause if they were named at each place above at which the Authority is named, including a direct right of action against the Contractor to enforce the foregoing indemnity, except, however, that the Authority by action of its Board of Commissioners may at any time in its sole discretion and without liability on its part cancel the benefit conferred on any of them by this numbered clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

Neither the issuance of a Certificate of Completion nor the making of Final Payment shall release the Contractor from his obligations under this numbered clause. Moreover, neither the enumeration in this numbered clause nor the enumeration elsewhere in this Contract of particular risks assumed by the Contractor or of particular claims for which he is responsible shall be deemed (a) to limit the effect of the provisions of this numbered clause or of any other clause of this Contract relating to such risks or claims, (b) to imply that he assumes or is responsible for risks or claims only of the type enumerated in this numbered clause or in any other clause of this Contract, or (c) to limit the risks which he would assume or the claims for which he would be responsible in the absence of such enumerations.

Inasmuch as the Authority has agreed to indemnify the City of Newark against claims of the types described in subparagraph C above made against said city, the Contractor's obligation under subparagraph C above shall include claims by said city against the Authority for such indemnification, including those arising from acts or omissions (whether negligent or not) of said city.

The provisions of this numbered clause shall not be impaired by any rights the Contractor might otherwise have to limitation or apportionment of damages under the law of admiralty or to limitation of liability under 33 U.S.C.A. Chapter 9 (Protection of Navigable Waters and of Harbor and River Improvements), 46 U.S.C.A. Chapter 8 (Limitation of Vessel Owner's Liability), and any other similar statutes, and as between the Contractor and the Authority, the Contractor hereby waives any such rights. Moreover, the Contractor also waives any rights to limitation of liability under such law or statutes in connection with damage which may occur to property of the Authority arising out of or in connection with performance of the Contract whether the right to recover for such damage arises under this Contract or otherwise.

53. NO THIRD PARTY RIGHTS

Nothing contained in this Contract is intended for the benefit of third persons, except to the extent that the Contract specifically provides otherwise by use of the words "benefit" or "direct right of action".

54. INSURANCE PROCURED BY THE AUTHORITY

In order to reduce the cost of this Contract, the Authority will procure and will maintain in force and pay the premiums on:

A. A policy of public liability (Comprehensive - Commercial General Liability, including Contractual) insurance on which the Contractor and the subcontractors will be insureds issued by an insurance company satisfactory to the Authority, with current coverage limits of $50 million per occurrence for bodily injury and property damage liability.

B. A policy of workers' compensation and employer's liability insurance fulfilling the Contractor's and the subcontractor's obligations under the applicable State Workers' Compensation Law for those employees of the Contractor and the subcontractors employed pursuant to this Contract in operations conducted at the site of the Work hereunder. Coverage under this policy may, as appropriate, include one or more of the following endorsements:

1.) Longshore and Harbor Workers' Compensation Act Coverage Endorsement. (Applies when performing work on or around navigable waters).

2.) Maritime Coverage Endorsement (Applies to masters or members of the crews of vessels, if vessels are used).

3.) Federal Employer's Liability Act Coverage Endorsement. (May apply to railroad related Work).

Determination in any instance as to the appropriateness of the included coverage described in B.1, 2 and 3 above will be made based upon information to be provided by the Contractor relating to the mode of performance of work to be done under the Contract.

The policy described in B above will not provide coverage for any workers' compensation for the Contractor and/or subcontractors who perform any asbestos work. In such cases, the Contractor or subcontractors shall procure and maintain, at their own expense, the workers' compensation insurance in accordance with the requirements of law in the state(s) where the work will take place, including employer's liability insurance (in limits of not less than $1 million per occurrence).

Should the Contractor and/or subcontractors be required to procure the workers' compensation insurance, within ten days after the acceptance of its Proposal the Contractor shall deliver to the General Manager, Risk Management, The Port Authority of NY & NJ, Treasury Department, 225 Park Avenue South, 12th Floor, New York, N.Y. 10003 (Attn: Contract Insurance Review), an original certificate, stating the Contract number, from the insurer. A duplicate certificate evidencing the above insurance shall also be delivered to the Engineer. With regard to insurance required to be procured by a subcontractor, the Contractor shall deliver the certificate described above at least ten days before the subcontractor commences Work.

The requirements for insurance procured by the Contractor or subcontractors shall not in any way be construed as a limitation on the nature or extent of the obligations of the Contractor or subcontractors.

C. A policy of builder's risk insurance, covering the improvements or other Work to be effectuated by the Contractor and the subcontractors, with coverage limits of $50 million per occurrence for all locations combined (subject to a $50 million annual aggregate for flood and earthquake damage and a limit of $10 million per occurrence for damage to off-site storage and property in-transit). The deductible is $10,000 per occurrence for all losses except those caused by flood and earthquake, where a $50,000 deductible per occurrence with respect to flood, and a $25,000 deductible per occurrence with respect to earthquake are in effect. The policy form contains various exclusions, including but not limited to the following property exclusions: automobiles; aircraft; and Contractors' and subcontractors' machinery, tools, and equipment and property of a similar nature, including forms, shoring, scaffolding, temporary structures, rental property/equipment and similar property, not intended to become a permanent part of a building or structure. The Contractor and the subcontractors must refer to the policy form to determine all properties and perils included and excluded and to determine their rights and responsibilities as insureds under the policy form. The Contractor and the subcontractors are responsible for payment for all losses within the deductibles and losses not covered by the builder's risk policies.

The current policies described in A through C of this numbered clause are available for examination by appointment in the office of the General Manager, Risk Management, The Port Authority of NY & NJ, Treasury Department, 225 Park Avenue South, 12th Floor, New York, N.Y. 10003. The policies under A above are subject to certain liability coverage exclusions, which include, but are not limited to, exclusions from liability from claims arising from pollution and exposure to asbestos.

The Contractor and subcontractors shall comply with all obligations of the insured under or in connection with all of the policies described in A through C above.

The Authority shall have the right at any time and from time to time at its option to procure insurance substituting in whole or in part for any or all of the policies described in A through C above or to require that the Contractor and the subcontractors themselves obtain insurance substituting in whole or part for that above referred to, provided always, however, that the Contractor and the subcontractors shall be afforded coverage as stipulated by the Authority and the Authority shall either pay the premiums on such substitute insurance or reimburse the Contractor and the subcontractors therefor.

Neither the procurement of the above insurance or any substitute insurance nor the extent of the coverage or the limits of liability thereunder shall be construed to be a limitation on the nature or extent of the Contractor's obligations, or to relieve the Contractor of any such obligations, and the procurement of the above insurance is only for the purpose of reducing the cost of the Contract without constituting any representation by the Authority as to the adequacy of the insurance to protect the Contractor against the obligations imposed on the Contractor by law (except the applicable State Workers' Compensation Law) or by this or any other Contract.

Notwithstanding any provision of this clause, however, no subcontractor shall be or have the right to be covered under the policies of insurance above referred to until the subcontractor has been expressly approved in writing by the Engineer, as required under this Contract, and such approval may be withheld, among other reasons, until execution by the subcontractor of agreements affirming its obligations provided in this clause with respect to the above insurance.

The provisions of this numbered clause are not intended to create any rights for the Contractor other than rights which may be available to the Contractor under said policies themselves, whatever such rights may be. Moreover, the Authority makes no representation or guaranty, either by the provisions of this numbered clause or otherwise, as to the effect of or the coverage under said policies, and no employee or agent of the Authority is authorized to make any such representation or guaranty, either by the provisions of this numbered clause or otherwise, as to the effect of or the coverage under said policies, and no employee or agent of the Authority is authorized to make any such representation or guaranty or to offer any interpretation of or information on said policies. The Contractor warrants and represents that it has examined and is familiar with the above stated coverages and that in submitting its Proposal it has relied solely on its own interpretation thereof and not on any representations or statements, oral or written, of the Authority, its Commissioners, officers, agents, employees, consultants or contractors.

All negotiations and adjustments with any insurer concerning payment for any loss, the risk of which is borne by the Contractor under this Contract, shall be the responsibility of and shall be conducted by the Contractor unless the applicable policy provides otherwise. The Contractor shall, however, inform the Engineer of the progress of all such negotiations and notify the Engineer sufficiently in advance of all meetings thereon so that the Engineer or designated representatives may attend said negotiations if they so desire.

The Authority shall be entitled to all returned premiums, dividends and credits which may become payable at any time for any reason whatsoever in connection with the aforementioned insurance. The Contractor hereby assigns to the Authority all such returned premiums, dividends and credits and the subcontractors shall be deemed to have assigned to the Authority all such returned premiums, dividends and credits by becoming subcontractors under this Contract. The Contractor shall execute and cause the subcontractors to execute any instrument necessary or convenient to evidence the Authority's right to such returned premiums, dividends and credits.

Notwithstanding any payment by the Authority of any insurance premiums, the Authority shall not be deemed the employer of any employees hired by the Contractor or any subcontractor covered by such insurance nor shall it be liable for any of the obligations of such employer.

The Contractor and the subcontractors shall cooperate to the fullest extent with the Authority in all matters relating to the aforementioned insurance and shall comply with all requirements of all insurance policies procured by the Authority. They shall also at their own expense furnish the Engineer or a duly authorized representative with copies of all payrolls, correspondence, papers, records and other things necessary or convenient for dealing with or defending against any claims and for procuring or administering the aforementioned insurance including furnishing the name of any of their employees, officers, or agents whose presence or testimony is necessary or convenient in any negotiations or proceedings involving such insurance.

55. INSURANCE PROCURED BY CONTRACTOR

The Contractor, in its own name as insured, shall maintain and pay the premiums on the policy or policies of insurance for coverage(s) as hereinafter described, which shall cover its operations hereunder, shall be effective throughout the effective period of this contract, and shall afford coverage(s) in not less than the amounts set forth below:

1. Commercial Automobile Liability Insurance covering "any" vehicles on the broadest commercially available form:

   a. Combined single limit for bodily injury and property damage liability – $2 Million each accident.

2. Environmental Liability Insurance

   Pollution Legal Liability, on an occurrence basis, with limits not less than $5 million per occurrence for bodily injury and property damage, tailored to the specific exposure as it relates to the Work of this Agreement to be performed, also including coverage for environmental clean-up on land, in air and on water. The policy shall include coverage for completed operations for 2 years after the completion of the Contract, and must be on a "pay on behalf of" rather than "indemnify the insured" basis.

   Hazardous/contaminated waste transportation insurance shall be provided by any contractor or subcontractor hauling hazardous/contaminated waste, soil or material.

3. Marine Protection & Indemnity Insurance

   If watercraft is to be used, the Contractor shall take out, maintain and pay the premiums on a P&I policy (that will "pay on behalf of") or similar watercraft coverage, relating to the operation, maintenance or use of any vessel (whether self-propelled or being towed) in connection with work to be performed under this Contract, in a limit of liability of not less than $5 million for any one occurrence.

The Authority shall be named as an additional insured in the liability policy or policies and evidenced by the certificate(s) of insurance set forth above. The liability policy(ies) and the certificate(s) of insurance shall show coverage for cross-liability/severability of interests as provided under the standard ISO "separation of insureds" condition.

The Contractor shall deliver certified copies of the policy(ies) described above or certificate(s) of insurance evidencing the existence thereof to the Engineer at the location where the work will be performed, within ten (10) days after the acceptance of its Proposal. Such policy(ies) or certificate(s) shall state the contract number and shall contain a valid provision or endorsement that the policy(ies) may not be canceled, terminated, changed or modified without giving thirty (30) days written advance notice thereof to the Authority. Such policy(ies) and certificate(s) of insurance shall contain an additional endorsement providing that "the insurance carrier shall not, without obtaining express advance permission from the General Counsel of the Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Authority, raise any defense involving in any way the jurisdiction of the Authority, its Commissioners, officers, agents or employees, the governmental nature of the Authority or the provisions of any statute respecting suits against the Authority". Certified copies of all renewal policies or certificates evidencing their existence shall be delivered to the Engineer at the location where the work will be performed at least ten (10) days prior to the expiration date of each expiring policy. If at any time any of the certificates or policies shall be or become unsatisfactory to the Authority as to form or substance, or if the carrier issuing any such certificate or policy shall be or become unsatisfactory to the Authority, the Contractor shall promptly obtain a new and satisfactory certificate and policy. Upon request of the General Manager, Risk Management, the Contractor shall furnish the Authority with a certified copy of each policy stated above.

The requirements for insurance procured by the Contractor shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Contractor under this contract. The insurance requirements are not a representation by the Authority as to the adequacy of the insurance to protect the Contractor against the obligations imposed on them by law or by this or any other Contract.

CHAPTER VI

RIGHTS AND REMEDIES

56. RIGHTS AND REMEDIES OF AUTHORITY

The Authority shall have the following rights in the event the Chief Engineer shall deem the Contractor guilty of a breach of any term whatsoever of this Contract:

A. The right to take over and complete the Work or any part thereof as agent for and at the expense of the Contractor, either directly or through other contractors.

B. The right to cancel this Contract as to any or all of the Work yet to be performed.

C. The right to specific performance, an injunction or any other appropriate equitable remedy.

D. The right to money damages.

For the purpose of this Contract, breach shall include but not be limited to the Contractor's failure to procure insurance satisfactory to the Authority within the time limit specified in the Clause hereof entitled "Insurance Procured by Contractor" and the following, whether or not the time has yet arrived for performance of an obligation under this Contract: a statement by the Contractor to any representative of the Authority indicating that he cannot or will not perform any one or more of his obligations under this Contract; any act or omission of the Contractor or any other occurrence which makes it improbable at the time that he will be able to perform any one or more of his obligations under this Contract; any suspension of or failure to proceed with any part of the Work by the Contractor which makes it improbable at the time that he will be able to perform any one or more of his obligations under this Contract; any false certification at any time by the Contractor as to any material item certified pursuant to the clauses of the Information For Bidders entitled "Certification of No Investigation (Criminal or Civil Anti-Trust), Indictment, Conviction, Suspension, Debarment, Disqualification, Prequalification Denial or Termination, Etc; Disclosure of Other Required Information" and "Non-Collusive Bidding and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee", any false certification at any time by the Contractor or a subcontractor pursuant to the clause "Prevailing Rate of Wage Certification" set forth in the Information for Bidders, or the willful or fraudulent submission of any signed statement pursuant to such clauses which is false in any material respect; or the Contractor's incomplete or inaccurate representation of its status with respect to the circumstances provided for in such clauses.

The enumeration in this numbered clause or elsewhere in this Contract of specific rights and remedies of the Authority shall not be deemed to limit any other rights or remedies which the Authority would have in the absence of such enumeration; and no exercise by the Authority of any right or remedy shall operate as a waiver of any other of its rights or remedies not inconsistent therewith or to estop it from exercising such other rights or remedies.

57. RIGHTS AND REMEDIES OF CONTRACTOR

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract which may be committed by the Authority, the Contractor expressly agrees that no default, act or omission of the Authority shall constitute a material breach of this Contract, entitling him to cancel or rescind it or (unless the Engineer shall so direct) to suspend or abandon performance.

58. PERFORMANCE OF WORK AS AGENT FOR CONTRACTOR

In the exercise of its right to take over and complete Work as agent for the Contractor, for which provision is made in the clause hereof entitled "Rights and Remedies of Authority", the Authority shall have the right to take possession of and use or permit the use of any and all plant, materials, equipment and other facilities provided by the Contractor for the purpose of the Work and the Contractor shall not remove any of the same from the site of the Work without express permission. Unless expressly directed to discontinue the performance of all Work, the Contractor shall continue to perform the remainder thereof in such manner as in no way will hinder or interfere with the portions taken over by the Authority.

In the certificate of total compensation earned, for which provision is made in the clause hereof entitled "Final Payment", the Engineer will separately state the amount of Work performed by the Authority as agent for the Contractor, credit to the Authority the cost thereof, and credit to the Contractor the compensation earned thereby; and the difference between them shall be payable by the Contractor to the Authority, or vice versa as the case may be. If such difference is in its favor, the Authority may deduct it from any moneys due the Contractor, and if such moneys be insufficient, the balance thereof shall be payable to it on demand; if in the Contractor's favor, it shall constitute part of the Final Payment.

The exercise by the Authority of its right to take over the Work shall not release the Contractor or his sureties from any of his or their obligations or liabilities under this Contract or the Performance and Payment Bond.

59. NO ESTOPPEL OR WAIVER

The Authority shall not be precluded or estopped by any acceptance, certificate or payment, final or otherwise, issued or made under this Contract or otherwise issued or made by it, the Engineer, or any officer, agent or employee of the Authority, from showing at any time the true amount and character of Work performed, or from showing that any such acceptance, certificate or payment is incorrect or was improperly issued or made; and the Authority shall not be precluded or estopped, notwithstanding any such acceptance, certificate or payment, from recovering from the Contractor any damages which it may sustain by reason of any failure on his part to comply strictly with this Contract, and any moneys which may be paid to him or for his account in excess of those to which he is lawfully entitled.

Neither the acceptance of the Work or any part thereof, nor any payment therefor, nor any order or certificate issued under this Contract or otherwise issued by the Authority, the Engineer, or any officer, agent or employee of the Authority, nor any permission or direction to continue with the performance of Work, nor any performance by the Authority of any of the Contractor's duties or obligations, nor any aid lent to the Contractor by the Authority in his performance of such duties or obligations, nor any other thing done or omitted to be done by the Authority, its Commissioners , officers, agents or employees shall be deemed to be a waiver of any provision of this Contract or of any rights or remedies to which the Authority may be entitled because of any breach thereof, excepting only a resolution of its Commissioners, providing expressly for such waiver. No cancellation, rescission or annulment hereof, in whole or as to any part of the Work, because of any breach hereof, shall be deemed a waiver of any money damages to which the Authority may be entitled because of such breach. Moreover, no waiver by the Authority of any breach of this Contract shall be deemed to be a waiver of any other or any subsequent breach.

CHAPTER VII

MISCELLANEOUS

60. SUBMISSION TO JURISDICTION

The Contractor hereby irrevocably submits himself to the jurisdiction of the Courts of the State of New York and to the jurisdiction of the Courts of the State of New Jersey in regard to any controversy arising out of, connected with, or in any way concerning the Proposal or this Contract. The Contractor agrees that service of process on the Contractor in relation to such jurisdiction may be made, at the option of the Authority, either by registered or certified mail addressed to the applicable office as provided for in the clause hereof entitled "Service of Notices on the Contractor", by registered or certified mail addressed to any office actually maintained by the Contractor or by actual personal delivery to the Contractor if the Contractor be an individual, to any partner if the Contractor be a partnership or to an officer, director or managing or general agent if the Contractor be a corporation.

Such service shall be deemed to be sufficient when jurisdiction would not lie because of the lack of basis to serve process in the manner otherwise provided by law. In any case, however, process may be served as stated above whether or not it might otherwise have been served in a different manner.

61. PROVISIONS OF LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

62. INVALID CLAUSES

If any provision of this Contract shall be such as to destroy its mutuality or to render it invalid or illegal, then, if it shall not appear to have been so material that without it the Contract would not have been made by the parties, it shall not be deemed to form part thereof but the balance of the Contract shall remain in full force and effect.

63. NON-LIABILITY OF THE AUTHORITY REPRESENTATIVES

Neither the Commissioners of the Authority nor any officer, agent, or employee thereof shall be charged personally by the Contractor with any liability or held liable to him under any term or provision of this Contract, or because of its execution or attempted execution, or because of any breach hereof.

64. SERVICE OF NOTICES ON THE CONTRACTOR

Whenever provision is made in this Contract for the giving of any notice to the Contractor, its deposit in any post office or post office box, enclosed in a postpaid wrapper addressed to the Contractor at his office, or its delivery to his office, shall be sufficient service thereof as of the date of such deposit or delivery, except to the extent, if any, otherwise provided in the clause entitled "Submission to Jurisdiction". Until further notice to the Authority the Contractor's office will be that stated in his Proposal. Notices may also be served personally upon the Contractor; or if a corporation, upon any officer, director, or managing or general agent; or if a partnership upon any partner.

65. MODIFICATION OF CONTRACT

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

The authority of any person to order Extra Work or to alter the Contract Drawings and Specifications does not include the power to cancel, modify or waive any provision of the Form of Contract, and no officer or other representative of the Authority shall have the power so to do unless and until hereafter so authorized by or pursuant to a resolution of the Commissioners of the Authority or by or pursuant to a resolution of their appropriate Committee.

66. PUBLIC RELEASE OF INFORMATION

The Contractor and all his subcontractors shall not issue or permit to be issued any press release, advertisement, or literature of any kind, which refers to the Authority or the services performed in connection with this Contract, without first obtaining the written approval of the Chief Engineer. Such approval may be withheld if for any reason the Chief Engineer believes that the publication of such information would be harmful to the public interest or is in any way undesirable. This provision shall survive termination or expiration of this Contract.

PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned[24] Contractor and surety company (or companies), as principal and surety (or sureties), respectively,

Contractor	Surety

24 Insert names of the Contractor and surety company (or companies) in the appropriate columns. If space is insufficient add rider.

If the Contractor is a corporation, give the state of incorporation, using also the phrase "a corporation organized under the laws of _____".

If the Contractor is a partnership, give full names of partners, using the phrase "co-partners doing business under the firm name of _____".

If the Contractor is an individual using a trade name, give individual name, using also the phrase "an individual doing business under the trade name of _____".

PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned[24] Contractor and surety company (or companies), as principal and surety (or sureties), respectively,

Contractor	Surety

[24] Insert names of the Contractor and surety company (or companies) in the appropriate columns. If space is insufficient add rider.

If the Contractor is a corporation, give the state of incorporation, using also the phrase "a corporation organized under the laws of _____".

If the Contractor is a partnership, give full names of partners, using the phrase "co-partners doing business under the firm name of _____".

If the Contractor is an individual using a trade name, give individual name, using also the phrase "an individual doing business under the trade name of _____".

are hereby held and firmly bound unto The Port Authority of New York and New Jersey (herein called the "Authority") in the penal sum of _____ Dollars and _____ Cents ($ _____.), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, representatives, executors, administrators, successors and assigns. Each surety, however, if there is more than one, shall be jointly and severally liable for said penal sum.

Signed this _____ day of _____ 20

The condition of the above obligation is that

WHEREAS, the above named principal has entered into a Contract in writing with the Authority, a copy of which is hereby made a part of this bond as though herein set forth in full and which is designated Contract PN-800.219 - "Port Newark - Berths 36 and 63 Wharf Reconstruction", and

WHEREAS, the Authority has required this bond for the faithful performance of all obligations imposed by said Contract and also for the payment of all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract;

NOW, if the said principal shall well and faithfully do and perform the things agreed by him to be done and performed according to the terms and true intent and meaning of said Contract and if all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract are paid, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that, provided the sureties shall comply with the provisions hereof, the aggregate liability of all sureties for any and all claims hereunder shall in no event exceed the penal amount of this obligation as hereinbefore stated.

This undertaking is for the benefit the Authority and all subcontractors, materialmen and workmen having lawful claims arising out of the performance of said Contract, and all such subcontractors, materialmen and workmen (as well as the Authority itself) shall have a direct right of action upon this bond; but the rights and equities of such subcontractors, materialmen and workmen shall be subject and subordinate to those of the Authority.

The sureties, for value received, hereby stipulate and agree that the obligations of said sureties and their bond shall be in no way impaired or affected by any extensions of time, modification, omission, addition or change in or to the said Contract or the construction to be performed thereunder, or by any supervision or inspection or omission to supervise or inspect the construction, or by any payment thereunder before the time required therein, or by any waiver of any provision or condition thereof (whether precedent or subsequent), or by any assignment, subletting or other transfer thereof or of any part thereof or of any construction to be performed or any moneys due or to become due thereunder; and said sureties do hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulate and agree that any and all things done and omitted to be done by and in relation to assignees, subcontractors and other transferees shall have the same effect as to said sureties as though done by or in relation to said principal.

are hereby held and firmly bound unto The Port Authority of New York and New Jersey (herein called the "Authority") in the penal sum of _____ Dollars

and _____ Cents ($ _____.), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, representatives, executors, administrators, successors and assigns. Each surety, however, if there is more than one, shall be jointly and severally liable for said penal sum.

Signed this _____ day of _____ 20

The condition of the above obligation is that

WHEREAS, the above named principal has entered into a Contract in writing with the Authority, a copy of which is hereby made a part of this bond as though herein set forth in full and which is designated Contract PN-800.219 - "Port Newark - Berths 36 and 63 Wharf Reconstruction", and

WHEREAS, the Authority has required this bond for the faithful performance of all obligations imposed by said Contract and also for the payment of all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract;

NOW, if the said principal shall well and faithfully do and perform the things agreed by him to be done and performed according to the terms and true intent and meaning of said Contract and if all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract are paid, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that, provided the sureties shall comply with the provisions hereof, the aggregate liability of all sureties for any and all claims hereunder shall in no event exceed the penal amount of this obligation as hereinbefore stated.

This undertaking is for the benefit the Authority and all subcontractors, materialmen and workmen having lawful claims arising out of the performance of said Contract, and all such subcontractors, materialmen and workmen (as well as the Authority itself) shall have a direct right of action upon this bond; but the rights and equities of such subcontractors, materialmen and workmen shall be subject and subordinate to those of the Authority.

The sureties, for value received, hereby stipulate and agree that the obligations of said sureties and their bond shall be in no way impaired or affected by any extensions of time, modification, omission, addition or change in or to the said Contract or the construction to be performed thereunder, or by any supervision or inspection or omission to supervise or inspect the construction, or by any payment thereunder before the time required therein, or by any waiver of any provision or condition thereof (whether precedent or subsequent), or by any assignment, subletting or other transfer thereof or of any part thereof or of any construction to be performed or any moneys due or to become due thereunder; and said sureties do hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulate and agree that any and all things done and omitted to be done by and in relation to assignees, subcontractors and other transferees shall have the same effect as to said sureties as though done by or in relation to said principal.

The sureties shall give the General Counsel of the Authority the following notices:

A. Written notice of an intent to pay any claim of a subcontractor, materialman or workman hereunder;

B. Written notice within five days of the institution of an action by a subcontractor, materialman or workman hereunder.

The sureties shall not pay the claim of any subcontractor, materialman or workman hereunder until the expiration of thirty days after receipt by said General Counsel of notice under either subparagraph A or B above, describing the claim to be paid.

IN WITNESS WHEREOF, the principal and the sureties have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____

Principal

(Seal)

By [25] _____

_____

Surety

By[26] _____

APPROVED AS TO ACCEPTABILITY OF SURETIES:

_____

Credit Manager

_____ 20

[25] If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

[26] Add signatures of additional sureties, if any.

The sureties shall give the General Counsel of the Authority the following notices:

A. Written notice of an intent to pay any claim of a subcontractor, materialman or workman hereunder;

B. Written notice within five days of the institution of an action by a subcontractor, materialman or workman hereunder.

The sureties shall not pay the claim of any subcontractor, materialman or workman hereunder until the expiration of thirty days after receipt by said General Counsel of notice under either subparagraph A or B above, describing the claim to be paid.

IN WITNESS WHEREOF, the principal and the sureties have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____

Principal

(Seal) By [25] _____

_____

Surety

By[26] _____

APPROVED AS TO ACCEPTABILITY OF SURETIES:

_____

Credit Manager

_____ 20

---

25 If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

26 Add signatures of additional sureties, if any.

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known, who being by me duly sworn, did depose and say that he resides at _____; that he is the _____. of _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

(Notary Seal) _____

(Notary Signature)

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known, and known to me to be one of the members of the firm of _____ _____ described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal) _____

(Notary Signature)

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal) _____

(Notary Signature)

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known, who being by me duly sworn, did depose and say that he resides at _____; that he is the _____. of _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

(Notary Seal) _____

(Notary Signature)

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known, and known to me to be one of the members of the firm of _____ _____ described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Notary Seal) _____

(Notary Signature)

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____

_____ SS:

County of _____

On this _____ day of _____, 20 , before me personally came and appeared _____, to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Notary Seal) _____

(Notary Signature)

AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY

SPECIFICATIONS

DIVISION 1

GENERAL PROVISIONS

67. CONSTRUCTION REQUIRED BY THE SPECIFICATIONS

These Specifications relate generally to performing removal of collapsed structure, demolition of the remaining damaged structure, earth fill excavation and disposal, limited dredging, steel pipe piles and sheet piling installation, relieving concrete platform construction, paving, utilities and related work at the construction site.

These Specifications require the doing of all things necessary or proper for or incidental to the matter referred to in the immediately preceding paragraph, as shown on the Contract Drawings in their present form. In addition, all things shown on the Contract Drawings even though not expressly mentioned in these Specifications, all things mentioned in these Specifications even though not shown on the Contract Drawings, and all things not specified either on the Contract Drawings, or in the Specifications but involved in carrying out their intent and in the complete and proper execution of the matter referred to in the immediately preceding paragraph are required by these Specifications; and the Contractor shall perform the same as though they were specifically delineated, described and mentioned.

In case of a conflict between a requirement of the Contract Drawings and a requirement in Division 1 of the Specifications, the requirement of Division 1 shall control. In case of a conflict between a requirement contained in other Divisions of the Specifications and a requirement of the Contract Drawings, the requirement of the Contract Drawings shall control.

Some Sections of the Specifications make cross references to construction specified in other Sections of the Specifications, including cross references intended to avoid duplication by the bidders in quoting prices and to point out some of the necessity for coordination. Such cross references are not intended to be complete or all inclusive, and the Contractor shall ascertain for himself both the nature and the extent of all construction which may be related to that under each Section of the Specifications whether or not expressly referred to.

Some Sections of the Specifications contain a general description of the construction under such Sections. Such description is merely a very general one and is not intended to outline the construction required by the Specifications and Contract Drawings. Accordingly, such description shall be construed as in aid of and supplemental to, but in no case limiting, impairing or decreasing, the requirements elsewhere set forth with respect to the construction to be performed.

The Contractor's compensation for all construction whatsoever referred to in the Specifications and Contract Drawings in their present form, even though the need for certain items of such construction may be contingent upon future occurrences or determinations or upon other circumstances, shall be deemed to be included in the price(s) quoted by the Contractor in the Form of Contract unless the Specifications or Contract Drawings expressly state that compensation in addition to such price shall be payable for such items of construction. The express statement in some cases to the effect that certain construction shall be without additional cost to the Authority shall not impair the application of this paragraph in other cases.

The distribution of various parts of the construction among the Divisions and Sections of the Specifications or among the Contract Drawings is not intended as a representation of the most effective or logical method of organizing, scheduling, or subcontracting the construction, and the Contractor shall ascertain for himself how to do so unless otherwise expressly prescribed in this Contract.

In all cases the provisions of the second paragraph of this numbered Section shall control.

68. AVAILABLE PROPERTY

Subject to the conditions elsewhere stated herein, those areas to be occupied by the permanent construction will be made available to the Contractor upon the commencement of his first operations at the construction site, together with an area shown cross-hatched on Contract Drawing No. G003 and designated "Area Available For Contractor's Use".

Any additional property which the Contractor desires for his operations shall be obtained by him at his own expense.

The Contractor will be permitted to use only so much of the aforesaid areas as is necessary for the performance of the Contract, and he must at all times so conduct his operations as not to encroach upon or block the portions used by others. The Engineer may at any time make joint or exclusive assignments of particular portions thereof, either to the Contractor or to others, and may take over and use for other purposes any portions which, in the opinion of Engineer, are not required for the performance of the Contract.

The Contractor shall daily clean up the areas made available to him so that they are free at all times of refuse, rubbish, scrap material or debris.

69. OPERATIONS OF OTHERS

During the time that the Contractor is performing the Contract, other persons will be engaged in other operations on or about the construction site including contractors working on other Authority contracts, facility operations and maintenance and tenant operations all of which shall remain uninterrupted.

The Contractor shall so plan and conduct his operations as to work in harmony with others engaged at the construction site and not to delay, endanger or interfere with the operations of others (whether or not specifically mentioned above), all to the best interests of the Authority and the public and as may be directed by the Engineer.

70. LABOR ACTIONS

Whenever any labor strike, slowdown, work stoppage, picketing or other labor action which might interfere with the performance of the Contract, or of other Authority or PATH contracts or the operation of any Authority or PATH facility occurs at the construction site or at any other Authority or PATH facility as a result of the Contractor's (or its subcontractor's) utilization of particular means, methods or manpower to perform the Work required by the Contract, the Contractor shall pursue all remedies which are appropriate and available to him to avoid such interference.

71. CONTRACTOR'S MEETINGS

The Contractor shall conduct job progress and coordination meetings with subcontractors in his field office every two weeks, or as frequently as job conditions require or the Engineer may request. The Engineer shall be notified and, at his option, may attend these meetings. The Contractor shall prepare and distribute minutes to the Engineer and the subcontractors within forty-eight (48) hours of the day following the meetings.

The Contractor shall attend separate job progress and coordination meetings with the Engineer every two weeks, or at times otherwise requested by the Engineer.

72. CONTRACT DRAWINGS

The Contract Drawings which accompany and form a part of these Specifications bear the general title "The Port Authority of NY & NJ - Port Newark - Berths 36 and 63 Wharf Reconstruction - Contract PN-800.219" and are separately numbered and entitled as follows:

G001	Title Sheet	
G002	Index of Drawings	General
G003	Location Map And Site Plan	General
G004	General And Structural Notes	General
S001	Removal Plan	Structural
S002	Berth 36 Removal Section	Structural
S003	Berth 63 Removal Section	Structural
S004	Pile Plan	Structural
S005	Deck Plan	Structural
S006	Typical Deck Cross Section	Structural
S007	Pile Cap Layout Plan	Structural
S008	Pile and Pile Cap Details	Structural
S009	Pile Cap Details	Structural
S010	Tie Rod and Deadman Details	Structural
S011	Floor Slab Reinforcement Plan	Structural
S012	Floor Slab Details	Structural
S013	Cast Steel Bollard Details	Structural
S014	Timber Fender System	Structural
S015	Retaining Wall Reinforcement and Timber Curb Details	Structural
C001	Legends, Notes and Abbreviations	Civil
C002	Paving and Grading Plan	Civil
C003	Utility Plan	Civil
C004	Details Sheet -1	Civil
C005	Details Sheet - 2	Civil
GT001	Pile Notes and Details	Geotechnical
GT002	Earthwork and Sheet Pile Notes and Details	Geotechnical
GT003	Dredging Plan	Geotechnical
GT004	Berth 36 Existing Section Dredging	Geotechnical

GT005	Berth 63 Existing Section Dredging	Geotechnical
N001	Sediment Control Plan	Environmental
MT001	Traffic Details	Traffic

The Contract Drawings do not show all of the details of the Work and are intended only to illustrate the character and extent of the Work to be performed. Accordingly, they may be supplemented during the performance of the Work by the Engineer or by the Contractor subject to the approval of the Engineer, to the extent necessary to further illustrate the Work.

An indication on the Contract Drawings of the existence, nature or location of any utilities, structures, obstructions, conditions or materials does not constitute a representation as to the conclusions to be drawn therefrom nor a representation that no others exist in addition to those shown, even in the same location; nor does the absence of any indication on said drawings of the existence, nature or location of any utilities, structures, obstructions, conditions or materials constitute a representation that none exist.

After the Contract has been executed, the Contractor will be furnished six (6) copies of the Specifications and Contract Drawings without charge.

73. SHOP DRAWINGS, CATALOG CUTS AND SAMPLES

The Contractor shall specifically prepare for this Contract all Shop Drawings which may be required in addition to the Contract Drawings or in addition to any other drawings which the Engineer may issue in supplementing the Contract Drawings.

The specific requirements elsewhere set forth in the Specifications for furnishing Shop Drawings, Catalog Cuts and samples for any particular portion of the Contract shall not limit the obligation of the Contractor to furnish Shop Drawings, Catalog Cuts and samples for any other portion when so required by the Engineer.

The Contractor shall submit a general "Submittal Schedule" for the Engineer's review and approval listing the planned transmittal date and estimated number in each specification section category of Shop Drawings, Catalog Cuts, pages of calculations and samples within 30 days after receipt by the Contractor of the acceptance of the Proposal. A more detailed schedule shall be submitted no less than 30 calendar days prior to the actual date of any submittal.

After checking and verifying all field measurements and after complying with applicable procedures specified hereunder, the Contractor shall submit to the Engineer for review and approval, in accordance with the approved schedule of Shop Drawing submissions, or for other action if so indicated by the Engineer, four copies and two reproducibles, unless otherwise requested, of all Shop Drawings which will bear a specific written indication that the Contractor has reviewed the submission for conformance to the requirements of the Contract Drawings and Specifications.

The Port Authority uses Primavera Expedition software to track the status of Submittals provided by the Contractor. In order to facilitate this electronic tracking, the Contractor shall use the transmittal form that is provided at the pre-construction meeting, and shall forward it to the Engineer via a MAPI compliant e-mail system (e.g. Microsoft Outlook, CC mail, Lotus notes, etc.).

The Contractor's transmittals of Submittal data shall fully comply with the numbering and naming conventions and other procedures that will be provided by the Engineer to the Contractor at the pre-construction meeting.

All submissions shall be identified as the Engineer may require. In general, submissions shall specifically reference Contract Drawing numbers or Specification section numbers for which the item pertains. The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, conformance to the specified performance and design criteria, materials, test results and similar information to enable the Engineer to review the submittal as required.

The Contractor shall also submit nine copies to the Engineer for review and approval pursuant to the approved submittal schedule, of all Catalog Cuts and samples for conformance to the requirements of the Contract Drawings and Specifications. All Catalog Cuts and samples shall have been reviewed by the Contractor and shall be accompanied by a specific written indication that the Contractor has reviewed the submittal for conformance with the Contract Drawings and Specifications and shall be identified clearly as to material, supplier, manufacturer's procedures and pertinent data such as catalog numbers and the use for which intended.

Before submission of each Shop Drawing, Catalog Cut and sample, the Contractor shall have determined and verified all quantities, dimensions, conformance to the specified performance and design criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed and coordinated each Shop Drawing or Catalog Cut with other Shop Drawings and Catalog Cuts and with other requirements of the Work.

At the time of each submission, the Contractor shall give the Engineer specific written notice of each variation in any Shop Drawing, Catalog Cut and sample from the requirements of the Contract Drawings or Specifications and, in addition, shall cause a specific notation of each such variation to be made on each submittal to the Engineer, for review and approval of each such variation.

The Engineer's review and approval of Shop Drawings, Catalog Cuts or samples shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Drawings or Specifications unless the Contractor has in writing called the Engineer's attention to each such variation at the time of submission as required hereunder and the Chief Engineer has given written approval of each by an express specific written notation thereof incorporated in or accompanying the Shop Drawing, Catalog Cut or sample approval. Approval of Shop Drawings, Catalog Cuts and samples which are inconsistent with the requirements of the Contract Drawings and Specifications shall not be deemed to waive or change such requirements or to relieve the Contractor of his obligations to perform such requirements unless the Chief Engineer shall expressly and specifically state that he is waiving or changing such requirements, as stated above.

Where a Shop Drawing, Catalog Cut or sample is required no related Work shall be performed prior to the Engineer's review and approval of the submission.

In preparing the Shop Drawings, the Contractor may adopt a sheet of any reasonable size which best suits his needs, but having adopted such size, all sheets thereafter of a similar nature shall be of the same size as that adopted. Each drawing shall have a margin on the top, bottom and right-hand side of one-half inch and on the left hand side a margin of one and one-half inches.

Upon receipt of the submittal, the Engineer will review the Shop Drawing, Catalog Cut or sample for conformance to the design information and materials shown on the Contract Drawings and contained in the Specifications. Approval by the Engineer shall not constitute a complete review or approval of the means, methods, techniques, sequences or procedures of construction, except where a specific means, method, technique, sequence or procedure of construction is specifically delineated in or required by the Contract Drawings or Specifications, and the approval shall not constitute a review and approval in regard to safety precautions or programs incident thereto. The review and approval of a separate item will not in itself indicate approval of the assembly in which the item functions. Any design shown on the Shop Drawings and prepared by the Contractor, his subcontractors, their detailers, or their professional engineers is the complete responsibility of the Contractor.

Within the number of working days hereinafter specified after receipt of the Shop Drawing prints, the Engineer shall approve or not approve the same or require corrections or additions to be made thereon. When a shop drawing is not approved or if additions or corrections are required, the Engineer shall return within this period one of the four copies submitted and the Contractor shall make the revisions, corrections or additions shown thereon to be made. He shall resubmit four prints and one brownline (reproducible) showing the drawing corrected as required. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on the previous submittal. Each drawing shall be corrected as required until the approval of the Engineer is obtained. After each resubmission, the Engineer shall have the number of working days hereinafter specified in which to approve revisions or corrections.

The number of working days within which the Engineer shall advise the Contractor as to whether the Shop Drawings are approved, not approved, or require corrections or additions to be made thereto shall be as follows, except that 20 working days shall be required for the Engineer to review shop drawings submitted with design calculations.

No. of Dwgs. Submitted Within 5 Consecutive Working Days for Each Discipline(*)	No. of Working Days for Engineer To Review Shop Drawings
Up to 50	10
51 to 75	15
More than 75	20
* Disciplines shall be defined as follows: Structural, Architectural, Civil, Geotechnical, Mechanical, Electrical, Traffic and Environmental.	

Failure of the Contractor to provide 30 calendar days advance notice to the Engineer of any submittal shall result in a five (5) working day extension of the number of working days stated in the chart above. In no event shall an extension of the Engineer's review time provided for in this section relieve the Contractor from its duty to meet all contractual Milestone dates.

As soon as approval has been given to any Shop Drawing or Catalog Cut, the Contractor shall within five days send to the Engineer six prints, except that when the Engineer specifically so directs, nine prints shall be sent. After approval thereof, no change will be permitted thereon unless approved in writing by the Engineer.

Before final payment for the Work is made, the Contractor shall furnish to the Engineer one set of Shop Drawings, which have previously been prepared by the Contractor in accordance with requirements elsewhere specified in these Specifications, all clearly revised, completed and brought up to date showing the permanent construction as actually made. These drawings shall be marked "RECORD DRAWING – NOT FOR REVIEW", dated and signed by the Contractor and be in the form of Mylar reproducibles, from which clear prints can be made. By signature, the Contractor is verifying that the drawing reflects the as-constructed condition.

All drawings, data, calculations and other papers of any type whatsoever, whether in the form of writing, figures or delineations, which are prepared in connection with this Contract and submitted to the Authority shall become the property of the Authority. The Authority shall have the non-exclusive right to use or permit the use of all such drawings, data and other papers and any ideas or methods represented thereby for any purpose and at any time without additional compensation. No such papers shall be deemed to have been given in confidence. Any statement or legend to the contrary in connection with such drawings, data or other papers and in conflict with the provisions of this paragraph shall be void and of no effect.

74. SUBSTITUTION

Where a proprietary item or make is specified or mentioned herein or called for or mentioned on the Contract Drawings and the phrases "similar and equal to" or "approved equal" are used in connection therewith, the utilization of any other item or make will be deemed a substitution. Substitution for the proprietary item or make specifically named may be made only in accordance with the Section hereof entitled "Workmanship and Materials" and in accordance with the following.

Whenever materials or equipment are specified or described in the Contract Drawings or Specifications by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of another supplier or manufacturer may be accepted by the Engineer if sufficient information and proof is submitted by the Contractor to permit the Engineer to determine that the material or equipment proposed is equivalent or equal to that named and the Engineer approves the substitution. The procedure for review by the Engineer will include the following. Requests for review of substitute items of material and equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make a timely written application to the Engineer for approval thereof, certifying that the proposed substitution will perform at least the identical functions and achieve at least the identical results called for by the specified product and otherwise be equal to the specified product with regard to, but not limited to, durability, maintenance, strength, energy costs and record of proven performance. The application shall state that the evaluation and approval of the proposed substitution shall not delay the Contractor's completion of the Work as required by the Contract, whether or not approval of the substitution will require a change in the construction and, in no event will the Contractor be granted an extension of time for completion of any portion of the Work for reasons related directly or indirectly to the evaluation of the proposed substitution or to the proposed substitution itself. Any variations of the proposed substitution from that specified shall be identified in the application, and maintenance, repair and replacement services for the substitution shall be indicated. The Engineer may require the Contractor to furnish at the Contractor's expense additional laboratory test data concerning the proposed substitution.

Such submission to the Engineer shall be made only by including the requested substitution in the list of materials required to be submitted to the Engineer in accordance with the Section hereof entitled "Inspections and Rejections" within forty-five calendar days after the receipt of the acceptance of the Contractor's Proposal. After the approval of said list, no substitutions will be permitted, except that a brand or make named in the Specifications may be submitted for approval in lieu of a brand or make on said list. Any such submission shall not imply, or impose on the Engineer, any obligation whatsoever to discuss, disclose or justify the reasons for his opinion, approval, acceptance or rejection.

The Engineer shall be the sole judge of as to whether a proposed substitution will be approved, and no substitution shall be ordered or utilized without the Engineer's prior written approval. The Engineer may require Contractor to furnish at Contractor's expense a special performance guarantee or other assurance with respect to any approved substitution. Furthermore, the approval of any substitute proprietary item or make shall not in any way entitle the Contractor to additional compensation therefor.

Notwithstanding such approval, however, the Contractor assumes the risk that such approved substitute item or make is not equal to that shown or specified and if at any time the substitution shall appear not to be so equal he shall replace the substitution with that originally shown on the Contract Drawings or called for in the Specifications at his own cost and reimburse the Authority for any loss occurring on account of the substitution failing to be equal, notwithstanding that it had been previously approved for use by the Engineer.

The construction called for by the Contract Drawings and Specifications may be adapted for a particular proprietary item or make of material or equipment. Therefore, if any construction not required by the Contract Drawings or Specifications in their present form is necessary or desirable because of the use of substitute item or make of material or equipment (even though such other item or make is approved by the Engineer), such construction shall be furnished or performed by the Contractor at his expense and subject to the approval of the Engineer.

75. WORKMANSHIP AND MATERIALS

Workmanship and materials shall in every respect be free from defects of any kind and shall be in accordance with the best modern practice and whenever the Contract Drawings, Specifications or directions of the Engineer admit of a doubt as to what is permissible or fail to note the quality of any construction the interpretation which calls for the best quality is to be followed. Workmanship shall conform to applicable Specifications, manufacturer's instructions and recommendations for installation of products for the applications shown on the Contract Drawings, all of which shall be subject to the provisions of the Section of Division 1 GENERAL PROVISIONS entitled "Inspections and Rejections".

All items provided in this contract that use dates in the recording, storing or processing of information shall use such dates correctly at all times including using such dates correctly in the recording, storing or processing of information after January 1, 2000 (Year 2000 Compliant).

Materials and Equipment incorporated into the Work shall be new except as may be otherwise herein specifically required, and shall comply with make, size, type and quality specified, or as specifically approved in writing by the Chief Engineer in accordance with the Section of Division 1 GENERAL PROVISIONS entitled "Substitution".

Reference to standards of any society, institution, association, or governmental authority in the Specifications or on the Contract Drawings, whether specific or by implication, shall mean for such standards which are part of the building code in effect for Work of this Contract the edition date published in such code; and such references which are not part of the building code, shall mean the latest edition date in effect at the time of opening of Proposals upon the present Contract unless specifically stated otherwise.

If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment to be employed by the Contractor in performing the Work. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the approved instructions of the applicable supplier except as otherwise provided in the Contract Drawings or Specifications.

In case of a discrepancy between a description or requirement in the Contract Drawings and Specifications for any material or equipment and a catalog number or other designation for the same material or equipment (even though stated to be acceptable), the description or requirements shall control.

In various paragraphs of these Specifications, references may be made to certain standard or tentative specifications or requirements of various organizations. Unless otherwise stated, these references are to be construed as referring to the specifications and requirements in effect on the date set for opening bids upon the present Contract.

All inventions, ideas, designs and methods contained in the Specifications and Contract Drawings in which the Authority has or may acquire patent, copyright or other property rights are hereby expressly reserved for the exclusive use of the Authority. The Specifications and Contract Drawings contain confidential information which is disclosed only to enable this Contract to be performed. Said Specifications and Drawings must not be used for any purpose detrimental to the interest of the Authority and must not be produced or copied in whole or in part or used for furnishing information to others without the written consent of the Authority, provided, however, that the Contractor may, when the performance of the Contract so requires, furnish said information to others for the purpose of engaging or informing subcontractors and materialmen.

If, in accordance with this Contract, the Contractor furnishes research, development or consultative services in connection with the performance of the Contract and if in the course of such research, development or consultation patentable subject matter is produced by the Contractor, its officers, agents, employees, subcontractors or materialmen, the Authority shall have, without cost or expense to it, an irrevocable, non-exclusive, royalty-free license to make, have made, and use, either itself or by anyone on its behalf, such subject matter in connection with any activity now or hereafter engaged in or permitted by the Authority. Promptly upon request by the Authority, the Contractor shall furnish or obtain from the appropriate person a form of license satisfactory to the Authority, but as between the Contractor and the Authority the license herein provided for shall nevertheless arise for the benefit of the Authority immediately upon the production of said subject matter and shall not await formal exemplification in a written license agreement as provided for above. Such license may be transferred by the Authority to its successors, immediate or otherwise, in the operation or ownership of any real or personal property now or hereafter owned or operated by the Authority, but such license shall not be otherwise transferable.

The right to use all material, software, firmware, compositions of matter, manufactures, apparatus, appliances, processes of manufacture or types of construction required in connection with this Contract and to which a patent, copyright or other intellectual property right applies or may apply shall be obtained by the Contractor without separate or additional compensation whether the same is patented, copyrighted or otherwise protected as an intellectual property right before, during or after the performance of the Contract.

The Contractor shall indemnify the Authority against and save it harmless from all loss and expense incurred in the defense, settlement or satisfaction of any claims in the nature of patent, copyright or other intellectual property right infringement arising out of or in connection with the Authority use, in accordance with the preceding two paragraphs of this numbered clause, of such subject matter or material, software, firmware, compositions of matter, manufactures, apparatus, appliances, processes of manufacture or types of construction to which a patent, copyright or other intellectual property right applies or may apply. If requested by the Authority and if notified promptly in writing of any such claim, the Contractor shall conduct all negotiations with respect to and defend such claim without expense to the Authority. If the Authority be enjoined from using any of the facilities which form the subject matter of this Contract and as to which the Contractor is to indemnify the Authority against patent, copyright or other intellectual property right claims, the Authority may, at its option and without thereby limiting any other right it may have hereunder or at law or in equity, require the Contractor to supply, temporarily or permanently, facilities not subject to such injunction and not infringing any patent, copyright or other intellectual property right or to remove all such facilities and refund the cost thereof to the Authority or to take such steps as may be necessary to ensure compliance by the Authority with such injunction, all to the satisfaction of the Authority and all without cost or expense to the Authority.

76. INSPECTIONS AND REJECTIONS

All Work and all construction, processes of manufacture and methods of construction involved in or related to the performance of the Work shall be at all times and places subject to the inspection of the Engineer, acting personally or through his Inspectors, and the enumeration in these Specifications of particular portions of such Work, construction, processes of manufacture or methods of construction which will or may be inspected by the Engineer or such Inspectors shall not be deemed to imply that only such Work, construction, processes of manufacture and methods of construction will or may be so inspected. The Engineer shall be the judge of the quality and suitability of the Work, construction, processes of manufacture and methods of construction for the purposes for which they are used or to be used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall be removed immediately from the site. The fact that the Inspectors have approved the materials and workmanship shall not relieve the Contractor from his obligation to supply other material and workmanship when so ordered by the Engineer.

The Contractor , at his own expense, shall furnish such facilities and give such assistance for inspection as the Engineer may direct. In the case of materials required by the Specifications to be inspected in the factory or plant, and in the case of any other items which the Engineer may designate, the Contractor shall secure for the Engineer and his Inspectors free access to all parts of such factories or plants and shall furnish to the Engineer three copies of purchase orders, two copies of mill shipping statements and four copies of shipping statements. Moreover, in the case of such materials to be factory or plant inspected, the Contractor shall give at least ten days' notice to the Engineer of his intention to commence the manufacture or preparation of such materials.

Other than the materials and equipment specifically required to be inspected at the manufacturer's factory or plant, all materials will be inspected at the construction site and any portions thereof which are rejected by the Engineer shall be immediately removed from the construction site by the Contractor and shall be replaced with new materials by the Contractor at his own expense.

In the case of materials to be inspected at the construction site, the Contractor shall submit a list of all such materials in triplicate to the Engineer for his approval prior to ordering same. The list shall be submitted within forty-five calendar days after receipt of the notice of acceptance and shall contain the following information:

A. Classification of submittal in accordance with the following:

Class I - A submittal for record of an expressly specified item.

Class II - A submittal of an item which conforms to an express generic specification or a submittal which is deemed by the Contractor to be identical to an expressly specified item.

Class III - A submittal which is deemed by the Contractor to be functionally equivalent but not identical to a specified item.

B. In the case of Class II and Class III, the Contractor shall supply adequate information to the Engineer to enable the Engineer to compare the specified item and the proposed substitution. Information shall include, but need not be limited to, technical specifications, Catalog Cuts, drawings, references to existing installations and test data, or any other data required by the Engineer.

C. In the case of fabricated materials for which Shop Drawings are to be prepared, a brief description of the material and the statement "see Shop Drawings".

D. In the case of materials or equipment listed in manufacturer's catalogs, the list shall contain the vendor's name, the manufacturer's name, brand name, style designation, catalog number and, where the Specifications require catalog cuts, the statement "see catalog cut".

E. In the case of materials or equipment for which Shop Drawings are not to be prepared, and which are not listed in any catalog, the list shall contain a complete description of the material or equipment, which shall be in sufficient detail to describe completely the materials or equipment and quality therefor.

The Engineer shall advise the Contractor whether said list is approved or requires corrections or additions within the number of working days indicated in the chart below:

Type of Submittal	No. of Working Days for Engineer to Approve/Disapprove Items
Class I Material submittals	10
Portland Cement mix designs that require confirmation of the 28-day properties	35
Changes in asphalt mix designs that need to be confirmed with a batch mix at the plant	35
Class II Material submittals	20
Class III Material submittals	30

Failure of the Contractor to provide 30 calendar days advance notice to the Engineer of any submittal shall result in a five (5) working day extension of the number of days stated in the chart above. In no event shall an extension of the Engineer's review time provided for in this section relieve the Contractor from its duty to meet all contractual Milestone dates.

Within ten working days after receipt of said list, the Engineer shall notify the Contractor of which items are approved and which disapproved. Within two working days thereafter, the Contractor shall resubmit a new list covering those items which were disapproved. After each such re-submission the Engineer shall have a similar period of ten days in which to approve or disapprove.

Should materials or equipment be delivered to the construction site without having been placed on the aforementioned list and approved, it shall be immediately removed from the construction site by the Contractor at his own expense.

77. MANUFACTURERS' CERTIFICATION

Where materials and equipment are required by these Specifications to conform to certain standard or tentative specifications or requirements of any organizations, including American Society for Testing and Materials, American National Standards Institute, Association Rules for Grading Lumber, Federal Specifications, National Electrical Manufacturers Association, American Association of State Highway and Transportation Officials, American Water Works Association and the International Municipal Signal Association, the Contractor shall furnish to the Engineer the manufacturer's written certification that each of the materials or equipment conforms to the foregoing standard or tentative specifications. The certification shall be delivered to the Engineer prior to installation of the materials to which it refers. Such certifications shall not be binding or conclusive on the Authority and may be rejected at any time by the Engineer if incorrect, improper or otherwise unsatisfactory in his opinion.

78. NO RELEASE OF CONTRACTOR

Any provision of this Contract for testing, inspection or approval, and any actual testing, inspection or approval, of any materials, workmanship, plant, equipment, drawings, program, methods of procedure, or of any other thing done or furnished or proposed by the Contractor to be done or furnished in connection with the Contract is for the benefit of the Authority not the Contractor. Any approval of such things shall be construed merely to mean that at that time the Engineer knows of no good reason for objecting thereto. No such provision for testing or inspection, no omission of testing or inspection, and no such approval shall release the Contractor from his full responsibility for the accurate and complete performance of the Contract in accordance with the Contract Drawings and Specifications or from any duty, obligation or liability imposed upon him by the Contract or from responsibility for injuries to persons or damage to property.

79. ERRORS AND DISCREPANCIES

If, in the performance of the Contract, the Contractor discovers any errors or omissions in the Contract Drawings or Specifications, or in the marks, lines and elevations furnished by the Authority in the construction undertaken and executed by him, he shall immediately notify the Engineer and the Engineer shall promptly verify the same.

If with the knowledge of such error or omission and prior to the correction thereof, the Contractor proceeds with any construction affected thereby, he shall do so at his own risk and the construction so done shall not be considered as construction done under and in performance of this Contract unless and until approved and accepted.

80. ACCIDENTS AND FIRST AID PROVISIONS

The Contractor shall promptly report in writing to the Engineer and to the Authority Manager, Claims Administration all accidents whatsoever arising out of or in connection with the performance of the Contract, whether on or adjacent to the construction site, which result in death, injuries or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damage is caused, the accident shall be reported immediately by telephone to both of the said representatives of the Authority.

The Contractor shall provide at the construction site such equipment and medical facilities as are necessary to supply first aid service, in case of accident, to any who may be injured in the progress of the Contract. He shall have standing arrangements for the removal and hospital treatment of any person who may be injured while engaged in the performance of the Contract.

If any claim is made by any third person against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the fact in writing to the aforementioned representatives of the Authority, giving full details of the claim.

81. SAFETY PROVISIONS

In the performance of the Contract, the Contractor shall exercise every precaution to prevent injury to workers and the public or damage to property.

He shall, at his own expense, provide temporary structures, place such watchmen, design and erect such barricades, fences and railings, give such warnings, display such lights, signals and signs, exercise such precaution against fire, adopt and enforce such rules and regulations, and take such other precautions as may be necessary, desirable or proper, or as may be directed.

The Contractor shall employ for Work of the Contract a competent person conforming to the requirements of the Code of Federal Regulations 29 CFR 1926.32(f) who shall be designated by the Contractor as authorized to perform the duties required by 29 CFR 1926 et seq. as applicable for Work of this Contract.

Obtain and submit to the Engineer one copy of material safety data sheet (MSDS) conforming to the requirements of 29 CFR 1910.1200(g) for each hazardous chemical utilized for permanent and consumable materials employed for Work of this Contract.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss, including but not limited to:

A. All employees on the Work, the public, and other persons and entities who may be affected thereby;

B. All the Work, materials and equipment to be incorporated therein, whether in storage on or off the site; and

C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and the Contractor has removed all workers, material and equipment from the construction site, or the issuance of the Certificate of Final Completion, whichever shall occur last.

Until fire protection needs are supplied by permanent facilities under this Contract, install and maintain temporary fire protection facilities. Comply with requirements of National Fire Protection Association NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alteration and Demolition Operations".

The Contractor shall employ only such men as are physically fit and are free from contagious or communicable diseases.

The Contractor shall use only machinery and equipment adapted to operate with the least possible noise, and shall so conduct his operations that annoyance to occupants of nearby property and the general public will be reduced to a minimum.

The bringing of intoxicating substances onto the construction site and the use or consumption of intoxicating substances at the construction site are prohibited. It shall be the responsibility of the Contractor to insure that all employees of the Contractor and of all subcontractors, materialmen and any other persons under contract to or under the control of the Contractor shall comply with the provisions of this paragraph.

The Contractor shall daily clean up all refuse, rubbish, scrap materials and debris caused by his operations, to the end that at all times the construction site shall present a neat, orderly and workmanlike appearance. Before the Certificate of Final Completion of Work will be issued, the Contractor shall remove all surplus materials, falsework, temporary fences and other temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations and shall put the construction site in a neat, orderly condition.

In the event the Contractor encounters at the construction site, material reasonably believed to be asbestos, polychlorinated biphenyl (PCB) or any other hazardous material, the Contractor shall immediately stop Work in the area affected and report the condition in writing to the Engineer. Work in the affected area shall not thereafter be resumed by the Contractor except upon the issuance of a written order to that effect from the Engineer.

Within 15 days of the acceptance of his Proposal, the Contractor shall submit to the Engineer, for review, the Contractor's Site Safety Program, which shall be specific for the construction site and include a description of the work to be performed, a hazard assessment of the Work to be performed and the means by which such hazards shall be mitigated. The Contractor's Site Safety Program shall comply with all applicable federal, state, municipal and local and departmental laws and shall include, among other things, the designation by the Contractor of a qualified individual to administer such Site Safety Program.

Should any vessel, equipment, plant, material, object or debris of any kind used in connection with the Contract or located at or in transit to or from the construction site be sunk, lost, dumped or go adrift under any circumstances, whether or not in navigable water, which in the opinion of the Engineer may, at the time or potentially, be dangerous to or obstruct any navigation or interfere in any way with other work by or for the Authority or with the use of the Authority facilities, the Contractor shall recover and remove the same immediately. The Contractor shall give immediate notice with description and location of such items to the Engineer and when required shall mark or buoy such items until they are removed. The foregoing obligations under this numbered Section shall not be impaired by any right which the Contractor might otherwise have to abandon such vessel, equipment, plant, material, object or debris of any kind without further obligation on his part, and the Contractor waives any such right.

82. RECYCLING OF CONSTRUCTION DEBRIS MATERIAL

The Contractor shall remove from Authority property all construction debris, demolition debris and other debris material generated from the performance of the Work of this Contract. The Contractor shall transport to recycling facilities no less than 75% by weight of the following types of designated debris material, to the extent arising from the Work of this Contract:

Asphalt Concrete
Portland Cement Concrete
Steel
Excess Unrestricted Soil

During the process of removal of all such designated debris material from Authority property, the Contractor shall submit to the Engineer on a monthly basis a Designated Debris Material Assessment Summary indicating the actual types and quantities by weight of the designated debris material removed for this Contract up to that point in time. The Designated Debris Material Assessment Summary shall be accompanied by written verification from recycling and landfill destinations identifying the originating Work site, quantity of material delivered and type of debris material for all designated debris material removed from the Work site.

Within 15 days of the acceptance of his Proposal, the Contractor shall submit to the Engineer for review the Contractor's Designated Debris Material Assessment Plan indicating the anticipated types and anticipated quantities by weight and the intended destinations for all such designated debris material to be removed from the Work site.

All removals shall be completed promptly upon the completion of construction under this Contract.

83. DAILY PROGRESS, EQUIPMENT AND LABOR REPORTS

The Contractor shall furnish to the Engineer at the end of each day Work is performed at the construction site, a memorandum showing for that day (a) the construction performed, (b) the type of equipment used identifying each piece of equipment as owned by the Contractor or rented from others; (c) a statement of any unusual happening that occurred, and (d) the names and number of workers in each trade classification that were employed. Such memorandum shall not be deemed to be a substitute for the notices, time slips, memoranda or other data required under the clauses of the Form of Contract relating to compensation for Extra Work.

84. LAWS AND ORDINANCES

In order to effectuate the policy of the Authority, the Contractor shall comply with all provisions of federal, state, municipal, local and departmental laws, ordinances, rules, regulations and orders which would affect the Contract and the performance thereof and those engaged therein if said Contract were being performed for a private corporation, except where stricter requirements are contained in the Specifications or Contract Drawings, in which event the latter requirements shall apply. However, the Contractor shall not apply for any permits, licenses or variances in the name of or on behalf of the Authority, but shall do so in his own name where required by law, regulation or order or by the immediately preceding sentence. Nor shall the Contractor apply for any variance in his own name without first obtaining the approval of the Authority.

The Port Authority has applied for the following Permits in connection with this Contract in its own name:

1 Department of the Army Permit Number 2002-00711.

2 State of New Jersey, Department of Environmental Protection, Permit Number 0000-02-0021.1 WFD060001.

The Contractor shall comply with all provisions of the said permits, which are attached hereto under PERMITS.

85. U.S. COAST GUARD SECURITY REQUIREMENTS

The Contractor is advised that in conjunction with Port Security Provisions for the Port of New York and New Jersey a 25 yard security or exclusionary area has been established by the United States Coast Guard around all bridges, piers and other facilities on the waterfront in the Greater New York/New Jersey area. No person or vessel may enter these security areas without the approval of the Coast Guard Captain of the Port and Vessel Traffic Service Activities New York as well as the Commander, First Coast Guard District Bridge Branch.

All requests to enter into these security zones shall be made in writing to Captain of the Port of New York not less than 30 days prior to the intended date of entry into the zone. Requests must be submitted to the U.S. Coast Guard Waterways Oversight Branch at Commanding Officer, U.S. Coast Guard Activities New York (WOB), 212 Coast Guard Drive, Staten Island, NY 10305; (718) 354-4193 or 4355 and must contain a complete list of all personnel that will enter into the security zones, complete vessel information and, if appropriate, a copy of Coast Guard Bridge Branch construction approval.

The following information is required:

A. Employee's name, social security number and date of birth.

B. Contractor's supervisor name and telephone number.

C. Name, type, size of barge/vessel/boat.

D. Project start and end dates, working hours and days.

After background checks of all personnel have been completed, Coast Guard Captain of the Port will issue a letter specifying personnel and vessels authorized to enter the security zone.

After initial written approval for entry has been received, the Contractor shall notify the Coast Guard (Vessel Traffic Service 718-354-4088) daily prior to entering and upon securing for the day or leaving the site.

If additional, or changes in existing personnel, are required said information identified above shall be transmitted as above, as early as possible, but not less than 96 hours in advance of the expected change.

Failure to comply with the above Security Zone Requirements and Conditions is punishable under Federal Law by arrest, prosecution, and or civil penalties.

86. IDENTIFICATION

No person will be permitted on or about the construction site without a pass, permit or identification badge approved by the Engineer. The Contractor shall provide such passes, permits or identification badges for his employees, subcontractors and materialmen whenever necessary. Identification badges shall be worn in a conspicuous and clearly visible position by all employees of the Contractor whenever they are working at the construction site.

87. SIGNS

No advertisement or sign, other than the name and address of the Contractor, will be permitted on any fences, temporary structures or elsewhere on the construction site and such advertisement will be permitted only upon the condition that it is first approved by the Engineer. In any event, the advertisement shall not exceed six feet by eight feet in overall dimensions.

88. CONTRACTOR'S FIELD OFFICE AND REPRESENTATIVE

At a readily accessible point on or near the construction site, the Contractor shall maintain a field office provided with a telephone.

During the performance of any Work at the construction site, the Contractor shall have a representative thereat who shall be authorized by the Contractor to receive and put into effect promptly all orders, directions and instructions from the Engineer. The Contractor's representative shall be provided, at all times, with a conformed copy of this Contract and a set of the Contract Drawings.

Orders and directions may be given orally by the Engineer and shall be received and promptly obeyed by the Contractor or his representative or any superintendent, foreman or other employee of the Contractor who may have charge of the particular part of the Work in relation to which the orders or directions are given. A confirmation in writing of such orders or directions will be given by the Engineer when so requested by the Contractor.

89. SURVEYS

The Engineer will establish a bench mark and a base line at or adjacent to the location of the Contractor's operations. The Contractor shall perform all surveys which may be required for the performance of the Contract. He shall carefully preserve any base line and bench mark which may be established by the Engineer.

The Contractor shall, in addition, furnish to the Engineer, without additional compensation therefor, any or all information and data regarding points, lines, grades, elevations and other survey information established by the Contractor during the performance of the Contract.

Surveys and measurements of quantities for purposes of computing Contractor's compensation shall be made by the Contractor as directed by and in the presence of, or jointly with, the Engineer, at the Engineer's option. Computations of quantities for payment shall be made by the Contractor and shall be subject to the approval of the Engineer.

90. TEMPORARY STRUCTURES

Unless otherwise provided in this Contract, the Contractor shall determine the need for and shall design, furnish and construct all barricades, fences, staging, falsework, formwork, shoring, scaffolding and other temporary structures required in the performance of the Contract, whether or not of the type enumerated in the Specifications or on the Contract Drawings, including those which would be required by law or regulation if this Contract were being performed for a private corporation. All such temporary structures shall be of adequate strength for the purposes for which they are constructed and shall be provided with graphics, warning signs and warning lights as required to inform personnel and the public of the hazards being protected against, and the Contractor shall maintain them in satisfactory condition. The design and drawings for such structures are to be prepared by the Contractor, and when requested by the Engineer they shall be submitted for his review before being used. Neither such approval, however, nor any requirements of the Engineer, the Specifications or the Contract Drawings shall relieve the Contractor of his responsibility for the design, construction and use of the temporary structures or from any obligations and risks imposed on him under this Contract, and any such approval or requirements shall be deemed merely to relate to minimum standards and not to indicate that the temporary structures are adequate or that they meet the Contractor's obligations under this Contract.

Temporary structures shall be painted with an approved dark color paint and shall be repainted whenever necessary during the period that the Contract is being performed. Upon completion of all Work under this Contract, the temporary structures shall be removed from the construction site.

91. PERMIT AND REQUIREMENTS FOR WELDING

Prior to the commencement of any cutting or welding operations at the construction site, the Contractor shall notify the Engineer and obtain an Authority cutting and welding permit. The Authority will issue this permit without payment of a fee, and application forms may be obtained from any Resident Engineer of the Authority, at his office at the facility. Unless otherwise approved by the Engineer, all cutting and welding operations shall be performed in accordance with the conditions which form a part of said permit. The permit application must be filled out and submitted in duplicate to the Engineer at least forty-eight hours prior to commencing welding or cutting operations at the construction site.

92. FINAL INSPECTION

When, in the opinion of the Contractor, the construction is completed and ready for final inspection, he shall so notify the Engineer in writing and the Engineer will give said construction (including any portions with respect to which Certificates of Partial Completion have been issued) a minute and thorough inspection. Before any Certificate of Final Completion will be issued, any defects or omissions noted on this inspection must be corrected by the Contractor.

93. WARRANTIES

The Specifications may provide for certain warranties of portions of the permanent construction. These warranties are intended for the greater assurance of the Authority and not as a substitute for rights which the Authority might otherwise have. Although such warranties shall be enforceable as provided, neither any requirement of this Contract with respect to warranties by the Contractor nor any guarantee or warranty given to the Contractor or the Authority by any manufacturer shall be deemed to be a limitation upon any rights which the Authority would have, either expressed or implied, in the absence of such guarantees or warranties.

94. UTILITY RECORD DRAWINGS

Prepare, on mylar sheets 22" x 34" or other size approved by the Engineer, drawings showing the exact locations and elevations of underground utility construction including manholes, catch basins, inlets, pipe lines and structures for carrying gases (including air) and fluids including water, storm drainage, sewage, oil, chemicals, electrical duct runs, cables and conduits, for new construction or extension of existing utilities installed underground under this Contract.

Submit to the Engineer, for verification and approval, tabulation of the data to be used in the preparation of the utility record drawings. Do not build-in, backfill or fill over or around or in any way cover underground structures, piping, conduit, cable or duct banks until such submitted data has been verified and approved by the Engineer.

Indicate the exact locations, including changes of direction and curves, by the use of offset distances from nearby permanent structures and, in addition, by the use of coordinates which shall be based on the system of coordinates used at the construction site, the origin of which is shown on the Contract Drawings. Base elevations on the datum used at the construction site as is shown on the Contract Drawings.

Submit prints of these drawings to the Engineer for verification, check of the accuracy, and for approval. Make indicated corrections and additions to the drawings, until the approval of the Engineer has been obtained. After these drawings have been approved by the Engineer, each of the original corrected mylar sheets shall be marked "RECORD DRAWING – NOT FOR REVIEW", dated and signed by the Contractor and turned over to the Engineer before issuance of the Certificate of Final Completion, and such original drawings shall become the property of the Authority. By signature, the Contractor is verifying that the drawing reflects the as-constructed condition.

95. TEMPORARY UTILITY SERVICES

Operate and maintain temporary services and facilities in a safe and efficient manner. Modify as required throughout progress of the Contract, and remove from Authority property when no longer required, or replaced by the use of completed permanent facilities as approved by the Engineer.

Make arrangements for securing, and pay all costs for heat, light, power, water, and other services which may be required for the performance of the Contract.

96. TEMPORARY SANITARY FACILITIES

Make arrangements for securing and pay all costs for temporary toilets, wash facilities and drinking water including toilet tissue, paper towels, paper cups and similar disposable materials for use by the Contractor, subcontractors, materialmen or other persons over whom the Contractor has control. Comply with regulations and health codes, which would be applicable if the Authority were a private corporation, for the type, number, location, operation and maintenance of fixtures and facilities. Install facilities where directed by the Engineer, and remove from Authority property when no longer required.

97. PROGRESS SCHEDULE

A. Schedule Requirements

1.) The Contractor shall, at its own expense, prepare, maintain and update detailed electronic progress schedules for the Engineer's review and approval. All submittals required herein shall be in the form and content stipulated in this Section. Each progress schedule shall bear the signature of the Contractor's authorized representative. The progress schedules/graphics required by this Contract shall be produced using Primavera Project Planner (P3 or P3e), or Primavera Suretrak.

2.) Progress schedules shall be sufficiently detailed to accurately depict all the Work (including any design, key submittals, procurement and construction activities performed by the Contractor) and shall graphically represent the logical sequence and duration of activities, all in accordance with the requirements of the Contract. The information provided in progress schedules shall also include, but not be limited to, the interdependencies between the Contractors' Activities and all other Activities required for the successful completion of the Contract, e.g., those to be performed by utility companies or by other entities. All Milestone dates specified in the Contract shall be represented in the schedule by Milestone activities that are logically interrelated to the work that must be accomplished in order to achieve the Milestone.

3.) The Contractor's schedule shall incorporate the Activity Code Structure shown in Attachment A, and such other coding as may be required by the Engineer.

4.) To assist the Contractor in preparing its progress schedule, a sample Network Diagram is shown in Figure 1. The sample is intended merely for the Contractor's guidance. The types of data shown are the types of data expected to be shown on the Contractor's Network Diagram. However, the information presented in the sample Network Diagram should not be misinterpreted as either representing a plan for the Contractor's Network Diagram or a depiction of the level of detail which will be required in such diagram.

5.) The submittal of Progress Schedules under this section shall not be deemed to be a substitute for the reporting requirements of the Section of Division 1 entitled "Daily Progress, Equipment and Labor Reports."

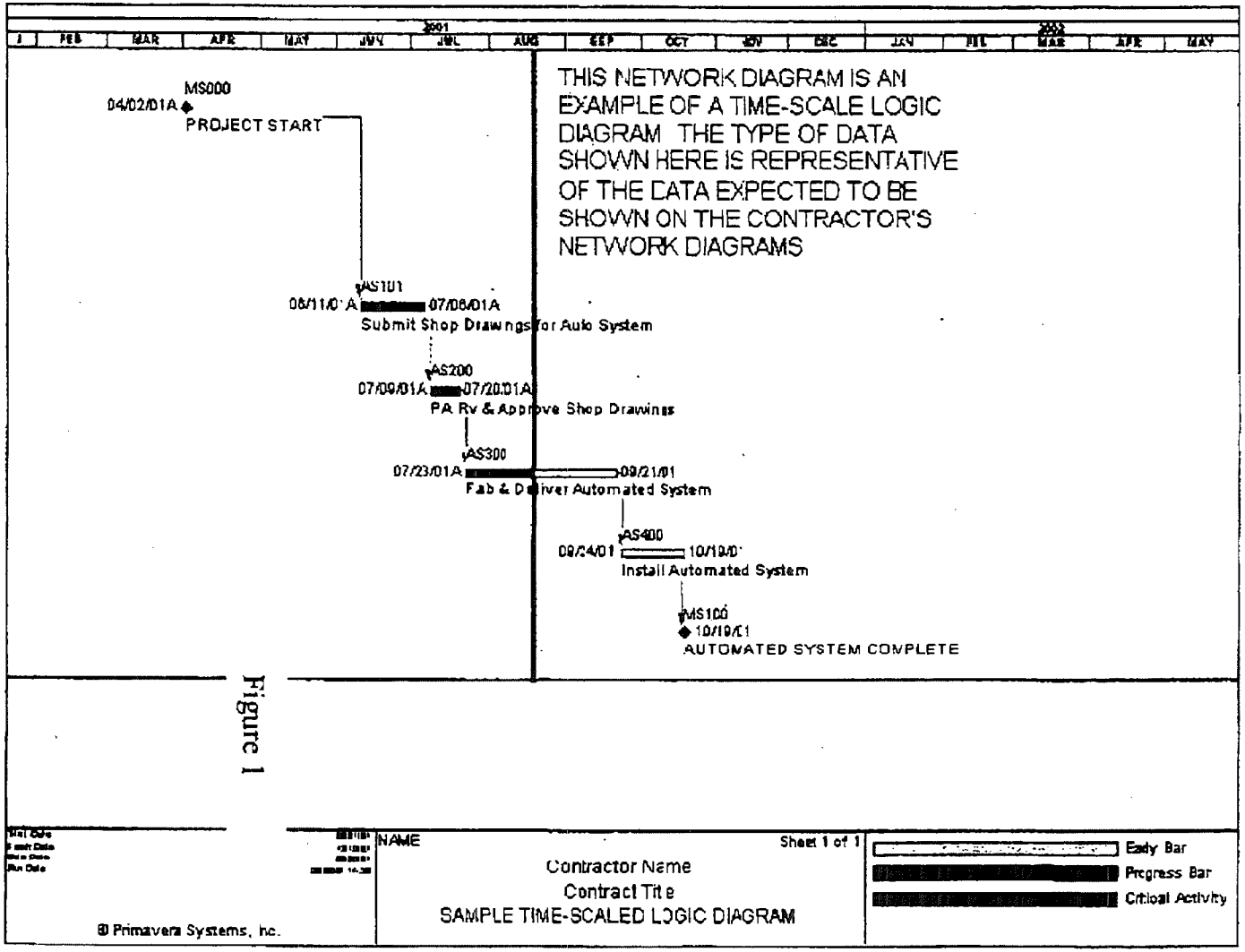
2001
2002
MAR
APR
MAY
JUL
AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
MS000
04/02/01A
PROJECT START
THIS NETWORK DIAGRAM IS AN EXAMPLE OF A TIME-SCALE LOGIC DIAGRAM THE TYPE OF DATA SHOWN HERE IS REPRESENTATIVE OF THE DATA EXPECTED TO BE SHOWN ON THE CONTRACTOR'S NETWORK DIAGRAMS
AS101
06/11/01A
07/06/01A
Submit Shop Drawings for Auto System
AS200
07/09/01A
07/20/01A
PA Rv & Approve Shop Drawings
AS300
07/23/01A
09/21/01
Fab & Deliver Automated System
AS400
09/24/01
10/19/01
Install Automated System
MS100
10/19/01
AUTOMATED SYSTEM COMPLETE
Data Date
Print Date
Start Date
Run Date
© Primavera Systems, Inc.
NAME
Sheet 1 of 1
Contractor Name
Contract Title
SAMPLE TIME-SCALED LOGIC DIAGRAM
Early Bar
Progress Bar
Critical Activity

Figure 1

B. Schedule Terminology

Schedule terminology used in this Contract shall have the meaning described below:

1.) **Activity**: A discrete item of Work with a Duration that can be clearly defined; a synonym for task. Unless otherwise permitted in writing by the Engineer, an activity's duration shall be not more than 30 calendar days

2.) **Activity Codes**: Activity Codes allow each activity in a project to be grouped into specific classifications such as area, responsibility, phase, system, or location. The codes consist of specific values and descriptive titles that are entered into the data dictionary of the scheduling software. Activities are assigned specific Activity Codes as appropriate.

3.) **Alternative Solutions**: An analysis of the various options for dealing with encountered or anticipated Contract problems. An alternative solution is developed to assist in determining the best method(s) of preventing or correcting any impediments to the progress of the Work. Alternative Solutions analysis shall indicate impacts on scheduling and resources.

4.) **Analysis Report**: A report that displays the impacts of all variances reported in the Current Progress Schedule. The Analysis Report focuses attention on the impacts of variances between planned and actual performance, so as to support an assessment of such impacts. The Analysis Report shall include Alternative Solutions.

5.) **Bar Chart**: A schedule display designed to complement the Network Diagram. The Bar Chart is a traditional Gantt chart, to which the Early Start Dates, Early Finish Dates, Late Start Dates, Late Finish Dates, and Critical Path have been added.

6.) **Calendar**: A calendar defines when work on an activity can occur (i.e. Mon – Fri for a standard work week). Activities shall be assigned to a Calendar that represents the planned work days.

7.) **Constraint**: A constraint is a restriction imposed on the start or finish of an activity or project. An example of the use of constraints is the imposition of a "finish no later than" constraint[27] on the project completion Milestone that is equal to the Contract Completion date. This constraint facilitates the identification of activities that control or do not support the completion date. Constraints shall be limited to start and finish constraints on Milestone activities that represent critical Contract dates, unless otherwise approved by the Engineer in writing.

8.) **Critical Path**: The longest path through the network in estimated total elapsed time from the start of the first Activity through the completion of the last Activity. The Critical Path consists of a series of Activities which must be completed on their scheduled completion dates in order for the Contract to be completed on schedule.

---

27 A late finish or "finish no later than" constraint limits the latest time an activity can complete

9.) **Current Progress Schedule**: The most recent progress schedule which has been approved by the Engineer. The Baseline Schedule shall be referred to as "Revision 0". Each time a different Current Progress Schedule is accepted by the Engineer, the revision number must be increased by 1, and the old schedule must be electronically archived, so as to permit an audit trail.

10.) **Duration**: The estimated and/or actual length of time required to fully perform a specific Activity. The Duration is expressed in work days.

11.) **Early Finish Date**: The date upon which an Activity can be completed if it is begun on the Early Start Date.

12.) **Early Start Date**: The earliest date upon which an Activity can begin.

13.) **Hammock**: A hammock activity summarizing the early and late dates of a set of activities is used for reporting durations of groups of important activities. An activity shall be designated as a hammock by selecting Hammock as the activity type in the Primavera activity form.

14.) **Lag**: The interval between the completion of a Predecessor Activity and the start of a Successor Activity. For example, ten days of positive Lag will cause the Successor Activity to begin ten days after the Predecessor Activity has been completed. Negative Lag will cause the Activities to overlap. The amount of Lag between each Activity shall be clearly represented on the Network Diagram.

15.) **Late Finish Date**: The latest date by which an Activity must be completed if the succeeding Activity is to be started on schedule.

16.) **Late Start Date**: The latest date by which an Activity must be started to allow completion by the Late Finish Date.

17.) **Milestone**: A significant point in the performance of the Work. A milestone has no Duration, and represents the start of a portion of the Work or the completion of a portion of the Work. A milestone may also represent either the beginning or the completion of a task or action being performed by entities other than the Contractor (e.g., obtaining a permit, notification to proceed with certain Work, etc.).

18.) **Negative Float**: The amount of time that the planned completion date of an Activity is later than its required (Late Finish) date. An Activity with Negative Float must be completed ahead of schedule if the Work is to be completed on time. Negative Float usually indicates the need for corrective and/or preventive action to complete the Work on schedule.

19.) **Network Diagram**: A logic diagram prepared according to the Precedence Diagram Method, which displays each Activity required for the performance of the Contract in the sequence in which it is to be performed with appropriate logic ties between activities displayed.

20.) **Baseline Schedule**: The detailed progress schedule first approved by the Engineer as provided for in the Contract.

21.) **Precedence Diagram Method (PDM)**: A particular type of graphic representation of all Activities and Constraints. The Activities are represented by nodes; the Constraints are represented by lines between nodes. A sample PDM Network Diagram appears in this Section.

22.) **Predecessor Activity**: An Activity which is a prerequisite to commencement of another Activity.

23.) **Preliminary Progress Schedule**: A detailed progress schedule for Work to be performed within one hundred days after the acceptance of the Contractor's Proposal.

24.) **Relationship**: a logic tie between two activities representing restrictions on the start or completion of the subsequent activity. Relationships may cause either positive or negative lag. The four basic types of relationships are finish to start, start to start, finish to finish, and start to finish.

25.) **Successor Activity**: An Activity which cannot be started or completed without the prior completion or partial completion of a Predecessor Activity.

26.) **Total Float**: The amount of time by which an Activity or series of Activities may be delayed without affecting the date of completion of the Work.

C. Schedule Submittal, Review & Approval Process

1.) Preliminary Progress Schedule

a. Within twenty (20) calendar days of the acceptance of the Contractor's Proposal for contracts under $20M, twenty-five (25) calendar days for contracts between $20M to $50M and thirty (30) calendar days for contracts over $50M, the Contractor shall submit a Preliminary Progress Schedule containing the Contractor's detailed proposed plan for the first hundred days of Work, with summary detail for the remaining duration of the project. The first hundred days of the Preliminary Progress Schedule shall be prepared with the same level of detail and in the same format required for the Baseline Schedule. The submittal shall consist of one computer diskette and three printed reports

b. The Engineer will review the Preliminary Progress Schedule and provide the Contractor with comments or accept it as the official Preliminary Schedule, within fifteen (15) calendar days.

c. If it is not accepted, the Contractor shall revise the Preliminary Progress Schedule in accordance with the Engineer's comments, and resubmit three printed reports and one diskette for the Engineer's approval, within seven (7) calendar days of the receipt by the Contractor of the Engineer's comments. Until such time as the Engineer accepts it, the Contractor shall resubmit the Preliminary Progress Schedule as required by the Engineer within the same time frames and in the same format as required in this paragraph for the initial resubmission.

d. The Preliminary Progress Schedule, all reports and network diagrams required by this section shall be updated and submitted monthly during the first ninety days.

2.) Baseline Schedule

a. Within ninety (90) calendar days of the acceptance of the Contractor's Proposal, the Contractor shall submit a proposed Baseline Schedule containing the Contractor's projected plan and schedule to complete all Work required by the Contract within the time(s) for completion required by the Contract. A schedule showing time(s) for completion other than those required by the Contract will not be accepted.

b. The Engineer will review the proposed Baseline Schedule and return it to the Contractor with comments, or accept it as the official Baseline Schedule, within fifteen (15) calendar days. The Contractor shall participate in any meetings called to resolve issues with the schedule.

c. If it is not accepted, the Contractor shall revise the Baseline Schedule in accordance with the Engineer's comments and resubmit three printed reports and one diskette for the Engineer's approval, within fifteen (15) calendar days of the receipt by the Contractor of the Engineer's comments. Until such time as the Engineer accepts it, the Contractor shall resubmit his proposed Baseline Schedule as requested by the Engineer within the same time frame and in the same format as required by this paragraph for the initial resubmission.

d. After the approval of any progress schedule required by this Section no changes shall be made therein without the written approval of the Engineer. No other act or omission on the part of the Engineer shall be deemed to constitute such approval. The Contractor shall not be entitled to any damages by reason of the failure of the Engineer to give timely approval or comments on any progress schedule submitted hereunder.

3.) Progress Schedule Updates

a. The Contractor shall submit to the Engineer not less frequently than once a month, on a date specified by the Engineer, an update of the Current Progress Schedule. Schedule updates shall status the actual performance and progress of the Work and depict any changes.

b. Within seven (7) calendar days after receipt by the Engineer of a updated progress schedule, the Contractor shall meet with the Engineer for the purpose of reviewing and obtaining the Engineer's approval of it.

c. The Engineer may require the Contractor to furnish a revised update which shall include any other information he may request to assist him in evaluating the Contractor's progress, including but not limited to manpower loading charts and equipment schedules; "what-if" analysis performed in a copy of the current progress schedule, etc.

d. In the event that the Engineer requests the Contractor to revise the updated schedule submitted, and/or to submit such additional information, the Contractor shall make the requested revisions and/or submit the updated schedule to the Engineer for approval along with the additional information requested within seven (7) calendar days of the Engineer's request.

D. Schedule Reporting Requirements

1.) The preliminary schedule submittal shall include one computer diskette and three copies of the following output reports:

a. A time-scale logic diagram in PDM format containing all activities displaying Activity ID, Activity Description, Calendar, original and remaining durations, percent complete, Early and Late Dates, and Total Float, and sorted by:

(i) Early Start, Early Finish, Total Float

(ii) Total Float, Early Start (Critical path report)

(iii) Late Start, Late Finish (if required by the Engineer)

b. A tabular Predecessor and Successor standard report showing the relationships between all activities in the schedule and sorted by ES, TF (if required by the Engineer)

c. Any other information which may be requested by the Engineer to assist him in the evaluation

2.) The baseline schedule submittal shall include one computer diskette and six copies of the following output reports:

a. A Schedule narrative that generally describes the Contractor's approach to meeting the project goals, lists the Critical Path Activities and compares Early and Late Dates with Contract Times and Milestone Dates. The basis for any constrained dates shall be explained.

b. A one-page time scaled Summary Schedule consisting of 20-40 Hammock activities or summary bars that show the entire project broken down into major portions of work, as agreed to by the Contractor and Engineer.

c. A time-scale logic diagram in PDM format containing all activities displaying Activity ID, Activity Description, Calendar, original and remaining durations, percent complete, Early and Late Dates, and Total Float, and sorted by:

(i) Early Start, Early Finish, Total Float

(ii) Total Float, Early Start (Critical path report)

(iii) Late Start, Late Finish (if required by the Engineer)

d. A tabular Predecessor and Successor standard report showing the relationships between all activities in the schedule and sorted by ES, TF (if required by the Engineer), as shown in figure 2.

e. Supporting data showing all activities with their associated cost, budgets or estimates

f. Any other information that may be requested by the Engineer to assist him in evaluation of the Contractor's progress. Such information may include, but not be limited to, the following:

(i) Cost Loading

(ii) Manpower loading charts

(iii) Equipment schedules

g. The Contractor shall electronically archive all accepted schedules

3.) Within seven (7) calendar days after the Baseline Schedule is first accepted by the Engineer, submit a reproducible transparency and six (6) Network Diagrams printed on "C" size (17" x 22") or "D" size (22"x34") sheets as directed by the Engineer. Each sheet shall have match lines indicating the interface between sheets if required.

PORT AUTHORITY OF NY & NJ — PRIMAVERA PROJECT PLANNER — LINCOLN TUNNEL SCADA SYSTEM UPGRADE

REPORT DATE 2NOV00 RUN NO. 420 — START DATE 1AUG97 FIN DATE 22JAN99*

18:47 — DATA DATE 15MAY00 PAGE NO. 27

Schedule Report - Predecessors & Successors

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
					P.L.D.F., 7243.FS 0. 0. ,* 7253.FS 0. 1. -465						
					P.L.D.F.,* 7400.FS 0. 10. -549,						
7244	2	2	2	0	DDNE FIELD ACCEPTANCE TESTING NYLVB - SUBSYSTEMS		2JUN00	5JUN00	12AUG98	13AUG98	-465
					S.L.D.F., 7150.FS 0. 0. -549, 7245.FS 0. 15. -444						
					P.L.D.F.,* 7492.FS 0. 20. -549,						
7502	1	1	2	0	TEST FIBER OPTIC SYSTEM DYER PLAZA		12JUN00*	12JUN00	22APR98	22APR98	-549
					S.L.D.F.,* 7496.FS 0. 79. -549,						
					P.L.D.F.,* 7537.FS 0. 20. -549,						
7547	1	1	2	0	TEST FIBER OPTIC SYSTEMS 39TH FAN ROOM		12JUN00	12JUN00	22APR98	22APR98	-549
					S.L.D.F.,* 7536.FS 0. 79. -549,						
					P.L.D.F.,* 7587.FS 0. 20. -549,						

FIGURE 2

4.) In addition to the reports required for the Baseline Schedule submittal, all Progress Schedule Update Reports shall include the following:

a. A narrative comparing the current Dates to the respective Milestone Dates, describing the physical progress during the current report period, explaining plans for continuing the work during the next report period and describing and explaining changes in crewing and construction equipment. The narrative shall also explain changes in Activity durations, logic ties and Activity Values and the reason why the change was made.

b. Whenever there is any delay or negative float prediction in the schedule, the Contractor shall submit an alternative solutions report that describes the delay, explains when it started and finished or is expected to finish and the basis for those dates, lists the affected schedule activities by activity ID, and discuss who the contractor feels is responsible. Any revisions to durations or the logical sequence of Activities made to reflect these delays must be explained. The report shall propose appropriate schedule recovery such as multiple shifts or overtime to mitigate any potential delay to the overall project completion date, or request an extension of time, as appropriate.

c. A revised Network Diagram sorted by Early Start and Early Finish indicating actual start and finish dates and the remaining duration and percent complete of activities in progress. The critical path of the project shall be clearly shown.

d. An Analysis Report indicating Activities and/or Milestones which are behind schedule by at least 30 calendar days (commonly evidenced by Negative Float).

e. A report that compares the Current Progress Schedule update with the Baseline and prior month's accepted schedule update and lists all changes made to the schedule.

E. General Schedule Provisions

1.) Should the Contractor fail to comply with any provision of this Section, The Engineer shall have the right in its discretion to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as it deems necessary or desirable, all as more fully provided in the clause of the Form of Contract entitled "Withholding of Payments".

2.) Neither the acceptance, review or approval of any progress schedule or other data submitted by the Contractor pursuant to this Section, nor any other action on the part of the Engineer under this Section shall in any way be deemed as a representation by the Engineer that the Contractor can or will be permitted to follow a particular schedule or sequence of operations or that by following any such schedule or sequence he can or will complete the Work by the time(s) required by the Contract or by any other time(s). Nor shall the approval of any progress schedule or other such data relieve the Contractor of his obligation to complete the Contract by the time(s) required in the Contract, even though the schedule may be inconsistent with such completion.

3.) Any approval under this Section shall be construed merely to mean that the Engineer knew of no good reason at that time to object thereto. No acceptance, review or approval or any other action under this Section shall limit, affect or impair the Contractor's obligation to perform all Work by time(s) required by the Contract and in accordance with all other provisions of the Contract.

4.) The performance of the Work by the time(s) required in the Contract, after taking into account extensions to which the Contractor may be entitled under the clause "Extensions of Time", may require the use by the Contractor of overtime labor, additional shifts or additional plant and equipment and/or other measures at no additional cost to the Authority. The Contractor shall anticipate, avoid and mitigate the effects of all delays.

5.) The Engineer shall have the right at any time when in his judgment the Work is not proceeding in accordance with the approved progress schedule or at any time when it is likely that the Work might not be completed by the time(s) required in the Form of Contract even though the Contractor is proceeding in accordance with the approved progress schedule, to order the Contractor without additional compensation, to employ additional shifts to increase the number of men employed, to use additional plant or equipment, or to take such other steps as may be necessary or required to assure the completion within the time(s) shown in the accepted schedule.

6.) No action on the part of the Contractor pursuant to this Section shall be construed as a request by him for an extension of the time(s) for completion required by the Contract. A request for an extension of time shall be deemed made only if it complies with the requirements of the clause of the Form of Contract entitled "Extensions of Time". No extension of the time(s) for completion shall be inferred because of any action, omission to act, or statement on behalf of the Engineer pursuant to this Section. Extension of time, if any, shall be granted only pursuant to the clause of the Form of Contract entitled "Extensions of Time".

7.) The Contractor acknowledges and agrees that he is not entitled to an extension of time for impacts that do not extend the contractual end date of the project.

8.) Schedule float time disclosed or implied is not for exclusive use or benefit of the Authority or Contractor but is available to all parties as needed to meet contract milestones and the contract completion dates.

9.) Techniques such as preferential sequencing, special lead/lag logic restraints, extended activity times or imposed dates that tend to sequester float shall be cause for rejection of the Detailed Project Schedule and any revisions or updates.

ATTACHMENT A

MANDATORY ACTIVITY CODE STRUCTURE

1.) Responsibility (Owner, Contractor)

2.) Area (building, floor or area)

3.) Trade/CSI code (concrete, steel, etc as required)

4.) Location (3rd Fl, etc)

5.) Phase of Work, if applicable

6.) Change Order work, if applicable

7.) Other, as required by the Engineer

PRIMAVERA PROJECT PLANNER

Date 01/02/0 -----ACTIVITY CODES DICTIONARY----- Page 1

MAHK - Project Title

CODE	VALUE	TITLE	SEQUENCE
Activity Codes:			
RESP	Responsibility		
	AE	Architect/Engineer	
	C	Contractor	
	O	Port Authority	
AREA	Area		
	G	General Area	1
	CTL	Air Traffic Control Tower	2
MILE	Milestone		
CSI	Trade/CSI Code		
	03000	Concrete	
	04000	Masonry	
	07000	Thermal & Moisture Protection	
	15000	Mechanical	
	16000	Electrical	
LOCN	Location		
PHAS	Phase		
	D	Design	1
	P	Procurement	2
	C	Construction	3
CO	Change Order Wor		
OTH	As Req'd by Engr		

98. ANALYSIS OF BID

Within fifteen calendar days after acceptance of the Proposal, the Contractor shall prepare a detailed analysis of bid on forms furnished by the Authority with all of the spaces filled in without exception, and containing such information as the Engineer may require for each of the items enumerated in such form.

99. CONDITIONS AND PRECAUTIONS

A. Construction Site Conditions:

1.) At least 7 days but not more than 10 days prior to performing excavation, call 1-800-272-1000 and provide the information required for excavation(s) in New Jersey.

2.) No vehicles of the Contractor, employees of the Contractor, subcontractors, materialmen or others over whom the Contractor has control will be permitted to park in or on Authority property, except for construction vehicles which will be permitted to park at the area of Work during the times when the Work is being performed.

All vehicles, including construction vehicles and company vehicles will be required to pay the appropriate tolls for each passage or crossing of Authority facilities, or parking at Authority lots.

3.) Securely fasten material or construction which must be left in place between working periods in a manner approved by the Engineer so as not to be a hazard.

4.) Take all precautions necessary for protection of persons, traffic and property during dust or fragment generating operations, concrete mixing or placing, or other operations which may stain, soil or damage property or injure persons. Provide and erect waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less, or other protective enclosures as approved by the Engineer.

5.) Restrict smoking to areas designated by the Engineer for this purpose.

6.) Do not burn or bury debris of any type on Authority property, or wash waste materials down sewers or into waterways.

7.) Provide sound suppression devices on gasoline and diesel powered construction equipment and pneumatic tools as required to maintain noise exposures below the limits specified in the Code of Federal Regulations (CFR) 29 CFR 1926 Occupational Safety and Health Regulations for Construction (OSHA). Maintain such sound suppression devices in proper operating condition throughout the time of their use, and adjust and repair as required to maintain noise within exposure levels stipulated in 29 CFR 1926.52, Table D-2.

8.) No requirement of or omission to require any precautions under this Contract shall be deemed to limit or impair any responsibility or obligation assumed by the Contractor under or in connection with this Contract and the Contractor shall at all times maintain adequate protection to safeguard the public and all persons engaged in the Work and shall take such precautions as will accomplish such end, without undue interference with the public or the operations of the Authority.

9.) As used herein, areas included under the jurisdiction of the Authority shall mean those areas opposite and adjacent to the Authority property and bounded on the water side by the U.S. Pierhead or Bulkhead lines.

10.) At no time will the Contractor be permitted to moor water-borne scows or vessels of any description at locations which would interfere with any ship arrival or departure operations within the port area.

11.) Take all precautions necessary for protection of persons, shipping, traffic and property during dredging or other operations which may damage property or the environment or injure persons or cause an adverse effect on navigation.

12.) Subaqueous stockpiling of dredged material is not permitted.

13.) Do not wash debris, waste materials or chemicals of any type into waterways.

14.) Furnish such facilities and give assistance for inspection as the Engineer may direct and shall secure for the Engineer and his Inspectors free access to all parts of his plant. Transportation shall be furnished to the Engineer to and from a convenient shore landing at the beginning and ending of dredging and disposal operations, as required.

15.) The Engineer, in accordance with the Section of Division 1 entitled, "Inspections and Rejections", may at his sole option, take sample(s) of materials dredged. The total quantity of materials taken will not exceed two (2) cubic feet.

16.) Immediately prior to the start of dredging in an area, the Contractor shall, in the presence of the Engineer, inspect the condition of any fender system in or near work areas. In addition, the Contractor shall reinspect such area every working day, in the presence of the Engineer, to determine the daily condition of the fender system.

17.) To reduce emissions of EPA criteria pollutants use clean diesel construction mechanisms for diesel equipment used. Clean diesel construction mechanisms include, but are not limited to, the use of biodiesel fuel or the use of low sulfur diesel fuel. Prior to commencement of the Work, provide to the Engineer for review and approval a written explanation of all clean diesel construction mechanisms to be employed for this Contract.

100. HOURS OF WORK

A. Hours of Work

1.) The Contractor will be permitted to perform the Work of this Contract without restrictions as to Work hours.

2.) The Contractor shall submit to the Engineer, at least one week in advance, his scheduled hours of Work for each week.

3.) Do not perform Work at the construction site on a Federal legal holiday or a holiday of the state(s) in which Work is being performed, unless otherwise permitted by the Engineer.

101. MAINTENANCE OF TRAFFIC AND WORK AREA PROTECTION

A. Definitions

As used in this numbered Section, and this Section only, the terms used herein shall have the following meaning:

1.) The terms "Traffic Lane", "Lane", "Active Roadway", "Street", and "Roadway" shall mean, in addition to the normally traveled pavement areas, other areas including but not limited to ramp terminal gore areas, roadway shoulders and all other areas that may foreseeably be occupied by moving vehicles.

2.) "Work Area" shall mean the area immediately surrounding the Work in progress, typically where workers are afoot, and/or the space within a Roadway where Work on the Roadway is being done by the Contractor.

B. General Requirements

Conform to requirements of this numbered Section, the Contract Drawings and the following:

1.) Portions of the latest editions, including all amendments thereto, of the Federal Highway Administration (FHWA): "Manual on Uniform Traffic Control Devices" (MUTCD) Part VI as hereinafter specified and applicable portions of the companion "Traffic Control Devices Handbook" (TCDH); "Standard Highway Signs"; "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects"; and the "Standard Color Tolerance Charts".

2.) American Association of State Highway and Transportation Officials (AASHTO): "Roadside Design Guide", Chapter 9: Safety Appurtenances for Work Zones; and "Standard Specifications for Highway Bridges", as hereinafter specified.

3.) The requirements of the Americans with Disabilities Act (ADA) laws in all respects as specified in the "ADA Accessibility Guidelines for Buildings and Facilities" (ADAAG).

4.) Maintenance of traffic and Work Area protection features specified herein and as shown on Contract Drawings and/or sketches to be furnished to the Contractor.

5.) In the event of a technical conflict between a requirement in the publications referenced herein and the Specifications and Contract Drawings, the requirements of the Specifications and Contract Drawings shall control.

C. Contractor-Furnished Materials and Equipment

1.) Provide and maintain in good working order all materials, equipment, temporary construction signs and facilities required for proper maintenance of traffic and Work Area protection, as specified herein and/or shown on the Contract Drawings. All said equipment/devices shall remain the property of the Contractor, unless otherwise shown on the Contract Drawings.

2.) All items provided under paragraph C.1 shall be new or undamaged previously used materials in serviceable condition conforming to requirements specified herein.

3.) Provide and maintain in serviceable condition the Precast Concrete Barrier, as shown on the Contract Drawings.

4.) Submit the following to the Engineer in accordance with Division 1 - GENERAL PROVISIONS entitled "Shop Drawings, Catalog Cuts and Samples":

a. Catalog Cuts and Data Sheets: Complete manufacturer's data for all equipment and materials.

D. General Work Area Protection

1.) Prior to commencement of each day's Work, furnish and install, and periodically inspect, maintain, relocate, replace, cover, remove or reconstruct the traffic control delineations, guiding devices, signals, signs and pedestrian protection, Roadway plates, barricades, and barriers, if any, as required throughout the progress of construction operations. Maintain safe control of traffic flow and demarcate areas of Work at all times.

a. Promptly remove traffic control delineations, guiding devices, signals, signs, pedestrian protection, Roadway plates, barricades and barriers and whenever operations under this Contract no longer require said Work Area protection.

2.) Throughout Progress of Work of This Numbered Section

a. Maintain visual and physical accessibility to fire hydrants. Provide 24-hour advance notice to the Engineer in the event of hydrant obstruction.

b. Conduct Work Area protection operations so that Traffic Lane ingress and egress to intersecting Roadways, adjacent structures or property, and bus and taxi stops, if any, can be maintained. Obtain the approval of the Engineer and provide 24-hour advance notice to the Engineer in the event that Work Area protection operations obstruct access to Work Areas.

3.) Slow-Moving Vehicles traveling on a Roadway outside of demarcated protected Work Areas shall be followed (approximately 50 feet behind) by a vehicle displaying the same flashing hazard signal lights and sealed beam rotating yellow warning light as required for back-up trucks.

E. Notwithstanding provisions herein requiring or permitting the Authority to approve or disapprove of any traffic control or delineation and guiding device provided by the Contractor, the Contractor shall ensure the suitability and performance of all such traffic control devices such that inconvenience to the traveling public is held to an absolute minimum.

(END OF SECTION)

DIVISION 2

SECTION 02051

DEMOLITION, REMOVALS AND DISPOSAL

PART 1 - GENERAL

1.01 SUMMARY

A. This Section specifies the requirements for demolition, removal and disposal, as shown on the Contract Drawings.

B. Items to be removed and disposed of offsite

1. Concrete seawall, asphaltic concrete pavement, concrete deck, concrete pile caps, timber planking, timber piles
2. Bollards, cleats, mooring bits, timber curb
3. Timber fender system

1.02 DESIGN AND PERFORMANCE REQUIREMENTS

A. Contractor's Liability

Damage or loss, whether by reasons of fire, theft, or other casualty, to the various items required to be demolished or salvaged, shall be at the risk of the Contractor from the date of the Contract. No such damage or loss shall relieve the Contractor from any obligation under the Contract to complete all demolition and salvage work as herein specified.

B. Site Security

1. Provide temporary facilities, including barricades, to prevent entry to demolition areas by unauthorized persons.
2. Provide temporary closures, guardrails, barricades, lighting, and other devices so as to adequately protect workmen, employees, and visitors from injury.

C. Berth Operation

Maintain existing utilities serving adjacent facilities. Protect against damage and interruption to service during demolition operations. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by the Engineer.

1.03 REGULATORY AND SAFETY REQUIREMENTS

A. The Contractor, his employees, and subcontractors shall become familiar with and obey all governing regulations, including fire, traffic, environmental, and security regulations. All personnel employed on the project shall keep within the limits of the work (and avenues of ingress and egress), and shall not enter other areas unless required to do so, and authorization

is obtained for such entry. The Contractor's equipment shall be conspicuously marked for identification.

B. Floating equipment shall be operated in compliance with U.S. Coast Guard Regulations and shall conform to the requirements of Navigation Rules, International-Inland.

C. Temporary anchorage of marine equipment and demolition transport barges in designated Federal Anchorage area shall comply with all regulations of the U.S. Coast Guard and U.S. Army Corps of Engineers.

D. The Contractor shall maintain, protect, and not interfere with navigation and berthing operation at the adjacent berths at any time during the demolition phases of this Contract.

E. Comply with federal, state, and local hauling and disposal regulations.

1.04 ENVIRONMENTAL CONTROL

A. Dust Control

Prevent the spread of dust and avoid the creation of any nuisance or hazard in the surrounding area. If necessary, provide temporary partitions and enclosure coverings of approved materials and construction, for confining dust. Do not use water if it results in hazardous or objectionable conditions, such as, but not limited to ice, flooding, or pollution. If water is used, water shall not be discharged into the waterway. Such water shall be collected and discharged to an area designated by the Authority.

B. Debris Control

All demolished material and equipment shall be deposited into transport barges or trucks for removal and final deposit at a legal depository. The discarding of any material into the waterway is prohibited. Boom logs shall be installed to prevent the escape of floating materials from the site. Netting, float stages with curbs, and other temporary structures shall be used to prevent stone, concrete, metals, and other non-floating debris from entering the waterway. Materials resulting from the demolition and removal operations shall not be allowed to accumulate on the premises, but shall be promptly removed and disposed of away from the project premises. Debris that falls into the waterway shall not be allowed to accumulate and shall be recovered and removed immediately by the Contractor.

C. Noise Control

Comply with regulations pertaining to noise levels during demolition that would govern if the Authority were a private corporation.

1.05 SUBMITTALS

For submittals – see Appendix "A"

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 COORDINATION WITH AUTHORITY

A. Berth Operations

The Contractor shall be aware that the adjacent berths will remain operational throughout the demolition work. The Contractor may be required to relocate floating equipment when a vessel is approaching or leaving an adjacent berth. The Contractor shall be responsible for coordinating his work with the ongoing berth operations.

B. Removal of Utilities

Demolition of all utility work shall be coordinated through the Engineer. At least five days prior to performing demolition, the Contractor shall notify the Engineer, and shall secure his permission to disconnect or de-activate utility services to be demolished. If utility lines are encountered that are not shown on Contract Drawings, contact the Engineer immediately.

3.02 GENERAL REQUIREMENTS

A. Barges and other floating equipment shall not be moored to the existing structures unless written permission is obtained from the Engineer.

B. Structural, mechanical, and electrical items shall be removed by cutting or chipping. Saw cutting shall be used at ends of concrete to remain and where indicated on the Contract Drawings. Jack hammering with electric, hydraulic or pneumatic equipment is an acceptable method of concrete removal so long as it does not cause damage to structures to remain. Jackhammers are limited to 15 pounds. Burning of removed materials, blasting, or any use of explosives or a wrecking ball is not permitted.

C. Demolished materials, debris, rejected backfill, and rejected construction materials shall be stored only on the project site.

D. All demolished materials, debris, and rejected materials shall be promptly removed from the project site.

3.03 SPECIAL REQUIREMENTS

A. Removal of Asphaltic Concrete Pavement

Maintain the integrity of existing pavement to remain in place. Any Asphaltic Concrete Pavement that is to remain in place shall be separated from adjacent pavement by saw cutting unless shown otherwise on the Contract Drawings. AC pavement saw cuts shall be full depth of the pavement section.

3.04 REPAIR

Any damage caused to the structures, equipment, piping, conduits, and any other items, which are to remain, shall be repaired/replaced at no cost to the Authority.

3.05 CLEAN-UP

Upon completion of the demolition, the Contractor shall remove all equipment and excess material and debris.

END OF SECTION

SECTION 02051
DEMOLITION AND REMOVALS
SUBMITTALS
APPENDIX "A"

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 – GENERAL PROVISIONS.

A. Submit the Demolition Plan to the Engineer for review prior to start of work. The Plan shall include but not be limited to the following:

1. Submit haul loading areas, and location of legal landfill and disposal sites. Submit acceptor's permit to receive disposed materials.
2. Submit schedules indicating proposed methods and sequence of operations for selective demolition. Include coordination plan for shutoff, capping, and disconnecting utility services, as required.
3. Submit details and descriptions of temporary sheeting, shoring, scaffolds, working platforms, barges, ramps, gangways, access ways, floating booms, float stages with curbs, netting and equipment for demolition and removal work, and disposal of debris.
4. Submit plans for dust and debris control, and noise abatement measures to be used during demolition and removal work. Include details for systems and materials.
5. Submit methods and equipment for concrete cutting, coring, and removal.
6. If equipment is to be placed on the wharf deck, submit calculations and equipment data to prove that the load does not exceed the load limit noted on the Contract Drawings. Calculations shall be stamped by a professional engineer registered in New Jersey.

B. Stay Lathing Design

Submit detailed construction drawings and design calculations. Drawings and calculations shall be stamped by a professional engineer registered in New Jersey.

END OF APPENDIX "A"

DIVISION 2

SECTION 02073

CUTTING, PATCHING AND REMOVAL

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for cutting, patching and removal of existing construction.

1.02 QUALITY ASSURANCE

A. Cutting, patching and removal shall be performed by workers skilled in the specific trades involved.

B. Job Conditions

1. Except for items designated to be relocated or salvaged, remove and transport off Authority property all portions of the existing construction and appurtenant structures shown on the Contract Drawings to be removed in accordance with Division 1 clause entitled "Recycling of Construction Debris Material".

2. Prior to start of work, make an inspection accompanied by the Engineer to determine physical condition of adjacent construction that is to remain.

3. Protect all existing and new construction including utilities, finishes and equipment from water, damage, weakening or other disturbance.

1.03 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 MATERIALS

All materials required for patching shall be new. Patching materials shall match in every respect adjacent portions of the existing construction.

PART 3. EXECUTION

3.01 CUTTING, PATCHING AND REMOVAL

A. Perform all cutting, patching and removal as shown on the Contract Drawings. Work shall be performed in accordance with the approved methods using approved materials.

B. Do not cut or remove more than is necessary to accommodate the new construction or alteration.

C. Maintain the integrity of all construction at all times.

D. Protect finished surfaces at all times and repair or replace, if damaged, to match existing construction to the satisfaction of the Engineer.

E. Do not allow removed materials and debris to accumulate at the site; remove them daily. All areas adjacent to, and leading to and from the site, shall be kept free of removed materials and debris.

END OF SECTION

SECTION 02073

CUTTING, PATCHING AND REMOVAL

APPENDIX "A"

SUBMITTALS

A. Submit materials to be used for patching.

B. Submit plans, methods, equipment and procedures as applicable for cutting, patching and removal.

END OF APPENDIX "A"

DIVISION 2

SECTION 02221

EXCAVATION, BACKFILLING AND FILLING

PART 1. GENERAL

1.01 SUMMARY

A. This Section specifies requirements for excavation, backfilling and filling.

B. Definitions

1. As used herein, excavation shall mean the removal of existing pavement, concrete foundations and all materials other than bedrock (ledge rock) encountered within the limits of excavation that are not specified to be removed under the Section entitled "CUTTING, PATCHING AND REMOVAL".
2. As used herein, backfilling shall mean the filling of excavations made for construction purposes and shall extend only to existing grades or design grades, whichever are lower.
3. As used herein, filling shall mean the placement of fill material in conformance with requirements of this Section at or above existing grades.

1.02 REFERENCES

American Society for Testing and Materials (ASTM)

ASTM D 422	Standard Test Method for Particle - Size Analysis of Soils
ASTM D 1556	Standard Test Method for Density of Soil in Place by the Sand-Cone Method
ASTM D 1557	Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)
ASTM D 2167	Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D 2922	Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4318	Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils

New Jersey Interagency Engineering Committee (NJIEC)

Standard Soil Aggregate Gradations

1.03 JOB CONDITIONS

A. Protect excavations as follows:

1. Prevent water from entering excavated areas and, if it does, remove it immediately to maintain a dry condition at all times.
2. Dispose of water in a manner not to cause injury to the public health or damage to public or private property.
3. If water enters excavated areas and weakens or disturbs underlying soil, remove the weakened or disturbed soil and replace it in conformance with 3.02 A.5.
4. Where shown on the Contract Drawings or where required for protection of adjacent utilities or structures or where required for performance of the Work, secure the sides of excavations against movement as follows:
   a. Install sheet piling or sheeting held in place by waling and bracing members. Top of sheeting shall extend at least six inches above ground.
   b. Do not excavate below the bottom of sheet piling or sheeting except as necessary to install sheeting.
   c. Fill voids behind sheeting immediately with material conforming to I-12 designation defined in 2.01 A.1 or otherwise approved by the Engineer.
   d. Comply with all other provisions of the Specifications that may impose additional or stricter requirements.
5. For excavations extending to a depth of 5 feet or more, and where sheeting is not required to conform with provisions of 1.03 A.4 above, excavate slopes to a safe angle of repose, or protect trench excavations by use of a portable trench shield.
6. Restore all areas impacted by excavation to their original condition, matching pavement types and sections to meet original pavement grades.

