

OFFICE OF CONSERVATION AND COASTAL LANDS

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
Honolulu, Hawaii

BOARD OF LAND AND NATURAL RESOURCES

Dawn N.S. Chang
Chairperson

CONTRACT SPECIFICATIONS AND PLANS

Job No. E00CO30A
KUHIO BEACH RESTORATION
GROIN CONSTRUCTION, SMALL SCALE BEACH NOURISHMENT,
AND GROIN REPAIRS
OAHU, HAWAII

April 2026

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Approved: *S Michael Cain*
MICHAEL CAIN
Administrator
Office of Conservation and Coastal Lands

Approved: *Dina U. Lau*
DINA U. LAU, P.E.
Acting Chief Engineer
Engineering Division

April 2026

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PLANS (Bound Separately)

DEPARTMENT OF LAND AND NATURAL RESOURCES INTERIM GENERAL
CONDITIONS, DATED OCTOBER 1994 (Bound Separately)

NOTICE TO BIDDERS
(Chapter 103D, HRS)

COMPETITIVE BIDS for Job No. E00CO30A, Kuhio Beach Restoration – Groin Construction, Small Scale Beach Nourishment, and Groin Repairs, Oahu, Hawaii shall be submitted to the Department of Land and Natural Resources, Engineering Division on the specified date and time through the Hawaii State e-Procurement (HIePRO). HIePRO is accessible through the State Procurement Office website at www.spo.hawaii.gov.

The Department of Land and Natural Resources Interim General Condition, dated October 1994, as amended, and the General Conditions –AG008, latest revision shall be made part of the specifications.

The project is located at Kuhio Beach, Waikiki, Honolulu, Oahu, Hawaii.

The work consists of demolition of the sandbag groin and construction of a new rock rubble mound groin, placement of sand between the new groin and the Ewa Groin, and repairs to the Ewa Groin (Additive Item).

To be eligible to submit a bid, bidders must possess a valid State Contractor’s license, classification “A” .

To be eligible to bid, the prospective bidder must satisfy the requirements of the Bidder’s Statement of Qualifications and Section 01200, “Qualification of Bidders.” The Department of Land and Natural Resources shall be the sole judge as to whether a bidder satisfies the said requirements by review of their “Bidder’s State of Qualification” form. The said form, made a part of these Contract Documents, must be properly completed and submitted.

All interested parties are invited to attend a State-conducted voluntary site visit/pre-bid conference at Kuhio Beach’s Hula Mound, on May 5, 2026, at 09:30 a.m.

The estimate cost of construction for the total base base bid excluding any additive is \$2,600,000.

The award of the contract, if it be awarded, will be subject to the availability of funds.

This project is subject to preference to Hawaii Products established by Section 103D, Hawaii Revised Statutes. The Hawaii Product List may be examined at the State Procurement Office website.

Since the estimated cost of construction is \$250,000 or more, the apprenticeship agreement preference pursuant to Hawaii Revised Statutes §103-55.6 (ACT 17, SLH 2009) shall apply.

Should there be any questions, please refer to the HIePRO solicitation.

INFORMATION AND INSTRUCTIONS TO BIDDERS

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INFORMATION AND INSTRUCTIONS TO BIDDERS

- A. PROJECT LOCATION AND SCOPE OF WORK: The project location and scope of work shall be as generally described in the Notice to Bidders.
- B. PROPOSALS: Bidders shall submit their bid, including the completed proposal form, bid bond, and any other documents required by the solicitation as part of their bid through the State of Hawaii e-Procurement System (HIePRO). See Item D, PROPOSAL FORM.
- C. GENERAL CONDITIONS: The Department of Land and Natural Resources Interim General Conditions dated October 1994, as amended, shall be made a part of these contract specifications and are referred to hereafter as the General Conditions.
- D. PROPOSAL FORM: **The Bidders shall fill out and upload the electronic copy of the proposal form to the HIePRO website when submitting the bid. Bid Proposals shall not be mailed, faxed or delivered to the State, unless requested to do so after the designated closing date. The successful Bidder shall fill out and print a hard copy of the proposal form, sign and submit the form with the contract award package.**
- E. OMISSIONS OR ERASURES: Any proposal which contains any omission or erasure or alteration not properly initialed, or conditional bid, or other irregularity may be rejected by the Board of Land and Natural Resources (Board).
- F. NOTICE OF INTENT TO BID AND QUESTIONNAIRE:
A Notice of Intent to Bid is not required for this project. In compliance with HRS Section 103D-310, the lowest responsive and responsible bidder may be required to complete a questionnaire. When requested by the State, the completed questionnaire shall be submitted to the Chief Engineer for evaluation. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.
- G. BID SECURITY: A bid security will be furnished by each bidder as provided in sub-section 2.7 of the General Conditions. The successful bidder's bid security will be retained until Contract execution and furnished a performance and payment bond in an amount equal to one hundred percent (100%) of the total Contract price, including an amount estimated to be required for extra work, is furnished.

The Board reserves the right to hold the bid securities of the four lowest bidders until the successful bidder has entered into a contract and has furnished the required performance bond. All bid securities will be returned in accordance with sub-section 3.5 of the General Conditions.

Should the successful bidder fail to enter into a contract and furnish a satisfactory performance bond within the time stated in the proposal, the bid security shall be forfeited as required by law.

- H. CONTRACTOR'S LICENSE REQUIRED: The Board will reject all bids received from contractors who have not been licensed by the State Contractors License Board in accordance with Chapter 444, HRS; Title 16, Chapter 77, Hawaii Administrative Rules; and statutes amendatory thereto.
- I. IRREGULAR BIDS: No irregular bids or propositions for doing the work will be considered by the Board.
- J. WITHDRAWAL OF BIDS: No bidder may withdraw his bid between the time of the opening thereof and the award of contract.
- K. EVALUATION OF CRITERIA:
1. The total lump sum base bid price and additives will be adjusted to reflect the applicable preferences
 2. Evaluating Bids with Additive Bid Items:
 - a. After the solicitation ends, the State will announce the project control budget. All bids will be evaluated on the basis of the same additive item.
 - b. After adjusting for applicable preferences, the additives, in their precedence order, are added to the total lump sum base bid price. This (these) sum(s) are compared to the project control budget, and must be within the project control budget.
 - c. If adding another additive would make the aggregate amount exceed the project control budget for all bidders, that additive will be skipped and the next additive will be added, provided an award might be made within the project control budget. This procedure will continue, until adding any remaining additives will result in the aggregate total amount for all the bidders to exceed the project control budget, or until no additional additives remain.
 - d. The bidder with the lowest aggregate amount, within the project control budget (after application of the various preferences), for the total lump sum base bid plus the additives in their precedence order, is the "Low Bidder" for that project and is designated for award.
 - e. Additive Bid Example: The project control budget available is \$100,000. In the order of precedence, additive bid 1, 2, 3, 4, 5 and 6 are additive bids. After applying the preferences, the bids are ranked lowest price to highest price and are "Bid A", "Bid B", "Bid C", "Bid D" and "Bid E". Bid A's total lump sum base bid price and three additive bids (in the precedence order) are \$80,000, \$16,000, \$10,000 and \$5,000 respectively. Bid B's total lump sum base bid price and three additive bids (in the precedence order) are \$82,000, \$10,000, \$9,000 and \$3,000 respectively. Bid C's total lump sum base bid price and three additive bids (in the precedence order) are \$85,000, \$10,000, \$8,000 and \$4,000 respectively.

