



January 9, 2024

**TO ALL PROSPECTIVE BIDDERS UNDER SPECIFICATION NO. HD-S3125A,
PIER D BERTHS 32-34 QUAY WALL REPAIR
AT 601 PIER D AVENUE
LONG BEACH, CALIFORNIA**

ADDENDUM NO. 1

In order to clarify the bid documents, the following modifications to the Notice Inviting Bids are to be construed as part of the documents upon which bidders shall prepare their proposals and to supplant provisions appearing elsewhere in the documents which may be in conflict therewith. Material to be added is indicated by underline type. Material to be deleted is indicated by ~~striketrough type~~. The location of the changes on each page is also indicated by a vertical bar in the margin. The addendum number and date is indicated at the bottom of each page on the left side in the footer. The page number for each revised page shall be shown center with an "R" and the number of the addendum.

**PLEASE NOTE: THIS ADDENDUM POSTPONES THE BID DEADLINE TO
TUESDAY, FEBRUARY 6, 2024.**

THE Q&A PERIOD IS EXTENDED TO JANUARY 30, 2024.

NOTICE INVITING BIDS

1. **Replace** pages N-1 and N-2 with the attached revised pages N-1-R1 and N-2-R1.

Sincerely,

Suzanne Plezia, P.E.
Senior Director/Chief Harbor Engineer

Attachments

NOTICE INVITING BIDS

NOTICE IS HEREBY GIVEN that the City of Long Beach, California, acting by and through the City's Board of Harbor Commissioners ("City") will receive, **before** the Bid Deadline established below, Bids for the following Work:

PIER D BERTHS 32-34 QUAY WALL REPAIR

at
601 PIER D AVE
LONG BEACH, CALIFORNIA

AS DESCRIBED IN SPECIFICATION NO. HD-S3125A

Bid Deadline:	Prior to 2:00 p.m. on Tuesday, February 6 January 16, 2024. Bids shall be submitted electronically via the Port of Long Beach PlanetBids (PB) System prior to 2:00 p.m.
Bid Opening:	Electronic Bid (eBid) results shall be viewable online in the PB System immediately after the Bid Deadline.
Contract Documents Available:	Download Contract Documents from the Port of Long Beach PB System Vendor Portal: www.polb.com/sbe Click on the POLB Vendor Portal <ol style="list-style-type: none">1. Register and Log In2. Click "Bid Opportunities"3. Click on respective bid Project Title4. Click on Documents tab5. For each attachment, click "Download" For assistance in downloading these documents please contact Port of Long Beach Plans and Specs Desk at 562-283-7353.
Non-Mandatory Pre-Bid Meeting:	Date/Time: December 12, 2023 at 10:00 AM Location: Microsoft TEAMS (virtual) Click here to join the meeting Meeting ID: 292 475 876 316 Passcode: H6GnYj Or call in (audio only) +1 323-451-1087 , 950418167# United States, Los Angeles Phone Conference ID: 950 418 167#
Project Contact Person:	Victor Sagredo, victor.sagredo@polb.com
<i>Please refer to the Port of Long Beach PB System for the most current information.</i>	

NIB -1 Contract Documents. Contract Documents may be downloaded, at no cost, from the Port of Long Beach PB System Vendor Portal website. Bidders must first register as a vendor on the Port of Long Beach PB System website in order to view and download the Contract Documents, to be added to the prospective bidders list, and to receive addendum notifications when issued.

For the link to the Port of Long Beach PB System and for information on this Project and other upcoming Port projects, you may view the Port website at www.polb.com/business/business-opportunities.

Copies of all Port insurance endorsement forms, SBE/VSBE Program forms, Harbor Development Permit Applications and other Port forms are available at www.polb.com/business/permits.

NIB -2 Pre-Bid Questions. All questions, including requests for interpretation or correction, or comments regarding the Contract Documents, must be submitted **no later than January 30 January 9, 2024, at 5 p.m.** Questions received after the pre-Bid question deadline will not be accepted.

Questions must be submitted electronically through the PB System. Emails, phone calls, and faxes will not be accepted. Questions submitted to City staff will not be addressed and Bidder will be directed to the PB System.

NIB -3 Non-Mandatory Pre-Bid Meeting. The engineering staff of the City's Harbor Department will conduct a virtual pre-bid meeting at 10:00 AM, on December 12, 2023, via Microsoft TEAMS at the link provided above. Attendance is optional.

The City makes no guarantee that existing construction and site conditions matches construction depicted on record reference documents. It shall be the Bidder's responsibility to identify existing conditions.

Note that attendance at the pre-bid meeting can be used to satisfy a portion of a Bidder's good faith efforts to meet the SBE/VSBE participation goals listed below.

NIB -4 Summary Description of the Work. The Work required by this Contract includes, but is not limited to, the following: Waterside repair of the quay wall at Berths D32 to D34 at the Port of Long Beach. Work includes above water concrete spall repair and filling large underwater wall voids. Voids repairs involve closing individual voids and pumping resulting cavity with flowable fill. All void repair work to be performed underwater. See Section 01 11 00, Summary of Work in the Technical Specifications.

NIB -5 Contract Time and Liquidated Damages. The Contractor shall achieve Substantial Completion of Work within 199 calendar days and Affidavit of Final Completion of the Project within 304 calendar days as provided in Paragraph SC -

January 31, 2024

**TO ALL PROSPECTIVE BIDDERS UNDER SPECIFICATION NO. HD-S3125A,
PIER D BERTHS 32-34 QUAY WALL REPAIR
AT 601 PIER D AVENUE
LONG BEACH, CALIFORNIA**

ADDENDUM NO. 2

In order to clarify the bid documents, the following modifications to the Notice Inviting Bids, Special Conditions, Technical Specifications, Drawings, and Schedule of Bid Items are to be construed as part of the documents upon which bidders shall prepare their proposals and to supplant provisions appearing elsewhere in the documents which may be in conflict therewith. Material to be added is indicated by underline type. Material to be deleted is indicated by ~~striketrough type~~. The location of the changes on each page is also indicated by a vertical bar in the margin. The addendum number and date is indicated at the bottom of each page on the left side in the footer. The page number for each revised page shall be shown center with an "R" and the number of the addendum.

**PLEASE NOTE: THIS ADDENDUM POSTPONES THE BID DEADLINE TO
TUESDAY, FEBRUARY 27, 2024.**

THE Q&A PERIOD IS EXTENDED TO FEBRUARY 20, 2024.

NOTICE INVITING BIDS

1. **Replace** pages N-1-R1 and N-2-R1 with the attached revised pages N-1-R2 and N-2-R2.

SPECIAL CONDITIONS

1. **Replace** pages S-10 through SC-14 with the attached revised pages S-10-R2 through S-14-R2 and the addition of pages S-14A-R2 through S-14E-R2.

TECHNICAL SPECIFICATIONS

1. **Replace** page 01 20 00-5 with the attached revised page 01 20 00-5-R2.
2. **Delete** Section 01 76 00 in its entirety.
3. **Replace** pages 03 11 00-1 through 03 11 00-3 with the attached revised pages 03 11 00-1-R2 through 03 11 00-3-R2.
4. **Replace** page 35 53 53.71-4 with the attached revised page 35 53 53.71-4-R2.

DRAWINGS

1. **Replace** Drawing 10-09136-GN003 (Sheet 03 of 15) with the attached revised Drawing 10-09136-GN003 indicated by Delta No. 1 revision.

SCHEDULE OF BID ITEMS (LINE ITEMS TAB IN PLANETBIDS)

1. A Base Bid Item "Dive Supervisor" has been added to the Schedule of Bid Items on the Line Items tab in PlanetBids.
2. The Reference for Bid Item 69 "Specialized Equipment" has been changed to Special Conditions SC-29.

Sincerely,



Suzanne Plezia, P.E.
Senior Director/Chief Harbor Engineer

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Project Contact Person:	Victor Sagredo, victor.sagredo@polb.com
<i>Please refer to the Port of Long Beach PB System for the most current information.</i>	

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NIB -5 Contract Time and Liquidated Damages. The Contractor shall achieve Substantial Completion of Work within 199 calendar days and Affidavit of Final Completion of the Project within 304 calendar days as provided in Paragraph SC -

Contractor's performance of this Work

5. Make copy of the Documentation without City's express prior written consent
6. Make copy of the Application
7. Allow multiple individuals to utilize the same username and password or otherwise circumvent the intended purpose of the Named User license structure.

III. MODIFICATIONS TO THE GENERAL CONDITIONS

SC – 8 NOT USED

SC – 9 NOT USED

SC – 10 NOT USED

SC – 11 NOT USED

SC – 12 INDEMNITY

Refer to General Conditions, GC-3.18 for Indemnification.

SC – 13 INSURANCE

SC – 13.1 Post-Award Insurance Conference

At the direction of the Engineer, the Contractor, Contractor's risk manager and Contractor's insurance broker shall participate in a mandatory conference with the Port's Risk Management Division representative within ten (10) calendar days after the Conditional Award of the Project. The purpose of this mandatory conference will be to discuss the insurance requirements and forms. Failure to participate in this mandatory conference in person or by telephone may result in rescission of the Conditional Award, and the Port may award the Project to the next lowest qualified Contractor.