B. Do not traverse paved areas with tracked vehicles or equipment such as carry-all scrapers which may damage such pavement unless protected to the satisfaction of the Engineer.

C. Do not place fill or backfill on frozen subgrade.

D. Do not perform rolling or other compaction at any time when the ground water level is above a plane two feet below the surface to be compacted. When the ground water level is above such plane, lower it by approved methods and maintain it below such level prior to and during the compaction operations.

E. Protect from damage trees and other vegetation that are to remain in place.

1.04 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 MATERIALS

A. Fill

1. Unless otherwise shown on the Contract Drawings, fill shall consist of clean sand and gravel containing no organic matter, conforming to the following NJIEC Standard Soil Aggregate Gradations:

	Total Percent Passing by Weight NJIEC Designation		
	I-7	I-10	I-12
Sieve Sizes			
4 inch		100	100
2 inch		80-100	
1 inch	100		
3/4 inch		60-100	70-100
1/2 inch	80-100		
No. 4		40-100	
No. 8	35-100		
No. 16	25-90	20-70	
No. 50	5-50	5-40	0-75
No. 100	0-8	0-30	
No. 200	0-2	0-20	0-5

2. The Contract Drawings show the locations in which each designation of fill is required.

B. Backfill

1. Unless otherwise shown on the Contract Drawings, material shall conform to the requirements for I-12 designation, subject to 2.01 B.2 below.
2. Where the entire backfill is above the water table, material conforming to the requirements for I-10 designation may be used in lieu of I-12 designation, except under foundations, aircraft pavement and utilities.

C. Sources

1. When fill and backfill material are provided by the Authority, the location of the stockpile and NJIEC Designation (if applicable) are shown on the Contract Drawings. Samples of material will not be required for testing.
2. Material excavated at the construction site shall be used for fill or backfill to the extent that it conforms with the requirements specified in 2.01 A.1 and 2.01 B.1 as noted on contract drawings. Samples shall be submitted for testing by the Engineer for conformance with the requirements of this Section.
3. If sufficient quantities of material are unavailable from sources described in 2.01 C.1 and 2 above, furnish material from sources off site.

PART 3. EXECUTION

3.01 PREPARATION

A. Clearing and Grubbing

Remove trees, clear and grub areas to be excavated or in which construction is to be performed, as follows:

1. Remove trees, stumps, all roots larger than 2 inches in diameter, and all matted root systems.
2. Remove all topsoil, debris, organic matter and any other objectionable material not suitable for use as backfill or fill or for support of structures or pavements.
3. Backfill all holes and other low spots resulting from clearing and grubbing with material conforming with 2.01 B before proceeding with compaction of fill as specified in 3.03 or with other construction in the area.

3.02 EXCAVATION

A. General

1. Excavation shall consist of the removal of materials as defined in 1.01 B.1, and the removed materials shall be segregated as suitable and unsuitable and stockpiled as shown on the Contract Drawings.
2. When excavation of bedrock (ledge rock) is required as shown on the Contract Drawings, the provisions for removal are specified in the Section entitled "ROCK EXCAVATION".
3. Excavate to elevations required for installation of permanent construction in such manner as not to disturb the subgrade below such elevations.
4. Where existing foundations or other existing construction are encountered which may cause hard spots, remove them to a minimum of two feet below subgrade for pavement or structures.
5. Should bottom of excavation be weakened or disturbed or carried below required depth:
   a. Under footings - compact bottom, as specified in 3.03 below and replace over-excavation with concrete of the same Class and Type as that specified for the footing or foundation.
   b. Elsewhere - Compact bottom as approved by the Engineer and refill with material conforming to I-12 designation defined in 2.01 A.1.
6. Perform excavation around and adjacent to existing structures, pipes and conduits which are to remain in place, without damage to or movement of existing construction. Use hand excavation to locate and expose near-surface structures, pipes and conduits. When excavation is to be performed under such structures, pipes and conduits, support them in a manner as approved by the Engineer to ensure uninterrupted operation of the supported items.

B. Dewatering

1. Where excavations are to extend below the water table, prior to placement of any permanent construction or filling or backfilling any excavated area, lower the water table in such an area to two feet below the elevation of the required subgrade and maintain this condition until the construction or pavement is placed thereon.

2. Dewater in a manner to prevent the loss of ground due to the migration of soil fines into the dewatering system.

C. Trenching for Utilities

1. Shape bottom of trench to uniform invert section.
2. When excavating in soft soils which may be subject to lateral movement or bottom heave conform with requirements shown on the Contract Drawings.

D. Disposal of Excavated Material

All debris and all material either unsuitable for or in excess of that required for backfill or fill, shall be disposed of away from the construction site.

E. Restrictions

1. Do not place backfill until the Engineer has inspected and approved the Work and indicated where backfill may be placed.
2. Leave all pipe joints exposed until all tests on such pipe, required by other Sections of the Specifications, have been performed.
3. Remove all temporary structures, sheet piles, sheeting, bracing and forms and all organic materials and debris of every nature, taking care, upon the removal of sheet piling, sheeting and temporary supports, not to cause movement of adjacent ground or structures or create the danger of a slide.

3.03 PLACEMENT AND COMPACTION

A. Equipment

1. Steel vibratory rollers shall have provision for regulation of vibration frequency. The Engineer shall be informed of the type and size of equipment to be used before the start of any compaction efforts.
2. Placement and spreading equipment shall be reviewed and approved by the Engineer.
3. Unless otherwise shown on the Contract Drawings, pneumatic-tired rollers shall have minimum weight of 20 tons and a tire pressure of between 60 and 150 psi as directed by the Engineer. For aircraft pavements, the minimum roller weight shall be 50 tons.
4. When mechanical tampers are to be used, the Engineer shall be informed of the type and size for approval before compaction efforts with this equipment can begin.

B. Compaction Requirements

Backfill and fill shall be compacted to achieve a density of 95 percent of the maximum density as determined by Procedure C of ASTM D 1557, except where alternate density requirements are approved by the Engineer or shown on the Contract Drawings.

C. Subgrade, Excavated and Existing Surfaces

Compaction of subgrade, excavated and existing surfaces will consist of a proof-rolling operation performed as follows:

1. Compact surface with a minimum of six passes of an approved vibratory steel roller operated at a speed not to exceed three miles per hour and at the optimum operating frequency recommended by the manufacturer.
2. In areas where surface consists of a fine grained soil, compact with a minimum of six passes of an approved pneumatic-tired roller.
3. Overlap passes of roller a minimum of six inches.

4. In areas where use of a roller is impractical, compact surface while at or near optimum moisture content with mechanical tampers.

D. Backfill and Fill

1. Moisture content of backfill and fill material shall be within a range of plus or minus two percent of optimum, as determined by Procedure C of ASTM D 1557.
2. Backfill, conforming with I-12 gradation, and fill, conforming with I-7 and I-12 gradation, shall be placed in 14-inch, loose layers and compacted with a minimum of six passes of an approved vibratory roller operated at a speed not to exceed three miles per hour.
3. Passes shall be overlapped a minimum of six inches.
4. Backfill and fill, conforming with I-10 gradation, shall be placed in 12-inch, loose layers and compacted with a minimum of six passes of an approved pneumatic-tired roller.
5. In areas where a 14-inch layer over existing material is not adequate to support the construction equipment, increase thickness of first lift as approved by the Engineer.
6. In areas adjacent to structures and utilities as shown on Contract Drawings, compaction equipment shall be restricted and as directed by the Engineer.
7. In areas where use of a roller is impractical, place fill in maximum 8-inch, loose layers and compact with approved mechanical tampers to specified density.
8. Compact backfill as specified in 3.03 D.6 above for fill. In pipe trenches, each layer of backfill shall be not more than eight inches in thickness before compaction. Backfill shall be placed on both sides of the pipe, simultaneously.
9. The surface of filled or backfilled areas, which are to receive pavement or on which a structure is to be placed, shall be within plus or minus 1/2 inch of the elevations shown on the Contract Drawings and shall be free of depressions or projections greater than 1/2 inch when tested with a 16-foot straight edge.
10. The surface of filled areas at other locations shall be within plus or minus one inch of elevations shown on the Contract Drawings unless a closer tolerance is necessary to meet requirements of other Sections of the Specifications or the Contract Drawings.

3.04 FIELD TESTS

A. Inspection and Testing

1. The Engineer will perform Quality Assurance testing on delivered field samples of material submitted from each source, for conformance with 2.01. Gradation and maximum density will be determined in accordance with ASTM D 422 and Procedure C of ASTM D 1557, respectively. If deemed appropriate by the Engineer, Atterberg Limits will be determined on fine-grained soils in accordance with ASTM D 4318.
2. If the sample from a source is approved and if the Engineer requests, conduct the Engineer's representative to that source. Additional samples will be selected and tested.
3. The Engineer will notify the Contractor of approval of material source within seven days after receiving samples. Approval of a source of backfill or fill material shall be subject to material continuing to meet the requirements of 2.01.

4. When performing Quality Assurance testing, the Engineer will determine the density of compacted fill or backfill by in-place density tests or from undisturbed samples cut from the compacted fill or backfill as required. Notify the Engineer 24 hours prior to start of filling or backfilling to allow the Engineer time to make provisions for such testing.

5. To evaluate whether material has been compacted to specified density the Engineer will compare results of in-place density tests with results of control tests on material of the same designation using Procedure C of ASTM D 1557.

6. If fill or backfill have not been sufficiently compacted as determined by in-place density tests, the compaction effort shall be continued and moisture content shall be adjusted as necessary until the specified compaction is obtained.

7. The Engineer will check conformance to elevations shown on the Contract Drawings and required tolerance for surface straightness.

8. Provide labor and equipment to take samples as directed and to assist the Engineer in other tests.

B. Testing Requirements for Fill and Backfill

1. Control Tests

Fill and backfill material field samples will be tested in the laboratory by the Engineer as part of the Quality Assurance program. These control tests consist of determining maximum density and optimum water content by Procedure C of ASTM D 1557, and gradation by ASTM D 422. When deemed appropriate by the Engineer, Atterberg Limits will be determined on fine-grained soils.

2. In-Place Density Tests

Quality Control consisting of in-place density testing, as a minimum, shall be performed by the Contractor to determine densities achieved after compaction efforts. An in-place Quality Control plan shall be submitted to the Engineer for review and approval. This plan should address, as a minimum, items such as in-place test type and frequencies for different materials; equipment type, calibration and maintenance; operator identity and qualifications, etc.

Quality Assurance testing will be performed by the Engineer after compaction operations, at the standard frequencies already established by Port Authority testing bulletins. Test methods may either sand-cone (ASTM D 1556), rubber balloon (ASTM D 2167), or nuclear device (ASTM D 2922), with moisture content for nuclear method determined by ASTM D 3017. Tests will measure the density of the layer immediately below each compacted layer and the density of the uppermost or final layer.

C. Proofrolling in Pavement areas or under footings

1. After excavation has been performed to the elevation of pavement subgrade, proofroll the area shown on the Contract Drawings with two passes of a pneumatic-tired roller in the presence of the Engineer.

2. If, in the sole determination of the Engineer, the proofrolling produces noticeable weaving of the surface, excavation of unsuitable material may be required below pavement subgrade, within the limits and to the depth ordered by the Engineer.

3. In no case will the depth of such removal of unsuitable material exceed three feet below the pavement subgrade.

4. Remove all such unsuitable material and replace it with suitable backfill material in accordance with the requirements of 2.01 B.

5. The Contractor will be reimbursed for any ordered excavation of unsuitable material below the elevation of pavement subgrade or under footings and subsequent backfilling (but not for the proofrolling specified in 3.04 C.1) at the "Net Cost" for such Work. "Net Cost" shall be computed in the same manner as is compensation for Extra Work, including any percentage addition to cost, as set forth in the clause of the Contract providing compensation for Extra Work. Performance of such Net Cost Work shall be subject to all provisions of the Contract relating to performance of Extra Work. Compensation for said Net Cost Work shall not be charged against the total amount of compensation authorized for Extra Work.

END OF SECTION

SECTION 02221

EXCAVATION, BACKFILLING AND FILLING

APPENDIX "A"

SUBMITTALS

A. Submit to the Manager, Materials Engineering Division, Engineering Materials Laboratory, Port Authority Technical Center, 241 Erie Street, Jersey City, N.J. 07310-1397, proposed material suppliers and sources for each designation of fill or backfill to be used under this contract. The submittal document must contain, as minimum information, the Contract location, title and number; designation of intended material use; source and supplier of material being submitted. Sample submittal paperwork must be received by the Manager of Materials at least three weeks prior to delivery of material to site. Do not delivery any material until the Engineer has checked and approved material supplier and source. Delivered material must receive on-site approval as per Section 3.04, Paragraph A, prior to use.

B. The Contractor shall be responsible for Quality Control procedures. Before the actual start of earth work, the Contractor must submit a Quality Control Plan for review and approval by the Engineer.

C. Where sheet piling or sheeting is required as shown on the Contract Drawings, submit detailed Shop Drawings and design calculations of the sheeting and bracing system to the Engineer for review in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 - GENERAL PROVISIONS. Submit such drawings and calculations three weeks prior to commencement of such excavation. Shop Drawings and calculations shall be prepared by a Professional Engineer, licensed in the State in which the work will be performed; who has a minimum of five years experience in the design of soil retaining structures. The Shop Drawings shall be sealed and signed by the Professional Engineer.

END OF APPENDIX A

DIVISION 2

SECTION 02231

AGGREGATE BASE COURSE

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for dense graded aggregate base course (DGABC) and open graded aggregate base course (OGABC) each where shown on the Contract Drawings including the use of recycled concrete aggregate (RCA) as an alternate for virgin aggregate.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Society for Testing and Materials (ASTM)

ASTM C 88	Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 117	Test Method for Material Finer than 0.075 mm (No. 200) Sieve in Mineral Aggregate by Washing
ASTM C 131	Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D 1556	Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3(2,700 kN m/m^3))
ASTM D 1883	Test Method for CBR (California Bearing Ratio) of Laboratory-Compacted Soils
ASTM D 2167	Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D 2434	Test Method for Permeability of Granular Soils (Constant Head)
ASTM D 2922	Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 3665	Practice for Random Sampling of Construction Materials
ASTM D 4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

A. Job Conditions

1. Aggregate Base Course shall not be placed or spread unless subgrade is free of frost and standing water.

2. Do not place aggregate base course, or perform any compaction operations when ground water level is above a plane two feet below the bottom of the base course. This condition would be indicated by existing water level readings, known site conditions or by the results of probes performed by the Contractor before material placement.

3. When necessary, lower and maintain ground water below the required plane by methods approved by the Engineer.

B. Design and Tolerance

1. The compacted base course, shall have a minimum California Bearing Ratio (CBR) of 80 as determined by ASTM D 1883. In the case of open graded aggregate base course the permeability, as tested in accordance with ASTM D 2434, shall be a minimum of 1.0×10^{-3} centimeters per second.

2. Surface of the base course shall be within plus or minus 1/2 inch of elevations shown on the Contract Drawings and free of depressions or projections greater than 3/8 inch when tested with a 16-foot straight edge applied parallel with or at right angles to the centerline.

3. Thickness of base course at any point shall not be deficient by more than 1/2 inch from the required thickness shown on the Contract Drawings.

4. The field density of the base course after compaction shall be at least 95 percent (100 percent for runways, taxiways and aprons) of the maximum density as determined by Procedure "C" of ASTM D 1557, with the exception that base course material passing the 1-1/2-inch sieve shall be used instead of the material passing the 3/4-inch sieve specified.

1.04 QUALITY CONTROL AND ASSURANCE

A. Provide and maintain quality control plans and procedures that shall ensure all base course materials and completed construction conform to this Section. The Engineer shall be afforded access to the Contractor's plant, equipment and field operations at all times for checking compliance with the approved quality control procedures. Provide labor and equipment to take samples as directed and assist the Engineer in other tests. Repair all areas from which samples are taken to meet all requirements of this Section.

B. The quality control plan shall include as a minimum:

1. Assignment of quality control responsibility to specifically-named individuals.

2. Outline of sampling location procedures and in-place density testing methodologies.

3. Performance of regularly scheduled inspections of the material source in the case of RCA.

4. Provisions for the prompt implementation of control and corrective measures.

5. Provisions for liaison with the Engineer at all times

6. Performance of necessary quality control tests, including use of a nuclear gauge.

C. For RCA, Quality Control procedures shall include performing the following tests on dedicated stockpiles being produced for use under this Contract:

1. Gradation tests (ASTM C 117 and C 136) shall be performed at least once per day.

2. Composition tests shall be a continuous visual inspection and shall include removal of any objectionable material to ensure compliance with 2.01B.

3. Soundness of Aggregates (ASTM C 88) and Resistance to Degradation (ASTM C 131) shall be performed a minimum of once every two weeks, unless otherwise directed by the Engineer.

D. For Contracts requiring over 500 cubic yards of aggregate base course, and where otherwise directed by the Engineer, select an area from the first day's production to be called a control strip. The control strip shall be a minimum of 2500 square feet and shall be constructed to meet the requirements of this section and in the same manner as the remainder of the course it represents. The purpose of the control strip is to have the contractor establish the compaction pattern, methods and effort required to achieve the quality requirements and to calibrate the Contractor's nuclear gage. Additional control strips shall be constructed whenever a significant change occurs in the type or source of the material and whenever a significant change occurs in the composition of the material from the same source.

E. Engineer's Sampling and Testing

1. The Engineer may elect to inspect, test, and approve aggregate base course at the source. At least five days prior to delivery of material to site, the Engineer shall be notified.

2. Base course material delivered to the construction site will be sampled and tested by the Engineer for conformance to the requirements specified in 2.01 A copy of the test analyses will be on file with the Engineer. The samples will be taken from stockpiles on site, prior to material placement operations. Minimum testing frequencies will be as follows:

Aggregate Base Course Using Virgin Aggregate

Gradation	1 test per Lot
Moisture-Density	
Proctor Test	1 test per Lot

A Lot shall be defined as one day's production but no more than 400 cubic yards.

Aggregate Base Course Using Recycled Concrete Aggregate

Gradation	4 tests per Lot (one test from each sublot)
Moisture-Density	
Proctor Test	4 tests per Lot
Composition	4 tests per Lot

3. The Engineer will check base course thickness at least once every 2500 sq. ft.

4. The Engineer will determine field density of compacted base course from in-place density tests. Frequency of testing will be at least one test every 2500 square feet per lift. Locations of random sampling shall be determined in accordance with ASTM D 3665. The in-place field density shall be determined in accordance with ASTM D 2922 and ASTM D 3017, or ASTM D 2167, or ASTM D 1556.

5. The Engineer will check conformance to elevations required by the Contract Drawings and required tolerance for surface straightness.

1.05 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 MATERIALS

A. Virgin aggregate for base course shall be quarry processed, crushed dolomite, limestone, gneiss, or trap rock free from coatings of clay, silt, vegetable matter, and other objectionable materials, and shall contain no clay balls.

B. Recycled concrete aggregate for base course shall be as follows:

1. The RCA shall consist of at least 90 percent, by weight, Portland cement concrete, with the following materials making up the remaining 10 percent:

   Wood-0.1%, maximum
   Brick, Mica schist, or other friable material-4%, maximum
   Asphalt Concrete-10%, maximum

2. Virgin aggregate may be added to meet the 90% minimum concrete requirement.

3. The percentage of asphalt concrete and other deleterious material shall be determined by weighing that material retained on the No. 4 sieve, and dividing by the total weight of RCA material retained on the No. 4 sieve.

C. Gradation for aggregate base course shall be as follows:

1.

	Percentage Passing By Weight	
Sieve Size	DGABC	OGABC
1 1/2"	100	100
3/4"	55-90	60-95
3/8"		40-80
No.4	25-60	15-35
No. 50	5-25	8-20
No. 200	3-12	0-7

2. The portion passing the No. 40 sieve shall be non-plastic when tested in accordance with ASTM D 4318.

3. The aggregate base course shall have not less than 90% by weight with at least two fractured faces and 100% with at least one fractured face, and with a maximum of 7% of flat or elongated pieces. A flat piece is one having a ratio of length to width greater than five.

D. Soundness of Aggregates:

Loss limitation shall not be more than 10% loss by weight, using sodium sulfate for 5-cycle test period, or not more than 15% loss by weight, using magnesium sulfate for a 5-cycle test period as determined by ASTM C 88.

E. Resistance to Degradation:

Percentage loss between the original weight and the final weight of the test sample, shall not exceed 45% as determined by ASTM C 131.

F. Recycled Concrete Aggregate Stockpile Approval:

RCA will be sampled from lots as specified in 1.04 E.2. Each sublot of each lot shall meet all applicable test requirements of this Section. If any one sublot does not meet these requirements, the entire lot will be disapproved and shall not be used for the purposes of this Contract.

The Engineer will approve or disapprove the RCA within 4 days after sampling, unless the Engineer determines that soundness of aggregate or resistance to degradation tests specified in this Section 2.01 are required, in which case 21 days will be required for approval or disapproval. Do not deliver RCA until it has been approved by the Engineer.

After a lot has been approved, no additional material shall be added to the lot stockpile until that stockpile is exhausted. Any new stockpile formed shall be subject to testing and acceptance as described above.

PART 3. EXECUTION

3.01 INSTALLATION

A. Equipment

1. Placing and spreading equipment shall be approved by the Engineer and be capable of spreading material without segregation of aggregate sizes.
2. Steel vibratory rollers to be used for compaction, shall have provision for regulation of vibration frequency. Pneumatic rubber-tired rollers shall have a minimum weight of 20 tons and tire pressure of between 60 and 150 psi, as directed by the Engineer. All compaction equipment, including mechanical tampers when proposed, is subject to review an approval by Engineer.

B. Preparation of Subgrade

1. Verify that job conditions specified in 1.03 A have been met and there are no high points in the subgrade which would interfere with meeting the tolerance requirements specified in 1.03 B.
2. For granular subgrades, compact subgrade with a minimum of 6 passes of an approved vibratory steel roller, operating at the optimum operating frequency as recommended by the manufacturer.
3. For fine-grained soil subgrades, compact subgrade with a minimum of 6 passes of an approved pneumatic rubber-tired roller.

4. Rollers shall be operated at a speed not to exceed 3 miles per hour. Roller passes shall be overlapped a minimum of 6 inches.

5. All subgrade compaction operations shall be performed at or near optimum moisture content. In areas where use of a roller is impractical, compact subgrade with approved mechanical tampers.

6. Provide grade control as follows:

   a. Set grade stakes on a rectangular grid not more than 25 feet on centers.

   b. After firmly driving stakes, offset mark each 6 inches above the top of base course.

   c. Maintain stakes during placement and compaction of base course.

C. Placement and Compaction

1. Place base course materials evenly over the prepared subgrade with approved spreading equipment. In multi-layer construction, the previously constructed layer should be cleaned of loose of foreign material prior to placing the next layer. The surface of the compacted material shall be kept moist until covered by the next layer.

2. When spread, base course materials shall be at or near optimum moisture content and of a thickness such that the maximum depth of a compacted layer shall be 6 inches. In multi-layer construction, the base course shall be placed in approximately equal-depth layers.

3. Compact immediately after spreading, while at or near optimum moisture content, by rolling. The number, type and weight of rollers shall be sufficient to compact the material to the required density.

4. In areas where use of rollers is impractical, compact with manually operated equipment while at or near optimum moisture content.

5. The base course shall be maintained in a condition that will meet all specification requirements until the Work is accepted. Equipment used in the construction of an adjoining section may be routed over completed portions of the base course, provided no damage results and provided that the equipment is routed over the full width of the base course to avoid rutting or uneven compaction.

6. If, in the opinion of the Engineer, the compacted base course softened due to exposure to the elements, drain off all freestanding water and recompact the base course until density requirements are met.

D. Adjustment of Deficiencies

1. Scrape, add or remove material or replace deficient material, and recompact to meet specified density, grade or smoothness criteria.

2. In no case will the addition of thin layers of material be added to the top layer of base course to meet grade. If the elevation of the top layer is 1/2 inch or more below grade, the top layer of base shall be scarified to a depth of at least 3 inches, new material added, and the layer shall be cut back to grade and rerolled.

END OF SECTION

SECTION 02231

AGGREGATE BASE COURSE

APPENDIX "A"

SUBMITTALS

A. Submit to the Engineer of Materials, Engineering Materials Laboratory, Port Authority Technical Center, 241 Erie Street, Jersey City, NJ 07310-1397, all of the following:

1. The proposed source of material. Material must come from a source approved by either NYDOT or NJDOT. The Engineer will approve or disapprove within 10 working days after receipt of submittal. Do not deliver material until the Engineer has approved of the source.

2. In the case of RCA, the name of the intended supplier and certified test data demonstrating the supplier's compliance with the material requirements of 2.01, at least 21 days prior to delivery of any RCA to the construction site. The Engineer will approve or disapprove within 10 working days after receipt of submittal. Do not deliver material until the Engineer has approved of the source.

3. In the case of RCA, an actual material submittal from the proposed source may be required as the result of a new, unfamiliar or unsatisfactory supplier submittal. Two 75 pound representative samples from a dedicated stockpile proposed for use under this contract must then be supplied as follows:

   a. Submit RCA samples in clean, sturdy containers or bags that shall not permit loss of any of the material.

   b. Clearly label samples with the Contract location, title, and number; identification of the material supplied; and the location of the source.

   The Engineer will approve or disapprove within 21 days after receipt of sample. When an actual sample is required, do not deliver material to the site until Engineer has approved of the sample.

B. If the source and/or the supplier of the aggregate base course material changes, resubmittals for approval must be made in accordance with 1.05, above.

END OF APPENDIX "A"

DIVISION 2

SECTION 02274

GEOTEXTILES

PART 1. GENERAL

1.01 SUMMARY

A. This Section specifies the requirements for geotextiles (fabrics) made of polymers for the following applications:

1. Subsurface Drainage
2. Sediment Control
3. Erosion Control
4. Separation of Dissimilar Materials (including subgrade stabilization)

B. This Section does not specify requirements for geotextiles for the following application:

1. Reinforcement within pavement structures and paving membranes
2. Reinforcement for embankment structures
3. Polymeric liners (geomembranes)

1.02 REFERENCES

The following is a list of the publications referenced in this Section:

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO M288 Standard Specification for Geotextiles

American Society of Testing and Materials (ASTM)

ASTM D 4354 Standard Practice of Sampling of Geosynthetics for Testing

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

Unless otherwise shown on the Contract Drawings or Specified herein, the geotextiles shall conform to the applicable requirements of AASHTO M288.

1.04 QUALITY ASSURANCE

A. Geotextile materials will be visually inspected by the Engineer when delivered to the construction site. Damaged materials or materials not meeting the requirements of this Section shall be removed from the construction site and replaced.

B. Engineer's Sampling and Testing

1. The Contractor shall furnish labor, equipment and materials to take samples, and to repair all areas where samples are taken.

2. Quality Assurance (QA) testing of the physical requirements of the geotextile fabric will be performed by the Engineer using random samples obtained from materials delivered to the job site.

3. The Engineer will perform field seam tests on random samples obtained in the field.

4. Unless otherwise shown on the Contract Drawings, the Engineer will determine the lot sizes for testing based on ASTM D 4354 and the type and number (minimum three) of tests per lot.

1.05 DELIVERY, HANDLING AND STORAGE

Comply with AASHTO M288 to protect materials against moisture and ultraviolet exposure prior to installation.

1.06 SPARE MATERIALS

During construction, the Contractor shall have on hand sufficient spare geotextile materials and appurtenances as necessary to repair damage to permanent and temporary geotextile installations.

1.07 SUBMITTALS

For Submittal Requirements, see Appendix "A".

PART 2. PRODUCTS

2.01 MATERIALS

A. General

Fibers used for the manufacture of geotextiles and the threads used in joining geotextiles by sewing shall comply with the physical and chemical requirements of AASHTO M288.

B. Geotextile

For the indicated application, comply with the physical requirements of AASHTO M288 Table 1 Physical Requirements and with Permeability and Apparent Opening Size as noted on the Contract Drawings.

1. Subsurface Drainage: "Class A"

2. Sediment Control: "Self Supported"

3. Erosion Control: "Class A"

4. Separation of Dissimilar Materials (including subgrade stabilization): "High Survivablility Level"

C. Temporary Silt Fences

1. Geotextiles for temporary silt fences shall meet the requirements for sediment control, self supported, of AASHTO M288 Table 1 unless otherwise shown on the Contract Drawings.

2. Posts and appurtenances shall be in accordance with the fabric manufacturer's written recommendations, except as otherwise shown on the Contract Drawings.

3. Prefabricated silt fences with the geotextiles affixed to the posts are permitted.

PART 3. EXECUTION

3.01 PREPARATION

A. Prepare surfaces against which the geotextile will be installed by clearing and grading as required to remove surface irregularities or projections which may interfere with the installation or which may damage the geotextile.

B. Plan the work such that the exposure of the geotextile between laydown and coverage shall be limited to a maximum of fourteen (14) days.

3.02 INSTALLATION

A. General

1. Install the geotextile as shown on the Contract Drawings and as specified herein.

2. Unroll and place the geotextile to maintain a smooth surface and in such a manner that placement of overlying materials will not excessively stretch or tear the geotextile.

3. Factory or field sewn or sealed seams shall meet the applicable requirements of AASHTO M288 Table 1.

4. Unless otherwise shown on the Contract Drawings or specified herein, overlapped seams shall have a minimum overlap of 12 inches except when placed underwater where the overlap shall be a minimum of three (3) feet.

5. Remove or repair damaged geotextile as directed by the Engineer. Repairs shall be made with a geotextile patch placed over the damaged area and extending three (3) feet beyond the perimeter of the damage, and shall be seamed to match the surrounding installation.

B. Subsurface Drainage Installations

1. At seams, overlap the fabric in the direction of flow with upstream over downstream.

2. Where seams are required in the longitudinal trench direction and within the trench, they shall be sewn or have a minimum overlap equal to the trench width.

C. Erosion Control Installations

1. Terminal ends of the geotextile shall be anchored at the crest and toe of slopes as shown on the Contract Drawings.

2. For slope protection installations, successive sheets shall be overlapped with upstream over downstream and/or upslope over downslope.

3. Placement of armor stone, rip-rap and aggregate bedding onto the geotextile shall begin at the toe and proceed upslope. For underwater applications, the first layer of such material shall be placed the same day as the geotextile is installed.

4. The height from which material shall be dropped onto the geotextile shall be limited to one (1) foot unless otherwise shown on the Contract Drawings.

D. Separation and Subgrade Stabilization Installations

1. Unroll the material in the direction of construction traffic unless otherwise directed by the Engineer. Adjacent rolls shall be overlapped in the direction of material placement and as shown on the Contract Drawings.

2. Anchor the geotextile as required using pins, staples or piles of the material to be placed on the fabric.

3. Form curves cut from pieces lapped in the direction of construction or by folding in the direction of construction.

4. Placement of material onto the geotextile shall be as specified on the Contract Drawings.

E. Sediment Control Installation

1. Install and maintain sediment controls, as shown on the Contract Drawings.

2. Removal and disposal of temporary sediment controls, and restoration of the site shall be as shown on the Contract Drawings.

PART 4. FIELD TESTS AND ADJUSTMENTS

A. Proofroll and correct deficiencies as required by the Contract Drawings or as specified in other Sections of the Specifications.

B. Unless otherwise shown on the Contract Drawings, correction of deficiencies and additional proof rolling shall be at no additional cost to the Authority.

C. Testing of field seams shall be by the Engineer as specified elsewhere herein.

END OF SECTION

SECTION 02274

GEOTEXTILES

APPENDIX "A"

SUBMITTALS

A. Submit manufacturer's certificates of compliance with all requirements for materials specified in this Section.

B. Submit fabric manufacturer's Quality Control (QC) plan for the production process. The plan shall specify the specific testing proposed to verify the physical and chemical properties required by this specification and the frequency of tests, including suggested lot sizes and number of tests per lot.

C. When required on the Contract Drawings, submit manufacturer's representative samples of the fabric to the Engineer of Materials, Engineering Materials Laboratory, Port Authority Technical Center, 241 Erie Street, Jersey City, NJ 07310-1397. The type, quantity and purpose of such samples shall be as shown on the Contract Drawings.

END OF APPENDIX "A"

DIVISION 2

SECTION 02356

DYNAMIC PILE TESTING

PART 1. GENERAL

1.01 SUMMARY

A. This Section specifies requirements for dynamic testing of piles.

B. Testing will be performed by the Authority on piles selected by the Engineer. The Contractor shall cooperate with the Engineer in obtaining the measurements.

C. The Contractor shall modify pile driving system or replace hammer if test results show that the pile driving system does not meet the specified minimum energy requirements.

PART 2. PRODUCTS

(Not Applicable)

PART 3. EXECUTION

3.01 DYNAMIC PILE TESTING

A. During pile driving operations, dynamic measurements will be taken by the Engineer of force and acceleration at the tops of selected piles shown on the Contract Drawings. Readings will be taken using the equipment described in 3.01 D. In addition, the performance of the pile hammer will be evaluated by the Engineer using equipment described in 3.01 E. All work associated with providing the instrumentation and obtaining the measurements will be performed by the Authority.

B. Cooperate with the Engineer or his authorized representative in obtaining the measurements and, when requested, assist in mounting force and acceleration gages on test piles. Measurements to be obtained will provide the following information:

1. Available kinetic energy developed by the hammer.
2. Transferred energy (efficiency) from hammer to pile;
3. Predicted ultimate static bearing capacity;
4. Maximum compressive force in pile;
5. Maximum tension force in pile;
6. Maximum impact velocity at pile top;
7. Maximum acceleration at pile top.

C. If dynamic measurements indicate that the pile driving system does not provide the minimum transferred energy shown on the Contract Drawings, the Contractor shall either replace the hammer or make whatever modifications to the pile driving system that are necessary, subject to approval of the Engineer, to provide the minimum energy shown on the Contract Drawings.

D. The Pile Driving Analyzer instrumentation equipment consists of two accelerometers and two strain gauges, the pile driving analyzer, a seven-channel cassette recorder, and an oscilloscope. The accelerometers and strain gauges are attached to the test piles with six bolts through pre-drilled and threaded holes. The wires from each gauge are collected at a connection box that hangs from the pile hammer using a chain. A single cable runs from the connection box to the Pile Driving Analyzer located on the ground.

E. The Hammer Performance Analyzer consists of a radar gun (radar antenna) connected by electrical cable to a box housing a signal conditioner and an output display (strip chart). The antenna is placed close to the base of the leads so that the moving hammer ram falls within the antenna's cone of observation. The measured ram velocity at impact is used to compute the available kinetic energy.

END OF SECTION

DIVISION 2

SECTION 02359

STEEL PIPE PILES WITH ROTEX ASSEMBLY

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for concrete-filled, open-ended steel pipe piles fitted with a Rotex assembly.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Society for Nondestructive Testing, Inc. (ASNT)

ASNT SNT-TC-1A	Recommended Practice No. SNT-TC-1A.

American Society for Testing and Materials (ASTM)

ASTM A 36	Specification for Carbon Structural Steel.
ASTM A 53	Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
ASTM A 252	Specification for Welded and Seamless Steel Pipe Piles.
ASTM A 615	Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.

American Welding Society (AWS)

AWS D1.1	Structural Welding Code – Steel.
AWS D1.5	Bridge Welding Code.
AWS QC1	Certification of Welding Inspectors.

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

A. Job Conditions

1. Do not install open ended piles until excavation or filling in the area they are to occupy has been completed to the design grades shown on the Contract Drawings, unless shown otherwise on the Contract Documents.
2. Do not install piles until the dredge line is clear of debris or other materials that may interfere with pile driving.
3. When concrete is less than 7 days old, do not install open-ended steel piling closer than 20 ft to the recently poured pile.

4. Do not install open ended piles until the Engineer has approved the sequence of driving and installation for all piles.

5. Protect existing structures, including overhead and buried utility lines.

B. Alignment and Tolerances

1. After splicing, the alignment of the centering of the undriven portion of the pile shall not deviate from the alignment of the centering of the installed portion of the pile by more than 3/8 inch in 40 feet.

2. Alignment deviation is defined as the horizontal offset of the centerline of the pile at the top of the pile divided by the length over which the offset is measured. After installation, the alignment deviation of the pile centerline shall not exceed two percent from vertical for vertical piles and two percent (shallower or steeper) from the batter shown on the Contract Drawings for batter piles.

3. Horizontal deviation is defined as the difference in horizontal position of any point on the centerline of the pile below the pile top from the design horizontal position of the corresponding point as shown on the Contract Drawings. After installation, the horizontal deviation of any point shall not be greater than an amount equal to four percent of the vertical distance from the cut-off elevation to the point in question, unless otherwise shown on the Contract Drawings.

4. A light source lowered to the bottom of the pile shall remain visible. However, if eye contact with the light source is lost, a measurement will be made by the Engineer with an inclinometer to determine if the pile meets the requirements of this Section.

5. Piles at cut-off elevation shall not deviate laterally from required location by more than the tolerance shown on the Contract Drawings. Piles shall not be pulled into location by more than amount shown on the Contract Drawings.

1.04 QUALITY ASSURANCE

A. Welding and Splicing

1. Comply with applicable provisions of AWS D1.1 and AWS D1.5.

2. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and if pertinent, has undergone recertification.

B. The Authority will perform Quality Assurance testing to ensure quality workmanship. Notify the Engineer in writing 15 days prior to the start of fabrication and provide a detailed schedule for the duration of fabrication. The schedule shall include, at a minimum, the start and end dates for ordering material, cutting material, fabricating material and shipping material. If the schedule changes, submit a revised schedule.

C. Supply equipment and personnel, at no additional cost to the Authority, to assist in moving members as necessary for adequate access by the Authority for Quality Assurance inspections and testing.

D. Fabrication performed without prior approval of the following items will not be accepted. Ensure that a copy of all signed approvals, including the following supporting documentation, is in the possession of the fabrication shop prior to the commencement of fabrication and is available to the Engineer's Quality Assurance inspector at all times.

1. Shop Drawings.

2. Welding Procedure Specifications (WPS).

3. Procedure Qualification records (if applicable).

4. Welder qualifications.

5. Mill test reports.

6. Names and qualifications of Quality Control personnel, including an AWS Certified Welding Inspector (CWI) who meets AWS QC1 standards, and of nondestructive testing personnel who meet ASNT SNT-TC-1A Level II qualifications.

1.05 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 MATERIALS

A. Steel Pipe Piles

ASTM A 252, Grade 3, unless otherwise shown on the Contract Drawings. Pipe piles shall be either seamless pipe or full penetration electric resistance butt welded with straight or spiral seams. Pipe shall be welded in a manner that welding shall not crack or fail when the pile is subjected to its intended use, including during driving. Arrange for the weld seam of each length of pipe to be ultrasonically tested by the manufacturer in accordance with the provisions for Nondestructive Electric Test of Weld Seam of ASTM A 53. Diameter and wall thickness shall be as shown on the Contract Drawings.

B. Concrete

Concrete shall be as specified in the Division 3 Section entitled "Portland Cement Concrete, Long Form", unless shown otherwise on the contract drawings.

C. Grout

Grout shall be cementitious and proportioned as 94 pounds of cement and 5 gallons of water.

D. Reinforcing Bars

ASTM A 615, Grade 60, as specified in Division 3 Section entitled "Concrete Reinforcement"

E. ROTEX Drill Assembly

ROTEX drill assembly shall be the SYMMETRIX Std. System, manufactured by Oy Atlas Copco Rotex Ab, for 12-3/4 inch O.D. pipe, or approved equal.

2.02 SHOP PAINTING

A. Coating Steel Piles

1. For coating requirements, see Contract Drawings and Division 2 Section entitled "Zinc-Rich Epoxy/Coal Tar Epoxy Coating System for Steel Piling".

PART 3. EXECUTION

3.01 INSTALLATION OF OPEN-ENDED PILE WITH ROTEX ASSEMBLY

A. Pile Drilling Equipment

1. Open–ended pipe pile shall be fitted with a Rotex assembly or approved equal, capable of advancing the pipe casing through overburden, stone dike, construction debris, and/or boulders to rock.

2. Advancing the open-ended pile shall consist of the following operations.

   a. The pilot bit shall be attached to any down-the-hole (DTH) hammer shank or top hammer rod thread. The hammer shall be as shown on the Contract Drawings.

   b. The casing shoe shall be welded to the casing.

   c. The pilot bit and ring bit shall be locked together by the bayonet coupling.

   d. The pilot bit and ring bit rotate with the drill string while the casing shoe and casing do not rotate. The bit drills a hole large enough to allow the casing to be pulled into the hole.

   e. After completing the hole, the pilot bit shall be unlocked by a slight reverse rotation of the drill string.

   f. The drill string and pilot bit shall then be retrieved through the casing.

B. Welding and Splicing

1. Perform welding in accordance with requirements for shielded metal arc welding of AWS D1.1 for buildings and other structures or AWS D1.5 for bridges.

2. Have all welds visually inspected by an AWS Certified Welding Inspector (CWI).

3. Nondestructively test all full penetration welds for 100 percent of the weld length by radiographic or ultrasonic methods, as approved by the Engineer.

4. Coordinate the Work and timely notify the Engineer to ensure compliance with all testing and inspection procedures required by the Engineer.

5. Notify the Engineer 24 hours prior to performing field welding.

6. Close pile tips with a steel plate or an angle-fin point, as shown on the Contract Drawings, continuously welded to the pipe so that no portion of the plate or point extends beyond the outside diameter of pipe.

7. Unless stricter requirements are shown on the Contract Drawings, pile splice shall be as follows:

   a. Splices within the top 20 feet from pile cut-off elevation or design grade, whichever is lower, shall be full penetration butt welds.

b. Splices below the top 20 feet, as described above, may be made with Advance Splicer Sleeve S-18000, manufactured by Associated Pile & Fitting LLC, Clifton, NJ or approved equal, provided both pipe ends are square cut and seated to bear. The sleeve shall be continuously welded as shown on the Contract Drawings. All shop splices shall be done as full penetration butt welds.

c. An approved jig or alignment device shall be used to maintain the required straightness of pipe specified in 1.03 B.1.

d. For splices made during pile installation, rigid frame pile leads may be used as a jig in a manner approved by the Engineer.

8. Unless otherwise permitted by the Engineer based on field conditions, the number and location of splices shall comply with the following limitations:

a. No more than three splices per pile over 100 feet long.

b. No more than two splices per pile up to 100 feet long.

c. No splice closer than 25 feet from the tip.

C. Pile Installation

1. Perform installation operations only in the presence of the Engineer.

2. Maintain top of pile normal to the driving force. Maintain accurate alignment of the pile, hammer and leads to minimize bowing of pile during impact of the hammer ram.

3. Drive piles to the driving resistance shown on the Contract Drawings. Take corrective action, if required, to prevent observable impact bowing of pile at final driving resistance.

4. At the completion of the installation operation on a pile, the pile shall be undamaged, free of leaks and other defects and in compliance with the requirements of this Section.

5. Cut piles off at cut-off elevation shown on the Contract Drawings as soon as practical after driving.

D. Corrections of Deficiencies

1. Notify the Engineer immediately in writing of the failure of a pile to meet any requirement of this Section. Include all information required for the evaluation of remedial measures, including information required for redesign.

2. If the Engineer determines that a pile does not meet the requirements of this Section due to encountering an obstruction, then the following shall apply:

a. The Contractor will be compensated on a net cost basis as defined by 3.01 D.9 for all remedial work associated with the deficient pile, including changes to concrete and reinforcement steel, as directed by the Engineer.

b. If the Engineer determines that a pile does not meet the requirements of this Section for any reason other than encountering an obstruction, the Contractor shall perform all remedial work associated with the deficient pile, including changes to concrete and reinforcement steel, at no cost to the Authority.

c. An obstruction shall be defined as any natural or man-made object, which does not permit the pile to be advanced by driving or driving and spudding with the approved pile driving hammer. Soils with naturally high driving resistance shall not be considered to be an obstruction.

d. It shall be the sole determination of the Engineer as to whether or not an obstruction has been encountered during pile driving.

3. If a pile fails to comply with the alignment or location requirements of 1.03 B, the Engineer will calculate the load capacity requirements of that pile or, if in a pile group, each pile in that pile group, based on the actual "as-driven" alignment and locations. If the calculation indicates that the loading on that pile or, if in a pile group, on any pile in that pile group, exceeds 110 percent of the design load, then perform such remedial work as the Engineer in his sole discretion may approve, including but not limited to redriving piles, furnishing and driving additional piles at locations approved by the Engineer and modifying concrete or reinforcement steel.

4. In the case of a pile with some deficiency that affects load capacity, the Engineer will calculate the load capacity requirements of that pile, based on its actual, "as-driven" location and alignment. If the calculation indicates that the loading on the pile exceeds some reduced allowable loading less than the design load, including a zero loading, as determined in the sole judgment of the Engineer, then perform such remedial work as the Engineer in his sole discretion may approve, including but not limited to redriving piles, furnishing and installation of additional piles at locations approved by the Engineer and modifying concrete or reinforcement steel.

5. If a pile fails to comply with the requirements of this Section and the Engineer determines that modification to concrete or reinforcement steel or the installation of additional piles is necessary, the Authority will perform all required redesign and detailing. In such event, the Authority will use its best efforts to complete redesign within the time shown on the Contract Documents.

6. The Contractor, at his option and at any time that he determines that a pile will not satisfy the requirements of this Section for a reason other than encountering an underground obstruction and subject to the provisions of 3.01 D.1, may abandon such pile and replace it with a new pile or piles rather than await direction or approval from the Engineer. However, in exercising this option, the Contractor assumes the risk that such replacement pile or piles have not been installed at the proper design location and alignment so as to carry satisfactorily the design load as determined by subsequent analysis performed by the Engineer. Such abandonment shall be for the Contractor's convenience at no cost to the Authority and subject to all applicable provisions of the Contract.

7. Abandoned piles shall be cut off one foot below the elevation of the bottom of the pile cap as shown on the Contract Drawings and filled with sand. If directed by the Engineer to fill an abandoned pile with concrete, the Contractor will be compensated for the difference between the cost of sand and concrete for the volume of concrete used to fill the pile.

8. All work performed by the Contractor in accordance with 3.01 D.3, D.4, D.5 and D.7 shall be performed at no additional cost to the Authority, except as otherwise noted.

9. "Net Cost" shall be computed in the same manner as is compensation for extra work, including any percentage addition to cost, as set forth in the clause of the Contract regarding compensation for extra work. Performance of such net cost work shall be subject to all provisions of the Contract relating to performance of extra work. Compensation for net cost work shall not be charged against the total amount of compensation authorized for extra work.

E. Concrete Core

1. Fill piles approved by the Engineer with concrete in conformance with the requirements of Division 3 Section entitled "Placement of Portland Cement Concrete".

2. Do not place concrete in piles for an individual pile group until all piles for that pile group have been driven and approved by the Engineer.

3. Cover piles not immediately filled with concrete with caps to prevent any material from entering the piles.

4. Before concreting, remove water and other materials from each pile to achieve a clean, dry pile.

5. The Engineer will reinspect all piles immediately prior to filling with grout and concrete. After each pile is approved, immediately place two cubic feet of grout deposited in a manner to optimize coating the inside surface of the pile and fill the remainder of the pile with concrete in one continuous operation by methods that will prevent the segregation of ingredients. Adjust the rate of concrete placement as necessary to prevent void formation.

6. Place concrete into the pipe piles using a hopper with a spout having a cross sectional area of no more than 50 percent of the cross sectional area of the interior of the pipe pile. Position the hopper above the top of the pile to permit the escape of air during the concreting operations.

7. Temperature and other conditions for the depositing of concrete shall conform to the requirements of Division 3 Section entitled "Portland Cement Concrete, Long Form".

8. Where reinforcing is to be placed within a pile, stop placing concrete at the elevation of the bottom of the reinforcing, immediately place the reinforcing, and resume placement of concrete.

3.02 INSTALLATION OF TEST PILES

A. When shown on the contract drawings, individual piles advanced with the Rotex assembly may be selected for impact testing to verify pile capacity. The pile driving equipment and pile hammer for the verification testing shall be furnished in conformance with requirements of subsections 3.02B and 3.02C.

B. Pile Driving Equipment

1. Use rigid frame, fixed-lead type driving equipment capable of supporting the pile firmly in a vertical position or to the required batter.

2. Leads shall be of sufficient length so that use of a follower will not be necessary, unless otherwise approved by the Engineer.

3. Use an approved driving head designed to properly fit the head of the pile or a cast steel, outside type drive sleeve to prevent damage to the top of the pile during driving.

4. Use an approved cap block cushion consisting of alternating plates of phenolic laminate and aluminum designed to prevent damage to the piles while also transmitting the amount of transferred energy to the pile top required by the Contract Drawings. The phenolic laminated plates shall be either "Micarta" as manufactured by Westinghouse Electric Corp., 304 Hoover Street, North Hampton, SC 29924, or "Conbest" as manufactured by Penn State Metal Fabricators, 124 Newton Street, Brooklyn, NY 11222. Substitutes not employing phenolic laminate will not be permitted.

5. Do not use wood chips, small wood blocks, shavings or any extraneous material to absorb the energy of the hammer.

6. If piles cannot be installed using fixed-lead type driving equipment due to inaccessibility, use of hanging leads may be considered if the following provisions are complied with:

   a. Furnish a plan showing the piles that are considered inaccessible and that will not be driven using fixed-lead type driving equipment. The determination of the acceptability of using hanging leads will be made solely by the Engineer.

   b. Use a driving frame template or false work to maintain location tolerance and orientation (batter) requirements specified in 1.03 B and on the Contract Drawings.

   c. Specify the type of piles or other method of support and minimum tip elevation of piles used to support frame template and false work.

   d. Specify the methods of retaining the installed piles in place upon removal of the frame template and prior to cap construction.

   e. Prior to installing piles at each bent or cap, furnish the following to the Engineer:

   (1) Sequence of installation for all inaccessible piles.

   (2) Survey of frame location and elevation at each bent or for each row of piles.

   f. Survey location and orientation of piles upon completion of all piles in a bent or cap prior to installation. Furnish access for the Engineer to perform visual inspection of piles.

   g. If indicated on contract drawings, pile driving analyzer (PDA) measurements will be performed by the Engineer at the start of installation. If, as a result of using hanging leads, the Engineer determines that additional PDA measurements are required to verify the consistent performance of driving system, the number and frequency of additional testing shall be as determined by the Engineer. Provide access and assistance to the Engineer for the additional testing, as required on the Contract Drawings. The Contractor will be compensated for the cost of additional assistance on a "net cost" basis.

C. Pile Hammer

1. Use a pile hammer complying with the requirements shown on the Contract Drawings. Hammer used shall be subject to prior approval by the Engineer.

2. Keep hammer in good mechanical condition and operate it at the speed and pressure recommended by the manufacturer.

3. During pile installation operations, the Engineer may make occasional measurements of the velocity of the hammer ram using a Hammer Performance Analyzer (radar gun device), manufactured by Pile Dynamics, Inc., Cleveland, Ohio, to be furnished by the Authority. If the energy per blow computed on the basis of the measured ram velocity at impact is less than 80 percent of the rated energy per blow as specified by the manufacturer of the pile hammer, make all necessary repairs so as to improve the energy output to a value of at least 80 percent of the rated energy per blow or, alternatively, replace the pile hammer.

4. Use air compressor or hydraulic pump that meets minimum requirements for capacity or horsepower, as recommended by hammer manufacturer.

3.03 FIELD TESTS

A. Inspection

1. Cooperate with the Engineer and furnish services as he may require for inspecting and obtaining data. Typical of these services shall be the measurement of length of piles, painting footmarks on piles, furnishing light and ladder if required, and moving materials or equipment as required to provide access to and clear observation of the piles.

2. After all piles for each pile group have been driven, the Engineer will inspect each pile by means of a light source lowered to the bottom. If eye contact with the light source is lost in any pile, that pile will be further tested by the Engineer with an inclinometer provided by the Authority as required by 1.03 B.4.

3. The Engineer will keep a record of each pile driven. This record will include the following data:

   a. Date of installation.

   b. Pile number.

   c. Type and size of pile.

   d. Type, number and location of splices.

   e. Pile length before installation.

   f. Length of cut-off.

   g. Elevation of pile top and tip to nearest 0.1 inches immediately after driving.

   h. Elevation of pile top after driving entire pile group to the nearest 0.1 inch to determine amount of heave.

   i. Final elevation of pile tip after required installation of entire pile group.

   j. Lower limit (elevation) of pile coating after installation.

   k. Hammer type and size.

   l. Hammer speed.

   m. For impact hammers, blows per foot of driven length, and blows per inch where driving resistance exceed 75 blows per foot.

n. Blows per 1/2 inch of red rive.

o. The time pile installation is started, interrupted, resumed and stopped.

p. Description of any unusual circumstances affecting the driving of the particular pile.

q. Sounded length of each pile.

r. Slope of pile.

s. Lowest elevation at which light source is fully visible and elevation at which eye contact with light source is lost.

END OF SECTION

SECTION 02359

STEEL PIPE PILES WITH ROTEX ASSEMBLY

APPENDIX "A"

SUBMITTALS

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 - GENERAL PROVISIONS:

A. Shop Drawings.

B. Certified mill test reports, including ultrasonic testing results of the weld seams, for steel pipe piles.

C. A complete description of each pile hammer, including operational characteristics, rated energy, date of purchase and date and description of last overhaul.

D. A complete description of the driving equipment including caps, leads, cap block cushion and guides.

E. The proposed procedure for splicing piles, including a plan for positioning all field and shop splices to meet requirements specified in 3.01 C.8, and detailed procedures for performing field splices.

F. Verification of welder qualifications.

G. Welding Procedure Specifications (WPS).

H. Procedure Qualification Records (if applicable).

I. Certifications and qualifications for AWS Certified Welding Inspector (CWI) meeting AWS QC1 standards, nondestructive testing personnel qualified to ASNT SNT-TC-1A Level II requirements and their respective employers. Include samples of inspection and testing forms to be used for the Work of this Contract.

J. Notification, in writing, 15 days prior to commencing fabrication of steel piling.

K. Detail schedule for the duration of fabrication at each shop.

L. Welding inspection and test results within five calendar days.

M. The proposed sequence for installation of all piles and proposed procedure for placing the concrete pile core.

N. Proposed concrete mix as specified in Division 3 Section entitled "Portland Cement Concrete, Long Form," and method of concrete placement as specified in Division 3 Section entitled "Placement of Portland Cement Concrete".

O. Plan for installing test piles, including sequence of installation, if test piles are shown on the Contract Drawings.

P. For open ended piles with the Rotex assembly, the method for pile casing advancement, placing steel reinforcement, and concreting pipe pile for Engineer's approval a minimum of three (3) weeks prior to starting this work.

Q. As-built drawing(s) showing the exact location of all piles installed and identifying abandoned piles.

R. Submit the following if hanging leads type driving equipment is used:

1. Plan showing inaccessible piles, which will be driven using hanging leads.
2. Plan and section showing components of the driving frame template or false work.
3. Drawing showing type of piles and minimum tip elevation of piles used to support frame template.
4. Drawing showing the means of retaining the driven piles at location and orientation upon removal of the frame template.
5. Written description of the procedure to transmit required survey data specified in 3.01 A.6.e and 3.01 A.6.f.

END OF APPENDIX "A"

DIVISION 2

SECTION 02366

STEEL SHEET PILING

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for steel sheet piling for permanent construction, such as retaining walls, bulkheads and cellular cofferdams.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

	American Society for Nondestructive Testing, Inc. (ASNT)
ASNT SNT-TC-1A	Recommended Practice No. SNT-TC-1A.
	American Society for Testing and Materials (ASTM)
ASTM A 36	Specification for Carbon Structural Steel.
ASTM A 153	Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
ASTM A 307	Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
ASTM A 328	Specification for Steel Sheet Piling.
ASTM A 563	Specification for Carbon and Alloy Steel Nuts.
ASTM F 844	Specification for Washers, Steel, Plain (Flat), Unhardened for General Use.
	American Welding Society (AWS)
AWS D1.1	Structural Welding Code – Steel.
AWS D1.5	Bridge Welding Code.
AWS QC1	Certification of Welding Inspectors.

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

A. Job Conditions

1. Sequence of construction, including any required excavation, filling or backfilling, shall conform to the requirements shown on the Contract Drawings.

2. When concrete is less than 7 days old, do not drive sheet piles closer to the concrete than the distance computed by the formula below:

$D = 1/7 \sqrt{E}$ Where: E = Energy of pile hammer (in foot pounds)
D = Distance (in feet)

3. Do not install sheet piling until the Engineer has approved the method of installation and the sequence of driving.

4. Protect existing structures, including overhead and buried utility lines.

B. Alignment and Tolerances

1. After installation, the slope of the steel sheet piles shall not deviate from the vertical by more than one percent, unless otherwise shown on the Contract Drawings.

2. Piles at cut-off elevation shall not deviate laterally from required location by more than the tolerance shown on the Contract Drawings.

1.04 QUALITY ASSURANCE

A. Welding and Splicing

1. Comply with applicable provisions of AWS D1.1 and AWS D1.5.

2. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

B. The Authority will perform Quality Assurance testing to ensure quality workmanship. Notify the Engineer in writing 15 days prior to the start of fabrication and provide a detailed schedule for the duration of fabrication. The schedule shall include, at a minimum, the start and end dates for ordering material, cutting material, fabricating material and shipping material. If the schedule changes, submit a revised schedule.

C. Supply equipment and personnel, at no additional cost to the Authority, to assist in moving members as necessary for adequate access by the Authority for Quality Assurance inspections and testing.

D. Fabrication performed without prior approval of the following items will not be accepted. Ensure that a copy of all signed approvals, including the following supporting documentation, is in the possession of the fabrication shop prior to the commencement of fabrication and is made available to the Engineer's Quality Assurance inspector at all times.

1. Shop Drawings.

2. Welding Procedure Specifications (WPS).

3. Procedure Qualification records (if applicable).

4. Welder qualifications.

5. Mill test reports.

6. Names and qualifications of Quality Control personnel, including an AWS Certified Welding Inspector (CWI) who meets AWS QC1 standards, and of nondestructive testing personnel who meet ASNT SNT-TC-1A Level II qualifications.

1.05 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 MATERIALS

A. Steel Sheet Piling

ASTM A 328, unless otherwise shown on the Contract Drawings. Required steel sheet pile section shall be as shown on the Contract Drawings.

B. Steel Wale and Plates: ASTM A 36, unless otherwise shown on the Contract Drawings.

C. Bolts, Nuts and Washers

1. Bolts: ASTM A 307, Grade A.
2. Nuts: ASTM A 563, Grade A, heavy hex style, except nuts under 1-1/2 inches may be provided in hex style.
3. Washers: ASTM F 844.
4. Bolts, nuts and washers shall be hot-dip galvanized to a minimum 2 oz. per square foot, in accordance with ASTM A 153, unless otherwise shown on the Contract Drawings.

2.02 SHOP PAINTING

A. Coating Steel Piles

1. For coating requirements for Construction on land, see Contract Drawings and the Division 2 Section entitled, "Protective Coating for Steel Piling".
2. For coating requirements for Marine Construction, see Contract Drawings and the Division 2 Section entitled, "Zinc-Rich Epoxy/Coal Tar Epoxy Coating System for Steel Piling".

PART 3. EXECUTION

3.01 INSTALLATION

A. Pile Driving Equipment

1. Use an approved driving head designed to properly fit a pair of piles. Avoid damage to the top of the piles during driving.
2. Use an approved impact or vibratory pile hammer of sufficient size to drive the sheet piles to the tip elevation(s) shown on the Contract Drawings without causing stresses due to driving in excess of 90 percent of the yield strength (Fy) of the pile material.

B. Welding and Splicing

1. Perform welding in accordance with requirements of AWS D1.1 for buildings and other structures or AWS D1.5 for bridges.
2. Reinforce pile tips if and as shown on the Contract Drawings.
3. Splicing of sheet piles will not be permitted, except where shown on the Contract Drawings or directed by the Engineer.

4. Have all welds visually inspected by an AWS Certified Welding Inspector (CWI).

5. Nondestructively test all full penetration welds for 100 percent of the weld length by radiographic or ultrasonic methods, as approved by the Engineer.

6. Coordinate the Work and timely notify the Engineer to ensure that all testing and inspection procedures required by the Engineer are properly provided.

C. Pile Driving

1. Use an approved guide frame or template to set sheet piles in proper position and alignment and to provide adequate lateral support to maintain vertical alignment during driving. Where field conditions require, use two levels of guide wales to maintain vertical alignment during driving.

2. Properly set and "shake out" steel sheet piles prior to driving. Place a pair of sheets within their interlocks; then lower them as far as possible. If the sheets bind or hang up in their interlocks before bearing on the ground, pick up adjacent sheets in pairs and shake out as required, until the sheets ride smoothly within their interlocks and simultaneously bear on the ground. For cellular cofferdams, assemble the entire cell prior to driving.

3. Top of sheet pile shall be normal to the driving force.

4. Drive sheet piles to the tip elevation(s) shown on the Contract Drawings. Drive each pair of sheet piles not more than 5 feet ahead of adjacent sections.

5. Drive sheet piles in such a manner as to prevent piles from leaning in the direction of driving and to provide a continuous closure of sheet piles, where closure is required. Where possible, drive sheet piling with the ball end leading. If an open socket is leading, provide a bolt or similar object in the bottom of the interlock to keep interlock free of soil material.

6. At the completion of the driving operation on a pile, verify that the pile is undamaged, free of defects and in compliance with the requirements of this Section.

7. Cut piles off at cut-off elevation as shown on the Contract Drawings as soon as practical after driving.

8. No jetting will be permitted without specific approval of the Engineer.

D. Corrections of Deficiencies

1. Notify the Engineer immediately in writing of the failure of any sheet pile to meet any requirement of this Section. Such written notification shall include all information required for the evaluation of remedial measures.

2. Perform remedial work at no additional cost to the Authority and in accordance with both the applicable Unit Price provisions, if any, and the modified design and details, if any, all as approved by the Engineer, except for sheet piles which do not comply with the requirements of this Section due to encountering during driving any underground obstruction consisting of a boulder or piece of manufactured or construction material as shown by the Contractor, and as determined by the Engineer on the basis of all field information.

END OF SECTION

SECTION 02366

STEEL SHEET PILING

APPENDIX "A"

SUBMITTALS

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 - GENERAL PROVISIONS:

A. Shop Drawings.

B. Certified mill test reports for steel sheet piles.

C. Complete description of the hammer and driving equipment including caps and guides.

D. Verification of welder qualifications.

E. Welding Procedure Specifications (WPS).

F. Procedure Qualification Records (if applicable).

G. Certifications and qualifications for AWS Certified Welding Inspector (CWI) meeting AWS QC1 standards, nondestructive testing personnel qualified to ASNT SNT-TC-1A Level II requirements and their respective employers. Include samples of inspection and testing forms to be used for the Work of this Contract.

H. Notification, in writing, 15 days prior to commencing fabrication of steel sheet piling.

I. Detail schedule for the duration of fabrication at each shop.

J. Welding inspection and test results within five calendar days.

K. Proposed method of installation for sheet piling, including the sequence of driving.

L. Details of any proposed jetting operation, including provisions for control, treatment and disposal of runoff water, if required to advance piles.

M. Material and coating certifications for bolts, nuts and washers.

N. Material and coating certification for wale and plates.

END OF APPENDIX "A"

DIVISION 2

SECTION 02392

ZINC-RICH EPOXY/COAL TAR EPOXY COATING SYSTEM FOR STEEL PILING

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for shop application of protective coating.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

	American Society for Testing and Materials (ASTM)
ASTM D 3359	Test Methods for Measuring Adhesion by Tape Test.
ASTM D 4414	Standard Practice for Measurement of Wet Film Thickness by Notch Gages.
ASTM D 4417	Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel.
ASTM D 4541	Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
ASTM D 4285	Test Method for Indicating Oil or Water in Compressed Air.
	U.S. Army Corps of Engineers (USACE)
	Paint Specification C-200A.
	Guide Spec. UFGS-099702 (April 2006).
	U.S. Department of Defense (DOD)
MIL-DTL-24441/19B	Paint, Epoxy-Polyamide, Zinc Primer Formula 159, Type III.
	The Society for Protective Coatings (SSPC)
SSPC-Paint 16	Coat Tar Epoxy Polyamide Black (or Dark Red) Paint.
SSPC-SP 1	Solvent Cleaning.
SSPC-SP 2	Hand Tool Cleaning.
SSPC-SP 3	Power Tool Cleaning.
SSPC-SP 10	Near-White Blast Cleaning.
SSPC-SP 11	Power Tool Cleaning to Bare Metal.
SSPC-PA 1	Shop, Field, and Maintenance Painting of Steel.
SSPC-PA 2	Measurement of Dry Coating Thickness with Magnetic Gages.
SSPC-QP 3	Standard Procedure for Evaluating Qualifications of Shop Painting Contractors.

SSPC-VIS 1 Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning.

1.03 QUALITY ASSURANCE

A. Coating System Compatibility

The coating system, including all primers and undercoats, shall be produced by the manufacturer of the topcoat.

B. Coating of Steel Piling - Shop Requirements

Shop coating of steel piling shall be done by firms that have a current SSPC-QP 3 certification and are approved by the Engineer.

C. Quality Control (QC)

1. Verify that the entity performing coating of steel piling has a written quality control program. The program shall contain, but not be limited to, the following:

   a. The qualifications of QC staff, including training records and experience.

   b. The authority of QC staff and reporting lines in the firm's organization chart.

   c. Standards and specifications used by QC staff for inspection purposes.

   d. Inspection reports and other records documenting compliance with this Specification and with Engineer's requirements.

   e. List of inspection equipment and calibration procedures used by QC staff.

   f. Procedure for QC staff to advise the shop foreman, in writing, of non-conforming work.

2. Contractor's Responsibility

   a. The Contractor is responsible for Quality Control, which entails the daily inspection of all painting. The Quality Control Program shall ensure that coating systems are applied according to the coating manufacturer's technical data sheets subject to approval by the Engineer for surface preparation, ambient conditions, application parameters, curing and film thickness.

   b. The Engineer will perform Quality Assurance inspections to verify that the Contractor's Quality Control program is being followed.

3. Schedule and Engineer Approval

   a. Submit a schedule for surface preparation and painting at least 30 days prior to beginning Work.

   b. At least 10 days prior to painting, notify the Engineer.

1.04 DELIVERY, STORAGE, AND HANDLING

Store paint materials not in actual use in tightly covered containers at a minimum ambient temperature of 45 deg F and a maximum ambient temperature of 90 deg F in a well-ventilated area. Maintain containers used in storage of coatings in a clean condition, free of foreign materials and residue.

1.05 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 ABRASIVES

A. Abrasives shall be dry and free of oil, grease, corrosion producing chemicals and other deleterious contaminants. Do not use silica sand.

B. Abrasives shall be shaped and sized to produce a sharp, angular profile height of 1.5-2.5 mils, unless the requirements of the coating manufacturer are more restrictive. In this case, comply with profile requirements specified by the coating manufacturer.

2.02 COATINGS

The coating system shall consist of one coat of zinc-rich epoxy primer meeting the requirements of MIL-DTL-24441/19B and two coats of coal tar epoxy meeting the requirements of SSPC-Paint 16 with Type 1 pitch (USACE Formula C-200A).

A. Zinc-Rich Epoxy Primers

1. Carbozinc 859, manufactured by Carboline Co., St. Louis, MO.
2. MIL-DTL-2441C (SH), Type III Epoxy Polyamide Zinc Rich Primer manufactured by Sherwin-Williams Co., Cleveland, OH.

B. Coal Tar Epoxies

1. Bitumastic 300 M, manufactured by Carboline Co., St. Louis, MO.
2. TarGuard Coal Tar Epoxy, manufactured by Sherwin-Williams Co., Cleveland, OH.

C. Touch-up coatings for repair of coating defects and damage shall be as recommended by the coating manufacturer and approved by the Engineer.

PART 3. EXECUTION

3.01 SURFACE PREPARATION

A. Weld Spatter, Sharp Edges and Holes

1. Remove slag, flux deposits, weld spatter and surface irregularities such as slivers, tears, fins and hackles; follow AWS guidelines. Grind any resulting burrs smooth, including burrs around holes. Do not remove any weld material that will weaken weld strength.
2. Prior to preparation, break sharp edges such as those created by flame cutting and shearing. Do not break rolled edges of angles, channels and wide flange beams without the Engineer's approval.

B. Compressed Air Cleanliness

1. Compressed air shall be free from moisture and oil contamination.

2. Use the white blotter test in accordance with ASTM D 4285 to verify the cleanliness of the compressed air. Conduct the test at the start of each shift for each compressor system.

3. If testing indicates contamination, soiling or discoloration visible on the paper, change filters, clean traps, add moisture separators or filters, or make adjustments as necessary to achieve clean, dry air. Reinspect surfaces prepared or coated since the last satisfactory test and reblast such surfaces at no additional cost to the Authority.

C. Prior to dry abrasive blast cleaning, remove all visible oil, grease, soil, drawing and cutting compounds and other soluble contaminants from bare steel in accordance with SSPC-SP 1.

D. Abrasive Blasting

1. Perform abrasive blasting in accordance with SSPC-SP 10 using a production line shot and grit blast machine or by air blast. Maintain the abrasive work mix such that the final surface profile is within the required range. Use SSPC-VIS 1 to evaluate the degree of cleaning.

2. Provide expendable or recyclable abrasives that are dry and free of oil, grease, and corrosion producing or other deleterious contaminants. Check the abrasive daily (or more frequently if required) for oil, grease or dirt contamination with the vial test. The test consists of adding a sample of abrasive from the inside of the blast machine to a sealable vial filled with deionized water. The vial is shaken for one minute and allowed to settle for five minutes. If any oil or grease is floating on top of the water, then the abrasive is contaminated. If the water becomes cloudy, then it contains dirt. Do not use contaminated or dirty abrasives to blast steel surfaces.

3. Do not conduct surface preparation when the surface temperature is less than 5 deg F above the dew point.

4. The steel surface profile shall be 2-3 mils. Measure the surface profile of each pile at three locations, paying special attention to areas that may have been shielded during blasting. Measure the surface profile using Testex replica tape in accordance with ASTM D 4417. Retain the impressed tapes and file with the Quality Control inspection records.

3.02 MIXING AND HANDLING

A. Do not use coating materials that have exceeded their shelf life.

B. When required by the coating manufacturer, warm paints stored at less than 50 deg F to above 50 deg F prior to mixing.

C. Mix coatings in accordance with the requirements of the coating manufacturer using mechanical equipment such as a jiffy mixer.

D. Mix only complete kits of multi-component materials. Mixing of partial kits is not allowed.

E. Do not use two-component materials beyond the pot life established by the coating manufacturer's technical data sheets.

3.03 COATING APPLICATION

A. General

1. Apply the coatings in accordance with the requirements of this Section and SSPC-PA 1.

2. Apply zinc-rich epoxy primer 19B in accordance with the manufacturer's directions in two, half-lapped spray coats to an average dry film thickness of a minimum of 3.0 mils. The thickness at any point shall be not less than 2.5 mils or greater than 8 mils for the primer. After a minimum drying period of 6 hours and no more than 96 hours, apply at least two coats of coal tar epoxy paint. The minimum thickness at any point shall be 16 mils for the completed system. If the zinc-rich epoxy paint has been applied in the shop or otherwise has been permitted to cure for longer than 96 hours, abrade it and recoat with an additional thin tack coat of the zinc-rich epoxy paint, which in turn shall be overcoated within 96 hours with the first coat of coal tar epoxy paint. Attain the specified film thicknesses in any event and apply any additional coats needed to attain specified thickness at no additional cost to the Authority.

B. Quality of Surface Preparation and Time Restrictions Prior to Coating

1. Verify that the surface exhibits the specified degree of cleaning immediately prior to coating. Reclean deficient areas. Do not apply coating unless the prepared surface is inspected and approved by the Engineer.

2. Apply the first coat within 12 hours of cleaning to bare metal. If the bare substrate is allowed to remain uncoated for more than 12 hours or if rerusting is evident, reclean the surface prior to painting.

C. Surface Cleanliness Prior to Coating and Between Coats

1. Do not perform coating application in areas where dust is being generated.

2. Thoroughly clean the surface of each coat prior to the application of the next coat to remove spent abrasive, dirt, dust, cement spatter and other deleterious materials. Pay particular attention to the removal of detrimental residue from surfaces such as corners and pockets. Clean the surfaces by vacuuming or blowing with compressed air.

3. If grease or oil has become deposited on the bare steel or on the surface of any of the applied coats, remove by solvent cleaning in accordance with SSPC-SP 1 prior to the application of the next coat. Use a solvent that is acceptable to the coating manufacturer.

D. Ambient Conditions During Coating Application

1. Apply coatings under the following conditions unless the requirements of the coating manufacturer are more restrictive:

a. Surface and Air Temperatures: Between 50 deg F and 100 deg F.

b. Relative Humidity: Less than 90 percent.

c. Dew Point: Surface temperature at least 5 deg F above the dew point temperature of the surrounding air.

d. Frost/Rain: Do not apply coatings to surfaces containing frost or free standing water, or during rain, fog or similar detrimental weather conditions.

2. Remove and replace any coating that is exposed to unacceptable conditions (e.g. rain or dew) prior to adequate curing.

E. Coating Thickness

Apply materials to establish dry film thickness values in accordance with the requirements of this Section. Monitor paint application rate by use of wet film thickness gage in accordance with ASTM D 4414. Measure dry film thickness in accordance with SSPC-PA 2.

1. Give special attention to ensure that surfaces such as edges, corners, crevices, welds and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

2. Apply additional coating to areas of insufficient thickness. Use care during application to assure that repairs blend in with the surrounding surfaces.

3. Remove excessive coating thickness and reapply the affected coats(s), unless directed otherwise by the Engineer.

F. Performance Requirements

1. The cured coating shall be of uniform gloss and thickness and shall be free of blisters, pinholes, fisheyes, sags, runs and any other irregularities.

2. The dry film thickness of the coating system shall be measured in accordance with SSPC-PA 2 and shall be a minimum of 16 mils at any point.

3. Test for continuity of coating with a holiday tester of 100 volts or less. Repair all holidays detected and retest to confirm repair.

4. All coats of the system shall be well adhered to each other and to the substrate. At Engineer's request conduct adhesion tests in accordance with ASTM D 3359 or ASTM D 4541 and repair all test areas. The acceptance criteria for the testing will be established by the Engineer. Remove all defective coating and reblast and recoat such areas in accordance with the requirements of this Section.

5. Maintain quality control records on the results of inspections and submit results to the Engineer as stipulated in Appendix "A".

G. Repair of Damaged and Unacceptable Coatings Before and After Pile Driving

1. Surface Preparation of Localized Areas

a. Repair localized damage, corrosion and unacceptable coatings.

b. Prepare the surface by cleaning in accordance with SSPC-SP 1 followed by SSPC-SP 2 or SSPC-SP 3. Use a solvent that is acceptable to the paint manufacturer.

c. For previously blast-cleaned steel: If the damage exposes the substrate, remove all loose material and prepare the steel in accordance with SSPC-SP 11.

2. Surface Preparation of Extensive Areas

a. Repair extensive areas of damage or unacceptable coating by methods acceptable to the Engineer, based on the nature of the defect.

b. For previously blast-cleaned steel, blast surface back to original requirements. Use extreme care to avoid overblast damage to the surrounding coating.

3. Feathering of Repair Areas

a. Feather the existing coatings surrounding each repair location. Feather for a distance of 1 to 2 inches to provide a smooth, tapered transition into the coating.

b. Verify that the edges of coating around the periphery of the repair areas are tight and intact by probing with a putty knife in accordance with the requirements of SSPC-SP 3. Roughen the existing coating in the feathered area to assure proper adhesion of the repair coats.

H. Coating Application in Repair Areas

1. When the bare substrate is exposed in the repair area, reapply all coats of the system to the specified thickness.

2. When the damage does not extend to the bare substrate, reapply only the affected coats.

3. Maintain the thickness of the system in overlap areas within the specified total thickness tolerances.

4. For field touch-up after pile driving, use touch-up coatings as recommended by the coating manufacturer and approved by the Engineer.

3.04 PROTECTION

Ensure that coated items are not shipped until cured. Protect all fully coated and cured items from handling and shipping damages using padded slings, dunnage, separators and tie-downs.

END OF SECTION

SECTION 02392

ZINC-RICH EPOXY/COAL TAR EPOXY COATING SYSTEM FOR STEEL PILING

APPENDIX "A"

SUBMITTALS

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 - GENERAL PROVISIONS:

A. Product Data

1. For specific products listed in 2.02 A, B and C, submit the following for each product:
   a. Manufacturer's printed Technical Data Sheets.
   b. Material Safety Data Sheets (MSDS).
   c. Manufacturer's printed product label and application instructions.
2. For products other than those expressly listed in 2.02 A, B and C, submit the following for each product:
   a. Information adequate for the Engineer to compare the specified product and the proposed substitution; including, but not limited to, technical specifications, test data, references to product use in existing installations, and any other data required by the Engineer.

B. Certifications

Submit the paint shop's current SSPC-QP 3 certification.

C. Surface Preparation/Coating Plan

1. Written procedures for conducting the Work of this Section including but not limited to the preparation of surfaces, abrasive "work mix" analysis; coating mixing, application and repair; recoat times and cleaning between coats; and specific details for the preparation and coating of welds.
2. A comprehensive listing of the equipment that will be used for surface preparation and coating. A description of equipment repair and replacement capability, including the procedures that will be followed in the event of equipment failure so that lost production time is kept to a minimum.

D. Quality Control Inspection Plan

If required by the Engineer, submit the quality control inspection plan that will be followed to confirm that all coating Work complies with the requirements of this Section. The plan shall include the following at a minimum:

1. Inspection organization chart including lines of authority and the experience, training and qualifications of quality control personnel.

2. Written inspection procedures for all phases of the Work, including the frequency of inspections that will be performed and the handling of non-conforming Work.

3. Documentation procedures including samples of the actual inspection forms that will be used for Work of this Section.

4. Written description of equipment to be used for surface preparation and coating application inspection, calibration procedures, frequency of calibration and the methods for handling equipment that is found to be out of calibration.

E. Inspection Reports

1. Submit a copy of the inspection report template that will be used for the Work.

2. Submit one copy of the actual daily inspection reports to the Engineer each seven calendar days.

END OF APPENDIX "A"

DIVISION 2

SECTION 02483

DREDGING - NO BARGE OVERFLOW PERMITTED

PART 1 - GENERAL

1.01 SUMMARY

A. This Section specifies requirements for dredging of all materials of whatever nature encountered within the areas shown on the Contract Drawings including materials that may slough in from the side slopes.

1.02 QUALITY ASSURANCE

A. Verify that the entity performing dredging has within the two (2) years preceding the date of submission of the Proposal for this Contract, been engaged in dredging within the navigable waters of the United States, as defined in 33 CFR 329.4, and within such time has successfully completed at least one dredging contract involving dredging of a quantity of material not less than that required for Work of this Contract. In addition, verify that such entity has successfully completed, at any time, at least one contract for dredging of a quantity of material within the navigable waters of the United States, as defined herein, using the dredging method selected by the Contractor for use under this Contract.

B. Establish and maintain control of dredging and disposition operations to ensure that the following are in compliance with Contract requirements:

1. Perform dredging to the lines and grades shown on the Contract Drawings.

2. Dispose of dredged materials as stipulated in 3.03 herein.

1.03 Not Used.

1.04 SUBMITTALS

For Submittals, see Appendix A

PART 2 - PRODUCTS

Not applicable.

PART 3 - EXECUTION

3.01 PREPARATION

A. In the event that floating fender bumpers (such as camels or deadmen) interfere with operations of the Work of this Contract, temporarily relocate them to an area

approved by the Engineer and then re-secure them in the original area when operations in that immediate area are complete, or when so directed by the Engineer.

B. Fathometer Soundings

1. Prior to commencement of dredging to be performed under this Section of the Specifications, take continuous profile fathometer soundings at a maximum spacing of ten (10) feet shown throughout the areas to be dredged and extending at least one hundred (100) feet beyond the perimeter of the areas to be dredged or to the face of the bulkhead or pier as applicable.

2. Fathometer soundings shall be taken to an accuracy of 0.1 feet.

3. All fathometer data shall be signed by a certified hydrographer licensed in the State of New York.

C. Lead Soundings

1. Take soundings using a nine-inch diameter, perforated lead disk weighing 6.6 pounds.

2. Lead soundings shall be taken in areas where the Engineer finds fathometer soundings to be impractical or not of sufficient accuracy.

3. Take lead soundings in the presence of the Engineer prior to commencement of dredging.

4. Take soundings by gently lowering the lead disk until the weight is fully supported by the bottom and slack appears in the line.

5. Take soundings to an accuracy of 0.1 feet.

3.02 DREDGING OPERATIONS

A. All dredging methods shall conform to the following and shall be subject to the approval of the Engineer:

1. Dredge using an environmental bucket(s).
2. The environmental bucket shall meet the following specifications:

a). The bucket must be constructed with sealing gaskets or overlapping sealed design at the jaws, and seals or flaps positioned at locations of vent openings to minimize the loss of material during transport through the water column and into the barge.

b). Any seals or flaps designed and/or installed at the jaws and locations of vent openings must tightly cover these openings while the bucket is lifted through the water column and into the barge. If excessive loss of water and/or sediments from the bucket is observed from the time of its breaking the water surface to crossing the barge gunwale, the Engineer shall halt dredging operations and inspect the bucket for defects. Operations shall be suspended until all necessary repairs or replacements are made. 177

3. All materials dredged including water that may inadvertently become trapped in the bucket during dredging shall be deposited into the barge (scow).

4. No barge (scow) overflow is permitted.

5. Ensure that the entity performing the dredging Work of this Section minimizes the amount of water entering the barge (scow) by such methods as taking full depth cuts of material to be dredged and using appropriately sized buckets.

6. The bucket must be lowered to the level of the barge gunwales prior to the release of the load.

B. Perform dredging to elevations shown on the Contract Drawings.

C. Upon completion of dredging, remove any material that may have been deposited in areas adjacent to the dredged areas, as shown by the soundings required in 3.04 herein.

D. Within a distance of 50 feet from the face of wharf or other structures, replace material removed outside the limits of the area to be dredged or below the "Allowable Overdredge" with material of equivalent weight, strength and stability as the in-situ material, as approved by the Engineer and at no additional cost to the Authority. Since dredging beyond the "Allowable Overdredge" may affect the stability of the structures, the Contractor shall be liable for any damage to said structures which occurs as the result of dredging beyond the aforesaid limits. Also, in the event that fines or penalties are levied because of dredging outside the limits of dredging or below the allowable overdredge, the Contractor shall assume the risk of all fines or penalties imposed.

E. Exercise extreme care when operating in the vicinity of any structure and repair, to the satisfaction of the Engineer and at no additional cost to the Authority, all damage occurring as a result of the operations of the Work of this Contract.

3.03 DISPOSITION OF DREDGED MATERIAL

A. Disposition of dredged material shall be to a permitted and operational upland disposal facility(ies).

B. Comply with all applicable requirements of each of the following:

1. The permits stipulated in the Section of Division 1 - GENERAL PROVISIONS entitled "Laws and Ordinances";

2. All local, state and Federal agencies that would have jurisdiction, if the Authority were a private corporation.

a. Perform operations and use equipment for Work under this Contract in such a way that no dredged materials leak into or are deposited into

navigable channels during their removal or transportation. Should leakage occur, remove such materials and immediately correct the condition that caused such leakage or discharge at no cost to the Authority.

b. Decant water shall be discharged at the dredging site in accordance with the following conditions:

i). A barge load must be allowed to settle for a minimum of 24 hours prior to discharge.

ii). The discharge must be visually monitored at all times. Should a visible plume be observed, discharge must cease and additional settling time provided prior to continuing the discharge.

3.04 POST-DREDGING SOUNDINGS

After dredging to required elevation(s), obtain soundings in the manner specified in 3.01 B herein.

END OF SECTION

SECTION 02483

DREDGING - NO BARGE OVERFLOW PERMITTED

APPENDIX "A"

SUBMITTALS

A. Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 - GENERAL PROVISIONS:

1. Original bathymetric data on compact disks (CD's). Such CD's shall become the property of the Authority.

2. Calculations of the total volume of material to be dredged to design depth and to design plus paid overdepth.

3. Unless stipulated otherwise in any of the permits issued for Work under this Contract, submit drawings showing the plan layout of the soundings taken before and after dredging and indicating the depths below mean low water (MLW NGVD 1929). The drawings shall be to a scale of 1 inch equals 40 feet. Submit such drawings as follows:

   a. Soundings for a pre-dredging survey, as required by 3.01B and 3.01C herein, with an estimate of the total volume of material to be removed, not less than thirty (30) calendar days prior to commencement of dredging. Volumes shall be for the design depth (Dredge Line) as well as for the design depth plus paid overdepth as shown on the drawings.

   b. Soundings for a post-dredging survey as required by 3.04 herein, with a calculation of the volume of material actually removed, immediately after completion of dredging "Material for Upland Disposal". Volumes shall be for the design depth, the design depth plus paid overdepth and for the total volume removed. Show data points for recordings less than the "Dredge Line" depth in green and recordings deeper than the "Dredge Line" depth plus two (2) feet (deeper than the "Allowable Overdepth") in red.

B. Submit to the Engineer for approval drawings and performance specifications for the environmental bucket.

END OF APPENDIX "A"

DIVISION 2

SECTION 02489

TIMBER CONSTRUCTION FOR WATERFRONT STRUCTURES

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for timber construction for Waterfront structures.

1.02 REFERENCES

American Wood Preservers' Association (AWPA)

AWPA C 1	Timber Products - Preservative Treatment by Pressure Processes
AWPA C 18	Pressure Treated Piles and Timber in Marine Construction
AWPA M 4	Standard for the Care of Preservative - Treated Wood Products
AWPA P5	Waterborne Preservatives

Federal Specifications

FF-N-105B	Nail, Brads, Staples and Spikes: Wire, Cut and Wrought

American Society for Testing and Materials (ASTM)

ASTM A 36	Structural Steel
ASTM A 123	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 153	Zinc (Hot-Dip Galvanized) Coating on Iron and Steel Hardware
ASTM A 307	Low Carbon Externally and Internally Threaded Standard Fasteners

American Society of Mechanical Engineers/American National Standard Institute (ASME/ANSI)

Standard B18.2.1 Square and Hex Bolts and Screws.

Standard Grading Rules for Southern Pine Lumber.

Standard No. 17 Grading Rules for West Coast Lumber.

Western Lumber Grading Rules.

American Welding Society, Inc. (AWS)

D 1.1	Structural Welding Code

1.03 QUALITY ASSURANCE

A. The Engineer reserves the right to inspect timber at any time. The Contractor shall give the Engineer one week's notice prior to shipping timber to the construction site.

1.04 DELIVERY, STORAGE AND HANDLING

Handling and care of pressure treated wood shall conform to the requirements of AWPA-M4.

1.05 SUBMITTALS

For submittals see Appendix "A".

PART 2. PRODUCTS

2.01 MATERIALS

A. Lumber and timber shall comply with the requirements of the latest published standard grading rules of the lumber association under whose rules the particular items are graded. They shall bear the official grade mark of the association under whose rules it is graded, and the moisture content shall conform to such rules. All four longitudinal faces must be free of pith and/or heartwood. Unless otherwise shown on the Contract Drawings, grades shall be as follows:

1. Vertical Sheeting

   Southern Yellow Pine - No. 1 Dense or Douglas Fir. - Dense No. 1.

2. Decking

   Southern Yellow Pine - Dense Select Decking or Douglas Fir - Commercial Decking.

3. Timbers

   Southern Yellow Pine - No. 1 Dense or Douglas Fir - Dense No. 1.

B. Lumber and timber shall be preservative treated unless untreated is shown on the Contract Drawings.

2.02 ACCESSORIES

A. Bolts, nuts and washers shall conform to ASTM A 307.

B. Lag screws shall conform to ASME/ANSE Standard B18.2.1.

C. Spikes shall be cut spikes conforming to Federal Specification FF-N-105B.

D. Adhesive-bonded anchors shall be as specified on the Contract Drawings.

E. Structural steel shall conform to ASTM A 36 unless otherwise shown on the Contract Drawings.

2.03 FABRICATION

A. Galvanizing

1. Galvanize all new timber fasteners and hardware in accordance with ASTM A 153 to a minimum coating of 2.0 oz. per square foot.

2. All ferrous metal items not shown to be otherwise on the Contract Drawings or specified to be otherwise in this Section shall be galvanized; comply with ASTM A123 and insofar as possible perform all galvanizing after fabrication.

B. Welding

Conform to AWS D1.1. Qualify welding processes and welding operators in accordance with AWS "Standard Qualification Procedure". Unless otherwise shown on the Contract Drawings, all welds shall be continuous along entire line of contact.

PART 3. EXECUTION

3.01 PREPARATION

A. Preservative Treatment

1. Pressure treat lumber and timber as called for on the Contract Drawings. Preservative treatment shall conform to AWPA C2 and AWPA C18.

2. Preservative

a. Use Chromated copper arsenate (CCA) conforming to AWPA P5.

3.02 INSTALLATION

A. All timber shall be accurately cut and framed to a close fit so that all joints will have even bearing over the entire contact surfaces without shunning.

B. Holes for round drift bolts and dowels shall be bored with a bit one-sixteenth-inch smaller in diameter than that of the bolt or dowel used. Holes for machine bolts shall be bored with a bit of the same diameter of the bolt. Holes for lag screws shall be bored with a bit not larger than the body of the screw at the tip of the thread.

C. Washers shall be as shown on the Contract Drawings.

D. Holes to receive timber fasteners shall be counter-bored so as not to cause timber to crack or split when fastenings are installed.

E. Treat field cuts and surface damage of pressure treated lumber and timber in accordance with the AWPA Specifications.

END OF SECTION

SECTION 02489

TIMBER CONSTRUCTION FOR WATERFRONT STRUCTURES

APPENDIX "A"

SUBMITTALS

The following items shall be submitted to the Engineer for approval, except as otherwise noted.

A. Samples

1. As per Division 1 "Shop Drawings, Catalog Cuts and Samples".
2. Timber fasteners and adhesive-bonded anchors.

END OF APPENDIX "A"

DIVISION 2

SECTION 02490

FENDER SYSTEMS

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for fender systems to protect structures against berthing of marine vessels.

1.02 REFERENCES

American Society for Testing and Materials (ASTM)

ASTM A 36	Standard Specification for Carbon Structural Steel
ASTM A 123	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 307	Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
ASTM A 391	Standard Specification for Grade 80 Alloy Steel Chain
ASTM A 563	Standard Specification for Carbon and Alloy Steel Nuts
ASTM A 668	Standard Specification for Steel Forging, Carbon and Alloy, for General Industrial Use
ASTM F 844	Standard Specification for Washers, Steel, Plain (Flat), Unhardened for General Use
ASTM F1667	Standard Specification for Driven Fasteners: Nails, Spikes, and Staples

American Society of Mechanical Engineers/American National Standard Institute (ASME/ANSI)

Standard B18.2.1 Square and Hex Bolts and Screws

Southern Pine Inspection Bureau (SPIB)

Standard Grading Rules for Southern Pine Lumber

American National Standard Institute/American Forest & Paper Associates (ANSI/AF&PA)

National Design Specifications for Wood Construction

National Hardwood Lumber Association

Rules For The Measurement & Inspection of Hardwood & Cypress

American Welding Society, Inc. (AWS)

D1.1	Standard Welding Code

1.03 QUALITY ASSURANCE

The Engineer reserves the rights to inspect timber at any time. The Contractor shall provide the Engineer with 15-day written notification prior to preservative treatment or shipping timber to the construction site.

1.04 SUBMITTALS

For submittals see Appendix "A".

PART 2. PRODUCTS

2.01 TIMBER

A. All timber shall comply with the requirements of the latest published standard grading rules of the lumber association under whose rules the particular items are graded. They shall bear the official grade mark of the association under whose rules it is graded, and the moisture content shall conform to such rules.

B. All timber, except chocks and bearing wedges shall be Southern Yellow Pine - No. 1 Dense unless otherwise shown on the Contract Drawings.

C. The chocks for the fender system and timber bearing wedges shall be mixed oak and shall conform to the requirements of the National Hardwood Lumber Association for sound square edge oak.

D. All timber shall be untreated unless otherwise shown on the Contract Drawings.

2.02 ACCESSORIES

A. Bolts shall conform to ASTM A 307, Grade A.

B. Nuts shall conform to ASTM A563, Grade A, heavy hex style, except that nuts under 1 ½" may be provided in hex style.

C. Washers shall conform to ASTM F844.

D. Lag screws shall conform to ASME/ANSI Standard B18.2.1.

E. Spikes shall be cut spikes conforming to ASTM F1667.

F. Adhesive-bonded anchors shall be as specified on the Contract Drawings.

G. Steel plates and shapes shall conform to ASTM A 36.

H. Chain used for the installation of rubber block assemblies shall be heavy-duty alloy steel with a nominal diameter of 1 inch, conforming to ASTM A 391 and shall be hot dipped galvanized as specified in this Section.

I. Miscellaneous hardware such as turnbuckles, shackles and eyebolts shall conform to ASTM A 668, Class G, Grade X3 or X4.

J. Rubber blocks shall be as specified in Appendix "B".

2.03 FABRICATION

A. Galvanizing

1. Galvanize all new timber fasteners and hardware in accordance with ASTM A 153 to a minimum coating of 2.0 oz. per square foot.

2. All ferrous metal items, unless otherwise shown on the Contract Drawings or otherwise specified in this Section, shall be galvanized per ASTM A 123 and insofar as possible after fabrication.

B. Welding

Welding shall conform to AWS D1.1. Welders and welding procedures shall be qualified in accordance with AWS "Standard Qualification Procedure". Except where spot welding is shown on the Contract Drawings, all welds shall be continuous along entire line of contact.

PART 3. EXECUTION

3.01 TIMBER FASTENING

A. Counter-bore hole for timber fasteners to prevent cracking and splitting.

B. Where the length of fasteners are not shown on the Contract Drawings use the lengths required by the National Design Specification for Wood Construction.

3.02 TIGHTENING BOLTS

All bolts shall be tightened snugly against timber members with a pneumatic tool unless otherwise approved by the Engineer.

END OF SECTION

SECTION 02490

FENDER SYSTEMS

APPENDIX "A"

SUBMITTALS

The following items shall be submitted to the Engineer for approval, except as otherwise noted.

A. Name and contact information for timber mill/supplier. The name and contact information for the preservative treatment facility shall also be provided if preservative treatment is specified on the Contract Drawings.

B. Written notification fifteen (15) days prior to treatment or shipment of timber.

C. Mill certifications for bolts, nuts, washers, steel plates and shapes.

D. Certification from Galvanizer confirming galvanization meets these Specification requirements.

E. Welder's qualifications.

F. Welding Procedure Specification (WPS)

G. Shop Drawings of fender system.

H. Catalog Cuts/Product Data Sheets for spikes, adhesive anchors, chains, and miscellaneous hardware and rubber blocks demonstrating compliance with this Specification or the Contract Drawings.

END OF APPENDIX "A"

SECTION 02490

FENDER SYSTEMS

APPENDIX "B"

RUBBER BLOCKS

A. NOT USED

END OF APPENDIX "B"

DIVISION 2

SECTION 02551

ASPHALT CONCRETE PAVING

PART 1. GENERAL

1.01 SUMMARY

A. This Section specifies requirements for plant mix macadam base course, bottom course, top course, bridge deck membrane, tack coat and overlay of existing pavement with asphalt concrete using performance graded asphalt specified in 2.02B.

B. Except as in 1.01 C. below, recycled asphalt concrete pavement (consisting of reclaimed asphalt pavement blended with new materials) may be used to the percentages specified in 1.04C.2.b.

C. Recycled asphalt concrete shall not be used in mixes where modified asphalts are used.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO MP1	Performance Graded Asphalt Binder
AASHTO PP1	Practice for Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)
AASHTO TP1	Test Method for Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)
AASHTO TP5	Test Method for Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)
AASHTO T48	Flash and Fire Points by Cleveland Open Cup
AASHTO T240	Effect of Heat and Air on a Moving Film of Asphalt (Rolling Thin Film Oven Test)

American Society for Testing and Materials (ASTM)

ASTM C 88	Test Method For Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate

ASTM C 117	Test Method for Materials Finer than 75-micrometres (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 127	Test Method for Specific Gravity and Absorption of Coarse Aggregate
ASTM C 128	Test Method for Specific Gravity and Absorption of Fine Aggregate
ASTM C 131	Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C 566	Test Method for Total Moisture Content of Aggregate by Drying
ASTM C 1252	Test Methods for Uncompacted Void Content of Fine Aggregate (as Influenced By Particle Shape, Surface Texture, and Grading)
ASTM D 70	Test Method for Specific Gravity and Density of Semi-Solid Bituminous Materials
ASTM D 75	Practice for Sampling Aggregates
ASTM D 242	Mineral Filler for Bituminous Paving Mixtures
ASTM D 692	Coarse Aggregate for Bituminous Paving Mixtures
ASTM D 979	Practice for Sampling Bituminous Paving Mixtures
ASTM D 995	Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures
ASTM D 1073	Fine Aggregate for Bituminous Paving Mixtures
ASTM D 1461	Test Method for Moisture or Volatile Distillates in Bituminous Paving Mixtures
ASTM D 1559	Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
ASTM D 2041	Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D 2172	Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
ASTM D 2419	Test Method for Sand Equivalent Value of Soils and Fine Aggregate

ASTM D 2726	Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D 3203	Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
ASTM D 3549	Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens
ASTM D 3666	Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials
ASTM D 4125	Test Methods for Asphalt Content of Bituminous Mixtures by the Nuclear Method
ASTM D 4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D 4402	Method for Viscosity Determinations of Unfilled Asphalt Using the Brookfield Thermosel Apparatus
ASTM D 4791	Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D 4867	Effect of Moisture on Asphalt Concrete Paving Mixtures
ASTM D 5976	Type I Polymer Modified Asphalt Cement for Use in Pavement Construction
ASTM D 6084	Method for Elastic Recovery of Bituminous Materials by Ductilometer
ASTM D 6307	Test Method for Asphalt Content of Hot-Mix Asphalt by Ignition Method
ASTM E 178	Practice for Dealing with Outlying Observations Asphalt Institute - Manual Series
MS-2	Mix Design Methods for Asphalt Concrete, and Other Hot-Mix Types
MS-20	Asphalt Hot-Mix Recycling

Dept. of Transportation - Federal Aviation Administration (FAA)

Eastern Region Laboratory Procedures Manual (ERLPM) March, 1994

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

A. Job Conditions

1. Apply tack coat only when the base surface is dry, the ambient temperature in shade is 35 degrees F or above and the temperature has not been below 32 degrees F for 12 hours immediately prior to application, unless otherwise approved by the Engineer.

2. Asphalt concrete mixture laydown temperatures shall be within the limits shown in the following tables:

TABLE OF ASPHALT CONCRETE MINIMUM LAYDOWN TEMPERATURE FOR GIVEN BASE TEMPERATURE AND COURSE THICKNESS - MIXTURES CONTAINING BLENDED BITUMEN						
Base Temp. in Degrees F°	Course Thickness in Inches					
	½	¾	1	1 ½	2	3+
31-40	---	---	---	---	330	320
41-50	---	---	330	330	320	320
51-60	---	330	320	320	320	320
61-70	330	320	320	320	320	320
71-80	320	320	320	320	320	320
81-90	310	310	310	310	310	310
91 & 0VER	300	300	300	300	300	300

TABLE OF ASPHALT CONCRETE MINIMUM LAYDOWN TEMPERATURE FOR GIVEN BASE TEMPERATURE AND COURSE THICKNESS -ALL OTHER MIXTURES						
Base Temp. in Degrees F°	Course Thickness in Inches					
	½	¾	1	1-1 ½	2	3+
31-40	---	---	---	305	295	280
41-50	---	---	310	300	285	275
51-60	---	310	300	295	280	270
61-70	310	300	290	285	275	265
71-80	300	290	285	280	270	265
81-90	290	280	275	270	265	260
91 & 0VER	280	275	270	265	260	255

3. In case of sudden rain, the Engineer may permit placing of mixture then in transit from the plant provided the surface is free from pools of water and laydown temperatures conform to the above tabulation. Such permission, however, shall not be interpreted as a waiver of any of the quality requirements.

B. Asphalt Concrete Mix Design

1. Design asphalt concrete job mix formula based on the "Mix Design Table" specified in 2.03 A and specimen compaction temperature specified in 1.04 E.3.

2. Design top and bottom courses and bridge deck membrane to the following target values:*

Marshall Stability at 75 blows (ASTM D 1559) - 2150 lbs., min. except 1,000 lbs, min. for bridge deck membrane

Flow Value, 0.01 inch gradation (ASTM D 1559) - 8 to 16, except 15 to 40** for bridge deck membrane

Marshall Air Voids, Percent, (ASTM D 3203) #:

Top course (except Mix I-6A)	3.3 to 4.7
Top course, Mix I-6A	5.3 to 6.7
Bottom course	3.8 to 5.2
Bridge deck membrane	1.5 Max.

Percent Voids Filled with Asphalt

Mix I-2A; I-4A; I-5A; PA-5	65 to 75
Mix I-4; I-5; I-6A	65 to 80
Bridge Deck Membrane	95 to 100

Voids in the Mineral Aggregate (VMA), Percent, Minimum:

Mix I-2A	13
Mix I-4A	14
Mix I-4; PA-5	15
Mix I-5; I-5A	16
Mix I-6A	19
Bridge Deck Membrane	20

3. Plant mix macadam base course (Mix I-1) shall be a mixture designed within the gradation limits specified in 2.03 A. Bottom course (Mix I-2A) may be used in lieu of Mix I-1 provided it meets all requirements for bottom course.

4. The design job mix formula shall indicate definite percentages passing for each sieve fraction of aggregate and an asphalt content.

5. Design new job mix formula for each asphalt plant used, whenever there is a change in material or when field conditions dictate a need for redesign.

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* For asphalt concrete mixes with five percent of the aggregate or greater retained on the 1" sieve, the Engineer may require the use of six inch molds to increase the repeatability of Marshall test results. For six inch molds Marshall stability shall be 4800 lbs. minimum at 113 blows with 22.5 lb. hammer, 18 inch drop and the flow value shall be within the 12 to 24 range.

** Flow may be higher than 40 if other properties meet section requirements and if approved by the Engineer.

Determine by comparing bulk specific gravity (ASTM D 2726) to maximum specific gravity (ASTM D 2041).

6. When required by the Engineer, determine the tensile strength ratio of specimens of the composite paving mixture by procedures specified in ASTM D 4867. The value shall be not less than 75 percent.

C. Plant Production Requirements

1. Top and bottom courses and bridge deck membrane shall have 100 percent of the material in each lot equal, or exceed or fall within the range for the following acceptance limits*:

Marshall Stability at 75 blows (ASTM D 1559) - 1800 lbs., min.

Flow Value, 0.01 inch gradation (ASTM D 1559) - 8 to 16, except 15 to 40** for bridge deck membrane

Marshall Air Voids, Percent, (ASTM D 3203)#:

Top course, (except Mix I-6A)	2.5 to 5.5
Top course, Mix I-6A	4.5 to 7.5
Bottom course	3.0 to 6.0
Bridge deck membrane	1.5 Max.

2. The targets for Marshall stability and flow value shall be as set forth in 1.03 C.1 above. If the PWL as set forth in 4.03 C.5 of the lot for either parameter is less than 90 percent, the Contractor shall take corrective actions as set forth in 3.03 C.

D. In-Place Pavement Requirements

1. Smoothness and Grade

a. Final surface shall be smooth and free from roller marks and irregularities greater than 1/4 inch when tested in accordance with 1.04 D.7.

b. Each surface shall conform to the lines and grades shown on the Contract Drawings within a tolerance of plus or minus 0.045 foot, except where closer tolerance is required for proper functioning of appurtenant structures and drainage. Surface grade shall be tested in accordance with 1.04 D.8.

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* If six inch molds are required as set forth in 1.03 B.2, Marshall stability shall be 4000 lbs minimum at 113 blows with 22.5 lb. hammer, 18 inch drop and the flow value shall be within the 12 to 24 range.

2. Density

a. The target for in-place mat density shall be 98 percent or better (97 percent for pavement on roadway structures). Acceptance shall be on a lot basis as set forth in 1.04 E.3 and E.5. The acceptance of each lot shall be based on the Percent of Material Within Tolerance Limits (PWL), as set forth in 4.03 C.5. Deductions from compensation shall be made if the PWL of the lot is less than 90 percent as set forth in 4.03 D. If the PWL of the lot equals or exceeds 90 percent and pavement joint density for the lot equals or exceeds 90 percent, the percentage adjustment to compensation may be between 100 and 106 as set forth in 4.03 D. The lower tolerance limit for pavement mat density is 96.3 percent (95.7 percent for pavement on roadway structures). For bridge deck membrane, densities which fall below the target shall necessitate that the Contractor take corrective action as set forth in 3.03 B.2.

b. The target for in-place joint density shall be 96 percent or better. Acceptance shall be on a lot basis as set forth in 1.04 E.6. The acceptance of each lot shall be based on the Percent of Material Within Tolerance Limits (PWL), as set forth in 4.03 C.5. If the PWL of the lot is less than 90 percent, the Contractor shall take corrective actions as set forth in.3.03 D. The lower tolerance limit for pavement joint density is 93.3 percent.

c. Plant mix macadam base course shall have stone thoroughly interlocked, interstices reduced to a minimum and creeping of mixture no longer visible and with no further increase in density achievable by additional rolling.

3. Marshall Air Voids

The target bands for Marshall air voids shall be as set forth in 1.03 C.1. Acceptance shall be on a lot basis as specified in 1.04 E.3. The acceptance of each lot shall be based on the Percent of Material Within Tolerance Limits (PWL) as set forth in 4.03 C.5. Deductions from compensation shall be made if the PWL of the lot is less than 90 percent as set forth in 4.03 D, unless the in-place requirements set forth in 1.03 D.4 ar met. If the PWL of the lot equals or exceeds 90 percent and pavement joint density for the lot equals or exceeds 90 percent, the percentage adjustment to compensation may be between 100 and 106 as set forth in 4.03 D.

4. Deductions from the Contractor's compensation for Marshall air voids exceeding the upper limit for acceptance will not be assessed if all of the following criteria are met:

a. In-place density is no less than 99.5 percent of Marshall (98.5 percent for pavement on structure).

b. The average in-place voids are no greater than 5.5 percent for top course (6.0 percent for bottom course and 6.5 percent for pavement on structure).

c. 90 percent of the in-place voids are less than 7.0 percent for top course (7.5 percent for bottom course and 8.0 percent for pavement on structure).

5. Thickness

a. Pavement courses shall conform to thicknesses shown on the Contract Drawings within the following tolerances:

Course or Combination of Courses	Tolerance* (in inches) Plus or Minus
Thickness of top or membrane course	1/4
Total thickness of top course and bottom course	1/4
Total thickness of plant mix macadam base course, bottom course, and top course	1/4
Overlay thickness shall be measured by the tolerance in 1.03 D.1.b	--

1.04 QUALITY CONTROL/ASSURANCE

A. General

1. The Contractor shall establish, provide, and maintain an effective quality control system which will provide reasonable assurance that the materials and completed construction submitted for acceptance conform to contract requirements whether manufactured or processed by the Contractor or procured from sub-contractors or vendors. Although guidelines are established and certain requirements are specified, they are minimum and the Contractor shall assume full responsibility for meeting all requirements.

2. The Contractor shall be prepared to discuss and present, at the preconstruction conference, his/her understanding of the quality control responsibilities for specific items as included in these specifications.

3. The Contractor shall provide the Engineer certification in writing stating that all of the testing equipment to be used is properly calibrated and will meet the specifications applicable for the specified test procedures. As a part of the process for approving the Contractor's Plan, the Engineer may require the Contractor's technician to perform testing of samples to demonstrate an acceptable level of performance.

4. The Contractor shall perform quality control sampling, testing, and inspection during all phases of the work and shall perform them at a rate sufficient to ensure that the work conforms to the contract requirements, and at minimum test frequencies required by 1.04 D.

B. Quality Control Plan

1. The Contractor shall provide and maintain a Quality Control Plan (Plan) along with all the personnel, equipment, supplies and facilities necessary to obtain samples, perform and document tests, and otherwise ensure the quality of the product. For Contracts requiring 5,000 tons of asphalt concrete, the Plan is required. For Contracts requiring less than 5,000 tons of asphalt concrete, the Plan is recommended.

2. The Contractor shall describe the Plan in a written document which shall be approved by the Engineer prior to the start of any production or construction. The written Plan shall be submitted to the Manager, Materials Engineering Division for approval at least 5 days prior to the start of operations.

3. No payments will be made for materials which are subject to specific quality control requirements without an approved Plan.

4. The Plan may be operated wholly or in part by the Contractor or an independent organization. However, the Plan's administration, including compliance with the Plan and its modification, shall remain the responsibility of the Contractor.

5. Plan Contents: The Plan shall be organized to address the following minimum items:

   a. Quality control organization chart.

   b. Area of responsibility and authority of each individual.

   c. Names and qualifications of personnel as required by 1.04 B.7.d.

   d. A listing of any outside organizations such as testing laboratories that will be employed by the Contractor and a description of the services they will provide.

   e. A testing plan which lists the tests required to be performed by the Contractor, the frequency of testing, sampling locations, and the location of the testing facilities.

   f. Procedures for ensuring that tests are taken in accordance with the testing plan, that they are documented, and that proper corrective actions are taken when necessary.

   g. Procedures for ensuring that testing equipment is available, complies with specified standards, and has been calibrated against certified standards.

   h. Procedures for verifying that tests are taken in accordance with the appropriate AASHTO and ASTM standards.

   i. Procedures for submittal of test results to the Engineer on a daily basis.

   j. An action plan detailing the criteria to be utilized to correct unsatisfactory production processes and construction practices, when tests indicate materials are failing to meet specification for the following:

      (1) aggregate gradation

      (2) density

      (3) Marshall air voids

6. Plan Elements. The Plan shall address all elements which affect the quality of the pavement including:

   a. Mix Design

   b. Aggregate Grading

   c. Quality of Materials

   d. Stockpile Management

   e. Proportioning

f. Mixing and Transportation

g. Placing and Finishing

h. Joints

i. Compaction

j. Surface smoothness

7. Quality Control Organization

a. The Plan shall be implemented by the establishment of a separate Quality Control Organization. An organization chart shall be developed to show all quality control personnel integrated with other management, production, and construction functions and personnel.

b. The organization chart shall identify all quality control staff required to implement all elements of the quality control program, including inspection and testing functions for different items of work.

c. If an outside organization or independent testing laboratory is used for implementation of all or part of the Plan, the personnel assigned shall be subject to the qualification requirements of this paragraph. The organization chart shall indicate which personnel are contractor employees and which are provided by an outside organization.

d. The Quality Control Organization shall consist of the following minimum personnel:

(1) Plan Administrator

The Plan Administrator shall be an employee of the Contractor. The Plan Administrator shall have prior quality control experience on a project of comparable size and scope.

In addition, the Plan Administrator shall meet one of the following requirements:

(a.) Professional Engineer with one year of asphalt paving experience acceptable to the Engineer.

(b.) Engineer-in-Training with two years of asphalt paving experience acceptable to the Engineer.

(c.) An individual with three years of highway and/or airport paving experience acceptable to the Engineer and with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

(d.) Construction Materials Technician certified at Level III by the National Institute for Certification in Engineering Technologies (NICET).

(e.) Highway Materials Technician certified at Level III by NICET.

(f.) Highway Construction Technician certified at Level III by NICET.

(g.) A NICET certified Engineering Technician in Civil Engineering Technology with 5 years of asphalt paving experience acceptable to the Engineer.

Certification at an equivalent level, by a State or nationally recognized organization will be acceptable in lieu of NICET certification. The Plan Administrator shall have full authority to institute any and all actions necessary for the successful operation of the Plan to ensure compliance with the Specifications. The Plan Administrator shall report directly to a responsible officer in the Contractor's organization. The Administrator may supervise the Plan on more than one project provided that they can be at the job site within one hour after being notified of a problem.

(2) Quality Control Technicians

The Contractor shall provide a sufficient number of Quality Control Technicians to adequately implement the Plan. These personnel shall be either engineers, engineering technicians, or experienced craftsmen holding a current certificate issued by the New Jersey Society of Asphalt Technologists, Inc. (NJSAT) or New York City Society of Asphalt Technologists (NYCSAT) as applicable. Information regarding the certification procedure can be obtained by contacting NJSAT or NYCSAT.

The Quality Control Technicians shall report directly to the Plan Administrator and shall perform the following functions:

(a.) Inspection of all plant equipment used in proportioning and mixing to ensure proper calibration and operating condition.

(b.) Performance of quality control tests necessary to adjust and control mix proportioning in accordance with the job mix formula.

(c.) Inspection of all equipment used in placing, finishing, and compacting material to ensure proper operating condition.

(d.) Inspection during construction to ensure placement, joint construction, and compaction is in conformance with the specifications and will produce a finished product that meets specification requirements.

(e.) Performance of all quality control testing as required by 1.04 D, including density monitoring.