- (1) In adding the additives to the bids, bid 1 is under the project control budget for all bids. The second bid 2 is initially skipped since it would cause the aggregate amount of all bids to exceed \$100,000. The third bid 3 is added and the aggregate amounts, including base bid price plus bids 1 and 3, of both Bid B and Bid C, are under the project control budget.
- (2) Bid A's aggregate total is \$101,000. Bid B's aggregate total is \$95,000. Bid C's aggregate total is \$99,000.
- (3) Bid B's price including bids A-1 and A-3 is the lowest bid price (over Bid C) and has an aggregate amount within the adjusted project control budget, and therefore is designated the "Low Bidder" for the project.

L. METHOD OF AWARD:

1. The contract will be awarded to the lowest responsive and responsible Bidder whose bid (including any additive which may be selected) meets the requirements and criteria set forth in the solicitation documents and as determined by the Comptroller.
2. In the event the Lump Sum Base Bid of all bidders exceeds the project control budget, the Department reserves the right to make an award to the bidder with the lowest total lump sum base bid, after application of the preferences is designated, if additional funds are available or by reducing the scope of work through negotiation.

M. SUCCESSFUL BIDDER TO FILE PERFORMANCE AND PAYMENT BONDS: The successful bidder will be required to file performance and payment bonds each; in the amount equal to the total contract price, including amounts estimated to be required for extra work, as provided in sub-section 3.6 of the General Conditions.

N. NUMBER OF EXECUTED ORIGINAL COUNTERPARTS OF CONTRACT DOCUMENTS: If requested by the Board, six copies of the Contract, performance and payment bonds shall be executed.

O. CHANGE ORDERS: No work of any kind in connection with the work covered by the plans and specifications shall be considered as change order work, or entitle the Contractor to extra compensation, except when the work has been ordered in writing by the Chief Engineer (Engineer) and in accordance with sub-section 4.2 of the General Conditions.

The Contractor shall clearly identify and inform the Engineer in writing of any deviations from the contract documents at the time of submission and shall obtain the Engineer's written approval to the specified deviation prior to proceeding with any work.

P. WAGES AND HOURS: In accordance with sub-sections 7.3 to 7.9 of the General Conditions relative to hours of labor, minimum wages and overtime pay, the current minimum wage rates promulgated by the Department of Labor and Industrial Relations (DLIR) shall be paid to the various classes of laborers and mechanics engaged in the

performance of this contract on the job site. The minimum wages shall be increased during the performance of the contract in an amount equal to the increase in the prevailing wages for those kinds of work as periodically determined by the DLIR.

The Department of Land and Natural Resources will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the said minimum wage rates. The possibility of wage increase is one of the elements to be considered by the Contractor in determining his bid, and will not, under any circumstances, be considered as the basis of a claim against the Department under this Contract.

No work shall be done on Saturdays, Sundays, legal State holidays, and/or in excess of eight (8) hours each day without the written consent of the Engineer. Should permission be granted to work at such times, the Contractor shall pay for all inspection administrative costs thereof. No work shall be done at night unless authorized by the Engineer.

Q. PERMITS: The State will process permit applications whenever possible, and the Contractor shall procure the pre-processed permits and pay the required fees. If permit applications are not processed by the State, the Contractor shall process the permit applications, permits and licenses, and pay all charges and fees. In all cases, the Contractor shall give all notices necessary and incident to the due and lawful prosecution of the work.

R. PROPERTY DAMAGE: It shall be the responsibility of the contractor to respect State property and to prevent damage to existing improvements. The Contractor will be responsible for damages resulting from construction operations. Immediately upon discovery, the Contractor shall repair such damage to the satisfaction of the Engineer.

All trees and shrubbery outside the project site or construction limits shall be fully protected from injury.

S. TIME: The time of completion is specified in the Proposal. It is the Board's intention to insist the Contractor diligently prosecute the work to completion within the specified time.

Prospective bidders are reminded that the State has the option to proceed with or abandon a project depending on whether the project can be completed for occupancy in the specified time.

It is the bidder's responsibility to check the availability of all materials before bidding. The bidder shall select sub-contractors and suppliers who can warrant availability and delivery of all specified or qualified materials to assure project completion within the specified time.

The successful bidder must assume all risks for completing the project by the specified date. There shall be no extension of time for any reason except for delays caused by acts of God, labor disputes involving unions, or actions of the State. If for any reason the project falls behind schedule, the Contractor shall at its own cost, take necessary remedial measures to get the project back on schedule, i.e., working overtime, air freighting all materials, etc. In addition, if the Contractor fails to fully complete the project by the completion date, Contractor will be required to make the facility usable at its own cost.

- T. BIDDER'S RESPONSIBILITY TO PROVIDE PROPER SUPERINTENDENCE: The successful low bidder shall designate in writing to the Engineer the name of its authorized superintendent (Superintendent), who will be present at the job site whenever any work is in progress. The Superintendent shall be responsible for all work, receiving and implementing instructions from the Engineer in a timely manner. The cost for superintendence shall be considered incidental to the project.

If the Superintendent is not present at the site of work, the Engineer shall have the right to suspend the work as described under sub-section 5.5 c. and 7.20 - Suspension of Work of the General Conditions.

- U. LIQUIDATED DAMAGES: Liquidated damages in the amount specified in the Proposal will be assessed for each and every calendar day from and after the expiration of the time period stated in the Contract for the completion of the project.

- V. HIRING OF HAWAII RESIDENTS: The Contractor shall comply with Act 68, SLH 2010, in the performance and for the duration of this contract. The Contractor shall ensure that Hawaii residents compose not less than eighty percent of the workforce employed to perform the contract work on the project. The eighty percent requirement shall be determined by dividing the total number of hours worked on the contract by Hawaii residents, by the total number of hours worked on the contract by all employees of the Contractor in the performance of the contract. The hours worked by any Subcontractor of the Contractor shall count towards the calculation for this section. The hours worked by employees with shortage trades, as determined by the Department of Labor and Industrial Relations (DLIR), shall not be included in the calculation for this section.