SC – 13.2 Insurance Requirements

The required insurance and the documents provided as evidence thereof shall be in the name of the Contractor and shall be provided as a condition precedent to the effectiveness of this Contract. If policies are written with aggregate limits, the aggregate limit shall be at least twice the occurrence limits or as specified below. Exact structure and layering of the coverage shall be left to the discretion of the Contractor. However, any excess or umbrella policies used to meet limits shall be at least as broad as the underlying coverages and shall otherwise "follow form". Package policies which contain more than a single coverage type and share primary per occurrence and/or aggregate limits are not permitted. Insurance coverage that requires the City to tender any claim or suit to its own insurer(s) or make its own insurance coverage available for any reason is not permitted. The full policy limits and scope of protection shall

apply to the additional insureds as required below even if they exceed the minimum insurance requirements specified herein.

Commercial General Liability:

Commercial General Liability insurance shall be provided on Insurance Services Office (ISO) CGL Form No. CG 00 01 or the equivalent, including provisions for defense of additional insureds and defense costs in addition to limits. Policy limits shall be no less than five million dollars (\$5,000,000) per occurrence for all coverage provided and ten million dollars (\$10,000,000) general aggregate. The policy shall not limit coverage for the additional insured to “ongoing operations” or in any way exclude coverage for completed operations. Coverage shall be included on behalf of the insured for claims arising out of the actions of independent contractors. The policy shall contain no provisions or endorsements limiting coverage for contractual liability or third party over action claims, and defense costs shall be excess of limits. If the Contractor is using Subcontractors the policy must include work performed “by or on behalf” of the Contractor. Coverage shall apply on a primary non-contributing basis in relation to any other insurance or self-insurance, primary or excess, available to City or any employee or agent of City. Coverage shall not be limited to the vicarious liability or supervisory role of any additional insured. Coverage shall not exclude contractual liability, restrict coverage to the sole liability of the Contractor, require the City to tender defense or indemnity to its insurer(s) or make its own insurance available, or contain any other exclusion contrary to the Contract.

If this coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the Contract with the City and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.

Coverage shall contain no contractors’ limitation or other endorsement limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

Coverage shall be provided for property damage or bodily injury that occurs on or within fifty feet of railroad property using ISO CG 24 17 (10 01) or its equivalent.

The policy of insurance required above shall be endorsed as follows:

Additional Insured: The City of Long Beach, its Board of Harbor Commissioners, employees and agents shall be added as additional insured with regard to liability and defense of suits or claims arising from the operations and activities performed by or on behalf of the Named Insured using ISO Forms CG 20 10 and CG 20 37 or their equivalent. Additional Insured endorsements shall not: 1) be limited to “on-going operations”, 2) exclude “Contractual Liability”, 3) restrict coverage to the sole liability of the contractor, or 4) contain any other exclusion contrary to the Contract.

Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Business Automobile Insurance:

Automobile Liability Insurance shall be written on ISO Business Auto Coverage Form CA 00 01 or the equivalent, including symbol (1) (any Auto). Limit shall be no less than one million dollars (\$1,000,000) combined single limit per accident. Coverage shall apply on a primary non-contributing basis in relation to any other insurance or self-insurance, primary or excess, available to City or any employee or agent of City. If Contractor does not own any vehicles, this requirement may be satisfied by a non-owned vehicle endorsement to the general and umbrella liability policies provided that a separate policy limit is provided for this coverage as required by this contract.

The policy of insurance required above shall be endorsed as follows:

Additional Insured: The City of Long Beach, its Board of Harbor Commissioners, employees and agents shall be added as additional insured with regard to liability and defense of suits or claims arising from the operations and activities performed by or on behalf of the Named Insured. Additional Insured endorsements shall not: 1) be limited to “on-going operations”, 2) exclude “Contractual Liability”, 3) restrict coverage to the sole liability of the contractor, or 4) contain any other exclusion contrary to the Contract.

Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Contractor’s Pollution Liability Insurance:

Contractors’ Pollution Liability insurance shall be provided on a Contractors Pollution Liability policy form or other policy form acceptable to City providing coverage for liability caused by pollution conditions arising out of the operations of Contractor. Coverage shall apply to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. The policy limit shall be no less than one million dollars (\$1,000,000) per claim and one million dollars (\$1,000,000) general aggregate. All activities contemplated in the Contract shall be specifically scheduled on the policy as “covered operations.” The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using Subcontractors the policy must include work performed “by or on behalf” of the insured. Coverage shall apply on a primary non-contributing basis in relation to any other insurance or self-insurance, primary or excess, available to City or any employee or agent of City.

If this coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the Contract with the Port and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.

The policy of insurance required above shall be endorsed as follows:

Additional Insured: The City of Long Beach, its Board of Harbor Commissioners, employees and agents shall be added as additional insured with regard to liability and defense of suits or claims arising from the operations and activities performed by or on behalf of the Named Insured. Additional Insured endorsements shall not: 1) be limited to “on-going operations”, 2) exclude “Contractual Liability”, 3) restrict coverage to the sole liability of the contractor, or 4) contain any other exclusion contrary to the Contract.

Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Workers’ Compensation:

Workers’ Compensation Insurance, as required by the State of California, and Employer’s Liability Insurance with a limit of not less than one million dollars (\$1,000,000) per accident for bodily injury and disease, plus coverage under the U.S. Longshore and Harbor Workers Compensation Act (USL&H), and Jones Act for employees performing services covered by said Act(s).

The policy of insurance required above shall be endorsed, as follows:

Waiver of Subrogation: A waiver of subrogation stating that the insurer waives all rights of subrogation against the City, its Board of Harbor Commissioners, employees and agents.

Cancellation: The policy shall not be cancelled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Watercraft Liability:

To include Protection & Indemnity with minimum limits of one million dollars (\$1,000,000) each occurrence, and Water Pollution Liability.

Water Pollution Liability shall include coverage for bodily injury (including death and mental anguish), property damage, defense costs and cleanup costs with minimum limits of one million dollars (\$1,000,000) each loss and one million dollars (\$1,000,000) in the aggregate.

Coverage shall apply on a Primary non-contributing basis in relation to any other insurance or self-insurance, primary or excess, available to City or any employee or agent of City.

If this coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the Contract with the Port and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.

The policy of insurance required above shall be endorsed as follows:

Additional Insured: The City of Long Beach, its Board of Harbor Commissioners, employees and agents shall be added as additional insured with regard to liability and defense of suits or claims

arising from the operations and activities performed by or on behalf of the Named Insured. Additional Insured endorsements shall not: 1) be limited to “on-going operations”, 2) exclude “Contractual Liability”, 3) restrict coverage to the sole liability of the contractor, or 4) contain any other exclusion contrary to the Contract.

Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Chief Executive Officer of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Professional Liability:

Professional Liability Insurance with minimum limits of one million dollars (\$1,000,000). Covered Professional Services shall specifically include all work to be performed under the Contract and delete any exclusions that may potentially affect the work to be performed (e.g., any exclusions relating to lead, asbestos, pollution, testing, underground storage tanks, laboratory analysis, soil work, etc.) under the Contract. If this coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the Contract with the Port and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.

The policy of insurance required above shall be endorsed, as follows:

Cancellation: The policy shall not be cancelled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the Chief Executive Officer of the Harbor, except ten (10) days shall be allowed for non-payment of premium.

Deductible/Self-Insured Retention

Any deductible or self-insured retention must be approved in writing by the Executive Director and shall protect the City, its Board of Harbor Commissioners, agents and employees in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention. Any deductible or self-insured retention must be approved in writing in accordance with City insurance guidelines.

Evidence of Insurance

The Contractor, concurrently with the execution of the Contract, and as a condition precedent to the effectiveness thereof, shall deliver either endorsements on forms approved by the City of Long Beach acting by and through the Board of Harbor Commissioners (“Evidence of Insurance”) or certified copies of the required policies containing the terms and conditions required by this contract to the Executive Director for approval as to sufficiency and to the City Attorney for approval as to form. The Port reserves the right to request certified policy copies at any time.

Insurance evidence as required herein shall be maintained until the date of Final Completion, with the exception of Builder’s Risk insurance which will end at Substantial Completion, unless otherwise set forth in the Special Conditions

At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance has been renewed or extended shall be filed with the Executive Director. If such coverage is cancelled or reduced, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the Executive Director evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.

NOTE: Samples of approved City endorsement forms are included at the rear of this specification book for reference. Forms for execution will be provided with the Contract. Copies of approved endorsement forms can be obtained from the Port website in lieu of, or in addition to the forms provided herein or with the Contract at:

<https://www.polb.com/business/permits#insurance-endorsement-forms>

Failure to Maintain Coverage

Contractor agrees to maintain the insurance coverage as required by the Contract Documents at all times. The City shall deduct from any payments otherwise due the Contractor an administrative fee of \$100 per day per policy for each lapsed policy until Contractor has fully complied with the insurance provisions of this Contract. In addition, per Article 14 of the General Conditions, the City has the right to suspend or terminate all Contractor operations for failure to maintain the required coverage. In the event that the Contractor's operations are suspended for failure to maintain required insurance coverage, the Contractor shall not be entitled to an extension of time for completion of the Work or delay damages resulting from the suspension.