8. Testing Laboratory.

a. The Plan must provide for a fully equipped asphalt laboratory located at the plant or job site. It shall be available for joint use by the Contractor for quality control testing and by the Engineer for acceptance testing and must have adequate equipment for the performance of the tests required by these specifications. The Engineer shall have priority in use of the equipment necessary for acceptance testing.

b. The effective working area of the laboratory shall be a minimum of 150 square feet with a ceiling height of not less than 7.5 feet. Lighting shall be adequate to illuminate all working areas. It shall be equipped with heating and air conditioning units to maintain a temperature of 70oF + 5oF.

c. In addition to the equipment required for testing, the laboratory shall be equipped with a paper copier and facsimile machine to be utilized by the Engineer.

d. Laboratory facilities shall be kept clean and all equipment shall be maintained in proper working condition. The Engineer shall be permitted unrestricted access to inspect the Contractor's laboratory facility and witness quality control activities. The Engineer will advise the Contractor in writing of any noted deficiencies concerning the laboratory facility, equipment, supplies, or testing personnel and procedures. When the deficiencies are serious enough to be adversely affecting test results, the delivery and placement of the asphalt materials shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

9. Noncompliance.

In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the Contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, the Engineer may:

a. Order the Contractor to replace ineffective or unqualified quality control personnel.

b. Carry out the functions and operations of the Contractor's approved Quality Control Program. Costs incurred by the Engineer to operate the Quality Control Program or to otherwise remedy the Contractor's non-compliance with quality related provisions of the Contract shall be deducted from the total amount due the Contractor.

C. Source of Aggregate and Sampling

1. Virgin Aggregate

a. Sources of virgin aggregates shall be selected well in advance of the time the materials are required for the construction. When the aggregates are obtained from a previously approved source, random hot bin samples shall be submitted,if requested by the Manager, Materials Engineering Division, 14 days prior to the start of production and if from a source not previously approved, random hot bin samples shall be submitted 45 days prior to the start of production. Sampling of the hot bin materials for job mix formulation will be observed by the Engineer and identical samples shall be obtained for verification of the job mix formulation by the Authority's Materials Engineering Division Laboratory. The Engineer may require the proposed mix formulation to be batched at the asphalt plant and tested in the presence of the Engineer.

b. Where previously used or concurrent job mix formulations are to be used, the taking of hot bin samples may be waived by the Engineer.

2. Reclaimed Asphalt Pavement

a. Where reclaimed asphalt pavement material is permitted, it shall have 100 percent passing 1/2 inch sieve and shall be a mixture of only coarse aggregate, fine aggregate, and asphalt cement, free of solvents or other contaminating substances. The fine aggregate contained in the reclaimed asphalt pavement shall have a plasticity index not greater than 4 when tested in accordance with ASTM D 4318.

The stockpiles of reclaimed asphalt pavement shall be maintained in a manner to prevent contamination with other aggregates and shall be covered in order to maintain a low moisture content of the reclaimed asphalt pavement.

b. Unless otherwise shown on the Contract Drawings, the proportion of reclaimed asphalt pavement permitted within each mix shall be 10 percent for top and bottom courses and 25 percent for base course.

c. Contractor's reclaimed asphalt pavement will be considered for use providing the Engineer is notified of the intended use and the reclaimed asphalt pavement is approved. A minimum of six representative samples, each at least 7 pounds, shall be taken from each stockpile. A stockpile shall not exceed 3000 tons. Sampling shall be done by the Contractor in accordance with ASTM D 75, and will be observed by a representative of the Engineer. Duplicate samples shall be taken and submitted with mix design for verification. Samples shall be tested by the Contractor in accordance with ASTM D 2172 to determine asphalt content and the recovered aggregate shall be tested by the Contractor in accordance with ASTM C 136 for gradation.

d. Once a reclaimed asphalt pavement stockpile has been approved for use, the stockpile shall be dedicated to the Contract and no reclaimed asphalt pavement may be added to the stockpile. If there is an insufficient amount of reclaimed asphalt pavement in the stockpile to complete the work, a new, separate stockpile, may be made and shall be tested for acceptance as aforementioned.

3. Stockpiles of reclaimed asphalt pavement and that of new aggregate shall be located so as to prevent intermingling.

4. When more than one asphalt plant is to be used to supply asphalt concrete to the construction site, each asphalt plant shall use the same materials and a similar job mix formula.

5. Locations and timing of random sampling shall be determined in accordance with Section 6 of FAA ERLPM.

D. Contractor's Quality Control Tests

1. Perform all quality control tests necessary to control the production and construction processes. The testing program shall include, but not necessarily be limited to, tests for the control of asphalt content, aggregate gradation, Marshall properties and temperatures. Obtain samples at the direction of the Engineer for the purpose of quality control testing. Random sampling procedures specified in Section 6 of FAA ERLPM shall be used for determining the selection of samples as follows:

a. Take four samples of freshly mixed material per each lot (one sample from each sublot) for top, bottom, and base courses and bridge deck membrane. Take samples in accordance with ASTM D 979 from material at the mixing plant.

A lot will be defined as one day's production for each mix. Production rates for each mix will be obtained from the asphalt plant at the start of each day's production. A sublot will be defined as a quarter of a lot based on the initial production forecast for the mix. Maximum lot size will be 2000 tons. If a day's production is forecast over 2000 tons, the forecast quantity shall be divided into two or more equal lots. Should actual production be greater than the initial forecast of production for a given mix, the additional production will be divided into the same sublot sizes as initially calculated. If one or two additional sublots are produced they will be added to that days lot with n=5 or 6 for sublots. If three or more additional sublots are produced in a day, an additional lot will be established for that particular day.

If actual production is less than the initial forecast for a given mix but sufficient material was produced to constitute three sublots, a lot will be formed with three sublots (n=3). Should actual production constitute only one or two sublots, the sublots will be added either to the previous lot or the next production lot, dependent on the lot that is closer in actual time. A minimum of three sublots will define a lot. Each sublot shall contain a minimum of 75 tons of material.

Where more than one plant is simultaneously producing material for the job, the lot sizes shall apply separately for each plant.

b. Test samples to determine asphalt content in accordance with ASTM D 2172, D 4125 or D 6307. Test recovered aggregate to determine gradation in accordance with ASTM C 136. When automated recording plants are used, submit printouts of asphalt content to the Engineer for information purposes only.

c. The Contractor may prepare three plugs from each top, bottom and overlay sample and test them in accordance with ASTM D 1559 using automatic compaction procedures. Marshall Air voids will be determined in accordance with ASTM D 3203. For each sublot, the maximum theoretical density shall be determined in accordance with ASTM D 2041.

Voids filled with asphalt, for each plant sample, shall be computed as follows:

(1) Determine asphalt content in percentage by volume (I) using:

$$I = \frac{Pb \times Gmb}{Gb}$$

Where:

I= Percentage by volume of asphalt

Pb= Percentage by weight as asphalt

Gmb= Bulk specific gravity of compacted mixture

Gb = Specific gravity of asphalt

(2) Determine percent voids filled with asphalt (VF) as follows:

$$VF = \frac{I \times 100}{I + Pa}$$

Where:

VF = Percent voids filled with asphalt

I = Percentage by volume of asphalt

Pa = Percent Marshall air voids

Voids in the Mineral Aggregate (VMA) will be estimated by adding percentage of asphalt (by volume) to the percent of air voids. Bulk specific gravities will be used to calculate VMA.

d. Take hot bin or feeder belt composite samples of aggregate from top, bottom and base courses and bridge deck membrane mixes at least twice daily and check gradation in accordance with ASTM C 136, including washing material passing No. 8 sieve in accordance with ASTM C 117.

e. At least six times daily, check and record temperatures at necessary locations to determine the temperatures of:

(1) aggregates and asphalt immediately before introduction to the pugmill or dryer drum;

(2) the mixture immediately after discharge from the pugmill or dryer drum;

(3) the mixture at the spreader on the constuction site.

f. Reclaimed Asphalt Pavement

(1) Where reclaimed asphalt pavement is being used as a substitute for some of the virgin aggregate, take a sample of freshly mixed recycled asphalt concrete in accordance with ASTM D979 and determine the moisture content at least twice daily. Moisture determinations shall be based on the weight loss by heating an approximately 4 pound sample of the freshly mixed materials for one hour in an oven at 280 plus or minus 5 degrees F. The moisture content of the freshly mixed bituminous concrete shall not exceed 0.8 percent.

(2) Take a sample of reclaimed asphalt pavement from the approved stockpile at least once daily and test in accordance with ASTM D2172 to determine asphalt content and gradation in accordance with ASTM C136. The resulting asphalt content and aggregate gradation shall be similar to the average test results of the reclaimed asphalt pavement submitted with Design Job Mix Formula. If there is a variation of plus or minus 1.0 percent in the asphalt content or, plus or minus 10 percent in aggregate graduation on any sieve, a second sample shall be taken and tested in the same manner as the first sample, appropriate measures shall be taken to adjust the mixture to compensate for the variation in the reclaimed asphalt pavement.

g. Moisture Content of Aggregate

The moisture content of aggregate used for production shall be determined a minimum of once per lot in accordance with ASTM C 566.

h. Moisture Content of Mixture

The moisture content of the mixture shall be determined once per lot in accordance with ASTM D 1461.

i. Perform additional testing as required to ensure that mixtures produced meet the requirements of this Section.

2. Control Charts

The Contractor shall maintain linear control charts both for individual measurements and range (i.e., difference between highest and lowest measurements) for aggregate gradation and asphalt content.

Control charts shall be posted in a location satisfactory to the Engineer and shall be kept current. As a minimum, the control charts shall identify the project number, the contract item number, the test number, each test parameter, the Action and Suspension Limits applicable to each test parameter, and the Contractor's test results. The Contractor shall use the control charts as part of a process control system for identifying potential problems and assignable causes before they occur. If the Contractor's projected data during production indicates a problem and the Contractor is not taking satisfactory corrective action, the Engineer may suspend production or acceptance of the material.

a. Individual Measurements

Control charts for individual measurements shall be established to maintain process control within tolerance for aggregate gradation and asphalt content. The control charts shall use the job mix formula target values as indicators of central tendency for the following test parameters with associated Action and Suspension Limits:

CONTROL CHART LIMITS FOR INDIVIDUAL MEASUREMENTS

Sieve	Action Limit	Suspension Limit
1"	±4%	±11%
3/4"	±4%	±11%
1/2"	±4%	±9%
3/8"	±4%	±9%
No. 4	±4%	±9%
No. 8	±4%	±7.5%
No. 16	±4%	±7.5%
No. 30	±4%	±7.5%
No. 50	±3%	±4.5%
No. 100	±2%	±3%
No. 200	±2%	±3%
Asphalt content	±0.3%	±0.7%

b. Range.

Control charts for range shall be established to control process variability for the test parameters and Suspension Limits listed below. The range shall be computed for each lot as the difference between the two test results for each control parameter. The Suspension Limits specified below are based on a sample size of n = 2. Should the Contractor elect to perform more than two tests per lot, the Suspension Limits shall be adjusted by multiplying the Suspension Limit by 1.18 for n = 3 and by 1.27 for n = 4.

CONTROL CHART LIMITS BASED ON RANGE

(Based on n = 2)

Sieve	Suspension Limit
1"	13 %
3/4"	13 %
1/2"	11 %
3/8"	11 %
No. 4	11 %
No. 8	9 %
No. 16	9 %
No. 30	9 %
No. 50	6 %
No. 100	3.5 %
No. 200	3.5 %
Asphalt Content	0.8 %

c. Corrective Action.

The Quality Control Plan shall indicate that appropriate action shall be taken when the process is believed to be out of control. The Plan shall contain sets of rules to gauge when a process is out of control and detail what action will be taken to bring the process into control. As a minimum, a process shall be deemed out of control and production stopped and corrective action taken, if:

(1) One point falls outside the Suspension Limit line for individual measurements or range; or

(2) Two points in a row fall outside the Action Limit line for individual measurements.

3. Document quality control efforts using copies of the sample forms contained in the FAA ERLPM, Appendix C, in its entirety, or Port Authority forms obtained from the Engineer. Test results shall be made available to the Engineer daily.

4. If a storage silo is used (except where excluded in 3.02 A.8):

a. Check the silo to see that it can properly store the asphalt concrete for the time involved.

b. Take samples of asphalt concrete as it is unloaded from the silo and check them for conformance to this Section. If the asphalt concrete appears segregated, the use of the storage silo shall be stopped until it is demonstrated to the Engineer that the condition has been corrected.

c. Silo storage time will be governed by previous State DOT approval, not to exceed 24 hours.

5. Unless otherwise noted on the Contract Drawings, and subject to the approval of the Engineer, select an area to be called a control strip from the first day's production of each mix. Each control strip shall be a minimum of 100 feet long and two spreader widths wide and shall be constructed to meet the requirements of this Section and in the same manner as the remainder of the course it represents. Three random samples shall be taken at the plant and tested for stability, flow and air voids in accordance with 1.04 D.1.c. Three randomly selected cores shall be taken from the pavement and three along the longitudinal joint and tested to determine density in accordance with 1.04 E.5 and E.6.

   The control strip shall become part of the completed pavement if, in fact, it does meet the requirements of this Section. The purpose of the control strip is to have the Contractor demonstrate that the pavement may be constructed using the proposed equipment and methods of operation and obtain all quality requirements prior to the start of full production. A new control strip shall be constructed whenever a change is made in equipment, methods of operation, the type or source of material or whenever there is a change in the job mix formula.

6. Include, as part of the quality control plan, the use of a nuclear density device to aid in meeting the specified target densities. Such device shall be calibrated with the control strip cores. If a different device is utilized other than that device, it shall be calibrated with an additional set of pavement cores.

7. Surface Smoothness.

   Each lot shall be evaluated with a 16-foot straightedge. The lot size shall be 2,000 square yards. Measurements will be made perpendicular and parallel to the centerline of the paving strips at distances not to exceed 50 feet. When more than 15 percent of all measurements within a lot exceed the specified tolerance, the Contractor shall correct the deficiency in accordance with 3.03A. Written measurement results shall be submitted to the Engineer prior to payment. The Engineer shall perform the survey jointly with the Contractor.

8. Surface Grade.

The finished grade of each lot will be determined by running levels at intervals of 50 feet or less longitudinally and 25 feet or less transversely to determine the elevation of the completed pavement. The lot size shall be 2,000 square yards. When more than 15 percent of all the measurements within a lot are outside the specified tolerance, the Contractor shall correct the deficiency in accordance with 3.03A. Survey results shall be submitted to the Engineer prior to payment. The Engineer shall perform the survey jointly with the Contractor.

9. For Work performed, either wholly or in part, in the State of New Jersey, the Contractor shall have a representative present during all paving operations who shall be certified by the New Jersey Society of Asphalt Technologists, Inc. (NJSAT) as an Asphalt Paving Construction Technologist.

E. Engineer's Sampling and Testing

1. Asphalt concrete will be received only from approved automated plants equipped with interlocks and printouts meeting the requirements of ASTM D 995 and subject to the following:

   a. Plant interlocks and printouts shall be in operation during production and two (2) copies of all printouts shall be furnished to the Engineer daily.

   b. Scales shall be certified by an approved agency at least every 180 days and copies of certifications shall be submitted to the Engineer on request.

2. The Contractor shall provide labor and equipment to take samples, except cores to check thickness and density.

3. The Engineer may take field samples in accordance with ASTM D 979 from the mat (material placed by the spreader but prior to compaction). These samples shall be from the sublots that were sampled in 1.04 D.1.a. The Engineer will prepare three plugs from each sample and test them in accordance with ASTM D 1559 using automatic compaction procedures. The specimen compaction temperatures will be within the following range as measured within 1/2 inch from the outside edge:

Type Of Asphalt	Temperature Degrees F°
Asphalt Cement	275 - 295
Modified Asphalt	290 – 310
Blended Bitumen with Latex	310 - 330

Air voids and voids filled with asphalt will be determined in accordance with ASTM D 3203 and 1.04D.1.c. The average test values obtained from each lot of top and bottom courses and bridge deck membrane shall conform to the parameters specified in 1.03 C.

In lieu of sampling and testing in the field, the Engineer may sample and perform acceptance testing at the plant. The Contractor will be advised at the start of Work where the Engineer will sample and test. Sampling from trucks at the plant shall be in accordance with FAA ERLPM, Section 6.

4. For thickness determination, exclusive of overlay and bridge deck membrane pavement, each course will be divided into area lots consisting of the area covered by the lot sampled as specified in 1.04 D.1.a and each lot will be further subdivided into four equal sublots. The Engineer will take one 4-inch diameter core randomly in each sublot to check thickness of the top and bottom courses. One fourth of all such cores will continue through the plant mix macadam base course. Thickness will be determined in accordance with ASTM D 3549.

   For bridge deck membrane, the Engineer will verify the thickness by measuring with an appropriate measuring device through the newly placed membrane course. After the measurement has been obtained the locations shall be re-sealed to prevent any leakage.

5. Mat Density

   a. The Engineer will determine the in-place density of the control strip and subsequently placed pavements by taking cores at random locations as specified below.

   b. Cores taken from the top and bottom courses and bridge deck membrane in place and any other specimens taken at the jobsite, sampled in accordance with the random sampling procedures as specified in 1.04 D.1, will be tested for bulk specific gravity in accordance with ASTM D 2726. Cores shall not be taken closer than one foot from a transverse or longitudinal joint for pavement mat density determination. The in-place density of the pavement course will be the ratio of the in-place specific gravity to the laboratory bulk specific gravity expressed as a percentage.

   c. Cores taken from courses containing more than 10 percent Air Voids will be tested for density (Bulk Specific Gravity) according to the following equation:

$$S.G. = \frac{W}{12.87\ d2h}$$

   S.G. = Bulk Specific Gravity

   W = Weight, Dry Specimen (grams)

   d = Measured diameter* (inches)

   h = Measured height* (inches)

   Laboratory bulk specific gravity and computation of in-place density will be as specified in 1.04 E.5.b above.

   d. The average in-place density determination, taken from the area covered by the lot sampled as specified in 1.04 D.1.a, will be determined by summing up the sublot in-place density readings obtained from a lot and dividing the total by the number of sublots. The in-place density from each sublot will be obtained using a core reading taken from each sublot on a random basis and dividing by the Marshall bulk density (ASTM D 1559 and D2726) taken for that sublot. Any core with a thickness less than twice the largest sieve size to retain more than 5 percent of any aggregate will be discarded and additional random cores will be taken as required to ensure representative readings.

e. The procedure specified in a. through d. above will be repeated when a change is made in the type or source of material or whenever a new job mix formula is approved for material from the same source.

6. Joint Density

One core will be taken from each sublot as defined in 1.04D.1.a and tested in accordance with 1.04 E.5. Cores shall be located adjacent and not greater than 6 inches from the unconfined longitudinal joint, in the same paving lane, and in line with the location of the random cores taken under 1.04 E.5.b.

7. The Contractor shall patch all areas where samples are taken with an approved asphalt concrete or Portland cement concrete properly tamped to fill all voids and struck off flush with the surface within 24 hours after sampling.

8. Infrared spectroscopy shall be performed on the modified asphalt binder extracted from a sample taken at the asphalt plant by the Materials Engineering Division to determine the quality and quantity of asphalt modifier in the asphalt concrete mixture. If the test determines that the requirements have not been satisfied, the contractor shall remove and replace all unsatisfactory material at no additional cost to the Authority.

9. The Engineer may at any time, notwithstanding previous plant approval, reject and require the Contractor to dispose of any batch of asphalt concrete mixture which is rendered unfit for use due to contamination, segregation or incomplete coating of aggregate. Such rejection may be based on only visual inspection. In the event of such rejection, the Contractor may take a representative sample of the rejected material in the presence of the Engineer and, of if he can demonstrate in the laboratory, in the presence of and to the satisfaction of the Engineer, that such material was erroneously rejected, such rejected material will be deemed Extra Work.

10. Where there is a discrepancy between the Contractor's test results and the Engineer's, the Engineer's results shall govern.

1.05 SUBMITTALS

See Appendix "A" for submittals requirements.

PART 2. PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer of asphalt cement shall be approved by either the New York State Department (NYSDOT) of Transportation or the New Jersey Department of Transportation (NJDOT).

B. Manufacturer of natural asphalt shall be one of the following, or approved equal:

1. Harrison and Crossfield America, Inc.;

Bronxville, NY

2. Lake Asphalt and Petroleum Co.;

Harrisburg, PA

C. Manufacturer of latex additive shall be one of the following, or approved equal:

1. Rub-R-Road, Inc.;

Akron, OH

2. Textile Rubber and Chemical Co.;

Dalton, GA

D. Manufacturer of Modified Asphalt shall be one of the following. No Substitution is permitted.

1. Stylink - Koch Materials; Pensauken, NJ
2. Vestoplast "S" Modifier - Creanova, Inc.; Sommerset, NJ
3. Kraton - Shell Chemical Co.; Houston, TX
4. Citgoflex SP - Citgo Asphalt Refining Co.; Paulsboro, NJ

2.02 MATERIALS

A. Aggregates

1. If the tensile strength ratio of the specimens of composite mixture is less than 75 percent, as specified in 1.03 B.6, the aggregates will be rejected unless the Contractor treats the asphalt with an approved anti-stripping agent. The amount of anti-stripping agent added to the asphalt shall be sufficient to produce a tensile strength ratio of not less than 75 percent.

2. Coarse Aggregate - Material retained on the No. 8 sieve.

a. Except for use in the top lift of the top course within the roadway pavement edge markings as shown on the Contract Drawings, coarse aggregate shall conform to ASTM D 692, except as follows: use broken stone or crushed gravel having not less than 75 percent by weight of pieces with two or more fractured faces and 85 percent by weight having at least one fractured face with a maximum of 8 percent of flat or elongated pieces (ASTM D 4791) with a maximum percentage of wear (ASTM C 131) of 40 percent and with a magnesium sulfate loss (ASTM C 88) of not more than 12 percent for a five-cycle test period.

b. For the top lift of the top course within the roadway pavement edge markings as shown on the Contract Drawings, coarse aggregate shall conform to ASTM D 692 except as follows: use broken stone which shall be trap rock or gneiss of uniform quality obtained from a source approved by the New York State Department of Transportation (NYSDOT) or the New Jersey Department of Transportation (NJDOT) for use in asphalt concrete. The aggregate shall have not less than 75 percent by weight of pieces with two or more fractured faces, with a maximum of 8 percent of flat or elongated pieces (ASTM D 4791), with a maximum percentage of wear (ASTM C 131) of 30 percent and with a magnesium sulfate loss (ASTM C 88) of not more than 12 percent for a five-cycle test period.

c. A flat particle is one having a ratio of width to thickness greater than five; an elongated particle is one having a ratio of length to width greater than five.

3. Fine Aggregate - Material passing the No. 8 sieve and retained on the No. 200 sieve.

Fine aggregate shall be a blend of washed, textured sand and stone screenings conforming to ASTM D 1073 with a maximum percentage of wear (ASTM C 131) of 30 percent, with a magnesium sulfate loss (ASTM C 88) of not more than 18 percent for a five-cycle test period, a plasticity index of not more than 6 and a liquid limit of not more than 25 when tested in accordance with ASTM D 4318. When tested in accordance with ASTM D 2419, the sand equivalent value shall be 35 or greater.

Textured sand shall be defined as a sand, which when tested in accordance with ASTM C1252, Method A, results in uncompacted voids greater than 45.0 percent. Sand that has a low texture value and slag shall not be used.

4. Mineral filler shall conform to ASTM D 242 and have a ratio to asphalt by weight not exceeding 1.2.

B. Asphalt

Asphalt shall be one of the following conforming to the requirements of AASHTO MP1 and as specified within table entitled "Requirements for Performance Graded Asphalts" for the Performance Grade (PG) as shown on the Contract Drawings:

1. Asphalt Cement

Asphalt cement shall meet the requirements for PG 64-22, unless otherwise shown on Contract Drawings.

2. Modified Asphalt

Modified Asphalt shall be one of the following. No Substitution is permitted.

a. "Stylink", "Kraton (SEBS)" or "Citgoflex SP" meeting the requirements for PG 76-22 or PG 82-22 as shown on the Contract Drawings.

b. Asphalt cement modified with "Vestoplast 'S'", may be used where PG 76-22 is specified and subject to the following:

(1) Vestoplast "S" shall be added to the asphalt concrete mixture at a rate of 7 percent by weight of asphalt cement, by substitution.

(2) The manufacturer shall provide a representative at the plant at all times during production to verify that the proper quantity of Vestoplast "S" was added to the asphalt concrete.

c. Blended Bitumen with Latex may be used where PG 82-22 is specified and subject to the following:

(1) Blended bitumen with latex shall be a blend of 95 percent blended bitumen as specified within (2) below and 5 percent latex solids. Latex additive shall be "UP 70", "Rub-R-Road" or approved equal.

(2) Blended bitumen shall be a blend of a maximum of 75 percent asphalt cement and a minimum of 25 percent natural asphalt, having a specific gravity no less than 1.08 in accordance with ASTM D70, measured from samples taken from the asphalt plant storage tank.

(a.) Asphalt cement shall conform to 2.02B.1 above.

(b.) Natural asphalt shall be refined Trinidad Lake Asphalt.

Natural asphalt shall be blended with asphalt cement prior to introducing the blended bitumen into the asphalt plant. Blending shall be done by Solar Compounds Corp., Linden, NJ; Peckham Industries, Inc., White Plains, NY; or approved equal.

C. Tack Coat

Unless otherwise shown on Contract Drawings, asphalt cement as specified in 2.02 B.1 above.

D. Resultant Asphalt Cement

Resultant asphalt cement shall be a mixture of new asphalt cement as specified in 2.02B.1 above, asphalt cement extracted from the reclaimed asphalt pavement and recycling agents if required.

REQUIREMENTS FOR PERFORMANCE GRADED ASPHALTS

PERFORMANCE GRADE (PG)	64-22	70-22	76-22	82-22
These Tests Performed on Original Binder:				
Flash Point Temperature (AASHTOT48): Minimum, Degrees Celsius.	230	230	230	230
Dynamic Shear (AASHTO TP5): G*/SIN DELTA, Minimum, 1.00 kPa, Test Temperature At 10 Rad/s, Degrees Celsius.	64	70	76	82
Rotational Viscosity (ASTM D 4402): Maximum, 3 Pa-s, Test Temperature, Degrees Celsius.	135	135	135	135
Separation Test - R&B (ASTM D 5976): Percent Difference Maximum Degrees Celsius.	--	--	4.5	4.5
These Tests Performed on Rolling Thin Film Oven Test (RTFOT) Residue:				
Mass Loss (AASHTO T240): Maximum Percent.	1.00	1.00	1.00	1.00
Dynamic Shear (AASHTO TP5): G*/SIN DELTA, Minimum, 2.20 kPA, Test Temperature at 10 Rad/s, Degrees Celsius.	64	70	76	82
Elastic Recovery (ASTM D 6084) 25 Degrees Celsius, 5 cm/minute Elongation, 60 Minutes, Minimum Percent.	--	--	50	75

These Tests Performed on Pressure Aging Vessel (PAV) Residue:

Pav Aging Temperature (AASHTO PP1): Degrees Celsius.	100	100	100	100
Dynamic Shear (AASHTO TP5): G*/SIN DELTA, Maximum, 5000 kPa, Test Temperature at 10 Rad/s, Degrees Celsius.	25	28	31	34
Creep Stiffness (AASHTO TP1): S, Maximum, 300-MPa m-Value, Minimum 0.300, Test Temperature at 60 Seconds, Degrees Celsius	-12	-12	-12	-12

2.03 MIXES

A. Mix Design Table

Mix Designation and Percentage by Weight Passing Sieves

		Top Course				
Sieve Size	Bottom Course I-2A	I-4A	PA-5	I-5A	I-6A	Bridge Deck Membrane
1 1/4"	100---	---	---	---		
1"	90-100	100	---	---	---	
3/4"	70-84	78-98	100	---	---	
1/2"	54-68	64-77	72-98	100	---	
3/8"	44-54	52-67	60-82	80-100	100	100
No. 4	28-36	33-46	40-56	55-85	85-93	95-100
No. 8	17-25	23-32	28-39	32-42	74-82	71-79
No. 16	12-20	16-20	19-24	20-30	---	59-67
No. 30	7-15	12-16	13-19	12-22	50-58	47-55
No. 50	5-11	8-12	8-16	7-16	24-32	25-35
No. 100	3-9	6-10	5-10	3-12	9-15	14-22
No. 200	1-5	3-6	3-6	2-6	4-8	12-16
	Asphalt, Weight by Percent of Total Mixture					
	3.5-4.5	4.2-5.0	5.0-6.0	5.8-6.5	6.5-8.00	8.00- 9.00**

FROM NEW JERSEY INTER-AGENCY ENGINEERING COMMITTEE STANDARD
BITUMINOUS CONCRETE MIXTURE DESIGN TABLE

Mix Designation and Percentage By Weight Passing Sieves

	Base Course	Top Course	
Sieve Size	I-1	I-4	I-5
1 1/2"	100	-----	-----
1"	90-100	100	-----
3/4"	60-80	95-100*	-----
1/2"	-----	75-95*	100
3/8"	15-40	65-85*	80-100
No. 4	0-10	35-65	55-75
No. 8	-----	25-50*	30-60*
No. 16	-----	18-40	20-45
No. 30	-----	12-30	15-35
No. 50	-----	10-23*	10-30
No. 100	-----	-----	-----
No. 200	-----	3-6*	3-8*

Asphalt, Weight by Percent of Total Mixture

2.5-3.1	5.0-6.5*	5.5-7.0*

Note No. 1 - Material passing the No. 200 sieve may consist of fine particles of the aggregate, mineral filler, or both. Material passing the No. 30 sieve shall be non-plastic when tested in accordance with the requirements of ASTM D 4318.

Note No. 2 - Lift Thickness shall be no less than two times the nominal maximum size of the aggregate (See Note No. 6).

Note No. 3 - If the aggregate does not satisfy tensile strength ratio requirements, add an approved anti-stripping agent (See 2.02 A.1)

Note No. 4 - Job Mix Formula shall follow a smooth curve within the specified limits for all sieve sizes of the Mix Design Table, but should not fall on the maximum density line and should not cross the maximum density line below the No. 4 sieve. The maximum density line will be determined by plotting the gradations on a .45 power graph paper, and drawing a straight line between the amount passing the No. 200 sieve and the amount which is retained on the largest sieve.

Note No. 5 - Notify the Engineer if a satisfactory Job Mix formula using the Mix Design Table cannot be obtained.

Note No. 6 - Nominal maximum size is one sieve size larger than the first sieve to retain more than 10 percent of the aggregate, based on the Contractor's job mix formula.

B. Job Mix Formula and Checklist

1. The laboratory used to develop the job mix formula shall meet the requirements of ASTM D 3666. A certification signed by the manager of the laboratory stating that it meets these requirements shall be submitted to the Engineer prior to the start of construction. The cerification shall contain as a minimum:

   a. Qualifications of personnel: laboratory manager, supervising technician, and testing technicians.

   b. A listing of equipment to be used in developing the job mix.

   c. A copy of the laboratory's quality control system.

2. Develop Job Mix Formula using procedures contained in Chapter V, "Marshall Method of Mix Design" of the Asphalt Institute's Manual Series No. 2 (MS-2) and where applicable, "Asphalt Hot-Mix Recycling", Manual Series No. 20 (MS-20) and provide information for the following checklist:

   a. General

      (1) Contractor and Contract number

      (2) Type of bituminous mixture

      (3) Type and source of aggregates

      (4) Type and source of asphalt

   b. Aggregates

      (1) Sieve analysis of each aggregate to be used in mixture in accordance with ASTM C 136. The minus 200 fraction shall be tested in accordance with ASTM C 117.

      (2) Physical test of aggregates - soundness, wear, percent fractured faces and percent flat or elongated particles.

      (3) Bulk specific gravity and absorption in accordance with ASTM C 127 for coarse aggregate and C 128 for fine aggregate. The aggregate shall be sampled from the plant hot bins or feeder belt.

      (4) Proportion used of each type aggregate.

      (5) Theoretical gradation of combined proportions of aggregates.

   c. Asphalt

      (1) Type and grade

      (2) Specific gravity

      (3) Type of antistripping agent (if required)

   d. Optimum Asphalt Content Determination in accordance with ASTM D 1559

      (1) Compactive effort (75 or 113 blows applied to specimen, each face, as appropriate)

      (2) Actual specific gravity and unit weight of each specimen

      (3) Percentage of asphalt in each specimen

      (4) Theoretical specific gravity of each specimen calculated

(5) Graph of stabilities vs. asphalt content

(6) Graph of flow values vs. asphalt content

(7) Graph of voids filled with asphalt vs. asphalt content

(8) Graph of Marshall air voids vs. asphalt content

(9) (Graph of voids in the mineral aggregate vs. asphalt content.

(10) Graph of unit weight vs. asphalt content

(11) Visual description of specimens at optimum asphalt content (i.e., dry, flushing, etc.)

(12) Graph of Temperature vs. Viscosity of Asphalt

e. Summation of Established Job Mix Formula

(1) Combined gradation of aggregates

(2) Optimum asphalt content from above graphs

(3) Specified job mix tolerance range

(4) Mixing Temperature

(5) Temperature of mix at point of discharge into haul units

(6) Compaction Temperature

f. Summation of the Characteristics of the Mixture at Optimum Asphalt Content

(1) Stability, pounds

(2) Flow value, hundredths of an inch

(3) Actual specific gravity of laboratory compacted mixture

(4) Maximum specific gravity of paving mix at optimum asphalt content in accordance with ASTM D 2041

(5) Total voids (air), percent, in laboratory compacted mixture

(6) Voids filled with asphalt, percent, in laboratory compacted mixture

(7) Voids in the mineral aggregate, percent, in laboratory compacted mixture.

(8) Actual unit weight, lbs./cu. ft. of laboratory compacted mixture

(9) Tensile Strength Ratio - ASTM D 4867

g. Verification of Job Mix Formula Characteristics

Where the asphalt content for the proposed Job Mix Formula does not coincide with the asphalt content used in the trial specimens, an additional set of specimens shall be prepared for the proposed Job Mix Formula asphalt content to verify that actual Marshall results duplicate those anticipated from the curves.

PART 3. EXECUTION

3.01 PREPARATION

A. Clean all underlying pavement surfaces and previous courses of all loose and foreign material by sweeping with hand brooms, power sweepers or blowers as directed by the Engineer.

B. Verify that required grade and density tolerances of previous courses have been obtained before placing asphalt concrete.

C. Construct keyways for overlay pavements as shown on the Contract Drawings by using longitudinal or transverse cuts into the existing pavement, and removing the necessary amount of pavement to provide a smooth transition from the new to existing asphalt concrete surfaces.

D. Tack Coat

1. Apply tack coat by brush on edges of all previously placed or existing pavement and surfaces of manholes and other structures that will be in contact with pavement course to be placed.

2. Apply tack coat by pressure distributor to existing pavement surface to receive new pavement course or where a course is not placed within 24 hours after placement of the underlying course, except as specified in 3.02 F.2 and F.3. However, if the underlying pavement course has not been exposed to traffic and, in the opinion of the Engineer,, is kept clean, tack coat shall not be required when a course is placed beyond the time frame mentioned above.

3. Unless otherwise shown on the Contract Drawings, the tack coat shall be at an application rate and temperature range of 0.05 to 0.10 gallons per square yard and 275 to 400 degrees F, respectively.

4. Protect structures such as manhole frames and covers, joints and steel faced curbs within areas to be tack coated, prior to tack coating, by masking them with tar paper, polyethylene film or other approved materials.

5. After the application of tack coat, follow immediately with placement of asphalt concrete pavement course. Take precautions necessary to maintain and protect the tack coated surface from damage until the next course is placed, including placement and removal of sand as necessary to blot up excess material.

6. All tack coated surfaces shall be paved or protected prior to opening the area to traffic.

E. Mixing Plant Requirements for Recycled Asphalt Concrete

1. Batch Plants shall have an appropriately located metering device for adding the reclaimed asphalt pavement to the heated new aggregate and shall provide an accurate method for proportioning the reclaimed asphalt pavement into the mixture.

2. The batch plant's dryer may have to be operated at temperatures higher than with all new materials. Modifications to the dryer and the dust collection system may be necessary to prevent damage.

3. Drum-mix plants shall have an appropriately located metering device for adding the reclaimed asphalt concrete to the dryer-mixer in a manner that does not damage the asphalt in the reclaimed material. An accurate method for proportioning the reclaimed asphalt pavement into the mixture shall be provided. The Contractor shall make provisions for compensating for the moisture in the reclaimed asphalt concrete.

4. The mixing time for a drum-mix plant shall be such as to achieve an intimate blending of the new and reclaimed materials and a complete coating of all aggregate particles.

5. The batch or drum-mix plant may be equipped with a surge-storage bin at the mixture discharge point.

3.02 APPLICATION

A. Mixing in Plant

1. Place aggregate through a dryer and heat to temperature not exceeding 350 degrees F (375 degrees F for mixtures containing blended bitumen).

2. Screen aggregate to appropriate fractions and place each fraction in a storage bin over mixer unit.

3. Use equipment conforming to ASTM D 995 for preparation of paving mixtures, except provide one bin for fine aggregate, three for coarse aggregate, and one for reclaimed asphalt pavement (if applicable).

4. Introduce aggregate into mixer at between 250 and 350 degrees F (325 and 375 degrees F for mixtures containing blended bitumen) and dry mix for minimum of 5 seconds (7 seconds for mixtures containing Vestoplast "S") before adding asphalt. Where reclaimed asphalt pavement or Vestoplast "S" is used, add to mixer after dry mixing and before asphalt cement.

5. Heat asphalt to a temperature not exceeding 325 degrees F and introduce it into mixer at a temperature of not less than 275 degrees F. (350 and 300 degrees F respectively for mixtures containing blended bitumen.)

6. Mix as long as necessary, but not less than 30 seconds after introduction of asphalt, to completely and uniformly coat aggregate particles. Then, for mixtures containing latex, introduce latex through a calibrated dispenser and mix as long as necessary but not less than an additional 45 seconds.

7. Regulate temperature of mixture according to outdoor temperature and as necessary to meet minimum laydown temperatures specified in 1.03 A.2. However, asphalt concrete mix production temperatures leaving the plant shall be as follows:

Type of Asphalt	Temperature Degrees F
Asphalt Cement	275 - 325
Modified Asphalt	300 - 330
Blended Bitumen with Latex	330 - 360

Any deviation from these temperatures must be approved by the Manager, Materials Engineering Division.

8. Use of storage silos will be permitted for all mixtures except those containing Blended Bitumen provided such silos are approved as specified in 1.04 D.4.

B. Delivery, Placing and Spreading

1. Trucks used for hauling asphalt concrete mixtures shall have tight, clean, and smooth metal beds free from kerosene and other solvents. To prevent the mixture from adhering to them, the truck beds shall be lightly coated with a minimum amount of paraffin oil, lime solution, or other approved material. Each truck shall have a suitable cover to protect the mixture from adverse weather. When necessary, to ensure that the mixture will be delivered to the site at the specified temperature, truck beds shall be insulated or heated and covers shall be securely fastened.

2. Deliveries shall be scheduled so that placing and compacting of mixture is uniform without stopping and starting of the paver. The Contractor may elect to use a material transfer vehicle to deliver the mixture to the paver. Hauling over freshly placed material shall not be permitted until the material has been compacted, as specified, and allowed to cool to ambient temperature.

3. Spread evenly, screed and finish each course to tolerances and requirements specified in this Section.

4. Asphalt concrete pavers shall be self-propelled, with an activated screed, heated as necessary, and shall be capable of spreading and finishing courses of asphalt concrete which will meet the specified thickness, smoothness, and grade. The paver shall have sufficient power to propel itself and the hauling equipment without adversely affecting the finished surface.

   The paver shall have a receiving hopper of sufficient capacity to permit a uniform spreading operation. The hopper shall be equipped with a distribution system to place the mixture uniformly in front of the screed without segregation. The screed shall effectively produce a finished surface of the required smoothness and texture without tearing, shoving, or gouging the mixture.

5. An automatic screed control system shall be used which is capable of automatically maintaining the specified screed elevation and transverse slope. The control system shall be automatically actuated from a reference system by sensors, which will maintain the paver screed at a predetermined transverse slope and at the proper elevation to obtain the required surface. The transverse slope controller shall be capable of maintaining the screed at the desired slope within plus or minus 0.1 percent. When paving in widths exceeding the manufacturer's recommendations for use of the automatic slope control, a grade reference system shall be used on both sides of the paver.

   The control system shall be capable of working in conjunction with any of the following reference systems:

   a. Ski-type device of not less than 30 feet in length.

   b. Taut stringline (wire) set to grade.

   c. Short ski or shoe.

d. Laser control.

Automatic controls will not be required where the Contractor can demonstrate to the satisfaction of the Engineer that it can not be used effectively.

6. Place in minimum of 10-foot wide strips, except that the last strip may be a lesser width if necessary. The length of paving strip shall be estimated by the following guide: 10 times the ambient temperature (degrees F) plus 100 feet. The Engineer will determine the final length.

7. Begin along high sides of areas and proceed towards low side of areas with a one directional slope. Start on centerline and work both ways for crowned pavements.

8. Wherever possible, the longituinal joint in one lift shall offset the longituinal joint in the lift immediately below by at least 1 foot; however, the joint in the surface top lift shall be at the centerline of the pavement. Transverse joints in one lift shall be offset by at least 10 feet from transverse joints in the previous lift. Transverse joints in adjacent lanes shall be offset a minimum of 10 feet.

9. When starting paving operations at transverse joints, provide four starting block strips under full length of paver screed. Blocks should be of a thickness appropriate for the lift being placed.

10. No raked asphalt concrete material shall be broadcast back onto the pavement mat. Raked material shall be placed back in the paver hopper or disposed of.

11. Use hand placing and finishing methods, as approved by the Engineer, in small areas where use of power equipment is impractical.

12. Provide paving irons and heating equipment for use during paving operations and where necessary to improve the surface conditions, as approved by the Engineer.

13. Use lutes and rakes for hand spreading.

C. Grade Control

1. Remove grade stakes just prior to rolling of the plant mix macadam base course.

2. The Engineer will provide bench marks and alignment controls adjacent to each area of construction, which shall be checked and maintained by the Contractor.

3. When placing overlays where automatic grade controls are not required, the thickness of each lift to be placed shall be marked on the pavement adjacent to each side of the paving machine at each location where final pavement grades are shown on the Contract Drawings.

4. Perform surveys immediately after top course has been placed by paver, to check grades.

5. Establish and maintain required lines and grades, including crown and cross slope, for each course during paving operations.

6. Use only qualified surveyors licensed in the State in which Work is being performed.

D. Compaction Equipment

1. Use power rollers weighing not less than 10 tons, having wheel loads of at least 250 lbs./linear inch of combined static and dynamic force and equipped with adjustable scrapers to keep wheel surfaces clean and with efficient means of keeping them wet to prevent the mixture from sticking to the roller.

2. Use types and quantities of equipment as necessary to meet all quality and production requirements of this Section.

3. Do not use steel rollers with pits, flat spots or grooves worn into rolling surface. Roller shall be capable of reversing without backlash.

4. Keep roller on asphalt concrete to avoid contamination of pavement with foreign material.

E. Rolling

1. Commence as soon as material will sustain roller without undue displacement, cracking or shoving.

2. The speed of the roller shall at all times be sufficiently slow to avoid displacement of the hot mixture and be effective in compaction. Any displacement occurring as a result of reversing the direction of the roller, or from any other cause, shall be immediately corrected by the Contractor.

3. The sequence of rolling operations shall be at the discretion of the Contractor.

4. Perform such additional rolling with types and quantity of rollers as may be necessary to satisfy all of the pavement quality requirements specified herein.

5. Do not re-roll cold in-place asphalt concrete with a steel wheel or vibratory roller to attempt to increase density. With the advance approval of the Engineer, a pneumatic tire roller may be used.

6. At end of each day's operations or when paving is interrupted sufficiently to allow mixture to cool, make a stop by means of tapering the course and form a transverse joint.

7. When resuming operations, cut back joint to expose a granular surface for full depth of the course, paint exposed edge with tack coat, rake fresh mixture against joint, tamp and roll.

8. Any mixture that becomes loose and broken, mixed with dirt, contains check-cracking, or is in any way defective shall be removed and replaced with fresh hot mixture and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.

F. Joints

1. The formation of all joints shall be made in such a manner as to ensure a continuous bond between the courses and obtain the required density. All joints shall have the same texture as other sections of the course and meet the requirements for smoothness and grade.

2. The roller shall not pass over the unprotected end of the freshly laid mixture except when necessary to form a temporary stop. After a temporary stop and prior to the continuation of paving, the tapered edge shall be cut back to its full depth and width on a straight line to expose a vertical face before placing the adjacent lane. Apply tack coat on all newly exposed surfaces before placing any fresh mixture against the joint.

3. Longitudinal joints shall be formed to a vertical face. Longitudinal joints which are irregular, damaged, uncompacted, or otherwise defective shall be cut back to expose a clean, vertical sound surface for the full depth of the course in accordance with 3.03 D. Apply tack coat on all newly exposed contact surfaces before placing any fresh mixture against the joint.

G. Feather-Edge

1. When required by the Contract Drawings, the course shall be feather-edged following the "feather-edge" lines shown on the Contract Drawings.

2. The feather-edging shall be accomplished by decreasing the full thickness of the top course in order to maintain the required profile until the course thickness is approximately 1/2 inch.

3. The remainder of the course shall be placed by broadcasting the mix for purpose of segregating the large aggregate which shall be promptly removed. This shall be immediately followed by the rolling operation.

3.03 CORRECTIONS OF DEFICIENCIES

A. Deficiencies in Surface Smoothness and Grade Tolerance of Top Course.

1. In the event surface smoothness and surface grades fail to comply with the "In-Place Pavement Requirements", specified in 1.03 D.1 when measured in accordance wiht 1.04 D.7 and D.8, make corrections as specified below at no additional cost to the Authority.

2. The area of deficiencies in surface smoothness and/or surface grade tolerance shall be defined as the area enclosed by a line of points half way between the grade in excess of the specified tolerance and the next finished grade shown on the Contract Drawings that meets the specified tolerance, both longitudinally and transversely. The area will be determined by the Engineer from the field survey specified in 1.04 D.7 and D. 8.

3. Replace pavement deficient in surface smoothness and surface grade tolerance requirements or, at the option of the Engineer, add overlays where required to correct deficiencies in accordance with all applicable requirements of the Contract Drawings and this Section, at times approved by the Engineer, so as not to interfere with operations of the Authority or others using the area. A minimum thickness of 3 inches for Mix I-4A and a minimum of 1 1/2 inches for all other mixes shall be placed as an overlay. Existing pavement shall be removed as necessary to provide square joints for the full depth of the overlay.

4. Where the deficiency in surface grade tolerance is in excess of 0.045 foot above or below the grade shown on the Contract Drawings but where a contour pattern satisfying riding quality and drainage as shown on the Contract Drawings has been established to the satisfaction of the Engineer, pavement may be left in place, subject to the requirements of 4.01 C. and 4.03 B.

B. Deficiencies in In-Place Air Voids of Top and Bottom Courses and Bridge Deck Membrane.

1. With the exception of bridge deck membrane, any pavement sublot with in-place air voids less than 2.0 percent or greater than 9.0 percent (11.0 percent for bottom course shall be removed and replaced at no additional cost to the Authority.

2. For bridge deck membrane, any pavement sublot found to be below the lower density limit as specified in 1.03 D.2.a or having air voids greater than 2.0 percent shall be removed and replaced at no additional cost to the Authority.

3. In-place air voids will be calculated in accordance with ASTM D 3203 by comparing bulk specific gravity (ASTM D2726) to maximum specific gravity (ASTM D2041).

C. In accordance with 1.03 C.2 for stability and flow, if the Percentage of Material Within Tolerance Limits (PWL), of a lot for either parameter as set forth in 4.03 C.5 equals or exceeds 90 percent, the lot shall be acceptable. If the PWL for either parameter is less than 90 percent, the Contractor shall determine the reason and take corrective action. If the PWL for either parameter is below 80 percent, the Contractor must stop production and make adjustments to the mix.

D. For joint density, if the Percentage of Material Within Tolerance Limits (PWL) as set forth in 4.03 C.5 of a lot equals or exceeds 90 percent, the lot shall be acceptable. If the PWL of a lot is less than 90 percent, the Contractor shall evaluate the method of compacting joints and make adjustments as required to meet the PWL requirement of 90 or greater. If the PWL of a lot is below 80 percent, the Contractor shall stop production until the reason for poor compaction can be determined and corrected. As a minimum, if the PWL of a lot falls below 80 percent, the Contractor shall cut back all the longitudinal joints two (2) inches, measured from the top edge of the joint, as specified in 3.02 F.3 before placing the adjacent lane against the previously placed lane for all remaining top course pavement.

PART 4. ADJUSTMENTS TO CONTRACT COMPENSATION

4.01 GENERAL

A. Where the Contract requires less than 500 tons of asphalt concrete, no adjustments to Contract compensation will be made as specified herein.

B. Where the Contract requires more than 500 tons of asphalt concrete, adjustments to Contract compensation shall be made as specified in 4.03 D..

C. Notwithstanding other adjustments to Contract compensation or corrections specified herein for various deficiencies, no payment will be made for material placed above the allowable tolerance above required grade as specified in 1.03 D.1.b, or for material that must be removed to correct deficiencies, or for that material placed in excess of the plus tolerance for the total thickness of each course as specified in 1.03 D.3.

D. The computations for adjustments to Contract compensation may require conversion between tons and square yards. Such conversion will be made using the actual computed weight per square yard per inch of thickness determined from the lot's average bulk specific gravity for each type of course times the density of water at 70 degrees F.

E. Adjustments to Contract compensation for in-place mat densities and Marshall air voids shall be determined by applying percentages, calculated as specified in 4.03 D, to the assigned unit price of forty-five dollars ($45.00) per ton of asphalt concrete; or in the case of Classified Work, by applying such percentages to the actual Contract Unit Price bid for the appropriate asphalt concrete item in the Schedule of Unit Prices for Classified Work, but in no case less than forty-five dollars ($45.00) per ton of asphalt concrete.

F. The first sublot produced when no asphalt concrete is produced during the preceding 24 hours will not be included in the standard deviation computations or adjustments to Contract compensation for deficiencies computation for Marshall air voids.

4.02 DEDUCTIONS FROM CONTRACT COMPENSATION FOR THICKNESS DEFICIENCY IN PLANT MIX MACADAM BASE COURSE

A. Where the deficiency of a plant mix macadam base course core is in excess of the allowable minus tolerance in plant mix macadam base course thickness, one additional core will be taken in each of the other three sublots adjacent to the core taken in accordance with 1.04 E.4. Plant mix thickness for the area of entire lot will be the average of the four cores. [1/] Where there is a deficiency in the average of the four cores in excess of the allowable minus tolerance, the total thickness of succeeding courses in the area of entire lot shall be increased by the amount the deficiency exceeds the allowable tolerance.

B. For each additional lot resampled in accordance with 4.02 A above, there will be deducted from the Contract compensation, in addition to adjustments for deficiencies as hereinafter specified, an amount of Two Thousand Dollars ($2,000.00).

4.03 DEDUCTIONS FROM CONTRACT COMPENSATION FOR DEFICIENCIES IN TOP AND BOTTOM COURSES AND BRIDGE DECK MEMBRANE

A. Deficiency in Thickness

[1/] In determining average thickness, if any core exceeds required thickness by more than 1/2 inch, the thickness of that core will be assumed to be 1/2 inch in excess of required thickness

Thickness of each course, excluding overlay, will be the average of the four cores in the lot for each course [3/]. Deductions from Contract compensation for deficiencies in thickness of top course or total of top and bottom courses, modified as may be required by 4.02 A, will be the following amounts (deducted per square yard) for the entire area lot:

Amount of Minus Deficiency (inches)	Amount of Payment Deduction (Dollars per Square Yard)
Greater than 1/4 and up to 1/2	1.00
Greater than 1/2 and up to 3/4	2.00

For minus deficiencies in excess of 3/4 inch either in average of four cores or in any individual core, at the Engineer's option, remove and replace deficient pavement or place an overlay that will satisfy all requirements of this Section.

B. Deficiency in Surface Grade Tolerance

When deficiency is in excess of 0.045 foot below the surface grade shown on the Contract Drawings, in lieu of ordering correction of the deficiency, the Engineer will deduct from Contract compensation, the amount of $1.50 per square yard of the deficient area.

C. Deficiency in In-Place Mat Density and Marshall Air Voids

1. Top and bottom courses and bridge deck membrane shall be approved on a lot basis with each lot coinciding with that defined in 1.04 D.1.a.

2. In-place mat density specified in 1.03 D.2.a will be evaluated for Section compliance using the average of the random sublot in-place density determinations from cores of the area covered by the lot specified in 1.04 D.1.a.

3. Marshall air voids will be evaluated for Section compliance using the average of the random sublot void determinations from hot mix samples from the lot specified in 1.04 D.1.a.

4. Each lot will be approved for in-place mat density and Marshall air voids with adjustments to Contract compensation based on the Percentage of Materials Within Tolerance Limits (PWL) as determined by 4.03 C.5 below and by the "Table for Estimating Percent of Lot Within Tolerance Limits-PWL (Standard Deviation Method)". Each lot shall be approved with an adjustment to Contract compensation made in accordance with the table entitled "Adjustments to Contract Compensation For In-Place Mat Density and Marshall Air Voids".

5. Method of estimating Percentage of Material Within Tolerance Limits (PWL):

   a. Locate sampling positions on the lot by use of random sampling procedures specified in FAA ERLPM, Section 6.

   b. Make a measurement at each location, or take a test portion and make the measurement on the test portion in accordance with 1.04 D and E.

[3/] In determining average thickness, if any core exceeds required thickness by more than 1/4 inch, the thickness of that core will be assumed to be 1/4 inch in excess of required thickness.

c. Determine the average value of all samples (X).

d. Find the standard deviation (Sn) by use of the following formula:

$$Sn = \frac{\sqrt{d12 + d22 + d32 + \ldots + dn2}}{n - 1}$$

Where:

Sn= standard deviation of the number in the set

d1, d2,...= deviation of the individual sample values

X1, X2, ...from the average value $\bar{X}$ that is,

$d1 = (X1 - \bar{X})$, $d2 = (X2 - \bar{X})$, ..., $dn = (Xn - \bar{X})$

n = number of sublots

e. Find the Lower Quality Index (QL) by subtracting the lower tolerance limit (L) from the average value (X) and dividing the result by standard deviation (Sn).

$$QL = \frac{\bar{X} - L}{Sn}$$

f. Find the Upper Quality Index (QU) by subtracting the average value (X) from the upper tolerance limit (U) and dividing the result by standard deviation (Sn).

$$QU = \frac{U - \bar{X}}{Sn}$$

g. The percentage of material above lower tolerance limit (PL) and the percentage of material below upper tolerance limit (PU) will be found by entering the "Table For Estimating Percent of Lot Within Tolerance Limits - PWL (Standard Deviation Method)" with QL and QU, using the column appropriate to the total number (n) of sublots and reading the number under the column headed "Percent Within Tolerance Limits (PWL)". If the values fall between values shown on the table, use the next higher value for PL or PU. For Marshall air voids the value of PU derived from "Table For Estimating Percent of Lot Within Limits - PWL (Standard Deviation Method)" will be disregarded and PU will be assigned a value of 90 if the in-place criteria set forth in 1.03 D.4 are met.

h. For asphalt concrete properties with only a lower tolerance limit (stability, mat density, joint density), the Percentage of Material Within Tolerance Limits (PWL) equals PL. For asphalt properties with upper and lower tolerance limits (air voids and flow) determine PWL using the following formula:

$$PWL = (PU + PL) - 100$$

i. If the tests within a lot include a very large or a very small value which appears to be outside the limits of variation, the Engineer shall check for an outlier in accordance with ASTM E 178, at a significance level of 5 percent, to determine if this value should be discarded when computing Percentage of Material Within Tolerance Limits (PWL).

D. Adjustment to Contract compensation for each lot will be adjusted in accordance with the formulas contained in the table entitled "Adjustment to Contract Compensation For In-Place Mat Density and Marshall Air Voids" by entering the appropriate row with the value of PWL and performing the calculation indicated for that PWL to determine the percentage adjustment of the unit price (specified in 4.01 E).

ADJUSTMENT TO CONTRACT COMPENSATION FOR IN-PLACE MAT DENSITY AND MARSHALL AIR VOIDS

Percentage of Material Within Tolerance Limits (PWL)	Percentage adjustment of the unit price[/4] (specified in 4.01 E.)
96-100	106
90-96	(PWL) + 10
80-90	0.5 (PWL) – 55
65-80	2.0 (PWL) – 65
Below 65	[/5]

[/4] Deductions for failure of any portions of the asphalt concrete pavement or overlay to meet the requirements for in-place pavement thickness, mat densities and Marshall air voids shall not be cumulative for the lot but shall be that for whichever item gives the greater percentage deduction from Contract compensation. Adjustments due to exceeding the requirements for both in-place pavement mat densities and Marshall air voids shall not be cumulative for the lot but shall be that for whichever item gives the higher percentage in excess of 100 percent from Contract compensation. Adjustments due to exceeding the requirements for either in-place mat densities or Marshall air voids, but not both, for the lot shall be the product of the two values. Adjustments to Contract Compensation in excess of 100 percent shall only be made if the PWL for joint density equals 90 percent for the lot.

[/5] The lot shall be removed and replaced to meet Section requirements as ordered by the Engineer. In lieu thereof, and subject to the provisions in 3.03Bfor mandatory removal and replacement, the Contractor and the Engineer may agree in writing that, for purposes of practicality, the deficient lot shall not be removed and deduction from Contract compensation will be made at 50 percent of the unit price specified in 4.01 E.

TABLE FOR ESTIMATING PERCENT OF LOT WITHIN TOLERANCE LIMITS - PWL
(STANDARD DEVIATION METHOD)

Percent Within Tolerance Limits (PWL)	Positive Values of QL or QU (n=Number of Sublots)					
n=3	n=4	n=5	n=6	n=7	n=8	
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993
96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4716
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630
87	1.0597	1.1100	1.1173	1.1191	1.1199	1.1204
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015
83	.9939	.9900	.978.	971	5.9672	0.9643
82	.9749	.9600	.9452	.936	7.9325	0.9281
81	.9550	.9300	.9123	.9025	.8966	0.8928
80	.9342	.9000	.8799	.8690	.8625	0.8583
79	.9124	.8700	.8478	.8360	.8291	0.8245
78	.8897	.8400	.8160	.8036	.7962	0.7915
77	.8662	.8100	.7846	.7716	.7640	0.7590
76	.8417	.7800	.7535	.7401	.7322	0.7271
75	.8165	.7500	.7226	.7089	.7009	0.6958

TABLE FOR ESTIMATING PERCENT OF LOT WITHIN TOLERANCE LIMITS - PWL
(STANDARD DEVIATION METHOD)

Percent Within Tolerance Limits (PWL)	Positive Values of QL or QU (n=Number of Sublots)					
	n=3	n=4	n=5	n=6	n=7	n=8
74	.7904	.7200	.6921	.6781	.6701	.6649
73	.7636	.6900	.6617	.6477	.6396	.6344
72	.7360	.6600	.6316	.6176	.6095	.6044
71	.7077	.6300	.6016	.5878	.5798	.5747
70	.6787	.6000	.5719	.5583	.5504	.5454
69	.6490	.5700	.5423	.5290	.5213	.5164
68	.6187	.5400	.5129	.4999	.4924	.4877
67	.5878	.5100	.4836	.4710	.4638	.4592
66	.5563	.4800	.4545	.4424	.4354	.4310
65	.5242	.4500	.4255	.4139	.4073	.4031
64	.4916	.4200	.3967	.3856	.3793	.3753
63	.4586	.3900	.3679	.3575	.3515	.3477
62	.4251	.3600	.3392	.3295	.3239	.3203
61	.3911	.3300	.3107	.3016	.2964	.2931
60	.3568	.3000	.2822	.2738	.2691	.2660
59	0.3222	0.2700	0.2537	0.2461	0.2418	.2391
58	0.2872	0.2400	0.2254	0.2186	0.2147	.2122
57	0.2519	0.2100	0.1971	0.1911	0.1877	.1855
56	0.2164	0.1800	0.1688	0.1636	0.1613	.1592
55	0.1806	0.1500	0.1408	0.1363	0.1338	.1322
54	0.1447	0.1200	0.1125	0.1090	0.1070	.1057
53	0.1087	0.0900	0.0843	0.0817	0.0802	.0792
52	0.0725	0.0600	0.0562	0.054	40.0534	.0528
51	0.0363	0.0300	0.0281	0.0272	0.0267	.0264
50	0.0	0.0	0.0	0.0	0.0	0.0

E. Additional Tests

1. In the event the Contractor elects to question the original density test results obtained from a particular lot for either the mat density or joint density, the Contractor may request additional testing of that lot in writing within 48 hours of receipt of the written test results from the Engineer. Upon written request received from the Contractor for such additional testing, the Engineer will test one additional sample from each sublot from randomly selected locations in the pavement where the lot was placed. The redefined test will consist of the Engineer's original samples and the additional Contractor's requested samples. The "Percent of Material Within Tolerance Limits-PWL" will be determined in accordance with 4.03 C.5. The value will be used to determine any adjustment to Contract compensation. Only one resampling per lot will be permitted.

2. Additional tests requested by the Contractor shall be paid for by the Contractor to the Authority at a cost of TwoThousand Dollars ($2,000) per lot tested.

END OF SECTION

SECTION 02551

ASPHALT CONCRETE PAVING

SUBMITTALS

APPENDIX "A"

A. Submit to the Manager, Materials Engineering Division, Port Authority Technical Center, 241 Erie Street, Jersey City, New Jersey, 07310-1397, for approval, all Job Mix Formulae with Checklist (specified in 2.03 B) for each type of asphalt concrete mix, from each plant and each new source of material at least 10 days prior to the start of production.

B. Submit certified test data, location of each type aggregate to be used and quantities to be obtained from each location and make arrangements for the Engineering Materials Division to obtain samples from each such location for checking against the samples submitted. Take all samples in accordance with requirements of ASTM D 75 and ASTM D 242.

C. If requested, submit to the Manager, Materials Engineering Division samples of each type aggregate to be used and from each source with proper identification as to source, type of aggregate and Contract number. Submit in clean, sturdy bags and in the following amounts for each sample when requested:

Reclaimed Asphalt Pavement (when used)	- 50 lbs.
Coarse Aggregate	- 25 lbs.
Fine Aggregate	- 25 lbs.
Mineral Filler	- 5 lbs.

D. Submit to the Manager, Materials Engineering Division for approval four one-quart samples of the asphalts and two one-quart samples of the liquid latex (if applicable) proposed for use together with the following data:

1. The name of the supplier(s).
2. An analysis of such asphalts by the supplier, certifying that the results of tests comply with the requirements of AASHTO MP1 and this Section.
3. A certificate, from the liquid latex supplier, identifying and stating the physical properties of the latex components. Percentages of solids and water shall be included.

   Resubmit the above data each time an asphalt or liquid latex from a different source is proposed.

E. Where asphalt cement is to be combined at the plant with an asphalt modifier, submit the asphalt cement in accordance with 1.05D above and submit a 10-pound sample of the asphalt modifier together with a certificate from the modifier supplier identifying and stating the physical properties of the modifier.

F. Submit quality control plan and control charts to the Manager, Materials Engineering Division for approval, at least 5 days prior to the start of production.

G. Submit smoothness measurements and surface grade survey results to the Engineer prior to application for payment.

END OF APPENDIX "A"

DIVISION 2

SECTION 02664

EXTERIOR WATER SUPPLY SYSTEM FOR

CITY OF NEWARK, NJ FACILITIES

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for ductile iron pipe and appurtenances to be used for exterior water supply systems for Port Authority facilities in the City of Newark, New Jersey.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

	American National Standards Institute (ANSI)
ANSI B 16.18	Cast Copper Alloy Solder Joint Pressure Fittings
ANSI/NSF-61	Drinking Water Systems Components-Health Effects
	American Society for Testing and Materials (ASTM)
ASTM A 48	Gray Iron Castings
ASTM A 536	Ductile Iron Castings
ASTM B 88	Seamless Copper Water Tube
ASTM C 117	Test Method for Material Finer Than 75-μm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 136	Test Method for Sieve Analysis of Fine and Coarse Aggregates
	American Water Works Association (AWWA)
AWWA C 104	Cement - Mortar Lining for Ductile-Iron Pipe and Fittings for Water
AWWA C 105	Polyethylene Encasement for Ductile-Iron Pipe Systems
AWWA C 110	Ductile-Iron and Gray-Iron Fittings, 3 in. Through 48 in., for Water and Other Liquids
AWWA C 111	Rubber-Gasket Joints for Ductile - Iron Pressure Pipe and Fittings
AWWA C 116	Protective Fusion-Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings for Water Supply Service
AWWA C 151	Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids

AWWA C 153	Ductile-Iron Compact Fittings, 3 in. Through 16 in., for Water and Other Liquids
AWWA C 502	Dry-Barrel Fire Hydrants
AWWA C 600	Installation of Ductile-Iron Water Mains and Their Appurtenances
AWWA C 651	Disinfecting Water Mains

The Society of Protective Coatings (SSPC)

SSPC SP-3	Power Tool Cleaning

1.03 QUALITY ASSURANCE

Ensure that the entity performing the Work of this Section has at least three years of installation experience on projects with piping systems of types and sizes similar to those required under this Contract.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Ductile iron pipe delivered to the construction site shall be stacked or laid out along the route of the system to be installed, as directed by the Engineer. If stacked, conform to AWWA C 600.

B. Care shall be taken when handling pipe and appurtenances to ensure that the pipe, fittings and appurtenances are not damaged. Pipe, fittings or appurtenances that are damaged will be rejected and shall be replaced in kind at no additional cost to the Authority.

C. Hydrants, gate valves, valve boxes, glands, gaskets, copper tubing and fittings, and other similar items shall be stored at the construction site under lock and key.

1.05 SUBMITTALS

For Submittals, see Appendix A.

PART 2. PRODUCTS

2.01 MANUFACTURERS

Manufacturer of the ductile iron pipe and appurtenances shall be one of the following, no substitutions will be permitted:

American Cast Iron Pipe Company (Co.), Birmingham, Alabama

EBAA Iron Sales, Incorporated (Inc.) , Eastland, Texas

Griffin Pipe Products Co. , Florence, New Jersey

McWane, Inc. , Birmingham, Alabama

United States (U.S.) Pipe & Foundry Co., Birmingham, Alabama

Atlantic States Pipe Cast Iron Pipe Co. Inc., Phillipsburg, New Jersey

2.02 MATERIALS

A. Ductile Iron Pipe - 4 Inches and Larger

Use one of the following at the Contractor's option:

1. Push-On Joint

a. "Tyton" Joint, as manufactured by U.S. Pipe & Foundry Co. and Griffin Pipe Products Co., "Fastite" Joint, as manufactured by American Cast Iron Co., or "Push-On" Joint, as manufactured by McWane, Inc. conforming to AWWA C 151, Special Thickness Class 53. Pipe shall be cement-mortar lined and coated with a petroleum asphaltic coating approximately 1 mil thick on the outside of the pipe. Cement-mortar lining shall be twice the standard thickness specified in AWWA C 104. Rubber gaskets shall conform to AWWA C 111. Cement-mortar lining, asphaltic coating and rubber gaskets shall comply with the requirements of ANSI/NSF-61.

b. Where joint restraint is shown on the Contract Drawings, use one of the following systems, as approved by the pipe manufacturer, to restrain push-on joints:

(1) "Field-Lok" gaskets for 4 inches through 24 inches, as manufactured by U.S. Pipe & Foundry Co. and Griffin Pipe Products Co.

(2) "TR Flex", including "TR Flex Gripper Rings", for pipe 4 inches through 64 inches, as manufactured by U.S. Pipe & Foundry Co. "TR Flex Gripper Rings" are available for pipe 4 inches through 36 inches.

(3) "Flex-Ring", including field-adaptable rings, for pipe 4 inches through 12 inches, as manufactured by American Cast Iron Pipe Co.

(4) "Lok-Ring" for pipe 14 inches through 54 inches, as manufactured by American Cast Iron Pipe Co.

(5) "Fast-Grip" gaskets for 4 inches through 16 inches, as manufactured by American Cast Iron Pipe Co.

(6) "Lok-Fast" for pipe 4 inches through 54 inches, as manufactured by American Cast Iron Pipe Co.

(7) "Snap-Lok", including "Snap-Lok FC", for pipe 6 inches through 24 inches, as manufactured by Griffin Pipe Products Co.

(8) "Type A Restrain", including lock ring with set screw, for pipe 6 inches through 24 inches, and "Type B Restrain" for pipe 30 inches and 36 inches, as manufactured by McWane, Inc.

2. Mechanical Joint

a. "Mechanical" Joint as manufactured by American Cast Iron Pipe Co., Griffin Pipe Products Co., McWane, Inc., or U.S. Pipe & Foundry Co. conforming to AWWA C 151, Special Thickness Class 53. Pipe shall be cement-mortar lined and coated with a petroleum asphaltic coating approximately 1 mil thick on the outside of the pipe. Cement-mortar lining shall be twice the standard thickness specified in AWWA C 104. Rubber gaskets shall conform to AWWA C 111. Cement-mortar lining, asphaltic coating and rubber gaskets shall comply with the requirements of ANSI/NSF-61.

b. Where joint restraint is shown on the Contract Drawings, one of the following systems, as approved by the pipe manufacturer, shall be used to restrain mechanical joints:

(1) "MJ Gripper" glands for pipe 4 inches through 12 inches, as manufactured by U.S. Pipe & Foundry Co.

(2) "Bolt-Lok", including "Bolt-Lok FC", for pipe 4 inches through 24 inches, as manufactured by Griffin Pipe Products Co.

(3) "Megalug" series for pipe 4 inches through 48 inches, as manufactured by EBAA Iron Sales, Inc.

(4) "F-1058 Ductile Iron Retainer Gland", for pipe 4 inches through 24 inches, as manufactured by McWane, Inc., or approved equal.

B. Fittings for Ductile Iron Pipe shall be ductile iron conforming to AWWA C 110 and/or AWWA C 153. Ductile iron fittings shall be cement-mortar lined to twice the standard thickness specified in AWWA C 104 and coated with a petroleum asphaltic coating approximately 1 mil thick on the outside or coated with a minimum 6 mil thick fusion-bonded epoxy coating on the interior and exterior conforming to AWWA C 116. Joint type shall be push-on or mechanical. Cement-mortar lining, asphaltic coating, rubber gaskets, and fusion-bonded epoxy coating shall comply with the requirements of ANSI/NSF-61.

C. Copper Tubing - 2 inches and Smaller

ASTM B 88, Type K, O50

D. Fittings for Copper Tubing

ANSI B 16.18 solder joint pressure fittings, or flared joint fittings.

E. Fire Hydrants

1. Fire hydrants shall conform to the requirements of AWWA C 502 and shall be standard breakaway hydrants with a mechanical joint inlet connection. Hydrants shall have a 4 1/4-inch valve opening and shall be fitted with one 4 1/2–inch steamer nozzle (National Standard Thread) and two 2 1/2-inch hose nozzles (City of New York Thread). Hydrants shall be the models specified below. No substitutions will be permitted.

a. For Newark Liberty International Airport: U. S. Pipe and Foundry Co. 'S' Series.

b. For Port Newark: U.S. Pipe and Foundry Co. Metropolitan 250 Model M-94.

2. Hydrant colors shall be: Yellow barrel and outlet caps, and green bonnet.

F. Gate Valves

1. Valves shall conform in all respects to the specifications of the City of Newark, and as specified below.

2. Valves 4 inches through 12 inches shall be A.P. Smith Metropolitan Gate Valves Figure No. 3460 or Metroseal 250 Resilient Seated Gate Valve, as manufactured by U.S. Pipe and Foundry Co. Valves shall have mechanical joint connection and "O" ring seals. Valves shall be nut operated, non-rising stem valves, and open in a clockwise direction. Valves shall be rated for 200 psi working pressure, 400 psi test pressure. No substitutions will be permitted.

3. Valves 16 inches and larger shall be horizontal type Series 3000, A.P. Smith Metropolitan Gate Valves, as manufactured by U.S. Pipe and Foundry Co. Valves shall have flanged joint connection, "O" ring seals and bevel gears in a grease case. Valves shall be nut operated, non-rising stem valves, and shall open in a clockwise direction. Valves shall be furnished with a 3-inch by-pass and shall be 150 psi working pressure, 300 psi test pressure. No substitutions will be permitted.

4. Indicator Valves and Posts

   a. Valves and posts shall be UL listed and shall have the direction of operation plainly marked by an arrow cast on the head of the post. Provide lock with breakable hasp.

   b. Color of indicator posts shall be red.

G. Valve Boxes

Valve boxes shall be of the type shown on the Contract Drawings and shall be fabricated of ASTM A 48, Class 30B cast iron. Valve chambers shall be furnished and installed as shown on the Contract Drawings for valves larger than 16 inches. Where cast iron manhole cover is shown, manhole cover shall be fabricated of ASTM A 48, Class 30B cast iron. Where ductile iron manhole cover is shown, manhole cover shall be fabricated of ASTM A 536, Grade 60-40-18, or Grade 65-45-12, ductile iron. Ductile iron manhole covers shall bear the letters "D.I." in a clearly visible manner on the upper surface.

H. Wet Tap Connections

Use A.P. Smith T-9 mechanical joint tapping sleeve and Metropolitan No. 3860 mechanical joint by flange tapping valve, as manufactured by U.S. Pipe & Foundry Co., or approved equal.

I. Crushed Stone for Pipe Bedding

Crushed limestone, gneiss, trap rock or recycled Portland cement concrete aggregate conforming to the gradation specified below, determined in accordance with ASTM C 117 and C 136. Recycled concrete aggregate shall contain not less than 95 percent crushed Portland cement concrete and shall be in accordance with the requirements of the Section entitled "Aggregate Base Course".

Sieve Size	Total Percent By Weight Passing Sieve
2 1/2 inch	100
1 inch	60 – 100
3/4 inch	45 - 85
3/8 inch	30 - 60
No. 10	14 - 30
No. 40	3 – 15
No. 200	0 - 3

J. Pipe Guards and Hydrant Fenders

1. Size and weight of pipe guards and hydrant fenders shall be as shown on the Contract Drawings.

2. Concrete for footing and pipe fill shall be Portland cement concrete conforming to the requirements specified in the Section entitled "Portland Cement Concrete".

3. Color of pipe guards shall be yellow.

K. Paint for Rods, Bands, Nuts, Bolts, Washers, and Other Appurtenances

Bitumastic No. 50, as manufactured by Carboline Company, No. CA-50, as manufactured by the Barrett Division of Allied Chemical and Dye Corporation, or approved equal.

L. Paint for Fire Hydrants, Indicator Posts, Hydrant Fenders, and Pipe Guards

The prime (or first) coat shall be Carbomastic 15 LO and the finish (or second) coat shall be Carboline 133 HB, satin finish, aliphatic polyurethane, both as manufactured by the Carboline Company, or approved equal. Prime and finish coats shall be products of same manufacturer.

M. Paint for Pipe, Valves, Fittings, and Appurtenances Within Valve Chamber (Only)

Carbomastic 15 LO, as manufactured by the Carboline Company, or approved equal. Color of paint shall be black.

N. Polyethylene Film for Ductile Iron Pipe

AWWA C 105, Low Density or High Density (Cross-Laminated) polyethylene film, Class C

PART 3. EXECUTION

3.01 EXAMINATION

Where the pipeline is to cross existing utilities, as shown on the Contract Drawings, the Contractor shall verify their elevation and horizontal location through excavation of test pits or other approved exploratory means.

3.02 PREPARATION

Prior to the start of the pipeline installation, the Contractor shall have in place those items shown on the Contract Drawings and required by the Specifications for the maintenance of traffic.

3.03 INSTALLATION

A. Operation of Valves

Unless directed by the Engineer, the Contractor shall not operate existing valves.

B. Excavation and Backfill

1. Perform trench excavation and backfilling in accordance with the requirements of the Section entitled "EXCAVATION, BACKFILLING AND FILLING" to the alignment and grades shown on the Contract Drawings. Unless otherwise shown on the Contract Drawings, pipe shall have a minimum cover of four feet.

2. If groundwater is encountered, methods of dewatering shall be approved by the Engineer. No pipe shall be installed if there is water in the trench at or above the level of the bottom of the bell.

3. Over-excavation and the use of timber blocking beneath the pipe may be permitted, as approved by the Engineer, to meet the requirements of 3.03 B.2, where the groundwater volume is such that, in the opinion of the Engineer, the requirements of 3.03 D.4 cannot be attained or the Contractor is unable to maintain groundwater accumulation below the level of the bottom of the bell.

C. Polyethylene Encasement

1. Install polyethylene encasement using one of the installation methods described in AWWA C 105.

2. Pipe surface shall be totally cleaned prior to installation of the polyethylene encasement. During installation, do not allow soil or embedment material to become trapped between the pipe and the polyethylene encasement.

3. Fit the polyethylene film to the contour of the pipe to effect a snug, but not tight, encasement with the minimum space between the polyethylene and the pipe. Provide sufficient slack in contouring to prevent stretching the polyethylene where it bridges irregular surfaces, such as bell-spigot interfaces, bolted joints, or fittings, and to prevent damage to the polyethylene due to backfilling operations.

4. Secure overlaps and ends with adhesive tape, string or plastic tie straps to hold the polyethylene encasement in place until backfilling operations are complete.

D. Pipe Installation

1. Install ductile iron pipe in accordance with AWWA C 600 and Section 4 of AWWA C 651.

2. If an obstruction that is not shown on the Contract Drawings is encountered and interferes with the installation of Work under this Contract, the Contractor shall notify the Engineer. No work shall be performed until directed by the Engineer. Alterations or deviation in the alignment and grade shown on the Contract Drawings or the removal, relocation or reconstruction of the obstruction shall be approved by the Engineer.

3. Place calcium hypochlorite granules or tablets in the water main, as specified in Section 5.1.1 of AWWA C 651, prior to placing pipe in the trench.

4. Where crushed stone bedding is shown on the Contract Drawings, place and compact crushed stone bedding material in the bottom of the trench to provide a firm but slightly yielding surface and to an elevation such that pipe laid on same will be at proper grade and alignment. Make suitable excavations for pipe bells so that the bottom reaction and support are confined to the pipe barrel. After installation of pipe on the compacted layer, place and compact additional crushed stone bedding material in small lifts to the dimensions shown.

5. Immediately prior to their placement in their trench, inspect all pipe, valves, hydrants, fittings, and/or appurtenances in the presence of the Engineer to verify that they are internally clean and free of damage to the materials, linings and coatings. Damaged units shall be removed from the construction site and replaced at no additional cost to the Authority.

6. When lowering the pipe into the trench and joining the units, ensure that the interior of the pipeline remains clean.

7. Close all openings in the pipeline with water tight plugs when pipe-laying is stopped, at the conclusion of any Work period or if Work is interrupted for any reason, to preclude contamination of the pipeline. Plugs shall be fitted with a means for venting.

E. Pipe Restraint

1. Pipe shall be restrained where and as shown on the Contract Drawings. Use only the pipe manufacturer's approved joint restraint system.

2. Where push-on joint pipe is to be restrained, install one of the systems specified in 2.02 A.1.b in accordance with the manufacturer's recommendation and printed instructions.

3. Where restraint under 1 and 2 above is not possible, install bands and rods, as directed by the Engineer.

F. Hydrant Installation

1. Install hydrants as shown on the Contract Drawings and orient hydrant nozzles so that they do not point directly at hydrant fenders or pipe guards, walls, poles or other obstructions.

2. Relocate existing hydrants as shown on the Contract Drawings. Exercise care in removal and relocation operations so as not to damage the hydrants. Any portions of the hydrants damaged by the Contractor shall be repaired or replaced by the Contractor, as directed by the Engineer and to his satisfaction, at no additional cost to the Authority.

G. Wet Tap Connections

1. Prior to installing tapping sleeve, thoroughly clean the exterior surface of the existing pipe, and lightly dust the interior surface of the tapping sleeve with calcium hypochlorite powder.

2. Where wet tap connections are to be performed on existing pipes encased in polyethylene, apply two or three wraps of polyethylene adhesive tape completely around the pipe prior to mounting the tapping machine and chain. After the wet tap connection is completed, inspect the polyethylene for damage and repair if needed.

H. Painting

1. Rods, Bands, Nuts, Bolts, Washers, and Other Appurtenances

a. Before backfilling, and prior to installing any required polyethylene encasement, apply two heavy brush coats of paint specified in 2.02 K to all rods, bands, nuts, bolts, washers and other appurtenances.

2. Pipe, Valves, Fittings and Appurtenances Within Valve Chamber (Only)

a. After installation, apply two 5-mil thick, brush coats of paint as specified in 2.02 M. to all pipe, valves and fittings located within valve chambers as shown on the Contract Drawings.

b. Prepare surfaces and apply the coating in accordance with the manufacturer's printed instructions.

3. Fire Hydrants, Indicator Posts, Hydrant Fenders, and Pipe Guards

a. Prior to painting, clean all surfaces to be painted to the requirements of SSPC SP-3.

b. Paint fire hydrants, indicator posts, hydrant fenders and pipe guards with prime and finish coats of paints specified in 2.02 L.

I. Concrete Encasement and Foundations

Before backfilling, the Engineer shall verify that the concrete encasement and concrete hydrant foundations are installed where and as shown on the Contract Drawings. The Contractor shall not backfill until the Engineer has inspected and approved said work.

3.04 FIELD TESTS

Warning: The testing methods described below are specific for water pressure testing. Do not use these procedures for air-pressure testing because of the serious safety hazards involved.

A. Hydrostatic Pressure and Leakage Tests

1. After completion of the pipeline installation, including backfill, but prior to final connection to the existing system, conduct in the presence of the Engineer concurrent hydrostatic pressure and leakage tests in accordance with AWWA C 600.

2. Provide all equipment required to perform the leakage and hydrostatic pressure tests.

3. The test pressure shall be not less than 200 psi or 50 psi in excess of maximum static pressure, whichever is greater.

4. The hydrostatic test shall be of at least a 2-hour duration.

5. No pipeline installation will be approved if the pressure varies by more than 5 psi during the duration of the hydrostatic pressure test.

6. Before applying the test pressure, completely expel air shall from the section of piping under test. Install corporation cocks so that the air can be expelled as the pipeline is being filled with water. After all the air has been expelled, close the corporation cocks and apply the test pressure. At the conclusion of the tests, remove and plug the corporation cocks.

7. Slowly bring the piping to the test pressure and allow the system to stabilize prior to conducting the leakage test. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure.

8. Carefully examine all exposed pipe, fittings, valves, hydrants, and joints during the hydrostatic pressure test. Any damage or defective pipe, fittings, valves, hydrants, or joints that are discovered following the pressure test shall be repaired or replaced with sound material at no cost to the Authority, and test shall be repeated to the satisfaction of the Engineer.

9. No pipeline installation will be approved if the leakage is greater than that determined by the following formula:

$$L = \frac{SD\sqrt{p}}{133{,}200}$$

Where:

L = the allowable leakage, in gallons per hour

S = the length of pipe tested, in feet

D = the nominal diameter of the pipe, in inches

p = the average test pressure during the leakage test, in pounds per square inch (gauge)

10. If leakage exceeds the rate as determined in 3.04 A. 9, locate the source and make repairs as necessary, to the satisfaction of the Engineer.

B. Disinfection, Flushing and Sampling

1. Disinfect the pipeline installation in accordance with AWWA C 651, except that liquid chlorine shall not be used.

2. Upon completion of the retention period required for disinfection, flush the pipeline until the chlorine concentration of water leaving the pipeline is no higher than that generally prevailing in the existing system or is acceptable for domestic use.

3. Dispose of the chlorinated water in conformance with all Federal, State and Municipal laws, ordinances, rules and regulations. If there is any possibility that the chlorinated discharge will cause damage to the environment, apply a neutralizing chemical to the chlorinated water to neutralize thoroughly the chlorine residual remaining in the water.

4. After final flushing and before the pipeline is connected to the existing system or placed in service, employ an approved independent testing laboratory to sample, test and certify the water for conformance with the purity standards of the City of Newark, the United States Environmental Protection Agency and the Federal Clean Water Act Health Standards. Forward certification from the testing laboratory to the Engineer. No installation will be approved without such certification.

3.05 PROTECTION

A. Care shall be taken not to damage or displace installed pipe and joints during construction of pipe supports, backfilling testing and other activities.

B. Where pipe is damaged or displaced, take remedial measures as directed by the Engineer including but not limited to retesting of joints, relaying pipe or replacing pipe. Perform all such remedial measures at no additional cost to the Authority.

END OF SECTION

SECTION 02664

EXTERIOR WATER SUPPLY SYSTEM FOR

CITY OF NEWARK, NJ FACILITIES

APPENDIX "A"

SUBMITTALS

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts and Samples" of DIVISION 1 – GENERAL PROVISIONS:

A. Submit resume indicating name, address, and previous work experience of the entity performing the Work of this Section, prior to performing the Work of this Section.

B. Submit "Piping Layout" drawings, including details specified in "D".

C. Submit catalog cuts for: pipe, fittings, pipe restraint system, fire hydrants, gate valves, wet tap sleeve and valve, valve boxes, including manhole cover, and paints including manufacturer's installation instructions.

D. Submit shop drawings of valve chambers, hydrant fenders and pipe guards.

E. Submit certificate from the ductile iron pipe manufacturer certifying that the ductile iron pipe, including joint restraint system to be used with the pipe, exterior coating, cement mortar lining, and rubber gaskets comply with the requirements specified in this Section.

F. Submit certificate from the ductile iron fitting manufacturer certifying that ductile iron fittings comply with the requirements specified in this Section.

G. Submit certificate from the copper tubing and fitting manufacturer certifying that the copper tubing and fittings comply with the requirements specified in this Section.

H. Submit certificate from the indicator valve and post manufacturer certifying that the indicator valve and post comply with the requirements specified in this Section.

I. Submit certificate from the valve box and manhole cover manufacturer certifying that the valve box and manhole cover comply with the requirements specified in this Section.

J. Submit to the Manager, Materials Engineering Division, Port Authority Technical Center, 241 Erie Street, Jersey City, New Jersey 07302-1397, certified test data covering gradation and composition of the crushed stone for pipe bedding proposed for use, together with one 75-pound representative sample of the material.

1. Submit the sample in a clean, sturdy container or bag that shall not permit loss of any of the material.

2. Clearly label the container or bag of the sample with Contract location, title and number; the name of the material supplied; and location of the source.

3. The Engineer will approve or disapprove the proposed material within 21 days after receipt of the sample.

4. Do not deliver material to the construction site from any source until the Engineer has approved the material from that source.

5. Notify the Engineer when material is delivered to the construction site. Field sampling and testing will be performed by Materials Engineering Personnel for quality assurance purpose. These field samples must be approved before any of the material is used.

K. Submit certificate from the polyethylene film manufacturer that such polyethylene film complies with the requirements specified in this Section.

L. Submit plans, methods, procedures, and types of equipment as applicable for:

1. Verifying location of existing utilities specified in 3.01.

2. Prevention of accumulation of groundwater specified in 3.03 B.2.

3. Hydrostatic pressure and leakage tests specified in 3.04 A.

4. Disinfection, flushing and sampling as specified in 3.04 B.

M. Submit for approval the name, address and qualifications of the independent testing laboratory to be employed to sample, test and certify the water for conformance to purity standards.

N. Submit results of field tests specified in 3.04 A. and B.

O. Submit drawing(s) showing the final constructed alignment and grade of the water main to such an extent that the exact location of the water main can be determined in the field utilizing such drawing(s). In addition, valves, fittings, including distance between fittings, connections and thrust restraint method employed shall be shown.

END OF APPENDIX "A"

DIVISION 2

SECTION 02844

TEMPORARY CONCRETE BARRIER

PART 1. GENERAL

1.01 SUMMARY

A. This Section specifies requirements for temporary concrete barriers.

B. Coordinate the Work of this Section with the requirements of "MAINTENANCE OF TRAFFIC AND WORK AREA PROTECTION" of DIVISION 1 - GENERAL PROVISIONS.

C. Materials and constructions of this Section constitute temporary facilities that are and shall remain the property of the Contractor unless otherwise shown on the Contract Drawings.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Society for Testing and Materials (ASTM)

ASTM A 36	Structural Steel
ASTM A 123	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 307	Carbon Steel Externally Threaded Standard Fasteners
ASTM C 150	Portland Cement

1.03 SUBMITTALS

See Appendix "A" for submittal requirements.

PART 2. PRODUCTS

2.01 CONSTRUCTION FEATURES AND MATERIALS

A. General

Provide new barriers and materials or, if acceptable to the Engineer, undamaged previously used barriers and materials in serviceable condition conforming to the requirements specified in this Section, and as shown on the Contract Drawings.

After delivery, a construction site inspection of the barriers and equipment will be made by the Engineer. If any barriers and equipment has been damaged or if, for any reason, the equipment does not comply with the requirements herein, the Contractor shall repair or replace the barriers and equipment at its own cost and expense, even though the barriers and equipment had been inspected for shipment. After such satisfactory replacement and/or repair and subsequent Engineer written approval, the barriers shall be installed.

B. Precast Concrete Barriers

1. Shall be manufactured with white portland cement concrete in accordance with the Contract Drawings which depict New York and New Jersey requirements. If the Contract Drawings are superseded by later New York or New Jersey Standards, then the most recent Standards shall be used, and the Contractor shall furnish Shop Drawing(s) in accordance with paragraph 1.03 B highlighting the change(s).

2. Concrete shall be proportioned to produce 3000 psi reinforced concrete.

3. Barrier sections less than 10 feet shall have one drainage pocket, and sections greater than 10 feet shall have two drainage pockets conforming to the size shown on the Contract Drawings, or styrofoam pads shall be provided to allow adequate drainage, as shown on the Contract Drawings.

4. Connectors, Anchors and Accessories:- Fabricated ASTM A 36 shapes, plates and bars welded into assemblies required, with ASTM A 307 steel bolts, and other fasteners as required. Finish each assembly and fastener with ASTM A 123 hot-dip zinc coating.

C. Barrier Reflectors

If specified on the Contract Drawings, barrier reflectors shall be 6" x 6", high intensity reflectorized, spaced at 20 feet on center with a minimum mounting height of 30 inches to the bottom of the reflectors. The reflector shall be white or yellow, matching the pavement edgeline, or as shown on the Contract Drawings.

D. Barrier Lights

If specified on the Contract Drawings barrier lights shall be steady burn Type C, spaced at 20 feet on center with a minimum mounting height of 30 inches to the bottom of the lens or as specified on the Contract Drawings. Type B flashing lights shall be placed on the approach end of barrier at 10 feet on center or as shown on the Contract Drawings.

E. Chain Link Fence

If specified in the Contract Drawings, chain link fence shall be placed on top of the temporary concrete barrier as shown on the Contract Drawings.

F. Glare/Gawk Shield

Install glare / gawk shield as specified by the manufacturer or as shown on the Contract Drawings.

PART 3. EXECUTION

3.01 PREPARATION

Protect the installation, maintenance, relocation and removal by providing and placing temporary traffic control devices in accordance with the requirements of the specification titled "Maintenance of Traffic and Work Area Protection" in Division 1.

3.02 INSTALLATION

A. Install barriers at locations shown on the Contract Drawings.

B. Provide styrofoam pad shimming and leveling as required to ensure smooth and continuously aligned barriers.

C. Taper ends of barriers shall be flared away from traffic at a rate of 10 to 1 or flatter. Terminate blunt approach end with an impact attenuator as approved by the Engineer in accordance with paragraph 1.03 D or as specified on the Contract Drawings.

D. Secure barriers against lateral displacement by use of drift pins or anchor bolts drilled into roadway surface or as shown on the Contract Drawings.

E. Install reflectors and lights as specified herein, and as shown on the Contract Drawings.

3.03 MAINTENANCE

A. Maintain, clean, relocate and replace barriers, reflectors and lights as required to protect motorists, pedestrians, and workers throughout the Work of this Contract.

3.04 REMOVAL

A. Remove barriers away from Authority property, when the need has ended, when replaced by approved use of permanent construction, or when directed by the Engineer.

B. Restore damaged permanent construction, and replace construction that cannot be satisfactorily repaired, all at no cost to the Authority.

END OF SECTION

SECTION 02844

TEMPORARY CONCRETE BARRIER

SUBMITTALS

APPENDIX "A"

Submit the following for approval by the Engineer in accordance with the requirements of "Shop Drawings, Catalog Cuts and Samples" of Division 1 - GENERAL PROVISIONS:

A. Certification from the concrete barrier supplier stating that the concrete barrier(s) meet the requirements of the Contract Drawings.

B. Shop Drawings detailing departures from the Standard Drawings included in the Contract Documents.

C. Proposed equipment Catalog Cuts and procedures to be used for installing, maintaining, relocating and removing the barrier(s).

D. Proposed end treatment details and Catalog Cuts including but not limited to impact attenuator type.

END OF APPENDIX A

DIVISION 3

SECTION 03100

CONCRETE FORMWORK

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for cast-in-place concrete formwork.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Concrete Institute (ACI)

ACI 347	Guide to Formwork for Concrete
ACI 117	Standard Specifications for Tolerances for Concrete Construction and Materials
ACI 318	Building Code Requirements for Reinforced Concrete

American Society for Testing and Materials (ASTM)

ASTM D 1751	Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-Extruding and Resilient Bituminous Types)

National Forest Products Association (NFPA)

National Design Specifications for Wood Construction

West Coast Lumber Inspection Bureau

American Plywood Association (APA)

Douglas Fir Plywood Association (DFPA)

1.03 DESIGN AND PERFORMANCE REQUIREMENTS

A. Design calculations shall be prepared by a Professional Engineer licensed in the State where the Work is to be performed. Design calculations shall be made available to the Engineer to facilitate inspection.

B. For wood products furnished for the Work of this Section, the Contractor shall comply with the applicable provisions of "National Design Specifications for Wood Construction" of the National Forest Products Association (NFPA).

C. For all other products furnished for the Work of this section, the contractor shall comply with the reference standards of the local building code.

D. Shop Drawings

1. All formwork and shoring shop drawings shall be signed and sealed by a Professional Engineer licensed in the State where the Work is to be performed. Shop drawings shall be made available to the Engineer to facilitate inspection.

2. Shop drawings shall indicate:

a. Pertinent dimensions, openings, methods of construction, types of connections, materials, joint arrangement and details, ties and shores, location of framing, studding and bracing, and temporary supports;

b. Means of leakage prevention for concrete exposed to view in the finished construction;

c. Sequence and timing of erection and stripping, assumed compressive strength at time of stripping, height of lift and height of drop during placement;

d. Vertical, horizontal and special loads in accordance with "Loads" of ACI 347 (Section 2.2) and camber diagrams, if applicable;

e. Notes to formwork erector showing size and location of conduits and pipes embedded in concrete according to ACI 318 (Section 6.3).

1.04 SUBMITTALS

For Submittals - see Appendix "A".

PART 2. PRODUCTS

2.01 MATERIALS

A. Earth Forms

Use only for footings where shown on the Contract Drawings.

B. Lumber Forms

Use for edge forms and unexposed finish concrete. Boards shall be 6 inches or 8 inches in width, shiplapped or tongue and groove, "Standard" Grade Douglas Fir, conforming to the "Standard Grading and Dressing Rules No. 17", of the West Coast Lumber Inspection Bureau. Boards shall be four sides surfaced.

C. Plywood Forms

Use for exposed finish concrete. Forms shall conform to U.S. Product Standard PA 1-66. Each panel shall carry the grade trademark of the American Plywood Association along with the Douglas Fir Plywood Association (DFPA) Quality stamp and shall be full size (4-foot x 8-foot) panels.

1. Plywood for surfaces to receive membrane waterproofing shall be a minimum of 5/8 inch thick and shall be "B-B Plyform Class 1 Exterior" grade.

2. Plywood where "Smooth Finish" is required, as shown on the Contract Drawings, shall be "HD Overlay Plyform Class 1 Exterior" grade, a minimum of 3/4 inch thick.

D. Prefabricated Forms

Prefabricated forms shall be as listed below and where shown on the Contract Drawings:

1. Pan Type Void Forms

Removable steel or reinforced plastic of sizes and profiles required to produce completed Work shown.

2. Tubular Column Type

Metal, fiberglass-reinforced plastic, or spirally wound laminated fiber materials; inside surface treated with release agent; of sizes required to produce completed Work shown.

E. Steel Forms

Sheet steel, suitably reinforced and designed for the particular use shown on the Contract Drawings.

F. Form Liners

Smooth, durable, grainless and non-staining hardboard, unless otherwise shown on the Contract Drawings.

G. Framing, Studding, and Bracing

Stud or No. 3 Structural Light Framing grade.

H. Form Ties and Spreaders

Standard, non-corrosive metal form clamp assembly, of type acting as spreaders and leaving no metal within 1 inch of concrete face. No wire ties, wood spreaders or through bolts will be permitted.

I. Form Anchors and Hangers

Anchors and hangers used for exposed concrete shall not leave exposed metal at surface. Hangers supporting forms from structural steel shall be symmetrically arranged on supporting members to minimize twisting or rotation of member. Penetration of structural steel members will not be permitted.

J. Form Coating Agent

Provide one of the following unless otherwise shown on the Contract Drawings:

1. "Arcal-80"; Arcal Chemical Corporation
2. "Synthex"; Industrial Synthetics Company
3. "Nox-Crete Form Coating"; Nox-Crete Company

K. Vapor Retarder

Where shown on the Contract Drawings, 8 mil thick poly-ethylene sheet

L. Bituminous Joint Filler: ASTM D 1751

PART 3. EXECUTION

3.01 PREPARATION

A. Earth Forms

Trench earth forms neatly and accurately and at least 2 inches wider than footing widths shown on the Contract Drawings, unless otherwise indicated. Construct wood edge strips at top of each side of trench to secure reinforcing and prevent trench from sloughing. Form sides of footings where earth sloughs. Earth forms shall be tamped firm and cleaned of all debris and loose material before depositing concrete.

B. Formwork – General

Sloped surfaces steeper than 1.5 horizontal to 1 vertical should be provided with a top form to hold the shape of the concrete during placement, unless it can be demonstrated to the engineer that top forms can be omitted. Construct forms to the correct shape and dimensions, mortar tight, of sufficient strength, and so braced and tied together that the movement of men, equipment, materials or the placing and vibrating of the concrete shall not throw them out of line or position. Forms shall be strong enough to maintain their shape under all imposed loads. Camber where necessary to assure level finished soffits unless otherwise shown on the Contract Drawings. Carefully verify the horizontal and vertical positions of forms and correct all inaccuracies to the satisfaction of the Engineer before placing concrete in any form. Complete all wedging and bracing before placing concrete.

C. Forms for "Smooth Finish" Concrete

Use steel, plywood or lined board forms. Plywood and form liners shall be clean, smooth, uniform in size and free from damaged edges and holes. Form lining shall have close-fitting square joints between separate sheets and shall not be sprung into place. Sheets of form liners and plywood shall be full size wherever possible and joints shall be taped to prevent protrusions in concrete. Use special care in forming and stripping wood forms to protect corners and edges. All horizontal joints shall be level and continuous. Wood forms shall be kept wet at all times until stripping.

D. Forms for Surfaces to Receive Membrane Waterproofing

Use plywood or steel forms. After erection of forms, tape form joints to prevent protrusions in concrete.

E. Framing, Studding and Bracing

Space studs at 16 inches on center maximum for boards and 12 inches on center maximum for plywood. Framing, bracing, centering and supporting members shall be of ample size and strength to carry safely, without deflection, all dead and live loads to which forms may be subjected, and shall be spaced sufficiently close to prevent any bulging or sagging of forms. Soffits of all beam forms shall be constructed of material a minimum of two inches thick. Concrete out of line, level or plumb will be cause for rejection by the Engineer of the whole Work affected. Distribute bracing loads over base area on which bracing is erected. When placed on ground, protect against undermining, settlement or accidental impact.

3.02 INSTALLATION

A. Tolerances

Formwork shall be constructed so that concrete surfaces shall be within construction tolerances specified in "Standard Specifications for Tolerance for Concrete Construction and Materials" of ACI 117. Tolerances not met will be corrected to the satisfaction of the Engineer at no cost to the Authority.

B. Chamfered Corners

As shown on the Contract Drawings, provide moldings in forms for all chamfering required. Moldings shall be 45-degree right triangles in profile, of size required, milled from wood free from visible defects.

C. Forms Ties

Form ties shall be of sufficient strength and used in sufficient quantities to prevent spreading of the forms. Place ties at least one inch away from the finished surface of the concrete. Leave inner rods in concrete when forms are stripped. Space all form ties to be equidistant, and symmetrical and lined up both vertically and horizontally unless otherwise shown on the Contract Drawings.

D. Cleanouts and Access Panels

Provide removable cleanout sections or access panels at the bottoms of all forms to permit inspection and effective cleaning of loose dirt, debris, and waste material. Clean all forms and surfaces against which concrete is to be placed of all chips, sawdust, and other debris and thoroughly blow out with compressed air just before concrete is placed.

E. Arrangement

Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.

F. Construction Joints

Provide a surfaced pouring strip where construction joints intersect exposed surfaces to provide a straight line at joints. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage. Construction joints shall show no overlapping of concrete and shall, as closely as possible, present the same appearance as butted plywood joints. Joints in a continuous line shall be straight, true, and sharp.

G. Embedded Items

Make provisions for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, waterstops and other features. No wood or uncoated aluminum shall be embedded in concrete. Obtain any required information pertaining to embedded items to be furnished for the Work specified in other Sections. Securely anchor all embedded items in correct location and alignment prior to placing concrete. Conduits and pipes, including those made of coated aluminum, must meet the requirements of ACI 318 (Section 6.3). Approved coatings for aluminum shall be as follows unless otherwise shown on the Contract Drawings:

1. Conlux

   Primer - Bond Plex 46 or 66 (water borne urethane)
   Topcoat - Epolon Multi-Mil 39 (epoxy polyamide)

2. Sherwin Williams

   Topcoat - Heavy Duty Epoxy B67/B60B3 (epoxy polyamide)
   Note: self-priming

3. Benjamin Moore

   Primer - Epoxy Rust Inhibitive Primer (epoxy polyamide)
   Topcoat - Epoxy Enamel (epoxy polyamide)

H. Openings for Items Passing Through Concrete

Frame openings in concrete where shown on the Contract Drawings. Establish exact locations, sizes, and other conditions required for openings and attachment of Work specified under other Sections. Coordinate all Work of this nature in order that there shall be no unnecessary cutting and patching of concrete. Perform any cutting and repairing of concrete required as a result of failure to provide for such openings at no cost to the Authority.

I. Screeds

Set screeds and establish levels for tops of concrete slabs and levels for finish on slabs. Slope slabs to drain where required or as shown on the Contract Drawings. Before depositing concrete, remove all debris from the space to be occupied by the concrete and thoroughly wet all forms. Remove freestanding water.

J. Screed Supports

For concrete over waterproof membranes and vapor barrier membranes, use screed supports of a cradle, pad or base type which shall not puncture the membrane. Staking through the membrane will not be permitted.

K. Shores and Falsework

Provide shores and falsework of adequate strength to protect persons and adjacent structures. Falsework and supports shall be adequate in size and strength to resist the loads imposed upon them without deformation, deflection, or settlement. All members must be straight and true without twists or bends. Use wedges in pairs or jacks where required to bring forms, shoring, or falsework for beams, girders, slabs, and other parts of the structure to the necessary elevations and uniform bearing before placing concrete. Do not use single wedges. Vertical and lateral loads shall be carried to ground by the formwork system or by bracing. Where shores rest on ground, provide adequate mud sills or other bases. Construct forms to permit their removal without disturbing the original shoring. Ensure that there is no movement of shores, braces or other supports during placement of concrete.

L. Reuse and Coating of Forms

Thoroughly clean forms and reapply form coating before each reuse. For exposed Work, do not reuse any form which cannot be reconditioned to "like new" condition. Discard forms considered unsatisfactory by the Engineer. Apply form coating to all forms in accordance with the manufacturer's specifications, except where "Scored Finish" is required as shown on the Contract Drawings. Do not coat forms for concrete that is to receive a "Scored Finish". Apply form coatings before placing reinforcing steel.

M. Inspection

Notify the Engineer after placement of reinforcing steel in the forms, but prior to placing any concrete, so that his inspection may be made.

3.03 REMOVAL OF FORMS AND SHORES

A. The forms and supporting shoring shall not be removed until the members have acquired sufficient strength to support their weight and the loads superimposed thereon safely and until the time and sequence of removal have been approved by the Engineer. Formwork shall be removed without damage to the concrete, in a sequence that does not allow the members to be subject to impact or loading eccentricities. Any repair required as a result of damage to the concrete shall be made to the satisfaction of the Engineer at no cost to the Authority.

B. Except when otherwise approved by the Engineer, or when minimum attained concrete strengths are specified on the Contract Drawings, forms shall be left in place for not less than the total number of days as specified in ACI 347.

END OF SECTION

SECTION 03100

CONCRETE FORMWORK

SUBMITTALS

APPENDIX "A"

The following items shall be submitted to the Engineer for approval, except as otherwise noted.

A. Shop Drawings

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples";
2. Formwork and shoring shop drawings for areas accessible to the public and/or concrete exposed to view in the finished construction shall be submitted to the Engineer (as indicated in Section 1.03 D) at least 21 days prior to ordering any material or constructing any formwork;
3. Provide a layout of all embedded items, including electrical and telephone conduit and plumbing and drainage pipes, at least 15 days prior to concrete placement.

B. Catalog Cuts, Material Certification and Test Results

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples";
2. Material certifications, brand names and test results (where required) for all formwork materials. Submit at least 35 days prior to concrete placement.

C. Samples

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples";
2. Form ties and spreaders with manufacturer's specifications, submit at least 21 days prior to ordering any material;
3. Tapes for form joints with manufacturer's literature;
4. Waterstops and premolded expansion joint filler;
5. Form liners with manufacturer's specifications, submit at least 21 days prior to ordering any material;
6. Form coating agent with manufacturer's literature.

D. Design Computations

Design computations for areas accessible to the public and/or concrete exposed to view in the finished construction shall be submitted to the Engineer (as indicated in Section 1.03 A) at least 21 days prior to ordering any material or constructing any formwork.

END OF APPENDIX "A"

DIVISION 3

SECTION 03200

CONCRETE REINFORCEMENT

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for furnishing and installing concrete reinforcement.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO M32	Steel Wire, Plain, for Concrete Reinforcement
AASHTO M55	Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement
AASHTO M221	Welded Deformed Steel Wire Fabric for Concrete Reinforcement
AASHTO M31	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
AASHTO M284	Epoxy-Coated Reinforcing Steel Bars

American Concrete Institute (ACI)

ACI 315	Details and Detailing of Concrete Reinforcement
ACI 318	Building Code Requirements for Reinforced Concrete

American Society for Testing and Materials (ASTM)

ASTM A 82	Steel Wire, Plain, for Concrete Reinforcement
ASTM A 184	Fabricated Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A 185	Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement
ASTM A 497	Welded Deformed Steel Wire Fabric for Concrete Reinforcement
ASTM A 615	Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 767	Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement
ASTM A 775	Epoxy-Coated Reinforcing Steel Bars

American Welding Society (AWS)

AWS D 1.4	Structural Welding Code - Reinforcing Steel

Concrete Reinforcing Steel Institute (CRSI)

Manual of Standard Practice Placing Reinforcing Bars

1.03 BRIDGE WORK

For Work of this Section involving bridges, the Contractor shall comply with the applicable provisions of "Standard Specifications for Highway Bridges" of the American Association of State Highway and Transportation Officials (AASHTO). Materials shall be in accordance with AASHTO designations where shown after the ASTM designation in parenthesis. Where not shown, comply with ASTM Designation.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver concrete reinforcement in bundles marked with metal tags indicating size, length and mark number.

B. Store and handle materials to prevent corrosion, damage to coating or contamination that could impair bond.

1.05 SUBMITTALS

For submittals see Appendix "A".

PART 2. PRODUCTS

2.01 MATERIALS

A. Reinforcing Bars: ASTM A 615 (AASHTO M31), deformed, Grade 60, unless otherwise shown on the Contract Drawings.

Coated bars where shown on the Contract Drawings shall comply with the following:

1. Galvanized Reinforcing Bars

ASTM A 767, Class-I hot-dip galvanized, after fabrication and bending.

Repair sheared and cut ends and damaged coating with a zinc-rich formulation conforming to ASTM A 767 in accordance with the material manufacturers' recommendations.

2. Epoxy-coated Reinforcing Bars: ASTM A 775 (AASHTO M284)

Repair sheared and cut ends and damaged coating with an epoxy patching material conforming to ASTM A 775 (AASHTO M284) in accordance with the patching material manufacturers recommendations.

B. Welded Wire Fabric

Types shall be as shown on the Contract Drawings and shall comply with the following:

1. Plain, ASTM A 185 (AASHTO M55), flat sheets for size W5 and larger and coiled rolls for sizes below W5.

2. Deformed, ASTM A 497 (AASHTO M221), flat sheets for sizes D5 and larger and coiled rolls for sizes below D5.

C. Fabricated Steel Bar Mats

Fabricated steel bar mats shall be in accordance with ASTM A 184, when shown on the Contract Drawings, and as follows:

1. Bar grade, size and spacing as shown on the Contract Drawings.
2. Welded connections, unless otherwise shown on the Contract Drawings.

D. Steel Wire

Steel wire shall comply with ASTM A 82 (AASHTO M32), plain finish, unless otherwise shown on the Contract Drawings.

2.02 ACCESSORIES

A. Tie Wire

Provide minimum 16-gage, annealed type. Provide nylon, plastic or epoxy-coated wire for use with epoxy-coated and galvanized reinforcing bars, if any.

B. Supports for Reinforcement

Provide bolsters, chairs, spacers, and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place. Use galvanized steel wire bar type supports complying with CRSI standards and as follows:

1. For supporting epoxy-coated reinforcing bars, use plastic coated supports, or supports fabricated from or coated with a dielectric material.
2. For slabs-on-grade, use supports with horizontal plate runners.
3. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, use supports with plastic capped legs (CRSI, Class 1).
4. Where architectural concrete is shown on the Contract Drawings, use plastic side form spacers.

2.03 FABRICATION

A. Fabricate concrete reinforcement as shown on the Contract Drawings and on approved shop drawings, in accordance with ACI 315 "Tolerances".

B. Bend all concrete reinforcement cold. Heating of bars or wire fabric is prohibited.

C. Where welding of concrete reinforcement is shown on the Contract Drawings, weld in accordance with AWS D1.4.

PART 3. EXECUTION

3.01 INSTALLATION

A. Place concrete reinforcement as shown on the Contract Drawings and on approved shop drawings. Where not shown on the Contract Drawings, comply with CRSI "Placing Reinforcing Bars".

B. Clean concrete reinforcement of loose rust, mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.

C. Accurately position, support and secure concrete reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support concrete reinforcement by chairs, runners, bolsters, spacers, and hangers in accordance with CRSI Manual of Standard Practice". Do not interfere with placement of embedded items.

D. When a vapor barrier is shown on the Contract Drawings, do not cut or puncture during concrete reinforcement placement.

E. Place concrete reinforcement to obtain covers shown on the Contract Drawings for concrete protection, or in accordance with ACI 318 "Concrete Protection for Reinforcement", if not shown on the Contract Drawings. Arrange, space and securely tie bars and bar supports to hold concrete reinforcement in position during concrete placement operations. Set ties so ends are directed into concrete, not toward exposed concrete surfaces.

F. Install welded wire fabric in lengths as long as practical. Lap adjoining pieces at least one full mesh and lace splices with wire, but in no case shall lap be less than requirements of ACI 318 "Splices of Welded Deformed Wire Fabric in Tension" or "Splices of Welded Plain Wire Fabric in Tension". Offset end laps in adjacent widths to prevent continuous laps in either direction.

G. After concrete placement, do not field bend partially embedded concrete reinforcement except as shown on the Contract Drawings.

H. Repair damaged bars and welds, if any, in accordance with 2.01A.

END OF SECTION

SECTION 03200

CONCRETE REINFORCEMENT

SUBMITTALS

APPENDIX "A"

The following items shall be submitted to the Engineer, except as otherwise noted.

A. Shop Drawings

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".
2. Details indicating placement, cover, splice locations, lap lengths, mechanical splice hardware, grade, bar size, length, mark number, bending schedule, bending diagram, weld designations, type of coating, material used to repair coating, and types of chairs, spacers, hangers and tie wire for all concrete reinforcement.
3. All proposed changes to the size, spacing or arrangement of the reinforcing steel shown on the Contract Drawings shall be clearly flagged as such on the shop drawings.

B. Catalog Cuts, Material Certification and Test Results

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".
2. Catalog cuts for chairs, spacers, hangers and mechanical splices.
3. Certification from the applicator of epoxy that the epoxy-coated reinforcing bars meet the requirements of ASTM A 775 (AASHTO M284).
4. Test results and certification from the galvanizer that the weight, application and testing of zinc coating conforms with specifications and ASTM A 767.
5. Certified mill test reports for all concrete reinforcement.

C. Samples

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".
2. Mechanical Splice Hardware.
3. Material used to repair coating.

D. Design Computations

1. Design computations for all proposed changes to the size, spacing or arrangement of the concrete reinforcement shown on the Contract Drawings.

END OF APPENDIX "A"

DIVISION 3

SECTION 03300

PLACEMENT OF PORTLAND CEMENT CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

This Section specifies requirements for casting Portland Cement concrete.

For requirements for furnishing Portland Cement concrete see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Society for Testing and Materials (ASTM)

ASTM D 1751	Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-Extruding and Resilient Bituminous Types)
ASTM D 1752	Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction

New Jersey Department of Transportation (NJDOT) Standard Specifications for Road and Bridge Construction

Port Authority Standard Specification sections:

#03301	Portland Cement Concrete, Long Form
#03200	Concrete Reinforcement
#03100	Concrete Formwork
#02574	Abrasive Blasting of Pavements

1.03 ENVIRONMENTAL REQUIREMENTS

A. For Cold Weather Requirements see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

B. Reinforcement, forms and soils with which concrete will be in contact shall be completely frost-free.

C. Comply with all provisions of this Section for placing and curing.

D. For Hot Weather Requirements see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

1.04 QUALITY ASSURANCE

A. A pre-concrete construction meeting will be conducted as specified in Part 1.06 of Section 03301 entitled PORTLAND CEMENT CONCRETE, LONG FORM.

B. For concrete where riding surface tolerances are required, as indicated on the Contract Drawings, the following requirements shall be met:

1. The Engineer will test the entire surface of the hardened concrete with a rolling straight edge for conformance to the smoothness requirements. Surface smoothness deviations shall not exceed 1/8 inch in 10 feet. Tests shall be made in both the longitudinal and transverse direction of the slab and shall span joints. Any deficiencies shall be corrected as specified in 3.04A and 3.04B.
2. The Engineer will survey the slab surface for vertical deviation from grade. Vertical deviation from the grade shown on the Contract Drawings shall not exceed plus or minus 0.04 foot at any point.
3. Finished grade shall be determined by running levels at intervals of 25 feet longitudinally and transversely. Deficiencies shall be corrected as specified in 3.04A and 3.04B.