The requirements shall apply to any subcontract of \$50,000 or more in connection with the Contractor, that is, such Subcontractors must also ensure that Hawaii residents compose not less than eighty percent of the Subcontractor's workforce used to perform the subcontract.

- W. WATER AND ELECTRICITY: The Contractor shall make all necessary arrangements and pay all expenses for water and electricity used in the construction of this project.

- X. PUBLIC CONVENIENCE AND SAFETY: The Contractor shall conduct construction operations with due regard to the convenience and safety of the public at all times. No materials or equipment shall be stored where it will interfere with the safe passage of public traffic. The Contractor shall provide, install, and maintain in satisfactory condition, all necessary signs, flares and other protective facilities and shall take all necessary precautions for the protection of the work and the convenience and safety of the public. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.

- Y. WORK TO BE DONE WITHOUT DIRECT PAYMENT: Whenever the contract that the Contractor is to perform work or furnish materials of any kind for which no price is fixed in the contract, it shall be understood that the Contractor shall perform such work or furnish said materials without extra charge or allowance or direct payment of any sort. The cost of performing such work or furnishing said material is to be included by the Contractor in a unit price for the appropriate item unless it is expressly specified that such work or material is to be paid for as extra work.

- Z. AS-BUILT DRAWINGS: As-built drawings, the intent of which is to record the actual in-place construction so that any future renovations or tie-ins can be anticipated accurately, shall be required. All authorizations given by the Engineer to deviate from the plans shall be drawn on the job site plans. All deviations from alignments, elevations and dimensions which are stipulated on the plans shall be recorded on the as-built drawings. Final as-built drawings shall be submitted to the Engineer for review and approval. After the Engineer approves the as-built drawings, the contractor shall submit an electronic copy in Adobe PDF format on CD ROM.
- AA. ASBESTOS CONTAINING MATERIALS: The use of asbestos containing materials or equipment is prohibited. The Contractor shall insure that all materials and equipment incorporated in the project are asbestos-free
- BB. WORKER SAFETY: The Contractor shall provide, install and maintain in satisfactory condition all necessary protective facilities and shall take all necessary precautions for the protection and safety of its workers in accordance with the Occupational Safety and Health Standards for the State of Hawaii. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.
- CC. TOILET FACILITIES: All toilet facilities constructed at the project site shall be in accordance with the Public Health Regulations of the State Department of Health (DOH). All necessary precautions shall be observed at the project site. The use of sanitary facilities shall be strictly enforced and workers violating these provisions shall be promptly discharged.
- DD. SIGNS: Whenever the project involves closing or obstructing any public thoroughfare, the Contractor shall provide traffic signs conforming to the applicable provisions of the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", published by the Federal Highway Administration as directed by the Engineer for the purpose of diverting or warning traffic prior to the construction area. All traffic signs shall bear proper wording stating thereon the necessary information as to diverting or warning traffic.

When indicated in the Proposal, the Contractor shall provide a project sign, size 4'-0" x 7'-0" to be placed as directed by the Engineer. The sign shall be constructed in accordance with Section 01581 - Project Sign of these specifications and approved by the Engineer. All wording, type and size of lettering and color selection shall be as specified in these specifications or as approved by the Engineer.

All signs shall be kept neat and clean, and properly erected at all times.

- EE. FIELD OFFICE AREA FOR DEPARTMENT: When indicated in the Proposal, the Contractor shall provide a housed working area of at least 100 square feet adjacent to the Contractor's office for the Department's use. This area will be used by the Engineer to perform tests and to store equipment. As a minimum, the field office shall include the following: standard sized office desk and chair, lighting, ventilation, window-type air conditioning rated at 5,000 BTU, door and window with locking hardware, electrical outlets, and working communications facilities (a cellular telephone is acceptable). The Department

will pay for all long distance toll charges made by the Engineer.

FF. QUANTITIES: All bids will be compared on the basis of quantities of work to be done as shown in the Proposal; the quantities shown in the Unit Price items are estimated, being given as a basis for comparison of bids. The Board reserves the right to increase or decrease the quantities given under the items or delete items entirely as may be required during the progress of the work.

GG. OTHER HEALTH MEASURES: Forms of work site exposure or conditions which may be detrimental to the health or welfare of workers or of the general public shall be eliminated or reduced to safe levels as required by the DOH codes, standards, and regulations. Suitable first aid kits and a person qualified to render first aid, as specified in the DOH regulations, shall be provided at all times when work is scheduled.

HH. HAWAII BUSINESS OR COMPLIANT NON-HAWAII BUSINESS REQUIREMENT: Bidders (Contractors) shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR.

II. COMPLIANCE WITH §3-122-112 HAR:

As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- A. **TAX CLEARANCE REQUIREMENTS (HRS Chapter 237)**: Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.
- B. Department of Labor (DLIR) “**Certificate of Compliance**”. (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers’ Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.
- C. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “**Certificate of Good Standing**”. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.ehawaii.gov> to acquire a “Certificate of Vendor Compliance” indicating the bidder’s status is compliant with the requirements of §103D-310(c), HRS, and shall be accepted for contracting and final payment purposes. Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be required to provide the paper certificates as instructed in the previous paragraphs.

P R O P O S A L

FOR

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
State of Hawaii

JOB NO. E00CO30A
KUHIO BEACH RESTORATION
GROIN CONSTRUCTION, SMALL SCALE BEACH NOURISHMENT,
AND GROIN REPAIRS
OAHU, HAWAII

_____, 2026

Chief Engineer
Engineering Division
Department of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Sir:

The undersigned, having carefully examined the local conditions and all available records and information covering conditions which may affect the cost of the work to be performed, and having carefully examined the Plans and Specifications, and other contract documents, hereby proposes to furnish and pay for all materials, tools, equipment, labor and other incidental work necessary for construction of Kuhio Beach Restoration - Groin Construction, Small Scale Beach Nourishment, and Groin repairs, as required or called for in this Proposal, all according to the true intent and meaning of the Notice to Bidders, Information and Instructions to Bidders, Proposal, Detailed Specifications, Interim General Conditions, Plans, and any and all addenda for:

JOB NO. E00CO30A
KUHIO BEACH RESTORATION
GROIN CONSTRUCTION, SMALL SCALE BEACH NOURISHMENT,
AND GROIN REPAIRS
OAHU, HAWAII

on file in the office of the Engineering Division for the TOTAL BASE BID (Items 1 to 6) of:

_____ Dollars (\$ _____)

and will fully complete all work under this contract within 180 consecutive calendar days from the date of written notice to proceed, including date of said order, said total sum being itemized on the following pages.