Acceptability of Insurers

Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A-:VII, and authorized to do business in the State of California or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law. Any other rating must be approved in writing in accordance with the City insurance guidelines.

Contractual Liability

The coverage provided shall apply to the obligations assumed by the Contractor under the indemnity provisions of this Contract but this insurance provision in no way limits the indemnity provisions and the indemnity provisions in no way limit this insurance provision.

~~The required insurance and the documents provided as evidence thereof shall be in the name of the Contractor and shall be provided as a condition precedent to the effectiveness of this Contract. If policies are written with aggregate limits, the aggregate limit shall be at least twice the occurrence limits or as specified below. Exact structure and layering of the coverage shall be left to the discretion of the Contractor. However, any excess or umbrella policies used to meet limits shall be at least as broad as the underlying coverages and shall otherwise "follow form". Package policies which contain more than a single coverage type and share primary per~~

~~occurrence and/or aggregate limits are not permitted. Insurance coverage that requires the City to tender any claim or suit to its own insurer(s) or make its own insurance coverage available for any reason is not permitted. The full policy limits and scope of protection shall apply to the additional insureds as required below even if they exceed the minimum insurance requirements specified herein.~~

Commercial General Liability:

~~Commercial General Liability insurance shall be provided on Insurance Services Office (ISO) CGL Form No. CG 00 01 or the equivalent, including provisions for defense of additional insureds and defense costs in addition to limits. Policy limits shall be no less than five million dollars (\$5,000,000) per occurrence for all coverage provided and ten million dollars (\$10,000,000) general aggregate. The policy shall not limit coverage for the additional insured to "ongoing operations" or in any way exclude coverage for completed operations. Coverage shall be included on behalf of the insured for claims arising out of the actions of independent contractors. The policy shall contain no provisions or endorsements limiting coverage for contractual liability or third party over action claims, and defense costs shall be excess of limits. If the Contractor is using Subcontractors the policy must include work performed "by or on behalf" of the Contractor. Coverage shall apply on a primary non-contributing basis in relation to any other insurance or self insurance, primary or excess, available to City or any employee or agent of City. Coverage shall not be limited to the vicarious liability or supervisory role of any additional insured. Coverage shall not exclude contractual liability, restrict coverage to the sole liability of the Contractor, require the City to tender defense or indemnity to its insurer(s) or make its own insurance available, or contain any other exclusion contrary to the Contract.~~

~~If this coverage is written on a claims made basis, the retroactive date shall precede the effective date of the Contract with the City and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.~~

~~Coverage shall contain no contractors' limitation or other endorsement limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.~~

~~Coverage shall be provided for property damage or bodily injury that occurs on or within fifty feet of railroad property using ISO CG 24 17 (10 01) or its equivalent.~~

~~The policy of insurance required above shall be endorsed as follows:~~

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~~Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.~~

Business Automobile Insurance:

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Contractor's Pollution Liability Insurance:

~~Contractors' Pollution Liability insurance shall be provided on a Contractors Pollution Liability policy form or other policy form acceptable to City providing coverage for liability caused by pollution conditions arising out of the operations of Contractor. Coverage shall apply to bodily injury; property damage, including loss of use of damaged property or of property that has not been physically injured; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims. The policy limit shall be no less than one million dollars (\$1,000,000) per claim and one million dollars (\$1,000,000) general aggregate. All activities contemplated in the Contract shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using Subcontractors the policy must include work performed "by or on behalf" of the insured. Coverage shall apply on a primary non-contributing basis in relation to any other insurance or self insurance, primary or excess, available to City or any employee or agent of City.~~

~~If this coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the Contract with the Port and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Contract.~~

~~The policy of insurance required above shall be endorsed as follows:~~

~~Additional Insured: The City of Long Beach, its Board of Harbor Commissioners, employees and agents shall be added as additional insured with regard to liability and defense of suits or claims arising from the operations and activities performed by or on behalf of the Named Insured.~~

~~Additional Insured endorsements shall not: 1) be limited to "on-going operations", 2) exclude "Contractual Liability", 3) restrict coverage to the sole liability of the contractor, or 4) contain any other exclusion contrary to the Contract.~~

~~Cancellation: The policy shall not be cancelled or the coverage reduced by endorsement until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.~~

Workers' Compensation:

~~Workers' Compensation Insurance, as required by the State of California, and Employer's Liability Insurance with a limit of not less than one million dollars (\$1,000,000) per accident for bodily injury and disease, plus coverage under the U.S. Longshore and Harbor Workers Compensation Act (USL&H), for employees performing services covered by said Act.~~

~~The policy of insurance required above shall be endorsed, as follows:~~

~~Waiver of Subrogation: A waiver of subrogation stating that the insurer waives all rights of subrogation against the City, its Board of Harbor Commissioners, employees and agents.~~

~~Cancellation: The policy shall not be cancelled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the Executive Director of the Harbor, except ten (10) days shall be allowed for non-payment of premium.~~

Deductible/Self Insured Retention

~~Any deductible or self-insured retention must be approved in writing by the Executive Director and shall protect the City, its Board of Harbor Commissioners, agents and employees in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention. Any deductible or self-insured retention must be approved in writing in accordance with City insurance guidelines.~~

Evidence of Insurance

~~The Contractor, concurrently with the execution of the Contract, and as a condition precedent to the effectiveness thereof, shall deliver either endorsements on forms approved by the City of Long Beach acting by and through the Board of Harbor Commissioners ("Evidence of Insurance") or certified copies of the required policies containing the terms and conditions required by this contract to the Executive Director for approval as to sufficiency and to the City~~

~~Attorney for approval as to form. The Port reserves the right to request certified policy copies at any time.~~

~~Insurance evidence as required herein shall be maintained until the date of Final Completion, with the exception of Builder's Risk insurance which will end at Substantial Completion, unless otherwise set forth in the Special Conditions~~

~~At least fifteen (15) days prior to the expiration of any such policy, evidence of insurance showing that such insurance has been renewed or extended shall be filed with the Executive Director. If such coverage is cancelled or reduced, Contractor shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the Executive Director evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.~~

~~NOTE: Samples of approved City endorsement forms are included at the rear of this specification book for reference. Forms for execution will be provided with the Contract. Copies of approved endorsement forms can be obtained from the Port website in lieu of, or in addition to the forms provided herein or with the Contract at:~~

~~<https://www.polb.com/business/permits#insurance-endorsement-forms>~~

Failure to Maintain Coverage

~~Contractor agrees to maintain the insurance coverage as required by the Contract Documents at all times. The City shall deduct from any payments otherwise due the Contractor an administrative fee of \$100 per day per policy for each lapsed policy until Contractor has fully complied with the insurance provisions of this Contract. In addition, per Article 14 of the General Conditions, the City has the right to suspend or terminate all Contractor operations for failure to maintain the required coverage. In the event that the Contractor's operations are suspended for failure to maintain required insurance coverage, the Contractor shall not be entitled to an extension of time for completion of the Work or delay damages resulting from the suspension.~~

Acceptability of Insurers

~~Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A :VII, and authorized to do business in the State of California or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law. Any other rating must be approved in writing in accordance with the City insurance guidelines.~~

Contractual Liability

~~The coverage provided shall apply to the obligations assumed by the Contractor under the indemnity provisions of this Contract but this insurance provision in no way limits the indemnity provisions and the indemnity provisions in no way limit this insurance provision.~~

applicable OSHA and U.S. Coast Guard requirements and regulations shall be followed.

3. Underwater three-way dive radio communication system. The system shall be a full duplex (four wire) arrangement. The dive radio must accommodate two (2) divers, a tender at a base station and a wireless headset for continuous communication when the tender is required to be away from the base station. This system must also allow two divers (2), tender and Engineer to communicate in a telephone conference system that does not require push switch to transmit (talk) and/or receive (hear).
 4. Two (2) battery-operated portable handheld marine all-band 5-watt or more VHF transceivers that can transmit clearly between remote harbor areas. One shall be in the possession of the Contractor when working away from the work boat, and one in the possession of the Engineer during the contract period. Both units must have AC/DC charging adapters. Both must be approved by the Engineer.
 5. Underwater digital camera with a minimum of 10 mega pixels to record work progress. Photos are to be included in the Daily Reports.
- B. Contractor shall conduct the work in such a manner as to minimize obstructions to navigation. If the Contractor's equipment so obstructs any area as to make difficult or endanger the passage of vessels, said equipment shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Adequate navigational and safety markers and lights shall be placed and maintained on all floating equipment and other hazards to navigation.