C. Specified concrete finishes, as shown on the Contract Drawings, shall conform to the requirements set forth in 3.02D.2. Deficiencies shall be corrected as specified in 3.04D.

1.05 SUBMITTALS

A. For submittals - see Appendix "A".

B. Do not deliver any concrete to the construction site until all approvals as required in this Section, and required by Section 03301, have been obtained.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Expansion Joints (Except For Bridge Decks) and Contraction Joints

1. Vinyl plastic water stops shall be of types and sizes shown on the Contract Drawings and conforming to Corps of Engineers Specification for Polyvinylchloride Waterstops (Designation: CRD-C572-60, latest revision).
2. Premoulded expansion joint filler, when shown on the Contract Drawings:
   a. Cork type shall be ASTM D 1752, Type II;
   b. Bituminous type shall be ASTM D 1751.
3. Joint Sealant when shown on Contract Drawings: Federal Specification SS-S-1401, latest revision.

B. For Control Joints see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

C. For Curing Materials see 2.02P, Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

D. For Evaporation Retardant see 2.02Q, Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

PART 3 - EXECUTION

3.01 PREPARATION

A. Construction Joints

1. Number, locations and details shall be as shown on the approved shop drawings.

2. Planes of joints shall be normal to direction of pressure and shall include suitable keys and dowels.

3. Joints shall be placed at points of minimum shear unless otherwise shown on approved shop drawings or as directed by the Engineer.

4. Avoid lips and other irregularities between adjoining sections of concrete. Secure forms tightly against previously placed concrete.

B. Expansion and Contraction Joints

1. After curing concrete, clean grooves or saw cuts to receive joint sealant by scrubbing with a mechanical wire brush to loosen dirt and other foreign matter, and blowing out loose matter with filtered compressed air.

2. Install joint sealant to finish flush with concrete surface, except where otherwise shown on the Contract Drawings.

C. Control Joints see 3.04 Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

D. Preparation for Placing Concrete

1. Straighten bent dowels, whether placed under this Contract or by others, using tools approved by the Engineer. Do not apply heat to dowels.

2. Clean all dowels and all steel, which will be embedded in concrete, of all loose rust, scale, paint, grease and other objectionable materials.

3. Examine coated reinforcement for integrity of coating. Repair all damaged areas in accordance with the requirements of Specification Section 03200 entitled CONCRETE REINFORCEMENT. The repair crew shall be available at the time of examination.

4. Check all locking devices for formwork to ensure that they are in place and properly secured. 265

5. Do not place concrete for piles, footings, pile caps or slabs supported on pile caps or piles until the pile survey has been completed and additional reinforcing steel, if necessary, has been added as directed by the Engineer.

6. For preparation of surfaces to receive concrete, conform to 3.02 A and the Contract Drawings for all procedures, equipment limitations, and requirements to be performed prior to placing concrete. A surface preparation plan shall be submitted to the Engineer for review and approval.

7. Do not place concrete for slabs-on-grade, grade beams, or footings until the subgrade has been inspected and approved by the Engineer, and any base course or fill has been properly compacted in accordance with the Contract requirements.

8. Vent holes (1/4 inch diameter, minimum) shall be provided in edge angles or embedded plates at joints where vibrating alone will not ensure elimination of voids. Such holes shall be located at high points and with uniform spacing along joints for escape of air during concreting operations. Evidence of voids adjacent to embedments shall be cause for rejection of work. All vent holes and procedures for placement of concrete at joints shall be submitted for review and approval with the shop drawings.

3.02 APPLICATION

A. Bonding New Concrete to Existing Concrete:

Where new concrete shall be placed against existing concrete surfaces:

1. Existing concrete surfaces shall be abrasive blasted or shot blasted within 8 hours preceding the start of concrete placement or, if the area was open to vehicular traffic, after final closure of the area to traffic, prior to concrete placement. Abrasive blasting shall conform to Section 02574, entitled ABRASIVE BLASTING OF PAVEMENTS.

2. After abrasive blasting, just prior to placing concrete, existing concrete surfaces shall be thoroughly cleaned of dust, concrete particles, slurry produced by wet sawing or wet scarifying and other debris by oil-free air blast, followed by water blast, to the satisfaction of the Engineer.

3. Immediately prior to placing concrete, moisten existing concrete with water. Puddles of standing water shall be removed.

4. A thin layer of material from the leading edge of the concrete being placed shall be broomed into the wetted surface. Care shall be exercised to ensure that all vertical and horizontal surfaces receive a thorough, even coating and that the rate of progress is limited so that the broomed material does not dry before being covered with additional material as required for final grade.

B. Placing Concrete:

1. Place concrete only in the presence of the Engineer and by methods approved by him.

2. For concrete cast against earth or an approved compacted subgrade, and for concrete overlays, place concrete against surfaces in a saturated surface dry condition. .

3. Prior to placing concrete remove all standing water, or puddles.

4. Do not place concrete on or next to frozen surfaces.

5. Transfer concrete from mixer to place of deposit as rapidly as practical to prevent formation of cold joints.

6. Use equipment and methods for placing which shall permit rapid placement of fresh concrete of the required consistency and shall preclude segregation

7. The method and equipment used to transfer concrete from mixer to forms shall be subject to prior approval by the Engineer. Do not use any pipes, chutes or other equipment made of aluminum.

8. Subject to the foregoing requirements, convey concrete by approved conveyors, pipes, chutes, or spouts to a point not more than five feet horizontally or vertically from its final position unless otherwise approved by the Engineer.

9. Concrete for fill in steel reinforced pipe piles, steel shells and caissons shall be deposited using a metal hopper and an elephant trunk. The hopper and elephant trunk shall be set above the top of piles, steel shells and caissons to permit the escape of air as the concrete is placed. Elephant trunks shall extend a minimum distance of 10 feet below top of piles, steel shells and caissons. The top 15 feet of the concrete poured from the top shall be vibrated or rodded. No cold joints shall be permitted during concreting operations unless otherwise noted on the Contract Drawings.

10. Except where otherwise approved by the Engineer, consolidate concrete by internal mechanical vibration subject to the following:

    a. Type, number and method of application of vibrators shall be subject to prior approval by the Engineer.

    b. Apply vibrators at points not more than 30 inches apart for time intervals of approximately 10 seconds.

    c. Do not use vibrators to move concrete horizontally.

    d. In locations where spading is approved in lieu of mechanical vibration, spade coarse aggregate away from the forms and into the plastic mass; rod concrete around embedded materials and into corners and spaces to be filled and use only approved equipment.

11. Avoid formation of laitance and accumulation of excessive water on

surface of concrete as it is deposited. Remove any accumulated bleed water by approved means before placing other concrete.

12. The concrete shall be placed to require as little rehandling as possible. The concrete shall be placed and spread using an approved mechanical spreading device that prevents segregation of the materials. Placing shall be continuous between contraction joints. Necessary hand spreading shall be done with shovels--not rakes.

13. Concrete shall be deposited as near to joints as possible without disturbing them but shall not be discharged onto a joint assembly unless placement is centered above the joint assembly.

14. Concrete shall be thoroughly consolidated against and along the faces of all forms and previously placed concrete and along the full length and on both sides of all joint assemblies by means of vibrators inserted in the concrete. Vibrators shall not be permitted to come in contact with a joint assembly, base course, or a side form. In no case shall the vibrators be used to move the concrete.

15. Screed and float concrete for riding surfaces as it is placed and use an approved evaporation retardant or fog spray.

C. Concrete Placing and Finishing Equipment for Bridge Decks and other Riding Surfaces:

1. For slab or overlays 8 inches or more thick internal vibrators shall be used. Internal vibrators shall be gang-mounted and supplemented with manual vibrators subject to the following:

   a. Manual, hand-held vibrators shall be used adjacent to joint assemblies and similar locations where gang-mounted vibrators are not practical.

   b. All vibrators shall be checked prior to the start of Work and periodically during construction progress to verify that they are working properly.

2. For slab or overlays less than 8 inches thick, vibrating surface pans or screeds shall be allowed.

3. Manual tools, such as bull floats, trowels, brooms and other similar hand tools are acceptable.

D. Consolidation and Finishing

1. Bridge Decks and other Riding Surfaces

   a. Machine finishing shall conform to NJDOT Standard Specifications Subsection 405.13, Item B.

   b. Finishing at and adjacent to joints shall conform to NJDOT Standard Specifications Subsection 405.13, Item C.

   c. Hand finishing methods will not be permitted, except under the

following conditions: in the event of breakdown of the mechanical equipment, hand methods may be used to finish the concrete already deposited on the grade; in areas of narrow widths or of irregular dimensions where operation of the mechanical equipment is impractical. Concrete, as soon as placed, shall be struck off and screeded. An approved portable screed shall be used. A second screed shall be provided for striking off the bottom layer of concrete when reinforcement is used.

The screed for the surface shall be at least 2 feet longer than the maximum width of the slab to be struck off. It shall be of approved design, sufficiently rigid to retain its shape, and shall be constructed either of metal or of other suitable material covered with metal. Consolidation shall be attained by the use of suitable vibrators.

d. After the concrete has been struck off and consolidated, it shall be further finished by means of a longitudinal float using one of the following methods:

   1. Long-handled floats shall not be less than 12 feet in length and 6 inches in width, stiffened to prevent flexibility and warping. The float shall be operated from foot bridges spanning but not touching the concrete or from the edge of the pavement. Floating shall pass gradually from one side of the pavement to the other. Forward movement along the centerline of the pavement shall be in successive advances of not more than one-half the length of the float. Any excess water or laitance in excess of 1/8 inch thick shall be removed and disposed of outside of Port Authority property.

   2. The Contractor may use a machine composed of a cutting and smoothing float(s), suspended from and guided by a rigid frame and constantly in contact with, the side forms or underlying surface. If necessary, long-handled floats having blades not less than 5 feet in length and 6 inches in width may be used to smooth and fill in open-textured areas in the pavement. When the crown of the pavement will not permit the use of the mechanical float, the surface shall be floated transversely by means of a long-handled float. Care shall be taken not to work the crown out of the pavement during the operation. After floating, any excess water and laitance in excess of 1/8 inch thick shall be removed and disposed of outside of Port Authority property. Successive drags shall be lapped one-half the length of the blade.

e. While the concrete is still in a workable condition, it shall be tested for trueness with a 10-foot straightedge swung from handles 3 feet (1 m) longer than one-half the width of the slab. The straightedge shall be held in contact with the surface in successive positions parallel to the centerline and the whole area gone over from one side of the slab to the other as necessary. Advancing shall be in

successive stages of not more than one-half the length of the straightedge. Any excess water and laitance in excess of 1/8 inch thick shall be removed from the surface of the pavement and disposed of outside of Port Authority property. Any depressions shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished. Special attention shall be given to assure that the surface across joints meets the smoothness requirements set forth in 1.04B. Straightedge testing and surface corrections shall continue until the entire surface is found to be free from observable departures from the straightedge and until the slab conforms to the required grade and cross section. The use of long-handled wood floats shall be confined to a minimum; they may be used only in emergencies and in areas not accessible to finishing equipment.

f. The surface across the joints shall be tested with a 10-foot straightedge as the joints are finished and any irregularities in excess of 1/8 inch shall be corrected before the concrete has hardened.

2. Specified concrete finishes, as shown on the Contract Drawings, shall be in accordance with the following requirements:

a. "Smooth Finish" shall be a surface of concrete obtained by the use of special forms as specified in the Section entitled "Concrete Formwork". All fins and other irregularities in the exposed surfaces of concrete shall be removed by rubbing the irregularities with a carborundum brick and clean fresh water. Any mortar patches shall be rubbed with a carborundum brick as above specified.

b. "Scored Finish" shall be a surface of concrete obtained by roughening in an approved manner or by etching with sharp-pointed steel tools to key or otherwise improve the mechanical bond of the surface. Such scoring shall roughen at least ten percent of the area so scored.

c. "Float Finish" shall be a surface of concrete obtained by the use of a wood float. A float finish shall be applied to horizontal surfaces immediately after screeding and before initial setting has begun.

d. "Trowel Finish" shall be a surface of concrete obtained by the use of a steel trowel, after screeding and floating the surface of the concrete to produce a dense, smooth, even surface suitable for painting or the application of floor covering. The troweling shall not take place until the surfaces have set sufficiently to sustain knee boards without damage. Troweling shall eliminate all irregularities and leave the concrete surface with a smooth, hard finish, free from marks and blemishes to the satisfaction of the Engineer.

e. "Traction Finish" shall consist of a monolithic layer of abrasive

concrete having a minimum thickness of 3/4 inch and which shall be Emericrete, as manufactured by the Walter Maguire Company, Inc., or approved equal. Prepare the base and install the monolithic finish in accordance with the recommendations of the manufacturer of the abrasive concrete. The surface shall be given a wood float finish. The sides and edges of pavement slabs shall be rounded with an approved edging tool to the minimum radius obtainable in the sole opinion of the Engineer.

f. "Burlap Finish" shall be a surface of concrete obtained by the use of a burlap drag, after screeding and floating the surface of the concrete. The burlap shall be dragged in one direction in a straight line before initial setting has begun and in such a manner that the full width of the slab being finished is dragged in one operation. The preparation of the surface prior to dragging shall be performed from a bridge that shall not come in contact with the fresh concrete at any point. The use of any burlap that causes irregularities or grooves greater than one-sixteenth inch in depth in the concrete surface will not be permitted. Burlap shall be rinsed or washed as often as is necessary to prevent the presence of hardened particles and consequent scarring of the concrete.

g. Stair treads and platforms of steel stairs shall be filled with mortar mixed in the proportions of one part Portland cement to three parts of fine aggregate, mixed with water to a satisfactory consistency. Coat the surface of the mortar with three pounds of aluminum oxide crystals per square yard of surface, uniformly applied, and trowel the surface to a smooth hard finish. Aluminum oxide crystals shall be grade AL203 crystals ranging from No. 12 to No. 30 in size and shall contain not more than six percent of iron or other impurities.

h. "Broom Finish" shall be subject to the following:

1. Finish the concrete when the water sheen has practically disappeared. Use push broom or floor brush type, not less than 18 inches wide and made of good quality bass or bassine fibers not more than 4-1/2 inches long and with handles longer than half the width of the slab.

2. Use an adequate number of brooms to keep up with other operations. Proper finish shall be achieved prior to initial set of the concrete.

3. Wash and thoroughly dry brooms at frequent intervals and remove worn or damaged brooms from the construction site.

4. Draw broom across previously finished surface from the centerline to each edge of the slab with a slight overlap of strokes.

5. Corrugations made in surface shall be uniform, approximately

1/16 inch in depth, and not more than 1/8 inch in depth.

6. Complete brooming before concrete is in a condition that the surface will be torn or unduly roughened and before initial set of concrete.

7. Immediately following brooming, carefully finish the edges of slab along sides and at joints with an approved edging tool to form a smooth rounded surface of required radius and subject to the following:

   a. Where corners or edges of slabs have crumbled and at any areas which have leaked sufficient mortar to make proper finishing difficult, remove loose fragments and soupy mortar, fill solidly with a mixture of correct proportions and consistency and finish.

   b. Edges shall be smooth, true to line and free of unnecessary tool marks.

i. "Tine finish" and acceptance criteria for "Tine finish" shall conform to the requirements of the NJ DOT Standard Specifications, Subsection 405.13, Item G.

j. "Saw Cut Grooved Surface" shall conform to the requirements of the NJ DOT Standard Specifications, Division 500. For deck slabs, conform to Subsection 501.15, Item 3. For overlays, conform to Subsection 518.06, Item C13.

k. Concrete Curbs and Sidewalks

   1. Give sidewalks a "Float Finish" and tool edges and joints for a width of two inches and round corners to a radius of 1/4 inch with an approved edging tool.

   2. Install expansion joints at not more than 20-foot intervals in sidewalks with matching joints in curbs. Use 1/4-inch bituminous joint filler.

   3. Score sidewalks in squares as approved by the Engineer.

3. Removal of Forms

Removal of forms shall be subject to the following:

a. Remove forms in accordance with the requirements of Specification Section 03100 entitled CONCRETE FORMWORK.

b. Machine finishing shall conform to NJDOT Standard Specifications Subsection 405.13, Item B.. After removal of forms, patch areas of concrete which, in the opinion of the Engineer show excessive honeycomb by cutting out defective areas, keying and refilling them with a mortar of cement and sand in the same proportions as those in the approved concrete mix design.

c. After forms are removed, sides of slabs greater than 12 inches in thickness shall be cured in accordance with 3.03.

d. Immediately after removal of forms, holes and voids in the surfaces of concrete, resulting from bolts and ties, shall be wetted and filled with a mortar containing cement and fine aggregate in the same proportions as in the approved concrete mix design, and utilizing cement which shall produce mortar of the same color as the concrete. Exposed mortar surfaces shall then be finished smooth and even with a wood float, except that those surfaces exposed to view in the finished structure shall be finished with a steel trowel to match adjacent surfaces. All fins and other surface irregularities shall be removed promptly by chipping, grinding or other methods approved by the Engineer to give a uniform finish. Where no specific surface finish for formed concrete surfaces is indicated on the Contract Drawings, no further finishing will be required.

3.03 For CURING requirements, see 3.05, Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM. For exterior slab and overlay work, wet-curing procedures shall be performed immediately after the concrete has been worked with a screed.

3.04 CORRECTION OF DEFICIENCIES

A. Diamond Grinding and Partial Depth Removal

1. Cured riding surfaces that do not meet the smoothness or finished grade requirements set forth in 1.04B shall be corrected, to obtain the specified smoothness deviation, as follows:

a. High spots between 1/8" and 1/2" and surfaces that exceed the finished grade requirements shall be identified and ground with diamond grinding equipment.

b. Low spots between 1/8" and 1/2" and surfaces that are below the finished grade requirements shall be corrected by partial depth removal of the entire slab to 1" below rebars by hydrodemolition, or hydromilling and constructing an overlay in conformance with these specifications.

c. Slab areas that exceed finished grade or smoothness criteria by more than 1/2" shall be removed as set forth in 3.04B.

2. The diamond grinding equipment shall be approved by the Engineer and have a minimum grinding head of 36 inches.

3. Where grinding is required, the entire width of the riding surface by the length of defective area shall be ground. In the sole opinion of the Engineer, if the deficiencies are closely spaced and grinding individual areas will adversely affect ride, the entire surface shall be ground.

4. Slurry produced from grinding operations shall be disposed of outside of Port Authority property.

5. Diamond grinding, partial depth removal and construction of an overlay, if required to correct deficiencies, shall be performed at no additional cost to the Authority.

B. Remove and Replace Slabs

Full concrete slabs shall be removed and replaced in a manner approved by the Engineer and at no additional cost to the Authority if any of the following deficiencies exist in the finished riding surface, unless the Engineer elects to accept the concrete:

1. Slabs showing high or low spots exceeding 1/2 inch when tested in accordance with 1.04B.

C. If the slab concrete is found to have developed plastic shrinkage cracks, the contractor shall repair it at his cost with an approved epoxy or methacrylate repair system or remove as directed by the Engineer.

D. If concrete finishes do not meet the requirements set forth for the specified finishes, the hardened concrete shall be re-finished as directed by the Engineer, at no additional cost to the Port Authority.

END OF SECTION

SECTION 03300

PLACEMENT OF PORTLAND CEMENT CONCRETE

SUBMITTALS

APPENDIX "A"

The following shall be submitted to the Engineer for approval except as otherwise noted:

A. Shop Drawings

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".
2. Proposed number, location and details of contraction, control, expansion and construction joints at least 15 days prior to concrete placement.
3. Test placement details at least 15 days before test placement.

B. Catalog Cuts, Material Certification and Test Results

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".
2. At least 35 days prior to concrete placement, the following:
   a. Brand name and chemical composition of form oil.
   b. Source of expansion and/or contraction joints.

C. Samples

1. As per Division 1, "Shop Drawings, Catalog Cuts and Samples".

D. Construction Procedures, and Quality Control and Assurance Documents

1. At least 35 days prior to concrete placement, the following:
   a. Surface Preparation Plan for surfaces on which concrete will be placed.
   b. Type, number and method of application of concrete vibrators.
   c. Method of concrete placement in pipe piles (including elephant trunk size, length and material type).
   d. Method of concrete placement and consolidation adjacent to joint assemblies and embedded hardware.

E. Design Computations

1. If required by the Engineer or noted on the Contract Drawings, design computations shall be signed and sealed by the Professional Engineer licensed in the state where Work is being done.

END OF APPENDIX "A"

SECTION 03300

PLACEMENT OF PORTLAND CEMENT CONCRETE

SUBMITTALS

APPENDIX "A"

The following shall be submitted to the Engineer for approval except as otherwise noted:

A. Shop Drawings

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2. Proposed number, location and details of contraction, control, expansion and construction joints at least 15 days prior to concrete placement.
3. Test placement details at least 15 days before test placement.

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E. Design Computations

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END OF APPENDIX "A"

DIVISION 3

SECTION 03301

PORTLAND CEMENT CONCRETE, LONG FORM

PART 1. GENERAL

1.01 SUMMARY

This Section and its appendices specify requirements for Portland Cement Concrete mix proportions, materials used in concrete mixes, curing, control joints, end result property requirements of the in-place concrete, and the evaluation of these properties through Quality Acceptance testing performed by the Authority for determining Adjustments to Contract Compensation. The Specifications herein establish minimum standards for concrete construction. This does not relieve the Contractor from following more stringent standards to achieve the quality acceptance limits for applicable performance parameters and their respective Percent Within Limit (PWL) measurements.

1.02 REFERENCES

The following is a listing of the publications, standards and codes referenced in this Section, of which the latest edition shall govern:

American Association of State Highway and Transportation Officials (AASHTO):

Standard Specifications for Highway Bridges

M 182	Burlap Cloth Made From Jute or Kenaf
TP 26	Quality of Water to be Used in Concrete
T 277	Electrical Indication of Concrete's Ability to Resist Chloride
T 318	Water Content of Freshly Mixed Concrete Using Microwave Oven Drying

American Concrete Institute (ACI)

211	Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete
213	Guide for Structural Lightweight Aggregate Concrete
222R	Corrosion of Metals in Concrete
301	Specifications for Structural Concrete for Buildings
302.1	RGuide for Concrete Floor and Slab Construction
303.1	Cast in Place Architectural Concrete
304R	Guide for Measuring, Mixing, Transporting and Placing Concrete

304R	Chapter 8: Concrete Placed Under Water
305R	Hot Weather Concreting
306R	Cold Weather Concreting
308	Standard Practice for Curing Concrete
318	Building Code Requirements for Reinforced Concrete
548.4	Standard Specification for Latex Modified Concrete Overlays

American Society for Testing and Materials (ASTM):

C 31	Practice for Making and Curing Concrete Test Specimens in the Field
C 33	Specification for Concrete Aggregates
C 39	Test Method for Compressive Strength of Cylindrical Concrete Specimens
C 42	Standard Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
C 78	Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
C 88	Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
C 94	Specification for Ready-Mixed Concrete
C 109	Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens)
C 114	Test Methods for Chemical Analysis of Hydraulic Cement
C 131	Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
C 136	Test Method for Sieve Analysis of Fine and Coarse Aggregates
C 138	Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete
C 143	Test Method for Slump of Hydraulic Cement Concrete
C 150	Specification for Portland Cement
C 156	Test Method for Water Retention by Concrete Curing Materials
C 157	Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete
C 171	Specification for Sheet Materials for Curing Concrete
C 172	Practice for Sampling Freshly Mixed Concrete
C 173	Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
C 174	Measuring Length of Drilled Concrete Cores

C 191	Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
C 227	Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method)
C 231	Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
C 260	Specification for Air Entraining Admixtures for Concrete
C 289	Test Method for Potential Alkali-Silica Reactivity of Aggregates (Chemical Method)
C 309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
C 311	Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use as a Mineral Admixture in Portland Cement Concrete
C 330	Specification for Lightweight Aggregates for Structural Concrete
C 494	Specification for Chemical Admixtures for Concrete
C 535	Test for Resistance to Degradation of Large-Size CoarseAggregate by Abrasion and Impact in the Los Angeles Machine
C 566	Test Method for Total Moisture Content of Aggregate by Drying
C 567	Test Method for Unit Weight of Structural Lightweight Concrete
C 618	Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
C 979	Specification for Pigments for Integrally Colored Concrete
C 989	Specification for Ground Granulated Blast Furnace Slag for Use in Concrete and Mortars
C 1064	Test Method for Temperature of Freshly Mixed Portland Cement Concrete
C 1116	Specification for Fiber-Reinforced Concrete and Shotcrete
C 1152	Test Method for Acid-Soluble Chloride in Mortar and Concrete
C 1218	Test Method for Water-Soluble Chloride in Mortar and Concrete
C 1240	Specification for Silica Fume for Use in Hydraulic Cement Concrete and Mortar
C 1583	Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials By Direct Tension (Pull-Off Method)
C 1611	Slump Flow of Self Consolidating Concrete
D 3665	Practice for Random Sampling of Construction Materials
D 4580	Practice for Measuring Delaminations in Concrete Bridge Decks by Sounding
D 4791	Test Method for Flat and Elongated Particles in Coarse Aggregate

D 4833	Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
D 5199	Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes
E 965	Standard Test Method for Measuring Pavement Macrotexture Depth Using a Volumetric Technique
E 1347	Test Method for Color and Color-Difference Measurement by Tristimulus (Filter) Colorimetry

US Army Corps of Engineers

Handbook of Concrete and Cement

1.03 ENVIRONMENTAL REQUIREMENTS

A. Cold Weather Requirements

1. Cold weather concrete construction shall conform to ACI 306R.

2. Submit a Cold Weather Concrete Construction Plan, and have it approved prior to concrete placements when the ambient temperature falls below 50°F. This Plan shall conform to ACI 306R, and shall include, but not be limited to, the demonstration of how the in-situ concrete temperature will be maintained at 50°F and monitored, or at temperatures specified in ACI 306R, Table 3.1, whichever is more stringent. In addition, demonstrate that the specified concrete properties can be achieved within the time requirements specified while maintaining a minimum curing temperature of 50°F.

3. Do not mix or place concrete when the ambient temperature is below 35°F, or when conditions indicate that the temperature will fall below 35°F within 72 hours, unless the areas to receive fresh concrete are insulated or enclosed, and maintain the concrete temperature at 50°F or in accordance with Table 3.1 in ACI 306.

4. Reinforcement, forms and soils with which concrete will be in contact shall not be frozen and must be maintained completely frost-free. If required, apply heat to raise their temperature to a minimum of 35°F. The use of chemicals to eliminate frost will not be permitted.

B. Hot Weather Requirements

1. Hot weather concrete construction shall conform to ACI 305R.

2. Submit a Hot Weather Concrete Construction Plan and have it approved prior to concrete placements when the ambient temperature exceeds 80°F. This Plan shall conform to ACI 305R and shall include, but not be limited to, the demonstration of how the concrete temperature during batching and mixing will be kept below 90°F, how the concrete will be protected from rapid evaporation of surface moisture, the proper use of water reducing retarders with re-dosing charts and procedures, and curing procedures.

3. Do not place concrete for pavements, overlays, bridge decks, or ramps when the ambient temperature exceeds 85°F by scheduling work so that concrete can be placed during the coolest part of the day. Do not place concrete for structural decks, slabs or pavements when the rate of concrete surface evaporation exceeds 0.15 lbs/ft^2/hr, as defined in ACI 305R, Figure 2.1.5. If ambient conditions exceed this limit, demonstrate through the use of windscreens, fogging or other suitable means that the concrete evaporation rate is less than 0.15 lbs/ft^2/hr.

4. If the concrete temperature reaches 92°F as measured at the construction site in accordance with ASTM C 1064, it will be rejected.

1.04 QUALITY CONTROL

A. General

1. Maintain a level of Quality Control sufficient to consistently provide the end result performance properties specified herein. In addition:

a. Provide the approved mix proportions including an automated, time-date stamp on each delivery ticket indicating the batch weights of all batching constituents.

b. Ensure that all plant mixing equipment and trucks are calibrated and approved by either the New Jersey or New York State Department of Transportation. Documentation of such conformance shall be available to the Engineer at all times.

c. Ensure that all personnel performing concrete testing are certified ACI Grade I Concrete Laboratory Testing Technicians or Concrete Field Testing Technicians, as appropriate.

B. Quality Control Plan: Submit a Quality Control Plan a minimum of 10 days prior to the pre-concrete construction meeting described in 1.06. Do not start production before the Quality Control Plan has been approved by the Engineer. The Quality Control Plan shall include the following:

1. Quality Control Organization

a. A chart showing all Quality Control personnel and a description of how these personnel integrate with and report to other management or field construction personnel. Include names, company name, and each person's function, telephone number and fax number.

b. The Program Administrator shall have a minimum of 5 years experience on projects of size and scope comparable to the Work of the Contract. The Program Administrator shall be a full-time employee of the Contractor or a consultant engaged by the Contractor. Additional qualifications shall include at least one of the following:

(1) Professional Engineer, Engineer-In-Training, Bachelor of Science in Civil Engineering, Civil Engineering Technology, or Construction airport and/or highway concrete construction experience.

(2) NICET Level III certified engineering or materials technician in Civil Engineering Technology with 5 years of airport and/or highway concrete construction experience.

(3) New Jersey ACI Chapter's "Concrete Construction Technology" course with 5 years of airport and/or highway concrete construction experience.

(4) ACI Concrete Transportation Construction Inspector with 5 years of airport and/or highway concrete construction experience.

2. Intended project progress schedule for each mix and application, including quantities and a submittal schedule.

3. Quality Control Testing Plan, including a list of testing standards and the frequency each test is to be performed.

a. Include the performance of gradation and moisture content of testing for fine and coarse aggregates in accordance with ASTM C 136 and ASTM C 566, respectively. Perform both tests (1) prior to production, (2) every 3 hours during production or every 100 cubic yards of concrete produced (whichever is longer in time) and (3) when aggregates are used from a new stockpile that has not been tested for gradation or moisture content.

4. Documentation of Quality Control activities, including the location where recorded test results and other information, such as, mill test certificates for all cementitious material, will be stored, which shall be made available to the Engineer at any time upon request.

5. Requirements for corrective action when QA and/or QC test results do not conform to the requirements of the Contract.

1.05 TRIAL BATCHING AND TEST POUR VERIFICATIONS

A. Trial Batching

1. The Engineer may prepare and test trial batches as specified herein and in accordance with ACI 318, Section 5.3. At the Engineer's request, submit representative samples of all materials in sufficient quantities to the Port Authority Materials Engineering Division Laboratory. In the event of a conflict between tests performed by the Engineer and tests performed by or for the Contractor, all tests performed by the Engineer shall control.

2. The Engineer may perform the following tests to verify trial batches submitted by the Contractor: compressive strength, flexural strength, permeability by the Coulomb test, air content, unit weight, water content of freshly mixed concrete using the microwave oven drying test, shrinkage, chloride ion concentration, corrosion inhibitor concentration, bond strength, slump, time of set, gradation of fine and coarse aggregates, and the fineness modulus of the fine aggregate.

B. Test Pours

1. Unless otherwise noted on the Contract Drawings, perform a test pour a minimum of 14 calendar days prior to production pouring in order to demonstrate and verify proper workability, finishability, setting characteristics, consolidation and curing procedures and to confirm that specified physical properties are attained for the approved mix proportions. For tremie concrete applications, construct a mock-up to verify acceptable consolidation and that the specified compressive strength is achieved by testing three in-place cores taken from the test placement at locations designated by the Engineer. In addition, for architectural cast in place concrete, construct a full scale mock-up in accordance with Section 2.03C 3. If in the sole opinion of the Engineer the test pour is acceptable, follow the procedures established during the test pour during production.

2. Test Pour Size: For flatwork, the minimum test pour size shall be a length of 100-feet for the entire thickness of the pavement and width of the screed planned to be used. For all other concrete construction, the test pour size shall be according to scale for the cross sectional area, including the location of all steel reinforcement. However, at the option of the Engineer, the length of the member may be reduced from its actual size, but shall be adequate to demonstrate workability, finishability, setting characteristics, consolidation, finish, and curing procedures, as determined solely by the Engineer. Perform all test pours using the same personnel, equipment, procedures, and materials that will be used for full production.

3. The test section will be considered acceptable if, in the sole opinion of the Engineer, it meets the specifications for surface preparation, batching, mixing, placement, consolidation, curing, finish, and applicable performance properties of the concrete. In addition, for architectural concrete, color and texture will be considered acceptable according to the sole opinion of the Engineer.

4. In the event that the Engineer deems the test section unsatisfactory, remove the test section and repeat the test at no cost to the Authority.

5. The test pour location will be determined by the Engineer at the pre-concrete construction meeting, and will be located in close proximity to, if not within, the area of Work, unless otherwise noted on the Contract Drawings.

1.06 PRE-CONCRETE CONSTRUCTION MEETING

A. A pre concrete placement meeting will be conducted at the construction site by the Engineer a minimum of 20 days prior to the first pour to review the Contractor's submitted mix proportions, hot and cold weather concreting plans (as applicable), curing procedures plan, test pour, and to discuss the methods and procedures to achieve the specified concrete quality. The Contractor shall notify the Engineer and shall send a pre-concrete meeting agenda to all attendees a minimum of 15 days prior to the scheduled date of the meeting indicating review subjects. The Contractor shall, at no additional cost to the Authority, make arrangements for the Contractor's superintendent and a qualified representative from each segment of the concrete operations to be present, including, but not limited to the following:

1. Concrete supplier

2. Laboratory representative responsible for the concrete proportion mix and Quality Control

3. Contractor's Program Administrator for Quality Control
4. Concrete subcontractor
5. Admixtures and curing membrane suppliers
6. Concrete pumping subcontractor
7. Mobile mixer subcontractor
8. Precast concrete fabricator and installer
9. Joint sawing subcontractor
10. The Engineer

B. Minutes of the meeting shall be recorded, typed, and printed by the Contractor and distributed to all attendees of the meeting within 5 days of the date of the meeting.

C. The pre-concrete construction meeting shall not be scheduled until all of the following have been submitted for approval, as applicable to the Work of the Contract:

1. Mix Proportions
2. Admixture dosage charts showing the effects of concrete temperatures from 50°F to 90°F
3. Sample panels (12" x 12" x 2" for architectural concrete)
4. Hot and Cold Weather Concrete Construction Plans
5. Independent testing laboratory AASHTO Accreditation Certification
6. ACI Grade I certifications for concrete testing personnel
7. Placement methods and procedures, including surface preparation
8. Pumping Procedure Plan
9. Curing Procedure Plan
10. Joint Location Plan and Timing of Cuts
11. Quality Control Plan
12. Procedure for Curing Field Concrete Specimens

1.07 SUBMITTALS

A. For submittals - see Appendix "A".

B. Do not deliver any concrete to the construction site until all approvals have been obtained.

PART 2. PRODUCTS

2.01 MANUFACTURERS AND SOURCES OF SUPPLY

A. Use no cement, fly ash, slag, silica fume, metakaolin or fine or coarse aggregates, that has not been approved by either the New Jersey or New York State Department of Transportation.

2.02 MATERIALS

A. Cement: Conforming to ASTM C 150, Type I and II, as well as Type III where early strength gain is required and may be used, or others specified on the Contract Drawings.

B. Very High Early Strength Cement: Defined as cement used to produce concrete with the compressive strength shown on the Contract Drawings within 12 hours or less and conforming to the following:

1. The compressive strength shall be greater than or equal to the specified strength at the curing time specified on the Contract Drawings, when tested in accordance with ASTM C 39. During cold weather concrete construction, demonstrate that the specified compressive strength can be obtained at a curing temperature of 50°F.

2. Absolute drying shrinkage less than, or equal to, 0.04% at 28 days for the mix proportions containing the Very High Early Strength Cement in accordance with ASTM C 157 modified (Air Drying Method), where the initial reading shall be taken at 3 hours after the addition of the mixing water to the dry materials in the mix.

3. Setting time, determined in accordance with ASTM C 191, shall be sufficient to provide adequate workability, meet the specified strength requirement, and allow enough time in the field to finish and begin curing the concrete for its intended use.

4. The Very High Early Strength Cement shall meet the properties in 2.02.B.1., 2.02.B.2. and 2.02.B.3., for a Lot of cement not to exceed every 50,000 pounds of cement to be used for production. Provide certification from an independent testing laboratory employed by the Contractor and approved by the Engineer that the cement meets these properties.

C. Silica Fume: Shall conform to ASTM C 1240 and the following:

1. Silicon dioxide content: 90% minimum

2. Loss On Ignition: 6% maximum

3. Surface Area: (nitrogen absorption): 15,000 m2kg

4. Crystallinity: Non-crystalline within limits of detection by XRD

5. Oversize foreign materials (in fume): 5% maximum on 45 micron sieve (wet)

D. Metakaolin: Conforming to ASTM C618, Class N. Use one of the following products as manufactured by or an approved equal:

1. MetaMax manufactured by Engelhard, Iselin, New Jersey.

2. PowerPozz manufactured by Advanced Cement Technologies, LLC, Blaine, Washington.

E. Fly Ash: Conforming to ASTM C 311 and ASTM C 618, Class F except the maximum loss on ignition shall be less than 4%.

F. Slag: Conforming to ASTM C 989, Grade 120.

G. Fine Aggregate: Conforming to ASTM C 33, ASTM C 227, ASTM C 289, and ASTM C 131 with a maximum percentage of wear of 30%.

H. Coarse Aggregate (Normal Weight Concrete): Conforming to ASTM C 33, ASTM C 227, ASTM C 289, ASTM C 535 with a maximum percentage of wear of 40%, and ASTM C 88 with a magnesium sulfate loss of not more than 12% for a five-cycle test period. Trap rock or gneiss shall be used for all roadway pavement wearing surfaces. The aggregate in any size group shall not contain more than 8% by weight of flat or elongated pieces, as tested in accordance with ASTM D 4791. A flat or elongated piece is one having a ratio between the maximum and minimum dimensions of a circumscribing rectangular prism exceeding 5 to 1. In accordance with ACI 318, Section 3.3.2., the nominal maximum size of coarse aggregate shall not be larger than: (1) one-fifth the narrowest dimension between sides of forms, (2) one-third the depth of slabs, or (3) three-quarters the minimum clear spacing between individual reinforcing bars or wires, bundles of bars, or prestressing tendons or ducts. The nominal maximum size of coarse aggregate used shall be the largest size aggregate that conforms to ACI 318, Section 3.3.2., unless otherwise noted herein or on the Contract Drawings.

1. For full depth pavement concretes unless otherwise shown on the Contract Drawings the combined aggregate volume shall be a minimum of 70 percent. The combined gradation of the fine and coarse aggregate shall conform to the following, when tested in accordance with ASTM C 136:

	For Pavement 10 Inches or Greater in Thickness		For Pavement Less Than 10 Inches in Thickness	
Sieve Size % Passing	Min.	Max.	Min.	Max.
2 ½"	100			
2"	90	98	100	
1 ½"	76	88	89	98
1"	67	79	74	86
¾"	65	77	64	76
3/8"	48	60	48	60
No. 4	30	42	30	42
No. 8	27	37	27	37
No. 16	20	30	20	30
No. 30	16	22	16	22
No. 50	4	10	4	10
No. 100	0	4	0	4

2. Pile Jackets: As a minimum, the mix proportion shall contain an ASTM C 33 Size Number 8, coarse aggregate. The ratio of coarse aggregate to fine aggregate by volume shall not be less than one to one.

3. Pipe Piles: Reduce the amount of coarse aggregate to minimize segregation. The volume of coarse aggregate shall not exceed 9.0 cubic feet per cubic yard of concrete. The maximum size coarse aggregate shall be ASTM C 33 Size Number 8.

4. Minimum Volume of Coarse Aggregate: All mixes shall contain a minimum of 39% coarse aggregate by volume, with the exception of 1) applications specified in Part 2.02.H.1-4, 2) Performance Category VI applications, 3) bridge decks, and 4) mixes containing ASTM C33 Size #8 aggregate. Bridge deck concrete mixes shall contain a minimum of 41% coarse aggregate and total minimum aggregate volume of 67%. Mixes containing ASTM C33 Size #8 stone not covered in Part 2.02.H.2-4 shall contain a minimum of 36% coarse aggregate by volume. These minimum requirements apply to all methods of placement, including pump mixes.

I. Coarse Aggregate (Lightweight Concrete):

1. Expanded clay or shale produced by the rotary kiln process conforming to ASTM C 330 shall be graded in accordance with the requirements for ¾" to No. 4 sieve sizes shown in Table 1 of that specification.

2. The oven dry unit weight of plant-tested, lightweight aggregate shall not vary more than +/- 3.0 pounds from the unit weight (pounds per cubic foot) determined from the sample quantity submitted in accordance with 1.05.A.1.

J. Water: Conforming to AASHTO TP 26. Clean and potable for both mixing and curing concrete.

K. Formulated Latex Modifier: Latex modifier shall be modifier "A/NA", as manufactured by Dow Chemical, Midland, Michigan. Add latex emulsion at a rate of 3.5 gallons per 94 lbs. of cementitious material in the concrete mix.

L. Air Entraining Agent: Conforming to ASTM C 260.

M. Admixtures: All admixtures shall conform to ASTM C 494. They shall not contain more than 0.05% chloride ions, and shall be used in accordance with the manufacturer's recommendations. Dosage charts, including the effects of concrete temperatures from 50°F to 90°F, shall be submitted to the Engineer. All admixtures shall be manufactured by one of the following:

1. Euclid Chemical Company
2. W.R. Grace & Company
3. Master Builders Technologies
4. Sika Corporation

N. Polycarboxylate High Range Water Reducer: For use when self-compacting concrete is desired and approved by the Engineer. Conforming to ASTM C 494, Type F or Type G. Dosage rate shall be as recommended by the manufacturer to produce a spread of the concrete mixture measuring between 21 and 27 inches in diameter without segregation when released from a slump cone performed in accordance with ASTM C1611. Use one of the following products, no substitutions:

1. "Plastol 5000" or "Plastol 341", as manufactured by The Euclid Chemical Company
2. "ADVA Flow 530" or "ADVA Flow 540", as manufactured by W.R. Grace & Company
3. "Glenium 3030 NS" or "Glenium 3200 HES", as manufactured by Master Builders Technologies

O. Corrosion Inhibitors:

1. Corrosion Inhibitor shall be one of the following:

   For cast in place or precast:

   a. "DCI-S" as manufactured by W.R. Grace & Company.
   b. "Eucon CIA" as manufactured by Euclid Chemical Company.
   c. An approved equal.

For precast applications only:

a. "Sika CNI" as manufactured by Sika Corporation.

b. "Rheocrete CNI" as manufactured by Master Builders Technologies

c. DCI as manufactured by W.R. Grace & Company

2. The concentration of calcium nitrite shall be 30% +/- 2% by weight of solids per gallon.

3. The Engineer will sample the corrosion inhibitor for testing to verify the calcium nitrite solids content. The amount of calcium nitrite in fresh concrete may also be tested at any time, to verify if the proper quantity of the corrosion inhibitor is being batched in the mix.

4. Corrosion inhibitor admixtures, shall not accelerate the setting time of the concrete mixture. A retarder and/or other admixtures shall be used to assure acceleration of setting time does not occur, while maintaining the applicable performance criteria, as stipulated in 2.04. Submit procedures for the placement of concrete mixes containing a corrosion inhibitor when a retarder is required for the range of concrete temperatures from 50°F to 90°F.

P. Viscosity Modifying and/or Self-Consolidating Admixtures: may be required for tremie concrete applications at the rate recommended by the manufacturer. Concrete shall be tested in accordance with CRD-C6189A US Army Corps of Engineers Handbook of Concrete and Cement. Maximum percentage of washout weight loss shall not exceed 5% after 3 standard test drops in water.

Q. Pigments: Conforming to ASTM C 979.

R. Curing Materials:

1. Apply Liquid Membrane Forming Curing Compound immediately after surface moisture has evaporated. Apply two full applications perpendicular to each other. Allow the first coat to become tacky prior to application of the second coat. Curing compound shall be one of the following:

a. "DOT Resin Cure (Type II)" as manufactured by Conspec Marketing & Manufacturing Company, Inc.

b. "Euco Kurez Vox (White)" as manufactured by Euclid Chemical Company

c. "1200 White" as manufactured by W.R. Meadows

d. "AHT Type II Class B Cure" as manufactured by American Highway Technology, a Dayton Superior Company

e. "Certi-Vex Envio-Cure White 1000" by Vexcon Chemicals Inc.

f. Day-Chem White Pigmented Cure (J-10-W) by Dayton Superior.

g. or an approved equal meeting the requirements specified in 2.02.R.2.

2. Liquid Membrane Forming Curing Compound: conforming to the following:

a. For horizontal exterior applications, curing membranes are restricted to ASTM C 309 Type 2, Class B materials. ASTM C 309 Type 1 D, Class B membranes are acceptable for other exterior applications. ASTM C 309 Type 1, Class B membranes are acceptable for interior applications only.

b. Curing membranes shall be wax free when used on concrete where overlays, coatings, paints, sealers or any topping is to be applied, or where vehicular, pedestrian or aircraft traffic will pass over.

c. Membranes shall be volatile organic compound (V.O.C.) compliant for both the states of New York and New Jersey. Certification of compliance shall be submitted to the Engineer upon request.

d. The membrane shall restrict the loss of water to not more than 0.40 kilograms per square meter in 72 hours at a coverage rate of 300 square feet per gallon per coat for Type I curing compounds, and 200 square feet per gallon per coat for Type 2 curing compounds when tested in accordance with ASTM C-156.

3. Burlap: conforming to AASHTO M 182, Class 3, weighing approximately 9 oz./sq. yd. dry.

4. Sheet Material: Conforming to ASTM C 171.

a. Polyethylene Film:

(1) White opaque, where curing surface is exposed to sun

(2) Clear, for other applications

b. White Burlap Polyethylene Sheet

5. Cotton Mats: conforming to ASTM D 5199 with a minimum thickness of 40 mils, ASTM C 156 with a maximum water loss of 0.0065 oz./in.2, ASTM D 4833 with a minimum puncture strength of 70 pounds, and ASTM E 1347 with a minimum reflectance of 75%. The following cotton mats may be used in lieu of burlap for wet curing operations:

a. "Transguard 4000" as manufactured by Reef Industries, Inc., Houston, Texas, or

b. an approved equal conforming to the requirements specified in 2.02.R.5.

S. Evaporation Retardant: This material shall be used to retain moisture in the concrete during finishing operations. Use one of the following:

1. "Euco-Bar" as manufactured by Euclid Chemical Company

2. "E-Con" as manufactured by L&M Construction Chemicals, Inc.

3. "Confilm" as manufactured by Master Builders Technologies

4. "SikaFilm" as manufactured by Sika Corporation

5. "Aquafilm" as manufactured by Conspec Marketing & Manufacturing Company, Inc.

T. Fiber Reinforcement:

1. Polypropylene Fibers

a. Provide one of the following products, subject to compliance with the Contract requirements:

(1) "Fiberstrand", as manufactured by Euclid Chemical Company

(2) "Fibermesh", as manufactured by Fibermesh, Inc.

(3) "Forta", as manufactured by Forta Corporation

(4) "Grace Fibers" or "Grace Microfibers", as manufactured by W.R. Grace & Company

(5) "Durafiber", as manufactured by Industrial Systems, Ltd.

(6) or an approved equal.

b. Additional requirements:

(1) Collated fibrillated materials: Dosage rate shall be a minimum of 1.5 lb./cu. yd.

(2) Multifilament fibers: Dosage rate shall be a minimum of 1 lb./cu. yd. The minimum length shall be 0.75 inches.

(3) Conformance with ASTM C 1116, designation Type III, 4.1.3.

(4) Conformance with a minimum plastic shrinkage crack reduction of 70 percent when tested in accordance with ICBO ES, Appendix B (7-92).

(5) Use of fibers shall not change the water requirements of the mix.

(6) Conform to the manufacturer's recommendations for the quantity of fiber, which shall not be less than the minimum requirements of 2.02.T.1.b.1. and 2.02.T.1.b.2.

(7) Fiber manufacturer or approved distributor: Provide the services of a qualified representative at the pre-concrete construction meeting and for the first two days of fibrous concrete placement production.

2.03 MIX PROPORTIONS

A. Develop mixes in accordance with the latest editions of ACI 211, ACI 301, and ACI 318 to produce the proportion performance criteria in accordance with the Contract documents, with a degree of excess as determined by Chapter 5 of ACI 318, and meet all of the applicable performance criteria as specified in the Contract documents. In addition, all concrete placed underwater shall conform to ACI 304R, Chapter 8, and lightweight aggregate concrete shall conform to ACI 213. Submit an underwater concrete placement procedure that is in conformance with ACI 304R, Chapter 8. Prior to concrete construction and after approval of all materials to be used in the concrete, submit a mix proportion showing that all performance criteria have been met. Mix proportions submitted shall be based upon laboratory trial mix test results and/or mixes successfully used within the two years preceding the date of the submittal of the mix for the Work of this Section. The independent testing laboratory used to develop the mix proportions and perform testing shall have AASHTO Accreditation for all test methods required to be performed and to develop the required mix. Submit proof of certification to the Engineer prior to the start of development of the mix proportions and testing. The mix proportions shall include copies of test reports, including test dates, and a complete list of materials, including type, brand and source. The trial mix design performed in the testing laboratory shall use the same materials, cement, pozzolons, aggregates, admixtures that will be used at the proposed batch plant. In addition to fineness modulus of fine aggregate, the applicable properties listed in 1.05.A.1.a. shall also be shown. If any of the approved mix constituents change in source, properties or proportion, submit a new mix. The mix proportions shall also conform to the following:

1. Substitute either fly ash or slag at the minimum rate of 20% by weight of cement. The maximum rates of substitution shall be 30% for fly ash and 40% for slag, unless otherwise approved by the Engineer. When using fly ash or slag for Category IV applications, use a minimum of 30% fly ash or 40% slag substitution by total weight of cementitious material. Fly ash and slag substitution in the same mix may be permitted upon approval by the Engineer.

2. For concrete placed underwater, the minimum cementitious material content shall be 700 pounds per cubic yard of concrete.

3. Water to cement ratio shall be computed using the weight of cementitious material that is equal to the total weight of cement plus fly ash, slag, and silica fume. Any admixtures which increase the water to cement ratio by 0.01 or greater shall be accounted for in the mix proportion to meet the specified water to cement ratio.

4. For Categories II, III and IV concrete applications, the mix water to cement ratio shall not exceed 0.37 and the absolute drying shrinkage at 28 days shall not exceed 0.04% in accordance with ASTM C 157 (Air Drying Method), modified to start measuring at 10 hours. In addition for Categories III and IV , the maximum Coulomb count at 28 days shall be 1,000 for mixes without calcium nitrite and 1,500 when the mix contains calcium nitrite. For mixes that do not have silica fume, latex, or metakaolin but contain either fly ash or slag, the Coulomb count requirements shall remain the same; however, the test shall be performed at 90 days instead of 28 days. For concrete pavements and Categories I and V applications where the concrete will be exposed to freeze-thaw cycles and/or sulfates, the mix proportion water to cement ratio shall not exceed 0.40 and the absolute drying shrinkage at 28 days shall not exceed 0.04% in accordance with ASTM C 157 (Air Drying Method). For other concrete applications, the mix water to cement ratio shall not exceed 0.50, unless otherwise shown on the Contract Drawings.

5. High Range Water Reducer shall not be added to the concrete mix at the plant. It shall be delivered to the construction site in a tank fixed to the truck that discharges directly into the mixing drum, or it may be added to the drum from a calibrated dispensing unit. A calibrated dispensing unit shall be defined as a manufactured dispenser with clear volume indications marked on the outside of the unit. It shall be available at all times during the concrete placement for re-dosing purposes. Submit a re-dosing chart showing the dosages necessary to increase the slump, in inches per cubic yard of concrete remaining in the drum, over the range of concrete temperatures from 50° to 90° F. If re-dosing occurs, the re-dosing chart shall be used, but under no circumstances shall the total dosage exceed the maximum dosage recommended by the manufacturer. The truck shall mix the load for a minimum of an additional 5 minutes prior to releasing the load.

6. The percentage of air in the mix shall fall within the range of the Lower Quality Limit (LQL) and the Upper Quality Limit (UQL) as outlined in the table shown in 2.04.A.6. entitled, "Air Content Target Range for Freshly Mixed Concrete". Air content shall be determined by testing in accordance with ASTM C 231 for normal and heavyweight concrete mixes, and ASTM C 173 for porous, lightweight aggregate.

7. Make adjustments to the weight of coarse, lightweight aggregate in accordance with the following:

   a. Design lightweight concrete mix proportions not to exceed 123 pounds per cubic foot unless otherwise specified.

   b. Adjust the proportion of lightweight aggregate to compensate for the difference between the wet unit weight determined in 3.05.B.5. and the dry unit weight of the material submitted in accordance with 1.05.A.1. and the approved mix proportions.

   c. For lightweight aggregate mixes, advise the batch plant 72 hours prior to pouring in order to saturate the aggregate. Lightweight coarse aggregate shall be presoaked a minimum of 72 hours prior to mixing of concrete. The lightweight aggregate shall have an absorbed moisture content not less than the manufacturer's written recommendations or the concrete will be rejected.

B. Where Latex Modified Concrete is specified in the Contract documents, conform to ACI 548.4. The mix maximum water to cement ratio shall not exceed 0.37. The minimum volume of coarse aggregate shall not be less than 7.6 cubic feet (absolute volume).

C. Architectural Concrete

1. A minimum of 35 days prior to construction of a mock-up, submit mix proportions and 2 sample panels (a minimum of 12" x 12" x 2") for each mix to the Engineer for approval. The materials used for the sample panels shall be from the same sources of material supply for all constituents in the approved mix. When requested by the Engineer, submit samples of all constituents for trial batching to the Port Authority Materials Engineering Division Laboratory to verify that the physical property requirements are met. Obtain approval for both sample panels for color and texture, as well as for the mix proportions for physical properties prior to constructing a mock-up.

2. Pigments, in conformance with ASTM C 979, shall be used when matching the color of existing concrete or when a specific color of concrete is required by the Engineer.

3. Construct mock-up only after the Engineer has approved both the mix proportions for physical properties and the sample panels for color and texture. For cast in place concrete, a mockup in accordance with ACI 303.1 Section 1.6 Quality Assurance shall be required for approval by the Engineer. For walls, a mockup shall include all details that will be encountered in a typical day's pour. The mockup may be constructed at the construction site as part of the permanent Work at the sole risk of the Contractor. If the Engineer rejects the mock up, it shall be removed and recast at the sole expense of the Contractor. For precast architectural concrete, the mock-up shall consist of a full member selected in advance by the Engineer. The approved mock-up shall be kept at the precast concrete production facility for the Engineer's representative to compare with the production units for acceptance or rejection. Acceptance or rejection shall be determined solely by the Engineer.

4. Mockups shall be constructed only with all of the actual constituents of the approved mix proportions. The Contractor shall not proceed with production until the mix proportions, sample panels, full-scale mock up and shop drawings have been approved by the Engineer. Once production begins, the Contractor will not be permitted to change suppliers or sources of supply for any of the constituents in the approved mix for the duration of the Contract.

5. In addition to the mix proportions and sample panels, the following shall be submitted for approval: forms, form liners and form oil or release agents.

6. Architectural Concrete shall conform to the Quality Assurance performance criteria specified in 4.01.B., Table 2 for the appropriate placement application and the associated Quality Acceptance Limits specified in 2.04.

7. Noticeable differences in color and/or texture of the finished product, as determined solely by the Engineer, shall be corrected by means and materials approved by the Engineer.

D. Pipe Piles: The target range for slump shall be 4 to 6 inches.

2.04 QUALITY ACCEPTANCE LIMITS

A. Develop mixes to meet the following performance criteria Quality Acceptance Limits in accordance with the relevant application properties specified in 4.01.B., Table 2, unless otherwise noted on the Contract Drawings:

1. Compressive Strength (ASTM C 39): The Lower Quality Limit, LQL, shall be the specified mix compressive strength at 28 days, unless otherwise noted on the Contract Drawings.

2. Flexural Strength (ASTM C 78): The Lower Quality Limit, LQL, shall be 700 psi at 28 days, unless otherwise noted on the Contract Drawings.

3. Permeability (AASHTO T 277): The Upper Quality Limit, UQL, shall be 1500 Coulombs for mixes not containing a corrosion inhibitor and 2000 Coulombs for mixes that do contain a corrosion inhibitor. Performance testing shall be performed at 28 days, except for mixes containing only fly ash and/or slag substitution for cement but no silica fume or metakaolin, which shall be evaluated at 90 days.

4. Bond Strength (ASTM C1583): The Lower Quality Limit, LQL, shall be 150 psi at 28 days.

5. Water Content (AASHTO T 318): The Upper Quality Limit, UQL, for water content shall be the specified water to cementitious ratio specified in 2.03 A4 plus 0.05.

6. Air Content (ASTM C 138, ASTM C 173 or ASTM C 231): Both the Lower Quality Limit, LQL, and the Upper Quality Limit, UQL, shall be as specified in the table below:

AIR CONTENT TARGET RANGE FOR FRESHLY MIXED CONCRETE

MAXIMUM SIZE AGGREGATE (SIZE #)	AIR CONTENT LQL	UQL
2" or above (# 467 and above)	3.5%	7.5%
1 ½" (# 57)	4.0%	8.0%
1" (# 67)	4.5%	8.5%
½" (# 8)	5.5%	9.5%
3/8"	6.0%	10.0%
Latex modified concrete	2.5%	6.5%

Note: For a specified compressive strength greater than 5000 psi, the LQL and UQL for air content, as indicated above, shall both be reduced by 1.0%. For all concrete applications not exposed to freeze-thaw cycling or chlorides, no air entrainment is required.

7. Chloride Ion Concentration by Weight of Cementitious Material (ASTM C 1152, ASTM C 1218, ASTM C 114, ACI 222R): The acid soluble chloride ions by weight of cementitious material in the concrete mix shall be less than or equal to 0.10% for reinforced concrete and 0.08% for prestressed concrete, as per ACI 222R. The water soluble chloride ions by weight of cementitious material in the concrete mix shall be less than or equal to 0.08% for reinforced concrete and 0.06% for prestressed concrete, as per ACI 222R.

8. Pavement Thickness: The Lower Quality Limit, LQL, for pavement thickness shall be 97.0% of the thickness specified on the Contract Drawings.

9. Delaminations: The total surface area tested for any given Lot of concrete shall indicate less than 5.00% delaminated area when tested using the chain drag in accordance with ASTM D 4580-86.

B. Unless otherwise specified on the Contract Drawings, the above specified Quality Acceptance Limits shall be used for calculating Adjustments to Contract Compensation in accordance with Part 4 of this Section.

PART 3. EXECUTION

3.01 SURFACE PREPARATION

A. Bonded Overlays and Patching Applications

1. Bond strength tests will be performed by the Engineer in accordance with ASTM C1583, using 4-inch by 4-inch steel plates, to determine the adequacy of the surface preparation. A minimum average bond strength of 200 psi shall be attained, with no single test value less than 180 psi. If time does not permit the above test to be performed, as determined solely by the Engineer, the Engineer will measure the macrotexture depth in accordance with ASTM E 965. A minimum of four tests will be performed and the average macrotexture depth shall be a minimum of 0.06 inches. Prior to the placement of any overlay or patching material, obtain the Engineer's approval of the surface preparation.

B. Latex Modified Concrete and Silica Fume Concrete

1. The Engineer will sound the concrete surface to identify areas of deteriorated concrete. Areas so identified shall be removed to the limits and depths as ordered by the Engineer. Perform abrasive blasting of all exposed reinforcing steel that is to remain in place.

3.02 BATCHING AND MIXING CONCRETE

A. Measurement of Proportions

1. All concrete batching shall be in conformance with ASTM C 94 and ACI 304R.

2. For Very High Early Strength Concrete requiring 2000 psi or greater in 6 hours or less time, the method of batching shall be restricted to a calibrated mobile mixer, or to a transit mixer that is loaded at the construction site with bulk bags of the Very High Early Strength Cement. Bulk bags shall contain sufficient Very High Early Strength Cement by weight to batch for a minimum of 3 cubic yards of concrete.

B. Mixing Concrete

1.

a. On an annual basis transit mix trucks must be inspected and approved by either the New Jersey or New York State Departments of Transportation.

b. Mixers shall be equipped with a metal plate attached by the manufacturer, indicating the volume of mixed concrete the equipment is intended to produce. The quantities of materials transported and the volume of mixed concrete produced shall not exceed the mixer's rated capacity. In locations where the rate of depositing is slow, the Engineer may restrict the volume of concrete that may be mixed in a mixer to a volume less than the manufacturer's rated capacity of the mixer.

c. Mixers which are found to be mechanically unsatisfactory shall be immediately repaired or withdrawn from use.

2. If truck mixers are used, a sufficient number to ensure continuous delivery of the concrete at the rate required for the proper handling, placing, finishing and curing of the concrete shall be available. If a plant at the construction site is used, it shall be of sufficient capacity to meet such requirements.

a. Mixers shall be of the revolving-drum type, suitably mounted and fitted with adequate blades capable of discharging the mixture without segregation. All truck mixers shall be equipped with an accurate, operable counter to measure the number of drum revolutions and an accurate, working water site gage, or manometer to measure the volume of water introduced into the drum. Truck mixers without an accurately operating counter or water site gage shall be immediately withdrawn from use.

b. Water and cement shall be measured accurately to within 1% of the required amounts before being loaded into the mixer. Fine and coarse aggregate shall be measured accurately to within 2% of the required amounts before being loaded into the mixer.

3. The Engineer may permit one re-tempering of the concrete subject to the following:

a. The addition of water to the concrete mix at the construction site shall not be permitted for mix proportions with a water to cement ratio of 0.40 or less. For all other mixes, water may be added, but the total amount of water shall not exceed the approved mix proportion water to cement ratio.

b. The redosage of high range water reducer shall conform to the Engineer-approved redosage chart and shall not exceed the recommended manufacturer's limitation, nor shall it retard the initial set of the concrete by more than 30 minutes.

c. Concrete that has partially hardened or has attained its initial set shall not be re-mixed or re-tempered, and will be rejected.

d. The Engineer reserves the right to reject concrete that has not been placed within 90 minutes from the time the cement had first contact with water or, if the concrete temperature reaches 92°F, as measured in accordance with ASTM C 1064.

e. When air content is below the lower quality limit specified in 2.04A.6.

4. Construction Site Mixing: Measure mix components in accordance with tolerances given in ASTM C 94. Weigh all non-liquid components and measure all liquid components immediately prior to batching. Use a calibrated flask with clear indication markings for ounces, pints, etc. when measuring liquid components. Measures without calibrated clear indication markings will not be permitted. Mix concrete materials in an approved drum-type batch machine mixer.

   a. For a mixer capacity of 1 cubic yard or less, continue mixing a minimum of 3 minutes, but not more than 5 minutes after ingredients are in the mixer and before any portion of the batch is released.

   b. For a mixer capacity of greater than 1 cubic yard, increase the mixing time by 1 minute for each additional 1 cubic yard.

   c. Provide a batch ticket to the Engineer for each batch discharged and used in the Work, indicating the Contract number and title, date, time, mix type, mixing time, quantity of each constituent, volume of concrete and amount of water added. Record a location of the deposit in the structure that can be easily identified.

C. Mobile Mixers: When application requires the use of a mobile mixer, it shall meet the following criteria:

1. Proportioning and Mixing Equipment

   a. Mixer shall be a self-contained, self-propelled, continuous mixing type capable of carrying sufficient unmixed dry cement, aggregates, water, and admixtures to produce not less than 6 cubic yards of concrete. Maintain a calibrated back-up unit at the construction site ready for use.

   b. Mixer shall be capable of positive measurement of cement being introduced into the mix. A recording meter, visible at all times and equipped with a ticket printout, shall indicate this quantity.

   c. Mixer shall provide positive control of the flow of water and admixtures. Water flow shall be indicated by flow meter and be readily adjustable to provide for minor variations in aggregate moisture.

   d. Mixer shall be capable of being calibrated to automatically proportion and blend all components of indicated composition on continuous or intermittent basis as required by the finishing operation, and shall discharge mixed material through a chute directly in front of the finishing machine. Notify the Engineer a minimum of 48 hours prior to calibration of the mobile mixers. Before approving the calibration of the mobile mixer, the Engineer will witness the calibration of the mobile mixer. However, the Contractor is responsible for testing the mix produced. The Engineer may also perform testing of the concrete mix at any time.

e. Calibrate mixer to accurately proportion the specified mix. Certification of calibration by an Engineer approved testing agency will be accepted as evidence of this accuracy, provided such certification attests the yield to be true within the following tolerances (by weight):

Coarse Aggregate	+/- 2%
Fine Aggregate	+/- 2%
Cement	+/- 1%
Water	+/- 1%
Admixtures	+/- 3%
Latex	+/- 1%

f. Mixing shall be in accordance with the specified requirements for the equipment used. The concrete, as discharged from the mixer, shall be such that finishing operations can proceed at a steady pace with final finishing completed before the formation of the plastic surface film.

g. Repair mixers not functioning in a manner the Engineer considers acceptable. If repair is not practical, remove the mobile mixer from the construction site and replace it with one which functions properly.

h. Prior to production, test the moisture content of the fine aggregate and coarse aggregate. Adjust the water gage setting only in the presence of the Engineer, to produce the approved mix water to cement ratio. Test the moisture content of the fine aggregate and coarse aggregate every 3 hours during production, or when the mobile mixer is loaded with aggregates from a stockpile different from the one for which moisture content tests were performed, whichever occurs first. Make adjustments in the presence of the Engineer. For Latex Modified Concrete, the maximum permissible moisture content of fine aggregate and coarse aggregate shall be 6.0% and 3.0%, respectively, as determined in accordance with ASTM C 566. If these limits are exceeded, concreting operations shall not continue until drier aggregates are obtained. The Engineer may view and copy all records for moisture content testing at any time.

3.03 PRE-PLACEMENT FIELD REQUIREMENTS

A. During all concrete placements at the construction site, the Contractor shall be required to have an individual in a supervisory capacity present with a valid certification from one of the following programs:

1. ACI Concrete Transportation Construction Inspector
2. New Jersey ACI Chapter's "Concrete Construction Technology" course.

B. Prior to any construction site delivery of concrete, furnish, deliver and maintain insulated curing boxes of sufficient size and strength to contain all the specimens (cylinders and beams) made by the Engineer in any two (2) consecutive Work periods. Such boxes shall be equipped to regulate the temperature in the range of 60°F to 80°F or 68° F to 78° F when the design compressive strength is 6000 psi or greater, and to provide the moisture to maintain the curing conditions specified in ASTM C 31. During hot weather when the temperature is greater than 80°F, maintain the temperature of the concrete specimens in the required range by immersing them in a water bath. Cover the water bath to prevent direct sunlight from raising the water temperature. Completely remove and replace the water in the bath every day. Locate the boxes where directed by the Engineer. Protect such boxes from vibration or other disturbances during specimen curing.

C. Keep this Specification and the following ACI publications available at all times at the construction site:

1. ACI 301
2. ACI 302.1R
3. ACI 305R
4. ACI 306R
5. ACI 308
6. ACI 318

D. Ensure that the concrete supplier keeps this Specification and the following ACI publications available at all times at the batching location:

1. ACI 211
2. ACI 213
3. ACI 304R

E. Pump Concrete

1. Grout used to prime the pump line shall not be included in the placement. Dispose of the grout at the end of the pump line off Authority property. Placement shall not begin until concrete is visible at the end of the pump line.
2. Allow no water to enter the pump hopper at any time during placement operations.
3. Submit written procedures for pumping to the Engineer for approval. The procedures shall contain, but shall not be limited to, pumping scheme, pump description, line diameter, line length, and the number of turns and line offsets.

F. Silica Fume Concrete and Fibrous Concrete

1. Arrange for qualified technical representatives from the silica fume and the fiber suppliers, who are experienced in the batching and placement of silica fume and fibrous concrete, to be present for the pre-concrete construction meeting, all test pours and the first two production pours.

G. Fog spray forms, steel reinforcement, and subgrade with potable water immediately prior to the placement of fresh concrete. Maintain uniform moisture of the subgrade without standing water, soft spots or dry areas.

3.04 CURING

A. Carefully cure all concrete. Submit a curing procedure plan for approval by the Engineer prior to placing any fresh concrete. Perform curing in accordance with ACI 308 and the following specifications. Commence curing procedures immediately after fresh concrete has been placed.

1. Provide suitable means, such as insulating blankets or heated enclosures, for maintaining a concrete temperature of at least 50°F after placement. At the end of this period, remove protection in such a manner that the drop in temperature of any portion of concrete is gradual and does not exceed the following within the first 24 hours after removal of protection, in accordance with ACI 306R, Table 3.1: 50°F for

applications with a minimum dimension less than 12 inches; 40°F for applications with a minimum dimension between 12 and 36 inches; 30°F for applications with a minimum dimension between 36 and 72 inches; and 20°F for applications with a minimum dimension greater than 72 inches.

2. Allow all concrete to attain 4,000 psi compressive strength before exposure to freeze-thaw cycles.

B. Wet Curing

1. All pavement concrete and structural slabs: Immediately after screeding of the concrete, apply an evaporation retardant, or commence the operation of a fog spraying system to keep moisture in the atmosphere surrounding the concrete until all concrete finishing has been completed. Do not direct fogging at the fresh concrete and do not permit ponding of water on the fresh concrete surface.

2. Perform wet curing for the following concrete applications: overlays, deck slabs, ramps, any concrete mixes containing silica fume, Very High Early Strength Cement and formulated latex modifier.

3. Immediately after finishing concrete, cover the surfaces with wet burlap or cotton mats which have been presoaked for a minimum of 24 hours in potable water, such that no marring of the surface occurs. Keep the burlap or cotton mats continuously moist, 24 hours per day, through the use of a fog spraying system or soaker hoses arranged at the high points of the concrete pour. Burlap, which shall consist of two or more layers, or cotton mats shall overlap a minimum of one foot, and have a length at least one foot greater than necessary to cover the entire width and edges of the pavement lane. The burlap or cotton mats shall be weighted down to prevent displacement.

4. Wet curing procedures may be stopped only when: the ambient temperature is expected to fall below 35°F within 24 hours, when placing concrete for slabs directly adjacent to the fog spraying system or soaker hoses or when concrete is to receive traffic.

   a. When the ambient temperature at the surface of placement is 35°F and falling, wet curing will not be permitted; instead, apply a liquid membrane forming curing compound in accordance with 2.02.R. and 3.04.C.1.d.

   b. When wet curing is temporarily interrupted for an adjacent placement, remove all standing water in areas to receive fresh concrete prior to placement. Occasionally spray a fine mist of water over the wet curing areas. Do not puddle water on the surface of the fresh concrete. When the fresh concrete is finished and covered with burlap or cotton mats, reassemble the continuous fog spraying system or soaker hoses and continue wet curing immediately.

   c. Areas in which the concrete will be exposed to traffic shall be wet cured for as long as possible. Wet curing may stop only when there is just enough time to apply a liquid membrane forming curing compound over the entire area prior to reopening it to traffic. In this case, apply the liquid membrane forming curing compound when the surface has no standing water or puddles on the surface, but is in a damp condition.

5. Wet cure for 7 days, or until 75% of the design compressive strength is obtained, whichever is longer, when determined by strength tests performed on sample cylinders cast in the field and cured in the same manner as the concrete.

6. Immediately after wet curing procedures are completed, apply a liquid membrane forming curing compound in accordance with 2.02.R. and 3.04.C.1.d.

7. Contain water within the area of work.

8. For latex modified concrete, wet cure for a maximum of 48 hours unless otherwise directed by the Engineer.

C. Liquid Membrane Forming Curing Compounds and Sheet Materials for Curing

1. Immediately after placing or finishing, commence the curing process of concrete not covered by forms from loss of moisture. Use one of the curing materials listed in 2.02.R., which may be supplemented by initially using an evaporation retardant listed in 2.02.S., as long as wet curing is not required, subject to the following:

a. Choice of curing material and method shall be as approved by the Engineer.

b. Polyethylene film or burlap polyethylene sheet, if used, shall be lapped at edges and ends at least one foot and shall have all ends and edges taped to adjacent sheets or surfaces to completely seal areas to be cured. Secure in a manner that will not allow the film, the sheets, or the securing mechanism to be removed by wind forces, resulting in exposure of the fresh concrete and rapid drying.

c. Inspect sheet material before reuse. Repair all holes and tears with cemented patches, subject to approval by the Engineer.

d. Apply liquid membrane forming curing compound by approved pressure spraying or distributing equipment in two uniform full applications perpendicular to each other as recommended by the manufacturer. Allow the first coat to become tacky before applying the second coat. Each application shall be the full quantity recommended by the manufacturer. The entire surface shall be white after the second application.

(1) Recoat areas subjected to heavy rainfall within 3 hours of such occurrence.

(2) Follow manufacturer's recommendations for agitation during application and warming where necessary during cold weather. Do not use liquid membrane forming curing compound where the surface being cured is to receive a finish that will be bonded to the concrete surface or where a floor hardener is to be applied, unless a certification of compatibility and a minimum five year performance record is submitted in advance to the Engineer for approval.

(3) The Engineer will check for uniformity through random sampling and testing. Testing may include determination of membrane infrared spectrum, pH, specific gravity and solids content.

3.05 QUALITY ASSURANCE TESTING, SAMPLING, AND INSPECTIONS

A. Quality Assurance testing during mixing and placing of concrete will be performed on samples taken from the end of the pump line or at the point of discharge in accordance with ASTM C 172. The Engineer will take samples of concrete from each Lot during a single Work period based on random sampling procedures contained in ASTM D 3665. A Lot of concrete is defined as the production of a single Work period. For each Sublot, cylinders will be made in accordance with ASTM C 31 when testing for compressive strength, as well as 4x8 cylinders when permeability is being tested and beams when flexural strength is being tested. The cylinders and beams will be tested in accordance

with ASTM C 39 and ASTM C 78 respectively for each Sublot to determine the compressive strength and flexural strength at the time requirements specified.

TABLE 1
LOTS AND SUBLOTS

Daily Placement Quantity (Cubic Yards)	Number of Lots	Number of Sublots
Less than 50	Note 1	Notes 1 and 3
50 – 100	1	3 equally divided
101 – 450	1	4 equally divided
Greater than 450	1	Note 2

Table 1 Notes:

1. If a given Class of concrete has one Work period's placement less than 50 cubic yards, it will not constitute a Lot. It will be added either to the previous or the next Work period's Lot, whichever is closer in time, or until a minimum of 3 Sublots are completed constituting a Lot.

2. For concrete placements of 450 cubic yards or greater, a Sublot will be deemed to be one fourth of a Lot of concrete, or 150 cubic yards of concrete, whichever is less. For larger pours the Engineer may increase the number of cubic yards that constitute a Sublot.

3. If the total concrete quantity under the Contract for any type of mix is less than 50 cubic yards, it will constitute one Lot and will be divided into a minimum of 3 Sublots, regardless of the placement schedule.

B. Quality Assurance Testing Standards and Frequency of Testing: Some or all of the following procedures will be used by the Engineer to approve the concrete mix proportions and evaluate the in-place concrete for Adjustments to Contract Compensation:

1. Compressive Strength: In accordance with ASTM C 31 and ACI 318 Part 3, Chapter 5, Item 5.6, entitled "Evaluation and Acceptance of Concrete", except that the Engineer will take samples on a random basis, 4" x 8" cylinders will be used when the nominal maximum size of the coarse aggregate allows. Latex Modified Concrete samples will be wet cured by the Engineer for 1 day and dry cured for 27 days. The cylinders will be tested in accordance with ASTM C 39. The Engineer will calculate the average of 2 test specimens at the compressive strength time requirement. The average of the two test specimen result values for each Sublot shall be considered the Sublot compressive strength value.

2. Flexural Strength: From each Sublot sample, cast beams in accordance with ASTM C 31. Engineer will test the beams in accordance with ASTM C 78 and will calculate the average of two test specimens at the flexural strength time requirement. The average of the two test specimen result values for each Sublot will be considered the Sublot flexural strength value.

3. Slump Test: Performed by the Engineer at the point of delivery during the time of placement in accordance with ASTM C 143 or ASTM C1611 when self consolidating concrete is used. For Latex Modified Concrete, the Engineer will perform slump tests 5 minutes after sampling from the mixer. For pile concrete applications, the slump shall be no less than 4-inches and no greater than 6-inches.

4. Air Content Test: Performed during the placement in accordance with ASTM C 138, ASTM C 173 or ASTM C 231. The Engineer will perform one test for each Sublot, which will be considered the Sublot air content test value.

   a. When results for either two consecutive tests or three tests in one lot or days production indicate that the air content is outside the Quality Limits specified in 2.04A.6 by +1.0 or –0.50% the placement of the next load will be delayed until test results are obtained. If the air content for this load is outside the Quality Limits specified in 2.04A.6, it will be rejected. The Engineer will test subsequent loads until the air content is found to be within the specified limits of 2.04A.6.

5. Unit Weight: The Engineer will determine the plastic unit weight of concrete (taken at the same frequency as specified in 3.05.B.4.) according to ASTM C 138. For lightweight concrete, the plastic unit weight, as determined in accordance with ASTM C 567, shall not exceed 125 pounds per cubic foot unless otherwise specified.

6. Water Content Test: The Engineer will test for water content during the placement using a Microwave Drying Oven, in accordance with AASHTO T318. He may adjust drying times depending on the mix constituents to provide a constant dry weight. Once the water content has been determined it will be divided by the cementitious content in the mix design to determine the water to cement ratio. When the maximum aggregate size exceeds 1½ inches, the Engineer will obtain a sample of approximately 5000 grams. This sample will be split and the Engineer will perform two separate analyses. The weighted average of the two separate analyses will be considered the Sublot water content value. Likewise, the Engineer will compute the sublot water cement ratio as given above.

   a. When results for either two consecutive tests or three tests in one lot or days production indicate that the water content exceeds the limits given in 2.03A.4 by 0.10, do not place the next load until test results are obtained. If the water content for this load is greater than the Upper Limit given in 2.04 A 5, it will be rejected. The Engineer will test subsequent loads until the water content is found to be within the limit given in 2.04A.5.

7. Coulomb Test: To evaluate the permeability of the concrete the Upper Quality Limit, UQL, shall be 1500 Coulombs for mixes without a corrosion inhibitor and 2000 Coulombs for mixes containing a corrosion inhibitor, as tested by the Engineer in accordance with AASHTO T 277 after a 28 day wet cure. For mixes containing only fly ash or slag, no silica fume or metakaolin, permeability shall be evaluated at 90 days, using the same performance requirements stated above (1500 Coulombs for mixes without a corrosion inhibitor and 2000 Coulombs for mixes with a corrosion inhibitor). For Latex Modified Concrete applications, samples will be wet cured for 7 days and dry cured for 21 days. For each Sublot, the Engineer will cast two (2) 4 x 8 cylinder specimens for each Sublot. The Engineer will cut two-inch thick samples from the center of each cylinder for testing. The average of the two test specimen result values for each Sublot will be considered the Sublot Coulomb test value.

8. Bond Strength: The bond strength between overlay concrete and parent concrete will be evaluated in accordance with ASTM C 1583. For each Sublot, the Engineer will perform three tests. Three 4-inch diameter cores will be cut 1/2 inch into the parent concrete to isolate the overlay concrete. The average of the three test result values for the Sublot will be considered the Sublot bond strength test value. The locations for each test will be randomly determined by the Engineer.

9. Chloride Ion Concentration by Weight of Cement: The Engineer may perform testing for both the acid soluble and water soluble chloride ion concentrations by weight of cementitious material, which shall be evaluated as follows. Powder samples from 28 day concrete cylinders, prepared in accordance with ASTM C 31, shall be tested to assess both the acid soluble and water soluble chloride ion concentrations by weight of cementitious material from the concrete mix produced at the construction site. Samples will be obtained using a rotary hammer drill from the mid-height of a minimum of two Sublot specimens from each Lot. The sample shall be obtained from the inner three inches of the cylinder specimen, and shall be a minimum of 40 grams in weight. The acid soluble and water soluble chloride ion concentrations by weight of cementitious material will be determined by the Materials Engineering Division Laboratory in accordance with preparatory standards ASTM C 1152 and ASTM C 1218, respectively, followed by ASTM C 114 (silver nitrate titration) for both the acid soluble and water soluble chloride ion analysis.

10. Pavement Thickness: The Engineer will perform acoustical testing using Impact Echo instrumentation to determine the pavement thickness. Areas indicating pavement thickness below the requirements shown on the Contract Drawings shall be cored for verification. The cores will be measured in accordance with ASTM C 174. The average of three test result values for the Sublot will be considered the Sublot test value.

11. Test Cores for Tremie Concrete:

a. The Engineer will drill test cores for every 100 cubic yards of concrete placed in mass pours, such as tremie seal, or one core for every 1000 square feet of surface of thin pours, such as bulkheads or wall facings. Cores shall be obtained in accordance with ASTM C 42 and shall be drilled full depth (or thickness) through the pour horizontally or vertically as applicable.

b. Recovery of less than 95 percent shall be considered to indicate defective concrete requiring corrective action by the Contractor.

c. If the cores reveal voids, honeycombing, seams, or other defects, the concrete will be subject to rejection for non-uniformity. Additional cores may be obtained by the Engineer for further investigation. The number and location of cores will be determined by the Engineer. All additional cores shall be taken at the sole expense of the Contractor.

d. All test core holes shall be filled by the Contractor by pressure grouting from the bottom upward, or from the inside out, as the case may be.

e. All voids, honeycombing, seams, or other defects shall be cleaned out and filled by pressure grouting with cement or sand-cement by the Contractor to the Engineer's satisfaction. Additional cores may be required to verify grouting, which shall be at the sole expense of the Contractor.

C. In accordance with the Section of Division 1 entitled, "Inspections and Rejections", provide labor and means for obtaining all samples required for trial batches and field testing performed by the Engineer. At no additional cost to the Authority, furnish and deliver the following when requested by the Engineer:

1. Provide a representative sample, in the quantity requested by the Engineer, of all cement, fly ash, slag, silica fume, fine and coarse aggregate, admixtures, corrosion inhibitor, latex, fibers, pigment, evaporation retardant and liquid membrane forming

curing compound during any day of production the Engineer requests a sample. Such samples shall be taken in the presence of the Engineer at the point of storage used for the Work of this Contract. For cement, fly ash, slag and silica fume samples, only use a sampling port on the silo, or drop material in a loader bucket between loads, or take samples from the boot using a "Sample Thief" during loading. Notify the Engineer of aggregates being loaded at their source of supply at least 48 hours in advance of each loading.

2. Provide the cement, fly ash, slag, silica fume, or metakaolin manufacturer's Mill Test Certificate and Bill of Lading, if such documents are requested by the Engineer.

3. Any mix proportion constituents may be sampled by the Engineer at any time.

D. The Engineer may direct an inspection of the Contractor's concrete plant or precast concrete fabricator to observe operations and review the Quality Control procedures being implemented. Notify the Engineer, in writing, a minimum of 15 days prior to the commencement of production and provide a planned schedule and Quality Control Plan for all production for the Work of the Contract.

E. Precast Concrete: Arrange for the fabricator to provide the Engineer with a set of approved shop drawings for the Work of the Contract. Allow the Engineer to have access to the shop drawings at all times and to make copies of them at any time. Fabrication without shop drawings will not be permitted. Clearly mark all precast units with identification numbers for each unit. The Engineer will provide a manifest ticket to be attached to the driver's shipping ticket listing the approved unit identification numbers. Any units shipped to the construction site that are not approved or are not listed on the manifest will not be permitted to be unloaded at the construction site. Shipments not accompanied by a manifest upon delivery will not be permitted to be unloaded at the construction site.

PART 4. ADJUSTMENTS TO CONTRACT COMPENSATION

4.01 GENERAL

A. Unless otherwise shown on the Contract Drawings, acceptance of material will be based on the method of estimating Percentage of Lot Within Specification Limits (PWL), where the PWL will be determined in accordance with this Section. All Sublot test result values for a Lot, as defined in 3.05.A., Table 1 will be analyzed statistically to determine the total estimated Percent of the Lot that is Within specification Limits, as shown in 4.01.B.

The PWL is computed using the Lot sample Average value, $\overline{X}$, as defined in 4.01.D.3., the Lot sample standard deviation, S_N, as defined in 4.01.D.4., for the specified number of Sublots, n, and the specification Quality Acceptance Limits, as defined in 2.04.A., where LQL represents the Lower Quality Limit, and UQL represents the Upper Quality Limit, as they apply to each particular acceptance parameter. From these values, the respective Quality Index (ices), Q_L for Lower Quality Index and/or Q_U for Upper Quality Index, is computed in accordance with 4.01.D.5. and 4.01.D.6. Then the PWL for the Lot for the specified number of Sublots, n is determined from Table 4, "Percent of Lot Within Limits (PWL) (Standard Deviation Method)". The Adjustment to Contract Compensation for each Lot is then calculated using the formulas specified in 4.01.F.

B. Depending on the application, concrete will be tested for the properties shown below. The PWL of each Lot for each parameter will be determined as specified in 4.01.D. Payments shall be based on the concrete application for a Lot, and the criteria defined below.

Performance Parameters	Minimum PWL
Flexural Strength	95
Compressive Strength	95
Permeability	90
Bond Strength	80
Water to Cement Ratio	80
Air Content	70*
Pavement Thickness	90
Chloride Content	100**

* denotes that in addition to the minimum PWL, the air content will also be evaluated for the average of test results for a given Lot of concrete as per 3.05 B.4 and 4.01 G.2.

** denotes that the chloride content (acid soluble and water soluble) will be analyzed only for the average of test results for any given Lot of concrete, as per 3.05.B.9. and 4.01.G.1.b.

Table 2 defines the Quality Acceptance performance criteria to be evaluated for Adjustments to Contract Compensation for a given concrete application. In addition, all concrete shall conform to the requirements of 4.01.G. Any eficiencies found to exist as specified in 4.01.G. shall govern, and the Contractor shall either:

1. remove and replace the concrete in that particular Lot at no cost to the Authority, or
2. accept a deduction of 50% of the Base Price per cubic yard, as indicated on the Contract Drawings, for that particular Lot of concrete.

TABLE 2
PERFORMANCE CRITERIA PARAMETERS

Category/ Application	Water/Cement Ratio (W/C)	%Air	Permeability	Bond Strength	Compressive Strength	Flexural Strength	Pavement Thickness
Category I - Full Depth Pavements & Unbonded Overlays							
	I	I	---	---	---	P	
LQL:	---	*	---	---	---	700 psi	97%
UQL:	0.45	*	---	---	---	---	---
Category II - Bonded Pavement Overlays							
	I	I	---	P	I	---	---
LQL:	---	*	---	150 psi	***	---	---
UQL:	0.42	*	---	---	---	---	---
Category III - Elevated Structural Overlays							
	I	I	I	P	I	---	---
LQL:	---	*	---	150 psi	***	---	---
UQL:	0.42	*	**	---	---	---	---
Category IV - Structural (exposed to freeze-thaw and/or sulfates, in addition to chlorides or a marine environment)							
	I	I	P	---	I	---	---
LQL:	---	*	---	---	***	---	---
UQL:	0.42	*	**	---	---	---	---
Category V - Structural (exposed to freeze/thaw and/or sulfates only; no exposure to chlorides or a marine environment)							
	I	I	---	---	P	---	---
LQL:	---	*	---	---	***	---	---
SQL:	0.45	*	---	---	---	---	---
Category VI - Standard Structural (not exposed to freeze-thaw cycles) and Miscellaneous Applications (at-grade sidewalks, at-grade curbs, kerfs, foundations, footings, drainage structures, manholes, pipe pile fill, and all concrete applications below grade)							
	---	---	---	---	P	---	---
LQL:	---	---	---	---	***	---	---
UQL:	---	---	---	---	---	---	---

* - refer to 2.04.A.6

** - 1500 Coulomb counts for mixes without a corrosion inhibitor and 2000 Coulomb counts for mixes with a corrosion inhibitor

*** - the proportion compressive strength at 28 days

P - Used to Calculate Pay Factor per cubic yard. It denotes the concrete property that shall be used to calculate payment for a given concrete application. No incentive payments shall be made if the performance criteria parameters labeled 'I' for a given application have a PWL less than specified in 4.01.B.

I - Used to Calculate Incentive only when the Pay Factor for the parameter labeled P is greater than 0.00.

C. Full Depth Pavement & Unbonded Overlay (Category I) Final Pay Factor: The Pay Factor for Pavement Thickness shall govern only when the Pay Factor for Pavement Thickness is less than the Pay Factor for Flexural Strength, with the exception of when the Pay Factor for Pavement Thickness is 0.00.

D. Method of estimating percentage of material within limits (PWL):

1. Locate sampling positions on the Lot by use of random sampling procedures specified in 3.05.A.

2. Take a test sample and make the test specimens on the test sample in accordance with 3.05.A.

3. Determine the Lot sample Average value, $\overline{X}$, by calculating the average of all Sublot test values.

4. Find the Lot sample standard deviation, S_N, by using the following formula:

$$S_N = \sqrt{\frac{d_1^2+d_2^2+d_3^2+ +d_n^2}{n-1}}$$

Where:

S_N = standard deviation of the Sublot test values

$d_1, d_2, \ldots$ = deviation from the individual Sublot test values $X_1, X_2, \ldots$ from the Average value, $\overline{X}$, that is,

$$d_1 = (X_1 - \overline{X}),\ d_2 = (X_2 - \overline{X}),\ \ldots,\ d_n = (X_n - \overline{X})$$

n = number of Sublots

5. Find the Lower Quality Index, Q_L, by subtracting the Lower Quality Limit, LQL, from the Average value, $\overline{X}$, and dividing the result by S_N.

$$Q_L = \frac{\overline{X} - LQL}{S_N}$$

6. Find the Upper Quality Index, Q_U, by subtracting the Average value, $\overline{X}$, from the Upper Quality Limit, UQL, and dividing the result by S_N.

$$Q_U = \frac{UQL - \overline{X}}{S_N}$$

7. The percentage of material above lower tolerance limit, P_L, and the percentage of material below upper tolerance limit, P_U, will be found by entering Table 4, "Percent of Lot Within Tolerance Limit (PWL) (Standard Deviation Method)" with Q_L and/or Q_U using the column appropriate to the total number of Sublots, n, and reading the number under the column heading "PWL".

8. For concrete properties with only an Upper Quality Limit (ratio of water to cementitious material, permeability), PWL equals P_U. For concrete properties with a Lower Quality Limit (bond strength, compressive strength, flexural strength, pavement thickness), PWL equals P_L. For concrete properties with both Upper and Lower Quality Limits (air content), first calculate of the Upper Quality Index, Q_U, and the Lower Quality Index, Q_L, by using the Upper Quality Limit, UQL, and the Lower Quality Limit, LQL, respectively, as stipulated in 2.03.A.6. Then determine PWL using the following formula:

$$PWL = (P_U + P_L) - 100$$

E. Pay Factors for each Lot will be computed in accordance with the formulas contained in 4.01.F., Table 3 entitled, "Adjustments to Contract Compensation", by entering the PWL value and performing the calculation indicated for the appropriate PWL range to determine the Pay Factor.

F. Adjustments to Contract Compensation shall be calculated as follows:

TABLE 3
ADJUSTMENTS TO CONTRACT COMPENSATION PER CUBIC YARD

Percent Within Limits (PWL)	Compressive Strength Pay Factor
98 - 100	0.02 (PWL-100) +0.06
95 - 97	0.0
55 - 94	(PWL-95)/100
0 - 54	-0.50

Percent Within Limits (PWL)	Permeability & Bond Strength Pay Factor
91 - 100	0.006 (PWL - 90)
80 - 90	0.0
55 - 79	$0.00017PWL^2 - 0.0105PWL - 0.30$
0 - 54	-0.50

Percent Within Limits (PWL)	Flexural Strength Pay Factor
95 - 100	(PWL-95/100)+.01
55 - 94	(PWL-95)/100
0 - 54	-0.50

Percent Within Limits (PWL)	Pavement Thickness Pay Factor
90 - 100	0.00
55 - 89	(PWL-90)/100
0 - 54	-0.50

Pay Factors are multiplied by the Base Price per cubic yard established in the table below, unless otherwise indicated on the Contract Drawings. The result is the amount to be added or deducted from the compensation for that particular Lot of concrete.

Category	Base Prices for Adjustments to Contract Compensation Per Cubic Yd
I	$100
II	$90
III	$130
IV	$130
IV	$110 when silica fume or metakaolin are not included
V	$90
VI	$80

G. CORRECTION OR COST ADJUSTMENTS FOR DEFICIENCIES

1. Remove and Replace Concrete: Remove and replace concrete in a manner approved by the Engineer and at no additional cost to the Authority if any of the following deficiencies exist, unless the Engineer elects to accept the concrete, at which time the Contractor will be compensated at 50% of the Base Price per cubic yard, regardless of the Pay Factors calculated in 4.01.F., Table 3:

   a. Percent Within Limits (PWL) for compressive strength, flexural strength, permeability, bond strength, or pavement thickness is below 55.

   b. The average acid soluble chloride ions by weight of cementitious material test results for any given Lot of concrete exceed the limit of 0.10% (reinforced concrete) or 0.08% (prestressed concrete) weight of chloride ions by weight of cementitious material, in accordance with ASTM C1152 and ASTM C114, and the average water soluble chloride ions by weight of cementitious material test results for any given Lot of concrete exceed the limit of 0.08% (reinforced concrete) or 0.06% (prestressed concrete) weight of chloride ions by weight of cementitious material, in accordance with ASTM C1218 and ASTM C114. The Soxhlet test referenced in ACI 222R will not be considered for chloride evaluations.

   c. For all concrete applications, the cylinder compressive strength shall conform to the following:

      (1) The calculated average of any three consecutive compressive strength tests shall be equal to or shall exceed the specified compressive strength.

      (2) No individual compressive strength test result shall be below the specified compressive strength by more than 500 psi.

      (3) If either or both of the requirements specified in 4.01.G.1.d.1. and 4.01.G.1.d.2. are not met, investigate the in-place compressive strength in accordance with ACI 318-99, Section 5.6.5., at no additional cost to the Authority. If the compressive strength test results of the in-place concrete fail to meet either or both of the requirements specified in 4.01.G.1.d.1. and 4.01.G.1.d.2., the concrete shall be considered deficient, and 4.01.G.1. shall apply.

   d. Concrete slabs or structures that exhibit any cracks prior to opening to vehicular/aircraft operations or loading will be subject to the actions specified in Section 4.01.G.1. If the concrete is accepted by the Engineer, seal cracks in accordance with Specification Section 03734, "Concrete Crack Repair", in a manner approved by the Engineer, and at no cost to the Authority.

e. Delamination Testing – The Engineer will check all concrete overlays using the chain drag method in accordance with ASTM D 4580. If more than 5.00% of the total surface area of the Lot is found to be delaminated, remove these areas and replace them at no cost to the Authority. The determination by the Engineer as to the existence of delaminations shall be final and binding.

2. If the average air content for a Lot exceeds either the LQL or the UQL by more than 1% with the exception of those not exposed to freeze/thaw cycles, 10% of the Base Price per cubic yard will be deducted from the compensation for that particular Lot of concrete.

TABLE 4
PERCENT OF LOT WITHIN TOLERANCE LIMIT (PWL)
(STANDARD DEVIATION METHOD)
Positive Values of Quality Index (QI)
(N = Number of Sublots in the Lot)

PWL	N=3	N=4	N=5	N=6	N=7	N=8
99	1.1541	1.4700	1.6714	1.8008	1.8888	1.9520
98	1.1524	1.4400	1.6016	1.6982	1.7612	1.8053
97	1.1496	1.4100	1.5427	1.6181	1.6661	1.6993
96	1.1456	1.3800	1.4897	1.5497	1.5871	1.6127
95	1.1405	1.3500	1.4407	1.4887	1.5181	1.5381
94	1.1342	1.3200	1.3946	1.4329	1.4561	1.4716
93	1.1269	1.2900	1.3508	1.3810	1.3991	1.4112
92	1.1184	1.2600	1.3088	1.3323	1.3461	1.3554
91	1.1089	1.2300	1.2683	1.2860	1.2964	1.3032
90	1.0982	1.2000	1.2290	1.2419	1.2492	1.2541
89	1.0864	1.1700	1.1909	1.1995	1.2043	1.2075
88	1.0736	1.1400	1.1537	1.1587	1.1613	1.1630
87	1.0597	1.1100	1.1173	1.1191	1.1199	1.1204
86	1.0448	1.0800	1.0817	1.0808	1.0800	1.0794
85	1.0288	1.0500	1.0467	1.0435	1.0413	1.0399
84	1.0119	1.0200	1.0124	1.0071	1.0037	1.0015
83	.9939	.9900	.9785	.9715	.9672	.9643
82	.9749	.9600	.9452	.9367	.9325	.9281
81	.9550	.9300	.9123	.9025	.8966	.8928
80	.9342	.9000	.8799	.8690	.8625	.8583
79	.9124	.8700	.8478	.8360	.8291	.8245
78	.8897	.8400	.8160	.8036	.7962	.7915
77	.8662	.8100	.7846	.7716	.7640	.7590
76	.8417	.7800	.7535	.7401	.7322	.7271
75	.8165	.7500	.7226	.7089	.7009	.6958
74	.7904	.7200	.6921	.6781	.6701	.6649
73	.7636	.6900	.6617	.6477	.6396	.6344
72	.7360	.6600	.6316	.6176	.6095	.6044
71	.7077	.6300	.6016	.5878	.5798	.5747
70	.6787	.6000	.5719	.5583	.5504	.5454
69	.6490	.5700	.5423	.5290	.5213	.5164
68	.6187	.5400	.5129	.4999	.4924	.4877
67	.5878	.5100	.4836	.4710	.4638	.4592
66	.5563	.4800	.4545	.4424	.4354	.4310
65	.5242	.4500	.4255	.4139	.4073	.4031
64	.4916	.4200	.3967	.3856	.3793	.3753
63	.4586	.3900	.3679	.3575	.3515	.3477
62	.4251	.3600	.3392	.3295	.3239	.3203
61	.3911	.3300	.3107	.3016	.2964	.2931
60	.3568	.3000	.2822	.2738	.2691	.2660
59	.3222	.2700	.2537	.2461	.2418	.2391
58	.2872	.2400	.2254	.2186	.2147	.2122
57	.2519	.2100	.1971	.1911	.1877	.1855
56	.2164	.1800	.1688	.1636	.1613	.1592
55	.1806	.1500	.1408	.1363	.1338	.1322
54	.1447	.1200	.1125	.1090	.1070	.1057

END OF SECTION

DIVISION 3

SECTION 03301

PORTLAND CEMENT CONCRETE, LONG FORM

SUBMITTALS

APPENDIX "A"

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts and Samples" of DIVISION 1 – GENERAL PROVISIONS:

A. List of materials for Work of this Section.

B. Shop Drawings of forms and test pour details at least 15 calendar days before the test.

C. Catalog Cuts, Material Certification and Test Results:

1. At least 35 calendar days prior to concrete placement, the following:

a. Name and address of proposed concrete supplier, type of plant, documentation of State Certification for plant and ready mix trucks, AASHTO Accreditation certification for the independent testing laboratory, and a certification for an on-site individual in a supervisory capacity from one of the programs specified in 3.03.A.

b. Material certifications, source, brand name and test results (where required) of cement, fine and coarse aggregate, fly ash, slag, silica fume, metakaolin and concrete admixtures following guidelines of Appendix "B". In addition, an independent testing laboratory to verify that the Very High Early Strength Cement meets the compressive strength, absolute drying shrinkage, and setting time requirements, as per 2.02.B at the testing frequency specified therein.

c. Brand name and chemical composition of form oil or release agents, evaporation retardant and liquid membrane curing compounds. For Architectural Concrete, also include this information for forms, form liners, and pigments.

d. Certification of compatibility and five-year performance record for liquid membrane forming curing compound, when used under conditions specified in 3.04.C.1.d., and the requirements of 2.02.R.2.

e. Test data and field use history for corrosion inhibitor admixtures (when specified on the Contract Drawings) as per 2.02.O.4.:

(1) Manufacturer's test method to determine the concentration of the active component of the inhibitor.

(2) Procedures for the production of concrete mixes containing a corrosion inhibitor for the range of concrete temperatures from 50°F to 90°F and a procedure for the placement of concrete when a retarder is being used.

f. Certification that admixtures conform to the requirements of 2.02.M. submitted with Appendix "B" "Concrete Materials and Mix Proportion Data". Include dosing and re-dosing charts, which shall demonstrate the effects of concrete temperatures from 50°F and 90°F.

g. A chemical analysis report of the percent by weight of silica fume solids by an approved independent testing laboratory when a wet slurry type of silica fume is being used.

D. Samples :

1. Concrete ingredients for trial batches cement, stone, sand, fly ash, slag, silica fume, metakaolin, admixtures, corrosion inhibitor, fibers, latex, pigment and anti-washout agent. Furnish these to the Engineer in whatever quantities he may require at least 35 days prior to concrete placement. This applies to all mixes, including changes to an approved mix.

2. At the request of the Engineer, provide cement, fly ash, slag, and/or silica fume samples to check the Mill Certification at any time in accordance with 3.05.C of the Specification.

3. For architectural concrete, provide two (2) sample panels (12" x 12" x 2" minimum size) for each mix for approval of color and texture. Provide catalog cuts for forms, form liners, and form oil or release agents.

E. Construction Procedures and Quality Control Documents and Plans:

1. At least 35 calendar days prior to concrete placement, the following:

a. Contractor's Quality Control Plan in accordance with 1.04.B.

b. Precast concrete fabricator's planned schedule for all production and a Quality Control Plan a minimum of 15 days prior to the commencement of production.

c. Cold and Hot Weather Concreting Plans in accordance with 1.03 of the Specification. Materials and methods for protecting concrete from freezing.

d. Pumping Procedure Plan, including, at a minimum, the pumping scheme, pump description, line diameter, line length, and the number of turns and line offsets.

e. Written placement procedures that are in conformance with ACI 304R, Chapter 8 if concrete is being placed underwater.

f. Method of adding concrete admixtures, high range water reducers, non chloride accelerators, corrosion inhibitors, anti-washout agent, latex, fibers, pigment, slag, fly ash, and silica fume.

g. Mixing and placement procedures and methods, as well as catalog cuts of equipment for installation. For hand mixes, provide the methods of proportioning, mixing (including minimum time requirements), transferring and placing the concrete.

h. Curing Procedure Plan in accordance with 3.04, including the method and materials for curing.

i. Control Joint Location Plan.

j. Materials and procedures for filling cracks and patching honeycombs and/or spalls.

2. Daily copy of batch records in accordance with 1.04.A.1.a of the Specification.

F. Concrete Mix Proportions:

1. Appendix "B" "Concrete Materials and Mix Proportion Data" at least 35 calendar days prior to concrete placement in accordance with 2.03.A of the Specification. To substantiate the mix proportions, submit all data and field results in accordance with 2.03.A. of the Specification.

2. ACI Grade I certification for all personnel performing concrete testing.

3. Written request to the Engineer for approval if a change in the weights of fine and coarse aggregate and cement is required in the approved mix proportions.

G. For Information Only:

1. Pre-concrete construction meeting agenda a minimum of 15 days prior to the scheduled date of the meeting.

2. Minutes of the pre-concrete construction meeting within 5 days of the meeting.

END OF APPENDIX "A"

SECTION 03301

PORTLAND CEMENT CONCRETE, LONG FORM

APPENDIX "B"

CONCRETE MATERIALS AND MIX PROPORTION DATA

A. Materials

1. Cement: Type .....Source/Brand .....
2. Sand: Fineness Modulus .....Source .....
3. Stone: Size .....Class.....Source .....
4. Fly Ash: Type .....Source .....
5. Slag: Grade .....Source .....
6. Microsilica (Silica Fume): Source/Brand .....
7. Metakaolin: Source/Brand .....
8. Admixtures (Source/Brand):

Air Entraining Agent .....

Non-Chloride Accelerator .....

Retarder .....

Water Reducer .....

Water Reducer - Retarder .....

High Range Water Reducer .....

High Range Water Reducer - Retarder .....

Polycarboxylate High Range Water Reducer .....

Anti-Washout Admixture .....

Corrosion Inhibitor .....

Latex .....

Pigment .....

B. Mix Proportions

1. Proposed method of placement:.....Tremie/Mobile

.....Mixer/Transit Mixer/Portable Mixer/

Pumping/Tube Diameter:.....

.....

2. Proportion of Ingredients

Cement.....lbs./cu. yd.

Fly Ash .....lbs./cu. yd.

Slag.....lbs./cu. yd.

Silica Fume.....lbs./cu. yd.

Metakaolin.....lbs./cu. yd.

Pigment.....lbs./cu. yd.

Stone.....lbs./cu. yd.

Sand .....lbs./cu. yd.

Water .....lbs./cu. yd..... gallons

Air Entraining Agent: .....ounces/cu. yd.

Admixtures (specify type and amount):

.....at.....ounces/cu. yd.

.....at.....ounces/cu. yd.

.....at.....ounces/cu. yd.

.....at.....ounces/cu. yd.

3. Mix Properties:

Compressive Strength: f'c =.....psi at.....days/hours

Flexural Strength: .....psi at.....days/hours

Permeability at 28 days:.....Coulombs

Slump:.....inches

Water to Cementitious Ratio: .....

Air Entrainment: .....%

Sand/Stone Ratio:

Combined aggregate gradation chart (% retained on each sieve)

Unit Weight: .....lbs./cu. ft.

C. Conformance with ACI 318:

Attach a report on mix proportion and test/statistical data documenting conformance with ACI 318, Chapter 5, or ACI 304R, Chapter 8, as they apply to the Work of the Contract.

D. Concrete Supplier/Batch Plant

1. Name: .....

2. Address: .....

3. Contact Name: .....

4. Telephone number/Fax number/E-mail address: .....

5. Quality Control technician(s):
   Name(s): .....
   Telephone number(s): .....

END OF APPENDIX "B"

DIVISION 3

SECTION 03364

PLACEMENT OF PORTLAND CEMENT CONCRETE UNDERWATER

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for placing Portland cement concrete in underwater locations by the tremie method or by direct pumping. Placement using pre-placed aggregate is not included in this Section. For requirements for furnishing Portland cement concrete see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Concrete Institute (ACI)

ACI 304.2R	Placing Concrete by Pumping Methods

Port Authority Standard Specification sections:

#03301	Portland Cement Concrete, Long Form
#03200	Concrete Reinforcement
#03100	Concrete Formwork

1.03 ENVIRONMENTAL REQUIREMENTS

A. For Cold Weather Requirements see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

B. For Hot Weather Requirements see Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

1.04 QUALITY ASSURANCE

A. The Contractor shall be responsible for the quality of the concrete and concrete construction. Quality of concrete will be evaluated by the Engineer, based on conformance with the requirements of this Section.

B. The Contractor shall provide labor and means for obtaining all samples of concrete required for tests and for curing and protecting concrete cylinders at the construction site.

C. When required by the Contract Drawings, the test placement shall be scheduled at least two weeks prior to production placement of concrete.

D. For formwork design and performance requirements see Section 03100 entitled Concrete Formwork.

1.05 SUBMITTALS

For submittals, see Appendix "A".

PART 2. PRODUCTS

2.01 MATERIALS

See Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

PART 3. EXECUTION

3.01 PREPARATION

A. Forms

1. Form materials and design will be subject to approval by the Engineer and shall suit the requirements of the Work indicated on the Contract Drawings. Ensure structural adequacy of the forms under the action of environmental forces as well as forces due to placement of concrete.

2. Form Ties and Spreaders

Use standard, non-corrosive metal form clamp assembly of type acting as spreaders and leaving no metal within one inch of concrete face. No wire ties, wood spreaders or through bolts will be permitted, except for wales, blocking or other accommodations when approved by the Engineer.

3. Form coating shall not be used.

4. Forms shall be mortar tight and shall provide a still water environment in the space to be filled with concrete. Side forms shall extend above top of concrete as required. Engage a diver to monitor the placement of the concrete continuously and to caulk any joints or leaks which show evidence of loss of mortar or cement such as in the form of a cloud of discoloration emanating from the form.

B. Standby Facilities

To ensure a continuous concrete placement, make prior arrangements to have an alternate concrete plant on standby. Backup cranes, pumps and other equipment necessary to continue the placement shall be readily available on site. All standby facilities will be subject to the same requirements as applicable to the primary facilities and shall be as approved by the Engineer.

C. Tube Details

The word "tube" in this Section shall refer to either tremie tube or the pipe line, except where specific reference is made to either the tremie tube or the pipe line. The following types of end sealable, watertight tubes will be permitted:

1. End Plate Sealed Tubes: Loss of seal occurs when the embedded end of this tube is removed from the fresh concrete. Therefore, a separate tube is required at each deposition point. Plate sealed tubes shall not be relocated or removed until completion of the concrete placement.

2. End Valve Sealed Tubes: The seal is maintained even when the embedded end of this type is removed from the fresh concrete. Therefore, the number of tubes will depend on the placement rate. The valve shall be closed with the tube at least partially full of concrete, before the valved sealed tube is carefully removed and relocated without loss of seal.

3. Use of a "Go-devil" or "Pig" in lieu of end plate sealed tube will be permitted. However, as for the end plate sealed tube, a separate tube will be required at each deposition point. Tubes shall not be relocated or removed until completion of the concrete placement.

4. A pipeline may consist of hard pipe or flexible hose, but in order to facilitate reinsertion into the fluid concrete, should a loss of seal occur, its end shall be a hard pipe of a length that can be inserted into the forms.

5. Tubes shall be steel pipe, not aluminum, and shall be minimum one-quarter inch wall thickness (or stronger, if the depth of placement requires). Flexible pipe lines may be any material having the strength to resist the incident pumping pressure and the stiffness to permit insertion into form, reinsertion should a loss of seal occur and the handling incident to the placement procedure.

6. Diameter of tube shall be sufficient to permit unimpeded, smooth flow of concrete through the tube into final position.

7. Each tube shall be clearly marked to show the depth of its outlet. Underwater joints shall be watertight and capable of being easily disconnected and reconnected in 5 minutes or less under project placement conditions. The Engineer may require a demonstration of these requirements and shall be provided with a safe means of inspecting assembled tubes for watertightness prior to concrete placement.

8. A hopper or funnel of 1/2 cubic yard minimum capacity shall be provided to transfer concrete to the top of a tremie tube.

D. Pumping Equipment

Mixing and pumping equipment used in mixing and handling of pumped concrete shall be as approved by the Engineer. All oil and other rust inhibitors shall be removed from the mixing drums, stirring mechanisms and other portions of the equipment that would be in contact with the concrete before the mixers are used.

E. Construction and Expansion Joints

1. Vertical construction joints are permitted in order to accommodate the methods of placement proposed by the Contractor and approved by the Engineer. However, unless specifically permitted by the Engineer, these joints shall not be spaced closer than 30 feet.

2. Number, locations and details of construction joints shall be as shown on the approved shop drawings and shall include suitable keys and dowels.

3. Expansion joints if required, shall be located and detailed as shown on the Contract Drawings.

F. All dowels and steel which will be embedded in concrete shall be cleaned of all debris, marine growth, loose rust and oily deposits.

3.02 APPLICATION

A. General

Concrete placement shall be continuous and over the full height. Horizontal construction joints are not permitted, unless specifically shown on the Contract Drawings.

Placement shall begin at the tube which has its outlet at the lowest elevation.

All vertical movement of the tube shall be carefully regulated to prevent loss of seal. Horizontal movement of the tube is not permitted. The mouth of the tube shall, at all times, remain sufficiently immersed in the concrete so as to exert the necessary resistance on the pump to prevent vacuum build-up from causing blockage in the pipe line.

B. Use of a "Go Devil" or "Pig": Any floatable object which will not collapse under incident pressure and which prevents direct contact between fresh concrete and water in the tube may be used for starting the flow of concrete into the tube. For shallow depths, a semi-solid floatable object may be used as a plug. After the object has been forced to the bottom by concrete, the tube shall be slowly lifted just enough to expel the object, and quickly lowered upon expulsion. Use of a Go-Devil or Pig will not be permitted for restarting an interrupted placement operation.

C. Initial Start: The tube with end seal or "Pig" or "Go-Devil" shall be lowered to bottom of the proposed pour; the hopper and tube charged with concrete and the flow of concrete started as follows:

When a tremie tube is used - slowly raise the tube until the concrete flows out of the tube.

When a pipe line is used - start pumping, slowly increasing the pumping pressure until concrete flows out of the pipe line.

D. Control the rate of flow of concrete by slowly raising or lowering tremie tube or by adjusting the valve on the pipe line.

1. A power hoist or other device permitting control of the level of the end of the tube within two inches of the desired level shall be used to support and provide uniform control of the vertical movement.

2. Use of a crane to regulate vertical position of the end of the tube will not be permitted.

3. The operation of handling the tube shall be done off a fixed platform, not a floating platform.

E. During placement maintain a 3 to 5 feet embedment of the end of the tube in fresh concrete. If a blockage or loss of seal occurs, concrete placement shall cease immediately; the tube shall be withdrawn and restart procedure executed. Consult with the Engineer regarding restart procedure if placement is interrupted for an hour or more. If it is feasible to clear the blockage without removing the tube, that may be permitted if approved by the Engineer.

F. Restart Procedure: Same as for initial start except that the tube shall be sealed at the lower end; water evacuated and prevented from entering the tube and the initial placement of concrete shall be through an empty tube.

G. If concrete level in the tremie tube lowers to the vicinity of the bottom of the hopper, the concrete flow shall be slowed or stopped until the hopper is refilled except that where deep placement is involved, it will be permitted to maintain a concrete level below the hopper to prevent the weight from causing the tremie tube to penetrate the stiffening concrete below.

H. The tube may be raised and moved to another location if the mouth remains sealed and the tube remains at least partially filled with concrete.

I. Laitance Removal:

1. Remove laitance from top of submerged pour surfaces at horizontal construction joints (or cold joints) by use of waterjet and air lift or other device as may be dictated by the depth of water and approved by the Engineer.

2. If the concrete is to function as a seal and the top surface is to be uncovered by dewatering, remove laitance after dewatering by a suitable method approved by the Engineer.

J. Spacing of tubes: Unless tests are conducted which demonstrate that more liberal limits can be permitted with the specific mix and under the specific conditions which prevail, spacing of tubes in a concrete pour shall not exceed 15 ft. and the distance from the ends of the pour shall not exceed 7 ft. See Paragraph K below for special requirements.