ADDITIVE BID ITEMS

The Bidder further proposes to incorporate in the work the Additive Bid Item as described on the drawings and Specifications Section 01230 ADDITIVE BID ITEMS for the following amounts.

The Bidder must completely fill in the dollar amounts for each Additive Bid Items, where the work will be performed at no cost to the State, fill in "\$0.00" as the dollar amount. If Additive dollar amounts are left blank, the proposal will be rejected as being an "irregular proposal":

Additive Bid Item

_____ Dollars (\$ _____)

PROPOSAL

Item No.	Quantity	Unit	Description	Unit Price	Total
<u>BASE BID</u>					
1.		LS	Sandbag groin demolition and rock rubble mound groin construction	LS	\$
2.		LS	Beach sand borrow, transport, and placement.	LS	\$
3.		LS	BMP Plan, Environmental and Pollution Controls, in place and complete.	LS	\$
4.		LS	Project Sign, in place complete.	LS	\$
5.	Allowance		Field Office.		\$ 10,000.00
Subtotal Base Bid (Items 1-5)					\$
6.		LS	Mobilization and Demobilization (not to exceed 10% of the Subtotal Base Bid)		\$
Total Base Bid (Items 1-6)					\$

<u>ADDITIVE ITEM</u>					
7.		LS	Ewa Groin Repairs	LS	\$
Total Sum Additive (Item 7)					\$

NOTE: Bid Item No. 2 is based on a quantity of 1,000 cy of sand to be borrowed and placed, as shown on the Plans. The Engineer reserves the right to revise the borrow and placement plan no less than two (2) weeks prior to the start of construction if necessary to reflect current beach conditions. If the sand quantity is reduced the Bid Item Price will be reduced in direct proportion to the sand quantity reduction (e.g., a 10% reduction in sand quantity will result in a 10% reduction in Unit Price). The sand quantity, however, shall not be reduced to less than 500 cy.

BIDDER’S STATEMENT OF QUALIFICATION

This BIDDER’S STATEMENT OF QUALIFICATION shall be included and made a part of the contractor’s bid proposal. Failure to fully complete, and have notarized, this STATEMENT will be sufficient cause for the State to disqualify a prospective bidder. The completed and notarized STATEMENT must be submitted to the Department of Land and Natural Resources, Engineering Division, through the HIePRO system as indicated in the NOTICE TO BIDDERS.

Bidders must demonstrate prior work force experience in working with rock rubble mound shoreline structures satisfying the minimum requirements of SECTION 01200 QUALIFICATION OF BIDDERS. Bidders who, in the judgment of the State, do not meet such minimum requirements will have their bids rejected.

Full and explicit replies to the inquiries are required. Attach additional sheets as required.

Print or Type All Information

A. GENERAL BIDDER INFORMATION

Bidder’s Name and Mailing Address

Bidder’s Street Address (if different than above)

Name of Contact Person _____

Bidder’s Telephone Number () _____

Bidder’s Fax Number () _____

Hawaii Contractor’s License _____

B. GENERAL QUALIFICATION REQUIREMENTS

A bidder’s bid will be rejected if the bidder cannot provide for the Project a minimum work force whose members have been deemed “qualified” by the State.

The minimum work force required for the Project, for which each member must be deemed “qualified” by the State, shall include one (1) WORK SUPERVISOR and one (1) WORK CREW MEMBER. Each member of the Contractor’s work force must be under the Contractor’s, or his subcontractor’s, employment **at the time of the Notice to Proceed.**

Prospective bidders are permitted to name more than one person in this STATEMENT for each position requiring qualifying experience. Attach additional sheets as required.

C. QUALIFICATIONS REQUIREMENTS

All work involving rock rubble mound shall be performed by an experienced Contractor's or Subcontractor's work force. The rock rubble mound work force shall include, but not be limited to, the work supervisor and one work crew member (other than the supervisor) who will be involved in construction of the rock rubble mound groins.

1. ROCK RUBBLE MOUND WORK SUPERVISOR – The rock rubble mound work supervisor shall have direct supervisory experience as specified in Section 01200 - QUALIFICATION OF BIDDERS.

Name of rock rubble mound Structure Work Supervisor: _____

List Supervisor's qualifying projects below:

a) **PROJECT #1** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that Supervisor directly performed in Qualifying Supervisory Position (in Square Feet)

b) **PROJECT #2** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that Supervisor directly performed in Qualifying Supervisory Position (in Square Feet)

c) **PROJECT #3** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that Supervisor directly performed in Qualifying Supervisory Position (in Square Feet)

2. ROCK RUBBLE MOUND WORK CREW MEMBER – The rock rubble mound work crew member shall have direct field experience as specified in Section 01200 - QUALIFICATION OF BIDDERS.

Name of rock rubble mound Structure Work Member: _____

List Work Crew Members' s qualifying projects below:

a) **PROJECT #1** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that crew member directly performed in Qualifying Position (in Square Feet)

b) **PROJECT #2** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that crew member directly performed in Qualifying Position (in Square Feet)

c) **PROJECT #3** _____

Employer _____

Employer Address _____

Contact Person _____

Employer Telephone Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Total area of rock rubble mound construction work that crew member directly performed in Qualifying Position (in Square Feet)

AFFIDAVIT

Affidavit for Individual

State of _____)
County of _____) ss. dba _____

I, _____, being duly sworn and depose and say that the foregoing statements and answers to the questions are correct and true as of the date of this affidavit.

(Applicant sign here)

Subscribed and sworn to before me this _____ day of _____, 20____.

NOTARY PUBLIC
My commission expires _____

Affidavit for Co-Partnership

State of _____)
County of _____) ss. dba _____

I, _____, being duly sworn and depose and say I am a partner in the firm of _____, that the foregoing statements and answers to the questions are correct and true as of the date of this affidavit.

(Member of firm sign here)

Subscribed and sworn to before me this _____ day of _____, 20____.

NOTARY PUBLIC
My commission expires _____

Affidavit for Corporation

State of _____)
County of _____) ss. dba _____

I, _____, being duly sworn and depose and say I am a _____ of the _____ Corporation described in and which executed the foregoing statement; that the foregoing statements and answers to the questions are correct and true as of the date of this affidavit.

(Member of firm sign here)

Subscribed and sworn to before me this _____ day of _____, 20____.

NOTARY PUBLIC
My commission expires _____

RECYCLED PRODUCTS PREFERENCE

This project allows a 10% price preference for recycled products in accordance with HRS 103D-1005. Please indicate your recycled or non-recycled product by indicating its cost FOB jobsite unloaded in the schedule below, including applicable General Excise & Use Taxes.