2.05 OTHER EQUIPMENT

- A. In addition to the equipment described herein, Contractor shall provide the following when needed for prosecution of the Work:
1. Operated Stake Bed Truck, Minimum 2-ton Rating
 2. Operated Forklift, Minimum 14-ton Capacity
 3. Operated Trailer Mounted Concrete Pump
 4. Pneumatic Chipping Hammer with Bits
 5. Oxygen and Acetylene Cutting Torch Assembly
 6. Trailered Air Compressor
 7. Portable Saw, Minimum 6" Cutting Depth
 8. Mechanical Equipment Cleaner (Non-Blasting) – a hand-held tool for cleaning rebar and other surfaces with a wire brush or grinding wheel
 9. Portable Flood Lights
 10. Portable Generator, Minimum 10 kW

PART 3 -EXECUTION

NOT USED

SECTION 03 11 00
CONCRETE FORMING

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. Contractor shall design, construct, and place formwork and other related work complete, as necessary for above water facial wall repairs.

1.02 RELATED SECTIONS

- A. Section 03 30 10, "ABOVE WATER FACIAL WALL REPAIR"

1.03 REFERENCE DOCUMENTS

- A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; 2006.
- B. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute; 2005.
- C. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute; 2008.
- D. ACI 347 - Guide to Formwork for Concrete; American Concrete Institute; 2004

1.04 SUBMITTALS

Submittals shall be prepared and submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES".

- A. Product Data: Provide data on ~~void~~ form materials and installation requirements.
- B. Shop Drawings: Indicate pertinent dimensions, and materials.
- C. Form/Falsework plan

1.05 QUALITY ASSURANCE

- A. Design formwork by a Professional Civil or Structural Engineer licensed in the State of California experienced in design of concrete formwork.

1.06 REGULATORY REQUIREMENTS

- A. Conform to applicable code for design, fabrication, erection, and removal of formwork.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store forms off ground in ventilated and protected manner to prevent deterioration from moisture.

PART 2 - PRODUCTS

2.01 FORMWORK - GENERAL

A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.

~~B. Forms shall be supported by friction collars on the piles below the forms. No hangers from top of pile through the deck will be allowed.~~

~~C.B.~~ The design of formwork shall be the responsibility of the Contractor.

1. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.

~~D.C.~~ Comply with applicable State and local codes with respect to design, fabrication, erection, and removal of formwork.

~~E.D.~~ Comply with relevant portions of ACI 347, ACI 301, and ACI 318.

2.02 FORM MATERIALS

A. Form Materials: At the discretion of the Contractor.

1. Forms shall be of steel, fiberglass, plywood or dense particleboard and shall be carefully matched for uniform thickness over the entire surface to receive concrete repair.

2.03 FORMWORK ACCESSORIES

A. Form Release Agent: Colorless mineral oil that will not stain concrete.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify lines, levels, and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

B. Formed surfaces shall be prepared as specified in ACI 347.

3.02 ERECTION - FORMWORK

A. Forms shall be constructed sufficiently tight to prevent leakage, securely braced and shored to prevent displacement and to safely support construction loads. Access and openings shall be provided for cleaning and inspecting forms and reinforcing prior to depositing concrete. Wood forms shall be kept wet as necessary to prevent shrinkage.

B. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.

C. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.

~~D. Forms for exposed concrete shall provide for a one (1) inch chamfer on all external corners.~~

~~E. Form ties shall be of a type approved by the Engineer. They shall be of break back construction such that they leave no metal closer than two (2) inches from the concrete surface. After removal of forms, the tie holes shall be coated with an approved bonding agent and filled with dry pack grout.~~

3.03 APPLICATION - FORM RELEASE AGENT

- A. Forms shall be treated with suitable commercial form oil or other coating materials, which will prevent sticking of the concrete but will not cause softening or permanent staining of the concrete surface.
- B. The materials used for treating forms shall not impede the wetting of surfaces to be water cured or the proper functioning of sealing compounds used for curing. The coating material shall be applied uniformly by brush or spray and shall not be allowed to get on construction joints or reinforcement bars.
- C. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- D. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

3.04 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Embedded portion of embedded items shall be clean and free of oil and other deleterious substances that would interfere with proper bonding to the concrete.
- B. All anchors, bolts, sleeves, miscellaneous steel, piping, etc., that are required to be embedded in the concrete shall be properly set in the forms and checked by the Engineer prior to the placement of concrete.
- C. Provide formed openings where required for items to be embedded in passing through concrete work except for conduits where concrete can be placed directly against conduit.
- D. Locate and set in place items that will be cast directly into concrete.
- E. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
- F. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

3.05 ADJUSTING AND FORM CLEANING

- A. Immediately after the forms have been removed, all form bolts shall be removed to a depth of at least one (1) inch below the surface of the concrete. Within three (3) days after stripping of forms, all holes or depressions caused by setting back such

- h. Containment and Clean up: means and methods of containment and clean up, expected productivity rate / work schedule, required equipment and crew, and any other relevant information.
2. Updated Placement Plan: Upon acceptance of filling the trial voids and before starting full production, Contractor shall meet with the Engineer to discuss the procedure, results, and lessons learned. Contractor shall submit an Updated Placement Plan that incorporates all lessons learned and required changes to the production work plan and materials. The updated work plan and materials shall be submitted to the Engineer for review and approval prior to start of the production. If conditions are encountered that require a revision to the Updated Placement Plan, the Contractor shall submit a revised plan.
3. Diving Plans: For each day of diving, Contractor shall submit a dive plan that includes the names of the divers, tenders, ~~standby-backup~~ divers, boat operators, equipment operators, and backup personnel. Include a schedule of activities and dive times for each day. Diving plans shall be submitted to the Engineer the day before diving for that day begins. Unannounced switching with non-approved backup diver(s) and/or personnel is prohibited. A written request to change personnel must be submitted to the Engineer to ensure orderly transmittal of information between the Engineer and the Contractor's dive team(s). Contractor shall obtain written approval from the Engineer before commencing with work with the changed personnel.

C. Reports

1. Daily Reports: Include in Contractor's daily reports all work related to void filling including cleaning, preparation, void closure, void filling, and clean up. Include the date, location (station and elevation), photos, personnel, equipment used, material used (placed and waste), and type and amount of work accomplished. Provide copies of the daily report to the Engineer within 24 hours after completion. Engineer may perform independent inspections to verify the reports.
2. Pre-Construction Inspection Report and Post-Construction Inspection Report: Contractor shall prepare a pre-construction inspection report of the entire site for underwater void filling operations. Include pictures and video (if necessary) and a narrative describing the existing conditions of the quay wall and underwater environment before any construction or demolition work starts. After the work is completed, Contractor shall prepare a post-construction inspection report of the entire site including pictures and video (if necessary) and a narrative describing the work done closing and filling voids in the quay wall.

D. Certifications

1. Contractor shall submit certifications for all divers. All divers must be Certified Commercial Divers from an accredited diver training school, or equivalent, and have dive permit from the City of Long Beach Harbor Department, Security Division. Refer to Special Conditions SC-5.4.

GENERAL NOTES

A CODES AND REFERENCES

ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE FOLLOWING CODES AND REFERENCES:

- 1. CALIFORNIA BUILDING CODE (CBC) 2019.
- 2. AMERICAN CONCRETE INSTITUTE (ACI), BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, ACI 318-19, 2019.
- 4. PORT OF LONG BEACH WHARF DESIGN CRITERIA, VERSION 5.0, 2021.
- 5. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2021 EDITION.

B GENERAL

- 1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND PRIOR TO PROCEEDING.
- 2. STATIONING LISTED IN THESE DRAWINGS ARE BASED ON WHARF FOOTAGE MARKS PAINTED ALONG THE TIMBER BULL RAIL AND ARE CONSIDERED APPROXIMATE.
- 3. BERTH FRONTAGE OBSTRUCTED BETWEEN STA 0+40 THRU 03+15 BY FRONTAGE MOUNTED UTILITIES. TEMPORARILY SUSPEND UTILITIES AS NEEDED.
- 4. BERTH FRONTAGE OBSTRUCTED BETWEEN STA 0+90 THRU 03+30 BY POLB FIRE AND POLICE DEPARTMENT DOCKS.
- 5. DIMENSIONS AND ELEVATIONS INDICATED FOR EXISTING CONDITIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, STATIONS, AND ELEVATIONS.
- 6. PLANS AND DETAILS SHOWN ON THESE DRAWINGS OF THE EXISTING CONDITIONS ARE FROM THE ORIGINAL CONSTRUCTION DOCUMENTS AND AS FOUND IN THE FIELD AS OF DECEMBER 7, 2018. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND DETAILS PRIOR TO BEGINNING ALL ASSOCIATED WORK.
- 7. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- 8. CONTRACTOR SHALL DEMONSTRATE REPAIR METHODOLOGY AND EFFECTIVENESS TO ENGINEER BY REPAIRING TRIAL VOIDS PRIOR TO COMMENCING FULL RATE PRODUCTION. TRIAL VOIDS DESIGNATED FOR DEMONSTRATION ARE INDICATED ON DRAWINGS.

C WELDING

ALL WELDING IS TO BE DONE BY AWS CERTIFIED WELDERS ONLY. ALL WELDS SHALL BE IN CONFORMITY WITH PROJECT SPECIFICATIONS AND AWS D1.1 AND D1.4, LATEST REVISIONS. WELDING ELECTRODES FOR STRUCTURAL STEEL ANCHOR BOLTS SHALL BE E70XX.