K. Special procedures for placing concrete in facings for bulkheads or other walls:

1. Clean contact surfaces: Before installing forms, the surfaces of the existing wall, tie rods, anchorages and wales which will be in contract with the concrete shall be cleaned by a high pressure water jet or by brushing with a power operated wire brush to remove all grease, marine growth, loose wood splinters, deteriorated wood, loose concrete, or loose rust. Required jet velocity shall be sufficient to remove said materials.

2. Recleaning Contact Surfaces: After forms are in place, and just before placing concrete, clean interior of form by use of a rotating water jet. Overflow will remove displaced material.

3. Placing Concrete:

a. Place concrete by pumping using pipe lines of flexible hoses with hard pipe ends, with an air vent on the main supply line and under an air pressure sufficient to assure a smooth and continuous flow.

b. Insert the discharge end of the pipe line into the form until the bottom is reached before any concrete is pumped into place. As the level of the concrete rises in the form, the discharge ends shall be slowly withdrawn, care being taken that the ends remain continuously immersed in the newly placed concrete. Avoid kinking the hose and other possible causes of sudden surge in concrete flow. Place concrete in a smooth and continuous operation at a rate which will avoid damage to the forms and permit the concrete to flow along the length of the form to the adjacent discharge ends, and in such manner as to avoid segregation of the concrete. A manifold shall be provided on the hose leading from the concrete pump and sufficient number of hoses shall lead from the manifold into the form so that the discharge ends are spaced at intervals not to exceed 8 feet. Additional concrete pumps may be used in lieu of a manifold.

c. All concrete in place shall be free of voids, streaks, honeycombs, or other evidence of segregation for porous construction.

d. Build forms several inches higher than the required construction and with a removable top section to trap laitance. Scalp off the laitance after the concrete has set.

e. When appropriate during the placing of the concrete, the forms may be vibrated lightly on the outside to assure the complete filling of the form. The vibrating shall be done using equipment approved by the Engineer. Use of vibrators inside the form is not permitted.

L. The allowable lapse of time between mixing and placing of concrete shall be predetermined with the approval of the Engineer and carefully monitored during placement. The Engineer, at his discretion, may reject any mixed concrete that has not been placed within the time limit.

3.03 FIELD TESTS

See Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM.

END OF SECTION

SECTION 03364

PLACEMENT OF PORTLAND CEMENT CONCRETE UNDERWATER

SUBMITTALS

APPENDIX "A"

The following shall be submitted to the Engineer, except as otherwise noted.

A. Shop Drawings

1. As per Division 1 "Shop Drawings, Catalog Cuts and Samples".
2. Proposed locations and details of construction joints. Submit at least 15 days prior to concrete placement.
3. Formwork working drawings. Submit at least 21 days prior to ordering any material or constructing any formwork.
4. Test placement details. Submit at least 15 days before test placement.

B. Catalog Cuts

1. As per Division 1 "Shop Drawings, Catalog Cuts and Samples".

C. Samples

1. As per Division 1 "Shop Drawings, Catalog Cuts and Samples".
2. Formwork ties and spreaders. Submit at least 21 days prior to ordering any material.

D. Construction Procedure and Quality Assurance Documents

Submit the following at least 15 days prior to concrete placement.

1. Qualifications of labor and supervisory personnel for concrete placement.
2. Cold and/or hot weather concreting procedures.
3. Details of plant, equipment, tremie pipe/pipe line and procedures for concrete placement.
4. Details of standby facilities for concrete production and placement.
5. Proposed method of sealing and resealing of tremie pipe or pipe line.
6. Method of removing laitance from construction joints.
7. Placement procedures that are in conformance with ACI 304R, Chapter 8.

E. Design Computations

1. Formwork design calculations and catalog cuts. Submit at least 21 days prior to ordering any material or constructing any formwork.

F. Concrete Mix Design

1. Submit Appendix "B" – "Concrete Materials and Mix Design Data of Section 03301, entitled PORTLAND CEMENT CONCRETE, LONG FORM" at least 15 days prior to concrete placement.

END OF APPENDIX "A"

DIVISION 3

SECTION 03602

GROUTING (NON-METALLIC)

PART 1. GENERAL

1.01 SUMMARY

This Section specifies requirements for non-metallic, non-shrink, cement-based grouting.

1.02 REFERENCES

The following is a listing of the publications referenced in this Section:

American Society for Testing and Materials (ASTM)

ASTM C 109	Test Method for Compressive Strength of Hydraulic Cement Mortars
ASTM C 191	Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
ASTM C 827	Test Method for Early Volume Change of Cementitious Mixtures

1.03 JOB CONDITIONS

Do not mix or place grout when the ambient temperature is below 40 degrees F or conditions indicate that the ambient temperature will fall below 40 degrees F within 72 hours, unless the areas to be grouted are enclosed and heated in an approved manner or otherwise approved by the Engineer.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver grout in the manufacturer's sealed original bags or containers bearing the manufacturer's name and product identification, in a manner to prevent damage by breakage, water or moisture.

B. Store all material on platforms and cover as necessary to protect it from water and moisture.

C. Deliver, protect and handle all tools and equipment in a manner to prevent damage that may make them defective for the purpose for which they are intended.

1.05 SUBMITTALS

See Appendix "A" for Submittal Requirements.

PART 2. PRODUCTS

2.01 MATERIALS

A. Grout shall be one of the following:

1. "Masterflow 713" - manufactured by Master Builders
2. "Five Star Grout" - manufactured By U.S. Grout Corporation
3. "Euco N-S Grout" - manufactured by Euclid Chemical Co.

B. Grout shall be premeasured and prepacked by the manufacturer, requiring only addition of potable water for mixing.

PART 3. EXECUTION

3.01 PREPARATION

Areas to be grouted as shown on the Contract Drawings shall be cleaned of all foreign materials, to the satisfaction of the Engineer.

3.02 MIXING AND PLACING

A. Use only the crew trained by the manufacturer's representative.

B. Mix and place the grout in accordance with manufacturer's methods approved by the Engineer.

C. Placement shall be continuous to avoid cold joints and voids. Grout shall be rodded or spaded to prevent the formation of air pockets.

3.03 FIELD TESTS

A. The Engineer may take and test samples of the grout being placed in accordance with ASTM C 109, C 191 and C 827.

B. In the event that tests of the grout placed reveal any failure to meet requirements of this Section, the Engineer will require removal and replacement of all portions of grout from the batch from which the sample was taken and the discontinuance of grouting until the Contractor has demonstrated to the satisfaction of the Engineer that the causes for failure have been corrected.

END OF SECTION

SECTION 03602

GROUTING (NON-METALLIC)

APPENDIX "A"

SUBMITTALS

A. Submit to the Manager, Materials Engineering Division, Port Authority Technical Center, 241 Erie Street, Jersey City, NJ 07310-1397, a sample of the grout material for approval.

B. Submit manufacturer's instructions and methods for handling, storage, mixing and placing of the grout, for approval.

END OF APPENDIX "A"

DIVISION 5

SECTION 05121

MISCELLANEOUS METALS

PART 1 - GENERAL

1.01 SUMMARY

This Section specifies the requirements for miscellaneous metals as indicated on the Contract Drawings.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)

B. American Institute of Steel Construction (AISC)

C. American Welding Society (AWS)

1.03 QUALITY CONTROL

A. Welding Standards

Comply with applicable provisions of AWS D1.1 "Structural Welding Code- Steel " and AWS D1.3 "Structural Welding Code- Sheet Steel".

1.04 SUBMITTALS

A. For submittals – see Appendix "A"

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel Plate Shapes and Bars: Conform to ASTM A36

B. Shapes and Bars: Conform to ASTM A36

C. Welding electrodes shall be AWS E-70xx, which conforms to the requirements of AWS A5.1 for the manual shielded metal arc welding process (SMAW).

D. Bolts, excluding anchor bolts, nuts, and washers shall be Grade A, ASTM-307.

E. Eye Bolts: Alloy steel conforming to ASTM F541

2.02 GALVANIZING

A. All metal items except stainless steel shall be galvanized unless otherwise noted on the Contract Drawings.

B. Galvanizing shall be performed by a hot - dip process conforming to ASTM A-123. Zinc shall conform to ASTM B-6.

C. Galvanizing shall be performed after fabrication and before shipment to the jobsite.

D. Preparation prior to galvanizing shall be by acid pickling. Galvanizing shall be performed the same day as pickling. After pickling and before galvanizing, all items shall be heated to 300 degrees F to expel hydrogen absorbed during pickling.

E. Components that will form bolted assemblies shall be galvanized before assembly.

F. Welded assemblies shall be galvanized after welding.

G. The zinc coating shall adhere perfectly to the steel surface, be free from blisters and excess zinc, and be even, smooth, and uniform throughout. All cutting, punching, drilling, and other machine work shall be performed as far as possible before galvanizing. Should any such work or any welding be necessary after galvanizing, the areas from which galvanizing has been removed shall be touched up in the manner described for damaged and rusted items.

H. Galvanized items which have become damaged or rusted, shall be thoroughly cleaned by abrasive blasting per SSPC-SP10 – Near White Blast Cleaning, or SSPC-SP11 – Power Tool Cleaning, to bare metal with a 1-2 mil profile. They shall then receive two coats of one of the following cold galvanizing compounds containing a minimum of 95% zinc in the dry film or an approved equal:

1. ZRC Worldwide Cold Galvanizing Compound
2. Rustoleum Cold Galvanizing Compound

The coats shall have a combined dry film thickness of not less than three (3) mils. Field welds shall be coated in the same manner, after removing all slag, grinding smooth, and cleaning per SSPC-SP10 or SSPC-SP11.

2.03 PAINTING FOR BOLLARDS

A. Bollard exteriors, but not the base plate undersides, shall receive two shop coats of coal tar epoxy. The bollard surface shall be prepared for painting in accordance with SSPC-SP10 – Near White Blast Cleaning. The first coat shall be dry before the second coat is applied. The two coats shall have a combined dry film thickness of 16 to 20 mils. After bollard installation, all bare or damaged spots shall be touched-up with the same coating to the approval of the Engineer.

2.04 WELDING:

All welding shall conform to the requirements of AWS D1.1 – 2000.

PART 3 - EXECUTION

3.01 FABRICATION AND ERECTION

A. Fabrication shall conform to the provisions of the "Specification for Structural Steel Design - Allowable Stress Design and Plastic Design" of AISC.

B. The Contractor shall furnish the Engineer with shop details for approval for all items, and shall not proceed with fabrication until details are approved. Review of these details by the Engineer will not relieve the Contractor of responsibility for their accuracy and completeness.

C. Welding requirements are as follows:

1. Shop welding shall be performed by the manual shielded metal arc welding (SMAW) process.

2. Welding procedures that conform in all respects to the provisions of Section 3 of AWS D1.1, Structural Welding Code, will be deemed pre-qualified.

3. Procedures other than those pre-qualified shall be qualified by tests as specified in Section 4 of AWS D1.1. The written welding procedures and the qualification test records shall be submitted to the Engineer for approval.

4. Welding shall be performed only by welders or operators who have been qualified in accordance with Section 4 of AWS D1.1, and their qualification test records shall be submitted for approval.

5. Welds shall be of uniform width and size throughout their length. Each layer shall be smooth and free from slag, cracks, pinholes and undercut, and completely fused to the adjacent weld beads and base metal. The cover pass shall be free from coarse ripples, high crowns, deep ridges and valleys between beads, and shall blend smoothly and gradually into the surface of the base metal.

6. Butt welds shall be slightly convex, uniform height, and shall have full penetration.

7. Fillet welds shall be of specified size with full throat and the legs of uniform length.

8. For all details to be joined, where other continuous welds are not indicated on Contract Drawings, provide continuous 3/16-inch seal welds.

9. Repair, chipping, or grinding of welds shall not gouge, groove, or reduce the base metal thickness.

10. Non-destructive testing, when required by the Engineer, shall conform to Section 6, Part D of AWS D1.1.

11. The manufacturer's recommendations shall be followed for both the oven-storage and reconditioning of electrodes.

12. Field welded connections shall be of the type, size and in the locations shown on the Contract Drawings, and in accordance with AWS D1.1. Inspection shall be by visual examination. Non-destructive testing is not required.

- END OF SECTION –

SECTION 05121
MISCELLANEOUS METALS
SUBMITTALS
APPENDIX "A"

Submit the following in accordance with the requirements of "Shop Drawings, Catalog Cuts, and Samples" of Division 1 – GENERAL PROVISIONS.

A. Evidence of conformance to the referenced standards shall be submitted for the following:

1. All materials: mill test certificates for each heat number
2. Welding procedures and qualification test records
3. Welder qualification test records

D. Product Data

Manufacturer's specifications, anchor details, and installation instructions for products used including galvanizing and paint products.

E. Shop Drawings

Include plans, elevations, and details of sections and connections. Show anchorage details, accessory items, installation methods, and grouting systems. Provide templates for anchor bolt installation.

END OF APPENDIX "A"

PERMITS

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

(See Issuing Division below)

PERMIT*

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No. 0000-02-0021.1 WFD060001	Application No. 0000-02-0021.1 WFD060001	
Issuance Date: May 10, 2007	Effective Date: May 10, 2007	Expiration Date: May 10, 2012
Name and Address of Applicant The Port Authority of New York and New Jersey 2 Gateway Center, 14th Floor SW Newark, NJ 07102	Name and Address of Owner Same As Applicant	Name and Address of Operator Same as applicant
Location of Activity/Facility *(Street Address)* Port Newark & Elizabeth Cities of Newark & Elizabeth Counties of Essex and Union	Issuing Division Office of Dredging and Sediment Technology	Statute(s) NJSA 58:10A NJSA 12:5-3
Type of Permit: Waterfront Development Permit/ Water Quality Certificate/Acceptable Use Determination	Maximum Approved Volume: 853,000 cubic yards	

This permit grants permission to:

Perform routine maintenance dredging of the existing berths to their current depths ranging between -40 to -50 feet below MLW at Port Newark and Port Elizabeth, (Berths 2 through 98) with the exception of berths 6, 8, 10, 12, & 14 Dredging at these berths is to be addressed under separate permit application. Deepening will occur at berths 53, 55, 56, 57, 58, 60, 62, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, to a depth of 50' mean low water. The maximum allowable overdredge for all berths is limited to two feet. The estimated quantities of dredged material to be removed is as follows: Holocene/Maintenance material to be placed at an approved upland location is approximately 380,000 cubic yards; Pleistocene red-brown clay from deepening work is approximately 473,000. An Acceptable Use Determination (AUD) has been issued with this permit which regulates the beneficial use of the dredged material from this project.

This permit authorizes one-time dredging of each of the berths during its five-year term. Additional dredging episodes of any specific berth(s) during the five-year term of this permit may only be performed under a new permit or a modification to this permit. A decision as to whether and what additional sampling and testing may be required shall be made on a case-by-case basis.

The approved plan consists of eight sheets entitled "New Jersey Marine Terminals, Multi-Facility Maintenance Dredging and Berth Deepening," dated September 6, 2006.

This permit is hereby conditioned upon the permittee receiving Army Corps of Engineers authorization for the project prior to the initiation of dredging under this permit.

Prepared By: Gary Nickerson — May 10, 2007
Gary Nickerson — Date

(See Page 7 of 7 pages for Chief's signature.)

Revised Date	Approved by the Department of Environmental Protection
	Name (Print or Type) _____ Title _____
	Signature _____ Date _____

**The word permit means "approval, certification, registration, etc."* *(General Conditions are on Page Two)*

This permit is subject to the following general conditions:

1. This permit is revocable, or subject to modification or change at any time, pursuant to the applicable regulations, when in the judgement of the Department of Environmental Protection of the State of New Jersey such revocation, modification or change shall be necessary.

2. The issuance of the permit shall not be deemed to affect in any way action by the Department of Environmental Protection of the State of New Jersey on any future application.

3. The works, facilities, and/or activities shown by plans and/or other engineering data, which are this day approved, subject to the conditions herewith established, shall be constructed and/or executed in conformity with such plans and/or engineering data and the said conditions.

4. No change in plans or specifications shall be made except with the prior written permission of the Department of Environmental Protection of the State of New Jersey.

5. The granting of this permit shall not be construed to in any way affect the title or ownership of property, and shall not make the Department of Environmental Protection or the State a party in any suit or question of ownership.

6. This permit does not waive the obtaining of Federal or other State or local government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.

7. A copy of this permit shall be kept at the work site, and shall be exhibited upon request of any person.

8. In cases of conflict, the conditions of this permit shall supersede the plans and/or engineering data.

The project is authorized under, and in compliance with, the Rules of Coastal Zone Management (N.J.A.C. 7:7E) governing; Finfish Migratory Pathways (7:7E-3.5), Ports (7:7E-3.11), Maintenance Dredging (7:7E-4.6), New Dredging (7:7E-4.7), Dredged Material Disposal (7:7E-4.8), Port Use Rule (7:7E-7.9), Dredged Material Placement on Land (7:7E-7.12), Marine Fish and Fisheries (7:7E-8.2), and Water Quality (7:7E-8.4).

This permit is approved, subject to, and in accordance with the Tidelands grants issued to the City of Newark on June 10, 1946, Liber W-2, page 117; to the Port of NY Authority on March 21, 1972, Liber P-3, page 40 & to Port of NY Authority on March 21, 1972, Liber E-8. Issuance of this permit does not in any way relinquish the State's ownership interest in the subject property, if any exists. The project site is located on Tidelands Map No. 665-2142 and Newark-Elizabeth Meadowlands.

This permit is issued subject to and provided that the following conditions can be met to the satisfaction of the New Jersey Department of Environmental Protection (NJDEP) Office of Dredging and Sediment Technology. All conditions must be met prior to construction unless otherwise specified. Compliance with Administrative conditions shall be determined once copies of all specified permits, certifications, plans, agreements, etc. have been received, not less than 30 days prior to construction, and approved by the NJDEP Office of Dredging and Sediment Technology. All Physical Conditions are subject to on-site compliance inspection by the NJDEP Bureau of Coastal and Land Use Enforcement. As per N.J.A.C. 7:7-1.4, you must notify the NJDEP Bureau of Coastal and Land Use Enforcement, (401 East State Street, P.O. Box 422, Trenton, NJ 08625), in writing at least 3 days prior to commencement of construction or site preparation.

This permit shall be RECORDED in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES in the applicable counties) in the county wherein the lands included in the permit are located within ten (10) days after the receipt of the permit by the applicant and verified notice shall be forwarded to the NJDEP Office of Dredging and Sediment Technology immediately thereafter.

This permit is NOT VALID until the permit acceptance form has been signed by the applicant, accepting and agreeing to adhere to all permit conditions, and returned to the NJDEP Office of Dredging and Sediment Technology, 6th floor Assistant Commissioner's Suite; P.O. Box 028, Trenton, New Jersey 08625.

ADMINISTRATIVE CONDITIONS

1. The permittee shall allow an authorized representative of the NJDEP the right to inspect construction pursuant to N.J.A.C. 7:7-1.5.

2. The permittee shall obtain all required local, state and federal approvals.

3. Prior to initiation of dredging, the permittee shall receive Army Corps of Engineers authorization for the project. A copy of said authorization shall be forwarded to this Office upon receipt by the permittee.

PHYSICAL CONDITIONS

4. In order to protect winter flounder spawning habitat, dredging of berths 92, 94, 96 and 98 shall not be permitted between February 1 and May 31 of any given year.

5. The dredged material from this contract shall be removed using a closed clamshell environment bucket until refusal at which time a clamshell bucket or excavator shall be used to remove the remaining material to project depth.

6. If during the term of this permit, it is determined that blasting of rock material is necessary, the permittee shall provide written notice to the Department and shall provide a copy of the approved blast plan by the ACOE, NY District.

7. The permittee shall employ the services of an independent dredging inspector to monitor dredging activities twice per week. The permittee shall submit the resume of the dredging inspector to the Department for review and receive written approval prior to the initiation of dredging.

8. The dredge shall be operated so as to control the rate of descent of the bucket so as to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical dimension of the open bucket (i.e. overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging operation. The independent dredging inspector shall monitor the operation of the software and sensors during the inspections required by Condition #20 of this authorization. Any malfunction of the software and sensors on the dredge at any time shall be immediately reported to the independent dredging inspector and the permittee by the dredging contractor and shall be immediately repaired to working order.

9. The closed clamshell environmental bucket shall be equipped with sensors to ensure complete closure of the bucket before lifting the bucket. Said sensors shall be operational during the entire dredging operation.

10. Where a closed clamshell environmental bucket is required, it shall be lifted slowly through the water, at a rate of 2 feet per second or less.

11. Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.

12. A "No Barge Overflow" applies to the dredging of Maintenance/Holocene sediments. "Barge Overflow" is permitted for the dredging of Pleistocene sediments only.

13. All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete.

14. The gunwales of the dredge scows shall not be rinsed or hosed during dredging except to the extent necessary to ensure the safety of workers maneuvering on the dredge scow.

15. All decant water holding scows shall be water tight and of solid hull construction.

16. Decant water from this project may only be discharged within the channel from where the sediments originated, in close proximity to the dredging contract area. Discharge to another receiving waterbody requires prior approval from the Department, and may require a New Jersey Discharge Pollutant Elimination System/Discharge to Surface Water (NJDPES/DSW) permit.

17. All decant water shall be held in the decant holding scow a minimum of 24 hours after the last addition of water to the decant holding scow. Said water contained in the decant holding scow may only be discharge after this mandatory 24 hour retention time.

    Should the contractor wish to reduce the required holding time, the contractor shall demonstrate that the reduced holding time is sufficient to meet a total suspended solids (TSS) background value of 30 mg/L. This TSS action level is consistent with the ambient TSS results presented in the NY District study entitled "NY and NJ Harbor Deepening Project - Total Suspended Solids (TSS) Monitoring, Interim Report" (January 2006). The total suspended solids shall be

determined through gravimetric analysis. No discharge shall be permitted from the decant holding scow until the results of the gravimetric analysis have confirmed that the 30 mg/L background level has been achieved. No additional water shall be added to the decant holding scow between the time of sample acquisition and discharge. Upon successful demonstration that the reduced holding time is sufficient to meet the TSS background level of 30 mg/L, the monitoring of TSS may be suspended and the demonstrated settling time shall replace the 24 hour minimum. A successful demonstration of the reduced holding time efficiency shall be determined once three consecutive TSS analyses have confirmed that the 30 mg/L action level has been achieved by the reduced holding time.

- Should the contractor wish to demonstrate this reduced holding time, all records including time of last addition of decant water into the scow, time of TSS sampling and the results of TSS sampling shall be submitted to the NJDEP as soon as they become available, together with a request for a reduced holding time.

18. During pumping of the decant water from the holding scow, great care shall be taken to avoid re-suspending or pumping sediment which has settled in the decant holding scow.

19. The dredging contractor shall complete and submit the attached Dewatering Form to the independent dredging inspector on a weekly basis as part of the Quality Control Report provided to the permittee. Said Dewatering Form shall be certified by the independent dredging inspector that they have witnessed the dewatering process during the preceding week. The permittee shall submit the completed Dewatering Form with appropriate certifications by fax to the Office of Dredging and Sediment Technology for the preceding week.

20. The independent dredging inspector shall perform inspections of the dredging contract a minimum of twice per week using the attached WQC Field Inspector form. The permittee shall submit the completed inspection forms to the NJDEP on at least a weekly basis.

21. REPORTING REQUIREMENTS: At the completion of **EACH WORK ORDER(S)**, the permittee shall submit the following information to the Department. This information shall be submitted within three months of completion of dredging.
    - Start and finish date of work order(s)
    - Post-dredge hydrographic survey
    - Completed "Notice of Completion of Work" attached for each work order(s).

ACCEPTABLE USE DETERMINATION

22. The 380,000 cubic yards of non-HARS suitable dredged material from this project shall be mixed with a minimum of 8% Portland cement only.

23. Placement of material at Freshkills Landfill requires approval from New York State DEC and should be pursued through a separate application.

24. Prior to the Port Authority issuing a work order(s) to the designated dredging contract for a specific berth or group of berths, the Port Authority or it designated contractor must submit the following to the Office for review and approval of an AUD for the specific work order(s):
    - List of berths to be dredged
    - Amount of dredged material to be removed under the work order(s)
    - Schedule for the work order(s)
    - Location of placement sites for the material

    This does not apply to the maintenance dredging of berths 62-96 that were authorized in the April 2, 2007 AUD issued from this Office regarding Work Orders 1, 2 and 3 of Contract MFP-684.002.

25. The non-HARS suitable material from this project has been characterized with respect to New Jersey's Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) and available placement sites for the material as follows:

    Berths 2, 3, 4, 5, 7, 9, 11, 13, 15, 16, 17, 18, 19, 20, 21, 23, 25 exceed the NRDCSCC and thus may be authorized for disposal in the Newark Bay Confined Disposal Facility (NBCDF) based on review of available placement sites at the time of issuance of this permit. At the time an AUD request is submitted by the Port Authority for dredging these berths as required by Condition #24, the Department will revisit this determination based on available placement sites to accept material from these berths, and the Department shall give priority to the upland placement site over the Newark Bay Confined Disposal Facility.

    Berths 22, 24, & 26 through 96 meet New Jersey's NRDCSCC and are acceptable for placement at the following upland placement site:

    EnCap site

    The material from this project is only acceptable for use as PDM cap material consistent with the fill protocol approvals issued for the EnCap site on November 7, 2002 (as amended on April 29, 2004, and May 24, 2006 (Protocol for PDM barrier layer).

    The designated contractor shall comply with all conditions specified in the AUDs issued for the placement of processed dredged material (PDM) on the Avon, Lyndhurst and Rutherford Landfills dated January 17, 2003, and dated April 17, 2003 for the Kingsland Landfill.

    The designated contractor shall comply with all conditions relating to processed dredged material placement as specified in the Remedial Action Workplan approvals and Closure Plan approvals issued for the Avon, Lydhurst and Rutherford landfills dated September 18, 2001, as modified on October 29, 2002, and all amendments thereto. The designated contractor shall comply with all conditions specified in the Closure Plan approval issued for the Kingsland Landfill on January 27, 2003 and all amendments thereto.

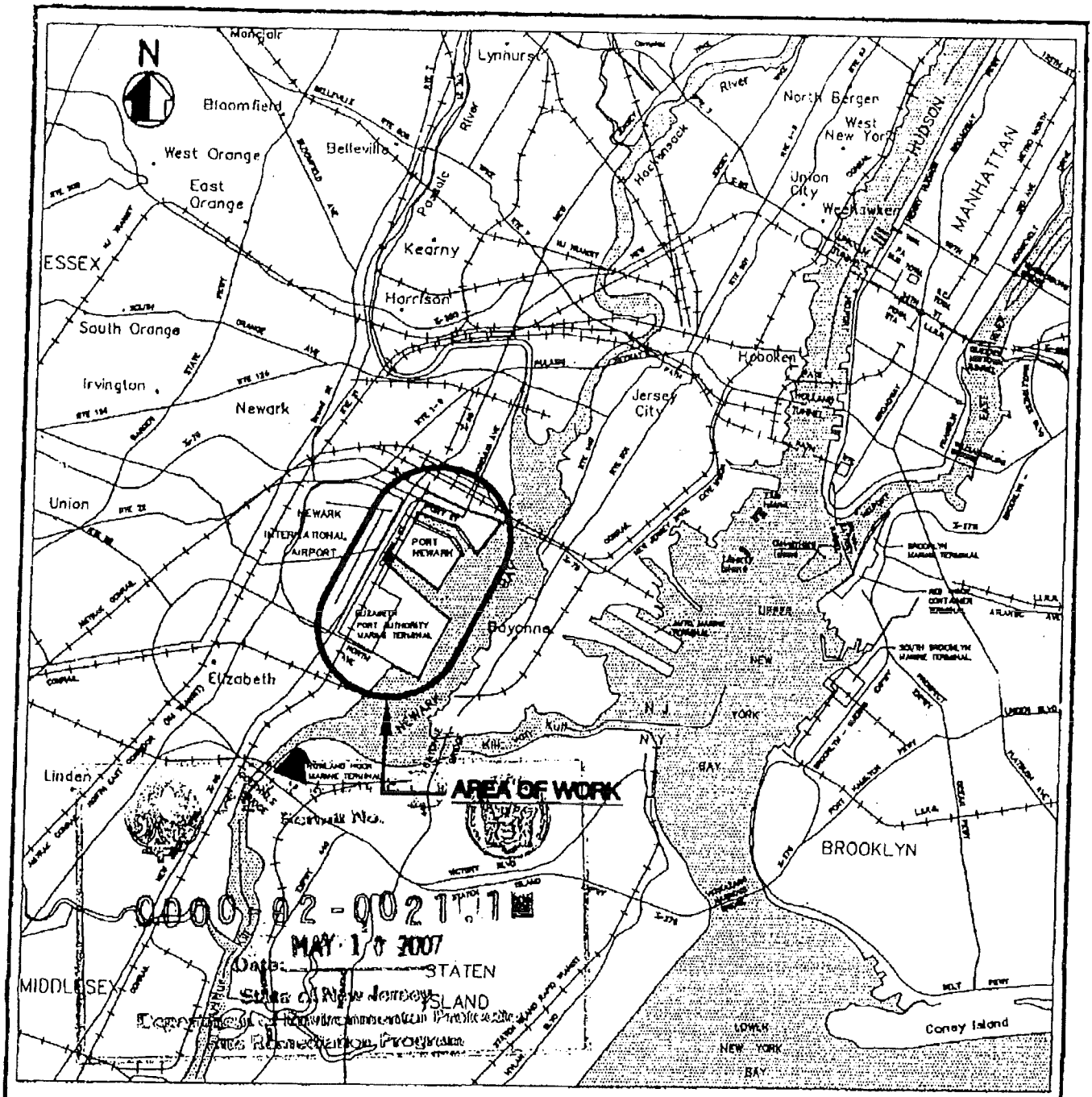
26. The identified processing facility for the non-HARS suitable material shall comply with all conditions imposed in the WFD/AUD and any subsequent modifications or renewals thereto for the dredged material processing facility.

27. All trucks used to transport processed dredged material to the above referenced placement sites shall be tarped pursuant to the applicable State DOT requirements or applicable regulatory agency requirements.

28. If the permittee elects to dispose/use the dredged material from this project at an alternate location, written authorization must be obtained from the Office of Dredging and Sediment Technology prior to the transport of any dredged material to said alternate disposal location. Any alternate disposal/use location must obtain all required state, local and federal permits before the Office would grant a modification of this permit to transport dredged material to the alternate location.

5/10/07
DATE

Suzanne U. Dietrick, Chief
Office of Dredging and Sediment Technology.



LOCATION MAP

N.T.S.

LEGEND:

- AREAS TO BE DREDGED IN PLAN VIEW
- LIMITS OF MAINTENANCE DREDGING IN SECTIONAL VIEW
- AREAS TO BE DEEPENED IN SECTIONAL VIEW
- MATERIAL SLOUGHING IN FROM SIDE SLOPES IN SECTIONAL VIEW, NO DREDGING ALLOWED IN THIS ZONE
- D / 3 — SECTION DESIGNATION / SECTION LOCATION (DRAWING NO.)

ABBREVIATIONS:

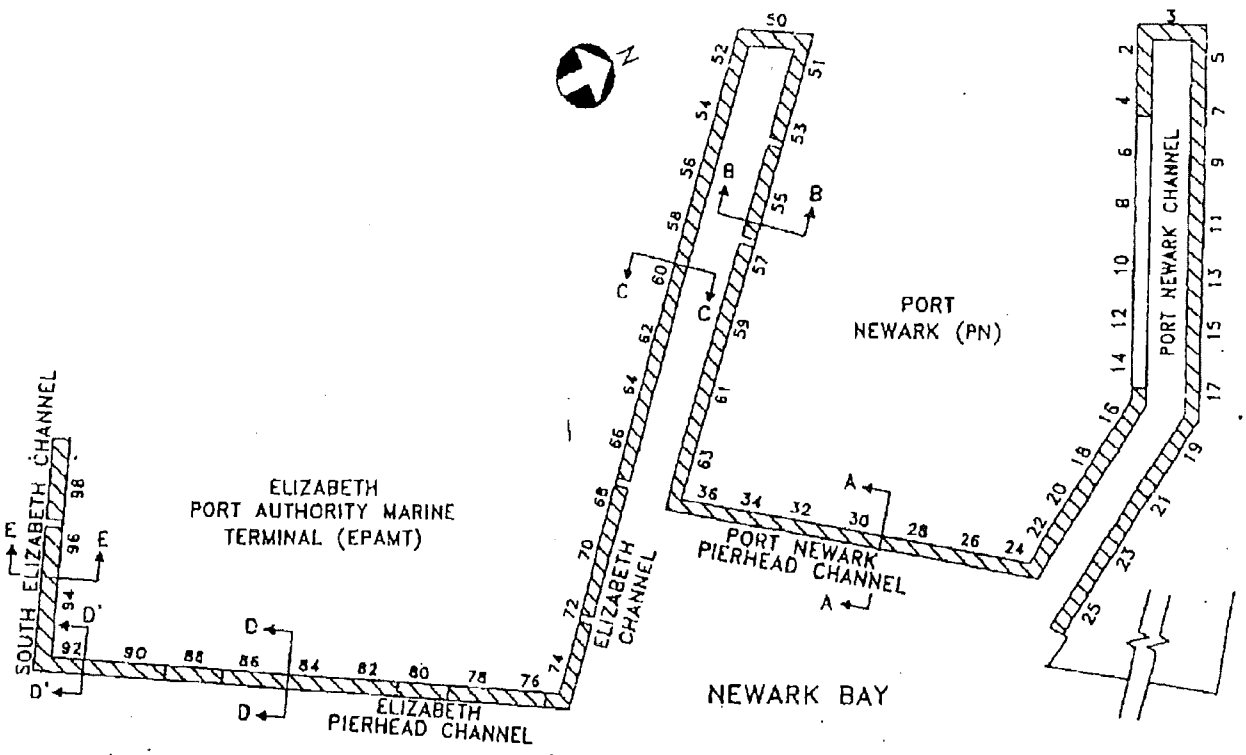
M.L.W.	MEAN LOW WATER
ELEV.	ELEVATION
N.T.S.	NOT TO SCALE
PN	PORT NEWARK
EPAMT	ELIZABETH-PORT AUTHORITY MARINE TERMINAL

New Jersey Marine Terminals

Multi-Facility Maintenance Dredging and Berth Deepening

LOCATION MAP

Sheet 1 of 8 September 6, 2006



NEW JERSEY MARINE TERMINAL BERTHS	
BERTH NUMBER	BERTH DEPTH*
2	35
3	35
4	35
5	35
6	35
7	35
8 & 10	40
9	35
11	35
12	40
13	35
14	40
15	35
16	38
17	35
18	38
19	35
20 & 22	38
21	40
23	40
24	40
25	40
26	35
28	40
30	40
32	40
34	38
36	38

NEW JERSEY MARINE TERMINAL BERTHS	
BERTH NUMBER	BERTH DEPTH*
50	35
51	40
53	40
53	40
54	40
55	40
56	40
57	50
58	40
59	50
60	40
61	50
62 & 64	40
63	50
65	45
66	50
68	50
70	50
72 & 74	50
76	50
78	50
80	40
82 & 84	38
86	38
88	45
90	45
92	45
94	40
96	45
98	45

* BERTH DEPTHS PROVIDED ARE THE CURRENTLY AUTHORIZED DEPTHS.

LOCATION MAP

N.T.S.

NOTE:

BERTHS 6, 8, 10, 12, & 14 WILL BE THE SUBJECT OF A SEPARATE PERMIT APPLICATION.

New Jersey Marine Terminals

Multi–Facility Maintenance Dredging and Berth Deepening

SITE MAP

Sheet 2 of 8 September 6, 2006

EXEMPTION (4)

DRAWINGS OF NON-PUBLIC AREAS

(10)

DEPARTMENT OF THE ARMY PERMIT

Permittee: Port Authority of New York and New Jersey
2 Gateway Center
14th Floor
Newark, NJ 07102
(973) 565 7566

Permit No.: 2002-00711

Issuing Office: New York District US Army Corps of Engineers

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

1) Maintenance dredge all berths at the Port Newark/Port Elizabeth Marine Terminal (Berths 2 - 98) to their currently authorized depths as depicted in the attached drawings, with deepening of selected berths as follows:

a) 45 feet below the plane of Mean Low Water in Berths 82, 84, 86, 88, 90, 92, and 94, and

b) 50 feet below the plane of Mean Low Water in Berths 68, 70, 72, and 74.

The maximum allowable overdepth for all berths is limited to two feet. Approximately 351,100 cubic yards of material will be removed and initially placed at the ORNJ-Cherokee site in Bayonne, New Jersey. Barge overflow is not authorized for maintenance material, but the discharge of decant water after processing is authorized.

Approximately 254,010 cubic yards of Pleistocene red-brown clay will be removed, with barge overflow, and placed at the Historic Area Remediation Site (HARS).

2) Subsequent to the dredging and placement operations noted above, additional maintenance dredging over ten years may take place in all berths to the current and newly authorized depths; without barge overflow, with placement at an available state-approved upland site and/or the Newark Bay Confined Disposal Facility.

All work shall be done in accordance with the attached drawings and Special Conditions (A) through (AA).

Project Location: IN: Newark Bay

AT: Cities of Newark and Elizabeth, Essex and Union Counties, New Jersey

Permit Conditions:

General Conditions:

1. The time limit for completing placement activities at the Historic Area Remediation Site ends on 16 October 2005. The time limit for completing maintenance dredging and placement activities ends on 16 October 2012. If you find that you need more time to complete the authorized activities, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

PERMITTEE: Port Authority of New York and New Jersey
PERMIT NO.: 2002-00711

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

(A) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the US Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

(B) The permittee shall be responsible for complying with any special conditions and/or stipulations incorporated into the appropriate Section 401 Certification(s) issued by the New Jersey Department of Environmental Protection and all amendments thereto and Section 307(c) of the Coastal Management Act of 1972 Authorization(s) and all amendments thereto.

(C) No more than ten (10) days prior to the beginning of HARS placement activities, representatives of the permittee (including all of the permittee's agents, representatives, contractors, and Inspectors on the project), shall meet with representatives of the New York District USACE. The purpose of the meeting is to establish a full understanding of operational requirements necessary to ensure compliance with all of the terms and conditions of this permit. Meeting requirements shall include the following:

1) The permittee shall submit at the meeting, a complete list of the names, addresses and telephone numbers including pager numbers of the permittee's project manager, construction managers, all contractor project managers and all certified Inspectors expected to participate in this project. All of the above must attend this meeting. USACE reserves the right to immediately adjourn this meeting should any of the individuals noted above fail to attend. USACE may consider the permittee to not be in compliance with this permit, if any of the required persons are not present at this meeting; and

2) At the meeting, all barges planned for use in the project on a daily or weekly basis, must be identified and certified in writing by the permittee to be fully operational, mechanically sound, completely seaworthy, and free of leaks or other defects. In addition, an additional backup barge must be available for

immediate use, if one of the regularly used barges develops a condition that violates the requirements for barges described above. The backup barge shall be identified and certified at the meeting in the same manner as the barges planned for regular use.

(D) All placement activities occurring at the HARS will be conducted in accordance with the attached "Placement Guidelines." These Placement Guidelines include the exact location of the placement area within the HARS. Failure to adhere to the requirements of the Placement Guidelines can result in the initiation of enforcement proceedings, including, but not limited to, suspension and/or revocation of this permit.

(E) Prior to the initiation of dredging under this permit, four engineering-size, certified and sealed copies and one electronic file copy of surveys of all areas to be dredged, containing digital data in State Plane coordinates (NAD 83/feet[MAW]), shall be provided to the New York District USACE by the permittee. These surveys must have the authorized dredge area outlined, and a calculation of the total volume of dredged material to be removed. The surveys shall be delivered to the following address:

Chief, Harbor Supervision and Compliance Section
Regulatory Branch
New York District U. S. Army Corps of Engineers
Jacob K. Javits Federal Building
New York, New York 10278-0090

(F) Within fifteen (15) business days of the completion of dredging activities, the permittee shall submit four, engineering size, certified and sealed copies and one electronic file copy of post-dredge surveys, containing digital data in State Plane coordinates (NAD83/feet[MAW]), to the New York District USACE. These surveys must have the authorized dredged area outlined, and an exact calculation of the volume of dredged material that was removed and placed at the HARS. These surveys shall be delivered to the same address that appears in Special Condition (E).

(G) In order to ensure that the uppermost material (not suitable for HARS placement) is separated from the Pleistocene red-brown clay (HARS suitable material) and placed at their respective locations, the permittee will present a plan in writing to USACE at the preconstruction meeting described in Special Condition (C) describing in detail how the material separation will be accomplished. This plan must be approved by USACE before dredging can begin. As soon as the uppermost (non-suitable for HARS placement) material has been completely removed, dredging operations will cease until the Inspector FAXES a written report to the Chief, Harbor Supervision and Compliance Section at (212) 264-4260 confirming that the material separation has been accomplished in accordance with the approved Plan.

(H) Every vessel engaged in the transportation of dredged material shall have its name or number, and owner's name, painted in letters and numbers at least fourteen (14) inches high, on both sides of the vessel. These names and numbers shall be kept legible at all times, and no vessel not so marked shall be used to transport dredged material to the HARS, or place dredged material within the HARS.

(I) The permittee shall maintain a copy of the permit on all vessels engaged in dredging, transporting and placing dredged material as authorized by this permit.

(J) All dredging activities shall be undertaken in such a manner as to avoid large refuse piles, ridges across the bed of the waterway or deep holes, which have a tendency to cause injury to navigable channels or the banks of the waterway.

(K) This permit shall not be construed to authorize or empower the grantee herein to transport or deposit material from and to points herein designated, in violation of the common law, any State, County or municipal laws, ordinances or regulations, or any Federal law not specifically cited in the permit.

(L) The permittee shall ensure that its dredging or towing contractor has the following equipment on its vessels: 1) each tug and barge must be equipped with the Automated Disposal Surveillance System (ADISS), laptop computer with the ADISS software, and a handheld laser range finder manufactured after 1997 with a minimum range of 1000 feet; and 2) each tug and barge used to transport dredged material for placement at the HARS must have the ADISSPlay/ADISSLt equipment.

(M) The permittee shall employ, at its own expense, a certified USACE Inspector who is proficient at operating the ADISS systems, as verified by the USACE HARS Manager, in order to assure the placement of all dredged material at the designated placement location (or grid cell) at the HARS. A list of USACE certified Inspectors can be obtained from the USACE HARS Manager at (212) 264-1853. Only Inspectors whose names appear on this list may be used as Inspectors for this project. Hourly rates are set by each individual Inspector, and should be obtained directly from the Inspector. Specifically, the inspector's duties include but are not limited to:

1) Ensuring that the ADISS/ADISSPlay/ADISSLtsystems are calibrated and in proper working order prior to departure from the dredging site;

2) Monitoring the ADISS/ADISSPlay/ADISSLtsystems during the trip to the HARS;

3) Maintaining communications with the barge at all times;

4) Maintaining telephone communications with the ADISS contractor at (800) 729-4210 and the USACE HARS manager at (212) 264-1853 or (212) 264-5620, as necessary. As soon as the Inspector notes that the ADISS system is not functioning, the Inspector must call the ADISS contractor, notifying the contractor of the malfunction, and requesting the contractor's immediate assistance in correcting the problem. A barge with a malfunctioning ADISS cannot leave the dredge site until this call has been made. ADISSLt can then be used as a backup. However, a barge may not make more than two consecutive trips to the HARS using only the ADISSLt. Instances of electronic equipment failure (to ADISS, ADISSPlay, or ADISSLt) en route to the HARS should be reported immediately to the ADISS contractor at (800) 729-4210;

5) Filing individual trip reports utilizing the USACE "Transportation and Placement Log" which shall be completed electronically using the ADISSPlay software on the laptop computer aboard the tug. If the electronic equipment is not working, a paper copy of the required USACE Transportation and Placement Log shall be filled out and FAXED to USACE (at [212] 264-4260) as soon as possible as a record of the trip(s). Any discrepancies or other concerns noted by the Inspectors regarding activities associated with the work authorized in this permit shall be reported immediately (via cellular phone from the tug, or within one-half hour of return to the dredge site or port) to the USACE HARS Manager at (212) 264-1853. Discrepancies shall also be noted on the Transportation and Placement Log for that particular trip to the HARS;

6) Completing and submitting the checklist attached to the HARS Placement Guidelines, as specified within the Guidelines;

7) The towing vessel captain and the USACE certified Inspector shall jointly determine and agree, prior to the departure of the towing vessel from the dredge site, that the forecasted weather and sea conditions at the expected time of placement of dredged material at the HARS will allow the full release of the material from the barge at the appropriate HARS location. If upon arrival at the placement site within the HARS, prevailing conditions are such that deviation from the placement parameters is necessary to ensure the safety of the operation, the responsibility for the determination of a minimum safe speed for the barge, and if a disposal grid center marker buoy is used, a minimum safe distance from the marker buoy, will rest solely with the captain of the towing vessel. Any such deviation shall be reported immediately (via cellular phone from the tug, or within one-half hour of return to the dredge site or port) to the USACE HARS Manager at (212) 264-1853. Deviations shall also be noted on the Transportation and Placement Log for that particular trip to the HARS;

8) The approximate distance between the towing vessel and the placement barge when placing the dredged material at the HARS shall be recorded by the USACE certified Inspectors on the Transportation and Placement Log for each trip;

(N) Additional guidelines to be followed during the placement of any dredged material within the HARS are as follows:

1) The distance between the towing vessel and barge should be reduced as much as possible in order to effect an accurate release. If the ADISS is not providing a DGPS position of the barge, a reduction of the distance to less than two hundred feet is required. Placement of dredged material within the HARS should take place at a vessel speed of no more than 2 knots, weather permitting.

However, at no time should the distance between the tug and the barge exceed 500 feet, as determined by use of the laser-range finder or tug's radar if weather/sea state conditions prevent reliable use of the laser range finder;

2) Navigation equipment on board the towing vessel must be calibrated periodically in accordance with the manufacturer's guidelines. The instrumentation must also conform with current industry standards. Re-calibration of the instrumentation will be required in instances where major modifications to the towing vessel have been made. Specific documentation certifying the accuracy of instruments may be requested by the USACE.

3) The permittee shall ensure that a fully prepared and trained, stand-by, certified USACE Inspector is on-call at all times during the life of the project. The name of the stand-by Inspector, and company affiliation, if any, must appear on the list of names submitted in compliance with Special Condition (C) of this permit. It is the stand-by Inspector's responsibility to obtain a briefing by USACE personnel on the work authorized by this permit and to accompany the primary Inspector (or USACE and/or SAIC personnel) on no fewer than one preliminary placement trip to the HARS before assuming the duties of Inspector on the project. A list of USACE certified Inspectors who can be used as stand-by Inspectors, can be obtained from the USACE HARS manager at (212) 264-1853. Only Inspectors whose names appear on this list may be used as stand-by Inspectors for this project.

(O) Prior to the commencement of dredging in Newark Bay, the permittee shall notify the United States Coast Guard office (USCG) of the project's start and completion dates, the hours of the day the work will be performed, the names of

the vessels on-scene, the VHF radio channel(s) the vessels will monitor, and the project's point of contact available 24 hours a day. This information may be FAXED to (718) 354-4190 or mailed to the following address:

USCG Commander
Activities New York (wob)
212 Coast Guard Drive
Staten Island, New York 10305
(718) 354-4012

(P) Prior to the commencement of dredging in Newark Bay, the permittee shall inform local waterway users of the conduct of the project, using the "Local Notice to Mariners." Information required to be provided in the Local Notice to Mariners can be found at HTTP://www.navcen.uscg.mil. This information may be FAXED to (617) 223-8073 or mailed to:

Commander (oan)
First Coast Guard District
408 Atlantic Avenue
Boston, MA 02111-3350

(Q) The permittee shall verify to USACE, in writing, that it has transmitted the notifications required by the USCG as described Special Conditions (O) and (P) within (5) days of making each such notice. Verification shall be delivered to the USACE address set forth in Special Condition (E).

(R) The permittee shall ensure that a National Marine Fisheries Service approved Observer is aboard the tug transporting any barge loaded with dredged material to the placement site within the HARS. The observer shall have the responsibility for determining the presence of a federally endangered species (sea turtles and whales) during transit to, and upon arrival at the HARS. The observer will ensure that the tug and barge do not intentionally approach any whale or sea turtle closer than 100 feet while in transit to and from the HARS. Upon arrival at the placement area within the HARS, placement of dredged material within the HARS may occur only if no specimens of endangered species are observed to be present within 1/4 nautical mile of the placement area. If endangered species are observed to be present within 1/4 nautical mile of the buoy, or the designated discharge location or grid cell, then the placement of dredged material within the HARS shall not occur. Placement of the dredged material within the HARS may occur only when the observed animals have moved outside the 1/4 nautical mile zone around the buoy, or the designated discharge location or grid cell, or have completely departed the site. In all such cases where whales or sea turtles have been encountered, the Observer shall submit a written report incorporating the following information: animal type (whale or sea turtle); the specific species (if known); the date, time and location of the sighting (latitude, longitude, or LORAN C); approximate distance away from the vessel and barge; number of individuals observed; behavior (feeding, nursing, migrating, etc). If a USACE certified Inspector is to be used for this Observer function, he/she should possess or acquire, prior to the initiation of the HARS placement, valid certification from the National Marine Fisheries Service or other accredited agency, of training on techniques for identifying species and preparing applicable reports when endangered species are encountered.

(S) All placement of dredged material at the HARS must be completed, and all hinged doors to the barge shall be closed and locked prior to the barge's departure from the placement site at the HARS. At no time during transit between the placement site at the HARS and the dredge site shall the doors be opened.

(T) The permittee shall respond to all USACE requests for information and data regarding dredged material placement at the HARS.

(U) No dredging may occur in Berths 92 - 98 between 1 February and 31 May of any calendar year.

(V) If the permittee plans to utilize a disposal site for maintenance material other than the CENJ-Cherokee site in Bayonne, New Jersey, the permittee shall inform USACE of this change in disposal sites, no less than 15 days prior to utilization of that site.

(W) Should there be an interval of more than one month between HARS placement events, the permittee is required to notify the Chief of the Regulatory Branch in writing at the address noted in Special Condition (E) or by FAX at 212 264-4260) prior to resuming HARS placement activities. This notification must be received no more than ten (10) business days, but no less than five (5) business days prior to the resumption of HARS activities. At the discretion of USACE, a preconstruction meeting in accordance with Special Condition (C) or further direction may be necessary depending upon any changes in circumstances.

NEWARK BAY CONFINED DISPOSAL FACILITY SPECIAL CONDITIONS

In addition to the conditions described above, the following special conditions regulate activities only at the Newark Bay Confined Disposal Facility (NBCDF):

(X) The permittee shall use an inspector certified by USACE to monitor dredge disposal operations at the NBCDF. A list of certified inspectors can be obtained from USACE at (212) 264-1853. Inspectors should be directly contracted by the permittee. Hourly rates are set by each individual inspector, and should be obtained directly from the inspector.

(Y) Inspectors shall submit written reports of all NBCDF disposal activities authorized by this permit. Reports shall be on the basis of one report for each scow which disposes of dredged material at the NBCDF. Reports for disposal activities at the NBCDF shall utilize Form NB05, which is included in the document entitled Final Operation and Management Plan for the Disposal of Dredged Material at the Newark Bay Confined Disposal Facility. Reports shall be submitted to USACE by FAX at (212) 264-4260 with 24 hours of the completion of each disposal event. Any discrepancies or other concerns noted by the inspectors regarding disposal activities shall be reported immediately to the Regulatory Branch Chief by telephone at (212) 264-3996 and by FAX at (212) 264-4260.

(Z) All disposal must be completed, and all hinged doors to the scow shall be closed and locked prior to the scow's departure from the NBCDF. At no time during transiting between the NBCDF and the dredge site, shall the doors be opened.

(AA) The permittee shall contact the Captain of the Port, US Coast Guard, at (718) 354-4003, prior to the initiation of work. The permittee shall notify the US Coast Guard at least one hour prior to the departure of each scow from the dredging site to the NBCDF or to any "layover" or holding site, and of the departure of any scow from a "layover" or holding site to the NBCDF.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code 403).

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(X) Section 404 of the Clean Water Act (33 U.S. Code 1344).

(X) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

PERMITTEE: Port Authority of New York and New Jersey
PERMIT NO.: 2002-00711

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE) 10/15/02 (DATE)
Port Authority of New York and New Jersey

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

(DISTRICT ENGINEER) 16 OCT 2002 (DATE)
John B. O'Dowd
Colonel, U.S. Army
District Engineer

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below. A copy of the permit signed by the transferee should be sent to this office.

(TRANSFEREE) (DATE)

GENERAL DECISION: **NJ20070003** 09/14/2007 NJ3

Date: September 14, 2007
General Decision Number: **NJ20070003** 09/14/2007

Superseded General Decision Number: NJ20030003

State: New Jersey

Construction Types: Building, Heavy and Highway

Counties: Bergen, Essex, Hudson, Hunterdon, Middlesex, Morris, Passaic, Somerset, Sussex, Union and Warren Counties in New Jersey.

Does not include building construction in Hunterdon and Somerset Counties

BUILDING CONSTRUCTION PROJECTS (does not include single family homes and apartments up to and including 4 stories) (does not include building construction in Hunterdon or Somerset Counties)

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	02/09/2007
1	05/11/2007
2	05/18/2007
3	05/25/2007
4	07/20/2007
5	07/27/2007
6	08/03/2007
7	08/10/2007
8	08/17/2007
9	09/07/2007
10	09/14/2007

ASBE0032-001 09/01/2005

BERGEN, ESSEX AND HUDSON COUNTIES; HUNTERDON COUNTY (Borough of Califon; Township of Tewksbury); MIDDLESEX COUNTY (Boroughs of Carteret and Dunellen; Township of Edison; Boroughs of Highland Park, Metuchen and Middlesex; City of New Brunswick; Township of Old Bridge; City of Perth Amboy; Township of Piscataway; Borough of Sayreville; City of South Amboy; Boroughs of South Plainfield and South River; Township of Woodbridge); MORRIS AND PASSAIC COUNTIES: SOMERSET COUNTY (Boroughs of Bernardsville and Bound Brook; Township of Bridgewater; Borough of Far Hills; Township of Green Brook; Boroughs of North Plainfield, Peapack-Gladstone, Raritan, Somerville, South Bound Brook and Watchung; Township of Warren); SUSSEX AND UNION COUNTIES; WARREN COUNTY (Townships of Allamuchy, Blairstown and Frelinghuysen; Town of Hackettstown; Townships of Hope, Independence, Knowlton, Liberty and Mansfield):

	Rates	Fringes
Insulator/asbestos worker (includes the application		

of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems; also, the application of firestopping material to openings and penetrations in walls, floors, ceilings and curtain walls; also, all lead abatement)	$ 41.01	19.30

ASBE0032-004 09/01/2004

BERGEN, ESSEX AND HUDSON COUNTIES; HUNTERDON COUNTY (Borough of Califon; Township of Tewksbury); MIDDLESEX COUNTY (Boroughs of Carteret and Dunellen; Township of Edison; Boroughs of Highland Park, Metuchen and Middlesex; City of New Brunswick; Township of Old Bridge; City of Perth Amboy; Township of Piscataway; Borough of Sayreville; City of South Amboy; Boroughs of South Plainfield and South River; Township of Woodbridge); MORRIS AND PASSAIC COUNTIES: SOMERSET COUNTY (Boroughs of Bernardsville and Bound Brook; Township of Bridgewater; Borough of Far Hills; Township of Green Brook; Boroughs of North Plainfield, Peapack-Gladstone, Raritan, Somerville, South Bound Brook and Watchung; Township of Warren); SUSSEX AND UNION COUNTIES; WARREN COUNTY (Townships of Allamuchy, Blairstown and Frelinghuysen; Town of Hackettstown; Townships of Hope, Independence, Knowlton, Liberty and Mansfield):

	Rates	Fringes
Hazardous material handler/asbestos removal worker	$ 21.75	5.00

ASBE0089-001 07/01/2006

HUNTERDON COUNTY (does not include the Borough of Califon; Township of Tewksbury); MIDDLESEX COUNTY (does not include the Boroughs of Carteret and Dunellen; Township of Edison; Boroughs of Highland Park, Metuchen and Middlesex; City of New Brunswick; Township of Old Bridge; City of Perth Amboy; Township of Piscataway; Borough of Sayreville; City of South Amboy; Boroughs of South Plainfield and South River; Township of Woodbridge); SOMERSET COUNTY (Townships of Branchburg, Franklin, Hillsborough and Montgomery); WARREN COUNTY (Townships of Franklin, Greenwich, Harmony, Lopatcong, Oxford, Pohatcong, Washington and White):

	Rates	Fringes
Asbestos worker/insulator (includes the application of all insulating materials, protective coverings, coatings, and finishings to all		

types of mechanical
systems; also, the
application of
firestopping material
to openings and
penetrations in walls,
floors, ceilings and
curtain walls; also,
all lead abatement).....$ 37.08 23.17

PAID HOLIDAYS:
The last day prior to the Christmas and New Year's Day observed holiday: 4 hrs. pay.

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* BOIL0028-001 08/01/2006

	Rates	Fringes
Boilermaker:.....	$ 36.77	44% + 9.08

BRNJ0002-005 11/01/2006

BERGEN, ESSEX AND HUDSON COUNTIES; HUNTERDON COUNTY (north and west of a line drawn from Clover Hill, through Reaville, through Flemington, through High Bridge, through Califon, through Fairmont, to Pottersville); MIDDLESEX COUNTY (Borough of Dunellen; Township of Edison (Town of Oak Tree only); Township of Piscataway (Town of New Market only); Borough of South Plainfield); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (north of a line drawn from the point where the Lamington River leaves the boundary line between Hunterdon and Somerset Counties; then, continuing along the Lamington River to where it becomes the North Branch of the Raritan River; then, continuing along the North Branch of the Raritan River to where it becomes Chambers Brook; then, continuing along Chambers Brook until it becomes the boundary line between the Townships of Bernards and Bridgewater; then, continuing along the boundary line between the Townships of Bernards and Bridgewater, until that boundary line intersects with Route 78; then, continuing along Route 78 until Route 78 intersects with Route 525; then, continuing along Route 525 until Route 525 intersects with the boundary line between the Townships of Bridgewater and Warren; then, continuing along the boundary line between the Townships of Bridgewater and Warren until that boundary line intersects with Route 22; then, following Route 22 until Route 22 intersects with Sebrings Mills Rd. (also known as King George Rd.); then, continuing south on Sebrings Mills Rd. until it goes over Green Brook, which is the Middlesex County line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Bricklayer.....	$ 33.87	18.85

Work 100 degrees F. and over:
to be paid at the rate of double time.

Work on high stacks:
22% per hour additional.

BRNJ0002-006 11/01/2006

HUNTERDON COUNTY (south and east of a line drawn from Clover Hill, through Reaville, through Flemington, through High Bridge, through Califon, through Fairmont, to Pottersville); MIDDLESEX COUNTY (does not include the Borough of Dunellen; Township of Edison (Town of Oak Tree); Township of Piscataway (Town of New Market); Borough of South Plainfield); SOMERSET COUNTY (south of a line drawn from the point where the Lamington River leaves the boundary line between Hunterdon and Somerset Counties; then, continuing along the Lamington River to where it becomes the North Branch of the Raritan River; then, continuing along the North Branch of the Raritan River to where it becomes Chambers Brook; then, continuing along Chambers Brook until it becomes the boundary line between the Townships of Bernards and Bridgewater; then, continuing along the boundary line between the Townships of Bernards and Bridgewater, until that boundary line intersects with Route 78; then, continuing along Route 78 until Route 78 intersects with Route 525; then, continuing along Route 525 until Route 525 intersects with the boundary line between the Townships of Bridgewater and Warren; then, continuing along the boundary line between the Townships of Bridgewater and Warren until that boundary line intersects with Route 22; then, continuing along Route 22 until Route 22 intersects with Sebrings Mills Rd. (also known as King George Rd.); then, continuing south along Sebrings Mills Rd. until it goes over Green Brook, which is the Middlesex County line):

	Rates	Fringes
Bricklayer	$ 33.87	18.85

Work 100 degrees F. and over:
to be paid at the rate of double time.

Work on high stacks:
22% per hour additional.

BRNJ0002-008 11/01/2006

BERGEN, ESSEX AND HUDSON COUNTIES; HUNTERDON COUNTY (north and west of a line drawn from Clover Hill, through Reaville, through Flemington, through High Bridge, through Califon, through Fairmont, to Pottersville); MIDDLESEX COUNTY (Borough of Dunellen; Township of Edison (Town of Oak Tree only); Township of Piscataway (Town of New Market only); Borough of South Plainfield); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (north of a line drawn from the point where the Lamington River leaves the boundary line between Hunterdon and Somerset Counties; then, continuing along the Lamington River to where it becomes the North Branch of the Raritan River; then, continuing along the North Branch of the Raritan River to where it becomes Chambers Brook; then, continuing along Chambers Brook until it becomes the boundary line between the Townships of Bernards and Bridgewater; then, continuing along the boundary line between the Townships of Bernards and Bridgewater, until that boundary line intersects with Route 78; then, continuing along Route 78 until Route 78 intersects with Route 525; then, continuing along Route 525 until Route 525

intersects with the boundary line between the Townships of Bridgewater and Warren; then, continuing along the boundary line between the Townships of Bridgewater and Warren until that boundary line intersects with Route 22; then, continuing along Route 22 until Route 22 intersects with Sebrings Mills Rd. (also known as King George Rd.); then, continuing south on Sebrings Mills Rd. until it goes over Green Brook, which is the Middlesex County line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Cement mason and plasterer.....	$ 33.87	18.85

Cement mason and plasterer:
Work on high stacks: 22% per hour additional.

Cement mason only:
Epoxy, acid and latex work: $.50 per hour additional.

BRNJ0002-009 11/01/2006

HUNTERDON COUNTY (south and east of a line drawn from Clover Hill, through Reaville, through Flemington, through High Bridge, through Califon, through Fairmont, to Pottersville); MIDDLESEX COUNTY (does not include the Borough of Dunellen; Township of Edison (Town of Oak Tree); Township of Piscataway (Town of New Market); Borough of South Plainfield); SOMERSET COUNTY (south of a line drawn from the point where the Lamington River leaves the boundary line between Hunterdon and Somerset Counties; then, continuing along the Lamington River to where it becomes the North Branch of the Raritan River; then, continuing along the North Branch of the Raritan River to where it becomes Chambers Brook; then, continuing along Chambers Brook until it becomes the boundary line between the Townships of Bernards and Bridgewater; then, continuing along the boundary line between the Townships of Bernards and Bridgewater, until that boundary line intersects with Route 78; then, continuing along Route 78 until Route 78 intersects with Route 525; then, continuing along Route 525 until Route 525 intersects with the boundary line between the Townships of Bridgewater and Warren; then, continuing along the boundary line between the Townships of Bridgewater and Warren until that boundary line intersects with Route 22; then, continuing along Route 22 until Route 22 intersects with Sebrings Mills Rd. (also known as King George Rd.); then, continuing south along Sebrings Mills Rd. until it goes over Green Brook, which is the Middlesex County line):

	Rates	Fringes
Cement mason and plasterer.....	$ 33.87	18.85

Cement mason and plasterer:
Work on high stacks: 22% per hour additional.

Cement mason only:
Epoxy, acid and latex work: $.50 per hour additional.

BRNJ0007-003 07/01/2007

	Rates	Fringes
Marble setter	$ 40.54	22.20

PAID HOLIDAY:
Labor Day: workers shall be paid 4 hours wages and fringes.

BRNJ0007-004 01/01/2006

	Rates	Fringes
Marble finisher	$ 37.98	20.15

PAID HOLIDAY:
Labor Day: workers shall be paid 4 hours wages and fringes.

BRNJ0007-005 07/01/2005

	Rates	Fringes
Terrazzo finisher	$ 38.37	23.25
Terrazzo setter	$ 39.68	23.25

BRNJ0007-009 12/01/2005

BERGEN, ESSEX, HUDSON AND HUNTERDON COUNTIES; MIDDLESEX COUNTY (north of Route 33); MORRIS, PASSAIC, SOMERSET, SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Tile finisher	$ 33.40	17.15
Tile setter	$ 40.17	21.08

Tile finisher:
Work grouting all epoxy: $10.00 additional per day.

BRNJ0007-010 06/01/2007

MIDDLESEX COUNTY (south of Route 33):

	Rates	Fringes
Tile finisher	$ 32.51	16.36
Tile setter	$ 35.95	19.23

Tile finisher:
Work grouting all epoxy: $10.00 additional per day.

CARP0006-008 06/01/2006

	Rates	Fringes
Carpenter and drywall hanger	$ 35.72	46%

Work of erection and dismantling of elevators and towers, such as concrete conveyors and temporary material elevators, scaffolding or other structures to be used as scaffolding inside or outside of buildings: the first sixty feet at the regular rate, 10% per hour additional for each

additional fifty feet thereafter.

CARP0029-003 05/01/2006

	Rates	Fringes
Soft floor layer	$ 33.76	42.25% + .04

CARP0715-001 05/01/2006

	Rates	Fringes
Millwright	$ 36.55	46% + .04

Work of erection and dismantling of elevators and towers, such as concrete conveyors and temporary material elevators, scaffolding or other structures to be used as scaffolding inside or outside of buildings: the first sixty feet at the regular rate, 10% per hour additional for each additional fifty feet thereafter.

CARP1456-001 05/01/2006

	Rates	Fringes
Divers:		
_Diver tender	$ 31.76	25.04
_Diver	$ 41.22	25.04

Work on land pile driving, floating marine construction and the construction of wharves, while handling and working with creosote and creosote-impregnated products: $.25 per hour additional.

Work on hazardous/toxic/contaminated waste removal, on a hazardous/toxic/contaminated waste site, where the worker comes into contact with hazardous/toxic/contaminated waste material, and when A, B or C personal protective equipment is required and used for respiratory, skin or eye protection: 20% per hour additional.

CARP1456-002 05/01/2006

	Rates	Fringes
Dock builders and piledriver operators:		
_All other work	$ 34.48	30.78
_Concrete form work	$ 34.48	25.04

Work on land pile driving, floating marine construction and the construction of wharves, while handling and working with creosote and creosote-impregnated products: $.25 per hour additional.

Work on hazardous/toxic/contaminated waste removal, on a hazardous/toxic/contaminated waste site, where the worker comes into contact with hazardous/toxic/contaminated waste material, and when A, B or C personal protective equipment is required and used for respiratory, skin or eye

protection: 20% per hour additional.

ELEC0102-001 06/01/2006

HUNTERDON COUNTY (Townships of Alexandria and Bethlehem; Boroughs of Bloomsbury and Califon; Town of Clinton; Township of Clinton; Township of Delaware (west of a line following County Route 523 from the Delaware River north to the Raritan Township line); Township of East Amwell (east of State Hwy. 31); Township of Franklin; Boroughs of Frenchtown, Glen Gardner, Hampton and High Bridge; Townships of Holland and Kingwood; Borough of Lebanon; Township of Lebanon; Borough of Milford; Township of Raritan (east of State Hwy. 31 and north of County Route 523); Townships of Readington, Tewksbury and Union); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (does not include the Township of Franklin east of a line following Cedar Grove Lane from the Raritan River, in a southwesterly direction, to the Millstone Branch of the Pennsylvania Railroad; then, west along the railroad to the Delaware and Raritan Canal; then, south along the canal to the Middlesex County line; does not include the Township of Montgomery west and south of a line following U.S. Hwy. 206 (formerly State Hwy. 31) north from the Mercer County line to Harlingen Rd.; then, west along Harlingen Rd. and the Dutchtown-Zion road to the Hillsborough township line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Line construction:		
High-tension pipe-type cable installation:		
Cable splicer	$ 48.576	51%
Ground person	$ 26.496	51%
Line technician; equipment operator; x-ray technician; equipment repair person; equipment service person; hole-digging equipment operator; truck with winch or pole and steel hand; truck without winch	$ 44.16	51%
Line technician-welder	$ 46.368	51%
All other work:		
Cable splicer	$ 48.576	51%
Ground person	$ 26.496	51%
Line technician; equipment operator	$ 44.16	51%
Line technician-welder	$ 46.368	51%

Work with, or the removal of, asbestos materials: 114% times the journeyman rate.

ELEC0102-002 06/01/2006

HUNTERDON COUNTY (Townships of Alexandria and Bethlehem; Boroughs of Bloomsbury and Califon; Town of Clinton; Township

of Clinton; Township of Delaware (west of a line following County Route 523 from the Delaware River north to the Raritan Township line); Township of East Amwell (east of State Hwy. 31); Township of Franklin; Boroughs of Frenchtown, Glen Gardner, Hampton and High Bridge; Townships of Holland and Kingwood; Borough of Lebanon; Township of Lebanon; Borough of Milford; Township of Raritan (east of State Hwy. 31 and north of County Route 523); Townships of Readington, Tewksbury and Union); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (does not include the Township of Franklin east of a line following Cedar Grove Lane from the Raritan River, in a southwesterly direction, to the Millstone Branch of the Pennsylvania Railroad; then, west along the railroad to the Delaware and Raritan Canal; then, south along the canal to the Middlesex County line; does not include the Township of Montgomery west and south of a line following U.S. Hwy. 206 (formerly State Hwy. 31) north from the Mercer County line to Harlingen Rd.; then, west along Harlingen Rd. and the Dutchtown-Zion road to the Hillsborough township line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Electricians and cable splicers:		
All other work:		
Cable splicer	$ 48.576	51%
Electrician	$ 44.16	51%

Work forty ft. or more above the ground or protective rigging (does not apply to pole work, or to use of a manlift or high reach-type lift): 10% per hour additional.

Work with, or the removal of, asbestos materials: 114% times the journeyman rate.

ELEC0102-020 06/01/2006

HUNTERDON COUNTY (Townships of Alexandria and Bethlehem; Boroughs of Bloomsbury and Califon; Town of Clinton; Township of Clinton; Township of Delaware (west of a line following County Route 523 from the Delaware River north to the Raritan Township line); Township of East Amwell (east of State Hwy. 31); Township of Franklin; Boroughs of Frenchtown, Glen Gardner, Hampton and High Bridge); Townships of Holland and Kingwood; Borough of Lebanon; Township of Lebanon; Borough of Milford; Township of Raritan (east of State Hwy. 31 and north of County Route 523); Townships of Readington, Tewksbury and Union); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (does not include the Township of Franklin east of a line following Cedar Grove Lane from the Raritan River, in a southwesterly direction, to the Millstone Branch of the Pennsylvania Railroad; then, west along the railroad to the Delaware and Raritan Canal; then, south along the canal to the Middlesex County line; does not include the Township of Montgomery west and south of a line following U.S. Hwy. 206 (formerly State Hwy. 31) north from the Mercer County line to Harlingen Rd.; then, west along Harlingen Rd. and the Dutchtown-Zion road to the Hillsborough township line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Electricians: Work on gas stations; free-standing fast-food restaurants and convenience stores; commercial work involving a free-standing building not exceeding 13,000 sq. ft.	$ 25.44	40%

ELEC0164-002 06/01/2006

BERGEN, ESSEX AND HUDSON COUNTIES:

	Rates	Fringes
Electricians and cable splicers:		
All other work:		
Cable splicer	$ 50.54	52.5%
Electrician on radio tower work	$ 54.12	52.5%
Electrician	$ 44.73	52.5%

Work on line voltage of 440 or 480 volts: 10% per hour additional.

Work from trusses, scaffolds, frames, ladders and poles, 40 ft. or more above the ground or floor (does not include work from a manlift): 20% per hour additional.

Work on radio towers, transmission towers and smokestacks: 21% per hour additional.

* ELEC0164-009 06/01/2006

BERGEN, ESSEX AND HUDSON COUNTIES:

	Rates	Fringes
Electricians: Work on gas stations; free-standing fast-food restaurants and convenience stores; commercial work involving a free-standing building not exceeding 13,000 sq. ft.	$ 28.49	22% + 1.00

ELEC0164-010 06/01/2006

BERGEN, ESSEX AND HUDSON COUNTIES:

	Rates	Fringes

Line construction:
High-tension pipe-type cable installation; continuous pipe-type underground oil-filled transmission conduit installation:
Cable splicer; crane operator.....$ 50.54 53%
Ground person.....$ 29.97 53%
Line technician; line technician-welder; x-ray technician; equipment repair person; equipment service person; hole-digging equipment operator; truck with winch or pole and steel hand; truck without winch...$ 44.73 53%
All other work:
Cable splicer.....$ 50.54 53%
Ground person (includes empty conduit installations on roadways).....$ 29.97 53%
Line technician; line technician-welder; x-ray technician; equipment repair person; equipment service person.....$ 44.73 53%

Work on live wires of 440 or 480 volts: 10% per hour additional.

Work on radio towers, transmission towers and smokestacks: 21% per hour additional.

ELEC0269-010 10/01/2006

HUNTERDON COUNTY (Township of Delaware (east of a line following County Route 523 from the Delaware River north to the Raritan Township line); Township of East Amwell (west of State Hwy. 31); Borough of Flemington; City of Lambertville; Township of Raritan (west of State Hwy. 31 and south of County Route 523); Borough of Stockton; Township of West Amwell); SOMERSET COUNTY (Township of Montgomery (west and south of a line following U.S. Hwy. 206 (formerly State Hwy. 31) north from the Mercer County line to Harlingen Rd.; then, west along Harlingen Rd. and the Dutchtown-Zion road to the Hillsborough township line):

	Rates	Fringes
Electrician	$ 44.48	51.3% + .25

ELEC0269-013 10/01/2006

HUNTERDON COUNTY (Township of Delaware (east of a line following County Route 523 from the Delaware River north to the Raritan Township line); Township of East Amwell (west of State Hwy. 31); Borough of Flemington; City of Lambertville; Township of Raritan (west of State Hwy. 31 and south of County Route 523); Borough of Stockton; Township of West Amwell); SOMERSET COUNTY (Township of Montgomery (west and south of a line following U.S. Hwy. 206 (formerly State Hwy. 31) north from the Mercer County line to Harlingen Rd.; then, west along Harlingen Rd. and the Dutchtown-Zion road to the Hillsborough township line):

	Rates	Fringes
Line construction:		
_All other work:		
__Ground person; truck with winch operator....$	35.58	47.3%
__Line technician; cable splicer; heavy equipment operator.....$	44.48	47.3%
_Continuous pipe-type underground oil-filled transmission conduit installations:		
____Ground person; truck with winch operator..$	35.58	47.3%
____Line technician; cable splicer; heavy equipment operator.....$	44.48	47.3%

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* ELEC0456-001 06/01/2006

MIDDLESEX COUNTY; SOMERSET COUNTY (Township of Franklin (east of a line following Cedar Grove Lane from the Raritan River, in a southwesterly direction, to the Millstone Branch of the Pennsylvania Railroad; then, west along the railroad to the Delaware and Raritan Canal; then, south along the canal to the Middlesex County line)):

	Rates	Fringes
Electricians and cable splicers:		
_Cable splicer.....$	50.57	49%
_Electrician.....$	44.75	49%

Work on line voltage of 440 volts and over: 10% per hour additional.

Work from trusses, scaffolds and ladders 40 ft. or more from the ground or floor; or under air pressure; or over conveyors or moving equipment or machinery: 10% per hour additional.

ELEC0456-002 06/01/2006

MIDDLESEX COUNTY; SOMERSET COUNTY (Township of Franklin (east of a line following Cedar Grove Lane from the Raritan River, in a southwesterly direction, to the Millstone Branch of the Pennsylvania Railroad; then, west along the railroad to the Delaware and Raritan Canal; then, south along the canal to the Middlesex County line)):

	Rates	Fringes
Line construction:		
_All other work:		
__Cable splicer; crane operator	$ 48.85	54.75%
__Ground person (when installing conduit on public roadways)	$ 25.94	54.75%
__Ground person; winch operator	$ 42.44	54.75%
__Line technician	$ 43.23	54.75%
_Continuous pipe-type underground oil-filled transmission conduit installations:		
____Cable splicer; crane operator	$ 48.85	54.75%
____Ground person (when installing conduit on public roadways)	$ 25.94	54.75%
____Ground person; winch operator	$ 42.44	54.75%
____Line technician; x-ray technician; equipment repair person; equipment service person; electrical installation worker; hole-digging equipment operator; truck operator with winch or pole; truck operator without winch	$ 43.23	54.75%

ELEV0001-001 03/17/2007

BERGEN, ESSEX, HUDSON, MIDDLESEX, MORRIS, PASSAIC, SOMERSET, SUSSEX AND UNION COUNTIES:

	Rates	Fringes
Elevator mechanic	$ 45.98	19.915

PAID HOLIDAYS:
New Year's Day, President's Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day.

VACATION PAY CREDIT:
A worker with 6 months but less than 5 years of service receives two weeks vacation; a worker with 5 years or more of service receives three weeks vacation.

ELEV0084-005 01/01/2007

HUNTERDON AND WARREN COUNTIES:

	Rates	Fringes
Elevator mechanic	$ 36.295	14.885

PAID HOLIDAYS:
New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day.

VACATION PAY CREDIT:
A worker with 6 months but less than 5 years of service receives two weeks vacation; a worker with 5 years or more of service receives three weeks vacation.

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* ENGI0825-003 07/01/2007

	Rates	Fringes
Power equipment operators:		
Tank erection:		
GROUP 1	$ 39.61	20.40
GROUP 2	$ 38.67	20.40
GROUP 3	$ 39.15	20.40
GROUP 4	$ 36.58	20.40
GROUP 5	$ 34.12	20.40
GROUP 6	$ 32.87	20.40
GROUP 7	$ 31.37	20.40

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: 20% per hour additional.

PAID HOLIDAYS:
New Year's Day, Washington's Birthday observed, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day; provided 1) that the worker works three of the preceding five work days before the holiday; or, the work day before the holiday and the work day after the holiday; and, 2) that the worker works the work day before and the work day after the holiday.

DEFINITION OF GROUPS:

GROUP 1:
Operating engineer - on all equipment, including cranes and

derricks with boom including jib, 140 ft. or more above the ground

GROUP 2:
Operating engineer - on all equipment, including cranes and derricks with boom including jib, less than 140 ft. above the ground

GROUP 3:
Helicopter pilot

GROUP 4:
Air compressor, welding machine and generator (gas, diesel, or electrical-driven equipment and sources of power from a permanent plant (steam, compressed air, hydraulic or other power), for the operation of any machine or automatic tool used in the erection, alteration, repair and dismantling of tanks and any and all "dual-purpose" trucks used on the construction job site)

GROUP 5:
Concrete cleaning/decontamination machine operator, decontamination and remediation work only; directional boring machine; heavy equipment robotic operator/technician, decontamination and remediation work only; master environmental maintenance technician, decontamination and remediation work only; ultra high-pressure waterjet cutting tool system operator/maintenance technician, decontamination and remediation work only; vacuum blasting machine operator/maintenance technician, decontamination and remediation work only

GROUP 6:
Off-road back dump

GROUP 7:
Oiler

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* ENGI0825-004 07/01/2007

	Rates	Fringes
Power equipment operators:		
_Steel erection:		
__GROUP 1	$ 39.79	20.40
__GROUP 2	$ 38.88	20.40
__GROUP 3	$ 40.65	20.40
__GROUP 4	$ 36.59	20.40
__GROUP 5	$ 33.93	20.40
__GROUP 6	$ 32.40	20.40
__GROUP 7	$ 30.64	20.40

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: 20% per hour additional.

PAID HOLIDAYS:

New Year's Day, Washington's Birthday observed, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day; provided 1) that the worker works three of the preceding five work days before the holiday; or, the work day before the holiday and the work day after the holiday; and, 2) that the worker works the work day before and the work day after the holiday.

DEFINITION OF GROUPS:

GROUP 1:

Cranes (all cranes, land or floating with boom including jib, 140 ft. and over, above ground); derricks (all derricks, land, floating or Chicago boom type with boom including jib, 140 ft. and over, above ground)

GROUP 2:

Cranes (all cranes, land or floating with boom including jib, less than 140 ft. above ground); derricks (all derricks, land, floating or Chicago boom type with boom including jib, less than 140 ft. above ground)

GROUP 3:

Helicopter pilot

GROUP 4:

"A" frame; cherry picker (10 ton and under); hoist (all types of hoist, including steam, gas, diesel, electric, air, hydraulic, single and double drum, concrete, brick shaft caisson, or any other similar type of hoisting machine, portable or stationary, except Chicago boom type); jack (screw, air, hydraulic power-operated unit or console type (not hand jack or pile load test type); side boom; straddle carrier

GROUP 5:

Aerial platform used as a hoist; compressor, two or three in battery; directional boring machine; elevator or house car; concrete cleaning/decontamination machine operator, decontamination and remediation work only; conveyor and tugger hoist; firefighter; forklift; generator, two or three in battery; heavy equipment robotic operator/technician, decontamination and remediation work only; maintenance, utility person; master environmental maintenance technician, decontamination and remediation work only; rod bending machine (power); ultra high-pressure waterjet cutting tool system operator/maintenance technician, decontamination and remediation work only; vacuum blasting machine operator/maintenance technician, decontamination and remediation work only; welding machine (gas or electric, two or three in battery, including diesel); captain, power boat; tug master, power boat; oiler, with either one compressor or one welding machine

GROUP 6:

Compressor, single; off-road back dump; welding machine (single, gas, diesel and electric converters of any type);

welding system, multiple (rectifier, transformer type); generator, single

GROUP 7:
Oiler; deckhand

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* ENGI0825-005 07/01/2007

	Rates	Fringes
Power equipment operators: OILOSTATIC MAINLINE & TRANSPORTATION PIPELINE:		
GROUP 1	$ 40.40	20.40
GROUP 2	$ 40.65	20.40
GROUP 3	$ 39.90	20.40
GROUP 4	$ 41.83	20.40
GROUP 5	$ 38.25	20.40
GROUP 6	$ 33.11	20.40
GROUP 7	$ 34.61	20.40
GROUP 8	$ 32.89	20.40

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: 20% per hour additional.

PAID HOLIDAYS:
New Year's Day, Washington's Birthday (observed), Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day; provided 1) that the worker works three of the preceding five work days before the holiday; or, the work day before the holiday and the work day after the holiday; and 2) that the worker works the work day before and the work day after the holiday.

DEFINITION OF GROUPS:

GROUP 1:
Cranes, derricks, pile drivers (all types), with 100 ft. boom (including jib and/or leads) up to 139 ft.

GROUP 2:
Cranes, derricks, pile drivers (all types), with 140 ft. boom (including jib and/or leads) and over

GROUP 3:
Backhoe; crane (all types not included in groups 1 and 2); dragline; front end loader (5 cu. yd. and over); gradall; helicopter co-pilot; helicopter - communications engineer; scooper (loader and shovel); Koehring scooper; trench machine (cable plow)

GROUP 4:
Helicopter - pilot/engineer

GROUP 5:
"A" frame/backhoe combination; hoe loader; boring and drilling machines; ditching machine, small (Ditchwitch, Vermeer or similar type); forklift; front end loader (2 cu. yd. and over but less than 5 cu. yd.); grader, finish (fine); hydraulic crane, 10 tons and under (over 10 tons - crane rate applies); side boom; vacuum truck; winch truck (hoisting)

GROUP 6:
Backfiller; broom and sweeper; bulldozer; compressor (2 or 3 in battery); concrete cleaning/decontamination machine operator, when used for decontamination and remediation; front end loader (under 2 cu. yd.); generator; giraffe grinder; grader and motor patrol; heavy equipment robotic operator/technician, when used for decontamination and remediation; master environmental maintenance technician, when used for decontamination and remediation; mechanic; pipe bending machine (power); tractor; water and sprinkler truck; welder and repair mechanic; captain, power boat; tug master, power boat; ultra high-pressure waterjet cutting tool system operator/maintenance technician, when used for decontamination and remediation; vacuum blasting machine operator/maintenance technician, when used for. decontamination and remediation

GROUP 7:
Compressor (single); dope pot (mechanical with or without pump); dust collector; farm tractor; off-road back dump; pump (4-in. suction and over); pump (2-in. suction, up to, but less than, 4-in. suction); pump, diesel engine and hydraulic (immaterial of power); welding machine, gas or electric converter of any type, single; welding machine, gas or electric converter of any type, 2 or 3 in battery; multiple welders; wellpoint system (including installation and maintenance)

GROUP 8:
Oiler; grease, gas, fuel and oil supply truck; tire repair and maintenance

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* ENGI0825-009 07/01/2007

	Rates	Fringes
Power equipment operators:		
_GROUP 1	$ 39.27	20.40
_GROUP 2	$ 37.68	20.40
_GROUP 3	$ 35.77	20.40
_GROUP 4	$ 34.14	20.40
_GROUP 5	$ 32.43	20.40
_GROUP 6	$ 40.99	20.40

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: 20% per hour additional.

PAID HOLIDAYS:
New Year's Day, Washington's Birthday observed, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day; provided 1) that the worker works three of the preceding five work days before the holiday; or, the work day before the holiday and the work day after the holiday; and, 2) that the worker works the work day before and the work day after the holiday.

DEFINITION OF GROUPS:

GROUP 1:
Autograde - combination subgrader; base metal spreader and base trimmer (CMI and similar types); autograde placer - trimmer spreader combination (CMI and similar types); autograde slipform paver (CMI and similar types); backhoe; central power plant (all types); concrete paving machine; crane (all types, including overhead and straddle traveling type); crane, gantry; derrick (land, floating or Chicago boom type); drillmaster, quarrymaster (down-the-hole drill, rotary drill, self-propelled hydraulic drill, self-powered drill); dragline; elevating grader; front end loader (5 cu. yd. and over); gradall; grader, raygo; locomotive (large); mucking machine; pavement and concrete breaker (superhammer and hoe ram); pile driver (length of boom, including length of leads, shall determine premium rate applicable); roadway surface grinder; scooper (loader and shovel); shovel; tree chopper with boom; trench machine (cable plow)

GROUP 2:
"A" frame/backhoe combination; boom attachment on loader (rate based on size of bucket, not applicable to pipehook); boring and drilling machine; brush chopper, shredder and tree shredder; carryall; concrete pump; concrete pumping system, pumpcrete and similar type; conveyor, 125 ft. and over; drill doctor, including dust collecting and maintenance work); front end loader (2 cu. yd. but less than 5 cu. yd.); grader (finish); groove cutting machine (ride-on type); heater planer; hoist (all types of hoist, shall also include steam, gas, diesel, electric, air, hydraulic, single and double drum, concrete, brick shaft caisson, snorkel roof, and/or any other similar type hoisting machine, portable or stationary, except Chicago boom type) (if hoist is "outside material tower hoist", long boom rate is to be applied); hydraulic crane, 10 tons and under; hydro-axe; hydro-blaster; jack (screw, air, hydraulic power-operated unit or console type (not hand jack or pile load test type); log skidder; pan; pavers (all) (concrete); plate and frame filter press; pumpcrete machine; squeezecrete; concrete pump (regardless of size); scraper; side boom; straddle carrier, Ross and similar type; whip hammer; winch truck (hoisting)

GROUP 3:
Asphalt curbing machine; asphalt plant engineer; asphalt spreader; autograde tube finishing and texturing machine (CMI and similar types); autograde curecrete machine (CMI and similar types); autograde curb trimmer and sidewalk, shoulder, slipform (CMI and similar types); bar bending

machine (power); batcher; batching plant and crusher on site; belt conveyor system; boom-type skimmer machine; bridge deck finisher; bulldozers (all); car dumper (railroad); compressor and blower-type unit (used independently or mounted on dual-purpose truck, on jobsite or in conjunction with jobsite, in loading and unloading of concrete, cement, fly ash, instantcrete, or similar type materials); compressor (2 or 3) (in battery) (within 100 ft.); concrete cleaning/decontamination machine operator, when used for decontamination and remediation; concrete finishing machine; concrete saw and cutter (ride-on type); concrete spreader, hetzel, rexomatic and similar type; concrete vibrator; conveyor, under 125 ft.; crushing machine; directional boring machine; ditching machine, small (Ditchwitch, Vermeer or similar type); dope pot (mechanical with or without pump); dumpster; elevator; firefighter; forklift (Economobile, Lull and similar type of equipment); front end loader (1 cu. yd. and over but less than 2 cu. yd.); generator (2 or 3) (in battery) (within 100 ft.); giraffe grinder; grader and motor patrol; gunite machine (does not include nozzle); hammer, vibratory (in conjunction with generator); heavy equipment robotic operator/technician, when used for decontamination and remediation; hoist (roof, tugger, aerial platform hoist and house cars); hopper; hopper door (power-operated); ladder (motorized); laddervator; locomotive, dinky type; maintenance, utility person; master environmental maintenance technician, when used for decontamination and remediation; mechanic; mixer (except paving mixer); pavement breaker, small, self-propelled ride-on type (also maintains compressor on hydraulic unit); pavement breaker, truck-mounted; pipe bending machine (power); pitch pump; plaster pump, regardless of size; posthole digger (post pounder and auger); rod bending machine (power); roller, blacktop; scale, power; seaman pulverizing mixer; shoulder widener; silo; skimmer machine (boom type); steel cutting machine, servicing and maintaining; tractor; captain, power boat; tug master, power boat; ultra high-pressure waterjet cutting tool system operator/maintenance technician, when used for decontamination and remediation; vacuum blasting machine operator/maintenance technician, when used for decontamination and remediation; vibrating plant (used in conjunction with unloading); welder and repair mechanic

GROUP 4:

Broom and sweeper; chipper; compressor (single); concrete spreader (small type); conveyor loader (does not include elevating grader); engine, large diesel (1620 H.P.) and staging pump; farm tractor; fertilizing equipment (operation and maintenance of); fine grade machine (small type); form line grader (small type); front end loader (under 1 cu. yd.); generator (single); grease, gas, fuel and oil supply truck; heater (Nelson or other type including propane, natural gas or flow-type unit); lights (portable generating light plant); mixer, concrete, small; mulching equipment (operation and maintenance of); off-road back dump; pump (4-in. suction and over, including submersible pump); pump (diesel engine and hydraulic) (immaterial of power); road finishing machine (small type); roller, grade, fill or stone base; seeding equipment

(operation and maintenance of); sprinkler and water pump truck; steam jenny and boiler; stone spreader; tamping machine, vibrating ride-on; temporary heating plant (Nelson or other type, including propane, natural gas or flow-type unit); welding machine (gas, diesel, and/or electric converter of any type) (single, or two or three in a battery) (within 100 ft.); welding system, multiple (rectifier, transformer type); wellpoint system

GROUP 5:
Oiler; tire repair and maintenance

GROUP 6:
Helicopter pilot; helicopter engineer

IRON0011-002 07/01/2006

BERGEN, ESSEX, HUDSON AND HUNTERDON COUNTIES; MIDDLESEX COUNTY (north half); MORRIS AND PASSAIC COUNTIES; SOMERSET COUNTY (north half); SUSSEX AND UNION COUNTIES:

	Rates	Fringes
Ironworkers:		
_Reinforcing	$ 30.39	30.90
_Structural	$ 32.84	30.90

IRON0036-003 07/01/2005

WARREN COUNTY:

	Rates	Fringes
Ironworkers:		
_Projects $25 million and over	$ 27.95	19.52
_Projects under $25 million	$ 27.45	19.52

IRON0068-004 07/01/2005

MIDDLESEX COUNTY (south half); SOMERSET COUNTY (south half):

	Rates	Fringes
Ironworker	$ 30.10	27.80

Hazardous waste removal work, on a state or federally designated hazardous waste site, where the worker is required to wear Level A, B or C personal protection: $3.00 per hour additional.

LABO0172-002 03/01/2007

	Rates	Fringes
Laborers:		
_FREE AIR TUNNEL:		
__GROUP 1	$ 31.30	17.65
__GROUP 2	$ 27.90	17.65
__GROUP 3	$ 27.75	17.65

__GROUP 4.....$ 27.25 17.65

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the laborer is required to wear Level A, B, or C personal protection: $3.00 per hour additional.

Work on a state or federally designated hazardous waste site, where the laborer is not required to wear Level A, B or C personal protection: $1.00 per hour additional.

PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day, provided the worker works three days for the same employer within a period of ten working days, consisting of five working days before and five working days after the day upon which the holiday falls or is observed.

DEFINITION OF GROUPS:

GROUP 1:
Blaster

GROUP 2:
Skilled laborer (miner, drill runner, iron laborer, maintenance laborer, conveyor laborer, safety miner, rigger, blocklayer, cement finisher, rod person, caulker, powder carrier, all other skilled laborers)

GROUP 3:
Semi-skilled laborer (chuck tender, track laborer, nipper, brake person, derail person, cable laborer, hose laborer, grout laborer, gravel laborer, form laborer, pipelayer, conduit installer, bell or signal laborer (top or bottom), form laborer and mover, concrete worker, shaft person, tunnel laborer, all other semi-skilled laborers)

GROUP 4:
Powder watch person, change house attendant, top laborer

LAB00172-005 03/01/2007

	Rates	Fringes
Laborers:		
_GROUP 1	$ 26.85	17.40
_GROUP 2	$ 27.55	17.40
_GROUP 3	$ 27.80	17.40
_GROUP 4	$ 31.35	17.40

Hazardous waste removal work:
Work on a state or federally designated hazardous waste site, where the laborer is required to wear Level A, B or C personal protection: $3.00 per hour additional.

Work on a state or federally designated hazardous waste site, where the laborer is not required to wear Levels A, B, or C personal protection: $1.00 per hour additional.

PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day, provided the worker works three days for the same employer within a period of ten working days consisting of five working days before and five working days after the day upon which the holiday falls or is observed.

DEFINITION OF GROUPS:

GROUP 1:
Basic laborer; landscape laborer; railroad track laborer; utility meter installer; traffic director/flag person; salamander tender; pit person; dump person; asphalt laborer (only in Bergen, Essex, Hudson and Hunterdon Counties; Middlesex County (north of the Raritan River); Morris, Passaic, Somerset, Sussex, Union and Warren Counties); slurry seal laborer (only in Bergen, Essex, Hudson and Hunterdon Counties; Middlesex County (north of the Raritan River); Morris, Passaic, Somerset, Sussex, Union and Warren Counties); raker and tamper on cold patch work; wrapper and coater of pipe; waterproofing laborer; timber person; powder carrier; magazine tender; signal person; power buggy operator; tree cutter; and the operation of such other basic power tools used to perform work usually done manually by laborers

GROUP 2:
Pipelayer; laser person; conduit and duct line layer; jackhammer; chipping hammer; pavement breaker; concrete cutter; asphalt cutter; sheet hammer operator; sandblasting, acetylene cutting and burning; wagon drill operator; directional drill operator; hydraulic drill operator; drill master; core driller; traffic control coordinator; asphalt raker/lute person (only in Bergen, Essex, Hudson and Hunterdon Counties; Middlesex County (north of the Raritan River); Morris, Passaic, Somerset, Sussex, Union and Warren Counties); walk-behind saw cutter

GROUP 3:
Finisher; rammer; setter of brick or stone pavers; hardscaping; gunite nozzle person; stonecutter; form setter; manhole; catch basin and inlet builder; asphalt screedperson (only in Bergen, Essex, Hudson and Hunterdon Counties; Middlesex County (north of the Raritan River); Morris, Passaic, Somerset, Sussex, Union and Warren Counties)

GROUP 4:
Blaster

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* LAB00172-006 03/01/2007

MIDDLESEX COUNTY (south of the Raritan River):

	Rates	Fringes
Laborers:		

_ASPHALT WORK:		
_GROUP 1	$ 27.65	17.40
_GROUP 2	$ 27.25	17.40
_GROUP 3	$ 27.50	17.40
_GROUP 4	$ 27.35	17.40
_GROUP 5	$ 27.55	17.40

PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day, provided the worker works three days for the same employer within a period of ten working days, consisting of five working days before and five working days afte the day upon which the holiday falls or is observed.

DEFINITION OF GROUPS:

GROUP 1:
Head raker

GROUP 2:
Painter, shoveler, roller person, kettle person, smother person, tamper

GROUP 3:
Raker, screed person, lute person

GROUP 4:
Milling controller

GROUP 5:
Traffic control coordinator

LAB00222-002 05/01/2007

BUILDING CONSTRUCTION:

	Rates	Fringes
Laborers:		
_GROUP 1	$ 26.20	15.87
_GROUP 2	$ 25.70	15.87
_GROUP 3	$ 21.845	15.87

DEFINITION OF GROUPS:

GROUP 1:
Jackhammer; tamper; motorized tamper and compactor; street cleaning machine; scaffold builder; hydro; demolition equipment; all types of motorized forklift; riding motor buggy operator; Bobcat operator; mortar person; burner; nozzle person on gunite work

GROUP 2:
All laborers not listed in Groups 1 or 3

GROUP 3:
Laborer doing janitorial-type light clean-up work associated with the turnover of the project to the owner;

flag person; laborer manning temporary heat of all types

LAB01030-001 05/01/2007

	Rates	Fringes
Laborers:		
_The removal, abatement, enclosure and decontamination of personal protective equipment, chemical protective clothing and machinery relating to asbestos and/or toxic and hazardous waste or materials which shall include but not necessarily be limited to: the erection, moving, servicing and dismantling of all enclosures, scaffolding and barricades; the operation of all tools and equipment normally used in the removal or abatement of asbestos and toxic or hazardous waste or materials; the labeling, bagging, cartoning, crating, or other packaging of materials for disposal; the clean-up of the worksite; and all other work incidental to the removal, abatement, encapsulation, enclosure, and decontamination of asbestos and toxic or hazardous waste or materials; and, in addition, all work tasks involved in the maintenance and operation of energy resource recovery plants (co-generation plants)	$ 25.62	14.97

PAIN0711-003 05/01/2007

	Rates	Fringes
Glazier	$ 34.73	15.51

Work welding or using a cutting torch:
$1.00 per hour additional.

Work on a swing stage scaffold; on a pipe scaffold providing the working height of the platform is 30 ft. or above; and on motorized lifts provided that the height of the lift platform is above the second floor or above thirty feet: $1.00 per hour additional.

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* PAIN0711-004 05/01/2007

Work on nuclear plants, towers, steeples, dams, hangars, elevated tanks, tank farms and refineries (does not include office and storage buildings):

	Rates	Fringes
Painters:		
_All other industrial work:		
__Brush and roller	$ 33.87	33% + 4.07
__Spray	$ 37.26	33% + 4.07
_Repaint work, on projects on which no major alterations occur (does not include work on bridges, stacks, elevated tanks and generating stations, the interior of all tanks, and ground tanks over 60 ft. in height):		
____Brush and roller	$ 27.10	33% + 4.07
____Spray	$ 29.81	33% + 4.07

PAIN0711-009 05/01/2007

	Rates	Fringes
Painters:		
_Work on bridges (all bridges that span major waterways, railroad bridges, bridges over canyons, overpasses, viaducts and appurtenances (does not include pedestrian bridges in casinos, condominiums, hotels, industrial plants, educational facilities, hospitals and offices)	$ 40.50	33% + 4.07

PAIN0711-012 05/01/2007

	Rates	Fringes
Drywall finisher:		
_All other work	$ 33.75	33% + 4.12
_Repaint work, on projects on which no major alterations occur (does		

not include work on
bridges, stacks,
elevated tanks and
generating stations).....$ 25.58 33% + 4.07

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* PAIN0711-014 05/01/2007

_All other work:

	Rates	Fringes
Painters:		
_All other work:		
_Brush and roller.....	$ 32.75	33% + 4.07
_Paperhanger.....	$ 33.50	33% + 4.07
_Spray.....	$ 36.025	33% + 4.07
_Repaint work, on projects on which no major alterations occur (does not include work on bridges, stacks, elevated tanks and generating stations, the interior of all tanks, and ground tanks over 60 ft. in height):		
____Brush and roller.....	$ 25.58	33% + 4.07
____Paperhanger.....	$ 26.18	33% + 4.07
____Spray.....	$ 28.14	33% + 4.07

PLAS0008-006 05/01/2007

HUNTERDON, MIDDLESEX AND SOMERSET COUNTIES:

	Rates	Fringes
Plasterer.....	$ 31.90	18.85

PLAS0029-001 05/01/2007

BERGEN, ESSEX, HUDSON, MORRIS, PASSAIC, SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Cement mason and plasterer.....	$ 35.50	18.05

Cement masons:
Work on suspended staging, not supported from the ground:
$.50 per hour additional.

PLAS0592-030 11/01/2006

HUNTERDON, MIDDLESEX AND SOMERSET COUNTIES:

	Rates	Fringes
Cement mason.....	$ 33.70	20.11

PLUM0009-001 03/01/2007

	Rates	Fringes
Air conditioning and refrigeration mechanic.....	$ 29.95	13.31

PAID HOLIDAYS:
New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

SCOPE OF WORK:
Installation of refrigeration equipment for any type of building where the combined compressor tonnage does not exceed 5 tons; installation of water-cooled air conditioning that does not exceed 10 tons (including the piping of the component system and the erection of the water tower); installation of air-cooled air conditioning that does not exceed 15 tons.

PLUM0009-002 07/01/2007

HUNTERDON COUNTY (Township of West Amwell); MIDDLESEX COUNTY (remainder of county); SOMERSET COUNTY (does not include the township of Montgomery; Borough of Rocky Hill):

	Rates	Fringes
Plumber/pipefitter.....	$ 40.93	23.70

PLUM0014-002 11/01/2006

BERGEN COUNTY; HUDSON COUNTY (City of Bayonne; Town of Guttenberg; City of Hoboken; City of Jersey City; Township of North Bergen; Town of Secaucus; City of Union City; Township of Weehawken; Town of West New York); MORRIS COUNTY (remainder of county); PASSAIC AND SUSSEX COUNTIES; WARREN COUNTY (remainder of county):

	Rates	Fringes
Plumber.....	$ 42.41	21.59

PLUM0024-001 11/01/2006

ESSEX COUNTY; HUDSON COUNTY (Borough of East Newark; Towns of Harrison and Kearney); HUNTERDON COUNTY (Townships of Alexandria and Bethlehem; Boroughs of Bloomsbury and Califon; Town of Clinton; Township of Clinton; Borough of Flemington; Township of Franklin; Boroughs of Glen Gardner and Hampton; Township of Holland (Town of Amsterdam only); Township of Kingwood; Borough of Lebanon; Township of Lebanon; Borough of Milford; Townships of Readington, Tewksbury and Union); MIDDLESEX COUNTY (Boroughs of Dunellen and Middlesex; Township of Piscataway; Borough of South Plainfield); MORRIS COUNTY (Borough of Chatham; Township of Chatham; Borough of Chester; Townships of Chester, Harding and Long Hill; Borough of Mendham; Townships of Mendham and Mount Olive; Township of Washington (Town of Long Valley only); PASSAIC COUNTY; SOMERSET COUNTY (does not include the Township of Montgomery; Borough of

Rocky Hill); UNION COUNTY; WARREN COUNTY (Town of Belvidere; Township of Franklin (Towns of Asbury and New Village only); Townships of Greenwich, Harmony, Hope, Lopatcong and Oxford; Town of Phillipsburg; Township of Pohatcong (Towns of Carpentersville, Riegelsville and Warren Glen only); Township of White):

	Rates	Fringes
Plumber	$ 41.45	22.55

PLUM0274-002 05/01/2006

BERGEN COUNTY; HUDSON COUNTY (City of Bayonne; Borough of East Newark; Towns of Guttenberg and Harrison; Cities of Hoboken and Jersey City; Town of Kearney; Township of North Bergen; Town of Secaucus; City of Union City; Township of Weehawken; Town of West New York); PASSAIC AND SUSSEX COUNTIES:

	Rates	Fringes
Pipefitter	$ 42.15	20.35

* PLUM0274-005 11/01/2006

	Rates	Fringes
Pipefitters:		
Gas distribution work:		
Pipefitter; welder	$ 42.89	14.47

PLUM0475-001 05/01/2006

ESSEX COUNTY; HUNTERDON COUNTY (Townships of Alexandria and Bethlehem; Boroughs of Bloomsbury and Califon; Town of Clinton; Township of Clinton; Borough of Flemington; Township of Franklin; Boroughs of Glen Gardner and Hampton; Township of Holland (Town of Amsterdam only); Township of Kingwood; Borough of Lebanon; Township of Lebanon; Borough of Milford; Townships of Readington, Tewksbury and Union); MIDDLESEX COUNTY (Boroughs of Dunellen and Middlesex; Township of Piscataway; Borough of South Plainfield); MORRIS COUNTY (Borough of Chatham; Township of Chatham; Borough of Chester; Townships of Chester, Harding and Long Hill; Borough of Mendham; Townships of Mendham and Mount Olive; Township of Washington (Town of Long Valley only); PASSAIC COUNTY; SOMERSET COUNTY (does not include the Township of Montgomery; Borough of Rocky Hill); UNION COUNTY; WARREN COUNTY (Town of Belvidere; Township of Franklin (Towns of Asbury and New Village only); Townships of Greenwich, Harmony, Hope, Lopatcong and Oxford; Town of Phillipsburg; Township of Pohatcong (Towns of Carpentersville, Riegelsville and Warren Glen only); Township of White):

	Rates	Fringes
Pipefitter	$ 39.68	19.05

ROOF0004-002 06/01/2006

ESSEX AND HUDSON COUNTIES; MIDDLESEX COUNTY (north and east of

Route #18); MORRIS COUNTY; SOMERSET COUNTY (north of a line drawn from the Mercer/Somerset County line along Route #206 north to Route #514; then, west along Route #514 to the Hunterdon/Somerset county line); SUSSEX, UNION AND WARREN COUNTIES:

	Rates	Fringes
Roofer	$ 31.57	16.50

Mop person:
$.30 per hour additional.

Work on a job where pitch is being applied:
$.50 per hour additional.

ROOF0008-004 07/01/2006

HUDSON COUNTY (east of the Hackensack River):

	Rates	Fringes
Roofer	$ 33.83	20.10

Workers laying brick:
$.40 per hour additional.

Workers using machinery:
$1.00 per hour additional.

ROOF0010-002 06/01/2007

BERGEN AND PASSAIC COUNTIES:

	Rates	Fringes
Roofers:		
_Mop person	$ 33.00	14.70
_Roofer	$ 32.25	14.70

Work operating slag chipping machine, felt laying machine, power broom machine and adhesive machine:
New work: $1.00 per hour additional (operator only).
Re-roofing: $.50 per hour additional (operator only).

Work operating mechanized equipment (felt-layer, hot spreader, slag spreader) (on new work only):
$.50 per hour additional (for entire crew).

Work involving the use of pitch, including all tear-offs:
$1.00 per hour additional.

Work involving asbestos removal:
$1.00 per hour additional.

Work operating adhesive machine on one-ply system (on new work only):
$.50 per hour additional (for entire crew).

tons, or 3,000 CFM's (does not include assisted living facilities, major shopping mall stores (whether new or renovation work), major chain stores, movie complexes, industrial work).....$ 25.00 6.00

VACATION PAY:
After one year of employment: one week vacation period and forty (40) hours vacation pay.

After five years of employment: two weeks vacation period and eighty (80) hours vacation pay.

After ten years of employment: three weeks vacation period and one hundred and twenty (120) hours vacation pay.

SHEE0027-005 06/01/2006

HUNTERDON AND MIDDLESEX COUNTIES:

	Rates	Fringes
Sheet metal workers:		
_All other work	$ 38.65	25.62

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* TEAM0408-001 05/01/2006

ESSEX, MORRIS, SUSSEX AND UNION COUNTIES:

	Rates	Fringes
Truck drivers:		
_ALL OTHER WORK:		
__GROUP 1	$ 30.90	11.16 + a
__GROUP 2	$ 30.80	11.16 + a
__GROUP 3	$ 30.70	11.16 + a
__GROUP 4	$ 30.65	11.16 + a
_UTILITY CONSTRUCTION:		
__GROUP 1	$ 27.35	11.16 + a
__GROUP 2	$ 27.25	11.16 + a
__GROUP 3	$ 27.15	11.16 + a
__GROUP 4	$ 27.10	11.16 + a

a. Employer contributes $1096.07 per month per worker for health and welfare.

Hazardous waste removal work, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: $3.00 per hour additional.

Hazardous waste removal work, where the worker is working in a hazardous waste site, in a zone requiring Level A personal protection for any of the workers: $3.00 per hour additional.

Hazardous waste removal work, where the worker is not working in a zone requiring Level A, B or C personal protection: $1.00 per hour additional.

PAID HOLIDAYS:
New Year's Day, President's Day, Decoration Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day, providing the worker has been assigned to work or "shapes" one day of the calendar week during which the holiday occurs.

DEFINITION OF GROUPS:

GROUP 1:
Winch trailer driver

GROUP 2:
Drivers of all Euclid-type vehicles: Euclid, International Harvester, Wabco, Caterpillar, Koehring, tractor and wagon; dumpster; bottom, rear and side dump; carry-all and scraper (not self-loading, loading over the top); water sprinkler trailer; water pull and similar types of vehicle; driver of tractor and trailer-type vehicles: flat, float, I-beam, low bed, water sprinkler, bituminous, transit mix, road oil, fuel, bottom dump hopper, rear dump, office, shanty, epoxy, asphalt, agitator mixer, mulching, stringing, seeding, fertilizing, pole, spread bituminous distributor, water pull (entire unit), tractor trailer, reel trailer and similar types of vehicle

GROUP 3:
Driver on straight three-axle materials: truck and float

GROUP 4:
Truck driver; driver of the following types of vehicles: dump, flat, float, pick-up, container hauler, fuel, water sprinkler, road oil, stringer bead, hot pass, bus, dumpcrete, transit mixer, agitator mixer, half track, winch truck, side-o-matic, dynamite, powder, x-ray, welding, skid, jeep, station wagon, A-frame, dual purpose truck, truck with mechanical tailgate, asphalt distributor, batch truck, seeding, mulching, fertilizing, air compressor truck (in transit); parts chaser; escort; scissor; hi-lift; telescope; concrete breaker; gin pole; stone, sand, asphalt distributor and spreader; nipper; fuel truck (driver of fuel truck including handling of hose and nozzle - entire unit); team driver; vacuum or vac-all truck (entire unit); skid truck (debris container - entire unit); concrete mobile truck (entire unit); expediter (parts chaser); beltcrete truck; pumpcrete truck; line truck; reel truck; wrecker or tow truck; utility truck; tack truck; warehouse person; warehouse parts person; yard person; lift truck in warehouse; warehouse clerk; parts person; material checker; receiver; shipper; binning person (materials); cardex person; drivers on the following types of vehicle: Broyhill coal tar epoxy truck, Littleford bituminous distributor, slurry seal truck or vehicle, thiokol track master pick-up (swamp cat pick-up), bucket loader, dump truck and any

rubber-tired tractor used in pulling and towing farm wagons and trailers of any description; off-site and on-site repair shop

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* TEAM0469-001 05/01/2006

HUNTERDON, MIDDLESEX AND SOMERSET COUNTIES; UNION COUNTY (south of Wood Ave.); WARREN COUNTY:

	Rates	Fringes
Truck drivers:		
_ALL OTHER WORK:		
__GROUP 1	$ 31.10	16.785
__GROUP 2	$ 31.00	16.785
__GROUP 3	$ 30.90	16.785
__GROUP 4	$ 30.85	16.785
_UTILITY CONSTRUCTION:		
__GROUP 1	$ 28.00	16.785
__GROUP 2	$ 27.90	16.785
__GROUP 3	$ 27.80	16.785
__GROUP 4	$ 27.75	16.785

Hazardous waste removal work, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: $3.00 per hour additional.

Hazardous waste removal work, where the worker is working in a hazardous waste site, in a zone requiring Level A personal protection for any of the workers: $3.00 per hour additional.

Hazardous waste removal work, where the worker is not working in a zone requiring Level A, B or C personal protection: $1.00 per hour additional.

PAID HOLIDAYS:
New Year's Day, President's Day, Decoration Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day, provided the worker has been assigned to work or "shapes" one day of the calendar week during which the holiday falls.

DEFINITION OF GROUPS:

GROUP 1:
Winch trailer driver

GROUP 2:
Drivers of all Euclid-type vehicles: Euclid, International Harvester, Wabco, Caterpillar, Koehring, tractor and wagon; dumpster; bottom, rear and side dump; carry-all and scraper (not self-loading, loading over the top); water sprinkler trailer; water pull and similar types of vehicle; driver of tractor and trailer-type vehicles: flat, float, I-beam, low bed, water sprinkler, bituminous, transit mix, road oil, fuel, bottom dump hopper, rear dump, office, shanty, epoxy, asphalt, agitator mixer, mulching, stringing, seeding, fertilizing, pole, spread bituminous distributor, water

pull (entire unit), tractor trailer, reel trailer and similar types of vehicle

GROUP 3:
Driver on straight three-axle materials: truck and float

GROUP 4:
Truck driver; driver of the following types of vehicles: dump, flat, float, pick-up, container hauler, fuel, water sprinkler, road oil, stringer bead, hot pass, bus, dumpcrete, transit mixer, agitator mixer, half track, winch truck, side-o-matic, dynamite, powder, x-ray, welding, skid, jeep, station wagon, A-frame, dual purpose truck, truck with mechanical tailgate, asphalt distributor, batch truck, seeding, mulching, fertilizing, air compressor truck (in transit); parts chaser; escort; scissor; hi-lift; telescope; concrete breaker; gin pole; stone, sand, asphalt distributor and spreader; nipper; fuel truck (driver of fuel truck including handling of hose and nozzle - entire unit); team driver; vacuum or vac-all truck (entire unit); skid truck (debris container - entire unit); concrete mobile truck (entire unit); expediter (parts chaser); beltcrete truck; pumpcrete truck; line truck; reel truck; wrecker or tow truck; utility truck; tack truck; warehouse person; warehouse parts person; yard person; lift truck in warehouse; warehouse clerk; parts person; material checker; receiver; shipper; binning person (materials); cardex person; drivers on the following types of vehicle: Broyhill coal tar epoxy truck, Littleford bituminous distributor, slurry seal truck or vehicle, thiokol track master pick-up (swamp cat pick-up), bucket loader, dump truck and any rubber-tired tractor used in pulling and towing farm wagons and trailers of any description; off-site and on-site repair shop

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* TEAM0560-001 05/01/2007

BERGEN, HUDSON AND PASSAIC COUNTIES:

	Rates	Fringes
Truck drivers:		
All other work:		
GROUP 1	$ 29.85	20.08
GROUP 2	$ 29.90	20.08
GROUP 3	$ 30.00	20.08
GROUP 4	$ 30.10	20.08
Utility work:		
GROUP 1	$ 27.86	20.08
GROUP 2	$ 27.91	20.08
GROUP 3	$ 28.01	20.08
GROUP 4	$ 28.11	20.08

Hazardous waste removal work:

Work on a state or federally designated hazardous waste site, where the worker is in direct contact with hazardous material, and when personal protective equipment is required for respiratory, skin and eye protection: $3.00 per hour additional.