<u>DESCRIPTION</u>	<u>RECYCLED PRODUCT COST</u>	<u>NONRECYCLED PRODUCT COST</u>
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____

The bidder requesting a recycled product preference shall also complete and submit the form "CERTIFICATION OF RECYCLED CONTENT" as shown in the Interim General Conditions and provide all supporting information with this proposal. Additional information may be requested to qualify a product.

The following definitions are applicable to the CERTIFICATION OF RECYCLED CONTENT form:

"Post-consumer recovered material" means any product used by a consumer, including a business that purchases the material, that has served its intended end use, and that has been separated or diverted from the solid waste stream for the purpose of use, reuse, or recycling.

"Product" includes materials, manufactures, supplies, merchandise, goods, wares, and foodstuffs.

"Recovered material" means waste material and by-products that have been separated, diverted, or removed from the solid waste stream after a manufacturing process for the purpose of use, reuse, or recycling. Recovered material does not include those materials and by-products that are generated and normally reused on-site or within original manufacturing processes (such as mill broke, in the case of paper products).

"Recycled content" means the percentage of a product composed of recovered material, or post-consumer recovered material, or both.

"Recycled product" means a product containing recovered material, or post-consumer recovered material, or both.

The bidder agrees that preference for recycled products shall be taken into consideration to determine the low bidder in accordance with said Section and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive any preference.

APPRENTICESHIP AGREEMENT PREFERENCE

1. If applicable to this project, any bidder seeking the preference must be a party to an apprenticeship agreement registered with the State Department of Labor and Industrial Relations (DLIR) at the time the bid is submitted for each apprenticeable trade the bidder will employ to construct the project. “Employ” means the employment of a person in an employer-employee relationship.
 - a. The apprenticeship agreement shall be registered with the DLIR and conform to the requirements of Hawaii Revised Statutes Chapter 372.
 - b. Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain preference.
 - c. The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
2. A bidder seeking the preference must state the apprenticeable trade the bidder will employ for each trade to be employed to perform the work by submitting a completed signed original Certification Form 1 verifying participation in an apprenticeship program registered with DLIR. “Apprenticeable trade” shall have the same meaning as “apprenticeable occupation” pursuant to Hawaii Administrative Rules (HAR) §12-30-5.
 - a. The *Certification Form 1* shall be authorized by an apprenticeship sponsor listed on the DLIR list of registered apprenticeship programs. “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the DLIR pursuant to HAR §12-30-1.
 - b. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor.
 - c. The completed signed original Certification Form 1 for each trade must be submitted with the bid. Previous certifications shall not apply.
 - d. When filling out the *Certification Form 1*, the name of Apprenticeable Trade and Apprenticeship Sponsor must be the same as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the DLIR website. “Registered apprenticeship program” means a construction trade program approved by the DLIR pursuant to HAR §12-301 and §12-30-4.
 - e. The *Certificate Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://hawaii.gov/labor/wdd>.
3. Upon receiving the *Certification Form 1*, the Procurement Officer will verify that the apprenticeship program is on the List of Construction Trades in Registered Apprenticeship Programs and that the form is signed by an authorized official of the Apprenticeship Program Sponsor. If the programs and signature are not confirmed by the DLIR, the bidder will not qualify for the preference.
4. If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder’s bid

amount by five percent (5%) for evaluation purposes.

5. Should the bidder qualify for other preferences (e.g. Hawaii Products), all applicable preferences shall be applied to the bid price.

CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS PROHIBITED

Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body.

CONDITION OF AWARD

It is understood that the award of the contract will be made on the basis of the lowest responsible Total Base Bid and Additive Bid Items in accordance with the "Information and Instruction to Bidders", Items K and L, and as selected by the Board of Land and Natural Resources.

It is understood and agreed that the Board of Land and Natural Resources reserves the right to reject any and/or all bids and waive any defects when, in the Board's opinion, such rejection or waiver will be for the best interest of the State of Hawaii.

In the event all bids exceed available funds certified by the appropriate fiscal officer, the head of the purchasing agency responsible for the procurement in question is authorized in situations where time or economic considerations preclude resolicitation of work of a reduced scope to negotiate an adjustment of the bid price, including changes in the bid requirements, with the low responsible and responsive bidder, in order to bring the bid within the amount of available funds. It is understood and agreed upon that the head of the purchasing agency may delete a portion or all of any item(s) in the proposal at the stated unit or lump sum price as necessary to stay within the available funding. The bidder is responsible to make an earnest effort to represent the actual cost of each item, including all materials, labor, equipment, overhead and profit in their bid proposal to preclude claims of anticipated profit or loss of profit because of an unbalanced bid proposal.

It is also understood that if a mutually agreeable cost for the reduced scope of work necessitated by a lack of available funds cannot be agreed upon between the bidder and the head of the purchasing agency within 14 calendar days after the bid opening, then the bid may be rejected in the best interest of the purchasing agency, and the head of the purchasing agency may negotiate in progressive order (lowest to highest) with the next lowest responsible and responsive bidder.

It is also understood and agreed that the award of the contract shall be conditioned upon funds being made available for this project and further upon the right of the Board of Land and Natural Resources to hold all bids received for a period of one hundred and eighty (180) days from the date of the opening thereof, unless otherwise required by law, during which time no bid may be withdrawn.

It is also understood that Notice to Proceed may be delayed up to eighteen (18) months after the bid opening date, and that no additional compensation will be provided for any claim for escalation or delay for issuance of Notice to Proceed on or before that date.

It is also understood and agreed that the quantities given herewith are approximate only and are subject to increase or decrease, and that the undersigned will perform all quantities of work as either increased or decreased, in accordance with the provisions of the Contract Specifications.

It is also understood and agreed that the estimated quantities shown for the items for which a UNIT PRICE is asked in this Proposal are only for the purpose of comparing on a uniform basis, bids offered for the work under this contract, and the undersigned agrees that he is satisfied with and will at no time, dispute said estimated quantities as a means of claims for anticipated profit or loss of profit, because of a difference between the quantities of the various classes of work done or the materials and equipment installed, and the said estimated quantities. On UNIT PRICE bids, payment will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.

After the proposals are opened and read, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared. In the comparison of bids, words written in the proposal shall govern over figures and unit prices will govern over totals. Until the award of the contract, however, the right will be reserved to reject any and all proposals and to waive any defects or technicalities as may be deemed best for the interest of the State.

It is also understood and agreed that liquidated damages in the amount of Two hundred and No/100 (\$200.00) for each and every calendar day in excess thereof prior to completion of the contract shall be withheld from payments due to the Contractor.