D CONCRETE REPAIR NOTES:

REPAIR MATERIAL:

- 1. MINIMUM COMPRESSIVE STRENGTH OF ALL CAST-IN-PLACE CONCRETE SHALL BE 5,000 PSI.
- 2. SPALL REPAIRS TWO (2) SQUARE FEET OR LESS AND MAXIMUM REPAIR THICKNESS OF TWO (2) INCHES OR LESS MAY BE ACCOMPLISHED BY USING A SURFACE REPAIR MORTAR. SURFACE REPAIR MORTAR SHALL BE FACTORY BLENDED PATCHING MATERIAL COMBINED WITH A POLYMER TYPE ADMIXTURE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS FOR REPAIRS WHERE FORMING IS NOT REQUIRED.
- 3. CONCRETE PLACED ABOVE TIDAL ZONES, AND ABOVE WATER SHALL BE CAST-IN-PLACE AGAINST FORMWORK. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI, MAXIMUM WATER/CEMENT RATIO OF THE CONCRETE MIX SHALL BE 0.40. CONCRETE MIX SHALL CONTAIN CORROSION INHIBITING ADMIXTURE SUCH AS CALCIUM NITRATE AT 5.5 GALLONS PER CUBIC YARD. REFER TO SPECIFICATIONS FOR MORE DETAILS.

REINFORCING STEEL:

- 1. ALL REINFORCING BARS SHALL CONFORM TO ASTM A706, GRADE 60.
- 2. MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE 3" UNO.
- 3. SEE DETAILS 2-ST008 FOR WELDED SPLICE DETAILS.
- 4. WELDING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4).
- 5. REINFORCEMENT HOOKS AND BENDS SHALL BE STANDARD HOOKS CONFORMING TO THE PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE ACI 318-14 UNO.

D CONCRETE REPAIR NOTES (CONTINUED):

REPAIR PROCESS:

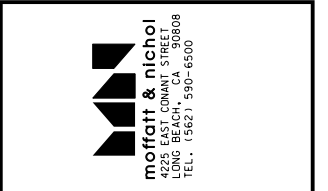
- 1. CONTRACTOR SHALL PROVIDE CATCHMENT DEVICE DURING THE REPAIR WORK TO PREVENT CONCRETE CHIPS AND OTHER DEBRIS FROM FALLING INTO THE WATER.
- 2. NO DISTINCTION IS MADE BETWEEN SPALLS AND DELAMINATIONS SINCE REPAIRS ARE THE SAME.
- 3. REMOVE ALL DELAMINATED OR DETERIORATED CONCRETE UNTIL SOUND CONCRETE IS ENCOUNTERED. CHIPPED OUT AREA SHALL EXTEND AN ADDITIONAL 2" ALL AROUND. ALL CONCRETE CHIPPING AND DEMOLITION SHALL BE PERFORMED BY A HAND-HELD 25lb. DEMOLITION HAMMER (MAX WEIGHT).
- 4. CHECK SURFACES TO ENSURE THAT THEY ARE FREE FROM LOOSE AGGREGATE OR ADDITIONAL DELAMINATIONS.
- 5. CHIPPED OUT AREA SHALL BE NO LESS THAN 1" CLEAR AROUND ALL EXPOSED REINFORCING BARS OR MOORING FITTING HOLD DOWN BOLTS.
- 6. EDGES OF THE CHIPPED OUT AREA SHALL BE SAWCUT PERPENDICULAR TO THE CONCRETE SURFACE FOR A MINIMUM DEPTH OF AT LEAST 1". DO NOT SAWCUT THROUGH EXISTING REINFORCING BARS. SAWCUT SHALL NOT EXTEND BEYOND CHIPPED OUT AREA.
- 7. ALL EXPOSED REINFORCING BARS SHALL BE CLEANED OF ALL SCALE, RUST, DIRT, OIL, OR ANY OTHER DELETERIOUS MATERIAL.
- 8. AFTER THE BAR HAS BEEN CLEANED BY HANDTOOLS OR WIRE BRUSH, MEASURE THE DIAMETER OF THE EXPOSED REINFORCING BARS AT THE EDGE OF THE CHIPPED OUT AREA TO DETERMINE THE ORIGINAL BAR SIZE. COMPARE THE BAR DIAMETERS WITHIN THE CHIPPED OUT AREA WITH THE DETAIL 1/ST008 AND REPLACE BARS AS REQUIRED.
- 9. ALL REINFORCING BARS SHALL REMAIN OR BE REPLACED IN KIND PER THESE DRAWINGS.
- 10. ALL ABOVE WATER FORMS SHALL BE WATER TIGHT.
- 11. REMOVE EXCESS CEMENT AND PARTICULATE SLURRY BEFORE CURING.
- 12. DO NOT FEATHER EDGES OF REPAIR.
- 13. CONTRACTOR SHALL VERIFY WITH ENGINEER ALL REPAIR TYPES THAT DIFFER FROM THE CONTRACT DRAWINGS AND SHALL NOT PROCEED WITH WORK UNTIL APPROVED BY THE ENGINEER.
- 14. MATCH EXISTING EDGE GEOMETRY ON EXPOSED CORNERS.
- 15. AT ALL INTERFACES BETWEEN EXISTING AND NEW CONCRETE, ROUGHEN EXISTING SURFACE TO 1/4" AMPLITUDE MINIMUM.

EXPANSION JOINT REPAIR

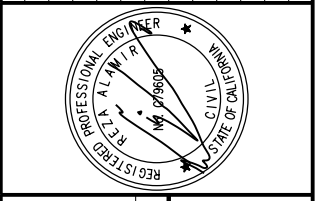
- 1. ANCHOR RODS SHALL BE 1/2" DIA. ASTM F1554 GALVANIZED HILTI HAS-V-36 THREADED ROD OR APPROVED EQUAL.
- 2. ANCHOR RODS SHALL BE SECURED WITH GALVANIZED A563 GRADE A HEAVY HEX NUTS.
- 3. ANCHOR ROD WASHERS SHALL BE ASTM F436 GALVANIZED STEEL.
- 4. ANCHOR ROD EPOXY SHALL BE HILTI HIT 500 V3 OR APPROVED EQUAL.
- 5. NEW STEEL PLATE SHALL BE GALVANIZED A36 STEEL.

WHARF DECK LIVE LOAD CAPACITY:

- 1. 250 PSF WITHIN 25 FT OF WHARF FACE.
- 2. 1000 PSF BEYOND 25 FT OF WHARF FACE.



MARK	DATE	BY	REVISION DESCRIPTION
▲ 01/24	FAR		ADDENDUM 1



1/30/2024 DATE

Cliff C. Heredia, P.E. No. C-6471 ASSISTANT DIRECTOR OF ENGINEERING DESIGN

Port of LONG BEACH
THE PORT OF CHOICE

SPEC. NO: HD-3125A	CONSTRUCTION REV:	DATE:
CADD STD. VER: 1.5	CHECKED BY: CL/RA	DATE: 08/24/2022
DWG. SCALE: 1"=200'	DRAWN BY: JS	DATE: 11/06/2023
EPOCH: 2007	DESIGNED BY: BC	POLB DM:
PROJECT MGR.:	DESIGN MGR.: RA	POLB PM:
HORIZONTAL CONTROL: NAD83-VF	VERTICAL CONTROL: NGVD 29 MLLW	

10-09136-GN003
SHEET 03 OF 15

30-JAN-2024 13:45

February 22, 2024

**TO ALL PROSPECTIVE BIDDERS UNDER SPECIFICATION NO. HD-S3125A,
PIER D BERTHS 32-34 QUAY WALL REPAIR
AT 601 PIER D AVENUE
LONG BEACH, CALIFORNIA**

ADDENDUM NO. 3

In order to clarify the bid documents, the following modifications to the Notice Inviting Bids, Technical Specifications, and Schedule of Bid Items are to be construed as part of the documents upon which bidders shall prepare their proposals and to supplant provisions appearing elsewhere in the documents which may be in conflict therewith. Material to be added is indicated by underline type. Material to be deleted is indicated by ~~strike through type~~. The location of the changes on each page is also indicated by a vertical bar in the margin. The addendum number and date is indicated at the bottom of each page on the left side in the footer. The page number for each revised page shall be shown center with an "R" and the number of the addendum.

**PLEASE NOTE: THIS ADDENDUM POSTPONES THE BID DEADLINE TO
TUESDAY, MARCH 12, 2024.**

THE Q&A PERIOD IS EXTENDED TO MARCH 5, 2024.

NOTICE INVITING BIDS

1. **Replace** pages N-1-R2 and N-2-R2 with the attached revised pages N-1-R3 and N-2-R3.

TECHNICAL SPECIFICATIONS

1. **Replace** Section 01 20 00 in its entirety.
2. **Replace** pages 35 53 53.71-5, 35 53 53.71-6, and 35 53 53.71-9 with the attached revised pages 35 53 53.71-5-R3, 35 53 53.71-6-R3, and 35 53 53.71-9-R3, and add page 35 53 53.71-9A-R3.