Work on a state or federally designated hazardous waste site, in a zone requiring Level A personal protection for any workers other than the truck driver: $3.00 per hour additional.

Work on a state or federally designated hazardous waste site, in a zone requiring Level B, C or D personal protection for any workers other than the truck driver: $1.00 per hour additional.

PAID HOLIDAYS:
New Year's Day, President's Day, Decoration Day, Independence Day, Labor Day, Presidential Election Day, Veteran's Day, Thanksgiving Day and Christmas Day; provided that the employee has been assigned to work or "shapes" one day of the calendar week during which the holiday occurs.

DEFINITION OF GROUPS:

GROUP 1:
Driver of the following types of vehicle: dump; flat; float; pick-up; container hauler; fuel; water sprinkler; road oil; stringer bead; hot pass; bus; dumpcrete; transit mixer; agitator mixer; half track; winch truck; side-o-matic; dynamite; powder; x-ray; welding; skid; jeep; station wagon; stringer; A-frame; dual-purpose truck; truck with mechanical tailgate; asphalt distributor; batch truck; seeding; mulching; fertilizing; air compressor truck (in transit); parts chaser; escort; scissor; hi-lift; telescope; concrete breaker; gin pole; stone, sand, asphalt distributor and spreader; nipper; fuel truck (driver of fuel truck including handling of hose and nozzle - entire unit); team driver; vacuum or vac-all trucks (entire unit); skid truck (debris container - entire unit); concrete mobile truck (entire unit); expediter (parts chaser); beltcrete truck; pumpcrete truck; line truck; reel truck; wrecker; tow truck; utility truck; tack truck; warehouse person; warehouse parts person; yard person; lift truck in warehouse; warehouse clerk; parts person; material checker; receiver; shipper; binning person (materials); cardex person; driver on the following types of vehicle: Broyhill coal tar epoxy truck, Littleford bituminous distributor, slurry seal truck or vehicle, thiokol track master pick-up (swamp cat pick-up); bucket loader dump truck and any rubber-tired tractor used in pulling and towing farm wagons and trailers of any description; off-site and on-site repair shop

GROUP 2:
Driver of 3-axle materials truck and float

GROUP 3:
Driver of all Euclid-type vehicles: Euclid; International Harvester; Wabco; Caterpillar; Koehring, tractor and wagon; dumpster; dump; bottom, rear and side dump; carry-all and scraper (not self-loading, loading over the top); water sprinkler trailer; water pull and similar types of vehicle; driver of tractor and trailer-type vehicle: flat, float, I-beam, low bed, water sprinkler, bituminous, transit mix,

road oil, fuel, bottom dump hopper, rear dump, office, shanty, epoxy, asphalt, agitator mixer, mulching, stringing, seeding, fertilizing, pole, spread bituminous distributor, water pull (entire unit), tractor trailer, reel trailer, and similar types of vehicle

GROUP 4:
Winch trailer driver

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request

review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

NOTIFICATION
OF
MINORITY BUSINESS ENTERPRISES
AND
WOMEN'S BUSINESS ENTERPRISES
ON-LINE DIRECTORY
AND
FORMS

The Port Authority has a long-standing practice of making its contract available to as many firms as possible and has taken affirmative steps to encourage Minority Business Enterprises (MBEs) and Women's Business Enterprises (WBEs) to seek business opportunities with it. The Port Authority's on-line Directory of Qualified MBE/WBEs lists the firms that are registered to assist Contractors in meeting and exceeding their Good Faith Goals.

The MBE/WBE Directory specifies the firms the Authority has determined to be (1) MBEs/WBEs and (2) experienced in performing work in the trades and contract dollar ranges indicated.

Contractors are provided with an interactive directory and the ability to view and print a current listing of M/WBE contractors. Information may be selected and sorted according to categories, state, dollar range, and type (MBE, WBE, DBE, and SBE).

To view the directory, type in www.panynj.gov/mwbe or go to www.panynj.gov, select Engineering - M/W/S/DBE Information (under Doing Business with the Port Authority), and then select MWBE Qualified Vendor Search. For further information about MWBE Qualified Vendors, contact the Office of Business and Job Opportunity at (212) 435-7802.

Revised: 3/06

THE PORT AUTHORITY OF NY & NJ
MBE/WBE CERTIFICATION
UNIFORM CERTIFICATION APPLICATION

General Instructions: PLEASE TYPE OR PRINT CLEARLY. DO NOT LEAVE ANY BLANK SPACES ON THE APPLICATION. If a question is not applicable to your business, insert "N/A" in the space provided for your answer. *You may make photocopies of the completed application as necessary. Whenever the space is insufficient to answer the questions completely, attach additional sheets as necessary. Use the question number to identify any answer continued on an additional sheet of paper.*

1. Name and Street Address of Applicant Firm (*Enter the full name of the enterprise. For example, a corporation named ABC Construction, Inc. should be identified as "ABC Construction, Inc." not as "ABC Construction".*)

   Company Name_____

   Street Address_____

   City_____ State_____ Zip_____

1a. "Doing Business As" (D/B/A) Name (*Complete if the firm does business under an assumed or trade name which is different from its legal name.) Attach copy of Certification.*

_____

1b. Mailing Address (*Complete if different from street address)*

_____

_____

2. Business Telephone number (___)_____ Fax: (___)_____

   Cell phone number (___)_____

3. Federal Employer Identification Number (EIN) or Social Security Number. *A Federal Employer Identification Number is required for most business activities. Sole proprietorships may submit the social security number of the owner in lieu of the federal identification number. For an EIN application or additional information, contact the U.S. Internal Revenue Service or visit their website.*

   Federal Tax ID/EIN#_____ Social Security #_____
   (Attach W-9)

4. Name of Company President/Chief Executive Officer/Owner

   _____ President _____ Chief Executive Officer _____ Owner

4a. Name, title and telephone number of an officer of the firm who can be contacted during the application review process.

   _____ Name _____ Title

   _____ Telephone number _____ Cell phone number

5. This firm is applying for certification as: (*Refer to page 14 of this application to determine the appropriate definition for your company. One or more categories may be designated*)

   _____ Women-Owned Business Enterprise (WBE)

   _____ Minority Business Enterprise (MBE)

Schedule A

6. Does this firm have current U.S. Small Business Administration (SBA) 8(a) status? ☐ Yes ☐ No (If "yes", attach a copy of the SBA letter of approval)

7. Are you currently involved in the bidding process or other contract/purchase order negotiations with any governmental agency, department or authority?

☐ Yes ☐ No (If yes, identify agency, department or authority)

_____

_____

8. Type of ownership

☐ Sole Proprietorship _____ (Date Established) Certificate of Trade Name on file in _____ (County)

☐ Partnership _____ (Date Established) Business Certificate for Partners _____ (County)

☐ Limited Liability Partnership _____ (Date Established) Certificate of Limited Partnership on file in _____ (County)

☐ Corporation _____ (Date Established) Certificate of Incorporation on file in _____ (County)

☐ Limited Liability Company _____ (Date Established) Articles of Organization on file in _____ (County)

8a. Did business exist under a different type of ownership prior to the date indicated in question 8 above?

☐ Yes ☐ No (If yes, Explain)

_____

_____

8b. Has your Certificate of Incorporation or business certificate been amended?

☐ Yes ☐ No (If yes, Explain) _____

_____

8c. Method of Acquisition (check all applicable):

☐ Started New Business
☐ Bought Existing Business
☐ Inherited Business
☐ Secured Franchise
☐ Secured Concession
☐ Merger or Consolidation
☐ Other _____

Date of Acquisition _____

8d. Name and Position of all person (s) with an ownership interest.
(Check all that are applicable. If no positions are held, state 'none'.)

*Group Code Key (Refer to Page 15 for Definitions)

01-Black	02a-Hispanic 02b-Portuguese 02c-Spanish	03a Asian-Pacific 03b Asian-Indian	04-Native American 05-Non-Minority 06-Other

Name	Position	Group Code*	%Owned	Gender	US Citizen or Permanent Resident Alien
				☐Male ☐ Female	☐ Yes ☐ No
				☐Male ☐ Female	☐ Yes ☐ No
				☐Male ☐ Female	☐ Yes ☐ No

9. Identify the cash and capital contributions to the firm by those identified in 8d, including gifts, equipment, loans, and expertise as well as any other individuals.

Contributor/Source	Amount/Value	Type/Date of Contribution

10. If the firm is a partnership, complete for all partners:

Name	Total Amount/Value of Contribution	Date of Ownership

10a. If a corporation or company, complete for all shareholders:

Name	Number of Shares	Common or Preferred	Amount Paid When Purchased	Date of Ownership

11. Gross Receipts (Sales). Provide gross receipts for the last three (3) years. (If in business for less than three (3) years complete as applicable.)

$_____ Current Year (_____) $_____ Last Year (_____) $_____ Previous Year (_____)

12. Number of employees (*Average over the past year*)

Permanent		Temporary	
Full-Time		Full-Time	
Part-Time		Part-Time	

13. If licenses, permits or accreditations are required to conduct the business, identify:

Type of License/Permit	Issued by	Issue Date	Exp. Date	Holder/Registrant

14. Check the item (s), which best describe (s) the business operation

☐ Construction-related ☐ Consumer Service

☐ Professional Service ☐ Manufacturer/Supplier

☐ Technical Service ☐ Retail

☐ Other _____

_____

_____

14a. Describe principal products/commodities sold, specialties or services offered

_____

_____

15. Identify individuals responsible for managerial operations *(state if owner or non-owner)*
(*For Group codes see Page 15)

Name & Title	Gender	*Group Code	Owner or Non-Owner
1) Financial Decisions			
_____	☐ Male ☐Female	_____	☐ Owner ☐Non-Owner
_____	☐ Male ☐Female	_____	☐Owner ☐Non-Owner
2) Estimating			
_____	☐ Male ☐Female	_____	☐Owner ☐Non-Owner
_____	☐ Male ☐Female	_____	☐Owner ☐Non-Owner
3) Preparing Bids			
_____	☐ Male ☐Female	_____	☐Owner ☐Non-Owner
_____	☐ Male ☐Female	_____	☐Owner ☐Non-Owner

4) Negotiating Bonding

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

5) Negotiating Insurance

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

6) Marketing & Sales

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

7) Hiring & Firing

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

8) Supervising Field Operations

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

9) Purchasing Equipment/Supplies

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

10) Managing & Signing Payroll

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

11) Negotiating Contracts

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

12) Signatories for Business Accounts

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

_____ ☐ Male ☐Female _____ ☐Owner ☐Non-Owner

15a. Do any of the following also work for another firm? If yes, provide the person's name, his/her position, other firm's name, address and telephone number.

	Name & Position	Other Firm Name, Address	Business Telephone
1) Office Staff			
☐ Yes ☐ No			
☐ Yes ☐ No			
2) Field/Supervisory Staff			
☐ Yes ☐ No			
☐ Yes ☐ No			
3) Estimator			
☐ Yes ☐ No			
☐ Yes ☐ No			
4) Controller			
☐ Yes ☐ No			
☐ Yes ☐ No			
5) Consultant (for firms providing consultant/technical services or advisory services)			
☐ Yes ☐ No			
☐ Yes ☐ No			

15b. Does this firm share the following with any other firm? If yes, provide the other firm's name, address & telephone number.

(1.) Office space

Other Firm Name	Address	Telephone No.

(2.) Yard space

Other Firm Name	Address	Telephone No.

(3.) Equipment (include rentals)

Other Firm Name	Address	Telephone No.

16. List rented, leased or owned warehouse, plant and office facilities

Facility Type	Owner or Name of Lessor and/or rental agent	Amount of yearly rent payment

16a. List major equipment or machinery, which is owned or leased by the firm

Type of Equipment	Depreciated Dollar Value	Acquisition Date	Payment Terms

17. Do any principals, officers, employees and/or owners of the firm have an affiliation, i.e. business interest or employment with any other firm? ☐ Yes ☐ No (If yes, complete the following)

Name of Person	Firm Name & Address	Telephone	Nature of Business	Nature of Affiliation

18. Attorney for firm

Name_____

Address_____

City_____ State_____ Zip_____

Telephone No. _____

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19. C.P.A. or Accountant for firm

Name_____

Address_____

City_____ State_____ Zip_____

Telephone No. _____

20. Has the firm applied or received a determination for certification as an M/WBE with another governmental agency, department or authority? ☐ Yes ☐ No *(If Yes, complete the following)*

(1.) Pending with

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

(2.) Certified by

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

(3.) Registered by

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

(4.) Withdrawn/Closed out

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

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(5.) Rejected by

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

(6.) Denied by

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

(7.) Decertified by

Agency	Date	Contact Person	Telephone No.	Specify M/WBE

20a. Are there appeals pending on any of the above applications or certifications? ☐ Yes ☐ No

Agency	Date of Appeal	Contact Person	Telephone No.

21. List the three (3) largest accounts for which the applicant has provided goods or services within the last two years

Firm Name & Telephone No.	Account Dollar Amount	Location of Performance	Contact Person	Duration

22. Identify Bank (s) where firm's accounts are maintained

Bank Name & Address	Contact	Type of Account	Account No.

23. Do you have a Line of Credit ☐ Yes ☐ No *(If yes, Identify)*

Source	Limit	Name of Guarantor (s)

24. List Major current creditors and/or lenders and types of investment and/or loans in the firm

Creditor/Lender Name	Type of Investment/Credit/Loan	Dollar value of Investment/Terms/Credit/Loan

25. If company is owned in full or in part by another firm, identify the firm and the percentage of ownership interest. Include venture capitalists and other similar investors.

Firm Name	Address	Percentage Ownership

26. Is the firm bonded? ☐ Yes ☐ No *(If yes, specify type and limit)*

Bonding Company _____

Address _____

Telephone No. _____ Contact Person _____

Type _____ Limit _____

SUPPORTING DOCUMENTS

27. REQUIRED FOR ALL APPLICANTS
Attach copies of the following documents, as applicable. Indicate documents submitted by checking appropriate boxes. All documents must be submitted for certification.

NOTE: If applicable documents are not submitted, application will be returned to you.

- ☐ 1. Resumes of all principals, partners, officers and/or key employees of the firm. Provide home address and telephone number, education, training and employment with dates
- ☐ 2. Copies of any licenses, permits and/or accreditations required to conduct the business
- ☐ 3. Bank signature card, bank resolution, or letter from the bank identifying persons authorized to conduct transactions, level of authority and limitations, if any
- ☐ 4. Current financial statement
- ☐ 5. Most recent three years' Federal, State and City tax returns including all schedules, and W-2s where applicable
- ☐ 6. Proof of sources of capitalization/investments
- ☐ 7. Proof of ethnicity (Birth Certificate, Baptismal Certificate, U.S. Passport, U.S. Driver License with photograph)
- ☐ 8. Proof of U.S. Citizenship (Birth Certificate, Baptismal Certificate, U.S. Passport, Naturalization Certificate)
- ☐ 9. Proof of permanent resident alien status (permanent resident "green" card)
- ☐ 10. Lease Agreements for business premises
- ☐ 11. All third party agreements including: equipment rental, purchase agreements, management service agreements, etc.
- ☐ 12. Any employment agreements
- ☐ 13. Vehicle registration(s)
- ☐ 14. Any certification, decertification or denial of certification documentation
- ☐ 15. Proof of U.S. Small Business Administration (SBA) 8(a) Certification (copies of all approval letters)
- ☐ 16. Written request for exemption from disclosure regarding trade secrets

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SUPPORTING DOCUMENTS

27a. REQUIRED FOR A SOLE PROPRIETORSHIP

☐ Copy of Business Trade Name or Certification Trade Name files with County Clerk
(If doing business under an assumed name)

27b. REQUIRED FOR A PARTNERSHIP AND JOINT VENTURE PARTNERSHIP
Attach copies of the following: (Indicate documents submitted by checking appropriate boxes)

☐ 1. Business Certificate

☐ 2. Partnership Agreement

☐ 3. Buy-Out Rights

27c. REQUIRED FOR A LIMITED LIABILITY COMPANY (Check appropriate boxes below)

☐ 1. Sole Proprietorship

☐ 2. Corporation

☐ 3. Partnership Agreement

Attach required documents and indicate documents submitted by checking appropriate boxes

☐ 1. Certificate of formation and/or organization

☐ 2. Operating and/or managing agreements

☐ 3. Franchise and/or third-party agreement

27d. REQUIRED FOR A CORPORATION
Attach documents of the following: (Indicate documents submitted by checking appropriate boxes)

☐ 1. Articles of Incorporation, including date approved by State

☐ 2. Corporation By-Laws

☐ 3. Minutes of first corporate organizational meeting and amendments

☐ 4 Copies of all issued stock certificates, front and back, as well as next un-issued certificate

☐ 5. Copy of stock ledger

☐ 6. If applicable, furnish copies of agreements relating to:

a. stock options
b. shareholder agreements
c. shareholder voting rights
d. restriction on the disposal of stock loan agreements
e. facts pertaining to the value of shares
f. buy-out rights
g. restrictions on the control of the corporation

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☐ 7. List of current Board of Directors including group code, gender and effective dates

Name	Position	Group Code*	Gender	Date
			☐ Male ☐Female	
			☐ Male ☐Female	
			☐ Male ☐Female	
			☐ Male ☐Female	

*For Group Codes, See Page 15

NOTE: ***IF APPLICABLE DOCUMENTS ARE NOT SUBMITTED, APPLICATION WILL BE RETURNED TO YOU.***

DEFINITIONS OF MBE AND WBE
(To be used for Question 5, Page 1)

MINORITY BUSINESS ENTERPRISE (MBE) – A business enterprise which is at least fifty-one percent (51%) owned by, and controlled or, in the case of a publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by citizens or permanent resident aliens; and whose management and daily business operations are controlled by one or more such individuals meeting the ethnic definitions of:

01 Black
02a Hispanic
03a Asian-Pacific
03b Asian-Indian
04 Native American

WOMAN-OWNED BUSINESS ENTERPRISE (WBE) – A business enterprise which is at least fifty-one percent (51%) owned by, and controlled by one or more socially, in the case of a publicly owned business, at least fifty-one percent (51%) of the stock of which is owned by citizens or permanent resident aliens who are women and whose management and daily business operations are controlled by women.

01 Black
02a Hispanic
02b Portuguese
02c Spanish
03a Asian-Pacific
03b Asian-Indian
04 Native American

Women, regardless of race or ethnicity

UNDER EACH CERTIFICATION CATEGORY, OWNERSHIP MUST BE REAL, SUBSTANTIAL AND CONTINUING. THE APPLICANT MUST HAVE AND EXERCISE THE AUTHORITY TO INDEPENDENTLY CONTROL THE BUSINESS DECISIONS OF THE ENTERPRISE.

DEFINITIONS OF GROUP CODES

(To be used for Question 8d, Page 2-3; Question 15, Pages 4-5; and Supporting Documents 27d-7, Page 13)

Group Code	Group Name	Group Definition
01	Black	Persons having origins from any of the black African racial groups not of Hispanic origin
02a	Hispanic	All persons of Mexican, Puerto Rican, Cuban, Caribbean Islands, Central or South American culture or origin, regardless of race
02b	Portuguese	Persons whose culture or origin is rooted in Portugal
02c	Spanish	Persons whose culture or origin is rooted in Spain
03a	Asian-Pacific	Persons having origins in any of the original peoples of the Far East, Southeast Asia or the Pacific Islands
03b	Asian-Indian	Persons having origins in any of the original peoples of the Indian subcontinent
04	Native American	Persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification
05	Non-Minority	Persons whose culture or origin is other than those defined above
06	Other	Persons other than those defined above who believe they are socially and economically disadvantaged

ACKNOWLEDGEMENTS AND VERIFICATION

FIRST, this certification application form, the supporting documents, and any other information provided in support of the application is considered part of the application. Any false statements or misrepresentations in the application may result in the applicant's disqualification from certification as Minority and/or Woman-owned Business Enterprise (M/WBE) by The Port Authority of New York and New Jersey for him/herself and its subsidiaries, which are included in the term "Port Authority".

SECOND, the information contained herein is subject to the Port Authority's Freedom of Information policy as reflected in the resolution adopted by the Committee on Operations of the Port Authority on August 13, 1992.

THIRD, the Port Authority may require further proof of eligibility for certification in addition to the information disclosed in this application and the applicant shall cooperate with the Port Authority in supplying the additional information. By completing this application, the applicant agrees to submit the additional proof required and acknowledges that the Port Authority may decide to deny the application if the additional proof is not submitted within 30 days after it is requested.

FOURTH, by filing this application, the applicant consents to examination of its books and records and interviews of its principals and employees by the Port Authority for the purpose of determining whether the applicant is, or continues to be, an eligible M/WBE. The applicant acknowledges that its certification may be denied if such examinations or interviews are refused or if the Port Authority determines, as a result of the examinations or interviews, that the applicant does not qualify for certification as a M/WBE.

FIFTH, by filing this application, the applicant consents to inquiries being directed by the Port Authority to the applicant's bonding companies, banking institutions, credit agencies, contractors, clients and other certifying agencies for the purpose of ascertaining the applicant's eligibility for certification. If the applicant fails to permit such inquiring to be made, such failure may be grounds for denying or revoking the applicant's certification.

SIXTH, the applicant agrees that it will advise the Port Authority of any change in the ownership or operational and managerial control of applicant's business after the certification application has been filed within 30 days of such change.

SEVENTH, certification is normally granted for a period of five (5) years. However, the Port Authority may require submission of a new application, additional information, examinations of the applicant's principals and employees at any time before the expiration of the five-year certification period. The applicant's failure to submit such material or to consent to such examinations and interviews will be grounds for revocation of certification.

EIGHT, the filing of this application, its acceptance by the Port Authority, and any subsequent certification of the applicant by the Port Authority, is not intended to and does not create any procedural or substantive rights enforceable at law by the applicant against the Port Authority, its Commissioners, officers, agents or employees and any such certification is only intended to facilitate the identification of qualified and bona fide M/WBEs.

NINTH, the Code of Ethics certification attached hereto shall be considered part of this certification application and the applicant is advised to familiarize him/herself with the terms of the certification prior to submitting this application.

TENTH, in submitting this application the applicant and each person signing on behalf of the applicant certifies that, to the best of their knowledge and belief, the following statements are true and correct:

A) No individual who is current or former employee of the Port Authority or its subsidiaries (i.e., Port Authority Trans-Hudson Corporation (PATH), Newark Legal and Communications Center Urban Renewal Corporation) other than those individuals identified in the space immediately below (1) owns an interest in; or (2) has involvement in a relationship with the applicant firm (a) from or as a result of which the individual has received within the past year, or is entitled to receive in any future year, more than $1,000 or its equivalent; or (b) which has a market value in excess of $1,000. *(List here any such current or former Port Authority Employee (s))

_____

_____

B) No individual who is a current or former employee of the Port Authority or its subsidiaries other than those individuals identified in the space immediately below (1) holds a position in the applicant firm such as an officer, director, trustee, partner, employee, or a position of management; or (2) acts as a consultant, agent or representative of the firm in any capacity. *(List here any current or former Port Authority Employee (s))

_____

_____

*Included within the scope of this certification are the individuals identified by the applicant in response to questions 4, 4a, 8d, 9, 10, 10a, 17, 18, 19, 24 and 25.

ELEVENTH, the criteria for certification by the Port Authority as a Small Business Enterprise are outlined in the documentation entitled "Small Business Enterprise Program (SBE) Administered by The Port Authority of New York and New Jersey" which accompanies this application. If the applicant believes that he/she is eligible for SBE certification, he/she may request that this application also be treated as an SBE certification application by signing below. If signature is provided, all acknowledgments and provisions of this M/WBE certification shall also apply.

Applicant _____ Date _____

VERIFICATION

STATE OF _____)

SS:

COUNTY OF_____)

(A) (For Sole Proprietorships, Partnerships, and Limited Liability Partnerships)

_____, being duly sworn, states that he or she is the owner of (or a Partner in) the entity making the foregoing application and that the statements and representations made in the application are true to his/her own knowledge.

_____ _____
Signature Date

(B) (For Corporations and Limited Liability Companies)

_____, being duly sworn, states that he/she is the
Name of Corporate Officer

_____ of _____,
Title of Corporate Officer Name of Corporation

the entity making the foregoing application, that he/she has read the application and knows its contents, that the statements and representations made in the application are true to his/her knowledge, and that the application is made at the direction of the Board of Directors of the Corporation.

_____
Corporate Seal Signature Date

Sworn to before me this _____ day of _____, 20_____

_____
Notary Public

Mail to: *The Port Authority of New York and New Jersey*
Office of Regional and Economic Development/Small Business Programs
233 Park Avenue South, 4th Floor
New York, NY 10003

NOTE: Applicant must also sign page 16

CODE OF ETHICS CERTIFICATION

In signing and submitting the annexed Certification Application, each applicant and each person signing on behalf of any applicant certifies that they have not made any offers or agreements or given or agreed to give anything of value or taken any other action with respect to any employee or former employee of The Port Authority of New York and New Jersey or any of its subsidiaries (hereinafter referred to as the "Authority") or any immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics and Financial Disclosure dated as of July 18, 1994 (a copy of which is available upon request to the Office of Regional and Economic Development /Small Business Programs), nor do they have any knowledge of any act on the part of such employee or former employee relating either directly or indirectly to the applicant which constitutes a breach of the ethical standards set forth in said code.

> As used herein, "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by an Authority contract), etc., which might tend to obligate the Authority employee to the Contractor and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by any Authority contract.

The foregoing certification shall be deemed to have been made by the applicant as follows: If the applicant is a corporation, such certification shall be deemed to have been made not only with respect to the application itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if the applicant is a partnership, such certification shall be deemed to have been made not only with respect to the applicant itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate applicant, shall be deemed to have been authorized by the Board of Directors of the applicant, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the applicant cannot make the foregoing certification, the applicant shall so state and shall furnish with the application, a signed statement that sets forth in detail the reasons thereof.

The foregoing certification or signed statement shall be deemed to have been made by the applicant with full knowledge that it would become part of the records of the Authority and that the Authority will rely on its truth and accuracy in granting certification.

Applicants are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see e.g., New York Penal Law, Section 175.30 et. Seq.). Applicants are also advised that the inability to make such certification will not, in and of itself disqualify an applicant, and that in each instance the Authority will evaluate the reasons therefore provided by the applicant.

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SMALL BUSINESS ENTERPRISE PROGRAM
ADMINISTERED BY
THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

The Small Business Enterprise Program is designed to promote New York and New Jersey businesses and to provide them with the advantage of competing against firms of like size and expertise in a limited competitive environment. In order to be eligible to participate in opportunities set aside for the program, the Port Authority must certify a firm as a Small Business Enterprise. To be eligible for certification, firms at a minimum:

- Must have its principal place of business in either New York or New Jersey
- Must have operated in that specific type of business for at least three (3) years
- Cannot exceed the average annual income limitations (cited below) utilizing gross revenues for the last three (3) fiscal years

Average Annual Income Limitation for Programs

- **SBE Construction Program - $13 million**
  The Port Authority's Engineering Department must also qualify firms applying for this program. This requires the submittal of acceptable references for completed contracts. A minimum of three (3) acceptable references is required for each construction specialty area.

- **SBE Architectural & Engineering Program - $4.5 million**
  - ***Landscape Architectural Services - $6.5 million***
  - ***Marine Engineering & Naval Architecture - $17 million***

  Firms applying for these programs must also have averaged annual revenues of no less than $100,000 over the last three (3) fiscal years to be considered for the program.

- **SBE Commodity Program - $6.5 million**
  Firms eligible to participate in the Commodity Program are eligible to take advantage of a five percent (5%) price preference in designated contracts solicited by the Port Authority's Procurement Division.

- **SBE Janitorial Maintenance Program - $15 million**

- **SBE Unarmed Guard Service Program - $11.5 million**

INFORMATION FOR DETERMINING JOINT VENTURE ELIGIBILITY

Return your submittal to: *The Port Authority of NY & NJ*
Office of Regional & Economic Development
Small Business Programs
233 Park Avenue South, 4th Floor
New York, NY 10003
Firms not currently certified should call (212) 435-7808 for information

(Note: This form need not be completed if all joint venture firms are M/W/DBEs The Joint Venture approval is valid through the duration of the Port Authority contract)

1. NAME OF JOINT VENTURE: _____

2. ADDRESS OF JOINT VENTURE: _____

_____

_____

3. TELEPHONE NUMBER (S) OF JOINT VENTURE: _____

_____

4. (A) IDENTIFY THE FIRMS WHICH COMPRISE THE JOINT VENTURE. (THE MINORITY OR WOMAN-OWNED OR DISADVANTAGED BUSINESS ENTERPRISE PARTNER MUST COMPLETE A UNIFORM CERTIFICATION APPLICATION – SCHEDULE A):

_____

_____

(B) DESCRIBE THE ROLE OF THE M/W/DBE IN THE JOINT VENTURE:

_____

_____

_____

5. NATURE OF THE JOINT VENTURE'S BUSINESS: _____

_____

_____

6. PROVIDE A COPY OF THE JOINT VENTURE AGREEMENT.

Schedule B

7. WHAT IS THE CLAIMED PERCENTAGE OF MBE OR WBE OF DBE OWNERSHIP? _____

8. OWNERSHIP OF JOINT VENTURE: (THIS NEED NOT BE FILLED IN IF DESCRIBED IN THE JOINT VENTURE AGREEMENT)

(A) PROFIT AND LOSS SHARING: _____

_____

(B) CAPITAL CONTRIBUTIONS, INCLUDING EQUIPMENT:

_____

_____

_____

(C) OTHER APPLICABLE OWNERSHIP INTERESTS:

_____

_____

_____

9. CONTROL OF AND PARTICIPATION IN THIS CONTRACT. IDENTIFY BY NAME, RACE, SEX AND "FIRM" THOSE INDIVIDUALS AND THEIR TITLES WHO ARE RESPONSIBLE FOR DAY-TO-DAY MANAGEMENT AND POLICY DECISION-MAKING, BUT NOT LIMITED TO, THOSE WITH PRIME RESPONSIBILITY FOR:

NAME & TITLE	SEX		GROUP CODE*	FIRM
FINANCIAL DECISIONS				
_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____
MANAGEMENT DECISIONS, SUCH AS:				
ESTIMATING				
_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____
MARKETING AND SALES				
_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____

HIRING AND FIRING OF MANAGEMENT PERSONNEL

_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____

PURCHASING OF MAJOR ITEMS OR SUPPLIES

_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____

SUPERVISION OF FIELD OPERATIONS

_____	☐M	☐F	_____	_____
_____	☐M	☐F	_____	_____

*GROUP CODE KEY

01 – BLACK	02A – HISPANIC	03A – ASIAN-PACIFIC	04 – NATIVE AMERICAN
	02B – PORTUGUESE	03B – ASIAN-INDIAN	05 – NON-MINORITY
	02C – SPANISH		06 - OTHER

Affidavit

"The undersigned swear that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operation of the joint venture and the intended participation by each joint venturer in the undertaking. Further, the undersigned agree to provide to the grantee current and complete information and any proposed changes to the joint venture arrangement. The undersigned also agree to permit authorized representatives of the grantee or the Federal-funding agency to audit and examine the books, records and files of the joint venture, or those of each joint venturer relevant to the joint venture. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal or State laws concerning false statement."

_____	_____
NAME OF FIRM	NAME OF FIRM
_____	_____
SIGNATURE	SIGNATURE
_____	_____
NAME	NAME
_____	_____
TITLE	TITLE
_____	_____
DATE	DATE

State of _____ County of _____

On this _____ day of _____, 20____, before me appeared (name) _____ to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (name of firm) _____ to execute the affidavit and did so as his or her free act and deed.

_____
Notary Public

State of _____ County of _____

On this _____ day of _____, 20____, before me appeared (name) _____ to me personally known, who being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (name of firm) _____ to execute the affidavit and did so as his or her free act and deed.

_____
Notary Public

-4-

PA 3749 / 05-07

THE PORT AUTHORITY OF NY & NJ
Office of Business and Job Opportunity

CONSTRUCTION MBE/WBE/DBE PARTICIPATION PLAN

PAGE _____ OF _____

NOTE: The Contractor is required to submit to the Engineering Dept. a MODIFIED PLAN for any changes to the original plan: i.e.; subcontractor, dollar amount or work performed.
If more than 1 page is used, complete totals on last page.

Contract Number: _____

Contractor Name: _____

Mailing Address: _____

Telephone Number: _____

Contract Description: _____

Contract Amount: _____

Contract Goals: **MBE** _____ **WBE** _____ **DBE** _____

Name, Address, Phone Number of PA Certified MBE/WBE/DBE subcontractor (including name of contact person)	Indicate MBE, WBE Or DBE	Description of Work, Services to be provided. Where applicable, specify, "supply" or "install or both "supply" and "install."	Anticipated date work will start and finish	*Approximate $ amount of M/W/DBE Subcontract	MBE/WBE/DBE % of Total Contract Amount
				TOTAL:	

421

Signature of Contractor: _____

Print Name: _____

Title: _____ Date _____

FOR OBJO USE ONLY
Contract Goals: ☐ Approved ☐ Waived ☐ Rejected
Reviewed by: _____
OBJO Business Development Representative
Print Name: _____ Date _____

Distribution: Original – OBJO; Copy 2 – Engineer of Construction; Copy 3 – Contractor; Copy 4 – Line Department
*Please Note: supplies, equipment and material men are only credited 60% towards the M/W/DBE goal. Please adjust calculations accordingly.

Schedule C

INSTRUCTIONS

CONTRACTOR INSTRUCTIONS: Contractor is required to submit a MBE/WBE Participation Plan and/or best efforts documentation to the designee identified in the contract book within 7 days of contract award.

ENGINEER OF CONSTRUCTION INSTRUCTIONS: After a review of the submitted MBE/WBE Participation plan, forward to the Office of Business and Job Opportunity via fax at (212) 435-7828 or PAD to 233PAS 4th Floor for review and approval. Approved/waived/rejected plan will be returned within 10 business days of receipt of this document. Engineer of Construction will advise vendor of the results of the MBE/WBE Participation Plan review.

PA 3749 A/ 5-07

THE PORT AUTHORITY OF NY & NJ
Office of Business and Job Opportunity

CONSTRUCTION MBE/WBE/DBE PARTICIPATION PLAN MODIFIED

PAGE _____ OF _____

Contract Number: _____

Contractor Name: _____

Mailing Address: _____

Telephone Number: _____

Contract Description: _____

Contract Amount: _____

Contract Goals: MBE _____ WBE _____ DBE _____

Name, Address, Phone Number of PA Certified MBE/WBE/DBE subcontractor (including name of contact person)	Indicate MBE, WBE Or DBE	Description of Work, Services to be provided. Where applicable, specify "supply" or "install or both "supply" and "install."	Anticipated date work will start and finish	*Approximate $ amount of M/W/DBE Subcontract	MBE/WBE/DBE % of Total Contract Amount
				TOTAL:	

423

Signature of Contractor: _____

Print Name: _____

Title: _____ Date _____

FOR OBJO USE ONLY

Contract Goals: ☐ Approved ☐ Waived ☐ Rejected

Reviewed by: _____
OBJO Business Development Representative

Print Name: _____ Date _____

Distribution: Original – OBJO; Copy 2 – Engineer of Construction; Copy 3 – Contractor; Copy 4 – Line Department

*Please Note: supplies, equipment and material men are only credited 60% towards the M/W/DBE goal. Please adjust calculations accordingly.

STATEMENT OF PAYMENTS TO M/W/DBE SUBCONTRACTORS/LESSORS/SUPPLIERS

Contract No: _____	Period Reporting: _____ (Example: 10/1/99 - 10/31/99)
Contract Title: _____	Payment Appl #: _____
Contractor: _____	% Project Completed: _____

SUBCONTRACTOR'S NAME	(Indicate) MBE WBE DBE	ESTIMATED TOTAL SUBCONTRACT AMOUNT	Column A = Column B = Column C AMOUNTS PAID Prior Statement	This Statement	Cumulative To-Date
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0

SUPPLIERS/LESSORS	(Indicate) MBE WBE DBE	TOTAL AMOUNT SUPPLIER AGREEMENT	AMOUNTS PAID (Amounts entered should reflect 100% paid. The 50% credit will be handled by this office.) Prior Statement	This Statement	Cumulative To-Date
					$0
					$0
					$0
					$0
					$0
					$0

Date Prepared: _____	The Port Authority of NY & NJ Resident Engineer's Office
Prepared by: _____	Date Received: _____
Title: _____	Reviewed By: _____
Officer's Signature: _____	Title: _____

Schedule D

FINAL

STATEMENT OF PAYMENT

TO M/W/DBE SUBCONTRACTORS/LESSORS/SUPPLIERS

Contract No:	Period Reporting:
Contract Title:	Payment Appl #: & Final
Contractor:	% Project Completed: 100%

SUBCONTRACTOR'S NAME	(Indicate) MBE WBE DBE	TOTAL SUBCONTRACT AMOUNT	Column A AMOUNTS PAID & TO BE PAID Prior Statement	+ Column B This Statement	= Column C Cumulative To-Date
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0
					$0

SUPPLIERS/LESSORS	(Indicate) MBE WBE DBE	TOTAL AMOUNT SUPPLIER AGREEMENT	AMOUNTS PAID & TO BE PAID Prior Statement	This Statement	Cumulative To-Date
					$0
					$0
					$0
					$0
					$0
					$0

Date Prepared: _____

Prepared by: _____

Title: _____

Officer's Signature: _____

The Port Authority of NY & NJ
Resident Engineer's Office

Date Received: _____

Reviewed By: _____

Title: _____

Schedule D

CONFORMED COPY

THE PORT AUTHORITY OF NY & NJ

October 24, 2008

VIA FACSIMILE AND DHL NEXT DAY DELIVERY

Lillian D. Valenti
Director, Procurement Department

Agate Construction Company, Inc.
1030 Route 83
Clermont, NJ 08210

SUBJECT: PORT NEWARK – BERTHS 36 AND 63 WHARF RECONSTRUCTION – CONTRACT PN-800.219 **PURCHASE ORDER UPN800219**

Gentlemen:

The Port Authority of New York and New Jersey hereby accepts your proposal on the above Contract.

The Port Authority elects not to require you to furnish a performance and payment bond.

Your attention is directed to the clause of the Contract entitled "Time for Completion and Damages for Delay" and to the fact that before you may commence performance of the work you must furnish whichever of the documents mentioned in that clause are applicable.

Subject to the provisions of the Form of Contract, including those of the clause entitled "Extra Work Orders", the Chief Engineer shall have the authority to order any item of Extra Work if the cost thereof to the Authority, together with the cost of all other Extra Work previously ordered, will not be in the aggregate in excess of $100,000.

Forwarded herewith for your use and compliance are "General Instructions Relating to the Direction and Processing of Correspondence and of Those Other Items Specified to be Submitted to the Port Authority Under the Terms of the Contract".

In order to ensure that payments are processed properly, please include the above-referenced Purchase Order No. on all payment invoices and correspondence.

Very truly yours,

THE PORT AUTHORITY OF NEW YORK
AND NEW JERSEY

BY Michael B. Jaquantin
for Director of Procurement

Approved as to form: F.F.

Darrell Buchbinder
General Counsel

By _____
Attorney Timothy C. Strickland
Date 10-15-08

1 Madison Avenue, 7th Floor
New York, NY 10010
T: 212 435 8427

DHL DELIVERED TO CONTRACTOR ON OCTOBER 25, 2008

AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/24/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED 1ST SEAWALL SECTION, STRIPPED CAP FORMS, TOOK OUT PIN PILES, SET TIE RODS.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	32CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	6
SEI-54 -- Powered spud barge	8
Komatsu PC250	2
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
10	Dockbuilder	80/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0
1	Dockbuilder Diver	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

PA 0569

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LIGHT DRIZZLE 70°F

MANPOWER: (1) DOCKBUILDER SUPER ; (11) DOCKBUILDER ; (2) OPERATOR ; (2) IRON WORKER; (1) DIVER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE ; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK; (1) CONCRETE VIBRATOR; (1) GENERATOR ; (1) CONC. BUCKET 2CY ; (1) EXCAVATOR KOMATSU PC-250LC.

SEAWALL POUR # 1

- AGATE PLACED 32 cy OF CAT IV 5000 PSI CONC. @ SEAWALL FROM PILE CAP # 31-27.

- TOTAL CONC. DELIVERED: 41 cy ; USED: 32 cy & WASTED: 9 cy.

LOAD # 1 AIR: ~~7~~ 6.2% ; SLUMP: 7½" & CONC. TEMP. 65°F

LOAD # 2 AIR: ~~6~~ 6.5% & SLUMP: 7"

LOAD # 3 AIR: 6.5%

LOAD # 4 WASTED 9 cy & USED: 1 cy AGATE ORDER EXTRA CONC.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 6:30 PM

Sheet 1 of 2

Date: 8/24/10

Signed Mark R

Counter Signed

PA 0569

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LIGHT DRIZZLE 70°F

- PA MATERIAL (DRIVE) ON SITE FOR CONC. TESTING
- CLAYTON QA ON SITE.
- AGATE BROOM FINISH TOP OF SEAWALL & PLACED SOAKER HOSE.
- AGATE STRIPPED PILE CAP# 15 & 16 FORMWORK
- STARTED FORMING BOLLARD BET. PILE CAP# 3 & 4
- WRAP (2) TIE ROD TURNBUCKLE WITH TAPECOAT AS PER. DRAWING NO. S010 @ BERTH 63 SIDE.
- AGATE HAD (1) DIVER ON SITE CUTTING TEMPORARY PILE CAP SUPPORTS BEAM @ BERTH 36 & 63.
- PHOENIX IRON WORKER PLACED BOTTOM DECK REBAR FROM PILE CAP# 4-7 (WORK-IN-PROGRESS).
  STARTED @ 10:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 6:30 PM

Sheet 2 of 2

Date: 8/24/10

Signed Mikael R

Counter Signed

PA 0569

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (1) DIVER; (6) LABOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SGI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (1) PUTZMEISTER TELEBELT TB130 (CONC. CONVEYOR BELT).

CONCRETE DECK PLACEMENT # 4

- AGATE PLACED 72 CY OF CAT IV 5000 PSI CONC. ON DECK BET. PILE CAP # 1-5.

- TOTAL CONC. DELIVERED & USED: 72 CY.

LOAD # 1	AIR: 5.8% SLUMP: 6"	CONC. TEMP. 80°F
LOAD # 2	AIR: 5.5%	
LOAD # 3	AIR: 7%	
LOAD # 4	NO TEST	
LOAD # 5	AIR: 7%	
LOAD # 6	NO TEST	
LOAD # 7	" " "	
LOAD # 8	" " "	

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 1 of 3

Date 8/26/10

Signed Mikeal Ramm

Counter Signed

PA 0569

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 68 WHARF RECONSTRUCTION	Weather SUNNY 80°F

- AGATE PROJECT MANAGER (KEVIN KNUETTEL) SPRAY CURING COMPOUND AFTER BROOM FINISH.
- PA MATERIAL (JIMMY) ON SITE FOR CONC. TESTING.
- CLAYTON QA (SAM) ON SITE.
- AGATE USED WAGNER PUTZMEISTER TELEBELT TB 130 (CONC. CONVEYOR BELT) TO PLACED CONC.
- AGATE CONT. DISASSEMBLE; CLEAN & STOCKPILE (EFCO) FORMS.
- COMPLETED PLACING BULKHEAD @ CENTER OF PILE CAP# 5 & ALSO SEA-WALL KEY FROM PILE CAP# 1-5 IN PREP. FOR CONC. PLACEMENT.
- STRIPPED PILE CAP# 11 & 12 FORMWORK ALSO REMOVE TEMPORARY SUPPORT BEAMS.
- REMOVED SEAWALL FORMWORK SUPPORTS FROM PILE CAP# 31-27, SEAWALL WAS POURED ON 8/24/10.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 Am - 7:30 Pm

Sheet 2 of 3

Date: 8/26/10

Signed Mitch Ra

Counter Signed

PA 0569

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

ACCIDENT REPORT

8/26/10
AT 12:30 PM DOCKBUILDER (WALTER WRIGHT) WAS CUTTING 1" X 6" TIMBER USING CIRCULAR SAW FOR BULKHEAD, WHEN HE CUT HIS LEFT HAND INDEX FINGER; DOCKBUILDER WAS TAKEN TO CONCENTRA URGENT CARE FOR X-RAY BY AGATE ASSISTANT PROJECT ENGINEER. (ANTHONY BARTOLACCI).
AGATE ALSO FILL OUT ACCIDENT REPORT.

RECENT ACCIDENT

DOCKBUILDER (JOHN MICHAELS) JUMP OFF PILE CAP FALSEWORK ONTO FLOAT STAGE TO TURN OFF BROKEN OXYGEN HOSE ON 8/24/10, NO INJURIES WAS REPORTED UNTIL 8/26/10, WHEN DOCKBUILDER (JOHN MICHAELS) CLAIM OF TWISTING HIS KNEE.
AGATE FILLED OUT ACCIDENT REPORT on 8/26/10.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Sheet 3 of 3

Shift: 9:00 AM - 7:30 PM

Date: 8/26/10

Signed Mikael R

Counter Signed

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/1/2010

DAILY LOG

DESCRIPTION OF WORK:
Cleared Material on site in preparation of de-rigging Berminghammer leads/drill/spotter. Removed drill string, discharge hose, air hoses, DTH

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	4
Berminghammer rotary drill/leads/spotter	4
Sullair 1150CFM/350PSI (2-Each)	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
4x2 On-highway pickup	
45kV genset	8
Atlas Copco 8"DTH hammer	4
Safetyboat	8
Godwin Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/2/2010

DAILY LOG

DESCRIPTION OF WORK:

DE-RIGGED THE LEADS, SPOTTER, AND DRILL FROM THE 200T CRANE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	2
Berminghammer rotary drill/leads/spotter	8
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/5/2010

DAILY LOG

DESCRIPTION OF WORK:
DE-RIGGED THE LEADS, SPOTTER, AND DRILL FROM THE 200T CRANE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	2
Berminghammer rotary drill/leads/spotter	8
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/6/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT PIPE PILES TO GRADE AND DE-RIGGED BIRMINGHAM DRILL

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	6
Berminghammer rotary drill/leads/spotter	4
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	2
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
2	Dockbuilder	16/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/7/2010

DAILY LOG

DESCRIPTION OF WORK:

CUT PIPE PILES TO GRADE AND LOADED UP/SENT BACK POWERPACK, AND HALF OF THE DRILL RIG.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	6
Berminghammer rotary drill/leads/spotter	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	2
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/8/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT PIPE PILES TO GRADE, LOADED UP/SENT BACK DRILL LEADS AND THE REST OF BIRMINGHAMMER EQUIPMENT, GENERAL CLEANUP/ORGANIZING OF BARGE

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	6
Berminghammer rotary drill/leads/spotter	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	12/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/9/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT PIPE PILES TO GRADE, LOADED EQUIPMENT ON/OFF BARGE, GENERAL CLEANUP/ORGANIZING OF BARGE

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	8
Berminghammer rotary drill/leads/spotter	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	12/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/12/2010

DAILY LOG

DESCRIPTION OF WORK:
LOADED BARGE WITH THE REST OF THE 14X89 BEAMS, THEN ADDED BOOM TO THE 200T CRANE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

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Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/13/2010

DAILY LOG

DESCRIPTION OF WORK:

LOADED THE BARGE WITH FALSEWORK PILES, RIGGED AND TESTED THE AIRLIFT, RECEIVED MORE BEAMS AND EFCO FORMS. CUT PILES TO GRADE IN THE AFTERNOON.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	4
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
3	Dockbuilder	24/0
2	Operating Engineer (Class A)	16/0

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Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/14/2010

DAILY LOG

DESCRIPTION OF WORK:	
AIRLIFTED PILES AND ASSEMBLED CONCRETE TREMIE IN THE MORNING. CUT PILES TO GRADE IN THE AFTERNOON	
MATERIALS USED	**QUANTITY**
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	5
Link-Belt (75T)	4
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	29/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/15/2010

DAILY LOG

DESCRIPTION OF WORK:

ASSEMBLED TREMIE PIPE AND STANCHION FOR TIMBER PILES. AIRLIFTED PILES, CUT PILES TO GRADE, CUT EXTRA REBAR DOWN TO CORRECT SIZE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	5
Link-Belt (75T)	4
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/16/2010

DAILY LOG

DESCRIPTION OF WORK:
HANDLED FALSWORK FOR PILE CAPS, RAN HOSE FROM WATER SUPPLY TO SITE, AIRLIFTED PILES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

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Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/19/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT PILES TO GRADE, UNLOADED BEAMS AND FORMS FOR PILE CAPS, AIRLIFTED PILES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	6
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

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Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/20/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT PILES TO GRADE, RELOCATED BARGE, AND AIRLIFTED PILES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	4
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

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Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/21/2010

DAILY LOG

DESCRIPTION OF WORK:	
CUT PIPE PILES AND SHEET PILES TO GRADE, TOUCHED UP SHEET PILES THAT WERE CUT, AIRLIFTED PILES	
MATERIALS USED	**QUANTITY**
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	4
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

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Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/22/2010

DAILY LOG

DESCRIPTION OF WORK:
CUT SHEET PILES TO GRADE AND TOUCHED UP, AIRLIFTED PILES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	2
Link-Belt (75T)	6
SEI-54 -- Powered spud barge	2
Hitachi 450 Excavator	6
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/23/2010

DAILY LOG

DESCRIPTION OF WORK:

AIRLIFTED IN THE MORNING, CUT SHEETS AND TOUCHED UP COATED THEM, STARTED TO FAB HANDSETS INTO GANGS FOR PIPE PILE CAPS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4
Link-Belt (75T)	4
SEI-54 -- Powered spud barge	4
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
1	Operating Engineer (Class A)	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/26/2010

DAILY LOG

DESCRIPTION OF WORK:

FAB HANDSETS INTO GANGS FOR PIPE PILE CAPS, LEFT EARLY DUE TO RAIN.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	4
SEI-54 -- Powered spud barge	0
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	16/0
1	Operating Engineer (Class A)	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/27/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED HANDSETS INTO GANGS FOR PIPE PILE CAP AND SET PIN PILES FOR PILE CAP SUPPORT

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (75T)	2
SEI-54 -- Powered spud barge	0
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	4
ICE 42-S Diesel hammer/26" box leads	4
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
1	Operating Engineer (Class A)	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/28/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED HANDSETS INTO GANGS FOR PIPE PILE CAP AND SET PIN PILES FOR PILE CAP SUPPORT

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (75T)	2
SEI-54 -- Powered spud barge	0
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	6
ICE 42-S Diesel hammer/26" box leads	6
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
1	Operating Engineer (Class A)	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/29/2010

DAILY LOG

DESCRIPTION OF WORK:	
FABBED HANDSETS INTO GANGS, LOADED BEAMS ONTO BARGE FOR FALSEWORK, DROVE PIN PILLES 2 IRONWORKERS AND 1 OPERATOR TIED REBAR FOR PILE CAGES.	
MATERIALS USED	**QUANTITY**
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	5
ICE 42-S Diesel hammer/26" box leads	5
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

PN 800.219 FILE# 14

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 4/30/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED HANDSETS INTO GANGS, LOADED FABBED GANGS ONTO BARGE, RELOCATED BARGE, DROVE PIN PILLES. 2 IRONWORKERS AND 1 OPERATOR TIED REBAR FOR PILE CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	3
ICE 42-S Diesel hammer/26" box leads	3
4x2 On-highway pickup	0
45kV genset	8
Atlas Copco 8"DTH hammer	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29 219
ENGINEER: PANYNJ DATE: 5/3/2010

DAILY LOG

DESCRIPTION OF WORK:
RAIN OUT.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	0
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Atlas Copco 8"DTH hammer	0
Safetyboat	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	4/0
1	Operating Engineer (Class A)	8/0
2	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/5/2010

DAILY LOG

DESCRIPTION OF WORK:
DRILLED A COUPLE PIN PILES. FABBED SHEET PILE FORMS, WELDED TREMIE PIPE, WELDED/FABBED FALSEWORK STEEL. REBAR SUB ALSO ON SITE FABBING CAGES. 6AM START.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	6
ICE 42-S Diesel hammer/26" box leads	6
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/6/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED CONCRETE INTO PIPE PILES, FABBED FORMS FOR SHEET CAPS, WORKED ON FALSEWORK SUPPORT FOR PILE CAPS. 6AM START.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/7/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED CONCRETE INTO PIPE PILES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/10/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED FORMS FOR PIPE PILE CAPS. SET FALSEWORK FOR SHEET PILE CAP.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
1	Operating Engineer (Class A)	8/0
0	Ironworkers	0/0

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AGATE
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ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/11/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED FORMS FOR PILE CAPS. SET FALSEWORK FOR SHEET PILE CAP.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (75T)	2
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	32/0
1	Operating Engineer (Class A)	8/0
0	Ironworkers	0/0

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ENGINEERS · CONSTRUCTORS

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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/12/2010

DAILY LOG

DESCRIPTION OF WORK:
FABBED HANDSETS INTO GANGS, THE REST OF THE DAY WAS A RAINOUT.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	2.5
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	2.5
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	2.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
4	Dockbuilder	8.5/0
1	Operating Engineer (Class A)	8/0
0	Ironworkers	0/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/13/2010

DAILY LOG

DESCRIPTION OF WORK:
SET HANDSET PANELS ON BERTH 36, SET SOFFIT ANGLE ON BERTH 36. SET LEDGER BEAM ON 36/63. ONE OPERATOR ASSISTED IRONWORKERS ALL DAY.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
2	Operating Engineer (Class A)	8/0
2	Ironworkers	16/0
1	Dockbuilder Apprentice	8/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/14/2010

DAILY LOG

DESCRIPTION OF WORK:
SET HANDSET PANELS ON 36, WORK ON 36 SHEET CAP FORM, CUT NOTCHES OUT OR OLD DECK/SEAWALL

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
2	Operating Engineer (Class A)	8/0
2	Ironworkers	16/0
1	Dockbuilder Apprentice	8/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/17/2010

DAILY LOG

DESCRIPTION OF WORK:
SET HANDSET PANELS ON 36, WORK ON 36 SHEET CAP FORM,

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
2	Operating Engineer (Class A)	8/0
2	Ironworkers	16/0
1	Dockbuilder Apprentice	8/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/18/2010

DAILY LOG

DESCRIPTION OF WORK:
SET UP FORMWOKRK FOR BERTH 36 SHEET PILE CAP, LEFT EARLY DUE TO RAIN.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	20.5/0
2	Operating Engineer (Class A)	16/0
4	Ironworker Crew (1 Foreman)	20/0
1	Dockbuilder Apprentice	4/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/19/2020

DAILY LOG

DESCRIPTION OF WORK:
ERECTED SHEET PILE CAP, SET SOFFIT FORM, FABBED INSIDE PANEL FOR SHEET PILE CAP, FABBED AND SET REBAR CAGES INTO PILES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	8
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
2	Operating Engineer (Class A)	16/0
6	Ironworker Crew (1 Foreman)	48/0
1	Dockbuilder Apprentice	8/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/20/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED CONCRETE AND PREPARED FOR POURING THE NEXT DAY. FABBED AND SET PILE CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
5	Dockbuilder	40/7.5
2	Operating Engineer (Class A)	16/2
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/1.5
1	Operating Engineer (Class B)	8/2.5

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ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/21/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED 20 PIPE PILES, FORMED UP THE SHEET CAP, FABBED PIPE PILE CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
5	Dockbuilder	40/4
2	Operating Engineer (Class A)	16/1.5
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/0.5
1	Operating Engineer (Class B)	8/2.5

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ENGINEERS · CONSTRUCTORS

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Ocean View, NJ 08230-0107
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/24/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMING FOR SHEET PILE CAP. SET PIPE PILE CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
5	Dockbuilder	40/2.5
2	Operating Engineer (Class A)	16/2
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/0.5
0	Operating Engineer (Class B)	0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/25/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON SHEET PILE CAP. POURED SHEET PILE CAP. FABBED AND SET REBAR CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
5	Dockbuilder	40/2.5
2	Operating Engineer (Class A)	16/2
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/0.5
0	Operating Engineer (Class B)	0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/26/2010

DAILY LOG

DESCRIPTION OF WORK:
ASSEMBLED MORE SHEET PILE FORMS, ADDED LEDGER BEAMS TO STEEL FALSEWORK, SET AND FABBED REBAR CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
2	Operating Engineer (Class A)	16/2
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/0
0	Operating Engineer (Class B)	0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/27/2010

DAILY LOG

DESCRIPTION OF WORK:
TREMIED PIPE PILES, FORMED SHEET PILE CAP, FABBED PIPE PILE CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
5	Dockbuilder	40/7.5
2	Operating Engineer (Class A)	16/2
8	Ironworker Crew (1 Foreman)	64/0
1	Dockbuilder Apprentice	8/1.5
0	Operating Engineer (Class B)	8/3

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 5/28/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMED UP SHEET PILE CAP. FABBED AND SET SET REBAR CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Hitachi 450 Excavator	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT/DT
1	Dockbuilder General Foreman	8/0.5
5	Dockbuilder	40/2.5
2	Operating Engineer (Class A)	16/1
8	Ironworker Crew (1 Foreman)	64/0/10
1	Dockbuilder Apprentice	8/0.5
0	Operating Engineer (Class B)	0

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#1

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FAX 609-624-1534

CONTRACT PN 800.219 FILE# 3

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/1/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMED SHEET PILE CAP. FABBED PILE CAP CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
4	Dockbuilder	32/4
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/2
3	Ironworkers	24/0

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Contractor's Representitive

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/2/2010

DAILY LOG

DESCRIPTION OF WORK:

POURED THE REST OF THE SHEET CAP, STRIPPED THE FORMS FROM THE PART OF THE CAP PREVIOUSLY POURS. CUT NOTCHES INTO DECK AND SEAWALL FOR CONNECTION.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	48/12
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/3
3	Ironworkers	24/0

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ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/3/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED PILES, STRIPPED FORMS FROM FIRST SHEET PILE POUR, FABBED PIPE PILE CAGES, PREPARED TO SET PIPE PILE CAP FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
6	Dockbuilder	48/6
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/1
1	Operating Engineer (Class B)	8/3
3	Ironworkers	24/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/4/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED PILES, PAINTED/TOUCHED UP CUT PILES, FABBED PILE CAGES AND CAP CAGES, SET PILE CAP FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
6	Dockbuilder	48/6
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/1
1	Operating Engineer (Class B)	8/3
3	Ironworkers	24/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/7/2010

DAILY LOG

DESCRIPTION OF WORK:	
ERECTED PIPE PILE CAPS, STRIPPED SHEET PILE CAP FORMS, FABBED/SET FINAL PILE CAGES AND FABBED MORE PILE CAP CAGES	
MATERIALS USED	**QUANTITY**
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

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Inspector

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ENGINEERS · CONSTRUCTORS

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1030 Route 83
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Ocean View, NJ 08230-0107
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/8/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED PILES, ERECTED PILE CAP FORMS, UNLOADED BEAMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
5	Dockbuilder	40/3.5
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/1.5
2	Ironworkers	16/0
1	Operating Engineer (Class B)	8/.5

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/9/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED SHEET PILE CAP FORMS, BLOCKED OUT THE END OF THE PILE CAPS, POURED PIPE PILES, SET AND FABBED PILE CAP CAGES

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/1.5
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/.5
2	Ironworkers	16/0
1	Operating Engineer (Class B)	8/.5

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Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/10/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED 1ST TWO CAPS AND FINISHED POURING ALL PIPE PILES. FABBED PILE CAP CAGES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/1
2	Ironworkers	16/0
1	Operating Engineer (Class B)	8/.5

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Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/11/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED SHEET PILE CAP FORMS, FABBED HANDSETS INTO GANGS FOR EXTRA PIPE PILE CAP FORMS, REMOVED FALSEWORK FOR SHEET CAPS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
CAT 325C	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/1
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

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Inspector

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ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/14/2010

DAILY LOG

DESCRIPTION OF WORK:
SET CAP FORMS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	5
SEI-54 -- Powered spud barge	8
Komatsu PC250	3
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
6	Dockbuilder	48/7
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/1
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

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Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/15/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED CAP FORMS, ERECTED CAP FORMS, SET SOFFIT FORMS, SET CAGES, FABBED HANDSETS INTO GANGS DURING HIGH WATER.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	48/13
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
0	Ironworkers	8/0
0	Operating Engineer (Class B)	0/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/16/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED PILE CAPS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	48/13
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
0	Ironworkers	8/0
0	Operating Engineer (Class B)	0/0

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CONSTRUCTION CO., INC.
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Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/17/2010

DAILY LOG

DESCRIPTION OF WORK:
PUT IN STEEL FALSEWORK FOR CAPS, ERECTED FORMS FOR CAPS, PREPARED FOR FRIDAY'S POUR.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	48/13
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
0	Ironworkers	8/0
0	Operating Engineer (Class B)	0/0

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ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/18/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED CAPS, SET STEEL FALSEWORK

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
6	Dockbuilder	48/7
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/2
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/19/2010

DAILY LOG

DESCRIPTION OF WORK:
SATURDAY. SET THE REST OF OUR PILE CAP SUPPORT BEAMS, ERECTED CAP FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4
Link-Belt (75T)	4
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8
5	Dockbuilder	0/38
1	Dockbuilder Apprentice	0/8
1	Operating Engineer (Class A)	0/8
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/21/2010

DAILY LOG

DESCRIPTION OF WORK:
SET SOFFIT FORMS, STARTED TO FORM BENT G, STRIPPED CAP FORMS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/1
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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Main Office:
1030 Route 83
P.O. Box 107
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/22/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED CAP FORMS, ERECTED CAP FORMS, SET SOFFIT FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/1
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/23/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED FORMS, ERECTED FORMS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/.5
2	Ironworkers	16/0
0	Operating Engineer (Class B)	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/24/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED TWO BENTS, STRIPPED FORMS, SET CAP AND SOFFIT FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	16/1
2	Ironworkers	16/0
0	Operating Engineer (Class B)	0/0

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Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 6/25/2010

DAILY LOG

DESCRIPTION OF WORK:
SET FORMS, POURED 2 BENTS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/.5
6	Dockbuilder	48/2.5
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/1
0	Ironworkers	0/0
0	Operating Engineer (Class B)	0/0

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Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/1/2010

DAILY LOG

DESCRIPTION OF WORK:
PREPARED FOR POURING THREE BENTS TOMORROW.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	44/12
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	14/4
2	Ironworkers	16/2

We jointly certify that the above work was performed.

Contractor's Representitive

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Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/2/2010

DAILY LOG

DESCRIPTION OF WORK:
SET S.I.P. PANS, ERECTED/STRIPPED FORMS, POURED THREE BENTS.

MATERIALS USED	QUANTITY
5000PSI CONCRETE	43 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
6	Dockbuilder	42/12.5
1	Dockbuilder Apprentice	7/2
2	Operating Engineer (Class A)	16/4
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

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ENGINEERS · CONSTRUCTORS

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1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/5/2010

DAILY LOG

DESCRIPTION OF WORK:
4TH OF JULY HOLIDAY

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	0
Komatsu PC250	0
Office Trailers (2-Each)	0
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	0/0
1	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/6/2010

DAILY LOG

DESCRIPTION OF WORK:
ERECTED FORMS, SET S.I.P. PANS, CLEANED AND MADE FLUSH THE EDGE OF EXISTING BERTH 63, PULLED PIN PILES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	2.5
ICE 42-S Diesel hammer/26" box leads	2.5
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	13/0
0	Ironworkers	0/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/7/2010

DAILY LOG

DESCRIPTION OF WORK:
SET PANS AND ERECTED FORMS, STARTED TO FORM BENT ONE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

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Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/8/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED FORMS, PREPARED FOR POURING BENT ONE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
1	Operating Engineer (Class A)	8/0
2	Ironworkers	8/0

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/9/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED BENT ONE. ERECTED FORMS AND SET S.I.P. FORMS.

MATERIALS USED	QUANTITY
5000PSI CONCRETE	3 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0.5
6	Dockbuilder	48/3
1	Dockbuilder Apprentice	8/.5
2	Operating Engineer (Class A)	16/1
0	Ironworkers	0/0

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Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/12/2010

DAILY LOG

DESCRIPTION OF WORK:
SET FORMS, SET SOME OF BENT G, PLACED S.I.P. PANS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

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Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/13/2010

DAILY LOG

DESCRIPTION OF WORK:
ERECTED FORMS, RAIN.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4.5
Link-Belt (75T)	4.5
SEI-54 -- Powered spud barge	4.5
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	4.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
7	Dockbuilder	31.5/0
1	Dockbuilder Apprentice	4.5/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0

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Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/14/2010

DAILY LOG

DESCRIPTION OF WORK:
ERECTED, SET PANS, SET REBAR FOR PILE CAPS. SET FORMS FOR FIRST DECK POUR.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9.5
Link-Belt (75T)	9.5
SEI-54 -- Powered spud barge	9.5
Komatsu PC250	0
Office Trailers (2-Each)	9.5
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9.5
Safetyboat	9.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
7	Dockbuilder	56/10.5
1	Dockbuilder Apprentice	8/1.5
2	Operating Engineer (Class A)	16/3
2	Ironworkers	16/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/15/2010

DAILY LOG

DESCRIPTION OF WORK:
PREPARED FOR CONCRETE TOMORROW.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
7	Dockbuilder	56/15
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
3	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/16/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED PILE CAPS.

MATERIALS USED	QUANTITY
5000PSI CONCRETE	33CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
7	Dockbuilder	56/14
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
0	Ironworkers	0/0

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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Ocean View, NJ 08230-0107
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/19/2010

DAILY LOG

DESCRIPTION OF WORK:

ERECTED SIDE FORMS FOR DECK POUR. ERECTED FORMS FOR CAPS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	71/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/20/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMED DECK ENDS, ERECTED CAP FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	72/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/21/2010

DAILY LOG

DESCRIPTION OF WORK:
FINISHED FOR TOMORROW'S POUR, STARTED WORKED ON GETTING READY FOR FRIDAY'S POUR.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
9	Dockbuilder	72/5.5
1	Dockbuilder Apprentice	8/0.5
2	Operating Engineer (Class A)	16/2
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/22/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED 2 BENTS, PREPARED FOR TOMORROW'S POUR.

MATERIALS USED	QUANTITY
5000PSI CONCRETE	28.5CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0.5
9	Dockbuilder	72/5.5
1	Dockbuilder Apprentice	8/0.5
2	Operating Engineer (Class A)	16/1
2	Ironworkers	16/0

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Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/23/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED ONE BENT, LAYED REBAR ON DECK, STARTED TO ERECT SEAWALL FORMS.

MATERIALS USED	QUANTITY
5000PSI CONCRETE	12CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	9.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	19
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9.5
Safetyboat	9.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
9	Dockbuilder	72/9
1	Dockbuilder Apprentice	8/1.5
2	Operating Engineer (Class A)	16/2
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/27/2010

DAILY LOG

DESCRIPTION OF WORK:
SET BOLLARD SLEEVES, STRIPPED CAP FORMS, SET CAP FORMS, POURED BENT 8 AND PART OF G, PANS SET

MATERIALS USED	QUANTITY
5000PSI CONCRETE	15CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	64/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0

We jointly certify that the above work was performed.

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/28/2010

DAILY LOG

DESCRIPTION OF WORK:
SET FORMS, PREPARED FOR FRIDAY'S POUR, SET BENT 18 CAGE.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	66/18
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	14/4
2	Ironworkers	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

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CONSTRUCTION CO., INC.
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Main Office:
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/29/2010

DAILY LOG

DESCRIPTION OF WORK:
CAP FORMING, DECK FORMING, PLACED CAP SIP PANS, RAIN ON-AND-OFF.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	68/18
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	14/4
2	Ironworkers	16/0

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction

CONTRACT NO: PN 800.29

ENGINEER: PANYNJ DATE: 7/30/2010

DAILY LOG

DESCRIPTION OF WORK:
DEMO OF BENT 2, COMPLETED PANS FOR TWO BENTS, MADE BEAMS, SET FALSEWORK.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	70/18
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/4
2	Ironworkers	16/0

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Contractor's Representitive

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CONTRACT PN800.219 FILE# 3.

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 7/31/2010

DAILY LOG

DESCRIPTION OF WORK:
FINISHED BENT 2 DEMO, SET FORMS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8
6	Dockbuilder	0/48
0	Dockbuilder Apprentice	0/0
1	Operating Engineer (Class A)	0/8
0	Ironworkers	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/2/2010

DAILY LOG

DESCRIPTION OF WORK:

POURED BENTS 9, 18, AND PART OF G. FORMED FOR THE FIRST DECK POUR. 5AM START.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	23 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (75T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	0
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
9	Dockbuilder	72/9
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/2
0	Ironworkers	0/0

We jointly certify that the above work was performed.

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ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/3/2010

DAILY LOG

DESCRIPTION OF WORK:

DECK PANS PLACED. DEMO OF BENT 2. FORMED FOR NEXT DECK POUR. POURED 1ST DECK POUR.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	53 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
30LB Jack Hammer	4
65LB Jack Hammer	4
36X Boom Pump	4

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	72/18
1	Dockbuilder Apprentice	8/2
3	Operating Engineer (Class A)	24/7
0	Ironworkers	0/0
5	Laborers	40/0
1	Laborer Foreman	8/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/4/2010

DAILY LOG

DESCRIPTION OF WORK:	
FORMED AND PUT DOWN PANS FOR BENT 2. REMOVED SOME PIN PILES SET UP FOR THE NEXT DECK POUR TOMORROW.	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	0 CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
30LB Jack Hammer	0
65LB Jack Hammer	0
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	72/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/5/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMED AND PREPARED TO POUR BENTS 10, 17 AND 2 TOMORROW. SET DECK PANS WHERE PIN PILES WERE PULLED, POURED AND FINISHED DECK SLAB SECTION 2. SET MORE CAP & DECK STEEL.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	43 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	72/0
1	Dockbuilder Apprentice	8/0
3	Operating Engineer (Class A)	24/3
2	Ironworkers	16/0
6	Laborers	38/0
1	Laborer Foreman	8/0

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ENGINEERS · CONSTRUCTORS

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1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/6/2010

DAILY LOG

DESCRIPTION OF WORK:

POURED BENTS 2, 10, & 17. FORMED 11 & 16.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	27 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0.5
9	Dockbuilder	72/4.5
1	Dockbuilder Apprentice	8/0.5
2	Operating Engineer (Class A)	16/1
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/9/2010

DAILY LOG

DESCRIPTION OF WORK:

STRIPPED CAP FORMS. ERECTED MORE FORMS FOR BENTS 11 & 16. PUT PILE CAP PANS IN. CHIPPED DOWN CRACK IN BENT 19 TO GROUT TOMORROW.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
8	Dockbuilder	64/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/10/2010

DAILY LOG

DESCRIPTION OF WORK:	
REINFORCEMENT SET FOR 11 & 16. FORMED 11 & 16 MORE. STARTED ERECTING 12, FINISHED PANS ON BENT G. GROUTED CHIPPED DOWN AREA ON BENT 19	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	0 CY
EUCLID N-S GROUT (50LB BAGS)	2.5 BAGS
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	72/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0.5
2	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/11/2010

DAILY LOG

DESCRIPTION OF WORK:	
FORMWORK FOR PILE CAPS	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	0 CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	9.5
Link-Belt (75T)	9.5
SEI-54 -- Powered spud barge	9.5
Komatsu PC250	0
Office Trailers (2-Each)	19
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9.5
Safetyboat	9.5
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1.5
8	Dockbuilder	64/10.5
1	Dockbuilder Apprentice	8/1.5
2	Operating Engineer (Class A)	16/3
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/12/2010

DAILY LOG

DESCRIPTION OF WORK:

CLOSED UP 3 BULKHEADS, PANS SET IN 2 BENTS, ERECTED 2 MORE BENTS. IRONWORKERS SETTING THE REST OF THE CAP REBAR IN PLACE, STARTING TODAY.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	58/14
1	Dockbuilder Apprentice	5/0
2	Operating Engineer (Class A)	16/4
2	Ironworkers	16/2
0	Laborers	0/0
0	Laborer Foreman	0/0

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ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/13/2010

DAILY LOG

DESCRIPTION OF WORK:

COMPLETED ALL BULKHEADS, CROSS BRACING, PANS ON BENTS 11-16, STRIPPED CAP FORMWORK, CLEANED SITE DUE TO EXTREMELY HIGH TIDES.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	5/3
8	Dockbuilder	35/21
1	Dockbuilder Apprentice	5/3
2	Operating Engineer (Class A)	10/6
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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ENGINEERS • CONSTRUCTORS

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/16/2010

DAILY LOG

DESCRIPTION OF WORK:

POURED BENTS 11-16. PREPARED FOR FORMING DECK POUR 4.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	36 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (75T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	0
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
8	Dockbuilder	56/7
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/2
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction

CONTRACT NO: PN 800.29

ENGINEER: PANYNJ DATE: 8/17/2010

DAILY LOG

DESCRIPTION OF WORK:
REMOVED FALSEWORK, ERECTED SEAWALL FORMS, FINISHED PLACING DECK POUR 3 REBAR, STRIPPED DECK FORMS.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
8	Dockbuilder	64/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	8/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction

CONTRACT NO: PN 800.29

ENGINEER: PANYNJ DATE: 8/18/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMED UP EVERYTHING NEEDED FOR DECK POUR 3. EXTRACTED SOME PIN PILE FALSEWORK. SET SOME DECK PANS

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	72/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/19/2010

DAILY LOG

DESCRIPTION OF WORK:

SET TIMBER BLOCKS ON THE SIDE OF SOME CAPS. FORMED SEAWALL. SET DECK PANS FOR NEXT SLAB POUR. REMOVED FALSEWORK/PIN PILES. POURED DECK 3.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	53 CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (75T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	0
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
36X Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
10	Dockbuilder	80/6.5
1	Dockbuilder Apprentice	8/1
3	Operating Engineer (Class A)	24/2
0	Ironworkers	0/0
5	Laborers	40/0
0	Laborer Foreman	0/0

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PROJECT: Berth 36 & 63 Reconstruction

CONTRACT NO: PN 800.29

ENGINEER: PANYNJ DATE: 8/20/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON SEAWALL FORMS, DECK END FORMS, STARTED SETTING DECK REBAR FOR THE NEXT DECK POUR.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
10	Dockbuilder	80/1.5
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0

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Contractors Representitive

Inspector

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ENGINEERS · CONSTRUCTORS

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/21/2010

DAILY LOG

DESCRIPTION OF WORK:

REMOVED PILES, INSTALLED TIE RODS, FORMED SEAWALL, STRIPPED SLAB BULKHEAD.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8.5
Link-Belt (75T)	8.5
SEI-54 -- Powered spud barge	8.5
Komatsu PC250	0
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8.5
Safetyboat	8.5
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8.5
9	Dockbuilder	0/77.5
1	Dockbuilder Apprentice	0/8.5
2	Operating Engineer (Class A)	0/17
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0
1	Dockbuilder Diver	0/8.5

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ENGINEERS · CONSTRUCTORS

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/23/2010

DAILY LOG

DESCRIPTION OF WORK:	
RAIN. ONE DOCKBUILDER STAYED. SET DECK PANS.	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	0CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	0
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
9	Dockbuilder	17/0
1	Dockbuilder Apprentice	1/0
2	Operating Engineer (Class A)	16/0
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0
1	Dockbuilder Diver	1/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/24/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED 1ST SEAWALL SECTION, STRIPPED CAP FORMS, TOOK OUT PIN PILES, SET TIE RODS.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	32CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	6
SEI-54 -- Powered spud barge	8
Komatsu PC250	2
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
10	Dockbuilder	80/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
0	Ironworkers	0/0
0	Laborers	0/0
0	Laborer Foreman	0/0
1	Dockbuilder Diver	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/25/2010

DAILY LOG

DESCRIPTION OF WORK:

WORKED ON SETTING UP THE 4TH DECK POUR

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
11	Dockbuilder	54/12
1	Dockbuilder Apprentice	1/0
2	Operating Engineer (Class A)	16/3
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0
0	Dockbuilder Diver	0/0

We jointly certify that the above work was performed.

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AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/26/2010

DAILY LOG

DESCRIPTION OF WORK:

FORMING FOR THE 4TH DECK POUR, STRIPPING THE SEAWALL, TOOK DOWN FALSEWORK.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	71CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (75T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
11	Dockbuilder	88/19
1	Dockbuilder Apprentice	1/0
3	Operating Engineer (Class A)	23/5.5
0	Ironworkers	0/0
0	Laborers	36/0
0	Laborer Foreman	0/0
0	Dockbuilder Diver	0/0

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AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/27/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED SEAWALL FORMS, TOOK FORMS OFF FROM LAST POUR

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	11
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	11
Komatsu PC250	11
Office Trailers (2-Each)	22
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	11
Safetyboat	11
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/3
11	Dockbuilder	76/30
1	Dockbuilder Apprentice	0/0
3	Operating Engineer (Class A)	16/4
2	Ironworkers	16/0
0	Laborers	0/0
0	Laborer Foreman	0/0
0	Dockbuilder Diver	0/0

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AGATE CONSTRUCTION CO., INC.
ENGINEERS • CONSTRUCTORS

Main Office
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/28/2010

DAILY LOG

DESCRIPTION OF WORK:
FORMING FOR THE NEXT DECK POUR, TOOK APART FORMS.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	8
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8
8	Dockbuilder	0/64
0	Dockbuilder Apprentice	0/0
1	Operating Engineer (Class A)	0/8
2	Ironworkers	0/16
0	Laborers	0/0
0	Laborer Foreman	0/0
1	Dockbuilder Diver	0/8

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ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/30/2010

DAILY LOG

DESCRIPTION OF WORK:	
WORKED ON BULKHEAD FOR NEXT DECK POUR, SET SEAWALL KEYWAY HUNG FORM, SET END FORMS, BROKE DOWN CAP FORMS, PLACED DECK STEEL. HAD 2 SHIFTS OF IRON WORKERS.	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	0CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	12.5
Link-Belt (75T)	0
SEI-54 -- Powered spud barge	
Komatsu PC250	8
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	12.5
Safetyboat	10
36X Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
7	Dockbuilder	54/14
0	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	14/6.5
4	Ironworkers	16/4
0	Laborers	0/0
0	Laborer Foreman	0/0
2	Dockbuilder Foreman	0/0

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AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 8/31/2010

DAILY LOG

DESCRIPTION OF WORK:

FINISHED BULKHEAD FOR NEXT DECK POUR, WORKED ON NEXT BOLLARD PLACEMENT, SET MORE FORMS, RECEIVED 35 TIMBER PILES, RECEIVED RENTAL CHERRY PICKER. SEAWALL & DECK STEEL.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	6
SEI-54 -- Powered spud barge	10
Komatsu PC250	4
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	54/12
0	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	16/4
4	Ironworkers	32/0
0	Laborers	0/0
0	Laborer Foreman	0/0
2	Dockbuilder Foreman	16/4

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Contractor's Representitive

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AGATE CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/1/2010

DAILY LOG

DESCRIPTION OF WORK:	
FORMED FOR NEXT DECK POUR, STRIPPED FROM LAST DECK POUR, ONE DOCKBUILDER ON LIGHT DUTY, POURED DECK SECTION	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	74CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	10
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	10
Komatsu PC250	2
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/16
1	Dockbuilder Apprentice	8/2
3	Operating Engineer (Class A)	24/8
4	Ironworkers	32/0
6	Laborers	36/0
0	Laborer Foreman	0/0
2	Dockbuilder Foreman	16/4

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE CONSTRUCTION CO., INC.
ENGINEERS • CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/2/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON SETTING THE NEXT SEAWALL POUR AND STRIPPING THE BULKHEAD FROM THE LAST DECK POUR.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	10
Komatsu PC250	2
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	62/14
1	Dockbuilder Apprentice	8/2
3	Operating Engineer (Class A)	22.5/8
4	Ironworkers	32/0
6	Laborers	12/0
0	Laborer Foreman	0/0
2	Dockbuilder Foreman	16/4

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AGATE CONSTRUCTION CO., INC.
ENGINEERS • CONSTRUCTORS

Main Office:
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/3/2010

DAILY LOG

DESCRIPTION OF WORK:	
1/2 OF THE DOCKBUILDERS WORKED ON ONE SECTION OF THE SEAWALL AND THE OTHER WORKED ON ANOTHER SECTION.	
MATERIALS USED	**QUANTITY**
CONCRETE - CAT IV, 5000PSI	78CY
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	48/14
1	Dockbuilder Apprentice	6/2
3	Operating Engineer (Class A)	22.5/8
1	Ironworkers	8/0
6	Laborers	36/0
0	Laborer Foreman	0/0
2	Dockbuilder Foreman	16/4

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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CONT. NO. PN 800.219 | SHT. NO. 3.

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/6/2010

DAILY LOG

DESCRIPTION OF WORK:
LABOR DAY

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	0
Komatsu PC250	
Office Trailers (2-Each)	0
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	0
Safetyboat	0
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
8	Dockbuilder	0/0
1	Dockbuilder Apprentice	0/0
3	Operating Engineer (Class A)	16/0
1	Ironworkers	0/0
6	Laborers	24/0
2	Dockbuilder Foreman	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/7/2010

DAILY LOG

DESCRIPTION OF WORK:
8AM START. WORKED ON SEAWALL AND FORMING DECK SLAB

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
8	Dockbuilder	64/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/0
1	Ironworkers	8/0
0	Laborers	0/0
2	Dockbuilder Foreman	16/0

We jointly certify that the above work was performed.

Contractors Representitive

Inspector

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/8/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED LAST SECTION OF DECK. POURED NEXT SECTION OF SEAWALL. FORMED NEXT SEAWALL SECTION.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	101CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
8	Dockbuilder	58/0
1	Dockbuilder Apprentice	8/0
3	Operating Engineer (Class A)	24/3
1	Ironworkers	8/0
6	Laborers	36/0
2	Dockbuilder Foreman	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/9/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED SEAWALL FORMS, ERECTED MORE SEAWALL FORMS

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
7	Dockbuilder	56/5
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/0
1	Ironworkers	8/0
2	Dockbuilder Foreman	16/0

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/10/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED SEAWALL SECTION. ERECTED/STRIPPED MORE SEAWALL FORMS.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	50CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	48/0
1	Dockbuilder Apprentice	8/0
3	Operating Engineer (Class A)	24/2
1	Ironworkers	8/0
2	Dockbuilder Foreman	16/0

We jointly certify that the above work was performed.

Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/11/2010

DAILY LOG

DESCRIPTION OF WORK:
3AM START. FORMWORK; STRIPPING AND ERECTING

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	8
Safetyboat	8
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
7	Dockbuilder	0/56
1	Dockbuilder Apprentice	0/8
2	Operating Engineer (Class A)	0/16
0	Ironworkers	0/0
2	Dockbuilder Foreman	0/16

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Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/13/2010

DAILY LOG

DESCRIPTION OF WORK:
STRIPPED AND ERECTED SEAWALL FORMS, SITE CLEANUP

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	40/12
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/4
1	Ironworkers	8/0
2	Dockbuilder Foreman	16/4

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CONSTRUCTION CO., INC.
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Main Office:
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/14/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED SEAWALL SECTION. PREPARED FOR NEXT SEAWALL POUR

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	44CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
Boom Pump	9

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
7	Dockbuilder	56/7
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	24/4
2	Dockbuilder Foreman	16/2

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/15/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON TIMBER CURB AND CHOCKS, FINISHED FORMING FOR NEXT SEAWALL POUR.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	48/6
1	Dockbuilder Apprentice	8/1
2	Operating Engineer (Class A)	16/2
2	Dockbuilder Foreman	16/2

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/16/2010

DAILY LOG

DESCRIPTION OF WORK:
SEAWALL FORMS. POURED NEXT SECTION OF SEAWALL.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	38CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
Boom Pump	9

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
7	Dockbuilder	56/7
1	Dockbuilder Apprentice	8/1
3	Operating Engineer (Class A)	24/2
1	Dockbuilder Foreman	8/1

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/17/2010

DAILY LOG

DESCRIPTION OF WORK:
RECEIVED TIMBER PILES, STRIPPED FORMS, SEAWALL FORMING.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	0CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	9
Komatsu PC250	
Office Trailers (2-Each)	18
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	9
Safetyboat	9
Boom Pump	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	48/8
1	Dockbuilder Apprentice	8/2
2	Operating Engineer (Class A)	16/1
2	Dockbuilder Foreman	16/2

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Main Office:
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/18/2010

DAILY LOG

DESCRIPTION OF WORK:
POURED LAST SECTION OF SEAWALL, BROKE DOWN FORMS. ALSO PLUGGED WHERE WATER WAS COMING UP ON BERTH 63 AND POURED THE CONCRETE BLOCKS FOR THE WATERLINE.

MATERIALS USED	QUANTITY
CONCRETE - CAT IV, 5000PSI	60CY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
4x2 On-highway pickup	0
45kV genset	10
Safetyboat	10
Boom Pump	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	0/60
1	Dockbuilder Apprentice	0/10
3	Operating Engineer (Class A)	0/24
2	Dockbuilder Foreman	0/20.5

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/20/2010

DAILY LOG

DESCRIPTION OF WORK:
DROVE TIMBER PILES, SET TWO TIE RODS, STRIPPED SEAWALL FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	9
Office Trailers (2-Each)	17
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
45kV genset	9
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
5	Dockbuilder	39/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/1
2	Dockbuilder Foreman	16/0

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/21/2010

DAILY LOG

DESCRIPTION OF WORK:
INSTALLED TIE RODS, WORKED ON TIMBER PILES.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	9.5
Office Trailers (2-Each)	19
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	9.5
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	48/3.5
1	Dockbuilder Apprentice	4/0
2	Operating Engineer (Class A)	16/1.5
2	Dockbuilder Foreman	16/2

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Main Office:
1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/22/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON TIE RODS AND CAST-IN ANCHOR HOLES ON SEAWALL. BROKE DOWN EFCO FORMS TO SEND BACK.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	10
Office Trailers (2-Each)	20
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	10
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
6	Dockbuilder	40/2
1	Dockbuilder Apprentice	3.5/0
2	Operating Engineer (Class A)	16/2
2	Dockbuilder Foreman	16/1

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Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/23/2010

DAILY LOG

DESCRIPTION OF WORK:
BROKE DOWN FORMS, INSTALLED TIE RODS

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	9.5
Office Trailers (2-Each)	19
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	9.5
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
1	Dockbuilder Apprentice	8/0
2	Operating Engineer (Class A)	16/1.5
2	Dockbuilder Foreman	16/0

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Contractors Representitive

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ENGINEERS · CONSTRUCTORS

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PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/24/2010

DAILY LOG

DESCRIPTION OF WORK:
SHIPPED OUT CONCRETE FORMS.

MATERIALS USED	QUANTITY

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
1	Dockbuilder Apprentice	6/0
2	Operating Engineer (Class A)	16/0
2	Dockbuilder Foreman	16/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/25/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON FENDER SYSTEM AND PILES.

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8
5	Dockbuilder	0/40
1	Dockbuilder Apprentice	0/4
2	Operating Engineer (Class A)	0/16
2	Dockbuilder Foreman	0/16

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ENGINEERS · CONSTRUCTORS

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1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/27/2010

DAILY LOG

DESCRIPTION OF WORK:
SHIPPED OUT EFCO FORMS, RECEIVED TIMBER PILES. RAIN OUT REST OF THE DAY

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	4.5
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	4.5
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	4.5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	22.5/0
0	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	16/0
2	Dockbuilder Foreman	16/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/28/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON FENDER SYSTEM AND DOLPHIN, CLEANED SITE FOR BACKFILLING TOMORROW.

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	8

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
5	Dockbuilder	40/0
0	Dockbuilder Apprentice	0/0
2	Operating Engineer (Class A)	16/0
2	Dockbuilder Foreman	16/0

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1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/29/2010

DAILY LOG

DESCRIPTION OF WORK:	
WORKED ON THE FENDER SYSTEM AND BACKFILLED	
MATERIALS USED	**QUANTITY**
TIMBER PILES	
TIMBER	
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	8
Office Trailers (2-Each)	16
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	6
Sakai Roller	2

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/0
0	Dockbuilder Apprentice	0/0
3	Operating Engineer (Class A)	24/1
2	Dockbuilder Foreman	16/0

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CONSTRUCTION CO., INC.
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1030 Route 83
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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 9/30/2010

DAILY LOG

DESCRIPTION OF WORK:
RAIN OUT

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	0
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	0
Komatsu PC250	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	
ICE 42-S Diesel hammer/26" box leads	
45kV genset	8
Safetyboat	0
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	6/0
0	Dockbuilder Apprentice	0/0
3	Operating Engineer (Class A)	24/0
2	Dockbuilder Foreman	16/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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1030 Route 83
P.O. Box 107
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TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/1/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON FENDER SYSTEM, LEFT DUE TO RAIN

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	6
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	6
Komatsu PC250	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
45kV genset	8
Safetyboat	6
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	6
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	36/0
3	Operating Engineer (Class A)	24/0
2	Dockbuilder Foreman	16/0

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Contractor's Representitive

Inspector

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

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FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/2/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON FENDER SYSTEM

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	8
ICE 44-30 Vibratory Hammer/Powerpack	0
ICE 42-S Diesel hammer/26" box leads	0
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	0/8
5	Dockbuilder	0/40
1	Operating Engineer (Class A)	0/8
2	Dockbuilder Foreman	0/16

We jointly certify that the above work was performed.

Contractor's Representitive

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CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/4/2010

DAILY LOG

DESCRIPTION OF WORK:
BACKFILLED. WORKED ON FENDER SYSTEM AND CURB.

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	X

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	10
Komatsu PC250	10
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	5
Loader CAT 950G	0
Sakai Roller	5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
7	Dockbuilder	55.5/10
3	Operating Engineer (Class A)	24/7
2	Dockbuilder Foreman	16/4

We jointly certify that the above work was performed.

Contractor's Representitive

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ENGINEERS · CONSTRUCTORS

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1030 Route 83
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Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/5/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON THE FENDER SYSTEM, TIMBER PILES, BOLLARDS, AND BACKFILLED.

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	X

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	10
Komatsu PC250	10
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	5
Loader CAT 950G	0
Sakai Roller	5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
7	Dockbuilder	56/12
3	Operating Engineer (Class A)	24/7
2	Dockbuilder Foreman	16/4

We jointly certify that the above work was performed.

Contractor's Representitive

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AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/6/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON FENDER SYSTEM, CURB, AND BACKFILL WORK

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	X

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	5
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	5
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/10
2	Operating Engineer (Class A)	16/4
2	Dockbuilder Foreman	16/4
1	Dockbuilder Marine Diver	8/2

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/7/2010

DAILY LOG

DESCRIPTION OF WORK:
WORKED ON DOLPHIN, FENDER SYSTEM, BOLLARDS, AND TIMBER CURB.

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
7	Dockbuilder	56/12
2	Operating Engineer (Class A)	16/2.5
2	Dockbuilder Foreman	16/4
0	Dockbuilder Marine Diver	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/8/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM AND PILE WORK.	
MATERIALS USED	**QUANTITY**
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
6	Dockbuilder	48/12
2	Operating Engineer (Class A)	16/4
2	Dockbuilder Foreman	16/4
0	Dockbuilder Marine Diver	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/11/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM AND DOLPHIN WORK.

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Komatsu PC250	0
Office Trailers (2-Each)	16
45kV genset	8
Safetyboat	8
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
0	Dockbuilder General Foreman	0/0
7	Dockbuilder	51/0
2	Operating Engineer (Class A)	16/0
2	Dockbuilder Foreman	16/0
0	Dockbuilder Marine Diver	0/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/12/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM, CURB, AND TIMBER PILE WORK.	
MATERIALS USED	**QUANTITY**
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/15
2	Operating Engineer (Class A)	16/4
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/13/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM, AND DOLPHIN WORK	
MATERIALS USED	**QUANTITY**
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	10
Link-Belt (40T)	5
SEI-54 -- Powered spud barge	10
Komatsu PC250	5
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	72/15.5
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/14/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM, TIMBER PILE, DOLPHIN WORK

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	9
SEI-54 -- Powered spud barge	9
Komatsu PC250	0
Office Trailers (2-Each)	18
45kV genset	9
Safetyboat	9
Bull Dozer Komatsu D 41P	0
Loader CAT 950G	0
Sakai Roller	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
9	Dockbuilder	72/7
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/15/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM, TIMBER PILE WORK	
MATERIALS USED	**QUANTITY**
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (200T)	10
Link-Belt (40T)	4
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	6

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/15.5
2	Operating Engineer (Class A)	16/4
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/18/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM, TIMBER PILE WORK

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	0
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	10

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/16
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction

CONTRACT NO: PN 800.29

ENGINEER: PANYNJ DATE: 10/19/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM, DOLPHIN ASSEMBLY WORK.

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/16
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/20/2010

DAILY LOG

DESCRIPTION OF WORK:
DOLPHIN PILE WORK AND FENDER SYSTEM

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	72/11
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/21/2010

DAILY LOG

DESCRIPTION OF WORK:
SHIPPED OUT FALSEWORK BEAMS, FENDER SYSTEM AND DOLPHIN WORK.

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	9
Link-Belt (40T)	5
SEI-54 -- Powered spud barge	9
Komatsu PC250	0
Office Trailers (2-Each)	18
45kV genset	9
Safetyboat	9
Loader CAT 950G	4

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/1
13	Dockbuilder	104/9
2	Operating Engineer (Class A)	16/3
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/22/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM AND DOLPHIN WORK.

MATERIALS USED	QUANTITY
TIMBER PILES	X
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	10
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
12	Dockbuilder	96/18.5
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/25/2010

DAILY LOG

DESCRIPTION OF WORK:
DEMOBED THE 200T CRANE, FENDER SYSTEM WORK.

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (200T)	8
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	2

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	72/12
2	Operating Engineer (Class A)	16/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/26/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM WORK ALL DAY

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	5
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	5

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
8	Dockbuilder	64/16
2	Operating Engineer (Class A)	16/4
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/27/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM WORK ALL DAY	
MATERIALS USED	**QUANTITY**
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (40T)	10
SEI-54 -- Powered spud barge	10
Komatsu PC250	0
Office Trailers (2-Each)	20
45kV genset	10
Safetyboat	10
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/2
9	Dockbuilder	65.5/16
1	Operating Engineer (Class A)	8/2
0	Dockbuilder Marine Diver	0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/28/2010

DAILY LOG

DESCRIPTION OF WORK:
FENDER SYSTEM WORK, DUG TRENCH FOR WATERLINE

MATERIALS USED	QUANTITY
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	

EQUIPMENT USED	QUANTITY
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Case Excavator	8
Office Trailers (2-Each)	16
45kV genset	8
Safetyboat	8
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
8	Dockbuilder	64/1
1	Operating Engineer (Class A)	16/0
1	Dockbuilder Marine Diver	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

CONTRACT PN800.219. FILE# 3

AGATE
CONSTRUCTION CO., INC.
ENGINEERS · CONSTRUCTORS

Main Office:
1030 Route 83
P.O. Box 107
Ocean View, NJ 08230-0107
TEL 609-624-9090
FAX 609-624-1534

PROJECT: Berth 36 & 63 Reconstruction
CONTRACT NO: PN 800.29
ENGINEER: PANYNJ DATE: 10/29/2010

DAILY LOG

DESCRIPTION OF WORK:	
FENDER SYSTEM WORK, WORKED ON THE WATERLINE	
MATERIALS USED	**QUANTITY**
TIMBER PILES	
TIMBER	X
PA BACKFILL MATERIAL	
EQUIPMENT USED	**QUANTITY**
Link-Belt (40T)	8
SEI-54 -- Powered spud barge	8
Case Excavator	8
Office Trailers (2-Each)	16
45kV genset	8
Safetyboat	8
Loader CAT 950G	0

NO. MEN	CRAFTS EMPLOYED	HOURS - R/OT
1	Dockbuilder General Foreman	8/0
8	Dockbuilder	64/0
1	Operating Engineer (Class A)	16/0
1	Dockbuilder Marine Diver	8/0

We jointly certify that the above work was performed.

Contractor's Representitive

Inspector

Sheet _____ of _____ Sheets

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 60°F

MANPOWER: (1) DOCKBUILDER SUPER; (3) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) EXCAVATOR HITACHI 450LC; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) SCORPION WRENCH; (1) MQ MH 15PERWATT 7000 GENERATOR.

- AGATE CLEAN UP JOB SITE & STARTED DISASSEMBLING BERMINGHAMMER DRILL STRING.

NOTE: ABLE EQUIPMENT RENTAL HAUL AWAY (2) SULLAIR 1150X14 COMPRESSOR FROM AGATE JOB SITE @ 1:00 PM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet _____ of _____

Date: 4/1/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 64°F

MANPOWER: (1) DOCKBUILDER SUPER ; (3) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H W/ BERMINGHAMMER DRILL RIG ; (1) SEI-54 BARGE ; (1) PICK-UP TRUCK ; (1) GENERATOR HONDA EB 5000X W/GFCI.

- AGATE CONT. DISASSEMBLING DISCHARGE HOSE ; HYDRAULIC HOSE ; DRILL BIT ; PILE GATE & HYDRAULIC KICKER FROM BERMINGHAMMER DRILL RIG.
- AGATE LOWER CRANE BOOM (LINK-BELT LS-248H) & BERMINGHAMMER DRILL RIG LEAD ON TO SEI-54 BARGE. IN PREP. FOR DISASSEMBLING LEAD.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet ____ of ____

Date: 4/2/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 67°F

MANPOWER: (1) DOCKBUILDER SUPER ; (3) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H W/ BERMINGHAMMER DRILL RIG ; (1) SEI-54 BARGE ; (1) PICK-UP TRUCK

- AGATE DISASSEMBLE BERMINGHAMMER DRILL RIG LEADS & STOCK PILE ON SITE.
- AGATE WRAP-UP HYDRAULIC HOSES

NOTE: DELIVERY OF VIBRATORY HAMMER POWER PACK ICE 325.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet _____ of _____

Date: 4/5/10

Signed Mikael R. Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 70°F

MANPOWER: (1) DOCKBUILDER SUPER ; (2) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) 20' STEEL WORK BOAT ; (3) FLOAT STAGE ;
(1) LINK-BELT CRANE LS-248H ; (1) PICK-UP TRUCK

- AGATE CUT . STEEL PIPE PILE @ CUT-OFF ELEV. 298.00
USING TORCH FROM BENT #26-24 ROW # A-D.

- AGATE ALSO REMOVE POWER PACK FROM LINK-BELT CRANE LS-248H
& PLACED ON JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet _____ of _____

Date: 4/6/10

Signed [signature] Counter Signed [signature]

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 0327 /4-05

Contractor: Agate Construction

Contract Number: PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 85 Deg. F, Clear

Crew: 1 Super, 3 Dockbuilders, 2 Operators

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Hitachi Excavator 450LC, 1 - Pickup Truck, 1-Honda Generator(GFI)

1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - Sectional Steel Float (Piles), 1 - Scorpion Wrench,

Work Performed:

Contractor cut 11 piles to final grade, Bents 22 and 23. During high tide, Contrator cut weeping holes in remaining piles to prepare for tomorrow's low tide. Contractor shipped parts for Berminghammer drill rig and prepared for second shipment tomorrow.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 7:00 AM - 3:30 AM

Date 4/7/2010

Signed _____ **Counter Signed** _____

Use form PA 316 to note labor, material or equipment usage.

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 1327 (4-05)

Contractor: Agate Construction

Contract Number: PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 85 Deg. F, Clear

Crew: 1 Super, 3 Dockbuilders, 2 Operators

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Hitachi Excavator 450LC, 1 - Pickup Truck, 1-Honda Generator(GFI)

1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - Sectional Steel Float (Piles), 1 - Scorpion Wrench,

Work Performed:

During high tide, contractor performed a general site clean-up and relocated piles from barge. During low tide, Contractor cut 12 piles to final grade, Bents 20 and 21. Contractor shipped remainer of parts for Berminghammer drill rig.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 7:00 AM - 3:30 AM

Date 4/8/2010

Signed _____ **Counter Signed** _____

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 62°F

MANPOWER: (1) DOCKBUILDER SUPER; (3) DOCKBUILDER; (2) OPERATOR; (1) MECHANIC

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (1) LINK-BELT CRANE LS-248H

- AGATE CONT. STOCKPILE "I-" BEAMS ONTO SEI-54 BARGE IN PREP. FOR PILE CAP FORMWORK.

- AGATE REMOVE (1) 20' SECTION OF CRANE BOOM & INSTALL (2) 40' ADDITIONAL SECTION ON LINK-BELT CRANE LS-248H - TOTAL HIGHT OF BOOM 170'

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet _____ of _____

Date: 4/12/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (3) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) SULLAIR 900H COMPRESSOR; (1) PICK-UP TRUCK; (1) MQ MHISPERWATT 7000 GENERATOR; (3) FLOAT STAGE

- AGATE PLACED VIBRATORY PILE DRIVER ICE 44 WITH POWER PACK & SULLAIR 900H COMPRESSOR ONTO SEI-54 BARGE.
- AGATE STARTED AIR LIFTING STEEL PIPE PILE
- AGATE CONT. CUTTING STEEL PIPE PILE TO CUT-OFF ELEV 298.00 (W.L.P)

NOTE: DELIVERY OF (6) 75' "I" BEAMS FALSEWORK

NOTE: DELIVERY OF STEEL FORMS FOR PILE CAP.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet _____ of _____

Date: 4/13/10

Signed [signature] Counter Signed [signature]

THE PORT AUTHORITY OF NY & NJ

Contractor: Agate Construction **Contract Number:** PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 65 Deg. F, Sunny

Crew: 1 Super, 3 Dockbuilders, 2 Operators, 1 Ironworker (Phoenix Steel)

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Hitachi Excavator 450LC, 1 - Pickup Truck, 1-Honda Generator(GFI)

1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - 185 Air Compresor, 1 - Sectional Steel Float (Piles), 1 - Pipe Airlift, 1 - Cut-Saw

Work Performed:

While the Ironworker began to trim sections off of the right angles of the prefabricated pile cages, rebar sections began to break off of the prefabricated cages. The break was occurring, in all cases, above the weld at the top spiral of the prefabricated cages, loosing the right angle section. Jeff Roes from Agate overviewed the rebar cages and himself broke off one angle reinforcing bar with his hand. 5 piles had rebar break off, with a total of 6 right angles pieces being shed. Pictures were taken and documented. Samples were collected.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 7:00 AM - 3:30 PM

Date 4/14/2010

Signed Tim Gallagher **Counter Signed**

Use form PA 316 to note labor, material or equipment usage.

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The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

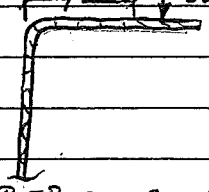
Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 61°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) SULLAIR 900H COMPRESSOR; (1) PICK-UP TRUCK; (1) MQ MHISPERWATT 7000 GENERATOR; (1) 20' STEEL WORK BOAT; (1) WELDING MACHINE; (3) FLOAT STAGE.

- AGATE CONT. AIR LIFTING STEEL PIPE PILE @ BENT. 31-27 ROW# A-E. (WORK-IN-PROGRESS)

- DANNY MILLER (IRON WORKER) FROM PHOENIX REBAR ON SITE CUTTING GALVANIZED REINF. BENT TO 9" ALL CUT SECTION WAS TOUCH-UP USING Z.R.C GALVILITE GALVANIZING COMPOUND.



NOTE: CMD NOTICE THAT GALVANIZED STEEL PILE REBAR IS COMING APART AND GETTING RUST @ TACK WELD AREA, SAMPLE OF REBAR WAS TAKEN & PA MATERIAL WILL BE ON SITE TOMORROW. FOR OBSERVATION.

- AGATE WELDED 3" TREMI PIPE TOGETHER IN PREP. FOR CONC. PLACEMENT.

- AGATE CONT. CUTTING STEEL PIPE PILE TO CUT-OFF ELEV. 298.00 (W.I.P)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet ____ of ____

Date: 4/14/10

Signed Mike R. Counter Signed

* REBAR CAGE ISSUES

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 54°F

MANPOWER: (1) DOCKBUILDER SUPER ; (4) DOCKBUILDER ; (2) OPERATOR ; (1) IRON WORKER.

EQUIPMENT : (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-SH BARGE ; (1) SULLAIR 900H COMPRESSOR ; (1) PICK-UP TRUCK ; (1) MQ MHISPERWATT 7000 GENERATOR ; (1) 20' STEEL WORK BOAT ; (1) WELDING MACHINE ;

- AGATE CONT. AIR LIFTING STEEL PIPE PILE @ BENT 26-21 ROW# A-E

- PHOENIX REBAR (DANNY MILLER) IRON WORKER ON SITE CONT. CUTTING GALVANIZE REINF. BENT TO 9" (REBAR CAGES TOP SECTION).

- AGATE CONT. CUTTING STEEL PIPE PILE TO CUT-OFF ELEV. 298.00 USING TORCH.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet ____ of ____

Date: 4/15/10

Signed Mark Ramos Counter Signed ____

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 0327 4-05

Contractor: Agate Construction

Contract Number: PN-800.219 File: 14

Location: Port Newark, Berts 36 & 63

Weather: 85 Deg. F, Clear

Crew: 1 Dockbuilder Super, 4 Dockbuilders, 2 Operators, 1 Ironworker

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, *1 - Hitachi Excavator 450LC, 1 - Pickup Truck, 1-Honda Generator(GFI), 1 - 20' Steel Workboat, 1 - SE1-54 Barge, *1 - Sectional Steel Float (Piles), *1 - Ingersol-Rand 185cfm compressor

*: Onsight, not used.

Work Performed:

Contractor continued air lifting piles: rows A - E, bent 19 - 22

Contractor prepared pin piles for placing, but sea state was to choppy during low tide.

Ironwork continued cutting rebar cage bends to 9", until contractor received REO recommendation to remove cages from site and replace with new ones.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 7:00 AM - 3:30 AM

Date 4/16/2010

Signed _____ **Counter Signed** _____

Use form PA 316 to note labor, material or equipment usage.

PA 316
1-76

The Port Authority of New York and New Jersey
ENGINEERING DEPARTMENT

DAILY LABOR RECORD

CONTRACTOR Agate Construction

CONTRACT NO. PN 800.219

LOCATION Berth 36/63

* MUST BE COMPLETED ON COST PLUS JOBS

*BADGE NUMBER	* NAME	*LABOR CLASS	*TOTAL HOURS
		1 - Super	8.0
		1 - Dockbuilder Super	8.0
		4 - Dockbuilders	32.0
		2 - Operator	16.0
		1 - Ironworker	6.0
	TOTALS		

SHIFT 7:00 AM - 3:30 PM

DATE 16 April 2010

SIGNED

COUNTER SIGNED

MATERIAL

EXTRA WORK ORDER NO.

ITEM NO.	QUANTITY	UNIT	DESCRIPTION

CONTRACTOR'S EQUIPMENT ON JOB SITE

ITEM NO.	QUANTITY	DESCRIPTION	TIME IN	TIME OUT	TOTAL HRS.
	1	Link-belt Crane LS-248H	7:00	3:30	8.0
	1	Link-belt Crane LS-208H	"	"	8.0
	1	Pick-up Truck	"	"	8.0
	1	561-54 Barge	"	"	8.0
	1	20' steel work boat	"	"	8.0
	1	Sullair 900H Compressor	"	"	8.0

TO BE COMPLETED ON COST PLUS OR EXTRA WORK CONTRACTS

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 55°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) SULLAIR 900H COMPRESSOR; (1) PICK-UP TRUCK; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE

- AGATE CONT. CUTTING STEEL PIPE PILE TO CUT-OFF ELEV. 298.00 USING TORCH @ BERTH 63.

- CONT. AIR LIFTING STEEL PIPE PILE

- AGATE PLACED BUOY ALONG STEEL PIPE PILE @ BERTH 63 SIDE, AFTER PILES WERE CUT TO CUT-OFF ELEV.

NOTE: DELIVERY OF STEEL FORMS FOR PILE CAP FORMWORK

NOTE: DELIVERY OF (5) 60' & (1) 80' "I" BEAMS.

NOTE: NJ GALVANIZE & J.M AHLE WERE ON SITE LOOKING THRU GALVANIZE REBAR CAGES.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:30 AM - 2:30 PM

Sheet _____ of _____

Date: 4/19/10

Signed Mikal R[illegible]

Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 62°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) SULLAIR 900H COMPRESSOR; (1) PICK-UP TRUCK; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR HITACHI 450LC; (4) FLOAT STAGE

- AGATE CONT. CUTTING STEEL PIPE PILE TO CUT-OFF ELEV. 298.00, PILE ON ROW "G" WILL BE CUT 3" BELOW ELEV. 298.00. DUE TO PILE CAP HEIGHT IS 2'-7" (DRAWING NO. S008 SECTION 3)

- AGATE CONT. AIR LIFTING STEEL PIPE PILE.

- AGATE EXCAVATED BEHIND (LAND SIDE) SHEETING PILE IN PREP. FOR CUTING SHEET PILE @ CUT-OFF ELEV. 298.00

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 am - 2:30 pm

Sheet ____ of ____

Date: 4/20/10

Signed Mike Ramos Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. SUNNY 60°F

MANPOWER: (4) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-SU BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR HITACHI 450LC ; (3) FLOAT STAGE. (1) SULLAIR 900H COMPRESSOR

- AGATE STARTED CUTTING SHEETING PILE TO CUT-OFF ELEV. 298.00. (WORK-IN-PROGRESS) @ BERTH 36 & 63.

- AGATE COMPLETED CUTTING STEEL PIPE PILE @ ROW "G" TO 3" BELOW CUT-OFF ELEV. 298.00.
ALSO CUT (1) ABANDON STEEL PILE @ ROW "G" 1' BELOW CUT-OFF ELEV. 298.00

NOTE: J.M AHLE ON SITE HITTING REBAR CAGES WITH A 2LB. HAMMER CHECKING FOR BREAK, AS A RESULT NO REBAR BREAK EXCEPT FOR SOME TACK WELD.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet ____ of ____

Date: 4/27/10

Signed Mark Ramos Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 62°F

MANPOWER: (1) DOCKBUILDER SUPER ; (2) OPERATOR ; (4) DOCKBUILDER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (2) FLOAT STAGE; (1) SEI-SU BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR HITACHI UH50LC ; (1) PICK-UP TRUCK ; (1) SULLAIR 900H COMPRESSOR

- AGATE CONT. CUTTING SHEETING PILE @ CUT-OFF ELEV. 298.00 @ BERTH 36 & 63 , ALSO AGATE TOUCH-UP SHEET PILE WITH TARGUARD COAL TAR EPOXY PAINT. (WORK-IN-PROGRESS)

- AGATE CONT. AIR-LIFTING STEEL PIPE PILE @ BERTH 36 & 63 (WORK-IN-PROGRESS)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet _____ of _____

Date: 4/22/10

Signed Mikeal Ramos Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 60°F.

MANPOWER: (1) DOCKBUILDER SUPER ; (1) OPERATOR ; (4) DOCKBUILDER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-SH BARGE ; (1) 20' STEEL WORK BOAT ; (1) SULLAIR 900H COMPRESSOR ; (1) PICK-UP TRUCK ;

- AGATE COMPLETED CUTTING SHEETING PILE @ CUT-OFF ELEV. 298.00, SHETING PILE WERE TOUCH-UP WITH CARBOLINE BITUMASTIC 300M PART A & B PAINT.

- AIR LIFTING STEEL PIPE PILE COMPLETED.

- AGATE STARTED CLEANING AROUND TOP SECTION OF STEEL PILE USING WIRE BRUSH & TOUCH-UP PILES USING TARGUARD COAL TAR EPOXY PAINT PART A & B.

NOTE: AGATE WAS NOTIFY ON 4/22/10 THAT BOLLARD WILL BE PAINTED "SAFETY YELLOW"

NOTE: DIMENSION FABRICATION INC. CAME ON SITE @ 2:00 PM & AGATE LOAD (5) REJECTED REBAR CAGES ONTO FLAT BED TRUCK. (5) REBAR CAGES WERE TAKEN OFF-SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet ____ of ____

Date: 4/23/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) PICK-UP TRUCK

- AGATE STARTED FABRICATING STEEL FORMS IN PREP. FOR PILE CAP CONCRETE PLACEMENT.

NOTE: DUE TO WEATHER CONDITIONS (RAIN) AGATE (4) DOCKBUILDER & (1) OPERATOR WENT HOME @ 11:00 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM

Sheet _____ of _____

Date: 4/26/10

Signed Mikeal Ramm

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 55°F

MANPOWER: (1) DOCKBUILDER SUPER ; (1) OPERATOR ; (4) DOCKBUILDER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) PICK-UP TRUCK ; (1) SEI-54 BARGE ; (1) LINK-BELT CRANE LS-248H ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR HITACHI UE0LC ; (1) VIBRATORY PILE DRIVER ICE 44 w/ POWER PACK 325.

- AGATE CONT. FABRICATING STEEL FORMS FOR PILE CAP CONC. PLACEMENT.

- AGATE STARTED INSTALLING TEMPORARY PIN-PILES OUT SIDE OF ROW "A" BET. BENT# 25-24 ; 22-21 ; 18-19 & 16-15 @ BERTH 36 SIDE IN PREP. FOR STEEL FORM SUPPORTS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 4:30 PM

Sheet _____ of _____

Date: 4/27/10

Signed Mark Ramos

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) 20' STEEL WORK BOAT; (1) SE1-54 BARGE;
(1) LINK-BELT CRANE LS-218H; (1) VIBRATORY PILE DRIVER ICE 44 W/ POWER UNIT 325
(1) PICK-UP TRUCK

- AGATE CONT. FABRICATING STEEL FORMS FOR PILE CAP CONC. PLACEMENT.

- AGATE CONT. INSTALLING TEMPORARY PIN PILE @ BERTH 36 IN PREP. FOR STEEL FORMS SUPPORT.

NOTE: AIG & AON SAFETY WERE ON SITE, NO COMMENTS WERE MADE ON JOB SAFETY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 am - 5:30 pm

Sheet ____ of ____

Date: 4/28/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 61°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) OPERATOR; (4) DOCKBUILDER; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SY BARGE; (1) 20' STEEL WORK BOAT; (1) VIBRATORY PILE DRIVER ICE 44 W/ POWER UNIT 325; (1) PICK-UP TRUCK; (4) FLOAT STAGE

* - AGATE HAD (2) IRON WORKER FROM PHOENIX REBAR ON SITE FABRICATING REBAR CAGES (15 CAGES COMPLETED)

- AGATE CONT. INSTALLING TEMPORARY PIN-PILES & WALER @ BERTH 36 & 63 FOR STEEL FORM SUPPORTS.