It is also understood and agreed that if this bid is accepted, the successful bidder must enter into and execute a contract with the Board of Land and Natural Resources and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to provisions of Section 103D-324 and 325, Hawaii Revised Statutes and any law applicable hereto.

It is also understood and agreed that the successful bidder will provide all necessary labor, materials, tools, equipment, and other incidentals necessary to do all the work and furnish all the materials specified in the contract in the manner and time herein prescribed, and according to the requirements of the Engineer as therein set forth.

It is understood that by submitting this proposal, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past two years.

It is understood that by submitting this proposal in accordance with HAR 3-122-192, the undersigned is declaring that the price submitted is independently arrived without collusion.

It is also understood that by submitting this proposal, a Certification for Safety and Health Programs for bids in excess of \$100,000 (in accordance with HRS 396-18), the undersigned certifies that his organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division (HIOSH).

It is further understood and agreed that the successful bidder shall comply with paragraph 3.1.a "SUBCONTRACTING" of the General Provisions which requires that the contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence, work of a value not less than twenty percent (20%) of the value of all work embraced in the Contract, except that certain contract items of work, if specifically referred to in the special provisions, will be exempted from said twenty percent requirement.

Compliance with §103-310 HRS. As a condition of award all bidders shall comply with all laws governing entities doing business in the State, including Chapter 237 HRS (general excise tax);

Chapter 383 HRS (employment security – unemployment insurance); Chapter 386 HRS (workers compensation); Chapter 392 HRS (temporary disability insurance); and Chapter 393 HRS (pre-paid health care), and shall produce all documents to the State (DLNR, Engineering Division) required to demonstrate compliance with these subsections. Any bidder making a false affirmation or certification under this subsection shall be suspended and may be debarred from further offerings or awards pursuant to §103D-702 HRS.

RECEIPT OF ADDENDA

The bidder also acknowledges receipt of any and all addenda issued by the Engineering Division, by recording the date of receipt of the respective addenda in the space provided below:

<u>Addendum</u>	<u>Date Received</u>	<u>Addendum</u>	<u>Date Received</u>
No. 1	_____	No. 5	_____
No. 2	_____	No. 6	_____
No. 3	_____	No. 7	_____
No. 4	_____	No. 8	_____

It is understood that failure to receive any such addendum shall not relieve the Contractor from any obligation under this Proposal as submitted.

It is also understood and agreed that if this Proposal is accepted and the undersigned should fail or neglect to contract as aforesaid, the Board may determine that the bidder has abandoned the Contract, and thereupon, forfeiture of the security accompanying his proposal shall operate and the same shall become the property of the Board.

JOINT CONTRACTORS OR SUBCONTRACTORS
TO BE ENGAGED ON THIS PROJECT

The Bidder agrees that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes (HRS), who will be engaged by the Bidder on this project to perform the required work indicated pursuant to Section 103D-302, HRS. It is the sole responsibility of the contractor to review the requirements of this Project and determine the appropriate licenses that are required to complete the Project. The Bidder certifies that the completed listing of joint contractors or subcontractors fulfills the requirements for the project and the Bidder, together with the listed subcontractors or joint contractors have all the specialty contractor's licenses to complete the work, except as provided for in HRS §103D-302(b). Failure of the Bidder to comply with this requirement may be just cause for rejection of the bid.

“A” General Engineering Contractors and “B” General Building Contractors are reminded that due to the Hawaii Supreme Court’s January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area in which the general contractor has no license. Although the “A” and “B” contractor may still bid on and act as the “prime” contractor on an “A” or “B” project (See, HRS §444-7 for the definitions of an “A” and “B” project.), respectively, the “A” and “B” contractor may only perform work in the areas in which they have the appropriate contractor’s license (*An “A” or “B” contractor obtains “C” specialty contractor’s licenses either on its own, or automatically under HAR § 16-77-32*). The remaining work must be performed by appropriately licensed entities.

General Engineering “A” Contractors automatically have these “C” specialty contractor’s licenses: C-3, C-9, C-10, C-17, C-24, C-31a, C-32, C-35, C-37a, C-37b, C-38, C-43, C-49, C-56, C-57a, C-57b and C-61.

General Building “B” Contractors automatically have these “C” specialty contractor’s licenses: C-5, C-6, C-10, C-12, C-24, C-25, C-31a, C-32a, C-42a and C-42b.

In completing the Joint Contractors or Subcontractors List, describe the specialty contractor’s nature and scope of work to be performed for this project and provide the complete firm name of the joint contractor or subcontractor in the respective columns. If the Bidder is a general contractor providing the work of a required specialty contractor, whose license is not automatically held pursuant to HAR 16-77-32, fill in the Bidder’s (general contractor’s) name and nature and scope of work to be performed on this project.

List only one joint contractor or subcontractor per required specialty contractor’s classification, unless within the same specialty, the work of each joint contractor or subcontractor can be described so that there is no overlap in work descriptions.

If a contractor’s license is required by law for the performance of the work which is called for in this bid, the bidder and all subcontractors must have the required license before the submission of the bidder’s proposal in the case of a non-federal aid project, and for federal-aid projects, the bidder must have the required license prior to the award of the project and all subcontractors prior to the start of the subcontracted work.

Enclosed herewith is a:

- 1. Surety Bond (*1))
- 2. Legal Tender (*2))
- 3. Cashier's Check (*3))
- 4. Certificate of Deposit (*3)) in the
- 5. Certified Check (*3)) amount
- 6. Official Check (*3)) of
- 7. Share Certificate (*3))
- 8. Teller's Check (*3))
- 9. Treasurer's Check (*3))

(Cross Out Those Not Applicable)

Dollars (\$ _____)

as required by law.

Respectfully submitted,

Name of Company, Joint Venture
or Partnership

Contractor's License No.

By _____
Signature (*4)

Title _____

Print Name _____

Date _____

Address _____

Telephone No. _____

E-Mail Address _____

NOTES:

1. Surety bond underwritten by a company licensed to issue bonds in this State;
2. Legal tender; or
3. A certificate of deposit; share certificate; or cashier's, treasurer's, teller's, or official check drawn by, or a certified check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
 - A. These instruments may be utilized only to a maximum of \$100,000.
 - B. If the required security or bond amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.
4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company and also the names and residence addresses of all officers of the Company.
5. Fill in all blank spaces with information asked for or bid may be invalidated. PROPOSAL MUST BE INTACT, MISSING PAGES MAY INVALIDATE YOUR BID.

End of Proposal

SPECIAL PROVISIONS

Amend INTERIM GENERAL CONDITIONS, dated October 1994, as follows:

Section 2 – Proposal Requirements and Conditions

1. **AMEND** Section 2.1 Qualification of Bidder with the following:

Written Notice of Intent to Bid or Offer: A written Notice of Intent to Bid is not required for the Solicitation.