SCHEDULE OF BID ITEMS (LINE ITEMS TAB IN PLANETBIDS)

1. Bid Item 55 "Flowable Fill Pump for Cementitious Grout" has been removed.
2. Bid Item 56 "Flowable Fill Pump for Structural Foam" has been removed.
3. Bid Item 67 "Furnish Underwater Placed Cementitious Grout" has been removed.
4. Bid Item 68 "Furnish Underwater Placed Structural Foam" has been removed.

5. Bid Item 73 “Flowable Fill Pump for Underwater Placed Fill Material” has been added to the Schedule of Bid Items.
6. Bid Item 74 “Furnish Underwater Placed Fill Material” has been added to the Schedule of Bid Items.
7. Bid Item 75 “Pick-up Truck” has been added to the Schedule of Bid Items.
8. Bid Item 76 “Above Water Scaffolding” has been added to the Schedule of Bid Items.
9. Bid Item 77 “Floating Platform” has been added to the Schedule of Bid Items.
10. Bid Item 78 “Fixed Platform” has been added to the Schedule of Bid Items.

Sincerely,



Suzanne Plezia, P.E.
Senior Director/Chief Harbor Engineer

Attachments

NOTICE INVITING BIDS

NOTICE IS HEREBY GIVEN that the City of Long Beach, California, acting by and through the City's Board of Harbor Commissioners ("City") will receive, **before** the Bid Deadline established below, Bids for the following Work:

PIER D BERTHS 32-34 QUAY WALL REPAIR

at
601 PIER D AVE
LONG BEACH, CALIFORNIA

AS DESCRIBED IN SPECIFICATION NO. HD-S3125A

Bid Deadline:	Prior to 2:00 p.m. on Tuesday, March 12 February 27, 2024. Bids shall be submitted electronically via the Port of Long Beach PlanetBids (PB) System prior to 2:00 p.m.
Bid Opening:	Electronic Bid (eBid) results shall be viewable online in the PB System immediately after the Bid Deadline.
Contract Documents Available:	Download Contract Documents from the Port of Long Beach PB System Vendor Portal: www.polb.com/sbe Click on the POLB Vendor Portal <ol style="list-style-type: none">1. Register and Log In2. Click "Bid Opportunities"3. Click on respective bid Project Title4. Click on Documents tab5. For each attachment, click "Download" For assistance in downloading these documents please contact Port of Long Beach Plans and Specs Desk at 562-283-7353.
Non-Mandatory Pre-Bid Meeting:	Date/Time: December 12, 2023 at 10:00 AM Location: Microsoft TEAMS (virtual) Click here to join the meeting Meeting ID: 292 475 876 316 Passcode: H6GnYj Or call in (audio only) +1 323-451-1087 , 950418167# United States, Los Angeles Phone Conference ID: 950 418 167#
Project Contact Person:	Victor Sagredo, victor.sagredo@polb.com
<i>Please refer to the Port of Long Beach PB System for the most current information.</i>	

NIB -1 Contract Documents. Contract Documents may be downloaded, at no cost, from the Port of Long Beach PB System Vendor Portal website. Bidders must first register as a vendor on the Port of Long Beach PB System website in order to view and download the Contract Documents, to be added to the prospective bidders list, and to receive addendum notifications when issued.

For the link to the Port of Long Beach PB System and for information on this Project and other upcoming Port projects, you may view the Port website at www.polb.com/business/business-opportunities.

Copies of all Port insurance endorsement forms, SBE/VSBE Program forms, Harbor Development Permit Applications and other Port forms are available at www.polb.com/business/permits.

NIB -2 Pre-Bid Questions. All questions, including requests for interpretation or correction, or comments regarding the Contract Documents, must be submitted **no later than ~~March 5~~ February 20, 2024, at 5 p.m.** Questions received after the pre-Bid question deadline will not be accepted.

Questions must be submitted electronically through the PB System. Emails, phone calls, and faxes will not be accepted. Questions submitted to City staff will not be addressed and Bidder will be directed to the PB System.

NIB -3 Non-Mandatory Pre-Bid Meeting. The engineering staff of the City's Harbor Department will conduct a virtual pre-bid meeting at 10:00 AM, on December 12, 2023, via Microsoft TEAMS at the link provided above. Attendance is optional.

The City makes no guarantee that existing construction and site conditions matches construction depicted on record reference documents. It shall be the Bidder's responsibility to identify existing conditions.

Note that attendance at the pre-bid meeting can be used to satisfy a portion of a Bidder's good faith efforts to meet the SBE/VSBE participation goals listed below.

NIB -4 Summary Description of the Work. The Work required by this Contract includes, but is not limited to, the following: Waterside repair of the quay wall at Berths D32 to D34 at the Port of Long Beach. Work includes above water concrete spall repair and filling large underwater wall voids. Voids repairs involve closing individual voids and pumping resulting cavity with flowable fill. All void repair work to be performed underwater. See Section 01 11 00, Summary of Work in the Technical Specifications.

NIB -5 Contract Time and Liquidated Damages. The Contractor shall achieve Substantial Completion of Work within 199 calendar days and Affidavit of Final Completion of the Project within 304 calendar days as provided in Paragraph SC -

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. The time invoiced for bid items during the course of the Work will be computed to the nearest minimum unit as specified in this Section. Computation of time begins when equipment and labor arrive at the site, but not earlier than the scheduled start time for the day.

1.02 LABOR BID ITEMS

- A. All work shall be performed by journeymen of the trade, subject to Article 15 of the General Conditions, and the Contractor shall show proof of such qualification if requested by the City.
- B. Laborers may be Group 1, Group 2, or Group 3 Laborers and shall be as listed in the current Prevailing Wage Determinations of the Department of Industrial Relations.
- C. Carpenters, Cement Masons, Ironworkers, and Industrial Painters shall be as listed in the current Prevailing Wage Determinations of the Department of Industrial Relations.
- D. Equipment operators shall be trained, certified, and licensed in the operation of the equipment or vehicle they are assigned to operate and be experienced in the type of work required.
- E. Certified Welders shall be equipped with all necessary welding equipment, electrodes, fluxes, shielding gases, and any necessary equipment to support welding exclusively.
- F. All divers shall be trained for underwater construction and shall be equipped with such diving gear as may be required to work at depths up to and including fifty feet of salt water (50 fsw). Three-way communication is required with all diving gear, except SCUBA gear. The maximum working distance shall be two hundred fifty feet (250 ft) from the point of origin.
- G. Foreman shall be designated in writing by the Contractor and shall have full authority to act on the Contractor's behalf in all cases to supervise, plan and coordinate all work of the Contractor, sign daily reports, and to carry out any instructions relative to the work.
- H. "Labor" items designated for Straight-Time in the Schedule of Bid Items with a Unit of Measure of Hour (HR) can be invoiced for the number of Straight-Time hours on site. When the Engineer approves straight-time work for personnel in labor bid items, the Contractor's labor personnel will be paid by the labor "Straight-Time" bid items. These bid items will include the straight-time prevailing wage rate plus

Contractor mark-up including associated payroll costs for FICA taxes and Workers Compensation Insurance.

- I. "Labor" items designated for Time-and-a-Half in the Schedule of Bid Items with a Unit of Measure of Hour (HR) can be invoiced for the number of Time-and-a-Half overtime hours on site.
- J. "Labor" items designated for Double-Time in the Schedule of Bid Items with a Unit of measure of hour (HR) can be invoiced for the number of Double-Time overtime hours on site. When the Engineer approves overtime work for personnel in labor bid items, the Contractor's labor personnel will be paid by the labor "Time-and-a-Half" and "Double-Time" bid items. These bid items will include the appropriate overtime prevailing wage rate plus Contractor mark-up including associated payroll costs for FICA taxes and Workers Compensation Insurance.
- K. When the Engineer approves overtime work for operated equipment bid items, the Contractor's equipment operator and driver personnel will be paid by the labor overtime premium bid items "Time-and-a-Half premium only" and Double-Time premium only." These bid items will include only the additional prevailing wage overtime premium plus Contractor mark-up including associated payroll costs for FICA taxes and Workers Compensation Insurance for overtime hours. These bid items shall not include the cost of any equipment operated during overtime hours.
- L. For overtime work that is required by the Engineer and not included in the various identified bid items, the Contractor will be paid only the overtime wages paid to the workers in excess of their basic wages and associated payroll costs for FICA taxes and Workers Compensation Insurance. No premium shall be added to the cost of equipment for overtime usages. Payment for overtime premium not already included in an overtime bid item shall be made under the Specialized Services allowance or by Change Order.

1.03 EQUIPMENT BID ITEMS

- A. General Requirements
 - 1. Equipment furnished by the Contractor to perform the Work shall be fully fueled, maintained, and operational.
 - 2. The Contractor will not be compensated for equipment which ceases to function properly for more than thirty (30) minutes in any eight-hour period. If, in the opinion of the Engineer, the equipment is faulty and/or not adequate, it shall be removed and replaced at the Contractor's expense.
 - 3. Contractors performing work under diesel power mode operations shall be responsible for all costs incurred in operating under diesel power mode, including fuel, fuel testing, emissions testing and permits. All diesel-powered construction equipment provided under this Contract shall meet all latest Environmental and Air Pollution prevention programs regulating agencies standards as specified in the Special Conditions.
 - 4. The time invoiced for bid items that are paid on a daily basis (DY) during the

course of the work will be computed for each twenty-four (24) hour period, or fraction thereof. Work that has commenced and is stopped and started again, either once or multiple times, within the same 24 hours period will not be calculated as separate days for the purposes of measurement and payment.