* NOTE: DELIVERY OF REPLACEMENT GALVANIZED REBAR & SPIRALS FROM JM AHLE.

NOTE: PA PHOTOGRAPHER ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM -

Sheet _____ of _____

Date: 4/29/10

Signed Mikael R. Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 64°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATER; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-218H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) VIBRATORY PILE DRIVER ICE 44 W/ POWER UNIT 325; (1) PICK-UP TRUCK

- AGATE CONT. INSTALLING TEMPORARY PIN-PILE @ BERTH 63.

- PHOENIX REBAR (2) IRON WORKER CONT. FABRICATING REBAR CAGES. (4 - PARCEL LENGTH & 2 - FULL LENGTH CAGES COMPLETED)

- AGATE LOAD STEEL FORMS ONTO SEI-SU BARGE.

- AGATE CONT. FABRICATING STEEL FORMS IN PREP. FOR PILE CAP CONC. PLACEMENT.

NOTE: DONJON MARINE CAME ON SITE @ 1:30 - 2:00 PM & RELOCATED AGATE SEI-SU BARGE TO BERTH 63.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 3:00 PM

Sheet _____ of _____

Date: 4/30/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 70°F

MANPOWER: (1) DOCKBUILDER SUPER ; (4) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) PICK-UP TRUCK

- DUE TO RAIN AGATE DOCKBUILDERS ; OPERATOR & IRON WORKER WENT HOME @ 9:00AM. NO CONSTRUCTION ACTIVITY.

NOTE: ON SATURDAY 5/1/10 AGATE SWAP OUT EXCAVATOR HITACHI 450LC FOR EXCAVATOR CAT 325C.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00AM - 2:30PM

Sheet ____ of ____

Date: 5/3/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 68°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (5) FLOAT STAGE; (1) PICK-UP TRUCK; (1) VIBRATORY PILE DRIVER ICE 44 W/ POWER UNIT 325

- PHOENIX REBAR IRON WORKERS PLACED (2) FULL LENGTH REBAR CAGE INSIDE PIPE PILE # G-13A (73'-9") & G-12 (74'-3"). ALSO PLACED (16) PARTIAL LENGTH (16'-9") CAGES IN PILE # G-11 THRU G-5A; 23-F1; 24-E1; E-25 THRU E-31.

NOTE: PA CMD CHANGE REBAR CAGE STICK-UP IN PILE CAP FROM 1'-9" TO 1'-5", DUE TO 1" COVER FOR PILE CAP. (REF. DRAWING # S008) EXCEPT FOR "G" ROW,

- IRON WORKER STARTED FABRICATING REBAR FOR PILE CAP ALONG SHEETING WALL.

- AGATE COMPLETED INSTALLING PIN PILES @ BERTH 63.

NOTE: DONJON MARINE CO. CAME ON SITE @ 2:30-3:15 PM & RELOCATED AGATE SEI-54 BARGE TO BERTH 36.

NOTE: DELIVERY OF STEEL BEAMS, AGATE LOAD BEAMS ONTO SEI-54 BARGE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 3:30 PM

Sheet ____ of ____

Date: 5/4/10

Signed Mikal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 70°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) WELDING MACHINE; (4) FLOAT STAGE

- PHOENIX REBAR IRON WORKER REMOVE (1) 16'-9" REBAR CAGE FROM PILE# G-11 & RE-INSTALLED @ PILE# 1-E ALSO PLACED (3) ADDITIONAL PARTIAL LENGTH REBAR CAGE (16'-9") @ PILE# 2-E; 3-E1 & 4-F1. IRON WORKER CONT. FABRICATING SHEETING PILE CAP REINFORCEMENT.

- AGATE FABRICATING STEEL WALERS FOR PIN-PILE @ BERTH 36 & 63.

NOTE: DELIVERY OF STEEL FORMS.

NOTE: PA SURVEYOR ON SITE LOCATING SHEETING PILE WALL @ BERTH 36 & 63.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet _____ of _____

Date: 5/5/10

Signed [signature] Counter Signed [signature]

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The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 69°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE;
(1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (4) FLOAT STAGE;
(1) PUTZMESTER TK40 CONCRETE PUMP.

CLASSIFIED ITEM # 7

- TOTAL PILE FILLED WITH CONC: (4) PILE # G-10; G-9; G-8 & G-7

- AGATE SCHEDULE CAT VI 4,000 PSI CONCRETE FOR 7:15 AM, 1ST CONC. TRUCK LOAD ARRIVED ON JOB SITE @ 7:57 AM FROM CLAYTON READY-MIX, AGATE STARTED PUMPING CONC. @ 8:00 AM, CONC. WASN'T GOING THRU TREMI PIPE, DUE TO 3" HOSE WAS CLOGGED, AGATE UNCLOGGED 3" HOSE @ 8:45 & STARTED POURING CONC. INTO PILES # G-10; G-9 & G-8. NOTE: RETARDER WAS ADDED TO CONC. BATCH.

- 2ND CONC. LOAD ARRIVED ON SITE @ 8:05 AM & AGATE STARTED DISCHARGE CONC. @ 9:30 AM INTO PILE # G-7, CONC. WAS REJECTED DUE TO TIME NOTE: NO RETARDER WAS IN CONC. BATCH.

- 3RD & 4TH CONC. LOAD WAS ALSO REJECTED DUE TO TIME, NOTE: NO RETARDER WAS IN CONC. BATCH.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 2

Date: 5/6/10

Signed Mikeal Ra[illegible]

Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PE. CLOUDY 69F

NOTE: PA MATERIAL (DAVE) ON SITE @ 6:30AM FOR CONC. TESTING.

NOTE: CLAYTON - READY-MIX, QA ON SITE

- PHOENIX REBAR IRON WORKER CONT. FABRICATING SHEET PILE REBAR CAP FOR BERTH 63.

- AGATE FABRICATE WOODEN FORMS FOR SHEET PILE BULK HEAD & STEE WALER FOR FORMS SUPPORT @ BERTH 36 & 63.

NOTE: DELIVERY OF GALVANIZED CHAINS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00AM - 2:30PM

Sheet 2 of 2

Date: 5/6/10

Signed Mead Ra

Counter Signed

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7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 72°F

MANPOWER; (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) PICK-UP TRUCK;
(1) PUTZMESTER TK40 CONCRETE PUMP.

CLASSIFIED ITEM # 7

- TOTAL PILES FILLED WITH CONC. (14) PILE# 1-E; 2-E; 3-E1; 4-F1; 6-5A; G-6; 23-F1; 24-E1 25-E THRU 30-E

- CONCRETE TRUCK LOAD # 1 - WAS REJECTED DUE TO HAVING 10% AIR
  " " " " " # 2 - AIR WAS 3 3/4%, CLAYTON QA ADDED AIR IN TO CONC. TRUCK AS PER. PA MATERIAL AIR WAS RE-TESTED 6 1/4%
  " " " " " " # 3 - POUR (2) PILES & RAN OUT OF TIME 6 cy WASTED.

- PA MATERIAL (FRANK) ON SITE FOR CONC. TESTING; CONC. CYLINDER WERE TAKEN.

- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet _____ of _____

Date: 5/7/10

Signed [signature] Counter Signed [signature]

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7/07

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DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 52°F

MANPOWER: (1) DOCKBUILDER SUPER ; (4) DOCKBUILDER ; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (5) FLOAT STAGE

- AGATE CONT. FABRICATING STEEL CHAIRS FOR WALER SUPPORT @ BERTH 36 SHEETING PILE CAP. ALSO CONT. INSTALLING STEEL WALER FOR FORM-WORK.

- AGATE USED WIRE BRUSH TO REMOVE ALGAE AROUND PILES @ CUT-OFF ELEV. & TOUCH-UP PILES USING TAR GUARD COAL TAR EPOXY PAINT PART A & B.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet _____ of _____

Date: 5/10/10

Signed Mike Ra

Counter Signed

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7/07

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DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 51°F

MANPOWER: (1) DOCKBUILDER SUPER; (4) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) PICK-UP TRUCK; (1) WELDING MACHINE.

- AGATE CONT. FABRICATING & INSTALLING STEEL WALERS @ BERTH 36 & 63 ALONG SHEETING PILE CAP IN PREP. FOR FORMWORK.

NOTE: DELIVERY OF HARDWARE FOR TIMBER FENDER SYSTEM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 4:30 PM

Sheet 1 of 1

Date: 5/11/10

Signed Mikael R

Counter Signed

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7/07

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DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 48°F

MANPOWER: (1) DOCKBUILDER SUPER ; (4) DOCKBUILDER ; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK

- AGATE CONT. FABRICATING STEEL FORMS FOR SHEETING PILE CAP.

- DUE TO RAIN AGATE (4) DOCKBUILDER & (1) OPERATOR LEFT JOB SITE @ 10:30 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 10:30 AM

Sheet _____ of _____

Date: 5/12/10

Signed Mead Ra Counter Signed

NO WORK => RAIN.

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DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 64°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-208H; (1) 20' STEEL WORK BOAT; (5) FLOAT STAGE; (1) PICK-UP TRUCK; (1) MILLER WELDING MACHINE.

- AGATE CONT. FABRICATING WOODEN & STEEL FORMS FOR PILE CAP @ BERTH 36 & 63.

- AGATE USED WIRE BRUSH TO REMOVE ALGAE ON PIPE PILE @ CUT-OFF ELEV. ALSO TOUCH-UP PILES USING TAR GUARD COAL TAR EPOXY PAINT PART A & B.

- AGATE TACK-WELD GALVANIZED ANGLE ONTO SHEETING PILE IN PREP. FOR GALVANIZED DECK PANS.

NOTE: TACK WELD WILL BE TOUCH-UP @ LATER DATE.

- AGATE STARTED INSTALLING & SECURING STEEL AND WOODEN FORMS ALONG BERTH 36 SHEETING PILE CAP.

NOTE: DELIVERY OF (4) 60-80' STEEL BEAMS

NOTE: DIMENSION FABRICATION INC. CAME ON SITE @ 12:30 PM. WITH TRACKER TRAILER, IRON WORKER LOAD 50% OF "NO GOOD" RE-BAR CAGES. ONTO TRAILER.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet ____ of ____

Date: 5/13/10

Signed Neal Ra... Counter Signed ...

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7/07

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DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 72°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 RARGE; (1) LINK-BECT CRANE LS-208H; (1) 20' STEEL WORK BOAT; (5) FLOAT STAGE; (1) INGERSOLL-RAND 185 CFM COMPRESSOR; (1) 60 LB JACK HAMMER; (1) MILLER WELDING MACHINE (1) PICK-UP TRUCK.

- AGATE CONT. FABRICATING & INSTALLING FORMS FOR SHEETING PILE CAP @ BERTH 36 & 63.

- AGATE CHOP OUT (2) 6" X 2'-4" KEY ON EXISTING PILE CAP FLOOR SLAB @ BENT #18

- AGATE STARTED INSTALLING GALVANIZE DECK PAN ALONG SHEETING PILE CAP @ BERTH 36.

- PHOENIX REBAR IRON WORKER FABRICATING GALVANIZE REBAR CAGES.

NOTE: DELIVERY OF GALVANIZE REPLACEMENT REBAR FROM JM. AISLE.

NOTE: DELIVERY OF GALVANIZE REBAR FROM NEW JERSEY GALVANIZING.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet _____ of _____

Date: 5/14/10

Signed Mark Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
A GATE CONSTRUCTION	PN 800.214
Location BERTH 36 & 63 WHARF CONST.	Weather RAIN 60°
MAN POWER.	EQUIPMENT ON JOB SITE.
1. DOCK BUILDER SUPER	1 LINK BELT CRANE LS 248
5. DOCK BUILDERS	1 SET -- 54 BARGE.
2. OPERATION ENG.	1 PICK UP WORK TRUCK.
6 IRON WORKER PHEMENT REBARS	1 20' STEEL WORK BOAT.
	1 LINK BELT CRANE LS 208
	1 EXCAVATOR CAT 325C.
	1 INGERSOLL-RAND 185 CFM.
	2 SECTIONAL STEEL FOAT 8'x40'
* CONTRACTOR REMOVED UNACCEPTABLE REBARS CAGES FROM WORK SITE.	
* CONTINUED FABRICATION CONCRETE REINFORCEMENT FOAMS FOR SHEETING PILE CAP.	
* CONTINUED FABRICATION WOOD FORMS FOR SHEET PILE BULK HEAD AND STEEL WALER FOR FORMS SUPPORTS @ BERTH 36 AND 63	
* INSTALLED REINFORCEMENT CAGE FOR PIPE PILES @ FOLLOWING, D-30, C29 C-28, B-31, C,31, D-31, C-30, D-29, D-28, C-27, D-27, D-26.	

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:30 TO 3:30

Sheet 1 of 1

Date: 5-18-10

Signed FRED KOOMSA

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
A GATE CONSTRUCTION	PN 800.214
Location BERTH 36 & 63 WHARF CONST.	Weather RAIN 60°
MAN POWER.	EQUIPMENT ON JOB SITE.
1. DOCK BUILDER SUPER	1 LINK BELT CRANE LS 248
5. DOCK BUILDERS	1 SEA-54 BARGE.
2. OPERATION ENG.	1 PICK UP WOOD TRUCK.
6 IRON WORKER PHOENIX BEAMS	1 20' STEEL WORK BOAT.
	1 LINK BELT CRANE LS 208H
	1 EXCAVATOR CAT 325C.
	1 INGERSOLL-RAND 185 CFM.
	2 SECTIONAL STEEL FORM 8'x40'
* CONTINUED FABRICATION CONCRETE REINFORCEMENT FORM FOR SHEETING PILE CAP.	
* CONTINUED FABRICATION WOOD FORMS FOR SHEET PILE BULK HEAD AND STEEL WALER FOR FORMS SUPPORTS.	
* INSTALLED REINFORCEMENT CAGE FOR PIPE PILES @ THE FOLLOWING, G-13 C-26, A-30, B-30, C-29, C-28	

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 TO 3:30

Sheet 1 of 1

Date: MAY 19, 2010

Signed FRED Yoonus.

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
A Gate Construction	PN 800.214
Location Berth 36 & 63 Wharf Const.	Weather Rain 69° - 73°
Man Power.	Equipment on Job Site.
1. Dock Builder Super	1 Link Belt Crane LS 2484
5. Dock Builders	1 Sei - 54 Barge.
2. Operator Eng.	1 Pick up Work Truck.
6 Iron Worker Phoenix Rebars	1 20" Steel Work Boat.
	1 Link Belt Crane LS 2084
	1 Excavator Cat 325C.
	1 Ingersoll - Rand 185 CFM.
	2 Sectional Steel Foot 8'x40'
	1 Putzmeter TH40 Concrete Pump

Classified Item #7.

* Total Pile Filled with Concrete G-13A, G-13, G-12, G-11, E-31, D-31, C-31 B-31, A-31, A-30 And B-30.
* Total Pile Filled = 11. with PA 4000 Cat VI 29 CY.
2nd Concret Load Ticket # 35001521 11.00 cy was Rejected Due to Time
3rd Concrete Load Ticket # 35001523 4.00 cy was Rejected Addit Water to the
* Unauthorize Addition of 6 Water to Mixs. By Truck Driver)
* PA Material (Frank) on Site 6:00 am For Concrete Testing
* Clayton - Ready - Mix, QA on Site.
* Phoenix Rebar Iron Workers Continued Fabricating Steel Pipe
* Installed Cages For Pipe Piles @ the Following D-25, C25, D-24, C24, C23, D-23, E23 E22, C-22, D-22, C-20 F, 22, F21
* Total YDS To Day 44.00 cy - 15.00 cy Rejected = 29.00 cy.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

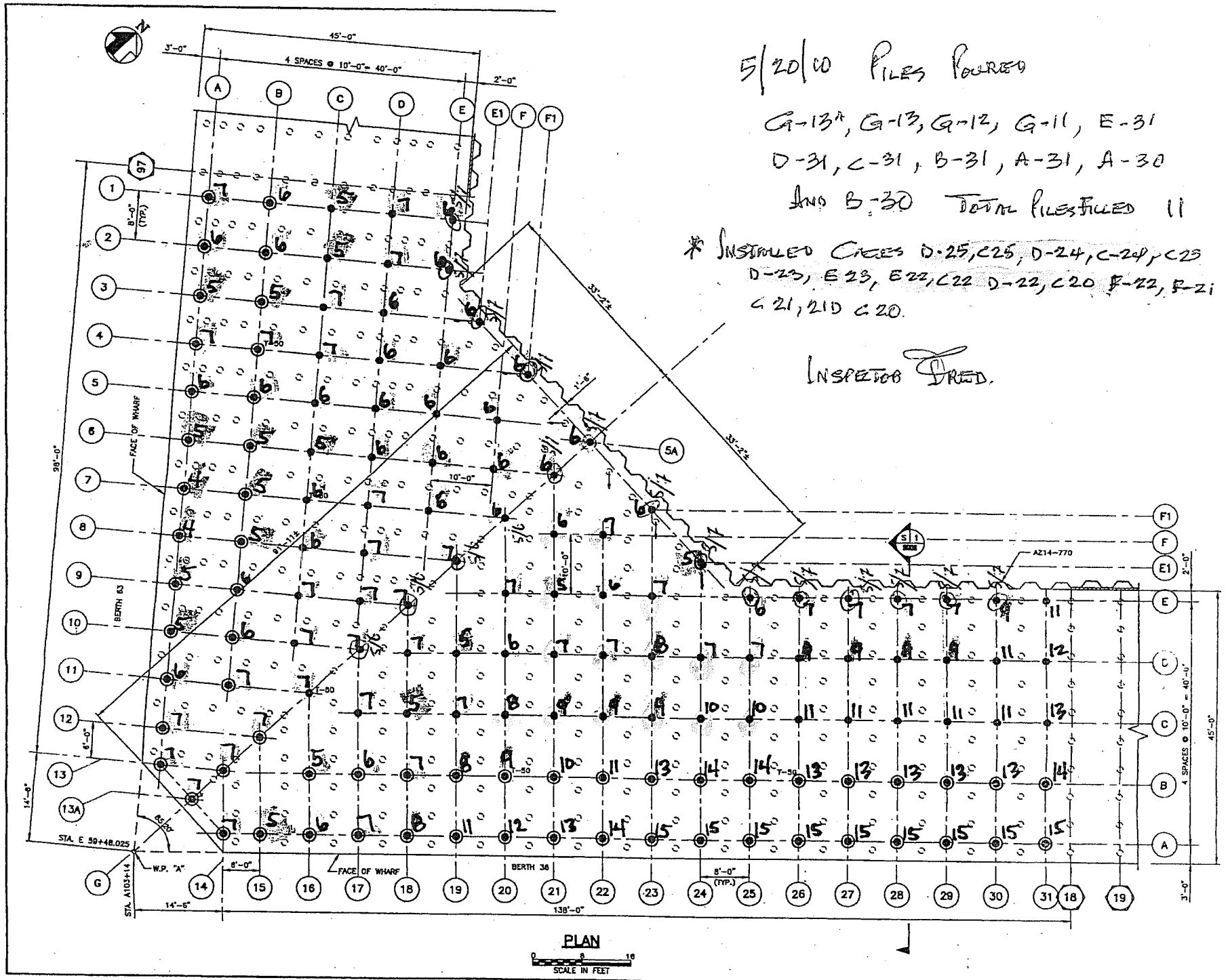
Shift: 5:30 to 3:00

Sheet 1 of 4

Date: May, 20, 2010

Signed Fred H. Hoomson

Counter Signed



5/20/10 Piles Poured

G-13*, G-13, G-12, G-11, E-31
D-31, C-31, B-31, A-31, A-30
And B-30 Total Piles Filled 11

* Installed Cages D-25, C25, D-24, C-24, C23
D-23, E23, E22, C22 D-22, C20 F-22, F-21
C21, 21D C20.

Inspector Fred.

3/4

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
A GATE CONSTRUCTION	PN 800.214
Location BERTH 36 & 63 WHARF CONST.	Weather RAIN 60°
MAN POWER.	EQUIPMENT ON JOB SITE.
1. DOCK BUILDER SUPER	1 LINK BELT CRANE LS 2484
5. DOCK BUILDERS	1 SEI-54 BARGE.
2. OPERATOR ENG.	1 PICK UP WORK TRUCK.
8 IRON WORKER PHOENIX REBARS	1 20' STEEL WORK BOAT.
	1 LINK BELT CRANE LS 2084
	1 EXCAVATOR CAT 325C.
	1 INGERSOLL-RAND 185 CFM.
	2 SECTIONAL STEEL FOAT 8'x40'
	1 PUTZMEIER TK 4 CONCRETE PUMP.

CLASSIFIED ITEM #7

* TOTAL PIPE PILE FILLED with CONCRETE (20) D-22, D-23, D-24, D-25, D-26, D-27, D-28 D-29, D-30, C-30, C-29, C-28, C-27, C-26, C-25, C24, C,23, C22, C-21 AND C20

* P.A. MATERIAL FRANK ON SITE FOR CONCRETE TESTING.
* CLAYTON - READY MIX QA ON SITE (SAM)
* PHOENIX REBAR IRON WORKERS CONTINUED FABRICATING SHEET PIPE.
* CONTINUED INSTALLATION CORRUGATED METAL FORM WORK AS PER ASTM A123 FOR PILE CAP LINE E.
* INSTALLED CAGES FOR PIPE PILES @ THE FOLLOWING D1, D2, D-3, D4, D5, D6, D7 D-8 E1, E2, E,4, E5, E6, E7 C-1, C-2, C3, C4, C-5 C,8, C-9 F1-4 F5, F-6,
* TICKET # 35001582 1-3 GROUT USED TO PRIME THE PUMP LINE = 2.0 CY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 am TO 2:30

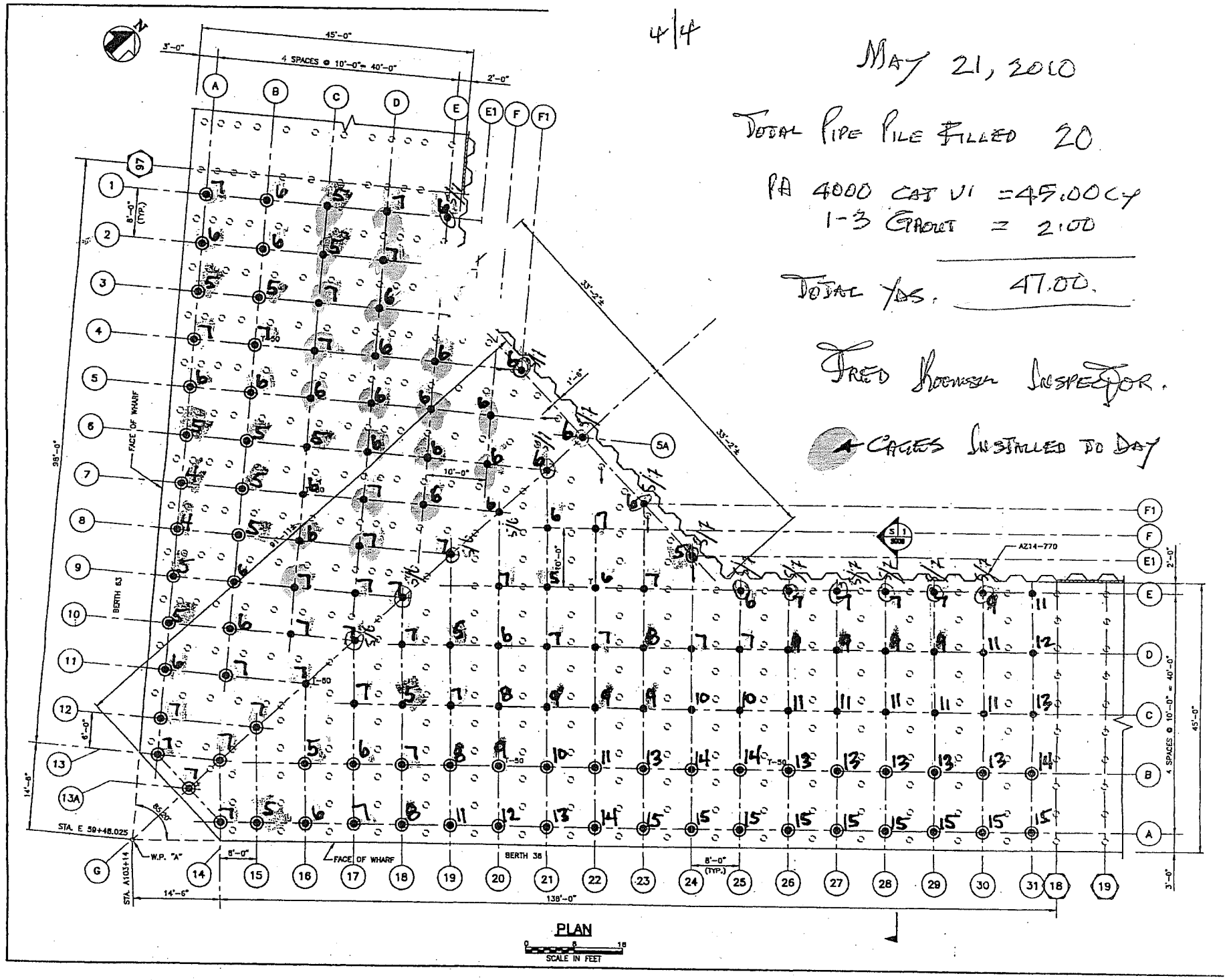
Sheet 1 of 4

Date: MAY, 21, 2010

Signed: FRED MOOMSER

Counter Signed: [signature]

4/4



MAY 21, 2010

TOTAL PIPE PILE FILLED 20

PA 4000 CAT VI = 45.00 CY
1-3 GROUT = 2.00

TOTAL YDS. 47.00.

FRED KOENSEN INSPECTOR.

CAGES INSTALLED TO DAY

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 70°F

MANPOWER: (1) DOCKBUILDER SUPER ; (5) DOCKBUILDER ; (2) OPERATOR ; (7) IRON-WORKERS.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-SU BARGE ; (1) 20' STEEL WORK BOAT ; (4) FLOAT STAGE ; (1) CAT 325C EXCAVATOR ; (1) MILLER WELDING MACHINE

- PHOENIX IRON WORKERS CONT. FABRICATING & INSTALLING REBAR CAGES IN STEEL PIPE PILE.

- AGATE DOCKBUILDER CONT. FORMING & SECURING SHEET PILE CAP IN PLACED.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet ____ of ____

Date: 5/24/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 70°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (8) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (5) FLOAT STAGE; CAT 325L EXCAVATOR; (1) PUTZMEISTER TKHO CONCRETE PUMP.

CLASSIFIED ITEM # 2

- TOTAL PILE FILLED WITH CONC: (18) PILE # A-20; B-20; A-26; A-27; B-29; A-29; A-28; B-28; B-27; B-25; A-23; A-24; B-26; B-22; B-21; A-21; B-19 & B-18.

- AGATE POUR CAT. II 4000 PSI CONCRETE IN STEEL PIPE PILE @ BERTH 36 & 63 USING TREMI PIPE.
- TOTAL CONC. DELIVER: 45 CY
- TOTAL CONC. USED: 40 CY

NOTE: PA MATERIAL (FRANK) REJECTED 4 CY OF CONC. DUE TO CLAYTON READY-MIX CONC. TRUCK DRIVER ADDED WATER IN BATCH AFTER CONC. WAS DISCHARGING INTO STEEL PIPE PILE.

PA MATERIAL ON SITE FOR CONC. TESTING

CLAYTON QA ON SITE.

- PHOENIX IRON WORKER CONT. FABRICATING REBAR CAGES ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet ____ of ____

Date: 5/27/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PNV-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 75°F

MANPOWER: (1) DOCKBUILDER SUPER; (5) DOCKBUILDER; (2) OPERATOR; (8) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) GENERATOR; (2) VIBRATOR; (5) FLOAT STAGE; (1) ROUND CONCRETE BUCKET (GAR-BRO)

SHEET PILE CAP

- AGATE COMPLETED FORMING PART OF SHEETING PILE CAP @ BERTH 36; USED CONCRETE STEEL BUCKET TO POUR CAT IIA 5000 PSI CONC. FROM PILE # E-25 THRU E-31.
- TOTAL CONC. DELIVER: 24 CY
- TOTAL CONC. USED: 23 CY

- PA MATERIAL ON SITE FOR CONCRETE TESTING.
- CLAYTON QA ON SITE.

- PHOENIX IRON WORKER CONC. FABRICATING & INSTALLING REBAR CAGES IN STEEL PIPE PILE. #

- AGATE REPAIR TREMI PIPE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

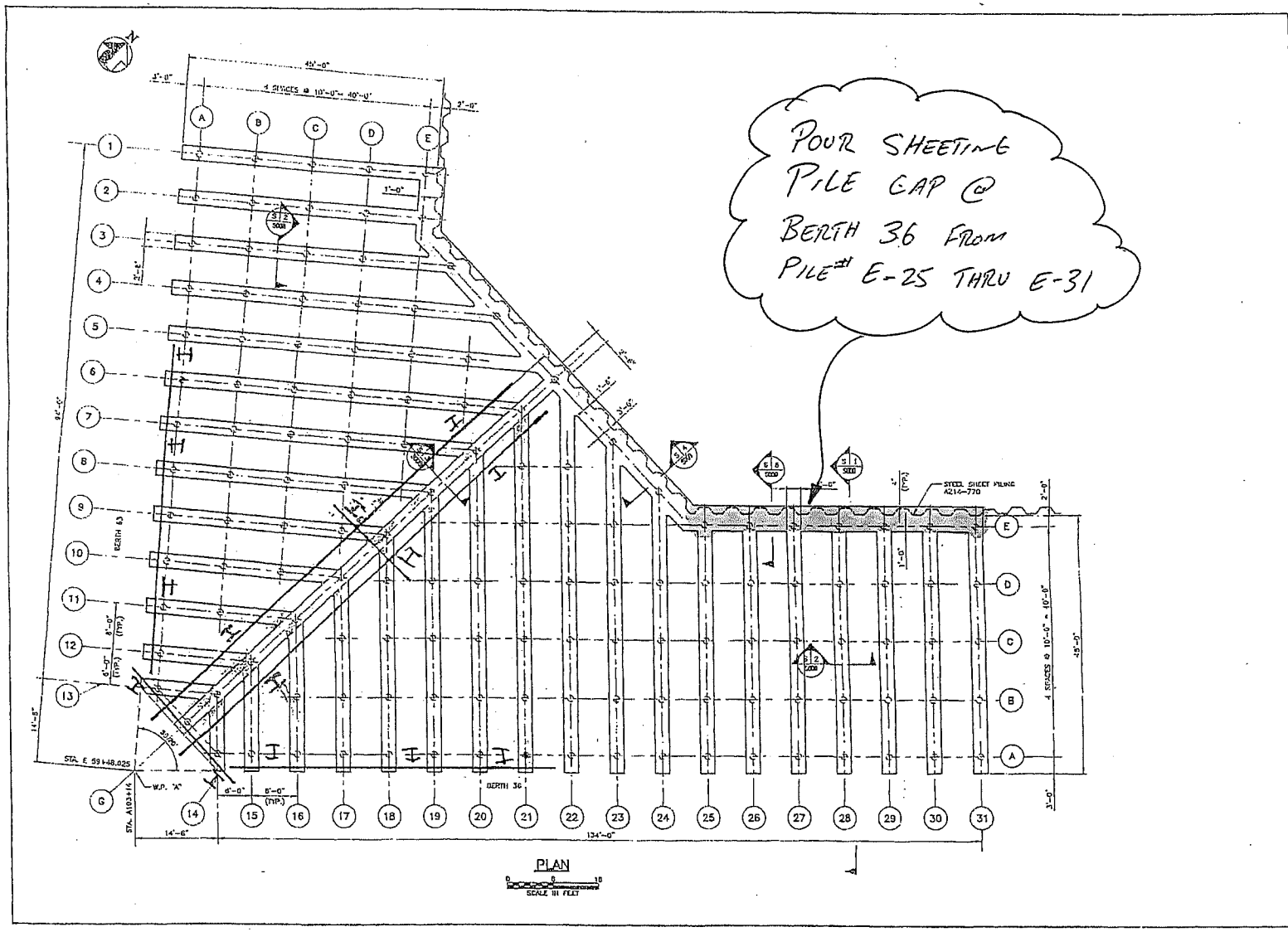
Shift: 7:00 AM - 4:00 PM

Sheet 1 of 3.

Date: 5/25/10

Signed Mark R

Counter Signed



Sheet 11 of 31

THE PORT AUTHORITY
OF NY & NJ

CIVIL STRUCTURAL ENGINEER

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

PORT
NEWARK

STRUCTURAL

Title

BERTHS 36 AND 63
WHARF RECONSTRUCTION

PILE CAP
LAYOUT
PLAN

J. CHAN P. HOAN D. YURYNETS
Designed by Drawn by Checked by

Date APRIL 25, 2008

Contract Number PN-800.219

Drawing Number S007

PID# 07178900

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 71°F

MANPOWER: (1) DOCKBUILDER SUPER; (5) DOCKBUILDER; (2) OPERATOR; (9) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (5) FLOAT STAGE; (1) CAT 325C EXCAVATOR; (1) INGERSOLL-RAND 185 CFM COMPRESSOR; (1) 60 LB JACK HAMMER

- AGATE COMPLETED CHOPPING OUT (2) 9" X 12" KEY ON EXISTING RETAINING WALL @ BERTH 36.

- AGATE CONT. INSTALLING & SECURING FALSE WORK @ BERTH 63 SHEETING PILE CAP.

- PHOENIX REBAR STARTED FABRICATING REBAR FOR PILE CAP. ALSO INSTALL REBAR CAGES IN STEEL PIPE PILE.

NOTE: CONCRETE CYLINDER BREAK FOR 3 DAYS CAME IN @ 2250 PSI (CONC. PLACED ON 5/25/10)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 6:00 PM

Sheet _____ of _____

Date: 5/28/10

Signed [signature]

Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 76°F

MANPOWER: (1) DOCKBUILDER SUPER ; (5) DOCKBUILDER ; (2) OPERATOR ; (3) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) CAT 325C EXCAVATOR ; (1) LIGHT TOWER

- AGATE CONT. FORMING & SECURING SHEET PILE CAP @ BERTH 63 IN PREP. FOR CONCRETE PLACEMENT.

- PHOENIX REBAR CONT. FABRICATING REBAR FOR STEEL PILE CAP @ BERTH 36.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet ____ of ____

Date: 6/1/10

Signed Michael Ramos

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

MANPOWER: (1) DOCKBUILDER SUPER ; (7) DOCKBUILDER ; (2) OPERATOR ; (3) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) STEEL CONC. BUCKET ; (2) LIGHT TOWER , (2) CONC VIBRATOR ; (1) GENERATOR ; (1) CAT 325C EXCAVATOR.

SHEET PILE CAP CONC. PLACEMENT

- AGATE COMPLETED SECURING FORMWORK IN PLACED @ BERTH 63 SHEET PILE CAP.

- PLACED 36 cy OF CAT IV 5000 PSI CONCRETE @ SHEET PILE CAP FROM CLAYTON READY-MIX CONC.

- CONCRETE WAS PLACED @ SHEET PILE CAP USING STEEL BUCKET.

NOTE: AGATE ORDER EXTRA TRUCK LOAD; (6 cy) OF CONCRETE, THAT WAS NOT USED & WERE SEND BACK TO CLAYTON READY-MIX

TOTAL CONC. DELIVERED ; 42 cy

TOTAL CONC. USED : 36 cy

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 2

Date: 6/2/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

- CLAYTON READY-MIX CONCRETE ON SITE.

- PA MATERIAL ON SITE FOR CONCRETE TESTING

- AIG & AON SAFETY WERE ON SITE.

- AGATE COMPLETED STRIPPING SHEET PILE CAP FORMS @ BERTH 36 BET. PILE# 31-E THRU 25-E. (CONC. PLACEMENT 5/25/10)

- STARTED CHOPPING OUT KEYS @ BERTH 63 EXISTING FLOOR SLAB & RETAINING WALL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 2 of 2

Date: 6/2/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

"INTERN"

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
Agate Construction Co	PN-800.219
Location Berth 36 and 63 ~~Wharf~~ Wharf Reconstruc	Weather Pt. Cloudy 77°F

Manpower: (1) Dockbuilder Super, (4) Dockbuilder, (2) operator, (3) ~~(3)~~ Iron Worker

Equipment: (1) Link-belt crane LS-208H; (1) Link-belt crane LS-218H; (1) Sei-54 Barge; (1) 20' Steel Work Boat; (1) Pick-up truck; (5) Float stage; CAT 325L Excavator; (1) Putzmeister TK40 concrete pump; (1) compressor (1) 60lb jackhammer

Classified Item #2

- Total Pile filled with conc: (7) Pile# 23-B, 24-B, 25A, 22A, ~~E~~ 17-B, 16-B, 19A

Classified Item #7

- Total ~~Pile~~ Pile filled with conc (12) Pile# 22-E; 21-E, 20E, 22-F, 21-F; 21-D; 20-D; 19-D; 18-D; 19-C; 18-C; 17-C

- Agate pour CAT II 4000 PSI concrete in ~~steel~~ steel pipe @ Berth 36 & 63 using Tremi pipe

- Total conc. delivered: 45cy
- Total conc. used: 45cy

PA Material on site for conc testing
Clayton QA on site

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 - 3:30.

Sheet ____ of ____

Date: 8/3/10

Signed Audley Bon

Counter Signed ____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 82°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (5) FLOAT STAGE; (1) PUTZMEISTER TK40 CONCRETE PUMP.

- AGATE PLACED CAT VI 4000 PSI CONCRETE INTO STEEL PIPE PILE @ BERTH 36 & 63. USING TREMI PIPE.

CLASSIFIED ITEM # 7

- TOTAL PILE FILLED WITH CONC. (10) PILE # 6-F; 6-E; 7-E; 7-D; 6-D; 5-D; 5-C; 6-C; 7-C & 8-C

- TOTAL CONCRETE DELIVERED & USED: 27 CY

- PA MATERIAL ON SITE FOR CONC. TESTING.

- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 11:00 AM

Sheet 1 of 2

Date: 6/4/10

Signed Neal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 82°F

- AGATE STARTED REMOVING TEMPORARY STEEL WALER SUPPORT UNDERNEATH SHEET PILE CAP @ BERTH 36.

- STARTED INSTALLING PILE CAP STEEL FORMWORK @ BERTH 36 BENT #31

- PHOENIX REBAR INSTALLED (2) FULL-LENGTH REBAR CAGE IN STEEL PIPE PILE @ BERTH 63.; ALSO CONT. FABRICATING PILE CAP CAGES.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 11:00 AM

Sheet 2 of 2

Date: 6/4/10

Signed Neal Ren

Counter Signed

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 0327 /4-05

Contractor: Agate Construction Co. **Contract Number:** PN-800.219

Location: Port Newark, Berths 36 &63

Weather: 70 Deg. F, Partly Cloudy

Crew: 6 Dockbuidler, 2 Operators 1 Superintendant

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Pickup Truck, 1 - Acetylene Torch,

1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - 185 CFM Air compessor, 1 - Cut Saw, 1 - 90lb Jackhammer

1- Komatsu PC250LC Excavator,

Work Performed:

The Contractor chipped out the key-in with a 90lb jackhammer on the existing sea wall at berth 63.

The Contractor cleaned up the construction site.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 1:00 PM - 3:00 PM

Date 6/7/2010

Signed Anthony Bran **Counter Signed**

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 71°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER.
EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE;
(1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (5) FLOAT STAGE;
(1) INGERSOLL-RAND 185 CFM COMPRESSOR

- AGATE CONT. SECURING PILE CAP FORMWORK @ BERTH 36 BENT # 31 & 30 IN PREP. FOR REBAR INSTALLATION.

- PHOENIX REBAR CONT. FABRICATING PILE CAP REBAR CAGES.

- AGATE COMPLETED CHOPPING OUT KEY @ BERTH 63 EXISTING RETAINING WALL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 3:30 PM

Sheet ____ of ____

Date: 6/7/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 74°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE
(1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (5) FLOAT STAGE;
(1) PUTZMESTER TK40 CONCRETE PUMP.

- AGATE PLACED 46 CY OF CAT VI 4000 PSI CONCRETE INTO STEEL PILES @ BERTH 36 & 63 USING TREMI PIPE.

CLASSIFIED ITEM # 2

- TOTAL PILE FILLED WITH CONC. (16) PILE # 18A; 17-A; 16-A; 15-A; 14-A; 13-A; 12-A; 11-A; 9-A; 9-B; 10-B; 8-A; 7-A; 6-A; 5-A & 5-B

CLASSIFIED ITEM # 7

- TOTAL PILE FILLED WITH CONC. (4) PILE # 10-C; 9-C; 9-D & 8-D

- TOTAL CONCRETE DELIVERED & USED: 46 CY
- PA MATERIAL ON SITE FOR CONC. TESTING
- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:00 PM

Sheet 1 of 2

Date: 6/8/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 74°F

- AGATE CONT. SECURING GALVANIZED DECK PAN & FORMWORK IN PLACED @ BERTH 36 BENT # 31 & 30. PILE CAP.

- PHOENIX REBAR PLACED PILE CAP REBAR CAGE INSIDE FORMWORK @ BERTH 36 BENT # 31 & 30. ALSO CONT. FABRICATING PILE CAP CAGE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 2 of 2

Date: 6/8/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LGT. RAIN 70°F

- PHOENIX REBAR CONT. SECURING PILE CAP REBAR CAGE INSIDE FORMWORK @ BERTH 36 & 63 BENT# 31 & 30. ALSO CONT. FABRICATING PILE CAP CAGES.

- AGATE INSTALLED & SECURED FORMWORK BULKHEAD @ BERTH 36, PILE CAP BENT# 31 & 30.

- AGATE STARTED STRIPPING FORMWORK @ SHEET PILE CAP @ BERTH 36 & 63. (CONCRETE PLACEMENT 6/2/10) 2ND POURED.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 2 of 2

Date 6/9/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800. 219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 75°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) PUTZMEISTER TK40 CONC. PUMP; (5) FLOAT STAGE; (1) CONCRETE BUCKET; (2) VIBRATOR CONC.

- AGATE PLACED CAT III 4000 PSI CONCRETE INTO STEEL PILE @ BERTH 36 & 63 USING TREMI PIPE.

CLASSIFIED ITEM # 2

- TOTAL PILE FILLED WITH CONC. (2) PILE # 1-B & 1-A

CLASSIFIED ITEM # 7

- TOTAL PILE FILLED WITH CONC. (8) PILE # 5-F; 5-E; 4-E; 4-D; 3-D; 3-C; 1-C; 23-E,

NOTE: AGATE FILLED (1) ABANDON PILE @ "G" ROW WITH CAT III CONC.

- TOTAL CONC. DELIVERED & USED: 27 CY

NOTE: ALL PILE ARE COMPLETELY FILLED WITH CONC. (141 PILES)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 1 of 2

Date: 6/10/10

Signed Neal Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 75°F

PILE CAP

- AGATE PLACED 22 CY OF CAT II 5000 PSI CONCRETE IN (2) PILE CAP @ BENT # 31 & 30.
- TOTAL CONCRETE DELIVERED & USED: 22 CY.
- PA MATERIAL ON SITE FOR ALL CONC. TESTING.
- CLAYTON QA ON SITE.
- PHOENIX REBAR CONT. FABRICATE PILE CAP REBAR CAGE.

NOTE: DELIVERY OF (EFCO) STEEL FORMS FOR PILE CAP.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 PM - 4:30 PM

Sheet 2 of 2

Date 6/10/10

Signed Neal Ramos Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 73°F

MANPOWER: (1) DOCKBUILDER SUPER ; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) EXCAVATOR KOMATSU PC 250LC ;

- AGATE CONT. FABRICATING PILE CAP FORMWORK @ BERTH 36 & 63.

- AGATE CONT. STRIPPING FORMWORK @ SHEET PILE CAP (POURED ON 6/2/10)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM – 4:30 PM

Sheet 1 of 1

Date: 6/11/10

Signed Mikeal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 74°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE;
(1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK;

- AGATE CONTINUED FABRICATING AND INSTALLING PILE CAP STEEL FORMWORK @ BERTH 36 BENT# 29; 27 & 25 ALSO INSTALLED GALVANIZED STEEL DECK PANS.

NOTE: NO IRON WORKER ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 6:30 PM

Sheet _____ of _____

Date: 6/14/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 81°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK

- AGATE CONT. FABRICATING PILE CAP STEEL FORMWORK ALSO PLACED & SECURED GALVANIZED DECK PANS @ BENT # 28 & 26

- AGATE STARTED STRIPPING STEEL FORMWORK @ PILE CAP BENT # 31

NOTE: PILE CAP # 31 & 30 "5" DAY CONCRETE BREAK CAME IN @ 3720PSI

- PHOENIX REBAR CONT. FABRICATING PILE CAP REBAR CAGE ALSO INSTALLED PILE CAP REBAR CAGE @ BENT # 25 & 27.

NOTE: DELIVERY OF 6"X 12" TIMBER SHEETING FOR FENDER SYSTEM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 1 of 1

Date: 6/15/10

Signed Mike Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 76°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (2) LIGHT TOWER; (1) EXCAVATOR KOMATSU PC 250LC

PILE CAP

- AGATE PLACED 22 CY OF CAT IV 5000 PSI CONCRETE @ PILE CAP BENT # 27 & 25
- TOTAL CONCRETE DELIVERED & USED: 22 CY
- PA MATERIAL ON SITE FOR CONC TESTING
- CLAYTON QA ON SITE.
- AGATE COMPLETED INSTALLING GALVANIZED DECK PANS @ PILE CAP # 29; 28 & 26.
- PHOENIX REBAR CONT. INSTALLING REBAR CAGE @ PILE CAP # 28 & 29.
- AIG & AON SAFETY WERE ON SITE.

NOTE: DUE TO SAFETY ISSUES AGATE STARTED CLEANING UP SEI-SU BARGE & JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 6/16/10

Signed Neal R

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Sunny 76°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC 250 LC; (5) FLOAT STAGE; (1) PICK-UP TRUCK; (2) LIGHT TOWER

- AGATE STARTED INSTALLING & SECURING TEMPORARY STEEL WALER ONTO PIN-PILE IN PREP. FOR PILE CAP FORMWORK SUPPORTS @ PILE ROW "G".
- PLACED & SECURED PILE CAP FORMWORK @ BENT # 24.
- COMPLETED SECURING TEMPORARY BULKHEAD @ PILE CAP # 28 & 26.
- STRIPPED PILE CAP FORMWORK @ BENT 30.
- PHOENIX REBAR COMPLETED SECURING PILE CAP REBAR CAGES @ BENT # 29, 28 & 26.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 6/17/10

Signed Mikal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN.- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 74°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEA-SUE BARGE; (1) PICK-UP TRUCK;
(1) CONCRETE BUCKET; (3) FLOAT STAGE; (1) CONC. VIBRATOR

PILE CAP

- AGATE PLACED 30 CY OF CAT IV 5000 PSI CONCRETE @ PILE CAP BENT# 29; 28 & 26
- TOTAL CONCRETE DELIVERED & USED: 30 CY
- PA MATERIAL ON SITE FOR CONC. TESTING.
- CLAYTON READY-MIX QA ON SITE
- AGATE CONT. INSTALLING STEEL WALER ONTO PIN-PILE IN PREP. FOR PILE CAP FORMWORK.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet 1 of 1

Date: 6/18/10

Signed Michael Ra

Counter Signed

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 0327 4-05

Contractor: Agate Construction Co.

Contract Number: PN-800.219

Location: Port Newark, Berths 36 & 63

Weather: 80 Deg. F, Partly Cloudy

Crew: 5 Dockbuidler, 1 Superintendant

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Pickup Truck,

1 - 20' Steel Workboat, 1 - SE1-54 Barge,

1- Komatsu PC250LC Excavator,

Work Performed:

The contractor continued to install off shore waler at column line A.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 7:00 PM - 2:30 PM

Date 6/19/2010

Signed _____ **Counter Signed** _____

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 84°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK;

- AGATE INSTALLED STEEL WALER ONTO PIN PILE @ ROW "G" IN PREP. FOR PILE CAP FORMWORK.
- STARTED INSTALLING GALVANIZED DECK PANS @ PILE CAP # 24 & 23 ALSO SECURED PILE CAP FORMWORK IN PLACED.
- STARTED STRIPPING PILE CAP # 27 & 25 FORMWORK. DUE TO CONCRETE CYLINDER (5) DAY BREAK CAME IN ABOVE 3,000 PSI
- CONT. FABRICATING STEEL WALER FOR FORMWORK.

NOTE: ALL SAFETY ISSUE BEEN RESOLVED FROM 6/16/10 REPORT JM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 Am - 3:30 Pm

Sheet 1 of 1

Date: 6/21/10

Signed [signature] Counter Signed JM.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 83°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK;

- AGATE CONT. FABRICATING & INSTALLING STEEL WALER ONTO PIN-PILE @ PILE ROW "G".
- STARTED INSTALLING PILE CAP FORMWORK @ PILE CAP BENT #2
- COMPLETED STRIPPING PILE CAP #27 FORMWORK.
- PHOENIX IRON WORKER INSTALLED REBAR CAGE @ PILE CAP # 23 & 24 (WORK-IN-PROGRESS)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 6/22/10

Signed Mikael Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (1) FLOAT STAGE.

- AGATE COMPLETED SECURING PILE CAP# 24 & 23 FORMWORK, IN PREP. FOR TOMORROW CONCRETE PLACEMENT.
- INSTALLED GALVANIZED DECK PAN @ PILE CAP# 2
- PLACED & SECURED PILE CAP# 3 FORMWORK IN PLACE.
- STRIPPING FORMWORK @ PILE CAP# 28 & 29.
- PHOENIX IRON WORKER COMPLETED INSTALLING REBAR @ PILE CAP# 24 & 23. ALSO INSTALLED REBAR CAGE @ PILE CAP# 2.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM – 3:30 PM

Sheet 1 of 1

Date: 6/23/10

Signed Neal R

Counter Signed

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The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE CS-208H; (1) LINK-BELT CRANE CS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR

PILE CAP

- AGATE PLACED 24 CY OF CAT IV 5000 PSI CONCRETE @ PILE CAP BENT # 23 & 24.
- TOTAL CONCRETE DELIVERED: 26 CY
  USED: 24 CY & WASTED: 2 CY
- PA MATERIAL ON SITE FOR CONC. TESTING
- CLAYTON READY MIX QA ON SITE.
- AGATE INSTALLED & SECURED GALVANIZED DECK PAN @ PILE CAP # 3 ALSO INSTALLED BULKHEAD @ PILE CAP # 2.
- PHOENIX IRON WORKER COMPLETED INSTALLING REBAR CAGE @ PILE CAP # 2 & 3.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 4:30 PM

Sheet ____ of ____

Date: 6/24/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 89°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR

PILE CAP

- AGATE PLACED 22 CY OF CAT II 5000 PSI CONCRETE @ PILE CAP BENT # 2 & 3
- TOTAL CONCRETE DELIVERED & USED: 22 CY
- PA MATERIAL ON SITE FOR CONC. TESTING.
- CLAYTON READY MIX CONC. QA ON SITE.
- AGATE COMPLETED SECURING PILE CAP #3 BULK HEAD.
- PLACED & SECURED FORM WORK @ PILE CAP #4 & 22
- STRIPPED PILE CAP #25 FORMWORK.

NOTE: PHOENIX IRON WORKER NOT ON SITE TODAY

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 4:30 PM

Sheet 1 of 1

Date: 6/25/10

Signed Michael Ra... Counter Signed JM

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The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-218H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) P.CK-UP TRUCK.

- AGATE STARTED INSTALLING & SECURING GALVANIZE DECK PAN BETWEEN PILE CAP# 31 & 30. (WORK-IN-PROGRESS)

- CONTINUED SECURING FORMWORK & INSTALLING DECK PAN @ PILE CAP# 22. ALSO FABRICATING FORMWORK.

NOTE: DELIVERY OF FENDER SYSTEM TIMBER.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 6/28/10

Signed Neal Ra

Counter Signed J.M.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PC CLOUDY 89°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;

- AGATE CONTINUED INSTALLING & SECURING GALVANIZED DECK PAN BETWEEN PILE CAP# 30 THRU 27.
- PLACED & SECURED GALVANIZED PAN @ PILE CAP#4
- INSTALLED PILE CAP#5 FORMWORK.
- PHOENIX IRON WORKER INSTALLED PILE CAP#22 REBAR CAGE.

NOTE: DELIVERY OF GALVANIZE REBAR FOR DECK SLAB & SEA WALL.

NOTE: AGATE USED FLAT-BED TRACKER TRAILER TO REMOVE EXCAVATOR KOMATSU FROM JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 6:00 PM

Sheet 1 of 1

Date 6/29/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN - 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 77°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATORS; (2) IRON WORKERS.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(1) FLOAT STAGE; (2) LIGHT TOWER; (1) VIBRATORY PILE DRIVER ICE 44 w/ POWER UNIT.

- AGATE STARTED STRIPPING PILE CAP # 24 FORMWORK.
- CONTINUED SETTING FORMWORK @ PILE CAP # 5
- CONTINUED INSTALLING & SECURING GALVANIZE DECK PAN BETWEEN PILE CAP # 27-26.
- REMOVED (2) TEMPORARY PIN-PILE @ BERTH 63 BENT # 1.
- PHOENIX IRON WORKER PLACED PILE CAP # 4 REBAR CAGE.

NOTE: DELIVERY OF STEEL FORMWORK FOR SEA-WALL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 6/30/10

Signed Neal R

Counter Signed

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7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 76°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) INGERSOLL-RAND 185 CFM COMPRESSOR (1) 60 LB JACK HAMMER; (1) GENERATOR; (1) FLOAT STAGE; (2) LIGHT TOWER

- AGATE COMPLETED STRIPPING PILE CAP # 24 & 2 FORMWORK.
- SECURED PILE CAP # 4 & 5 FORMWORK IN PREP. FOR TOMORROW CONCRETE PLACEMENT.
- CHIPPED OFF UNEVEN CONCRETE @ BERTH 36 EXISTING PILE CAP BENT # 18 TIE-IN. (WORKED IN PROGRESS)
- PHOENIX IRON WORKER INSTALLED PILE CAP # 5 REBAR CAGE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 PM – 2:30 PM

Sheet 1 of 1

Date: 7/1/10

Signed Mark Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 79°F.

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (2) LIGHT TOWER; (1) GENERATOR; (2) FLOAT STAGE

PILE CAP

- AGATE PLACED 43 CY OF CAT IV 5000 PSI CONCRETE @ PILE CAP BENT# 22; 4 & 5

- TOTAL CONCRETE DELIVERED: 52 CY
  USED: 43 CY & WASTED: 9 CY

- LOAD#1: WASTED 4 CY DUE TO CONC. NOT COMING OUT OF CONC. BUCKET.
- LOAD#3: WASTED 3 CY " " " " " " " "
- LOAD#6: WASTED 2 CY ORDER EXTRA.

- PA MATERIAL ON SITE FOR CONC. TESTING
- CLAYTON READY-MIX CONC. QA ON SITE.

- AGATE STARTED PLACING PILE CAP#21 & 1 FORMWORK.
- PLACED & SECURED GALVANIZED DECK PAN BETWEEN PILE CAP# 26 · THIRD 24.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 12:30 PM

Sheet _____ of _____

Date: 7/2/10

Signed Mikael Romero Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 98°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT ; (1) SEI-54 BARGE; (1) P.U. TRUCK; (1) VIBRATORY PILE EXTRACTOR ICE 44 w/ POWER UNIT; (1) INGERSOLL-RAND 185CFM COMPRESSOR.

- AGATE STRIPPED PILE CAP# 23 & 3 FORMWORK.
- STARTED PLACING & SECURING GALVANIZED PAN @ PILE CAP#22.
- PLACED & SECURED GALVANIZED ANGLE IRON ON TO EX-STING PILE CAP# 97 @ BERTH 63 IN PREP FOR PLACING GALV. PAN @ PILE CAP# 1
- REMOVED (4) TEMPORARY PIN PILE @ BERTH 36.
- FABRICATING PILE CAP#22 FORMWORK.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 7/6/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PIN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 98°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) WELDING MACHINE MILLER; (1) INGERSOLL-RAND 185 cfm COMPRESSOR.

- AGATE COMPLETED SECURING GALVANIZED ANGLE IRON ON TO EXISTING PILE CAP #97 FACE @ BERTH 63 IN PREP. FOR PLACING GALVANIZED PILE CAP PAN.

- INSTALLED & SECURED TEMPORARY FORMWORK @ PILE CAP # 22 & ALSO ROW "G" (WORK-IN-PROGRESS), INSTALLED GALVANIZED PAN @ PILE CAP # 22.

- MIXED (1) BAG OF PORTLAND CEMENT WITH SAND AND LEVEL OUT EXISTING PILE CAP #18 TIE-IN @ BERTH 36 (WORK-IN-PROGRESS) START INSTALLING GALVANIZED DECK PAN BET. EXISTING PILE CAP #18 & NEW PILE CAP # 31. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 7/7/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY / PT. CLOUDY 83°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(1) INGERSOLL-RAND 185 CFM COMPRESSOR.

- AGATE COMPLETED LEVELING OUT EXISTING PILE CAP# 18 @ BERTH 36, USED (1) BAG PORTLAND CEMENT.
- INSTALLED GALVANIZE PAN @ PILE CAP# 1
- FORMWORK STRIPPING @ PILE CAP# 4 & 5.
- PHOENIX IRON WORKER STARTED PLACING DECK REBAR @ BERTH 36. ALSO PLACED & SECURED REBAR CAGE @ PILE CAP# 1.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM – 3:30 PM

Sheet 1 of 1

Date 7/8/10

Signed [signature]

Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-208H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) CONCRETE VIBRATOR; (1) CONCRETE BUCKET

PILE CAP

- AGATE PLACED 13 cy OF CAT IV 5000 PSI CONCRETE @ PILE CAP BENT #1

- TOTAL CONCRETE DELIVERED: 20 cy
  USED: 13 cy & WASTED: 7 cy

- CONCRETE LOAD #1: CONCRETE NOT DISCHARGING OUT OF CONC. TRUCK CHUTE, AGATE SENT AWAY TRUCK. USED: 4 cy & WASTED: 4 cy.

- CONCRETE LOAD #3: AGATE ORDER (6 cy) EXTRA CONCRETE. USED: 3 cy & WASTED: 3 cy.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 2

Date: 7/9/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PAV-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

- AGATE COMPLETED INSTALLING GALVANIZED DECK PAN BETWEEN EXISTING PILE CAP #18 & NEW PILE CAP #31.
- COMPLETED SECURING PILE CAP #1 FORMWORK IN PLACED.
- STARTED INSTALLING PILE CAP FORMWORK @ BENT ROW "G".
- PHOENIX IRON WORKER CONT. PLACING DECK REBAR @ BERTH 36 BETWEEN PILE CAP #31-29.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 2 of 2

Date: 7/9/10

Signed Mikael Ram

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER ; (7) DOCKBUILDER ; (2) OPERATOR ; (2) IRON WORKER.
EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-208H ;
(1) 20' STEEL WORK BOAT ; (1) SEI-54 BARGE ; (1) PICK-UP TRUCK ;
(2) FLOAT STAGE

- AGATE INSTALLED & SECURED GALVANIZED DECK PAN BET. PILE CAP# 25 THRU 24

- PLACED & SECURED FORMWORK @ PILE CAP# 6 ; 7 & BENT LINE "G" (WORK-IN-PROGRESS)

- PHOENIX IRON WORKER CONT. PLACING DECK REBAR BET. PILE CAP# 29 THRU 27 BOTTOM MAT (WORK-IN-PROGRESS). ALSO PLACED REBAR CAGE @ PILE CAP# 21

NOTE: CRACKS ON PILE CAP# 2 RECENTLY BEEN NOTICE ON TOP OF EACH PILE, ALSO SIDE OF PILE CAP NEAR SHEET PILE CAP HAVE HORIZONTAL CRACKS, (30" IN LENGTH)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 7/12/10

Signed Mike R

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY / RAIN 79°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK.

- AGATE FABRICATING PILE CAP STEEL FORMWORK. (WORK-IN-PROGRESS).

- PHOENIX IRON WORKER ON SITE DUE TO HIGH TIDE. DID NOT INSTALLED ANY REBAR.

NOTE: DUE TO HEAVY RAIN AGATE (8) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER WERE SENT HOME @ 1:30 PM.
DOCKBUILDER SUPER LEFT JOB SITE @ 3:30 PM.

SEE ATTACHED PHOTO'S OF PILE CAP CRACKS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 3:30 PM

Sheet 1 of 1

Date: 7/13/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN / PT. CLOUDY 80°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR; (4) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(4) FLOAT STAGE;

- AGATE CONT. FABRICATING STEEL FORMWORK FOR PILE CAPS.

- INSTALLED TEMPORARY ANGLE IRON ALONG FACE OF WHARF FROM PILE CAP # 31 - 27 AND PLACED 2' STEEL FORMWORK IN PREP. FOR CONC. DECK PLACEMENT.

- COMPLETED INSTALLING PILE CAP #6 FORMWORK & CORRUGATED PILE CAP PAN.

- PHOENIX IRON WORKER STARTED INSTALLING DECK REBAR TOP MAT & SEA WALL REBAR @ BERTH 36 BET. BENT # 31 - 27. ALSO PLACED (1) SECTION OF REBAR CAGE @ PILE CAP BENT ROW "G" (WORK-IN-PROGRESS)

NOTE: DELIVERY OF (EFCO) STEEL FORMWORK.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:00 PM

Sheet 1 of 1

Date: 7/14/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PL. SUNNY 82°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR; (3) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (2) LIGHT TOWERS; (3) FLOAT STAGE

- AGATE STRIPPED PILE CAP# 21 & 1 FORMWORK.
- INSTALLED PILE CAP# 21 & 6 BULKHEAD @ FACE OF WHARF
- PLACED & SECURED PILE CAP# 7 & 20 FORMWORK. IN PREP. FOR REBAR CAGE.
- AGATE CLEAN-UP JOB SITE.
- PHOENIX IRON WORKER PLACED REBAR CAGE @ PILE CAP#6.

NOTE: AGATE REMOVE & REPLACED LINK-BELT CRANE STEEL CABLE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 7/15/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 87°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (2) LIGHT TOWER; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR;

PILE CAP

- AGATE PLACED 32 cy OF CAT IV 5000 PSI CONCRETE @ PILE CAP # 21; 6 & PART OF BENT ROW "G".
- TOTAL CONCRETE DELIVERED: 33 cy
  USED: 32 cy & WASTED: 1 cy (AGATE ORDER EXTRA CONCRETE)
- PA MATERIAL ON SITE FOR CONC. TESTING.
- CLAYTON READY MIX QA ON SITE.
- AGATE INSTALLED PILE CAP # 8 FORMWORK.
- CLEAN OFF CONCRETE SLURRY FROM FORMWORK.
- PA SURVEYOR ON SITE MONITORING PILE CAP # 2 CRACKS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet ____ of ____

Date: 7/16/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy / RAIN (AM) / Pt. SUNNY (PM) 85°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC 250LC.; (2) FLOAT STAGE

- AGATE PLACED & SECURED PILE CAP# 19 FORMWORK.
- INSTALLED PILE CAP# 20 GALVANIZED PANS.
- STARTED FORMING BULKHEAD @ EX-STING PILE CAP# 18 ALSO MIDDLE OF PILE CAP# 28 IN PREP. FOR DECK POUR (WORK-IN-PROGRESS)
- EXCAVATED BEHIND (LAND SIDE) SHEETING PILE CAP IN PREP. FOR BULKHEAD.

NOTE: PA STRUCTURAL (JOHN CHAW) & MATERIAL (JOE MARRANO) ON SITE OBSERVING PILE CAP# 2 CRACKS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 7/19/10

Signed Neal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) Pt. SUNNY 82°F / (PM) CLOUDY 89°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (2) FLOAT STAGE; (1) EXCAVATOR KOMATSU PC25LC.

- AGATE CONT. INSTALLING BULKHEAD @ MIDDLE OF PILE CAP #28 ALSO @ SHEETING PILE CAP IN PREP. FOR DECK POUR. (WORK-IN-PROGRESS)
- INSTALLED GALVANIZED PAN @ PILE CAP #7.
- CONNECTED FORMWORK @ PILE CAP #20 & 7 TO BENT ROW "G".
- COMPLETED REMOVING FORMWORK @ PILE CAP #22.
- PHOENIX IRON WORKER PLACED & SECURED REBAR CAGE @ PILE CAP #20 & 7.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 7/20/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (1) ICE 44 VIBRATORY PILE DRIVER W/ POWER UNIT; (1) FLOAT STAGE.

- AGATE EXTRACTED (3) TEMPORARY PIN-PILE @ BERTH 36.
- PLACED GALVANIZED PAN @ BOTTOM OF PILE CAP# 8 & 19 IN PREP. FOR REBAR CAGE.
- COMPLETED FORMING BULKHEAD @ PILE CAP# 20 & 7 FACE OF WHARF.
- PHOENIX IRON WORKER STARTED FABRICATING SEA WALL REBAR CAGE ALSO PLACED REBAR CAGE @ PILE CAP# 19.

NOTE: 5 DAY CONC. BREAK CAME IN @ 3300 PSI FOR PILE CAP# 21; 6 & PART OF "G"

NOTE: REMOVAL OF PILE CAP# 2

- AGATE SUPER LAYOUT CUT SECTION ON PILE CAP# 2, 9" FROM PILE REBAR CAGE.
- DOCKBUILDER PLACED (2) 2"X6"X 24" TIMBER & (2) 8' ANGLE IRON BET. PILES & SECURED WITH 7" ANCHOR BOLTS IN PREP. FOR CUTTING & LIFTING OUT PILE CAP SECTIONS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM / - 2:30 PM

Sheet 1 of 1

Date: 7/21/10

Signed Mikal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (1) EXCAVATOR KOMATSU PC 250LC; (2) FLOAT STAGE

PILE CAP

- AGATE PLACED 28.5 cy OF CAT IV 5000 PSI CONCRETE @ PILE CAP # 20; PART OF BENT "G" & PILE CAP # 7.
- TOTAL CONCRETE DELIVERED: 31 cy
  USED: 28.5 cy & WASTED: 2 1/2 cy (ORDER EXTRA CONCRETE)
- PA MATERIAL ON SITE FOR CONCRETE TESTING.
- CLAYTON READY MIX QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM & 3:30 PM

Sheet 1 of 2

Date: 7/22/10

Signed Mikael Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

- AGATE POWER WASH TOP OF PILES @ PILE CAP# 7 & 20 IN PREP. FOR CONCRETE PLACEMENT.

- COMPLETED SECURING FORMWORK @ PILE CAP# 8 & 19

- INSTALL PILE CAP# 8 & 19 BULKHEAD @ FACE OF WHARF.

- PHOENIX IRON WORKER CONT. FABRICATING REBAR CAGE FOR SEA WALL.

**NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) CAME ON SITE @ 10:30 AM (3½ HOUR LATE)

SUB-CONTRACTOR: CUTTING TECHNOLOGIES (CTI)
MAN POWER: (2) LABOR
EQUIPMENT: (1) FORD 350 & (1) FORD 450 W/ TRAILER; (1) WIRE CUTTING MACHINE W/ POWER UNITS. & (1) GENERATOR.

- CTI CAME ON SITE @ 7:00 AM & SETTING-UP EQUIPMENT FOR WIRE CUTTING PILE CAP# 2. STARTED CUTTING PILE CAP# 2 @ 11:30 AM (DUE TO MOTOR BURN OUT @ CONTROL EQUIPMENT HAD TO REPLACED).
- TIME FOR (1) CUT IS ABOUT LESS THAN 30 MIN.; TOTAL CUTS MADE TODAY (4) OUT OF 8; CTI FINISHED @ 3:30 PM; WILL COMPLETED CUTTING PILE CAP TOMORROW.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 2 of 2

Date 7/22/10

Signed Neal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) SUNNY / (PM) LT. RAIN 88°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (2) FLOAT STAGE.

PILE CAP

- AGATE PLACED 12 CY OF CAT IV 5000 PSI CONCRETE @ PILE CAP# 19

- TOTAL CONCRETE DELIVERED: 30 CY
  USED: 12 CY & WASTED: 18 CY

LOAD#1: USED: 3 CY & WASTED: 5 CY DUE TO CONC. SETTING-UP TOO FAST, CONCRETE NOT COMING OUT OF CHUTE, AGATE SENT AWAY TRUCK. PA MATERIAL DID NOT TEST TRUCK, CLAYTON QA NOT ON SITE.

LOAD# 2: USED: 8 CY & WASTED: 0 CY, PA MATERIAL TESTED CONC. TRUCK, AIR: 3%, SLUMP: 7" & UNIT WEIGHT: 147.5, CONC. TRUCK FINISHED DUMPING OUT ALL 8 CY OF CONC. WHEN CONC. TESTING WAS DONE. CLAYTON QA NOT ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 1 of 3

Date: 7/23/10

Signed Mark Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CORP.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) SUNNY / (PM) LT. RAIN 88°F

LOAD # 3: USED: 0 cy & REJECTED: 8 cy DUE TO LOW AIR: 1.5%
WHEN TESTED. PA MATERIAL REJECTED TRUCK LOAD.
CLAYTON QA NOT ON SITE.

LOAD # 4: USED: 1 cy & WASTED: 5 cy, CLAYTON QA CAME ON SITE
ADDED SUPER "P" IN TRUCK, TRUCK WAS TESTED FOR AIR, AS
A RESULT AIR WAS 1.3%, CLAYTON QA ADDED 60 oz AIR
IN-SIDE TRUCK MIX, AIR WAS RETED 3.1%
NOTE: 1 cy OF CONC. WAS USED TO FINISHED-UP PILE CAP # 19

- PA MATERIAL (INTERN ALAN WHITE) ON SITE FOR CONC. TEST.
- CLAYTON QA CAME ON SITE @ 2:40 PM
- AGATE INSTALLED CORRUGATED STEEL DECK PAN BET. PILE CAP # 23 THRU 22.
- STARTED FORMING BULKHEAD @ FACE OF WHARF FOR SEA WALL.
- PHOENIX IRON WORKER CONT. INSTALLED DECK REBAR BOTTOM MAT BET. PILE CAP # 27 THRU 24.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 2 of 3

Date: 7/23/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CORP.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) Sunny / (PM) Lt. Rain 88°F

SUB-CONTRACTOR: CUTTING TECHNOLOGIES (CTI)

MAN POWER: (2) LABOR

EQUIPMENT: (1) FORD 350 ; (1) FORD 450 w/ TRAILER ; (1) WIRE CUTTING MACHINE w/ POWER UNITS ; (1) GENERATOR.

- CTI COMPLETED WIRE CUTTING REMAINING (4) CUTS ON PILE CAP #2

- FINISH CUTTING PILE CAP @ 2:30 PM & LEFT JOB SITE @ 4:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 3 of 3

Date: 7/23/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (1) INGERSOLL-RAND 185 C.F.M; (2) GOLB JACK HAMMER.

PILE CAP

- AGATE DID NOT PLACED ANY CONCRETE @ PILE CAP# 8, DUE TO LOW AIR WHEN CONC. TESTED.

LOAD#1: REJECTED DUE TO LOW AIR. (8 cy)

1ST TESTED: AIR 2.5%; SLUMP: 4" & CONC. TEMP. 75°F

CLAYTON QA ADDED ADDITIONAL 48.4 oz OF AIR ON SITE.

2ND RE-TEST AIR: 3.3%; SLUMP: 4½"; CONC. TEMP. 80°F

LOAD#2: REJECTED DUE TO LOW AIR (8 cy)

CLAYTON QA ADDED ADDITIONAL 48.4 oz OF AIR ON SITE BEFORE TRUCK WAS TESTED.

1ST TEST: AIR: 2.7%; SLUMP: 5½" & CONC. TEMP. 75°F

TOTAL CONC. USED: 0 cy & REJECTED: 16 cy

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 Am - 5:30 Pm

Sheet 1 of 2

Date: 7/26/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE COMPLETED BULKHEAD @ MIDDLE OF PILE CAP #28 IN PREP. FOR DECK CONC. PLACEMENT.
- STARTED FORMING SEA WALL BOLLARD PIPE SLEEVE BET. PILE CAP# 29 & 28.
- PLACED STEEL FORMWORK FOR PILE CAP# 9 & 18.
- STARTED STRIPPING PILE CAP#6 FORMWORK.
- PHOENIX IRON WORKER PLACED TOP REBAR MAT BET. PILE CAP# 27 THRU 24.

NOTE: AGATE REMOVED ALL (4) CUT SECTION OF PILE CAP#2 & STOCK PILE ON LAND ALSO STARTED CHOPPING OUT CONC. THAT CONNECTED TO SHEET WALL CAP. (1')

REMOVAL OF CAP: (3) DOCKBUILDER ; (1) OPERATOR ; (1) SUPER ; (1) LINK-BELT CRANE LS-208H (12:00 PM - 3:30 PM)

CHOPPING OUT CAP: (2) DOCKBUILDER ; (1) OPERATOR ; (1) SUPER ; (2) GOLD JACK HAMMER ; (1) COMPRESSOR (4:00 PM - 5:30 PM)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 2 of 2

Date: 7/26/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; ( ) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(1) CONCRETE BUCKET; (1) CONCRETE VIBRATOR; (1) EXCAVATOR KOMATSU PC 250LL.

PILE CAP

- AGATE PLACED 15 cy OF CAT III 5000 PSI CONCRETE @ PILE CAP # 8 & PART OF "G".

- TOTAL CONC. DELIVERED: 16 cy
  USED: 15 cy & WASTED: 1 cy (ORDER EXTRA).

- LOAD #1: AIR: 4% SLUMP: 7" CONC. TEMP. 81°F
  CLAYTON QA ADDED ADDITIONAL 40 oz OF AIR on SITE.
  RE-TEST: AIR: 4.6% SLUMP: 7"

LOAD #2: 1ST TEST: AIR: 4% SLUMP: 7"
CLAYTON QA ADDED ADDITIONAL 40 oz OF AIR ON SITE.
2ND RETEST: AIR: 4.6% SLUMP: 7"

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 2

Date: 7/27/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE COMPLETED PLACING PILE CAP# 18 FORMWORK & CORRUGATED GALVANIZED PAN IN PREP. FOR REBAR CAGE.
- COMPLETED FORMING (1) SEA WALL BOLLARD PIPE SLEEVE BET. PILE CAP# 29 THRU 28.
- STARTED INSTALLING 2ND BULKHEAD @ MIDDLE OF PILE CAP# 24 IN PREP. FOR CONC. PLACEMENT.
- STRIPPED PILE CAP# 21 FORMWORK.

NOTE: AGATE PLACED (2) PLYWOOD @ PILE# 1-D IN PREP. FOR CHIPPING OUT PILE CAP# 2 CONCRETE AROUND PILE# 1-D.

(1) COMPRESSOR ; (2) DOCKBUILDER ; (2) JACK HAMMER 60LB. (2:00PM - 3:00PM)
NO WORK WAS DONE @ PILE CAP# 2 ; (2) DOCKBUILDER WENT TO ASSIST WITH CONC. PLACEMENT.

NOTE: PA MATERIAL ON SITE & TOOK SAMPLE OF TREATED TIMBER.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00AM - 5:30PM

Sheet 2 of 2

Date 7/27/10

Signed Mike R Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK; (2) FLOAT STAGE; (2) LIGHT TOWER; (1) INGERSOLL-RAND 185 CFM; (2) 60 LB JACK HAMMERS.

- AGATE PLACED BULKHEAD @ PILE CAP#18 FACE OF WHARF. IN PREP. FOR CONC. PLACEMENT.

- STRIPPING PILE CAP# 20 & 6 FORMWORK.

- CONTINUED INSTALLING DECK BULKHEAD @ MIDDLE OF OF PILE CAP#24.

- PLACED CORRUGATED DECK PANS BET. PILE CAP# 22 THRU 21.

- PHOENIX IRON WORKER PLACED PILE CAP#18 REBAR CAGE.

NOTE: AGATE STARTED CHIPPING OUT PILE CAP# 2 CONCRETE AROUND PILE# 2-D & 2-C @ BERTH 63 & EXPOSED PILE REBAR CAGE.
(2) DOCKBUILDER; (2) 60 LB JACK HAMMER; (1) INGERSOLL-RAND COMPRESSER 185 CFM (6.0 HRS)

NOTE: PA PHOTOGRAPHER ON SITE.

NOTE: AIG & AON SAFETY ON SITE NO COMMENTS WERE MADE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 11:00 AM - 2:30 PM

Sheet 1 of 1

Date: 7/28/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) RAIN & (PM) PT. CLOUDY 86°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(1) EXCAVATOR KOMAT'SU PC-250 LC; (1) INGERSOLL-RAND 185 CFM;
(2) FLOAT STAGE; (2) LIGHT TOWER.

- AGATE PLACED CORRUGATED GALVANIZED PANS @ PILE CAP#9 IN PREP. FOR REBAR CAGE.
- CONTINUED PLACING 2ND DECK BULKHEAD @ CENTER OF PILE CAP# 24
- PLACED CORRUGATED DECK PAN BET. PILE CAP# 21 - 20.
- CLEAN & REMOVE CONCRETE SLURRY ON FORMWORKS.
- PHOENIX IRON WORKER PLACED PILE CAP#9 REBAR CAGE, ALSO STARTED PLACING DECK REBAR BET. PILE CAP# 24 THRU 21 BOTTOM MAT.

NOTE: AGATE PROJECT MANAGER KEVIN KNUETTEL CAME ON SITE @ 11:00 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 2

Date 7/29/10

Signed [signature] Counter Signed [signature]

A 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) RAIN & (PM) PT CLOUDY 86°F

NOTE: AGATE COMPLETED CHIPPING PILE CAP'S 2 CONC. AROUND PILE'S 2-D, STARTED CHIPPING PILE'S 2-C; 2-B & 2-A.

(1) 60 LB JACK HAMMER; (1) 90 LB JACK HAMMER; (1) INGERSOLL-RAND 185CFM COMPRESSOR; (2) DOCKBUILDER. (4:00 AM - 9:30 AM).

INCIDENT REPORT

- DOCKBUILDER BARTHOLOMEW BRENNER WAS INJURED ON AGATE JOB SITE @ 5:50 AM, WHEN HIS 60 LB JACKHAMMER BUSTED THROUGH PILE # 2-C DEMO CONCRETE & CAME DOWN ON HIS RIGHT TOE WHILE HIS HAND WAS STILL ON THE TRIGGER.

NOTE: DOCKBUILDER DID NOT WORE STEEL TOE BOOTS

- AGATE ASSISTANT PROJECT ENGINEER ANTHONY BARTOLICCI FILLED OUT INCIDENT REPORT & TOOK DOCKBUILDER TO CONCENTRA URGENT CARE IN ELIZABETH @ 9:00 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 2 of 2

Date 7/29/10

Signed Neal R.

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (2) FLOAT STAGE
(1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (2) LIGHT TOWER.

- AGATE PLACED BULKHEAD @ PILE CAP #9 FACE OF WHARF & ALSO SECURED PILE CAP #9 FORMWORK IN PREP. FOR CONC. PLACEMENT.

- PHOENIX IRON WORKER COMPLETED PLACING PILE CAP #9 REBAR ALSO FABRICATING PILE CAP REBAR CAGE.

NOTE: AGATE COMPLETED DEMO PILE CAP #2 CONC. AROUND PILE #2-C & 2-B @ BERTH 63.
(3) DOCKBUILDER; (2) 60 LB JACK HAMMER; (1) INGERSOLL-RAND 185 CFM COMPRESSER
(4:00 PM - 9:30 PM)

NOTE: DELIVERY OF HOE-RAM ATTACHMENT

NOTE: INJURED DOCKBUILDER (BARTHOLOMEW BRENNER) ON SITE LIGHT DUTY.

NOTE: AGATE ASS'STANT PROJECT ENGINEER (ANTHONY BARTOLICCI) NOT ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 7/30/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 74°F

MANPOWER: (1) DOCKBUILDER SUPER; (6) DOCKBUILDER ; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK;
(1) EXCAVATOR KOMATSU PC-25OLC; (1) INGERSOLL-RAND 185 CFM;
(2) FLOAT STAGE & (2) LIGHT TOWER.

- AGATE INSTALLED BULKHEAD @ BENT ROW "G" FOR PILE CAP# 9 & 18 CONC. PLACEMENT.

- PLACED PILE CAP#17 FORMWORK. (WORK-IN-PROGRESS)

- CONTINUED INSTALLING 2ND BULKHEAD @ MIDDLE OF PILE CAP#24 (WORK-IN PROGRESS)

NOTE: AGATE DOCKBUILDER CONT. CHIPPING PILE CAP#2 CONC. AROUND PILE#2-A.
(2) 60 LB JACK HAMMER; (1) INGERSOLL-RAND 185 CFM COMPRESSER;
(2) DOCKBUILDER (4:00AM - 9:00AM)

NOTE: AGATE ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI) NOT ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00AM - 12:00PM

Sheet 1 of 1

Date: 7/31/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 83°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) LINK-BELT CRANE LS-248H ;
(1) 20' STEEL WORK BOAT ; (1) SET-54 BARGE ; (1) PICK-UP TRUCK ;
(1) FLOAT STAGE ; (2) LIGHT TOWERS ; (1) CONCRETE BUCKET ;
(1) CONCRETE VIBRATOR ; (1) EXCAVATOR KOMATSU PC-250LC.

PILE CAP

- AGATE PLACED 23 cy OF CAT III 5000 PSI CONCRETE @ PILE CAP# 18 ; 9 & PART OF "G"

- TOTAL CONC. DELIVERED: 24 cy
  USED: 23 cy & WASTED: 1 cy (DUE TO LOW AIR)

LOAD #1 : 1ST TEST AIR IS 2.4% ; CLAYTON QA ADDED 220 OZ ADDITIONAL AIR ON SITE,
2ND TEST AIR IS 4.9%

LOAD # 2 AIS IS 5.1% & SLUMP IS 6"

- PA MATERIAL ON SITE (DAVE) FOR CONC. TESTING.
- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM -

Sheet 1 of 2

Date: 8/2/10

Signed Mark Ramm

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 83°

- AGATE PLACED CORRUGATED GALVANIZED PAN @ PILE CAP# 17 IN PREP. FOR REBAR CAGE.

- STARTED INSTALLING SEA WALL DECK KEY @ BERTH 36 BET. PILE CAP# 31 - 28

- SET PILE CAP# 2 & 10 FORMWORK IN PLACED.

NOTE: AGATE COMPLETED CHIPPING PILE CAP #2 CONC. AROUND PILE# 2-A
WORK COMPLETED (5:00AM - 7:30AM)
(2) DOCKBUILDER ; (2) 60LB JACKHAMMER ; (1) INGERSOLL-RAND 185 CFM COMPRESSOR.

NOTE: INJURED DOCKBUILDER (BARTHOLOMEW BRENNER) WENT BACK TO CONCENTRA URGENT CARE IN ELIZABETH FOR CHECK-UP (RIGHT FOOT BIG TOE) @ 11:00AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00AM - 2:30PM

Sheet 2 of 2

Date 8/2/10

Signed Mikeal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 84°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (1) LABOR FOREMAN; (6) LABOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) SEI-54 BARGE; (1) PICK-UP TRUCK;
(1) EXCAVATOR KOMATSU PC-250LC w/ HOE RAM ATTACHMENT; (1) CONCRETE VIBRATOR;
(1) CONC. PUMP (L.A. WAGNER CO.)

CONCRETE DECK

- AGATE PLACED 53 cy OF CAT IV 5000 PSI CONC. ON DECK BET. PILE CAP #31-28.

- TOTAL CONC. DELIVERED: 64 cy
  USED: 53 cy & WASTED: 11 cy (ORDER EXTRA)

LOAD #1: AIR IS LOW 2.5% & SLUMP: 9"
CLAYTON QA ADDED 120 OZ ADDITIONAL AIR ON SITE.
2ND AIR TEST. 4.5%

LOAD #2: AIR IS 7.5%

LOAD #3: AIR IS 4.5%

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM – 2:30 PM

Sheet 1 of 3

Date: 8/3/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather

LOAD #4 : AIR 4% & SLUMP: 8"

CLAYTON ADDED 40 OZ AIR ON SITE.

2ND AIR TEST 4.7%

LOAD #5: AIR 6.5%

USED 9cy & WASTED 1cy.

LOAD #6 WASTED 10 cy DUE TO AGATE ORDER EXTRA CONC.

- EUCOBAR EVAPORATION RETARDANT WERE SPRAY ONTO CONC. SURFACE WHILE CONC. BEING SMOOTH OFF USING STEEL FLOAT.
- AFTER BROOM FINISH CURING COMPOUND (1200-WHITE) WERE SPRAY ON CONC. SURFACE.
- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 2 of 3

Date: 8/3/10

Signed Mikael Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 84°F

- AGATE STARTED STRIPPING PILE CAP# 19 & 8 FORMWORK.

- SECURED PILE CAP# 2 FORMWORK IN PLACE & START PLACING CORRUGATED STEEL PAN IN PREP FOR REBAR CAGE.

- CONTINUED INSTALLING BULKHEAD @ MIDDLE OF PILE CAP# 25 IN PREP. FOR 2ND DECK POUR.

- AGATE DEMO PILE CAP# 2 (4) REMOVAL SECTION USING HOE RAM FROM 10:15AM - 11:00AM.

NOTE: AGATE OPERATOR USED DEMO PILE CAP CONC. TO BUILD RAMP ON JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00AM - 2:30PM

Sheet 3 of 3

Date 8/3/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. SUNNY (AM) & LT. RAIN (PM) 88°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERARR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) SEI-SU BARGE; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LL; (2) FLOAT STAGE; (1) VIBRATORY PILE DRIVER ICE 44 W/ POWER PACK 325.

- AGATE STRIPPED CONC. DECK BULKHEAD @ CENTER OF PILE CAP# 28.
- COMPLETED FORMING DECK BULKHEAD @ CENTER OF PILE CAP# 25 & SEA WALL KEY BET. PILE CAP# 28 - 25.
- PLACED & SECURED PILE CAP FORMWORK ALONG ROW "G" BENT.
- COMPLETED PLACING CORRUGATED STEEL PIN @ PILE CAP# 2 IN PREP. FOR REBAR CAGE
- AGATE EXTRACTED (3) TEMPORARY PIN PILE @ BERTH 36 & 63.
- PHOENIX IRON WORKER PLACED REBAR CAGE @ PILE CAP# 17 & 2

NOTE: AIG & AUW SAFETY WERE ON SITE

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 9:30 AM & DID NOT COME BACK.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 8/4/10

Signed Mikael R. Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (1) LABOR FOREMAN; (6) LABOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (6) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) CONC. VIBRATOR; (1) CONC PUMP TRUCK (A. WAGNER CO.)

CONCRETE DECK

- AGATE PLACED 43 cy OF CAT IV 5000 PSI CONC ON DECK BET. PILE# 28-25

- TOTAL CONC. DELIVERED: 47cy
  USED: 43 & WASTED: 4 cy AGATE ORDER EXTRA.

LOAD#1: AIR IS 4.5%; SLUMP: 7" & CONC. TEMP. 83°F

LOAD#2: AIR: 5%

LOAD#3: AIR: 6%

LOAD#4: AIR: 6.5%
WASTED: 1cy USED: 10 cy

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 2

Date: 8/5/10

Signed Mikael R.

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

LOAD #5: WASTED: 3 cy AGATE ORDER EXTRA CONC.

- EUCOBAR EVAPORATION RETARDANT ~~WERE~~ WAS SPRAYED ONTO CONC. SURFACE WHILE CONC. BEING SMOOTHED OFF USING STEEL FLOAT; AFTER BROOM FINISH CURING COMPOUND (1200-WHITE) ~~WERE~~ WAS APPLY ON CONC. SURFACE.
- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE PLACED CORRUGATED STEEL PANS @ PILE CAP #17 IN PREP. FOR REBAR CAGE.
- PLACED BULKHEAD @ PILE CAP # 2 & 17 FACE OF WHARF.
- STRIPPED CONC. DECK SEA WALL KEY BET. PILE CAP # 31-28.
- PHOENIX IRON WORKER PLACED REBAR CAGE @ PILE CAP # 10 ALSO CONT. PLACING DECK REBAR BET. PILE CAP # 24-21 BOTTOM MAT.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 2 of 2

Date 8/5/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 89°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER ; (2) OPERATOR ; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) SEI-54 BARGE ; (1) LINK-BELT CRANE LS-248H ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) CONCRETE VIBRATOR ; (1) CONCRETE BUCKET ; (2) FLOAT STAGE.

PILE CAP

- AGATE PLACED 27 cy OF CAT II 5000 PSI CONCRETE @ PILE CAP # 10 ; 17 ; PART OF "G" & RE-POUR CAP # 2

- TOTAL CONC. DELIVERED: 30 cy
  USED: 27 cy & WASTED: 3 cy

LOAD # 1 : AIR: 5.5% SLUMP: 7" CONC. TEMP: 86°F

LOAD # 2 : AIR : 7% SLUMP: 7"

LOAD # 3 : WASTED 3 cy.

- PA MATERIAL (JIMMY) ON SITE FOR CONC TESTING

- CLAYTON QA ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM -

Sheet 1 of 2

Date: 8/6/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PA-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 89°F

- AGATE PLACED & SECURED BULKHEAD @ PILE CAP# 10 FACE OF WHARF & ALSO @ BENT ROW "G" IN PREP. FOR CONC. PLACEMENT.
- PLACED & SECURED PILE CAP# 11 & 16 FORMWORK.
- STARTING STRIPPING DECK BULKHEAD @ CENTER OF PILE CAP# 25,
- PLACED CORRUGATED STEEL DECK PAN BET. PILE CAP# 20-19.
- PHOENIX IRON WORKER CONT. PLACING DECK REBAR BET. PILE CAP# 24-21 BOTTOM & TOP MAT.

NOTE: NOTICED OF A (2') HORIZONTAL CRACK @ PILE CAP# 19 ON THE SOUTH FACE OF THE "B" PILE ROW. PA (CMD) WAS NOTIFIED. AGATE ASSISTANT PROJECT ENGINEER WAS ALSO INFORMED.

NOTE: AGATE PROJECT MANAGER (KEVIN) LEFT JOB SITE @ 8:05 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 2 of 2

Date: 8/6/10

Signed Michael R [illegible] Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 93°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H;
(1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (2) FLOAT STAGE
(1) INGERSOLL-RAND 185 CFM; (1) 60 LB JACK HAMMER & (1) CHIPPING HAMMER

- AGATE FABRICATE & SET PILE CAP# 16 & 11 FORMWORK IN PLACE.
- STRIPPED CONC DECK BULKHEAD @ CENTER OF PILE CAP# 25, ALSO STRIPPED SEA WALL DECK KEY BET. PILE CAP# 28-25.
- PLACED CORRUGATED STEEL DECK PAN BET. PILE CAP# 20-19 ALSO @ PILE CAP# 16 & 11 IN PREP. FOR REBAR CAGE
- STRIPPED PILE CAP# 18 FORMWORK.

NOTE: AGATE CHIPPED OUT HORIZONTAL CRACK @ PILE CAP# 19 SOUTH FACE OF THE "B" PILE ROW USING (1) 60 LB JACK HAMMER & (1) CHIPPING HAMMER. AREA OF CRACK THAT WERE CHIPPED OUT: (L) 3'-5" x (W) 9" x (D) 1"-7" VARIOUS. CRACK WILL BE REPAIR TOMORROW USING EUCO PRE-CAST GROUT.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 12:00 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 8/9/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Sunny 91°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) CONC. CHIPPING HAMMER; (2) FLOAT STAGE; (1) INGERSOLL-RAND 185 CFM;

- AGATE STRIPPED DECK BULKHEAD @ EXISTING PILE CAP# 18.
- FABRICATE & SET PILE CAP# 12 FORMWORK; COMPLETED SECURING PILE CAP# 11 & 16.
- PHOENIX IRON WORKER PLACED SEA WALL REBAR CAGE BET. PILE CAP# 31-28 ALSO SET. PILE CAP# 16 & 11 REBAR CAGE IN PLACE.

NOTE: AGATE REPAIR HORIZONTAL CRACK @ PILE CAP# 19 ON THE SOUTH FACE OF THE "B" PILE ROW USING NS GROUT (THE EUCLID CHEMICAL COMPANY).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 11:30 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 8/10/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-SU BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (2) FLOAT STAGE

- AGATE FABRICATE & SET PILE CAP# 13; 15 & 14 FORMWORK IN PLACED.

- STARTED INSTALLING DECK BULKHEAD @ CENTER OF PILE CAP# 22 IN PREP. FOR CONC. PLACEMENT. ALSO PLACED & SECURED BULKHEAD @ PILE CAP# 11 & 16 FACE OF WHARF.

- PLACED CORRUGATED STEEL PAN @ PILE CAP# 12 & 14 IN PREP. FOR REBAR CAGE.

- PHOENIX IRON WORKER INSTALLED HORIZONTAL REBAR @ SEA WALL BET. PILE CAP# 31-28. ALSO STARTED PLACING PILE CAP# 12 REBAR.

NOTE: AGATE ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI) NOT ON SITE.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUEPFEL) LEFT JOB SITE @ 11:30 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:00 PM

Sheet 1 of 1

Date: 8/10/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / RAIN 73°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-SU BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (2) FLOAT STAGE

- AGATE PLACED CORRUGATED STEEL PAN @ PILE CAP# 15 IN PREP. FOR REBAR CAGE.
- PLACED BULKHEAD @ PILE CAP# 12 & END OF BENT ROW "G" FACE OF WHARF.
- SECURING PILE CAP# 12; 13; 14 & 15 IN PLACED FOR CONC. PLACEMENT. (WORK-IN-PROGRESS)
- PHOENIX IRON WORKER CONT. PLACING SEA WALL REBAR FROM PILE CAP# 28-25. ALSO PLACED PILE CAP# 15 REBAR. (WORK-IN-PROGRESS)

NOTE: AGATE PROJECT ENGINEER ASSISTANT ANTHONY BARTOLACCI NOT ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 1 of 1

Date: 8/12/10

Signed Mikal R Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 67°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (2) LIGHT TOWER; (2) FLOAT STAGE.

- AGATE COMPLETED PLACING BULKHEAD @ PILE CAP# 13; 14 & 15 FACE OF WHARF.
- COMPLETED PLACING CORRUGATED STEEL PAN @ BOTTOM OF PILE CAP# 13
- COMPLETED SECURING PILE CAP# 12; 13; 14 & 15 FORMWORK IN PREP. FOR MONDAY CONC. PLACEMENT.
- PHOENIX IRON WORKER COMPLETED PLACING PILE CAP# 13 & 15 REBARS.

NOTE: AGATE STRIPPED PILE CAP# 2 FORMS WITHOUT HAVING CONC. BREAKS, AS A RESULT CONC. BREAK FOR PILE CAP# 2 CAME IN @ 3570 PSI.

NOTE: AGATE ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI) NOT ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 3:00 AM - 11:00 AM

Sheet 1 of 1

Date: 8/13/10

Signed Neal Ramos

Counter Signed

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

PA 032-7A05

Contractor: Agate Construction Co.

Contract Number: PN-800.219

Location: Port Newark, Berths 36 & 63

Weather: 82 Deg. F, Cloudy

Manpower: (7) Dockbuidler; (1) Superintendant; (2) Operators

Equipment On Site:(1)Link Belt Crane LS-208H; (1) Link Belt Crane LS-248H; (2) Pickup Truck; (1) 20' Steel Workboat; (1)SE1-54 Barge; (1) Komatsu PC250LC Excavator; (2) Float Stage; (2) Concrete Bucket; (1) Concrete Vibrator;

Pile Cap

Agate placed 36 cy of CAT IV 5000 PSI concrete at pile cap# 11; 12; 13; 14; 15; 16; "G."

Total Concrete Delivered: 36 cy

Used: 36 cy & Wasted: 0 cy

Load #4: Air:4.0% Clayton QAD added Air, increased it to 6.0%

Agate started to place side forms on the seawal on Berth 36 side.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 8:30 AM - 2:30 PM

Date 8/16/2010

Signed Arthur Brown

Counter Signed

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 87°F

MANPOWER: (1) DOCKBUILDER SUPER ; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) SEI-54 BARGE ; (1) LINK-BELT CRANE LS-248H ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) CONCRETE VIBRATOR ; (1) CONCRETE BUCKET ; (2) LIGHT TOWERS.

- AGATE PLACED 36 cy OF CAT IV 5000 PSI CONCRETE @ PILE CAP# 11 THRU 16 & "G" ROW.

NOTE: ALL PILE CAPS ARE COMPLETED POURED.

- TOTAL CONC. DELIVERED & USED : 36 cy

LOAD #1: 1ST TEST AIR: 10.2% , SLUMP: 7" CONC TEMP. 65°F UNIT WEIGHT. 138.3
- CLAYTON QA ADDED (1) BAG (1.1 LBS) OF AIR-MINUS (AIR-DETRAINER)

2ND TEST AIR: 6.6%

LOAD #2: 1ST TEST: AIR: 8.5%
- CLAYTON QA ADDED 3/4 BAG OF AIR-MINUS

2ND TEST: AIR: 4.5%

LOAD #3: 1ST TEST AIR: 8.5%
- CLAYTON QA ADDED 1/2 BAG OF AIR MINUS

2ND TEST AIR: 7.5%

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet 1 of 2

Date: 8/16/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 87°F

- AGATE STARTED PLACING SEA-WALL FORMWORK @ FACE OF WHARF. (WORK-IN-PROGRESS)

- LEVEL OUT CONC. ON EXISTING PILE CAP #97 IN PREP. FOR TIE-IN.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet 2 of 2

Date: 8/16/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) VIBRATORY PILE EXTRACTOR ICE 44 W/ POWER UNIT.; (2) FLOAT STAGE

- AGATE CONT. PLACING SEA-WALL FORMWORK @ FACE OF WHARF FROM PILE CAP# 31-28 (WORK-IN-PROGRESS)
- LAY OUT FENDER SYSTEM ON PILE CAPS.
- CUTTING 2' TREATED 12"X12" TIMBER BLOCKS FOR FENDER SYSTEM.
- EXTRACTED PILE CAP TEMPORARY PIN PILE SUPPORTS @ BERTH 36 & 63.
- PHOENIX IRON WORKER CONT. PLACING DECK REBAR TOP MAT FROM PILE CAP# 25-21

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 8/17/10

Signed Mike R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 82°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR;

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-SU BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) VIBRATOR PILE EXTRACTOR ICE 44 W/ POWER UNIT.

- AGATE COMPLETED PLACING DECK BULKHEAD @ MIDDLE OF PILE CAP #22 IN PREP. FOR DECK CONC. PLACEMENT
- PLACED SEA WALL KEY ON DECK FROM PILE CAP #22 THRU 25.
- PLACED & SECURED CORRUGATED STEEL DECK PAN BET. PILE CAP # 2 THRU 4 & 6 THRU 8.
- EXTRACTED PILE CAP TEMPORARY PIN-PILE SUPPORT @ BERTH 36 & 63.

NOTE: A.G & AON SAFETY WERE ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 8/18/10

Signed Mikeal R. Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

MANPOWER: (1) DOCKBUILDER SUPER ; (11) DOCKBUILDER ; (2) OPERATOR ; (5) LABOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H ; (1) SEI-54 BARGE ; (1) LINK-BELT CRANE LS-248H ; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK ; (1) CONC. VIBRATOR ; (1) GENERATOR ; (1) CONC. PUMP TRUCK (A. WAGNER CO.)

CONCRETE DECK

- AGATE PLACED 53 cy OF CAT IV 5000 PSI CONC. ON DECK BET. PILE CAP# 25-22.

- TOTAL CONC. DELIVERED & USED : 53 cy.

LOAD#1 : 1ST TEST: AIR: 10.5% , SLUMP: 7" ; CONC. TEMP. 80°F
- CLAYTON QA ADDED (1) BAG 1.1 LB OF AIR MINUS IN TRUCK BATCH.

2ND TEST : AIR: 5%

LOAD#2 : 1ST TEST : AIR : 8.5%
- CLAYTON QA ADDED 1/4 BAG OF AIR MINUS IN BATCH.

LOAD#3 : 1ST TEST: AIR : 8.5%
- CLAYTON QA ADDED 1/4 BAG OF AIR MINUS IN BATCH.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 2

Date: 8/19/10

Signed Neal Ra

Counter Signed

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7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 90°F

LOAD #4: 1ST TEST: AIR: 12%

- CLAYTON QA ADDED (1) BAG OF AIR MINUS IN BATCH.

2ND TEST: AIR 5.5% ; SLUMP: 6" ; CONC TEMP. 83°F

LOAD #5: 1ST TEST: AIR: 4.5%

- EUCOBAR EVAPORATION RETARDANT WERE SPRAY ONTO CONC. SURFACE WHILE CONC. BEING SMOOTH OFF USING STEEL FLOAT; AFTER BROOM FINISH CURING COMPOUND (1200-WHITE WERE APPLY ON CONC. SURFACE.
- PA MATERIAL (PHILIPPE TOUSSAINT) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE PLACED ANGLE IRON ALONG FACE OF WHARF IN PREP. FOR SEA WALL FORMWORK @ BERTH 63 SIDE.
- CONTINUED PLACING SEA-WALL FORMWORK FROM PILE CAP# 31-27.
- PLACED GALVANIZED PLAIN SHEET BET. EXISTING PILE CAP#97 TO PILE CAP#1, PLAIN SHEET ON PILE CAP#1 WAS NAIL DOWN.
- STARTED INSTALLING FENDER SYSTEM TREATED TIMBER 2'X12"X12" BET. PILE CAP# 4 & 5.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 2 of 2

Date: 8/19/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (2) DOCKBUILDER; (1) DIVER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-SH BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) MILLER 250 WELDING MACHINE; (1) GENERATOR; (1) INGERSOLL-RAND 185 CFM; (1) EXCAVATOR KOMATSU PC 250LC.

- AGATE CONTINUED FORMING & SECURING SEA-WALL FROM PILE CAP# 31-26 (WORK-IN PROGRESS)

- INSTALLED ANGLE IRON & STEEL FORMS ALONG FACE OF WHARF @ BERTH 63 IN PREP. FOR CONC. DECK POUR.

- CONTINUED INSTALLING TREATED TIMBER FENDER SYSTEM BET. PILE CAP# 5-9.

- AGATE HAD (1) DIVER ON SITE CUTTING & REMOVING TEMPORARY PILE CAP SUPPORT BEAMS @ BERTH 36 & 63

- PHOENIX IRON WORKER STARTED PLACING DECK REBAR BOTTOM MAT FROM PILE CAP# 1-4.

NOTE: HAIRLINE CRACKS WERE NOTICE ON CONC. DECK THAT WAS POURED ON 8/19/10 BET. PILE CAP# 22-24 & PILE ROW "D". PA CMD WAS INFORMED.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date 8/20/10

Signed [signature]

Counter Signed [signature]

THE PORT AUTHORITY OF NY & NJ

Contractor: Agate Construction **Contract Number:** PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 80 Deg. F, Cloudy

Crew: 1 Super, 10 Dockbuilders, 2 Operators, 1 Diver

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-208H, 1 - Link Belt Crane LS-248H, 1 - Komatsu PC250LC Excavator, 1 - Pickup Truck, 1-Honda Generator(GFI), 1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - Sectional Steel Float (Piles)

Work Performed:

The contractor continued to cut the supporting steel under the structure with the diver and the water side crane performing the removing picks. Dockbuilders continued to form the first seawall section on the Berth 36 side in preparation for Monday's concrete placement. The contractor excavated and exposed the Berth63 deadman, as well as the middle deadman. Two tie rods were installed and were tensioned (Berth 63 rod, southernmost middle deadman rod). Once the tide had risen, the deadman excavation was backfilled. The contractor also stripped the side wood forms from the concrete deck pour #3 (placed 8/19/2010).

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 8:00 AM - 5:00 PM

Date 8/21/2010

Signed Jim Gallagher **Counter Signed**

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / RAIN 72°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER; (1) DIVER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC.

- DUE TO WEATHER CONDITIONS (10) DOCK BUILDER & (1) DIVER WENT HOME @ 9:00AM.
- AGATE OPERATOR CLEANING UP JOB SITE
- PLACED CORRUGATED STEEL DECK PAN @ VARIOUS LOCATIONS.
- PHOENIX IRON WORKER CONTINUED PLACING DECK REBAR BOTTOM & TOP MAT @ BERTH 63 FROM PILE CAP #1-4.

NOTE: IRON WORKER STARTED @ 10:00AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00AM - 6:30PM

Sheet 1 of 1

Date: 8/23/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LIGHT DRIZZLE 70°F

MANPOWER: (1) DOCKBUILDER SUPER ; (11) DOCKBUILDER ; (2) OPERATOR ; (2) IRON WORKER; (1) DIVER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-SU BARGE ; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT ; (1) PICK-UP TRUCK; (1) CONCRETE VIBRATOR; (1) GENERATOR ; (1) CONC. BUCKET 2cy ; (1) EXCAVATOR KOMATSU PC-250LC.

SEAWALL POUR # 1

- AGATE PLACED 32 cy OF CAT IV 5000 PSI CONC. @ SEAWALL FROM PILE CAT # 31-27.

- TOTAL CONC. DELIVERED: 41 cy ; USED: 32 cy & WASTED: 9 cy.

LOAD # 1 AIR: 7.2% ; SLUMP: 7½" & CONC. TEMP. 65°F

LOAD # 2 AIR: 6.5% & SLUMP: 7"

LOAD # 3 AIR: 6.5%

LOAD # 4 WASTED 9 cy & USED: 1 cy AGATE ORDER EXTRA CONC.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 6:30 PM

Sheet 1 of 2

Date: 8/24/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LIGHT DRIZZLE 70°F

- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING
- CLAYTON QA ON SITE.
- AGATE BROOM FINISH TOP OF SEAWALL & PLACED SOAKER HOSE.
- AGATE STRIPPED PILE CAP# 15 & 16 FORMWORK
- STARTED FORMING BOLLARD BET. PILE CAP# 3 & 4
- WRAP (2) TIE ROD TURNBUCKLE WITH TAPECOAT AS PER. DRAWING NO. S010 @ BERTH 63 SIDE.
- AGATE HAD (1) DIVER ON SITE CUTTING TEMPORARY PILE CAP SUPPORTS BEAM @ BERTH 36 & 63.
- PHOENIX IRON WORKER PLACED BOTTOM DECK REBAR FROM PILE CAP# 4-7 (WORK-IN-PROGRESS). STARTED @ 10:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 6:30 PM

Sheet 2 of 2

Date: 8/24/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather LIGHT DRIZZLE 68°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER; (1) DIVER.

EQUIPMENT: (1) LINK-BELT CRANE LS-208H; (1) SEI-54 BARGE; (1) LINK-BELT CRANE LS-248H; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-25OLC; (1) INGERSOLL-RAND 185 CFM.

NOTE: DUE TO LIGHT DRIZZLE (6) DOCKBUILDER LEFT JOB SITE @ 10:00 AM; (5) DOCKBUILDER; (1) DOCKBUILDER SUPER; (2) OPERATOR; (1) DIVER & (2) IRON WORKER STAYED BACK.

- AGATE DISASSEMBLE; CLEAN & STOCK-PILE EFCO FORMWORK FOR PICK-up.
- COMPLETED FORMING BOLLARD PIPE SLEEVE BET. PILE CAP# 3 & 4.
- STARTED PLACING BULKHEAD @ CENTER OF PILE CAP# 5 (WORK-IN-PROGRESS)
- PLACED SEAWALL KEY FROM PILE CAP# 1-5 (WORK-IN-PROGRESS)
- PHOENIX IRON WORKER COMPLETED PLACING DECK REBAR TOP MAT FROM PILE CAP# 5-7 IN PREP. FOR CONC. PLACEMENT.

NOTE: 2ND HAIRLINE CRACK WAS NOTICE ON PILE ROW#D BET. PILE CAP# 22-23 DECK WAS POURED ON 8/19/10. PA CMD WAS INFORMED.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 1 of 1

Date 8/25/10

Signed Michael Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (1) DIVER; (6) LABOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (1) PUTZMEISTER TELEBELT TB130 (CONC. CONVEYOR BELT).

CONCRETE DECK PLACEMENT #4

- AGATE PLACED 72 CY OF CAT IV 5000 PSI CONC. ON DECK BET. PILE CAP # 1-5.

- TOTAL CONC. DELIVERED & USED: 72 CY.

LOAD #1 AIR: 5.8% SLUMP: 6" CONC. TEMP. 80°F
LOAD #2 AIR: 5.5%
LOAD #3 AIR: 7%
LOAD #4 NO TEST
LOAD #5 AIR: 7%
LOAD #6 NO TEST
LOAD #7 " " "
LOAD #8 " " "

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 1 of 3

Date 8/26/10

Signed Mikael Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

- AGATE PROJECT MANAGER (KEVIN KNUETTEL) SPRAY CURING COMPOUND AFTER BROOM FINISH.
- PA MATERIAL (JIMMY) ON SITE FOR CONC. TESTING.
- CLINTON QA (SAM) ON SITE.
- AGATE USED WAGNER PUTZMEISTER TELEBELT TB 130 (CONC. CONVEYOR BELT) TO PLACED CONC.
- AGATE CONT. DISASSEMBLE; CLEAN & STOCKPILE (EFCO) FORMS.
- COMPLETED PLACING BULKHEAD @ CENTER OF PILE CAP# 5 & ALSO SEA-WALL KEY FROM PILE CAP# 1-5 IN PREP. FOR CONC. PLACEMENT.
- STRIPPED PILE CAP# 11 & 12 FORMWORK ALSO REMOVE TEMPORARY SUPPORT BEAMS.
- REMOVED SEAWALL FORMWORK SUPPORTS FROM PILE CAP# 31-27, SEAWALL WAS POURED ON 8/24/10.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 2 of 3

Date: 8/26/10

Signed Mikael Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 80°F

ACCIDENT REPORT

8/26/10
AT 12:30 PM A DOCKBUILDER (WALTER WRIGHT) WAS CUTTING 1"X6" TIMBER USING CIRCULAR SAW FOR BULKHEAD, WHEN HE CUT HIS LEFT HAND INDEX FINGER; DOCKBUILDER WAS TAKEN TO CONCENTRA URGENT CARE FOR X-RAY BY AGATE ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI).
AGATE ALSO FILL OUT ACCIDENT REPORT.

RECENT ACCIDENT

DOCKBUILDER (JOHN MICHAELS) JUMP OFF PILE CAP FALSEWORK ONTO FLOAT STAGE TO TURN OFF BROKEN OXYGEN HOSE ON 8/24/10, NO INJURIES WAS REPORTED UNTIL 8/26/10, WHEN DOCKBUILDER (JOHN MICHAELS) CLAIM OF TWISTING HIS KNEE.
AGATE FILLED OUT ACCIDENT REPORT on 8/26/10.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 7:30 PM

Sheet 3 of 3

Date: 8/26/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 81°F

MANPOWER: (1) DOCKBUILDER SUPER ; (10) DOCKBUILDER ; (2) OPERATOR ; (1) DIVER
(2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT;
(1) EXCAVATOR KOMATSU PC-250LC ; (1) INGERSOLL-RAND 185 CFM ; (2) LIGHT TOWER;
(1) PICK-UP TRUCK; (2) FLOAT STAGE; (1) VIBRATORY EXTRACTOR ICE 44 W/ POWER UNIT.

- AGATE CONT. STRIPPING PILE CAP# 13 ; 14 ; 15 & "G" FORMWORK ALSO EXTRACT TEMPORARY PIN- PILE @ BERTH 36 & 63 (WORK-IN-PROGRESS)

- STRIPPED STYROFOAM FROM SEAWALL KEY BET. PILE CAP# 25-22 & 1-5 ALSO STRIPPED BULKHEAD @ CENTER OF PILE CAP# 5 (WORK-IN-PROGRESS).

- PLACED CORRUGATED STEEL DECK PAN BET. PILE CAP# 20-18 & 7-9.

- STRIPPED SEAWALL FORMWORK FROM PILE CAP# 31-27.

NOTE: PHOENIX IRON WORKER (2) CAME ON SITE @ 1:00 PM.
NOTE: DOCKBUILDER SUPER LEFT JOB SITE @ 7:00 AM.
NOTE: AGATE PROJECT MANAGER CAME ON SITE @ 7:05 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 3:00 AM - 2:30 PM

Sheet 1 of 1

Date: 8/27/10

Signed Mikal R[illegible] Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 78°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (1) OPERATOR; (1) DIVER; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (2) LIGHT TOWER; (1) VIBRATORY PILE EXTRACTOR ICE 416 W/POWER UNIT; (2) FLOAT STAGE

- AGATE PLACED & SECURED ANGLE IRON ALONG PILE CAP @ FACE OF WHARF IN PREP. FOR CONC. DECK & SEAWALL FORMWORK. AT BERTH 63.
- COMPLETED STRIPPING DECK BULKHEAD @ CENTER OF PILE CAP# 5.
- ALL TEMPORARY PILE CAP PIN-PILE & BEAMS SUPPORTS WERE REMOVED @ BERTH 36 & 63 (WORK COMPLETED).
- START FORMING DECK BULKHEAD @ CENTER OF PILE CAP# 9.
- PHOENIX IRON WORKER PLACED DECK REBAR TOP MAT BET. PILE CAP# 7-10 ALSO BOTTOM MAT BET. PILE CAP# 17-21 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 3:00 AM - 11:30 AM

Sheet 1 of 1

Date: 8/28/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 89°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR; (2) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC.

- AGATE PLACED CORRUGATED STEEL DECK PAN BET. PILE CAP# 17-14 & 12-10. (WORK-IN-PROGRESS)
- CONTINUED PLACING DECK BULKHEAD @ CENTER OF PILE CAP#9
- START PLACING DECK SEAWALL KEY FROM PILE CAP# 5-9 (WORK-IN-PROGRESS)
- PLACED STEEL FORMWORK ON TOP OF ANGLE IRON @ FACE OF WHARF IN PREP. FOR DECK CONC.
- PHOENIX IRON WORKER CONT. PLACING BOTTOM & TOP DECK REBAR MAT BET. PILE CAP# 17-21 (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETEL) LEFT JOB SITE @ 11:00 AM.