Standard Qualification Questionnaire: Bidders may be required to complete a standard qualifications questionnaire. When requested, the information shall be furnished within two working days or longer at the discretion of the Engineer. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.

Hawaii Business or Compliant Non-Hawaii Business Requirement: Bidders shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR. A certified letter is not required prior to bid opening.

Compliance with §3-122-112 HAR: As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- A. Tax Clearance (HRS Chapter 237): Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.
- B. Department of Labor (DLIR) “Certificate of Compliance”. (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers’ Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.
- C. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “Certificate of Good Standing”. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Hawaii Compliance Express. Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.hawaii.gov> to acquire a “Certificate of Vendor compliance” indicating that bidder’s status is compliant with requirements of §103D-310(c), HRS, shall be accepted for contracting and final payment purposes.

Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be required to provide the paper certificates as instructed in the previous paragraphs.

2. **ADD** Section 2.4a, Pre-Bid Conferences

Required Pre-bid Conferences: For construction and design-build projects with an estimated value of \$500,000 or more and solicited under the competitive sealed bid method (103D-302 HRS); and for construction and design-build projects with an estimated value of \$100,000 or more and solicited under the competitive sealed proposal method (103D-303 HRS); a pre-bid conference is required.

Other Pre-Bid Conferences: The Department may require a pre-bid conference for construction or design-build projects that are below the dollar threshold listed in above or when projects have special or unusual requirements.

Other Conditions: The Department may require the prospective Bidders to make a physical inspection of the project site and make attendance at the pre-bid conference a condition for submitting an offer.

Nothing stated at the pre-bid conference shall change the solicitation unless a change is made by written addendum.

3. **DELETE** Section 2.5, Addenda and Interpretations, in its entirety and replace with the following:

“Discrepancies, omissions, or doubts as to the meaning of drawings and specifications should be communicated using the question and answer section on the HIEPRO solicitation for interpretation and must be received in the time frame set in the HIEPRO solicitation. Any interpretation, if made and any supplemental instructions will be in the form of written addenda to the plans and specifications and made available prior to the offer due date. It shall be the prospective bidder’s sole responsibility to verify and obtain any said addenda. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.”

Section 3 – Award and Execution of Contract

1. **AMEND** Section 3.3, Award of Contract, by deleting “sixty (60)” and replacing with “one hundred eighty (180)” in the first paragraph.

2. **AMEND** Section 3.3, Award of Contract, by adding the following after the first paragraph:

“If the contract is not awarded within the one hundred eighty (180) days, the Department may request the successful Bidder to extend the time for the acceptance of its bid. The Bidder may reject such a request without penalty; and in such case, the Department may at its sole discretion make a similar offer to the next lowest responsive and responsible bidder and so on until a bid is duly accepted or until the Department elects to stop making such requests.”

3. **AMEND** Section 3.9, Notice to Proceed, by replacing the last paragraph with the following:

In the event the Notice to Proceed is not issued within eighteen (18) months after the date of bid opening, the Contractor may submit a claim for increased labor and materials costs (but not overhead costs). The claim shall be for labor and material costs incurred after eighteen (18) months and the full duration of the contract time allowed for the performance of the work (as specified on Page P-1 of the [Bid] PROPOSAL) have elapsed. Such claims shall be accompanied with the necessary documentation to justify the claim. No payments will be made for escalation costs that are not fully justified as determined by the State.

4. **ADD** Section 3.10, Protests:

“3.10 PROTESTS—Pursuant to Section 103D-701, Hawaii Revised Statutes, an actual or prospective offeror who is aggrieved in connection with the solicitation or award may submit a protest. Any protest shall be submitting in writing to the Chairperson, Department of Land and Natural Resources, 1151 Punchbowl Street, Honolulu, Hawaii 96813, or designee as specified in the solicitation.

A protest shall be submitted in writing within five (5) working days after the aggrieved person knows or should have known the facts giving rise thereto; provided that a protest based upon the content of the solicitation shall be submitted in writing prior to the date set for receipt of offers. Further provided that a protest of an award or proposed award shall be submitted within five (5) working days after the posting of the award of the contract.

The notice of award, if any, resulting from this solicitation shall be posted on the HIEPRO website.

Section 5 – Control of Work

AMEND Section 5.8 Value Engineering Incentive by deleting “\$100,000” and replacing with “\$250,000” in the first paragraph.

Section 6 – Substitution of Materials and Equipment

ADD the following to Section 6.3 Sub-paragraph b:

4. If the substitution meets all the requirements of the specifications and plans.

Section 7 – Prosecution and Progress

1. **DELETE** Section 7.2d in its entirety and replace with the following:

“d. INSURANCE REQUIREMENTS

1. **Obligation of Contractor** - Contractor shall not commence any work until it obtains, at its own expense, all required herein insurance. Such insurance must have the approval of the Department as to limit, form and amount and must be maintained with a company authorized by laws of the State to issue such insurance in the State of Hawaii. Coverage by a “Non-Admitted” carrier is permissible provided the carrier has a AM Best’s Rating of “A-VII” or better.
2. All insurance described herein will be maintained by the Contractor for the full period of the contract and in no event will be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the Department.
3. Certificate(s) of Insurance acceptable to the Department shall be filed with the Engineer prior to commencement of the work. Certificates shall identify if the insurance company is a “captive” insurance company or a “Non-Admitted” carrier to the State of Hawaii. The Best’s Rating must be stated for the “Non-Admitted” carrier. Certificates shall contain a provision that coverages afforded under the policies will not be canceled or changed until at least thirty (30) days written notice has been given to the Engineer by registered mail. The insurance policies shall name the State of Hawaii, its officers and employees as an additional insured and such coverage shall be noted on the certificate. Should any policy be canceled before

final acceptance of the work by the Department, and the Contractor fails to immediately procure replacement insurance as specified, the Department, in addition to all other remedies it may have for such breach, reserves the right to procure such insurance and deduct the cost thereof from any money due to the Contractor.