5. No premium shall be added to the cost of equipment for overtime usage.

B. Operated Equipment

1. "Operated Equipment" provided under this Specification and as identified in the Schedule of Bid Items shall include qualified operating personnel. No separate compensation will be made if any operator(s) must be replaced at any time. Payment for operated equipment bid items will include the cost of the equipment and all necessary operating personnel at their normal (straight-time) pay rate. Premium payment for operating personnel ~~personal~~ only, above the normal pay rate, during overtime hours ~~beyond the normal time~~ will be paid with appropriate premium. All operating personnel shall be qualified both in the operation of the equipment and in performing the Work.
2. Time for mobilization and demobilization of each equipment will be measured and paid as part of the appropriate equipment bid item. Any additional labor required for mobilization or demobilization of the equipment will be paid by separate "Labor" items.

C. Bare Equipment

1. "Bare Equipment" furnished under this Specification and as identified in the Schedule of Bid Items shall not include operating personnel. Compensation for the personnel to operate the "Bare Equipment" will be paid using the "Labor" bid items in the Schedule of Bid Items. Maintenance and cleaning of "Bare Equipment" is not considered operational labor and separate Labor bid items do not apply.

1.04 MINIMUM TIME

- A. For each day of Work, Contractor shall communicate to Engineer what time the Work day is scheduled to begin. If conditions arise that prevent work from proceeding after the scheduled start time, the Contractor may invoice a minimum amount of time for labor and equipment that have arrived at the Work Site for the day. If the Engineer instructs the Contractor that work cannot proceed before the scheduled start time for the work day, Contractor shall acknowledge the direction and no time shall be invoiced.
 1. Time invoiced for "Labor" bid items in the Schedule of Bid Items with a Unit of Measure (UOM) of Hour (HR) can be invoiced for a minimum of four (4) Hours (HR) per day.
 2. Time invoiced for "Equipment" bid items in the Schedule of Bid Items with a UOM of Hour (HR) can be invoiced for a minimum of four (4) HR per day.
 3. Time invoiced for "Equipment" bid items in the Schedule of Bid Items with a UOM of Day (DAY) can be invoiced for a minimum of one half (1/2) DAY per day.

1.05 DELIVERY RECEIPTS AND BILLS OF LADING

- A. Submit delivery receipt(s) and/or bills of lading to the Engineer no later than the work day after the material or rented equipment was delivered to the Work site, unless otherwise approved by the Engineer.
- B. No payment will be made for materials and/or rented equipment for which no delivery receipt(s) and/or bill(s) of lading are submitted.
- C. Submit invoice(s) for materials, rented equipment, and other allowable expenditures with the request for payment.
- D. There shall be no interim or partial payments for materials for which the Contractor fails to provide an original invoice.

1.06 DAILY REPORTS

- A. Include in the Daily Report to the Engineer all labor, equipment, and materials used for the day. No payment will be made for any labor, equipment, or material not included a Daily Report form approved by and signed by the Engineer. Payment requests submitted on any other forms or formats other than what is approved by the Engineer will be denied.

PART 2 -PRODUCTS

2.01 OPERATED BOOM TRUCK CRANE, MINIMUM 8-TON LIFTING CAPACITY

- A. Provide operated boom truck crane with a minimum lifting capacity of 8 tons. Truck crane shall have extendable support legs with pads. Contractor shall have steel plates or plywood to place under the pads as needed to spread out the load.

2.02 EQUIPMENT FOR REMOVAL OF MARINE GROWTH

- A. Equipment to be used for underwater cleaning shall consist of the following:
 - 1. Cavitation Erosion Jet,
 - 2. Variable Flow Reactionless Water Jet (high or low pressure),
 - 3. Hydraulic Rotary Brushes, or
 - 4. Hydraulic Rotary Abrader.
- B. Sand abrasive water jets shall not be used.

2.03 FLOWABLE FILL PUMP

- A. Contractor shall provide a pump to install void fill material underwater that conforms to the following requirements:
 - 1. Proper type to move the void fill material, whether cementitious grout or structural foam.
 - 2. Size and capacity shall be sufficient to move the void fill material in a timely and efficient manner. Pump shall have capacity for variable flow rates.

3. Capacity to monitor the material flow rate and keep a running total of material moved. Display shall be accessible to Engineer.
- B. If pump is diesel powered, it shall follow the requirements for diesel power stated in this Section.
- C. Flowable Fill Pump shall include necessary attachments and appurtances, such as hoppers, pipes, hoses, and all necessary equipment required to support the pump exclusively.

2.04 WATERBORNE EQUIPMENT

- A. Contractor shall provide a work boat and inspection boat, minimum 12 ft, to perform the work. Waterborne equipment shall conform to the following requirements:
1. Size and capacity to carry all necessary crew and equipment to perform the work, plus at minimum two (2) passengers to allow the Engineer to observe.
 2. A minimum of two (2) ring buoys with a minimum of 90 feet of line. All personnel on the waterborne equipment, except for divers with diving gear, shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests. Whenever waterborne equipment is being used, a lifesaving skiff with operator must be available at all times per OSHA requirements. All applicable OSHA and U.S. Coast Guard requirements and regulations shall be followed.
 3. Underwater three-way dive radio communication system. The system shall be a full duplex (four wire) arrangement. The dive radio must accommodate two (2) divers, a tender at a base station and a wireless headset for continuous communication when the tender is required to be away from the base station. This system must also allow two divers (2), tender and Engineer to communicate in a telephone conference system that does not require push switch to transmit (talk) and/or receive (hear).
 4. Two (2) battery-operated portable handheld marine all-band 5-watt or more VHF transceivers that can transmit clearly between remote harbor areas. One shall be in the possession of the Contractor when working away from the work boat, and one in the possession of the Engineer during the contract period. Both units must have AC/DC charging adapters. Both must be approved by the Engineer.
 5. Underwater digital camera with a minimum of 10 mega pixels to record work progress. Photos are to be included in the Daily Reports.
- B. Contractor shall conduct the work in such a manner as to minimize obstructions to navigation. If the Contractor's equipment so obstructs any area as to make difficult or endanger the passage of vessels, said equipment shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Adequate navigational and safety markers and lights shall be placed and maintained on all floating equipment and other hazards to navigation.

2.05 OTHER EQUIPMENT

- A. In addition to the equipment described herein, Contractor shall provide the following when needed for prosecution of the Work:
1. Operated Stake Bed Truck, Minimum 2-ton Rating
 2. Operated Forklift, Minimum 14-ton Capacity
 3. Operated Trailer Mounted Concrete Pump
 4. Pneumatic Chipping Hammer with Bits
 5. Oxygen and Acetylene Cutting Torch Assembly
 6. Trailered Air Compressor
 7. Portable Saw, Minimum 6" Cutting Depth
 8. Mechanical Equipment Cleaner (Non-Blasting) – a hand-held tool for cleaning rebar and other surfaces with a wire brush or grinding wheel
 9. Portable Flood Lights
 10. Portable Generator, Minimum 10 kW
 11. Pick-up Truck

2.06 TEMPORARY SCAFFOLDING

- A. The Contractor shall provide above water scaffolding as needed for repair work on the wharf deck face.
- B. The scaffolding shall be OSHA compliant and support all necessary workers, supervisors, tools, and materials for concrete inspection and repair work to proceed to meet the schedule.
- C. Each section of scaffolding shall extend a minimum of twelve feet (12') along the wharf, hang down a maximum of eight feet (8'), and be supported from the top of the wharf deck.
- D. Contractor shall ensure all personnel on the scaffolding are provided with and use life vests, safety gear for protection from concrete repair work, and fall protection gear.
- E. The scaffolding shall be maintained and in good working order and shall be of adequate materials to be used in a waterfront environment.

2.07 FLOATING PLATFORM

- A. The floating platform shall have minimum dimensions of fifteen feet (15') long by five feet (5') wide. The draft above the waterline shall be two feet (2'), minimum, when one (1) ton of cargo load is on the deck, and shall not exceed four feet (4') at any time. The floating platform shall have hooks or cleats attached and come supplied with ropes for securing the platform in place during storage and use. Contractor shall ensure bumpers or fenders remain between the floating platform and all adjacent wharf structures at all times. Contractor shall use caution near the wharf structure. If the floating platform becomes damaged at any time, the

Contractor shall repair or replace the platform at Contractor's own expense and shall not hold the City liable for any cost of repair or replacement.

2.08 FIXED PLATFORM

- A. The fixed platform shall have minimum dimensions of fifteen feet (15') long by five feet (5') wide. The platform shall have a capacity of one (1) ton, minimum. The platform shall be able to be fixed in position without damaging any supporting structures. If the platform becomes damaged at any time from existing structures or rock dikes or large debris, the Contractor shall repair or replace the platform at Contractor's own expense and shall not hold the City liable for any cost of repair or replacement.