NOTE: LINK-BELT CRANE LS-208H OUT OF SERVICE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM 12:30 PM

Sheet 1 of 1

Date: 8/30/10

Signed Mikael Ramm Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (10) DOCKBUILDER; (2) OPERATOR; (4) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) 561-54 BARGE; (1) PICK-UP TRUCK; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250 LC; (1) INGERSOL-RAND 185 CFM; (1) CHERRY PICKER (AMQUIP RENTAL)

- AGATE COMPLETED PLACING CORRUGATED STEEL DECK PAN BET. PILE CAP# 12-14.
- COMPLETED PLACING DECK BULKHEAD @ CENTER OF PILE CAP#9.
- COMPLETED PLACING DECK SEAWALL KEY FROM PILE CAP# 5-9.
- COMPLETED FORMING BOLLARD BET. PILE CAP# 9 & 8.
- PHOENIX IRON WORKER COMPLETED PLACING TOP REBAR DECK MAT BET. PILE CAP# 18-22; START PLACING SEAWALL REBAR BET. PILE CAP# 1-5 & 27-22.

NOTE: DELIVERY OF (1) LINK-BELT CHERRY PICKER CRANE (AMQUIP RENTAL)

NOTE: DELIVERY OF (35) 65'-64' OF UNTREATED TIMBER PILE FOR FENDER SYSTEM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 PM - 2:30 PM

Sheet 1 of 1

Date: 8/31/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (6) LABOR; (4) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-25OLC; (1) INGERSOLL-RAND 185 CFM; (1) CONC. VIBRATOR; (1) GENERATOR; (1) CONC. PUMP TRUCK (A. WAGNER CO.) (1) WELDING MACHINE MILLER 250.

CONCRETE DECK PLACEMENT #5

- AGATE PLACED 74 CY OF CAT III 5000 PSI CONC. ON DECK BET. PILE CAP #5-9.

- TOTAL CONC. DELIVERED & USED: 74 CY.

LOAD #1: AIR: 4.5%; SLUMP: 7"; CONC. TEMP. 76°F
LOAD #2: AIR: 4.5%; SLUMP: 6"
LOAD #3: AIR: 5%; SLUMP: 7 3/4"
LOAD #4: NO TEST
LOAD #5: AIR: 4.5%; SLUMP: 4"
LOAD #6: NO TEST
LOAD #7: " " " "
LOAD #8: " " " "

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 2

Date: 9/1/10

Signed Mikael Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 92°F.

- CURING COMPOUND WAS SPRAY ON CONC. SURFACE AFTER BROOM FINISH.
- PA MATERIAL (JIMMY & TOM) ON SITE FOR CONC. TESTING.
- CLAYTON QA (SAM) ON SITE.
- AGATE COMPLETED FORMING DECK BULKHEAD @ CENTER OF PILE CAP# 18.
- COMPLETED PLACING DECK SEAWALL KEY FROM PILE CAP# 22-18.
- COMPLETED FORMING BOLLARD BET. PILE CAP# 19 & 18.
- CONTINUED PLACING ANGLE IRON & STEEL FORMS @ FACE OF WHARF IN PREP. FOR CONC. DECK POUR.
- PHOENIX IRON WORKER PLACED TOP & BOTTOM DECK REBAR MAT BET. PILE CAP# 10-18.
- AIG & AON SAFETY WERE ON SITE.

NOTE: AGATES PROJECT MANAGER LEFT JOB SITE @ 11:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 2 of 2

Date: 9/1/10

Signed Mikeal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 93°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (6) LABOR; (3) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; SEI-SH BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; EXCAVATOR KOMATSU PC-250LC; (1) INGERSOL-RAND 185 CFM; (2) FLOAT STAGE; (2) LIGHT TOWER; (1) LINK-BELT CHERRY PICKER (AMQUIP RENTAL).

- AGATE STRIP DECK BULKHEAD @ CENTER OF PILE CAP #9.

- STRIPPED DECK SEAWALL KEY FROM PILE CAP# 5-9. ALSO FORMED SEAWALL KEY FROM PILE CAP# 9-18

- COMPLETED PLACING ANGLE IRON & FORMWORK @ FACE OF WHARF IN PREP. FOR CONC. DECK POUR.

- PHOENIX IRON WORKER COMPLETED PLACING TOP & BOTTOM DECK REBAR MAT FROM PILE CAP# 9-18. ALSO CONT. PLACING SEAWALL REBAR FROM PILE CAP# 5-8. (WORK-IN-PROGRESS).

NOTE: NO CONCRETE DECK PLACEMENT TODAY DUE TO BUSTED PIPE JOINT ON UTEMUISTER (WITTENER) CONC. PUMP. TRUCK; (2) CLAYTON CONC TRUCK WERE ON SITE.

NOTE: DELIVERY OF (1) SULLAIR 1300H COMPRESSOR (ABLE RENTAL)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM – 2:30 PM

Sheet 1 of 1

Date: 9/2/10

Signed Mikeal Ra

Counter Signed

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7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 85°F

MANPOWER: (1) DOCKBUILDER SUPER; (11) DOCKBUILDER; (2) OPERATOR; (6) LABOR; (2) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) PICK-UP TRUCK; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (1) CONC. VIBRATOR; (1) GENERATOR; (1) CONC. PUMP TRUCK (A. WAGNER CO.) (2) LIGHT TOWER; (3) FLOAT STAGE.

CONCRETE PLACEMEND DECK #6

- AGATE PLACED 78cy OF CAT III 5000PSI CONC. ON DECK SLAB BET. PILE CAP# 18-22.
- TOTAL CONC. DELIVERED: 81 cy; USED: 78cy & WASTED: 3cy. (ORDER EXTRA)
- PA MATERIAL (JIMMY) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE CONT. PLACING & SECURING FORMWORK ALONG SEAWALL FROM PILE CAP# 26-23 & 1-7 (WORK-IN-PROGRESS).
- PHOENIX IRON WORKER CONT. PLACING SEAWALL REBAR FROM PILE CAP# 5-8. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 12:00 PM

Sheet 1 of 1

Date: 9/3/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 87°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (9) DOCKBUILDER; (2) OPERATOR; (1) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) INGERSOLL-RAND 185 CFM; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR KOMATSU PC-250LL.

- AGATE CONT. PLACING & SECURING SEAWALL FORMWORK IN PLACED FROM PILE CAP# 27 THRU 22 (WORK-IN-PROGRESS).
- STRIP DECK SLAB BULKHEAD @ CENTER OF PILE CAP# 18.
- PHOENIX IRON WORKER CONT. PLACING SEAWALL REBAR FROM PILE CAP# 8 THRU 13 (WORK-IN-PROGRESS)

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) NOT ON SITE TODAY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 8:00 AM - 4:30 PM

Sheet 1 of 1

Date: 9/7/10

Signed Neal Ramer

Counter Signed J.M.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 82°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (8) DOCKBUILDER; (2) OPERATOR; (6) LABOR; (1) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (1) CONC. VIBRATOR; (1) GENERATOR; (2) FLOAT STAGE; (1) CONC. PUMP TRUCK (A. WAGNER CO.); (1) CHERRY PICKER (AMQUIP RENTAL).

CONCRETE DECK PLACEMENT # 7

- AGATE PLACED 66 CY OF CAT IV 5000 PSI CONC. ON DECK SLAB BET. PILE CAP# 9-18.

SEAWALL CONC. PLACEMENT # 2

- PLACED 38 CY OF CAT IV 5000 PSI CONC. ON SEAWALL FROM PILE CAP# 27-22.

- TOTAL CONC. DELIVERED: 120 CY; USED: 104 CY; WASTED: 16 CY (ORDER EXTRA)

- PA MATERIAL ON SITE FOR CONC. TESTING.

- CLAYTON QM ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM – 5:30 PM

Sheet 1 of 2

Date: 9/8/10

Signed Neal Ramos

Counter Signed

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7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 82°F

- AGATE COMPLETED SECURING SEAWALL FORMWORK IN PLACE FROM PILE CAP# 27-22.
  ALSO START PLACING SEAWALL FORMWORK FROM PILE CAP# 1-6. (WORK-IN-PROGRESS).

- PHOENIX IRON WORKER CONT. PLACING SEAWALL REBAR FROM PILE CAP# 18-21. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 2 of 2

Date: 9/8/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 72°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (8) DOCKBUILDER; (2) OPERATOR; (1) IRON WORKER.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SH BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (1) INGERSOLL-RAND 185 CFM; (2) PLATE STAGE; (1) CHERRY PICKER (AMQUIP RENTAL).

- AGATE STRIP SEAWALL FORMWORK FROM PILE CAP# 22-27

NOTE: SEAWALL WAS POURED ON 9/8/10.

- STRIP DECK SLAB SEAWALL KEY FROM PILE CAP# 22-24 (WORK-IN-PROGRESS).
- CONTINUED PLACING & SECURING SEAWALL FORMWORK FROM PILE CAP# 1-6 & 22-18 (WORK-IN-PROGRESS).
- START PLACING TREATED TIMBER CURB ON TOP OF SEAWALL (WORK-IN-PROGRESS).
- PHOENIX IRON WORKER CONT. PLACING SEAWALL REBAR FROM PILE CAP# 18-14 (WORK-IN-PROGRESS).

INJURY REPORT

AT AROUND 2:00 PM DOCKBUILDER GARY CARSEN WAS STRIPPING SEAWALL BULKHEAD, WHEN HE PULLED A SECTION OF PLYWOOD OFF & HIT HIM-SELF WITH THE SHARP END OF A NAIL, PUNCTURED HIS LEFT LEG ABOVE HIS KNEE; WAS TAKEN TO CONCENTRA URGENT CARE BY AGATE ASSISTANT PROJECT ENGINEER @ 4:00 PM. (SEE ATTACHED)

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 9/9/10

Signed Mike R

Counter Signed

PN 800.219 36

The Port Authority of NY & NJ Master OCIP
LOSS REPORT FORM

SECTION 1: CONTRACTOR INFORMATION

NAME of CONTRACTOR: Agate Construction Co, Inc. CONTACT PERSON: Anthony Bartolacci

ADDRESS: 1030 Rte 83 Clermont, NJ 08230

PHONE NO.: (609) 624.9090 CONTRACT NO.: PN 800.219

SECTION 2. DESCRIPTION of INCIDENT

DATE of INCIDENT: 9/9/2020 TIME: 2:00 PM EXACT LOCATION of INCIDENT (attach diagram if possible): At the end of cap 22 on Berth 36 inside seawall rebar

DESCRIPTION (in detail): He pulled a peice of plywood off the concrete seawall that was poured yesterday and hit himself with the sharp end of a protruding nail and punctured his skin right above his left knee.

SECTION 3. INJURIES

CLAIMANT'S NAME: Gary Carlsen AGE: 46

ADDRESS: HOME PHONE NO.:

EMPLOYER: Agate Construction Co, Inc. OCCUPATION: Dockbuilder

INJURY: punctured left leg right above left knee with sharp end of nail.

WHERE WAS INJURED TAKEN AFTER INJURY?: trailer for the First Aid kit.

WHAT WAS INJURED DOING WHEN HURT?: Stripping the seawall bulkhead.

SECTION 4. DAMAGE to PROPERTY (of others)

WHAT WAS DAMAGED?: —

OWNER'S NAME: — CONTACT (if different) —

ADDRESS: — PHONE: ( )

SECTION 5. WITNESS INFORMATION

WITNESS NAME: Teddy Pottinger

ADDRESS PHONE:

SECTION 6. REMEDIAL ACTION TAKEN (use addition sheet if necessary)

WHEN? WHAT? BY WHOM? ETC.? Cleaned the puncture out with alcohol and antiseptic whipes, put a band-aid on it.

SECTION 7. VERIFICATION (required)

PRINT NAME: Anthony Bartolacci PHONE: (609) 839.7581

SIGNATURE: [signature] DATED: 9/9/2020

Fax or Mail to: Adrian Rabinowitz, VP
Fax: (516) 342-2727
Phone (516) 342-2700

Aon Risk Services Northeast, Inc.
Port Authority Service Team
P.O. Box 342
Jericho, New York 11753

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Sunny 71°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (7) DOCKBUILDER; (2) OPERATOR; (1) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (2) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL). (1) CONC. PUMP TRUCK (A. WAGNER CO.); (1) CONC. VIBRATOR; (1) GENERATOR

SEAWALL CONC. PLACEMENT #3

- AGATE PLACED 45 CY OF CAT IV 5000PSI CONC. @ SEAWALL FROM PILE CAP# 1-6.
- TOTAL CONC. DELIVERED: 50 cy; USED: 45 cy & WASTED: 5 cy (ORDER EXTRA).
- PA MATERIAL (TOM) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE COMPLETED FORMING & SECURING SEAWALL FORMWORK FROM PILE CAP# 1-6. ALSO CONT. FORMING SEAWALL FROM PILE CAP# 22-17 (WORK-IN-PROGRESS).
- PHOENIX IRON WORKER CONT. PLACING SEAWALL REBAR FROM PILE CAP# 12-14 (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) CAME ON SITE @ 2:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 9:00 AM - 5:30 PM

Sheet 1 of 1

Date: 9/10/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 65°F

MANPOWER: (2) DOCKBUILDER FOREMEN ; (8) DOCKBUILDER ; (1) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) INGERSOLL-RAND 185 CFM ; (2) LIGHT TOWERS

- AGATE CONT. SECURING SEAWALL FORMWORK IN PLACE IN PREP. FOR CONC. PLACEMENT FROM PILE CAP# 17-22, (WORK-IN-PROGRESS)

- STARTED STRIPPING SEAWALL FORMWORK FROM PILE CAP# 1-6. NOTE: POURED ON 9/10/10.

- STRIP DECK SLAB SEAWALL KEY FROM PILE CAP# 17-11 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 3:00 AM - 11:30 AM

Sheet 1 of 1

Date: 9/11/10

Signed Mark R. Counter Signed M.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 72°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (7) DOCKBUILDER; (2) OPERATOR; (1) IRON WORKER

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LL; (2) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (2) LIGHT TOWERS; (1) INGERSOLL-RAND 185 CFM

- AGATE COMPLETED SECURING SEAWALL FORMWORK IN PREP. FOR CONC. PLACEMENT FROM PILE CAP# 22-17.

- CONTINUED STRIPPING SEAWALL FORMWORK FROM PILE CAP# 1-6 & RE-INSTALLING @ PILE CAP# 6-11 SEAWALL (WORK-IN-PROGRESS).

- PHOENIX IRON WORKER COMPLETED PLACING SEAWALL REBAR FROM PILE CAP# 12-14.

NOTE: AGATE CLEAN-UP JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 4:00 AM - 2:30 PM

Sheet 1 of 1

Date: 9/13/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 72°F

MANPOWER: (2) DOCKBUILDER FOREMAN ; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-208 H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR KOMATSU PC-250LC ; (1) FLOAT STAGE ; (1) CHERRY PICKER (AMQUIP RENTAL) ; (2) LIGHT TOWERS ; (1) CONC. VIBRATOR ; (1) GENERATOR ; (1) CONC. PUMP TRUCK (A. WAGNER CO.).

SEAWALL CONC. PLACEMENT #4

- AGATE PLACED 39 cy OF CAT III 5000 PSI CONC. @ SEAWALL FROM PILE CAP # 22-17.

- TOTAL CONC. DELIVERED: 44 cy ; USED: 39cy & WASTED: 5cy (AGATE ORDER EXTRA).

- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.

- CLAYTON QA ON SITE.

- AGATE CONTINUED PLACING & SECURING SEAWALL FORMWORK FROM PILE CAP # 6-11 (WORK-IN-PROGRESS)
- COMPLETED STRIPPING DECK SLAB SEAWALL KEY FROM PILE CAP # 17-11.
- CUT & PLACED TREATED TIMBER CURB ON TOP OF SEAWALL @ BERTH 36, NOTE: NEED TO BE SECURED. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet 1 of 1

Date: 9/14/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 70°F

MANPOWER: (2) DOCKBUILDER FOREMAN ; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR KOMATSU PC-250LC ; (2) FLOAT STAGE ; (1) CHERRY PICKER (AMQUIP RENTAL) ; (1) INGERSOLL-RAND 185 CFM ; (2) LIGHT TOWERS.

- AGATE CONT. FABRICATING TREATED TIMBER CURB & BLOCK FOR TOP OF SEAWALL. (WORK-IN-PROGRESS).

- CONTINUE SECURING SEAWALL FORMWORK IN PLACE @ PILE CAP# 6-10 IN PREP. FOR CONC. PLACEMENT. ALSO PLACED SEAWALL FORMWORK FROM PILE CAP# 17-10 (WORK-IN-PROGRESS).

- STRIP SEAWALL FORMWORK FROM PILE CAP# 22-18, NOTE: POURED ON 9/14/10.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM & 2:30 PM

Sheet 1 of 1

Date: 9/15/10

Signed Michael Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 71°F

MANPOWER: (1) DOCKBUILDER FOREMAN; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-218H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (2) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (2) LIGHT TOWERS; (1) CONC. VIBRATOR; (1) CONC. PUMP TRUCK (A. WAGNER CO.); (1) GENERATOR.

SEAWALL CONCRETE PLACEMENT # 5

- AGATE PLACED 38 CY OF CAT IV 5000 PSI CONC. @ SEAWALL FROM PILE CAP# 6-10.
- TOTAL CONC. DELIVERED & USED: 38 CY.
- PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.
- AGATE CONT. SECURING & PLACING SEAWALL FORMWORK FROM PILE CAP# 17-10 (WORK-IN-PROGRESS).
- SECURED TREATED TIMBER CURB ON TOP OF SEAWALL AS PER DRAWING NO# S015 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:30 PM

Sheet 1 of 1

Date: 9/16/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 73°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMAT'SU PC-250LC; (3) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (2) LIGHT TOWERS; (1) INGERSOLL-RAND 185 CFM;

- AGATE CONT. PLACING & SECURING SEAWALL FORMWORK FROM PILE CAP# 17-10 IN PREP. FOR CONC. PLACEMENT (WORK-IN-PROGRESS).

- STRIP ANGLE IRON & STEEL FORMWORK FROM PILE CAP# 31-19 FACE OF WHARF (WORK-IN-PROGRESS).

NOTE: DELIVERY OF (17) 65' & 66' TIMBER PILE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 9/17/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 76°F

- AGATE COMPLETED PLACING & SECURING SEAWALL FORMWORK IN PLACED FROM PILE CAP# 17-10 FOR CONC. PLACEMENT.
- STRIP ANGLE IRON & STEEL FORMWORK @ BERTH 63 FACE OF WHARF FROM PILE CAP# 1-6. (WORK-IN-PROGRESS).
- PLACED STEEL PILE SHOE ONTO TIP OF TIMBER PILE. FOR FENDER SYSTEM. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM - 2:00 PM

Sheet 2 of 2

Date: 9/18/10

Signed Mark R. Counter Signed J.M.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 76°F

MANPOWER: (2) DOCKBUILDER FOREMAN; (7) DOCKBUILDER; (2) OPERATOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (2) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (2) LIGHT TOWER; (1) CONC. PUMP TRUCK (A. WAGNER CO.); (1) CONC. VIBRATOR; (1) GENERATOR; (1) INGERSOLL-RAND 185 CFM.

SEAWALL CONC. PLACEMENT # 6

- AGATE PLACED 60 cy OF CAT IV 5000 PSI CONC. @ SEAWALL FROM PILE CAP # 10-17

NOTE: SEAWALL CONC. PLACEMENT COMPLETED PILE CAP # 1-31.

- TOTAL CONC. DELIVERED & USED: 60 cy.
- PA MATERIAL (JIMMY) ON SITE FOR CONC. TESTING.
- CLAYTON QA ON SITE.

NOTE: AGATE USED 5000 PSI CONC. TO POURED (2) 2'-2" X 2' X 6"(H) & (2) 3'-6" X 2' X 6"(H) CONC. BLOCK FOR VALVE BOX.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 5:00 AM – 2:00 PM

Sheet 1 of 2

Date: 9/18/10

Signed Vincent Ramos Counter Signed J/M

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 81°F

MANPOWER: (2) DOCKBUILDER FOREMAN ; (6) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248M ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR KOMATSU PC-250LC ; (3) FLOAT STAGE ; (1) CHERRY PICKER (AMOUP RENTAL) ; (1) INGERSOLL-RAND 185 CFM COMPRESSOR ; (1) HYDRAULIC HAMMER ; (1) SULLAIR 1300H COMPRESSOR ; (1) OILER.

- AGATE INSTALL (5) 65'-66', 16"-18" DIA. TIMBER PILE WITH STEEL SHOE ATTACHMENT FROM PILE CAP# 31-27 ALONG FACE OF WHARF, WITH TIP ELEV. 245 AS PER DRAWING NO. S011 (WORK-IN-PROGRESS).

- STRIP SEAWALL FORMWORK FROM PILE CAP# 18-8 (WORK-IN-PROGRESS)

- EXCAVATE ; INSTALL & SECURED (2) TIE-ROD ONTO DEADMAN @ BERTH 36 SIDE ; ALSO WRAP TURNBUCKLE WITH TAPECOAT AS PER DRAWING NO. S010

- PA SURVEYOR ON SITE FOR TIMBER PILE TIP ELEV.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Date: 9/20/10

Sheet 1 of 1

Signed Mark R.

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 79°F

MANPOWER: (2) DOCKBUILDER FOREMAN ; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR KOMATSU PC-250LC ; (3) FLOAT STAGE ; (1) CHERRY PICKER (AMQUIP RENTAL) ; (1) INGERSOLL-RAND 185CFM COMPRESSOR ; (1) SULLAIR 1300H COMPRESSOR ; (1) OILER ; (1) HYDRAULIC HAMMER.

- AGATE CONT. INSTALLING 65'-66', 16"-18" DIA. TIMBER PILE ALONG FACE OF WHARF FROM PILE CAP# 21 ; 22 & 25 @ TIP ELEV. 245 (WORK-IN-PROGRESS).
- COMPLETED STRIPPING SEAWALL FORMWORK FROM PILE CAP# 12-8.
- PA SURVEYOR ON SITE FOR TIMBER PILE TIP ELEV.

NOTE: DELIVERY OF LOADER CAT 950G.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 9/21/10

Signed Mead R

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 86°F

MANPOWER: (2) DOCKBUILDER FOREMAN ; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT ; (1) EXCAVATOR KOMATSU PC-250LC ; (3) FLOAT STAGE ; (1) CHERRY PICKER (AMQUIP RENTAL) (1) INGERSOLL-RAND 185 cfm COMPRESSOR

- AGATE: COMPLETED STRIPPING DECK STEEL FORMWORK @ BERTH 63 FACE OF WHARF.

- INSTALL & SECURED (2) TIE-ROD ONTO DEADMAN @ BERTH 36 & 63, TURNBUCKLE WAS WRAP WITH TAPECOAT AS PER DRAWING NO. S010.

- SUB-CONTRACTOR: CUTTING TECHNOLOGIES (CTI) ON SITE @ 11:00 Am - 4:00 Pm, CORE DRILLED (2) 3" DIA. HOLE THRU DEADMAN IN PREP. FOR TIE-ROD.

NOTE: AMBASSADOR MEDICAL SERVICE CAME ON SITE FOR URINE SAMPLE ON AGATE WORKERS, (2) DOCKBUILDER DID NOT GAVE URINE SAMPLE (BARTHOLOMEW BRENNER & GARY CARSEN), THEY WERE SENT HOME @ 11:00 Am.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 Am - 4:30 Pm

Sheet 1 of 1

Date: 9/22/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 85°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER FOREMAN; (6) DOCKBUILDER; (2) OPERATOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SH BARGE; (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR KOMATSU PC-250LC.

- AGATE INSTALL & SECURED (4) TIE-ROD ONTO DEADMAN @ BERTH 36, AS PER. DRAWING NO. S010

NOTE: ALL (10) TIE-ROD COMPLETED INSTALLED.

- STOCKPILE SEAWALL & PILE CAP STEEL FORMWORK IN PREP. FOR PICK-UP.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date 9/23/10

Signed _____ Counter Signed _____

PA 327 / 1-02

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

Contractor: Agate Construction Co. **Contract No:** PN-800.219

Location: Berths 36 & 6~~2~~3 Wharf Reconstruction

Weather: AM: Overcast, PM: Haze; 68 – 81 degs.

a. Labor:
1- Super/General Foreman; 8 – Dock builders; 2 – Operators

b. Equipment:
1 – Link Belt rubber tire crane; 1 – Deere 950G Loader; 1 – I.R. Air Compressor; 1 – Link Belt 248H Crane; Misc tools & equipment

c. Activities:
- Contractor began cleaning site and preparing deck for backfill.
- Placed grout holes and joints in concrete slab and seawall to prevent tidal seepage.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 6:00a – 2:30p

Date September 24, 2010 (Friday)

Signed Gregory A. Player **Counter Signed**

USE FORM PA 316 TO NOTE LABOR, MATERIAL OR EQUIPMENT USAGE.

THE PORT AUTHORITY OF NY & NJ

Contractor: Agate Construction **Contract Number:** PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 75 Deg. F, Sunny

Crew: 1 Super, 2 Dockbuilder Foreman, 5 Dockbuilders, 2 Operators, 1 Dockbuilder Apprentice

Equipment On Site: (Quantity) - Description

1 - Link Belt Crane LS-248H, 1 - Komatsu Dozer, 1 - Deere 950G Loader, 1 - Pickup Truck, 1-Honda Generator(GFI),

1 - 20' Steel Workboat, 1 - SE1-54 Barge, 1 - Sectional Steel Float

Work Performed:

The contractor continued install timber fender piles along the berth 36 seawall. 8 Piles were placed and driven to refusal. Work continued by anchoring timber fender piles into the sealwall along the Berth 36 face.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 6:00 AM - 2:30 PM

Date 9/25/2010

Signed Tim Scully **Counter Signed** JM

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 67°F

MANPOWER: (1) DOCKBUILDER SUPER ; (7) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H ; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (2) FLOAT STAGE ; (2) LIGHT TOWERS; (1) CHERRY PICKER (AMQUIP RENTAL); (1) SULLAIR 1300H COMPRESSOR

- AGATE CONT. SECURING TIMBER PILE ALONG FACE OF WHARF USING 1" DIA. CONC. ANCHOR AS PER. DRAWING NO. S014

NOTE: DELIVERY OF TIMBER PILE FOR FENDER SYSTEM.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 8:30 AM.

NOTE: DUE TO WEATHER CONDITION (RAIN) AGATE DOCKBUILDERS & OPERATOR LEFT JOB SITE @ 10:30 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 10:30 AM

Sheet 1 of 1

Date: 9/27/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN / CLOUDY 80°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) FLOAT STAGE; (1) INGERSOLL-RAND 185 CFM; (1) SULLAIR 1300H COMPRESSOR; (2) LIGHT TOWERS; (1) LOADER CAT 950 G; (2) SECTIONAL STEEL FLOAT 8'x40'

- AGATE CONT. SECURING TIMBER PILE ONTO SEAWALL ALONG FACE OF WHARF WITH 1" DIA. X 20" LONG CONC. ANCHOR AS PER. DRAWING NO. S014.

- FILLED ALL SHEET BOLT HOLES ALONG SEAWALL WITH CONC. & CLEAN-UP JOB SITE IN PREP. FOR BACK FILLING.

- START INSTALLING 6" X 12" TIMBER CHOCKS ALONG SEAWALL FACE OF WHARF. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 9/28/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 78°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (3) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (1) LOADER CAT 950G; (1) PICK-UP TRUCK (4) DUMP TRUCKS; (1) ROLLER SAKAI SV 500TF; (1) BULL DOZER KOMATSU D65P; (1) SULLAIR COMPRESSOR 1300H; (1) INGERSOLL RAND 185 CFM; (2) SECTIONAL STEEL FLOAT 8'x 40".

- AGATE STARTED BACKFILLING BERTH 36 & 63 IN-LAND AREA WITH I-12 MATERIAL WITH 1' LIFT. (WORK-IN- PROGRESS).

- AGATE QA (AKIN OBISANYA) FROM ATLANTIC TESTING ON SITE FOR DENSITY TEST.

- PA MATERIAL ON SITE FOR DENSITY TEST.

- AGATE PLACED 1/8" X 12" ASPHALT PLANK (CRAFCO PAVEPREP) ALONG NEW & EXISTING CONC. JOINT, (PILE CAP #97 & 18 EXISTING), CONTRACT PLAN CALLED FOR ASPHALT PLANK TO BE 3/4" X 12", AGATE WILL RE-EXCAVATE, REMOVE & REPLACED ASPHALT PLANK @ A LATER DATE & FOLLOW CONTRACT DRAWING.

- AGATE CONT. INSTALLING FENDER TIMBER PILES & TIMBER CHOCKS ALONG FACE OF WHARF @ BERTH 36 & 63 (WORK-IN PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 9/29/10

Signed Michael Ramos

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 73°F

MANPOWER: (1) DOCKBUILDER SUPER ; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) PICK-UP TRUCK & (1) LOADER CAT 950G

DUE TO WEATHER CONDITIONS (RAIN) AGATE (8) DOCKBUILDER LEFT JOB SITE @ 7:00 AM, (2) OPERATORS @ 10:00 AM & (1) DOCKBUILDER SUPER @ 12:00 PM.

NOTE: DELIVERY OF WATER MAIN PIPES & FITTINGS.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 12:00 PM

Sheet 1 of 1

Date 9/30/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 68°F

MANPOWER: (1) DOCKBUILDER SUPER ; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SY BARGE; (1) 20' STEEL WORK BOAT; (2) FLOAT STAGE ; (2) SECTIONAL STEEL FLOAT 8'X40' ; (1) PICK-UP TRUCK; (1) SULLAIR COMPRESSOR 1300H; (1) LOADER CAT 950G

- AGATE CONT. SECURING FENDER TIMBER PILE & CHOCKS ON PLACED ALONG FACE OF WHARF @ BERTH 36 & 63.

NOTE: DUE TO RAIN AGATE (8) DOCKBUILDER & (2) OPERATOR LEFT JOB SITE @ 1:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 10/1/10

Signed Mikael R

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 61°F

MANPOWER: (1) DOCKBUILDER SUPER; (7) DOCKBUILDER; (1) OPERATOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (3) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'x40'; (2) LIGHT TOWERS; (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 CFM

- AGATE CONT. SECURING FENDER TIMBER PILE & CHOCKS IN PLACED ALONG FACE OF WHARF @ BERTH 36. (WORK-IN-PROGRESS).

INCIDENT REPORT

@ AROUND 6:15 AM DOCKBUILDER (WILLIAM LEYES) WAS WALKING ON BARGE (SEI-54) WHEN HE STEPPED ONTO A LOOSE HATCH COVER & FELL, WAS TAKEN TO NEWARK BETH ISRAEL MEDICAL CENTER BY AGATE PROJECT MANAGER (KEVIN KNUETTEL).

NOTE: CONCENTRA IS OPEN @ 8:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM – 2:30 PM

Sheet 1 of 1

Date: 10/2/10

Signed Mitesh R

Counter Signed J M

6

The Port Authority of NY & NJ Master OCIP
LOSS REPORT FORM

SECTION 1: CONTRACTOR INFORMATION

NAME of CONTRACTOR: Acute Construction Co, Inc CONTACT PERSON: Kevin Knuettel

ADDRESS: 1030 Rt. 83 Ocean View, NJ 08230

PHONE NO.: (609) 624-9090 CONTRACT NO.: PN-800.219

SECTION 2. DESCRIPTION of INCIDENT

DATE of INCIDENT: 10/2/10 TIME: 6:15 AM EXACT LOCATION of INCIDENT (attach diagram if possible): Berth 36 → Barge # SEI-54

DESCRIPTION (in detail): Employee stepped onto Hatch Cover on Barge. Cover Moved & Employee Fell into Open Chamber (Partially...)

SECTION 3. INJURIES

CLAIMANT'S NAME: William S. Leyes

ADDRESS: 23 Grand Ave, Atlantic Highlands, NJ HOME PHONE NO.: (732) 620-0149 AGE: 52

EMPLOYER: Acute OCCUPATION: 1456 - Dockbuilder

INJURY: Left Hip & Knee

WHERE WAS INJURED TAKEN AFTER INJURY?: Newark Beth Israel Medical Center - ER.

WHAT WAS INJURED DOING WHEN HURT?: Left Hip & Knee Hurt Setting up Equipment & Tools for Timber Fender Installation.

SECTION 4. DAMAGE to PROPERTY (of others)

WHAT WAS DAMAGED?: N/A

OWNER'S NAME: CONTACT (if different)

ADDRESS: PHONE: ( )

SECTION 5. WITNESS INFORMATION

WITNESS NAME: Ted Pottinger

ADDRESS: 4200 Terrace Ave, Pennsauken, NJ PHONE: (856) 910-1175

SECTION 6. REMEDIAL ACTION TAKEN (use addition sheet if necessary)

WHEN? WHAT? BY WHOM? ETC.? Taken To E.R. → 2 Days No Work → 3 Days Light Duty. Motrin Prescription Issued

SECTION 7. VERIFICATION (required)

PRINT NAME: Kevin Knuettel PHONE: (609) 374-0133

SIGNATURE: DATED: 10/2/10

Fax or Mail to: Adrian Rabinowitz, VP
Fax: (516) 342-2727
Phone: (516) 342-2706

Aon Risk Services Northeast, Inc.
Port Authority Service Team
P.O. Box 342
Jericho, New York 11753

CONFIRMATION # CIP 0000139 02

Atlantic Engineering Laboratories of New York

SOIL COMPACTION TEST REPORT

Client: AGATE CONSTRUCTION **Date:** 7/29/10
Project: PORT NEWARK BERTH 36/63 **Project #:** PN 800.219.

Per the request of the client, a representative of Atlantic Engineering Laboratories, Inc. (AEL) arrived at the above noted site to perform soils compaction testing. In-place density and moisture tests were taken using nuclear methods in accordance with ASTM D6938. The following is a summary of our observations:

Location and Description of Work Performed: BERTH 36/63

EVERY LIFT OF 12"-14" WERE COMPACTED WITH THE USE OF BIG ROLLER. WHEN ROLLED ROLLED, MATERIAL WERE VERY STABLE AND UNYIELDING LATER, TESTED WITH NUCLEAR DENSITY GAUGE.

Test #	Soil Moisture	Optimum Moisture	Field Dry Density (PCF)	Maximum Dry Density	Percent Comp.	Percent Comp. Required	Pass/ Fail	Test Elevation	Location
1	12.4	11.9	120.7	124.2	97.2	95%	PASS	2	
2	12.9		121.8		98.1		PASS	2	
3	11.7		121.7		98.0		PASS	2	A-5
4	9.7		122.3		98.5		PASS	2	*BOLE
5	12.2		123.4		99.0		PASS	4	
6	9.3		121.6		98.0		PASS	4	
7	9.5		122.0		98.2		PASS	4	
8	8.8	↓	121.6	↓	98.0	↓	PASS	4	

Diagram Attached: Yes ☐ No ☒

Technician HKIM DEC

DAY #1

CONTRACT PN 800.219 | FILE# 11B.

AEL
Atlantic Engineering Laboratories, Inc.
41 Murray Street
Rahway, NJ 07065
www.aelinc.net
Office: 732-815-0400
Fax: 732-815-0422

PN 800.219.
I-12. DENSITIES.

Project Sign-In Sheet

Client: AGATE Construction Company

Project: PORT NEWARK

Date: 9/29/10 Time In: 7 AM

Time Out: _____

Total Hours Worked: _____ **Overtime:** _____

Description of Work Performed:

- ☐ Concrete Inspection Field, Yds. / Cyls made: _____
- ☐ Concrete Inspection Plant, Yds. Inspected: _____
- ☐ Masonry Inspection, Samples Made: _____
- ☐ Grout Inspection, Samples Made Today: _____
- ☐ Reinforcing Steel Inspection
- ☐ Footing Bottom Inspection
- ☑ Soil Compaction Testing Compaction test done
- ☐ No. of Soil Samples Picked Up: _____
- ☐ Soil Boring / Test Pits
- ☐ Asphalt Compaction Testing
- ☐ Structural Steel Inspection: _____
- ☐ Visual Welding ☐ PT ☐ MT ☐ UT
- ☐ Plumbness ☐ Torque Testing of Bolts
- ☐ Fireproofing Inspection. No. of Density Samples: _____
- ☐ Adhesion & Cohesion Test. No. of Tests done: _____
- ☐ Paint Thickness Testing
- ☐ Anchor Bolt Pull Test, No. of Tests Done: _____
- ☐ Floor Flatness Testing
- ☐ Swiss Hammer / Windsor Probe / Coring: _____
- ☐ Miscellaneous Testing: _____
- ☐ Report Provided: ☐ No ☐ Yes, if yes, ☐ Written or ☐ Verbal
- ☐ Did Client Schedule follow-up Inspection through the Office? ☐ No ☐ Yes

Sign: Inspector: _____ **Sign: Client:** _____

THE PORT AUTHORITY OF NY & NJ

SPECIAL INSPECTION REPORT

PA3594/01-10

CONSTRUCTION MANAGEMENT DIVISION

CONTRACT TITLE: _____ CONTRACT NO.: PN-800.219

CONTRACTOR: AGATE CONSTRUCTION CO.

LOCATION: BERTH 36 & 63 WHARF RECONSTRUCTION

Description of Special Inspection/Test Performed & Non-Conformance Notations:

- AGATE BACKFILLED BERTH 36 & 63 IN-LAND WITH I-12 MATERIAL.
- SOIL COMPACTION TEST WAS PREFORM BY AGATE QA.

List Applicable Documents and References that describe Inspection Procedures such as Applicable Specification Sections and/or Contract Drawing Number and Construction Standards Manual:

4-306.1 AND 4-307

I certify, to the best of my knowledge, that all special inspections /tests described above were done in accordance with the Contract Documents and are consistent with the PA Construction Standards Manual.

Signed: Mikeal Ramessar 10/4/10
Construction Engineer / Inspector or Special Inspector* — Date

MIKEAL RAMESSAR
(Print Name)

Concur: J.M. Ronatathan 10/5/10
Primary Inspector* / Resident Engineer — Date

_____
(Print Name)

*as defined by NYCBC

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather LIGHT RAIN 55°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (3) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-2481I; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (3) FLOAT STAGE; (2) LIGHT TOWERS; (4) DUMP TRUCK; (1) ROLLER SAKAI SV 500TF; (1) BULL DOZER KOMATSU 41P; (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 c.f.m; (2) SECTIONAL STEEL FLOAT 8'x 40'

- AGATE CONT. BACKFILLING BERTH 36 & 63 IN-LAND AREA WITH I-12 MATERIAL, USING 1' LIFT.

- AGATE QA (AKIN OBISANYA) FROM ATLANTIC TESTING ON SITE FOR DENSITY TEST.

NOTE: SEE ~~ATTACHMENT~~ FOR DENSITY REPORT ON 9/29/10.

- PA MATERIAL (JIMMY) ON SITE.

- AGATE FILLED FORMWORK SHEET BOLT HOLES ALONG SEAWALL WITH GROUT @ BERTH 36 (WORK-IN-PROGRESS).

- PLACING & SECURING TIMBER CHOCKS IN PLACE ALONG FACE OF WHARF @ BERTH 63 (WORK-IN PROGRESS).

- CONT. INSTALLING TIMBER CURB TOP OF SEAWALL @ BERTH 36 (WORK-IN PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/4/10

Signed Mark R

Counter Signed

CONTRACT PN 800.219 | FILE# 11B.

Atlantic Engineering Laboratories, Inc.
41 Murray Street
Rahway, NJ 07065
www.aelinc.net
Office: 732-815-0400
Fax: 732-815-0422

Project Sign-In Sheet

Client: AGATE CONSTRUCTION CO. INC

Project: POST MENTALIC

Date: 10/4/10

Time In: 8 am

Time Out: 5PM

Total Hours Worked: _____ **Overtime:** _____

Description of Work Performed:

- ☐ Concrete Inspection Field, Yds. / Cyls made: _____
- ☐ Concrete Inspection Plant, Yds. Inspected: _____
- ☐ Masonry Inspection, Samples Made: _____
- ☐ Grout Inspection, Samples Made Today: _____
- ☐ Reinforcing Steel Inspection
- ☐ Footing Bottom Inspection
- ☐ Soil Compaction Testing
- ☐ No. of Soil Samples Picked Up: _____
- ☑ Soil Boring / Test Pits — Compaction test done @ BEZIH 36/63
- ☐ Asphalt Compaction Testing
- ☐ Structural Steel Inspection: _____
- ☐ Visual Welding ☐ PT ☐ MT ☐ UT
- ☐ Plumbness ☐ Torque Testing of Bolts
- ☐ Fireproofing Inspection. No. of Density Samples: _____
- ☐ Adhesion & Cohesion Test. No. of Tests done: _____
- ☐ Paint Thickness Testing
- ☐ Anchor Bolt Pull Test, No. of Tests Done: _____
- ☐ Floor Flatness Testing
- ☐ Swiss Hammer / Windsor Probe / Coring: _____
- ☐ Miscellaneous Testing: _____
- ☐ Report Provided: ☐ No ☐ Yes, if yes, ☐ Written or ☐ Verbal
- ☐ Did Client Schedule follow-up Inspection through the Office? ☐ No ☐ Yes

Sign: Inspector: _____ **Sign: Client:** _____

THE PORT AUTHORITY OF NY & NJ

SPECIAL INSPECTION REPORT PA3594 / 01-10

CONSTRUCTION MANAGEMENT DIVISION

CONTRACT TITLE: _____ CONTRACT NO.: PN-800.219

CONTRACTOR: AGATE CONSTRUCTION CO.

LOCATION: BERTH 36 & 63 WHARF RECONSTRUCTION

Description of Special Inspection/Test Performed & Non-Conformance Notations:

- AGATE CONT. BACKFILLING BERTH 36 & 63 IN-LAND AREA WITH I-12 MATERIAL.
- DENSITY TEST WERE TAKEN BY PA MATERIAL & AGATE QA (ATLANTIC TESTING).

List Applicable Documents and References that describe Inspection Procedures such as Applicable Specification Sections and/or Contract Drawing Number and Construction Standards Manual:

4-306 THRU 4-307

I certify, to the best of my knowledge, that all special inspections /tests described above were done in accordance with the Contract Documents and are consistent with the PA Construction Standards Manual.

Signed: Mikeal Ramessar 10/5/10
Construction Engineer / Inspector or Special Inspector* — Date

MIKEAL RAMESSAR
(Print Name)

Concur: Ronald Shaw 10/6/10
Primary Inspector* / Resident Engineer — Date

_____
(Print Name)

*as defined by NYCBC

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 60°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (3) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (2) FLOAT STAGE; (2) LIGHT TOWERS; (2) SECTIONAL STEEL FLOAT 8'X40'; (1) INGERSOLL-RAND 185 CFM; (1) SULLAIR 1300H; (4) DUMP TRUCK; (1) BULLDOZER KOMATSU 41P; (1) ROLLER SAKAI SV500TF; (1) PICK-UP TRUCK.

- AGATE CONT. BACKFILLING BERTH 36 & 63 IN-LAND AREA USING I-12 MATERIAL (WORK-IN-PROGRESS).

NOTE: AGATE STOCKPILE (4) TRUCK LOAD OF I-12 MATERIAL ON SITE.

- AGATE QA (AKIN OBISANYA) FROM ATLANTIC TESTING ON SITE FOR DENSITY TEST.

NOTE: SEE ATTACHMENT FOR DENSITY TEST REPORT ON 10/4/10.

- PA MATERIAL (DAVE) ON SITE FOR DENSITY TEST.

- AGATE CONT. INSTALLING TIMBER CURB & START SETTING STEEL BOLLARD ON TOP OF SEAWALL @ BERTH 36. (WORK-IN-PROGRESS).

- CONT. INSTALLING & SECURING TIMBER FENDER PILE ALONG FACE OF WHARF @ BERTH 36 & 63 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM.

Sheet 1 of 1

Date 10/5/10

Signed Neal R.

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 64°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 CFM; (1) PICK-UP TRUCK; (1) LOADER CAT 950G; (1) BULLDOZER KOMATSU 41P; (1) ROLLER SAKAI SV500TF; (2) LIGHT TOWER

- AGATE CONT. SECURING TIMBER FENDER PILE & CHOCKS ALONG FACE OF WHARF @ BERTH 36 & 63. (WORK-IN-PROGRESS).

- COMPLETED SPREADING & COMPACTED I-12 STOCKPILE MATERIAL ON SITE @ BERTH 36 & 63.

NOTE: AGATE QA FROM ATLANTIC TESTING NOT ON SITE FOR DENSITY TEST.

- CONTINUED SETTING STEEL BOLLARD ON TOP OF SEAWALL @ BERTH 63. (WORK-IN-PROGRESS).

- INSTALLED 12" X 12" TIMBER BLOCK AT EACH SIDE OF PILE CAP @ FACE OF WHARF. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/6/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 67°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-2481H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (4) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (2) LIGHT TOWER; (2) SECTIONAL STEEL FLOAT 8'X40'; (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL RAND 185 cfm COMPRESSOR.

- AGATE CONT. INSTALLING TIMBER FENDER PILES ALONG FACE OF WHARF @ BERTH 36 & 63 (WORK-IN-PROGRESS).

- START INSTALLING & SECURING LOW WATER TIMBER WALER WITH 1" DIA. BOLT @ BERTH 36. (WORK-IN-PROGRESS).

- CONT. INSTALLING 12"X12" TIMBER BLOCK @ EACH SIDE OF PILE CAP @ BERTH 36 FACE OF WHARF (WORK-IN-PROGRESS).

NOTE: SEE ATTACHED SHEET FOR AGATE QA COMPACTION TEST REPORT ON 10/5/10

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 PM - 4:30 PM

Sheet 1 of 1

Date: 10/8/10

Signed Neal R

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 70°F

MANPOWER: (9) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) INGERSOLL-RAND 185 CFM; (2) SECTIONAL STEEL FLOAT 8'x40'; (2) LIGHT TOWERS; (4) FLOAT STAGE; (1) SULLAIR 1300H COMPRESSOR; (1) CHERRY PICKER (AMQUIP RENTAL); (1) LOADER CAT 950G

- AGATE CONT. SECURING TIMBER FENDER PILE & CHOCKS @ BERTH 36 & 63 ALONG FACE OF WHARF. (WORK-IN-PROGRESS).

- FABRICATE LOW WATER TIMBER WALER.

NOTE: LINK-BELT CRANE LS-208H WAS REMOVED FROM JOB SITE @ 10:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 10/11/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 68°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (AMOUP RENTAL); (4) FLOAT STAGE; (2) LIGHT TOWER; (1) INGERSOLL-RAND 185 cfm; (1) SULLAIR 1300H COMPRESSOR; (1) PICK-UP TRUCK

- AGATE CONT. SECURING TIMBER FENDER PILES & CHOCKS @ BERTH 36 & 63 ALONG FACE OF WHARF. (WORK-IN-PROGRESS).

- SET (7) TIMBER PILE IN PLACED ALONG BERTH 63 IN PREP. FOR DRIVING DOWN PILES. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/12/10

Signed Mikael Ram

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 67°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248 H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (BM EQUIP RENTAL); (4) FLOAT STAGE; (2) LIGHT TOWER; (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 CFM; (1) PICK-UP TRUCK;

- AGATE CONT. INSTALLING & SECURING LOW WATER TIMBER WALER @ BERTH 36. (WORK-IN-PROGRESS) AS PER. CONTRACT DRAWING # 5014.

- INSTALLED & SECURED TIMBER FENDER PILE & CHOCKS ALONG FACE OF WHARF @ BERTH 63 (WORK-IN-PROGRESS).

- CORE DRILLED 1" DIA. HOLE @ SEAWALL BULLNOSE IN PREP. FOR SECURING PILE CLUSTER. (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/13/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) SUNNY / (PM) CLOUDY 63°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (AMQUIP RENTAL); (1) SULLAIR 1300H COMPRESSOR; (2) LIGHT TOWER; (1) INGERSOLL-RAND 185 CFM; (4) FLOAT STAGE; (1) LOADER CAT 950G; (2) SECTIONAL STEEL FLOAT 8'x40'

- AGATE CONT. INSTALLING & SECURING LOW WATER TIMBER WALER @ BERTH 36, FACE OF WHARF. (WORK-IN-PROGRESS).
- CONTINUED CORE DRILLING 1" DIA. HOLES @ SEAWALL BULLNOSE IN PREP. FOR SECURING PILE CLUSTER. (WORK-IN-PROGRESS).
- CONTINUED INSTALLING & SECURING TIMBER FENDER PILE & CHOCKS ALONG FACE OF WHARF @ BERTH 63. (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 10:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM – 3:30 PM

Sheet 1 of 1

Date: 10/14/10

Signed Mitcal Ra[illegible]

Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 60°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'x40'; (2) LIGHT TOWER; (1) CHERRY PICKER (AMQUIP RENTAL); (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 CFM; (1) LOADER CAT 950G.

- AGATE CONT. INSTALLING & SECURING LOW WATER TIMBER WALER ALONG FACE OF WHARF @ BERTH 36 (WORK-IN-PROGRESS).

- SECURED & TIGHTEN STEEL BOLLARD BOLT & NUT IN PLACED @ BERTH 36 TOP OF SEAWALL.

- CONTINUE CORE DRILLING 1" DIA. HOLE @ SEAWALL BULLNOSE IN PREP. FOR SECURING CLUSTER PILE.

- PLACED & SECURED TIMBER FENDER PILES & CHOCKS ALONG FACE OF WHARF @ BERTH 63. (WORK-IN-PROGRESS)

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 11:30 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/15/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PW-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. CLOUDY 60°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) CHERRY PICKER (AMOUID RENTAL); (1) SULLAIR 1300H COMPRESSOR; (1) INGERSOLL-RAND 185 CFM; (2) LIGHT TOWER; (1) PICK-UP TRUCK.

- AGATE COMPLETED CORE DRILLING 1" DIA. HOLE @ SEAWALL BULLNOSE IN PREP. FOR SECURING CLUSTER PILE.

- SUB-CONTRACTOR CUTTING TECHNOLOGIES (CTI) CAME ON SITE @ 7:30 AM - 2:30 PM & HELP AGATE CORE DRILLED 1" DIA. HOLE @ SEAWALL.

- SECURED TIMBER FENDER PILE & CHOCKS ALONG FACE OF WHARF @ BERTH 63 (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 12:30 PM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/18/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 62°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR.

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (1) LOADER CAT 950G; (4) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (1) INGERSOLL-RAND 185CFM; (1) SULLAIR 1300H COMPRESSOR.

- AGATE CONT. INSTALLING & SECURING TIMBER FENDER PILE & CHOCKS @ BERTH 63, ALSO SECURED LOW WATER TIMBER WALER @ BERTH 36 ALONG FACE OF WHARF (WORK-IN-PROGRESS).

- SECURED TIMBER FENDER PILE @ SEAWALL BULLNOSE WITH TIMBER WALER IN PREP. FOR INSTALLING CLUSTER PILES. (WORK-IN-PROGRESS).

INCIDENT REPORT

NOTE: AT 2:00PM DOCKBUILDER (JOSE AGRIDIANO) FACE BECAME IRRITATED (HAD DUST MASK ON) FROM DEBRIS. AGATE ASSISTANT PROJECT MANAGER (ANTHONY BARTOLACCI) TOOK DOCKBUILDER TO CONCENTRA IN ELIZABETH.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00AM - 5:30PM

Sheet 1 of 1

Date: 10/19/10

Signed Mikeal Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 58°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT; (1) LOADER CAT 950G ; (1) CHERRY PICKER (AMQUIP RENTAL); (1) INGERSOLL-RAND 185 CFM ; (1) SULLAIR 1300H COMPRESSOR; (4) FLOAT STAGE

- AGATE STARTED INSTALLING & SECURING 6" X 12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36, AS PER DRAWING NO. S014 (WORK-IN-PROGRESS).

- STARTED DRIVING DOWN TIMBER CLUSTER PILES @ BERTH 36 & 63 SEAWALL BULLNOSE (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 12:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet 1 of 1

Date: 10/20/10

Signed Mikeal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. SUNNY 61°F

MANPOWER: (1) DOCKBUILDER SUPER; (12) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC; (1) CHERRY PICKER (AMQUIP RENTAL); (1) LOADER CAT 950 G; (1) INGERSOLL-RAND 185 c.f.m; (4) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'x40'

- AGATE OFF LOAD STEEL BEAMS FROM SEI-54 BARGE ONTO (4) TRACKER TRAILER & JERSEY BARRIER WERE ALSO HAUL AWAY. 7:00 AM - 1:30 PM (WORK-IN-PROGRESS)
- AGATE CONT. INSTALLING TIMBER CHOCKS ALONG FACE OF WHARF @ BERTH 63. (WORK-IN-PROGRESS)
- COMPLETED SECURING & TIGHTEN STEEL BOLLARD WITH BOLT & NUTS @ BERTH 63 TOP OF SEAWALL.
- AGATE STARTED LASHING BINDING PILE GROUP 1-3; 4-6; 7-9; 10-12 & 13-15 USING 5/8" STEEL WIRE CABLE @ BERTH 36 & 63 BULL NOSE AS PER CONTRACT DRAWING NO. S014. (WORK-IN-PROGRESS).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) CAME ON JOB SITE AT 3:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:30 PM

Sheet 1 of 1

Date: 10/21/10

Signed Neal Ro

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather PT. SUNNY 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (12) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE ; (1) 20' STEEL WORK BOAT; (1) EXCAVATOR KOMATSU PC-250LC ; (4) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'X40'; (1) CHERRY PICKER (AMQUIP RENTAL); (1) LOADER CAT 950G; (1) SULLAIR 1300H COMPRESSOR ; (1) INGERSOLL-RAND 185 CFM.

- AGATE OFFLOAD (2) TRACKER TRAILER WITH WOODEN CRANE MAT IN PREP. FOR PLACING ON TOP OF SEI-54 BARGE. ALSO CONTINUED OFF LOADING STEEL BEAMS FROM SEI-54 BARGE ONTO (4) TRACKER TRAILER & HAUL AWAY.

- COMPLETED INSTALLING CLUSTER PILE @ SEAWALL BULLNOSE @ BERTH 36 & 63

- CONTINUED INSTALLING & SECURING 6"X12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36 (WORK-IN-PROGRESS).

- CONTINUE INSTALLING TIMBER CHOCKS ALONG FACE OF WHARF @ BERTH 63 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet 1 of 1

Date: 10/22/10

Signed Mikael Ramm

Counter Signed JM

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. Cloudy 67°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) LINK-BELT CRANE LS-248H; (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) INGERSOLL-RAND 185 COMPRESSOR; (2) SECTIONAL STEEL FLOAT 8'x40'; (1) CHERRY PICKER (AMQUIP RENTAL); (1) LOADER CAT 950G; (1) EXCAVATOR KOMATSU PC-250LC.

- AGATE CONTINUE INSTALLING & SECURING 6"x12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36. (WORK-IN-PROGRESS).

- PLACED & SECURED LOW WATER TIMBER WALER @ BERTH 63 ALONG FACE OF WHARF. (WORK-IN-PROGRESS).

NOTE: LINK-BELT CRANE LS-248H WAS REMOVED FROM JOB SITE @ 11:30 AM BY DONJON MARINE TUG BOAT.

NOTE: DELIVERY OF (1) INGERSOLL-RAND P185 COMPRESSOR.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet 1 of 1

Date: 10/25/10

Signed Neal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather (AM) Pt. SUNNY /(PM) CLOUDY 71°F

MANPOWER: (1) DOCKBUILDER SUPER; ( ) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) CHERRY PICKER (AMQUIP RENTAL) ; (1) EXCAVATOR KOMATSU PC-250LC ;
(1) LOADER CAT 950G ; (2) INGERSOLL-RAND 185 COMPRESSOR ;
(1) SEI-54 BARGE ; (2) FLOAT STAGE ; (2) SECTIONAL STEEL FLOAT 8'X40' ;

- AGATE CONT. INSTALLING & SECURING 6"X 12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36. (WORK-IN-PROGRESS).

- CLEAN & REMOVE DEBRIS FROM SEI-54 BARGE.

NOTE: AGATE USED (3) TRACKER TRAILER TO HAUL AWAY ; (11) STEEL PIPE PILES ; (6) JERSEY BARRIER ; (1) CRANE PILE LEADS & (8) TIMBER FENDER PILE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM – 5:30 PM.

Sheet 1 of 1

Date: 10/26/10

Signed Mikeal R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY & LIGHT RAIN 74°F

MANPOWER: (1) DOCKBUILDER SUPER ; (9) DOCKBUILDER ; (1) OPERATOR

EQUIPMENT: (1) SEI-SU BARGE; (4) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'X40';
(1) EXCAVATOR KOMATSU PC-250LC; (1) CHERRY PICKER (AMQUIP RENTAL);
(1) LOADER CAT 950G; (2) INGERSOLL-RAND 185 COMPRESSOR

- AGATE CONT. INSTALLING TIMBER CHOCKS & LOW WATER WALER ALONG FACE OF WHARF @ BERTH 63. (WORK-IN-PROGRESS).

- CONTINUE INSTALLING TIMBER CURB ON TOP OF SEAWALL @ BERTH 63 (WORK-IN-PROGRESS).

- CONTINUE SETTING & SECURING 6"X12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36. (WORK-IN-PROGRESS).

NOTE: DELIVERY OF (1) CASE EXCAVATOR FROM SUNBELT RENTAL.

INCIDENT REPORT

AT AROUND 10:15 AM DOCKBUILDER JOSE AGRIDANO WAS CLIMBING DOWN THE LADDER ONTO STAGE FLOAT @ BERTH 63 & STEPPED ONTO A 2"X4" TIMBER & SPRAINED HIS LEFT KNEE. DOCKBUILDER WAS TAKEN TO CONCENTRA URGENT CARE BY AGATE ASSISTANT PROJECT ~~MANAGER~~ ENGINEER.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet 1 of 1

Date: 10/27/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 70°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR KOMATSU PC-250LC; (1) LOADER CAT 950G; (2) SECTIONAL STEEL FLOAT 8'x40'; (2) INGERSOLL-RAND 185 COMPRESSOR; (3) FLOAT STAGE

- AGATE STARTED EXCAVATE TRENCH @ BERTH 36 & 63 IN PREP FOR CONNECTING NEW 12" WATER PIPE ONTO EXISTING (WORK-IN-PROGRESS).

- CONTINUE SETTING & SECURING LOW WATER WALER @ BERTH 63 (WORK-IN-PROGRESS).

- STARTED SETTING & SECURING 6"x12" TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 63. (WORK-IN-PROGRESS).

- CONTINUE LASHING BINDING PILE GROUP USING 5/8" STEEL WIRE CABLE @ BERTH 36 & 63 PILE CLUSTERS. (WORK-IN-PROGRESS).

NOTE: EXCAVATOR KOMATSU PC-250LC WAS HAUL AWAY FROM JOB SITE @ 3:15 PM.

NOTE: DELIVERY OF BULL DOZER KOMATSU D37E.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date 10/28/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 57°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER; (2) OPERATOR.
EQUIPMENT: (1) SEI-SU BARGE; (1) 20' STEEL WORK BOAT; (3) FLOAT STAGE; (2) SECTIONAL STEEL FLOAT 8'X40'; (1) CHERRY PICKER (AMPLUP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (2) INGERSOLL-RAND COMPRESSOR 185; (1) LIGHT TOWER

- AGATE CONT. SETTING & SECURING LOW WATER TIMBER WALER & TIMBER SHEETART RIGHT FACE OF WHARF @ BERTH 63 (WORK-IN PROGRESS).

- AGATE PLACED & COMPACTED PIPE BEDDING STONE IN TRENCH USING A WACKER, INSTALLED (1) 12" GATE VALVE & (1) SECTION OF 12" D.I.P (20') (WORK-IN-PROGRESS). @ BERTH 36.

NOTE: DELIVERY OF (4) LOADS (101.74 TONS) OF PIPE BEDDING STONE FROM WELDON QUARRY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 6:00 AM - 2:30 PM

Sheet 1 of 1

Date: 10/29/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 54°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR.

EQUIPMENT: (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (2) INGERSOLL-RAND 185 COMPRESSOR; (1) LOADER CAT 950G; (1) TAMPER PLATE; (1) LIGHT TOWER

- AGATE CONT. PLACING & COMPACTING PIPE BEDDING STONE IN TRENCH, ALSO CONT. INSTALLING 12" DIP WITH POLYETHYLENE ENCASEMENT @ BERTH 36 & 63 (WORK-IN-PROGRESS).

- CONTINUED SETTING & SECURING LOW WATER TIMBER WALER & TIMBER SHEETING ALONG BERTH 63 FACE OF WHARF. (WORK-IN-PROGRESS).

NOTE: DELIVERY OF (2) LOADS (50.54) TONS OF PIPE BEDDING STONE.

NOTE: DELIVERY OF (1) LOAD (26.16 TON) OF I-12H MATERIAL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date 11/1/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 52°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE;
(1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER CAT 950 G;
(1) CHERRY PICKER (AMQUIP RENTAL); (2) INGERSOLL-RAND COMPRESSOR 185;
(1) TAMPER PLATE

- AGATE RE-EXCAVATE; PLACED & COMPACTED PIPE BEDDING STONE ALONG WATER TRENCH DUE TO WRONG LAYOUT. CONTINUE INSTALLING 12" D.I.P WITH POLYETHYLENE ENCASEMENT & CHLORINATING GRANULES IN D.I.P. PLACED (4) 19'-11" & (1) 14'-11" D.I.P (WORK-IN-PROGRESS).

- AGATE CONT. SETTING & SECURING LOW WATER TIMBER WALER & TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 63 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/2/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PA-800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 55°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (4) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (2) INGERSOLL-RAND COMPRESSOR 185; (1) LOADER CAT 950G.

- AGATE CONT. INSTALLING 12" D.I.P @ BERTH 36 & 63 IN PREP. FOR HYDROSTATIC TEST. (WORK-IN-PROGRESS).

- COMPLETED INSTALLING LOW WATER TIMBER WALER @ BERTH 36 & 63; CONT. SETTING & SECURING TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36 & 63 (WORK-IN PROGRESS).

NOTE: DELIVERY OF (2) LOADS DENSE GRADED AGGREGATE BASE COURSE FROM CHRISTEL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 5:30 PM

Sheet 1 of 1

Date: 11/3/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) HYDROSTATIC PRESSURE TEST ; (1) PICK-UP TRUCK

- AGATE FILLED 12" D.I.P WATER & PREFORMED HYDROSTATIC PRESSURE TEST. 214 PSI OF PRESSURE WAS PLACED IN 12" D.I.P AFTER 1 HOUR 15 MINS. PRESSURE DROPS 10 PSI, AS A RESULT HYDROSTATIC TEST FAILED. AGATE LEFT HYDROSTATIC ON OVERNIGHT TO STABILIZED PRESSURE.

NOTE: PA CMD WAS ON SITE TO OBSERVED HYDROSTATIC PRESSURE TEST.

NOTE: DUE TO RAIN AGATE (9) DOCKBUILDER WENT HOME @ 8:00 AM & (2) OPERATOR LEFT JOB SITE @ 1:30 PM.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 10:30 AM.

NOTE: DELIVERY OF (1) ROLLER 6 TON FROM SUNBELT RENTAL.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/4/10

Signed Neal R. Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 50°F

MANPOWER: (1) DOCKBUILDER SUPER; (9) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (3) FLOAT STAGE; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) ROLLER 6 TON (SUNBELT RENTAL); (1) LOADER CAT 950G; (2) INGERSOLL-RAND COMPRESSOR 185 CFM; (1) BULL DOZER KOMATSU D37E

- AGATE COMPLETED HYDROSTATIC PRESSURE TEST ON 12" D.I.P @ BERTH 36 & 63. HYDROSTATIC TEST WAS OBSERVE BY PA CMD, AS A RESULT HYDROSTATIC TEST WAS SUCCESSFUL. PRESSURE WAS HELD FOR 2 HOURS AT 200 PSI.

- COMPLETED CONNECTING 12" D.I.P ONTO EXISTING USING 12" SLEEVE.

- AGATE PLACE BEDDING STONE AROUND PIPE, BACKFILL TRENCH USING I-12 MATERIAL & COMPACTED USING 6 TON ROLLER.

- AGATE CONT. SETTING & SECURING TIMBER SHEETING ALONG FACE OF WHARF @ BERTH 36 & 63.

NOTE: PA SURVEYOR ON SITE TO LOCATE 12" WATER PIPE AS-BUILT.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) NOT ON SITE TODAY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

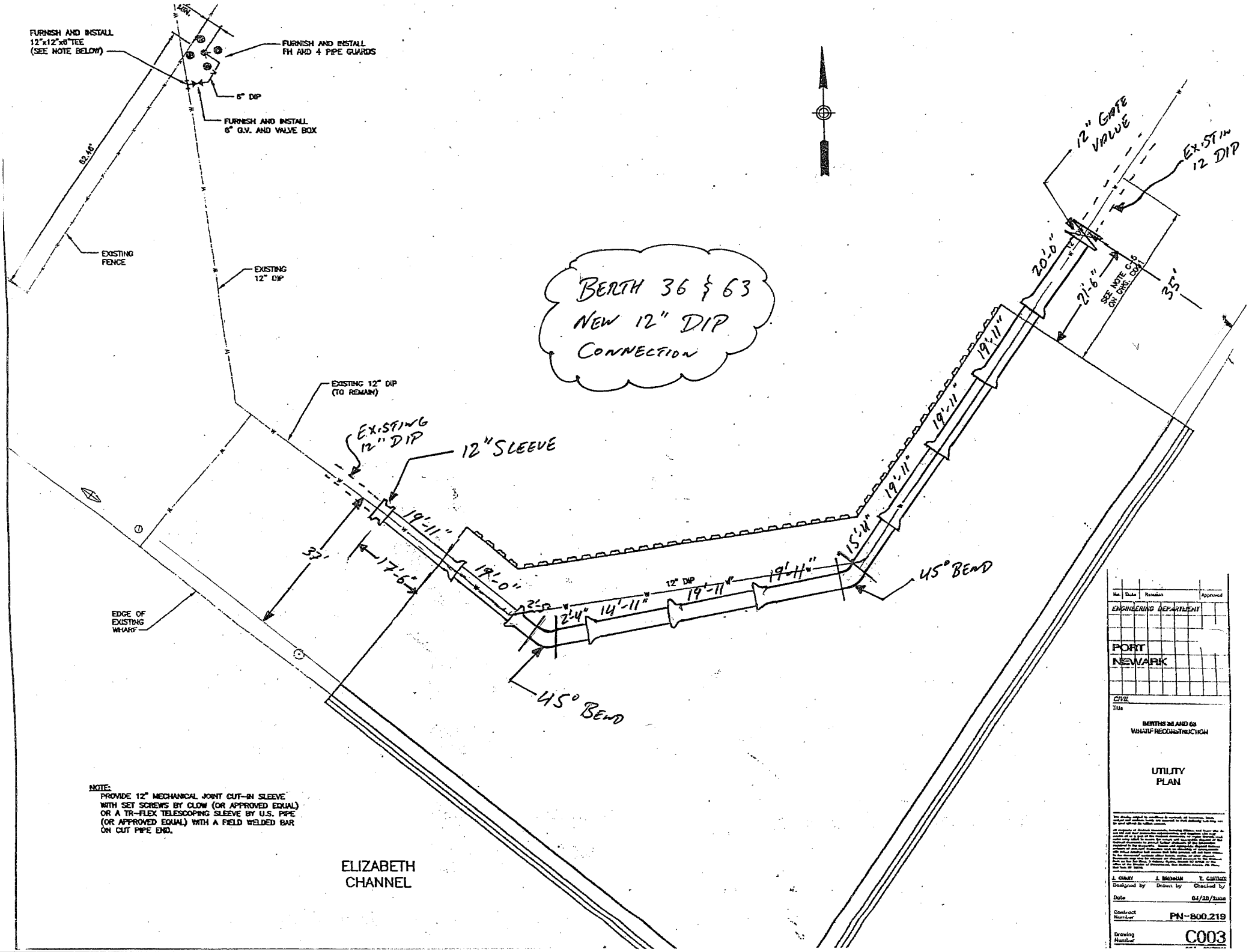
Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/5/10

Signed Neal Ramm

Counter Signed


FURNISH AND INSTALL 12"x12"x6" TEE (SEE NOTE BELOW)
FURNISH AND INSTALL FH AND 4 PIPE GUARDS
6" DIP
FURNISH AND INSTALL 6" G.V. AND VALVE BOX
62.46'
EXISTING FENCE
EXISTING 12" DIP
EXISTING 12" DIP (TO REMAIN)
EXISTING 12" DIP
12" SLEEVE
BERTH 36 & 63 NEW 12" DIP CONNECTION
12" GATE VALVE
EXISTING 12 DIP
20'-0"
21'-6"
35'
SEE NOTE C-15 ON DWG. C001
19'-11"
19'-11"
19'-11"
19'-11"
15'-4"
45° BEND
12" DIP
19'-11"
19'-11"
14'-11"
2'-4"
2'-0"
19'-0"
17'-6"
37'
EDGE OF EXISTING WHARF
45° BEND
ELIZABETH CHANNEL
NOTE:
PROVIDE 12" MECHANICAL JOINT CUT-IN SLEEVE WITH SET SCREWS BY CLOW (OR APPROVED EQUAL) OR A TR-FLEX TELESCOPING SLEEVE BY U.S. PIPE (OR APPROVED EQUAL) WITH A FIELD WELDED BAR ON CUT PIPE END.
No. Date Revision Approved
ENGINEERING DEPARTMENT
PORT NEWARK
CIVIL
Title
BERTHS 36 AND 63 WHARF RECONSTRUCTION
UTILITY PLAN
J. CURRY J. BRENNAN T. CURTIS
Designed by Drawn by Checked by
Date 04/28/2006
Contract Number PN-800.219
Drawing Number C003

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION Co.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather LIGHT RAIN & CLOUDY 50°F

MANPOWER: (1) DOCKBUILDER SUPER ; (9) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) SEL-54 BARGE ; (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (AMERUP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) ROLLER BOMAG BW-211D-40 (UNITED RENTAL); (1) LOADER CAT 950G; (1) BULL DOZER KOMATSU D37E ; (3) FLOAT STAGE; (2) INGERSOLL- RAND COMPRESSOR 185 CFM

- AGATE INSTALL & SECURED FOUR SECTION BAND & ROD ASSEMBLY ON EXISTING 12" DIP JOINT , 20' FROM 12" GATE VALVE @ BERTH 36. AT BERTH 63 EXISTING 12" DIP JOINT SIT ON TOP OF CONC. SLAB AS A RESULT NO BAND & ROD ASSEMBLY WERE INSTALL @ EXISTING JOINT.

- AGATE COMPLETED SETTING & SECURING TIMBER SHEETING ALONG BERTH 36 & 63 FACE OF WHARF.

- AGATE CONT. WIRE LASHING BINDING PILE GROUP 13-15; 10-12 & 7-8 USING 5/8" DIA. WIRE CABLE (WORK-IN-PROGRESS).

NOTE: DELIVERY OF (1) ROLLER BOMAG BW-211D-40 (UNITED RENTAL).

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 9:00 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/8/10

Signed Michael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 51°F

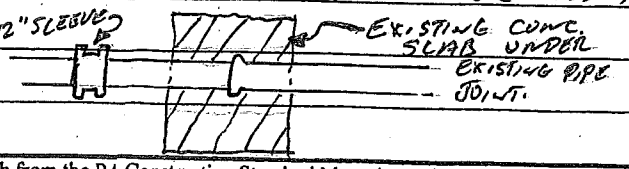
MANPOWER: (7) DOCKBUILDER; (2) OPERATOR

EQUIPMENT: (1) SEI-54 BARGE; (1) 20' STEEL WORK BOAT; (1) LOADER CAT 950G; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) ROLLER BOMAG BW-211D-40 (UNITED RENTAL); (1) BULL DOZER KOMATSU D37E; (2) INGERSOLL-RAND COMPRESSOR 185 CFM; (1) SECTIONAL STEEL FLOAT 8'x40'; (3) FLOAT STAGE.

- AGATE CONT. WIRE LASHING BINDING PILE GROUP 10-12; 7-9; 4-6 & 1-3 USING 5/8" DIA. WIRE CABLE @ BERTH 36 & 63 PILE CLUSTER. (WORK-IN-PROGRESS).

- AGATE PLACED CAST IRON VALVE BOX SHAFT ON TOP OF CONCRETE BLOCK @ 12" GATE VALVE, AREA WAS ALSO BACKFILL. (WORK-IN-PROGRESS).

- AGATE PROJECT MANAGER (KEVIN KNUETTEL), ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI) & (1) OPERATOR (JIMMY), EXCAVATE AROUND EX.STING 12" DIP JOINT 20' FROM SLEEVE, PLACED WOODEN FORM (L) 5'-2"X(W) 2'X (H) 2' & REBAR ON TOP OF EX.STING CONC. SLAB THAT SUPPORTED EX.STING DIP JOINT, IN PREP. FOR CONC. POUR. (WORK-IN-PROGRESS) (1) TAMPER PLATE; (1) ROLLER BOMAG BW-211D-40 (UNITED RENTAL) 1:30 PM - 3:00 PM. @ BERTH 63



I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/9/10

Signed _____ Counter Signed _____

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 51°F

MANPOWER: (1) DOCKBUILDER SUPER; (8) DOCKBUILDER ; (2) OPERATOR

EQUIPMENT: (1) 20' STEEL WORK BOAT; (3) FLOAT STAGE ; (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER CAT 950G; (2) INGERSOLL-RAND COMPRESSOR 185 CFM

- AGATE STARTED GROUTING STEEL BOLLARD WITH NS GROUT (THE EUCLID CHEMICAL COMPANY) @ BERTH 36 & 63 TOP OF SEAWALL (WORK-IN-PROGRESS).

- AGATE COMPLETED FIVE TURNS OF WIRE LASHING BINDING PILE GROUP 1-3; 4-6; 7-9; 10-12 & 13-15 USING 5/8" DIA. WIRE CABLE @ BERTH 36 & 63 PILE CLUSTER.

- AGATE STARTED WIRE LASHING BINDING OUTSIDE OF PILE CLUSTER USING 5/8" DIA. CABLE WIRE @ BERTH 36 & 63.

- AGATE ENCASED EXISTING 12" DIP JOINT @ BERTH 63 WITH CAT VI CONCRETE, (1) OPERATOR (JIMMY) 8:15 AM – 8:30 AM.

NOTE: AMG & AON SAFETY WERE ON SITE, NO COMMENTS WERE MADE ON SAFETY @ JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date 11/10/10

Signed _____ Counter Signed _____

PA 327

CONTRACT #	FILE #
PN 800.219	14

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

Contractor:AGATE Construction | **Contract #: PN - 800.219**

CONTRACT NAME: Port Newark, Berth 36 / 63 Wharf Reconstruction

Man Power	Total	Hours	Equipment
Superintendent	0	0	
Operator	0	0	
Dockbuilder	0	0	
Dockbuilder Fore.	0	0	
Laborer	0	0	
Labor Foreman	0	0	
Teamster	0	0	
Diver	0	0	
Tender	0	0	

CONSTRUCTION ACTIVITIES

NO WORK ON SITE - HOLIDAY

I certify that I have read the applicable paragraphs from the PA Construction Standards Manual pertaining to the work/tests described above.

Weather	Bright	Clear X	Overcast	Rain	Snow
Temp.	Below 32	32 – 50 X	50 – 70	70 -85	85 & Up
Wind	Still	Moderate X	High		
Humidity	Dry	Moderate X	High		

Shift: 7:00 - 3:30PM | **Date: Nov. 11, 2010**

Signed: [signature] Engineering Inspector | **Counter Signed:** [signature] ARE/RE

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 58°F.

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) 20' STEEL WORK BOAT; (1) FLOAT STAGE; (1) BULL DOZER KOMATSU D37E; (1) LOADER CAT 950G; (1) ROLLER BOMAG BW 211D-40 (UNITED RENTAL).

- AGATE REMOVE DEBRIS & GRADE BERTH 36 & 63 USING (13 LOADS) OF I-12H MATERIAL FROM WELDON QUARRY, AREA WAS COMPACTED USING 10 TON ROLLER.

- PA MATERIAL (DAVE) ON SITE FOR DENSITY TEST.

- AGATE QA FROM ATLANTIC TESTING ON SITE FOR DENSITY TEST.

- AGATE CONT. SECURING FIVE TURN OF 5/8" DIA. WIRE CABLE LASHING OUTSIDE OF PILE CLUSTER @ BERTH 36 & 63 (WORK-IN-PROGRESS).

NOTE: DELIVERY OF (13 LOADS) OF I-12H MATERIAL FROM WELDON QUARRY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/12/10

Signed Neal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY / LIGHT DRIZZLE 51°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER; (1) OPERATOR
EQUIPMENT: (1) EXCAVATOR CASE (SUNBELT RENTAL)

- AGATE CLEAN-UP JOB SITE.

SUB-CONTRACTOR: CRISDEL
MANPOWER: (1) SUPER; (1) FOREMAN; (4) LABOR; (2) OPERATOR
EQUIPMENT: (1) PAVER CAT AP-6650; (1) PAVER INGERSOLL-RAND PF-5510;
(1) ROLLER BW-135AD; (1) ROLLER INGERSOLL-RAND D-138;
(1) WATER TRUCK; (2) F-250 PICK-UP TRUCK; (1) F-550 UTILITY TRUCK;
(6) DUMP TRUCK

- CRISDEL PLACED & COMPACTED 4" PLANT MIX MACADAM & 3" OF I-4A ASPHALT ON TOP @ BERTH 36 & 63, AS PER PAVEMENT DETAIL C004 & C005. (WORK COMPLETED)

USED; (PLANT MIX MACADAM 254.96 TONS; I-4A - 210.81 TONS USED).

- AGATE QA FROM ATLANTIC TESTING ON SITE FOR DENSITY.
- PA MATERIAL ON SITE.
- AGATE CLEAN-UP JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 4:00 PM

Sheet 1 of 1

Date: 11/16/10

Signed Michael Ramos Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 52°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) 20' STEEL WORK BOAT; (1) SECTIONAL STEEL FLOAT 8'x40';
(1) CHERRY PICKER (AMQUIP RENTAL); (1) LOADER CAT 950G;
(1) INGERSOLL-RAND COMPRESSOR 185 CFM

- AGATE PLACED 4" X 12" TIMBER PLANKING ON TOP OF PILE CLUSTER BULLNOSE & SECURED WITH 6" GALV. TIMBER NAIL TIE @ BERTH 36 & 63.

- PLACED & SECURED TIMBER CURB @ BERTH 36 & 63 TOP OF SEAWALL (WORK-IN-PROGRESS).

NOTE: PA SURVEYOR CHECK FINISH GRADES ON ASPHALT PAVEMENT & DIRT AREA @ BERTH 36 & 63.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 9:00 AM

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/17/10

Signed Mikeal R[illegible]

Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 52°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER; (1) OPERATOR

EQUIPMENT: (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER CAT 950G;
(1) INGERSOLL-RAND COMPRESSOR 185 CFM; (1) GENERATOR HONDA EB 5000X.

- AGATE COMPLETED SECURING TIMBER CURB @ BERTH 36 & 63 TOP OF SEAWALL.

- STARTED GRINDING OFF EXCESS BOLT THREADS FROM STEEL BOLLARD @ BERTH 36 & 63 (WORK-IN-PROGRESS).

- START EXCAVATING TRENCH ALONG EXISTING CHAIN-LINK-FENCE & EXPOSED EXISTING 12" D.I.P ENCASED IN CONCRETE, IN PREP. FOR NEW HYDRANT CONNECTION. (WORK-IN-PROGRESS).

NOTE: (1) DOCKBUILDER (MIKE) LEFT JOB SITE @ 12:00 PM.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) NOT ON SITE TODAY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/18/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN- 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 51°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) DOCKBUILDER, (1) OPERATOR

EQUIPMENT: (1) 20' STEEL WORK BOAT; (1) CHERRY PICKER (AMOID RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER CAT 950 G; (1) INGERSOLL-RAND COMPRESSOR 185 CFM; (1) FLOAT STAGE; (1) SECTIONAL STEEL FLOAT 8'x40'

- AGATE COMPLETED INSTALLING MISSING BOLTS ON TIMBER SHEETING & PILES @ BERTH 36 & 63 FACE OF WHARF.

- CUT & REMOVE SECTION OF EX-STING 12" DIP & INSTALL (1) 12"x12"x6" TEE ALSO (1) 12" MECHANICAL JOINT CUT-IN SLEEVE IN PREP. FOR NEW HYDRANT CONNECTION.

- CONTINUE GRINDING STEEL BOLLARD EXCESS BOLT THREADS @ BERTH 36 & 63 (WORK-IN-PROGRESS).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/19/10

Signed Michael Ro

Counter Signed

PA 327

CONTRACT #	FILE #
PN 800.219	14

THE PORT AUTHORITY OF NY & NJ

DAILY NARRATIVE

Contractor:AGATE CONSTRUCTION | **Contract #: PN 800.219**

CONTRACT NAME: BERTH 36 / 63 WHARF REHAB.

Man Power	Total	Hours	Equipment
Superintendent	1	8	
Operator	1	8	
Dockbuilder	4	32	
Dockbuilder Fore.	1	8	
Laborer	2	16	
Labor Foreman	0	0	
Teamster	0	0	
Diver	0	0	
Tender	0	0	

CONSTRUCTION ACTIVITIES

PLACED 3CY OF CAT.VI CONCRETE FOR BOLLARDS.

SET, ALIGNED & INSTALLED (1) NEW FIRE HYDRANT

PA MATERIALS ON SITE TO TEST & SAMPLE CONCRETE.

I certify that I have read the applicable paragraphs from the PA Construction Standards Manual pertaining to the work/tests described above.

Weather	Bright		Clear		Overcast	X	Rain		Snow
Temp.	Below 32		32 – 50		50 – 70	X	70 -85		85 & Up
Wind	Still		Moderate	X	High				
Humidity	Dry		Moderate	X	High				

Shift: 7:00 - 3:30PM | **Date: Nov. 22, 2010**

Signed: _____ Engineering Inspector | **Counter Signed:** _____ ARE/RE

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather Pt. CLOUDY 54°F

MANPOWER: (1) DOCKBUILDER SUPER; (2) LABOR; (1) OPERATOR
EQUIPMENT: (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL);
(1) LOADER CAT 950G; (1) BULL DOZER KOMAT'SU D37E.

- AGATE PLACED (4) 2'-6" DIA. SONOTUBE WITH REBAR CAGE & PIPEGUARD AROUND FIRE HYDRANT AS PER. CONTRACT DRAWING # C005 & POUR CAT VI 4000 PSI CONC. @ PIPEGUARD FOUNDATION. ALSO POUR CAT VI @ 12" WATER MAIN VALVE CONCRETE PAD.

- RE-GRADE BERTH 36 & 63 DIRT AREA WITH I-12H MATERIAL TO MEET EXISTING GRADES.

- AGATE RAISE FIRE HYDRANT TO GRADE

NOTE: DELIVERY OF (12 LOADS) (313.93 TONS) OF I-12H MATERIAL FROM WELDON QUARRY.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) CAME ON SITE @ 12:30 PM.
NOTE: PA MATERIAL (DAVE) ON SITE FOR CONC. TESTING.
NOTE: AIG & AON SAFETY WERE ON SITE; NO COMMENTS WERE MADE ABOUT JOB SAFETY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/23/10

Signed [signature] Counter Signed [signature]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800-219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 49°F

MANPOWER: (1) DOCKBUILDER SUPER; (1) OPERATOR

EQUIPMENT: (1) CHERRY PICKER (AMQUIP RENTAL); (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER CAT 950G; (1) ROLLER BOMAG BW-213DH-3 (UNITED RENTAL). (1) BULL DOZER KOMAT'SU D-37E

- AGATE RAISED FIRE HYDRANT VALVE CASTING TO GRADE & BACKFILL AREA.

- PA MAINTENANCE CAME ON SITE & OPEN EXISTING WATER VALVE @ PNCT; ALSO OPEN NEW HYDRANT VALVE & FLUSH HYDRANT OUT.

NOTE: NEW 12" VALVE IS STILL CLOSED DUE TO A POSSIBILITY OF A BROKEN WATER PIPE @ DON JON YARD AS PER. PA MAINTENANCE.

- AGATE CONT. DE-MOBILIZED JOB SITE EQUIPMENT.

- RE-GRADE & COMPACTED I-12H MATERIAL TO GRADE @ BERTH 36 & 63.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) LEFT JOB SITE @ 7:30 AM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/24/10

Signed Mikeal R[illegible]

Counter Signed [illegible]

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 46°F

NO WORK ACTIVITY TODAY.

NOTE: AGATE PROJECT MANAGER (KEVIN KNUETTEL) & ASSISTANT PROJECT ENGINEER (ANTHONY BARTOLACCI) LEFT JOB SITE @ 9:30 AM.

NOTE: ASSIST INSPECTOR (TOM TANNER) @ BERTH 8 & 10 ASPHALT PLACEMENT FROM 3:30 PM - 5:30 PM.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date 11/29/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather LIGHT RAIN 55°F

MANPOWER: (1) PROJECT MANAGER (KEVIN); (1) ASSISTANT PROJECT ENGINEER (ANTHONY)

EQUIPMENT: (1) EXCAVATOR CASE (SUNBELT RENTAL); (1) LOADER

- AGATE CONT. DE-MOBILIZE EQUIPMENT & OFFICE TRAILER FROM JOB SITE.

- AGATE PROJECT MANAGER & ASSISTANT PROJECT ENGINEER FILLED HYDRANT STEEL PIPE BOLLARD WITH CAT II 4000 PSI CONC. ALSO POURED CONC. PAD AROUND HYDRANT VALVE BOX.

NOTE: AGATE REJECTED (1) CLAYTON TRUCK LOAD OF CONC. (1 YARD) DUE TO HIGH SLUMP.

- AGATE CLEAN UP JOB SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 11/30/10

Signed Mark R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather RAIN 59°F

NO MANPOWER ON SITE
NO EQUIPMENT USED.

NO WORK ACTIVITY TODAY.

- PA SAFETY (MIKE) ON SITE.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 12/1/10

Signed Mikael R

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 42°F

MANPOWER: (1) PROJECT MANAGER (KEVIN KNUETTEL)

EQUIPMENT: (1) LOADER KAWASAKI 80Z

- AGATE PROJECT MANAGER CAME ON SITE @ 9:00 AM - 11:00 AM, & GRADE AREA AROUND FIRE HYDRANT AND VALVE BOX CONC. PAD.

NOTE: AREA AROUND FIRE HYDRANT NEED TO BE COMPACTED.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 3:30 PM

Sheet 1 of 1

Date: 12/2/10

Signed Neal Ro

Counter Signed

THE PORT AUTHORITY OF NY & NJ

Contractor: Agate Construction

Contract Number: PN-800.219

Location: Port Newark, Berts 36 & 63

Weather: 35 Deg. F, Sunny

Crew:

Equipment On Site: (Quantity) - Description

Work Performed:

A final inspection was performed today. Representatives from QAD and the facility were in attendance. A punch list was generated.

I certify that I have read the applicable paragraphs from the PA Construction Standards manual pertaining to the work/tests described above.

Shift 10:00 AM - 11:00 AM

Date 12/3/2010

Signed [signature] **Counter Signed** [signature]

Use form PA 316 to note labor, material or equipment usage.

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN - 800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather CLOUDY 42°F

MANPOWER: (1) OPERATOR ; (1) LABOR ; (1) AGATE ASSISTANT PROJECT ENGINEER

EQUIPMENT: (1) PICK-UP TRUCK ; (1) INGERSOLL-RAND 185 COMPRESSOR ; (1) SEI-54 BARGE

- AGATE CLEAN & REMOVE DEBRIS FROM SEI-54 BARGE.

NOTE: DELIVERY OF (18 LOADS, 434.61 TONS) OF I-12H MATERIAL FROM WELDON QUARRY IN PREP. FOR LEVELING OUT BERTH 36 & 63 LAND AREA TO MEET ASPHALT GRADE. (PUNCH-LIST WORK).

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 am - 4:30 pm

Sheet 1 of 1

Date: 12/13/10

Signed Mikeal Ra

Counter Signed

PA 0569
7/07

The PORT AUTHORITY of NEW YORK and NEW JERSEY

DAILY NARRATIVE

Contractor	Contract
AGATE CONSTRUCTION CO.	PN-800.219
Location BERTH 36 & 63 WHARF RECONSTRUCTION	Weather SUNNY 23°F

MANPOWER: (1) OPERATOR ; (1) AGATE ASSISTANT PROJECT ENGINEER

EQUIPMENT: (1) BULL DOZER DEERE 650J (UNITED RENTAL);
(1) ROLLER BOMAG (UNITED RENTAL).

- AGATE LEVEL OUT & COMPACTED I-12H MATERIAL @ BERTH 36 & 63 TO MEET ASPHALT. (WORK-COMPLETED).

NOTE: DELIVERY OF REMAINING (2 LOADS, 47.91 TONS) OF I-12H MATERIAL FROM WELDON QUARRY.

I certify that I have read the applicable paragraph from the PA Construction Standard Manual pertaining to the work/tasks described above.

Shift: 7:00 AM - 1:00 PM

Sheet 1 of 1

Date: 12/14/10

Signed Mikael R

Counter Signed

P1180024

(4)

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 03/30/2010

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
877-945-7378 Willis of Pennsylvania, Inc. 26 Century Blvd. P. O. Box 305191 Nashville, TN 37230-5191	INSURERS AFFORDING COVERAGE / NAIC#
INSURED Agate Construction Company, Inc. P.O. Box 107 Ocean View, NJ 08230	INSURER A: Arch Insurance Company — 11150-001 INSURER B: Arch Insurance Company — 11150-076 INSURER C: Great American E&S Insurance Company — 16691-003 INSURER D: INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
A	X	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC	11PKG2281703	4/1/2010	4/1/2011	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A		AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS	11PKG2281703	4/1/2010	4/1/2011	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
		GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
B		EXCESS / UMBRELLA LIABILITY [X] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [X] RETENTION $ 10,000	ULP001415504	4/1/2010	4/1/2011	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000 $ $ $
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [ ] If yes, describe under SPECIAL PROVISIONS below	11WCI2281603	4/1/2010	4/1/2011	[X] WC STATUTORY LIMITS [ ] OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
C		OTHER Contractors Pollution Liability	PCE488481202	4/1/2010	4/1/2011	$ 5,000,000 Each Occurrence $10,000,000 Aggregate $25,000 SIR	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

See Attached.

CERTIFICATE HOLDER

Port Authority of New York & New Jersey
225 Park Avenue South, 12th Floor
New York, NY 10003

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

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Willis **CERTIFICATE OF LIABILITY INSURANCE** Page 2 of 3

DATE 03/30/2010

PRODUCER		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
877-945-7378 Willis of Pennsylvania, Inc. 26 Century Blvd. P. O. Box 305191 Nashville, TN 37230-5191		INSURERS AFFORDING COVERAGE	NAIC#
INSURED	Agate Construction Company, Inc. P.O. Box 107 Ocean View, NJ 08230	INSURER A: Arch Insurance Company	11150-001
		INSURER B: Arch Insurance Company	11150-076
		INSURER C: Great American E&S Insurance Company	16691-003
		INSURER D:	
		INSURER E:	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Hull and P&I:
Policy #OHL92001545
Carrier: Fireman's Fund Insurance Company
Effective Date: 4/01/2010
Expiry date: 04/01/2011
Limits: P&I: $1,000,000
Hull: Total Insured Value

Excess Marine:
Policy #MMOML10049509
Carrier: New York Marine & General Insurance
Effective Date: 4/01/2010
Expiry date: 04/01/2011
Limits: 4,000,000 Excess Underlying Limits

Project: Port Newark - Dredging with Disposal of Soil at the Newark Bay Confined Disposal Facility (Contract # PN-800.219).

USL & H coverage provided under Workers Compensation per the terms and conditions of Endorsement Form WC 00 01 06 A 04 92.

The Port Authority of New York & New Jersey, the State of New Jersey, New Jersey Department of Environmental Protection, the Tidelands Resource council in the New Jersey Department of Environmental Protection (comprised of 12 members), New Jersey Fund for the support of Free Public Schools, the City of Newark, the City of Elizabeth, Malcolm Pirnie, Inc., Ocean Surveys, Inc. and EA Engineers, Science and Technology, Inc. are Additional Insureds under the General Liability, Contractors Pollution Liability, Marine P&I and Excess Marine Liability policies as required by written contract.

With respect to the evidenced coverages, the Insurer shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority.

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

☒☒Named Insured: Agate Construction Comp

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 04/01/2010

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
877-945-7378 Willis of Pennsylvania, Inc. 26 Century Blvd. P. O. Box 305191 Nashville, TN 37230-5191	INSURERS AFFORDING COVERAGE / NAIC#
INSURED Agate Construction Company, Inc. P.O. Box 107 Ocean View, NJ 08230	INSURER A: Arch Insurance Company — 11150-001 INSURER B: Arch Insurance Company — 11150-076 INSURER C: Great American E&S Insurance Company — 16691-003 INSURER D: INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
		GENERAL LIABILITY				EACH OCCURRENCE	$
		[ ] COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurence)	$
		[ ] CLAIMS MADE [ ] OCCUR				MED EXP (Any one person)	$
						PERSONAL & ADV INJURY	$
		GEN'L AGGREGATE LIMIT APPLIES PER:				GENERAL AGGREGATE	$
		[ ] POLICY [ ] PRO-JECT [ ] LOC				PRODUCTS - COMP/OP AGG	$
A		AUTOMOBILE LIABILITY	11PKG2281703	4/1/2010	4/1/2011	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
		[X] ANY AUTO				BODILY INJURY (Per person)	$
		[ ] ALL OWNED AUTOS					
		[ ] SCHEDULED AUTOS				BODILY INJURY (Per accident)	$
		[X] HIRED AUTOS					
		[X] NON-OWNED AUTOS				PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
		[ ] ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
B	X	EXCESS / UMBRELLA LIABILITY	ULP001415504	4/1/2010	4/1/2011	EACH OCCURRENCE	$ 5,000,000
		[X] OCCUR [ ] CLAIMS MADE				AGGREGATE	$ 5,000,000
		[ ] DEDUCTIBLE					$
		[X] RETENTION $ 10,000					$
							$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS [ ] OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [ ]				E.L. EACH ACCIDENT	$
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	$
						E.L. DISEASE - POLICY LIMIT	$
C		OTHER Contractors Pollution Liability	PCE488481202	4/1/2010	4/1/2011	$ 5,000,000 Each Occurrence $10,000,000 Aggregate	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

THIS VOIDS AND REPLACES PREVIOUSLY ISSUED CERTIFICATE DATED: 3/30/2010 WITH ID: 14002929

Project: Port Newark Berths 36 & 63 Wharf Reconstruction (Contract PN-800.219).

See Attached.

CERTIFICATE HOLDER

Port Authority of NY & NJ
c/o Ebix BPO
P.O. Box 881639
San Diego, CA 92168-1639

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

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Willis **CERTIFICATE OF LIABILITY INSURANCE** Page 2 of 3

DATE 04/01/2010

PRODUCER 877-945-7378

Willis of Pennsylvania, Inc.
26 Century Blvd.
P. O. Box 305191
Nashville, TN 37230-5191

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Agate Construction Company, Inc.
P.O. Box 107
Ocean View, NJ 08230

INSURERS AFFORDING COVERAGE	NAIC#
INSURER A: Arch Insurance Company	11150-001
INSURER B: Arch Insurance Company	11150-076
INSURER C: Great American E&S Insurance Company	16691-003
INSURER D:	
INSURER E:	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Hull and P&I:
Policy #OHL92001545
Carrier: Fireman's Fund Insurance Company
Effective Date: 4/01/2010
Expiry date: 04/01/2011
Limits: P&I: $1,000,000
Hull: Total Insured Value

Excess Marine:
Policy #MMOML10049509
Carrier: New York Marine & General Insurance
Effective Date: 4/01/2010
Expiry date: 04/01/2011
Limits: 4,000,000 Excess Underlying Limits

The Port Authority of New York & New Jersey is included as an Additional Insured under Contractors Pollution Liability and Marine P&I and Excess Marine Liability policies as required by written contract or agreement as respects the referenced project.

With respect to the evidenced coverages, The Insurer shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority.

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

			08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
	WM	REG	0.00	0.00	8.00	7.00	6.00	8.00	0.00	29.00	43.020	0.00	0.00	1247.58
MANCINI, ALEX		OT	0.00	0.00	0.00	1.00	1.00	2.00	8.00	12.00	64.530	0.00	0.00	774.36
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	8.00	0.00	1.00	0.00	0.00	0.00	9.00	43.020	0.00	0.00	387.18

Exemption (1)

Filing Status M Dependents EEO: White-Male M
**Job Class B13 825 CRANE LONG BOOM >140' Total Dollars This Job Class 2409.12

Exemption (1)

Week Ending 08/28/2010 Total Gross 2465.12 Taxable Gross 2465.12
Employee Totals 0.00 8.00 8.00 9.00 7.00 10.00 8.00 50.00 Check Number - 00075063

	WM	REG	0.00	0.00	8.00	7.00	8.00	8.00	0.00	31.00	43.020	0.00	0.00	1333.62
CANDELETTI, JAMES		OT	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	64.530	0.00	0.00	129.06
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	8.00	0.00	1.00	0.00	0.00	0.00	9.00	43.020	0.00	0.00	387.18

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
Total Benefits This Job Class									26.44	1067.69		43.00

Filing Status M Dependents EEO: White-Male M
**Job Class B13 825 CRANE LONG BOOM >140' Total Dollars This Job Class 1849.86

Exemption (1)

Week Ending 08/28/2010 Total Gross 1892.86 Taxable Gross 1892.86
Employee Totals 0.00 8.00 8.00 8.00 8.00 10.00 0.00 42.00 Check Number - 00075013

	WM	REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	33.100	0.00	0.00	66.20
SIMPKINS, STEVEN		OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	49.650	0.00	0.00	198.60
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Filing Status M Dependents EEO: White-Male M

**Job Class A01 172/472 FOREMAN Total Dollars This Job Class 264.80

Exemption (1)

Week Ending 08/28/2010 Total Gross 1919.43 Taxable Gross 1919.43 Check Number - 00075091

Employee	Totals		0.00	9.50	9.50	9.50	13.00	8.00	0.00	49.50				
	BM	REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	31.550	0.00	0.00	63.10
BRYANT, ANDRE		OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	47.325	0.00	0.00	189.30
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status S Dependents EEO: Black or African American M

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class A22 172/472 C LABOR PIP/POW										Total Dollars This Job Class		252.40

Exemption (1)

Week Ending 08/28/2010 Total Gross 1506.39 Taxable Gross 1506.39

Employee	Totals		6.00	0.00	0.00	0.00	6.00	12.50	7.00	31.50			Check Number - 00075011
	WM	REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	31.550	0.00	0.00	63.10
RODRIGUES, ABEL		OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	47.325	0.00	0.00	189.30
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status M Dependents EEO: White-Male M

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class A22 172/472 C LABORER PIP/POW									Total Dollars This Job Class		252.40	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2091.10 Taxable Gross 2091.10

Employee	Totals	0.00	8.00	7.00	7.00	12.00	13.00	7.00	54.00			Check Number - 00075084	
	WM REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	31.550	0.00	0.00	63.10
FERREIRA, JUSCELINO	OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	47.325	0.00	0.00	189.30
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status S Dependents EEO: White-Male M

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class A22 172/472 C LABORER PIP/POW								Total Dollars This Job Class			252.40	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2527.89 Taxable Gross 2527.89

Employee	Totals	6.00	8.00	8.00	8.00	12.00	12.50	7.00	61.50				Check Number - 00075033
WM	REG	0.00	0.00	0.00	0.00	8.00	0.00	0.00	8.00	43.020	0.00	0.00	344.16
MCELROY JR., DONALD	OT	0.00	0.00	0.00	0.00	4.50	0.00	0.00	4.50	64.530	0.00	0.00	290.39
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status M Dependents EEO: White-Male M

Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class B13 825 CRANE LONG BOOM >140'								Total Dollars This Job Class				634.55

Exemption (1)

Week Ending 08/28/2010 Total Gross 649.30 Taxable Gross 649.30

Employee		Totals	0.00	0.00	0.00	0.00	12.50	0.00	0.00	12.50			Check Number - 00075066
	WM	REG	0.00	0.00	8.00	7.00	8.00	0.00	0.00	23.00	50.410	0.00	0.00 1159.43
LARSEN, MARK		OT	0.00	0.00	0.00	2.00	2.00	2.00	8.00	14.00	75.615	0.00	0.00 1058.61
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00 0.00
		OTH	0.00	8.00	0.00	1.00	0.00	0.00	0.00	9.00	50.410	0.00	0.00 453.69

Exemption (1)

Filing Status M Dependents EEO: White-Male M

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class D02 1456 DB GENERAL FOREMAN										Total Dollars This Job Class		2671.73	

Exemption (1)

Week Ending 08/28/2010 Total Gross 3518.03 Taxable Gross 3518.03 Check Number - 00075059

Employee	Totals		0.00	8.00	8.00	10.00	10.00	11.00	8.00	55.00				
	HM	REG	0.00	0.00	8.00	0.00	8.00	6.00	0.00	22.00	38.780	0.00	0.00	853.16
AGRIDIANO, JOSE		OT	0.00	0.00	0.00	0.00	2.00	3.00	8.00	13.00	58.170	0.00	0.00	756.21
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status M Dependents EEO: Hispanic or Latino-Male M

**Job Class D36 1456 DOCKBUILDER-NJ										Total Dollars This Job Class		1686.93	

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

			08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
Week Ending 08/28/2010			Total Gross 1934.09 Taxable Gross 1934.09											
Employee	Totals		0.00	1.00	8.00	1.00	10.00	9.00	8.00	37.00				Check Number - 00075005
	WM	REG	0.00	0.00	8.00	7.00	8.00	8.00	0.00	31.00	38.780	0.00	0.00	1202.18
ZANGHI, CHARLES		OT	0.00	0.00	0.00	2.00	2.00	3.00	8.00	15.00	58.170	0.00	0.00	872.55
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Exemption (1)

Filing Status M Dependents EEO: White-Male M
**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 2152.29

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

			08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 2472.93 Taxable Gross 2472.93
Employee Totals 0.00 1.00 8.00 10.00 10.00 11.00 8.00 48.00 Check Number - 00075103

	WM	REG	0.00	0.00	8.00	0.00	8.00	8.00	0.00	24.00	38.780	0.00	0.00	930.72
DEAN, MICHAEL		OT	0.00	0.00	0.00	0.00	2.00	3.00	8.00	13.00	58.170	0.00	0.00	756.21
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status S Dependents EEO: White-Male M
**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 1764.49

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 2025.01 Taxable Gross 2025.01

Employee		Totals	0.00	1.00	8.00	1.00	10.00	11.00	8.00	39.00				Check Number - 00075024
	WM	REG	0.00	0.00	8.00	0.00	8.00	8.00	0.00	24.00	38.780	0.00	0.00	930.72
CARLSEN, GARY		OT	0.00	0.00	0.00	0.00	2.00	3.00	8.00	13.00	58.170	0.00	0.00	756.21
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status M Dependents EEO: White-Male M

**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 1764.49

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

			08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 2025.01 Taxable Gross 2025.01
Employee Totals 0.00 1.00 8.00 1.00 10.00 11.00 8.00 39.00 Check Number - 00075015

	BM	REG	0.00	0.00	8.00	0.00	8.00	5.00	0.00	21.00	38.780	0.00	0.00	814.38
WRIGHT, WALTER		OT	0.00	0.00	0.00	0.00	0.50	3.00	0.00	3.50	58.170	0.00	0.00	203.60
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status S Dependents . EEO: Black or African American M
**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 1095.54

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 1272.56 Taxable Gross 1272.56 Check Number - 00075100

Employee	Totals	0.00	1.00	8.00	1.00	8.50	8.00	0.00	26.50				
	WM REG	0.00	0.00	8.00	0.00	0.00	0.00	0.00	8.00	31.020	0.00	0.00	248.16
BRENNER III, BARTHOLO	OT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	31.020	0.00	0.00	62.04

Exemption (1)

Filing Status S Dependents EEO: White-Male M
**Job Class D40 1456 DB APPRENTICE Total Dollars This Job Class 310.20

Deductions

Exemption (1)

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 343.60 Taxable Gross 343.60
Employee Totals 0.00 1.00 8.00 1.00 0.00 0.00 0.00 10.00 Check Number - 00075009

	WM REG	0.00	6.00	8.00	0.00	8.00	4.00	0.00	26.00	38.780	0.00	0.00	1008.28
MICHAELS, JOHN	OT	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50	58.170	0.00	0.00	29.09
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	2.00	0.00	1.00	0.00	0.00	0.00	3.00	38.780	0.00	0.00	116.34

Exemption (1)

Filing Status M Dependents EEO: White-Male M
**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 1153.71

Deductions

Exemption (1)

02 SEP 2010

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Week Ending 08/28/2010 Total Gross 1350.77 Taxable Gross 1350.77 Check Number - 00075068

Employee	Totals		0.00	8.00	8.00	1.00	8.50	4.00	0.00	29.50				
	WM	REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	31.550	0.00	0.00	63.10
DACOSTA, BENEDITO		OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	47.325	0.00	0.00	189.30
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status S Dependents EEO: White-Male M

**Job Class A22 172/472 C LABORER PIP/POW Total Dollars This Job Class 252.40

Deductions

Exemption (1)

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
Week Ending 08/28/2010					Total Gross	1682.50	Taxable Gross	1682.50					
Employee	Totals	6.00	0.00	8.00	8.00	12.00	8.00	0.00	42.00				Check Number - 00004150
	BM REG	0.00	0.00	8.00	7.00	8.00	8.00	0.00	31.00	38.780	0.00	0.00	1202.18
POTTINGER, TEDDY	OT	0.00	0.00	0.00	2.00	2.00	3.00	8.00	15.00	58.170	0.00	0.00	872.55
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Exemption (1)

Filing Status M Dependents EEO: Black or African American M

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class D36 1456 DOCKBUILDER-NJ								Total Dollars This Job Class			2152.29	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2472.93 Taxable Gross 2472.93 Check Number - 00075078

Employee	Totals		0.00	1.00	8.00	10.00	10.00	11.00	8.00	48.00				
FREITAS, PAULO	WM	REG	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00	31.550	0.00	0.00	63.10
		OT	0.00	0.00	0.00	0.00	4.00	0.00	0.00	4.00	47.325	0.00	0.00	189.30
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

Filing Status M Dependents EEO: White-Male M

Certified Payroll Report
100 Agate Construction Company,Inc - Fed ID
P.O. Box 107; 1030 Rt 83 - (609)624-9090
Ocean View, NJ 08230-0107
Employee Gross/Deductions For Employee
For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class A22 172/472 C LABORER PIP/POW									Total Dollars This Job Class		252.40	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2159.20 Taxable Gross 2159.20

Employee	Totals		0.00	8.00	8.00	8.00	12.00	13.00	7.00	56.00				Check Number - 00075039
	WM	REG	0.00	0.00	8.00	7.00	8.00	5.00	0.00	28.00	38.780	0.00	0.00	1085.84
LEYES, WILLIAM		OT	0.00	0.00	0.00	2.00	2.00	3.00	8.00	15.00	58.170	0.00	0.00	872.55
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status S Dependents EEO: White-Male M

02 SEP 2010

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For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class D36 1456 DOCKBUILDER-NJ								Total Dollars This Job Class			2035.95	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2336.55 Taxable Gross 2336.55 Check Number - 00075061

Employee	Totals	0.00	1.00	8.00	10.00	10.00	8.00	8.00	45.00				
	BM REG	0.00	0.00	8.00	7.00	8.00	8.00	0.00	31.00	38.780	0.00	0.00	1202.18
POTTINGER JR, THEODOR	OT	0.00	0.00	0.00	2.00	2.00	3.00	8.00	15.00	58.170	0.00	0.00	872.55
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status S Dependents EEO: Black or African American M

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Ocean View, NJ 08230-0107
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For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class D36 1456 DOCKBUILDER-NJ									Total Dollars This Job Class		2152.29	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2472.93 Taxable Gross 2472.93

Employee	Totals		0.00	1.00	8.00	10.00	10.00	11.00	8.00	48.00				Check Number - 00075077
	WM	REG	0.00	0.00	0.00	7.00	8.00	8.00	0.00	23.00	38.780	0.00	0.00	891.94
KVARTEK, JOHN		OT	0.00	0.00	0.00	2.00	2.00	3.00	0.00	7.00	58.170	0.00	0.00	407.19
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

Exemption (1)

Filing Status S Dependents EEO: White-Male M

08342 PANYNJ: Berths 36&63 Rec OCIP

		08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
**Job Class D36 1456 DOCKBUILDER-NJ									Total Dollars This Job Class			1376.69	
	REG	0.00	0.00	8.00	0.00	0.00	0.00	0.00	8.00	48.520	0.00	0.00	388.16
	OT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	8.00	72.780	0.00	0.00	582.24
	DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
	OTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00

Exemption (1)

**Job Class D38 1456 MARINE DIVER										Total Dollars This Job Class		970.40	

Exemption (1)

Week Ending 08/28/2010 Total Gross 2667.73 Taxable Gross 2667.73

Employee	Totals		0.00	1.00	8.00	10.00	10.00	11.00	8.00	48.00				Check Number - 00004225
	WM	REG	0.00	0.00	8.00	7.00	8.00	8.00	0.00	31.00	38.780	0.00	0.00	1202.18
ZANGHI, JASON		OT	0.00	0.00	0.00	2.00	2.00	3.00	8.00	15.00	58.170	0.00	0.00	872.55
		DBL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00
		OTH	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00	38.780	0.00	0.00	77.56

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay

Exemption (1)

Filing Status M Dependents EEO: White-Male M

**Job Class D36 1456 DOCKBUILDER-NJ Total Dollars This Job Class 2152.29

Exemption (1)

Week Ending 08/28/2010 Total Gross 2472.93 Taxable Gross 2472.93

Employee Totals 0.00 1.00 8.00 10.00 10.00 11.00 8.00 48.00 Check Number - 00075104

Project Totals Total Project Hours 652.50 Total Project Gross 29,859.61

Week Ending Totals for Employees Reported on this Project

Deductions		
01	Federal Income Tax	7,205.85
1DE	NJ DISABILITY EE	105.88
1FLI	NJ FAMILY LEAVE INSURANCE	26.96
1UE	NJ SUI EE	89.98
02	Fica - Employee	2,744.06
05	Medicare Employee	641.74
07	NJ State Income Tax	1,582.54
08	PASWH	108.00
1456	1456 VACATION	3,413.48
1720	172 DUES CHECKOFF	3.48
1725	172 VACATION FUND	5.00
1729	172 NJSLPAC	0.30
1730	172 LIUNA LEROF	0.80
4569	1456 ASSESSMENT	478.37
4601	1456 APPR VACATION	33.40

08342 PANYNJ: Berths 36&63 Rec OCIP

	08/22 SUN	08/23 MON	08/24 TUE	08/25 WED	08/26 THU	08/27 FRI	08/28 SAT	Total Hours	Hourly Rate	Fringe Bnfts.	Hourly Fringe	Gross Pay
4702 472 DUES											276.27	
4725 472 VACATION FUND											731.25	
4729 472 NJSLPAC											43.89	
4730 472 LIUNA LEROF											117.00	
8250 825 DUES											150.22	
8255 825 SAVINGS FUND											113.75	
8258 825 POL ACTION											5.72	

Total Hours 920.00 Total Gross 44,258.86 Total Taxable 44258.86 Total Deductions 17,877.94 Net 26,380.92

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For Pay Period Ending 08/28/2010
Payroll Number 97

08342 PANYNJ: Berths 36&63 Rec OCIP

Statement of Compliance

I, Traci Wittenwiler, Payroll do hereby state

(1) That I pay or supervise the payment of the persons employed by Agate Construction Company,Inc on the PANYNJ: Berths 36&63 Rec OCIP;
that during the payroll period commencing on the 22nd day of August, 2010 and ending the 28th day of August, 2010, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said Agate Construction Company,Inc from the full weekly wages earned by person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat.967; 76 Stat. 357; 40 U.S.C. 276c) and described below:

Deductions as Detailed on Accompanying Report

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination Incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS

X In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4 (c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

Exception (Craft)	Explanations

Traci Wittenwiler

Traci Wittenwiler
Payroll

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

Payroll Certification Report
2009-9-Berths 36&63 Wharf Reconstruct
08/23/10 To 08/29/10

Name / Address / SS No / Trade Desc	Exmp	EARN CODE	MON 08/23	TUE 08/24	WED 08/25	THU 08/26	FRI 08/27	SAT 08/28	SUN 08/29	WEEK TOTAL	PAY RATE	JOB WAGES
Kellett, Robert		OVT						8.00		8.00	34.540	414.48
		REG	8.00	8.00	8.00					24.00	34.540	828.96
		TFRG										319.32
		TOT								32.00		
Journeymen												
Lawson, Chris S		2OVT						4.00		4.00	34.540	207.24
		REG					4.00			4.00	34.540	138.16
		TFRG										88.70
		TOT								8.00		
Journeymen												
Miller, Daniel		OVT						8.00		8.00	37.540	450.48
		REG	8.00	8.00	8.00					24.00	37.540	900.96
		TFRG										319.32
		TOT								32.00		
Foreman												
Reinbold, Eric M		4OVT						4.00		4.00	37.540	225.24
		REG					4.00			4.00	37.540	150.16
		TFRG										88.70
		TOT								8.00		
Foreman												

Exemption (1)

Job Hours	Job Pay Tot Gross	NonTax Fringe Taxable Fringe	FIT FICA	State Local	Union Miscellaneous	Tot Deductions	Job Net
80.00	4,131.72	2,766.44	575.85	128.89	944.84	1,991.36	2,140.36
	6,639.16		316.07	25.71			

WEEK NUMBER: 20

DATE: 08/31/10

; Katherine Shults , President
(Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise payment of the persons employed by Phoenix Rebar on the Berths 36&63 Wharf Reconstruct ;

that during the payroll period commencing on the 23 rd day of August 2010 , and ending the 29th day of August 2010 all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly. On behalf of said Phoenix Rebar from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967, 76 Stat. 357, 40 U.S.C. 3145), and described below:

FICA, Medicare, Federal/State/Local Withholding Taxes

District Council, IPAL Deduction, Organ and Recovery Fund

Pac Deduction, Vacation Fund, Working Assessment

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

___ Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4 (c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

Katherine Shults
President

Signature: Katherine Shults

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.