PART 3 -EXECUTION

NOT USED

PART 4 -MEASUREMENT AND PAYMENT

- A. Measurement for various "**Labor**" items will be by the hour (HR) based on measurement of time working on site. Payment for "**Labor**" items will be as stated in the Schedule of Bid Items, and shall constitute full compensation for labor of that Specified Classification, including all necessary equipment such as, but not limited to, diving equipment and welding equipment, as specified and shown. All "**Labor**" items are for above-water repair work and underwater repair work only. Any labor for scheduling, mobilization (and demobilization), site specific safety plan preparation and implementation, moving in or out for the fireboat, and standby time will be paid by the appropriate bid items.
- B. Measurement for various "**Operated Equipment**" items will be by the hour (HR) in use on site, including mobilization and demobilization of the operated equipment. Payment for various "**Operated Equipment**" items will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish the equipment fully fueled and maintained, with qualified and experienced operator(s), and all incidentals necessary for work, as specified and shown. Any equipment used for scheduling, mobilization and demobilization for anything other than operated equipment, site specific safety plan preparation and implementation, moving in or out for the fireboat, and standby time will be paid by the appropriate bid items.
- C. Measurement for various "**Bare Equipment**" items will be by the day (DY) in use on site. Payment for various "**Bare Equipment**" items will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish the equipment fully fueled and maintained, and all incidentals necessary for work in this Specification, as specified and shown. Operation of the bare equipment will be paid by separate "**Labor**" items. Any equipment used for scheduling, mobilization and demobilization for anything other than operated equipment, site specific safety

plan preparation and implementation, moving in or out for the fireboat, and standby time will be paid by the appropriate bid items.

- D. No separate measurement and payment will be made for any other work covered by this Section. The cost of any other work shall be considered incidental.

END OF SECTION

1.05 UNDERWATER ENVIRONMENT

- A. Water visibility in the vicinity of the wall is generally poor, typically between 5 to 10 feet. Visibility is expected to decrease to between 0 and 3 feet during cleaning and other below water construction activities.
- B. Marine growth found on the seawall varies in thickness. Soft forms of marine growth include sponges, sea lettuce, seaweeds, lichen, hydroids, and others. The extent of soft marine growth can vary with the time of year and water temperature. Hard growth may include barnacles, mussels, scallops, and other marine organisms.
- C. The surface of the seawall is highly irregular with many holes, indentations, and crevices. It is comprised of rock, and hard or soft cementitious materials.

PART 2 -PRODUCTS

2.01 VOID CLOSURE MATERIAL

- A. Contractor can use fabric bags, wire mesh, steel, or other material that are compatible with the wall and filling materials, and will not dislodge or deteriorate during or after construction. Any void closure materials that extend beyond the original surface of the quay wall shall be removed after fill material has hardened.
- B. All materials shall be suitable for use in sea water and shall not contain any toxic or environmentally harmful chemicals, nor any chemicals harmful to concrete.

2.02 TREMIE AND VENT PIPES

- A. Tremie and vent pipes shall be suitable for use in sea water and shall not contain any toxic or environmentally harmful chemicals, nor any chemicals harmful to concrete. This includes materials used to seal and join pipe sections, and for connections to hoses. Pipes shall be of sufficient length and diameter to install fill material and expel sea water, with a minimum diameter of 2 inches.

2.03 VOID FILL MATERIAL

- A. Material for filling voids in the quay wall underwater shall be either structural foam or underwater cementitious grout or a combination that complies with the following, as applicable:
 - 1. Material shall be suitable for pumping and placing in sea water at depths equal or greater than what is shown on Drawings.
 - 2. Material shall be non-shrinkage.
 - 3. Material shall be compatible with concrete.
 - 4. Material shall have a minimum in-place density (ASTM D1622) of 6 pcf.
 - 5. Material shall have a minimum compressive strength (ASTM D1621) of 100 psi.
 - 6. Material shall have a minimum shear strength (ASTM C273) of 90 psi.
 - 7. Material shall have a minimum closed cell content: > 92%.
 - 8. Material shall have a minimum water absorption (ASTM D2842) of 0.04 lbs/ft².
 - 9. Material shall not travel more than 6 ft in water after exiting the nozzle and before hardening.

10. Material shall be suitable for use in sea water and shall not contain any toxic or environmentally harmful chemical.
11. Material shall meet all city, state and federal regulations for use in water.
12. Mix designs shall be prepared and signed by a Civil Engineer registered in the State of California.
13. Calcium chloride shall not be used for cementitious material.
14. Cement for cementitious material shall comply with the requirement of ASTM C 150, Type II, low alkali.
15. Water for mixing shall be fresh, clean, and potable. It shall not contain more than 0.07 per cent Cl by weight of cements per ASTM D 512 nor more than 0.09 per cent sulfates as SO₄ per ASTM D 516.
16. Cementitious material shall be so proportioned and mixed to provide a pumpable grout. Pozzolan may be used at the option of the Contractor and shall conform to ASTM C 618.
17. Accelerating shall comply with the requirement of ASTM C 494, Type C.
18. Retarding shall comply to the requirement of ASTM C 494, with approval of the Engineer.
19. Water reducing shall comply with the requirement of ASTM C 494, Type A, or D, with approval of the Engineer.
20. Superplasticizers shall comply with the requirement of ASTM C 494, Type F and ASTM C 1017.

B. Contractor shall be responsible to select material(s) for underwater void fill as part of its means and methods. If in the opinion of the Engineer, the material does not meet the requirements or does not perform as expected, Contractor shall furnish different material. No additional compensation will be made for different materials and/or associated pump and other equipment.

PART 3 -EXECUTION

3.01 REMOVAL OF MARINE GROWTH

- A. Remove all soft organic material and loose debris from exposed surfaces of the seawall within 1 foot of each void and interiors of voids as far as divers can reach. Marine growth to be removed includes: shells, silt, gravel, loose cementitious material, and all biologic growth with the exception of firmly attached calcareous fragments.
- B. Removal shall be performed in such a manner so as to avoid loosening of fragments of the cyclopean mass in a manner hazardous to divers or that destabilize the wall. If marine growth removal on the wall surface or inside the voids causes any damages to the wall, stop work immediately and notify the Engineer.
- C. Sequencing of the cleaning work shall be coordinated in such a manner as to minimize the re-emergence of marine growth prior to the next step in the construction process. The wall shall be cleaned from the upper elevations downward to prevent accumulation of debris on previously cleaned surfaces.

3.06 INSPECTION AND TESTING

- A. Engineer will provide inspection and testing for the entire project. Contractor may choose to perform their own inspection and quality control at no additional cost to the City.
- B. Engineer's inspection will be the basis for work acceptance and payment. The frequency of inspection will be established by the Engineer prior to start of the work.

PART 4 -MEASUREMENT AND PAYMENT

- A. Measurement for "***Furnish Void Closure Material***" will be by the square foot (SF) of void opening that is closed up based on measurements in the field. Payment for "***Furnish Void Closure Material***" will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish and deliver all materials necessary for closing voids underwater in the concrete quay wall as specified and shown. All labor and equipment necessary for installing void closure material will be paid by the appropriate bid items in Section 01 20 00, "PRICE AND PAYMENT PROCEDURES".
- B. Measurement for "***Furnish Tremie and Vent Pipe***" will be by the linear foot (LF) of pipe based on measurements in the field. Payment for "***Furnish Tremie and Vent Pipe***" will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish and deliver all pipe materials necessary for void filling operations as specified and shown. All labor and equipment necessary for installing tremie and vent pipes will be paid by the appropriate bid items in Section 01 20 00, "PRICE AND PAYMENT PROCEDURES".
- ~~C. Measurement for "***Furnish Underwater Placed Cementitious Grout***" will be by the cubic foot (CF) of void fill material based on measurements in the field. Payment for "***Furnish Underwater Placed Cementitious Grout***" will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish and deliver all fill materials necessary for void filling operations as specified and shown. All labor and equipment necessary for installing void fill material will be paid by the appropriate bid items in Section 01 20 00, "PRICE AND PAYMENT PROCEDURES".~~
- ~~D. Measurement for "***Furnish Underwater Placed Structural Foam***" will be by the cubic foot (CF) of void fill material based on measurements in the field. Payment for "***Furnish Underwater Placed Structural Foam***" will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish and deliver all fill materials necessary for void filling operations as specified and shown. All labor and equipment necessary for installing void fill material will be paid by the appropriate bid items in Section 01 20 00, "PRICE AND PAYMENT PROCEDURES".~~
- C. Measurement for "***Furnish Underwater Placed Fill Material***" will be by the cubic foot (CF) of void fill material installed based on measurements in the field. Payment for "***Furnish Underwater Placed Fill Material***" will be as stated in the Schedule of Bid Items, and shall constitute full compensation to furnish and deliver

all fill materials necessary for void filling operations as specified and shown. All labor and equipment necessary for installing void fill material will be paid by the appropriate bid items in Section 01 20 00, "PRICE AND PAYMENT PROCEDURES".

E.D. No separate measurement and payment will be made for any other work covered by this Section. The cost of any other work shall be considered incidental.

END OF SECTION