4. Nothing contained in these insurance requirements is to be construed as limiting the extent of Contractor's responsibility for payment of damages resulting from its operations under this contract, including the Contractor's obligation to pay liquidated damages, nor shall it affect the Contractor's separate and independent duty to defend, indemnify and hold the Department harmless pursuant to other provisions of this contract. In no instance will the Department's exercise of an option to occupy and use completed portions of the work relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance of the work.
5. All insurance described herein shall cover the insured for all work to be performed under the contract, all work performed incidental thereto or directly or indirectly connected therewith, including traffic detour work or other work performed outside the work area, and all change order work.
6. The Contractor shall, from time to time, furnish the Engineer, when requested, satisfactory proof of coverage of each type of insurance required or a copy of the actual policies covering the work. Failure to comply with the Engineer's request may result in suspension of the work and shall be sufficient grounds to withhold future payments due the Contractor and to terminate the contract for Contractor's default.
7. If the Contractor is self-insured, it shall furnish, upon the request and the satisfaction of the Engineer, any documentation to demonstrate the ability to self-insure itself. The Engineer, from time to time, can conduct an audit to determine the ability of the Contractor to be self-insured. Failure to comply with the Engineer's request will be considered a material breach of the contract, and at the discretion of the Engineer, may be sufficient grounds to terminate the contract, suspend any work or withhold future payments.
8. It is the responsibility of the Contractor to notify the Department of any changes to its insurance policies or if the Contractor receives a notice of cancellation of any of its insurance policies. The Contractor will immediately provide written notice to the Department should the insurance policies evidenced on its Certificate of Insurance form be cancelled, limited in scope, or not renewed upon expiration.
9. In addition, the Contractor's insurance policies shall contain the following clauses:
 - (a) The State of Hawaii is added as an additional insured with respect to operations performed for the State of Hawaii.
 - (b) It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contribute with, insurance provided by this policy.
- 10. Types of Insurance** - The Contractor shall purchase and maintain insurance described below which shall provide coverage against claims arising out of the Contractor's operations under the contract, whether such operations be by the Contractor itself or by the subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.
 - (a) **Worker's Compensation.** The Contractor and all subcontractors shall obtain worker's compensation insurance for all persons whom they employ or may employ in carrying

out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract.

- (b) Commercial General Liability. The Contractor shall obtain General Liability insurance with a limit of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate. The commercial general liability insurance shall include the State as an additional insured. The required limit of insurance may be provided by a single policy or with a combination of primary and excess policies.
- (c) Comprehensive Automobile Liability. The Contractor shall obtain Auto Liability insurance covering all owned, non-owned and hired autos with a combined single Limit of not less than \$1,000,000 per accident for bodily injury and property damage. The State shall be named as additional insured. The required limit of insurance may be provided by a single policy or with a combination of primary and excess policies.

Furthermore, the Contractor's commercial general liability insurance and automobile liability insurance shall include coverage for bodily injury, sickness, disease or death of any person, arising directly or indirectly out of, or in connection with, the performance of work under this contract.

The Contractor's property damage liability insurance shall provide for all damages arising out of injury to or destruction of property of others including the Department's, arising directly or indirectly out of or in connection with the performance of the work under this contract including explosion or collapse.

The Contractor shall either:

- i. Require each of its subcontractors to procure and to maintain during the life of its subcontract, subcontractors' comprehensive general liability, automobile liability and property damage liability insurance of the type and in the same amounts specified herein; or
- ii. Insure the activities of its subcontractors in its own policy.

The Contractor will be permitted, in cooperation with insurers, to maintain a self-insured retention for up to 25% of the per occurrence combined single limits of the commercial general liability and the automobile liability policies. The existence of the self-insured retention must be noted on the certificate of insurance coverage submitted to the Department or else it will be understood that the insurer is providing first dollar coverage for all claims. For all claims within the self-insured retention amount, the rights, duties and obligations between the Contractor and the Department shall be identical to that between a liability insurer and the Department, as an additional insured, as if there was no self-insured retention.

- (d) Builder's Risk Insurance. Unless included in the Specifications of this project, the Contractor shall not be required to provide builder's risk insurance. If required as noted in the Specifications, builder's risk insurance shall be provided during the progress of work and until final acceptance by the Department upon completion of the contract. It shall be "All Risk" (including but not limited to earthquake, windstorm and flood damage) completed value insurance coverage on all completed work and work in

progress to the full replacement value thereof. Such insurance shall include the Department as additional name insured. The Contractor shall submit to the Engineer for its approval all items deemed to be uninsurable. The policy may provide for a deductible in an amount of up to 25% of the amount insured by the policy. With respect to all losses up to any deductible amount, the relationship between the Contractor and the Department shall be that of insurer and additional insured as if no deductible existed”.

2. **DELETE** Section 7.16 in its entirety and replace with the following:

“RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY – The Contractor shall indemnify the State and the Department against all loss of or damage to the State’s or the Department’s existing property and facilities arising out of any act or omission committed in the performance of the work by the Contractor, any subcontractor or their employees and agents. Contractor shall defend, hold harmless and indemnify the Department and the State, their employees, officers and agents against all losses, claims, suits, liability and expense, including but not limited to attorneys’ fees, arising out of injury to or death of persons (including employees of the State and the Department, the Contractor or any subcontractor) or damage to property resulting from or in connection with performance of the work and not caused solely by the negligence of the State or the Department, their agents, officers and employees. The State or the Department may participate in the defense of any claim or suit without relieving the Contractor of any obligation hereunder. The purchase of liability insurance shall not relieve the Contractor of the obligations described herein.

The Contractor agrees that it will not attempt to hold the State and its Departments and Agencies and their officers, representatives, employees or agents, liable or responsible for any losses or damages to third parties from the action of the elements, the nature of the work to be done under these specifications or from any unforeseen obstructions, acts of God, vandalism, fires or encumbrances which may be encountered in the prosecution of the work.

The Contractor shall pay all just claims for materials, supplies, tools, labor and other just claims against the Contractor or any subcontractor in connection with this contract and the surety bond will not be released by final acceptance and payment by the Department unless all such claims are paid or released. The Department may, but is not obligated to, withhold or retain as much of the monies due or to become due the Contractor under this contract considered necessary by the Engineer to cover such just claims until satisfactory proof of payment or the establishment of a payment plan is presented.

The Contractor shall defend, indemnify and hold harmless the State and its Departments and Agencies and their officers, representatives, employees or agents from all suits, actions or claims of any character brought on account of any claims or amounts arising or recovered under the Worker’s Compensation Laws or any other law, by-law, ordinance, order or decree.

Section 8 – Measurement and Payment

1. **DELETE** Section 8.7a in its entirety and replace with the following:

- a. Tax Clearances from the State of Hawaii Department of Taxation and Internal Revenue Service, subject to section 103D-328, HRS, current within two months of issuance date indicating that all delinquent taxes levied or accrued under State Statutes against the contractor have been paid.

2. **ADD** Section 8.7d, Certificate of Compliance:

- d. A Certification from the Contractor affirming that the Contractor has, as applicable, remained in
SP-6

compliance with all laws as required by Section 103D-310, HRS, and Section 3-122-112, HAR. A contractor making a false affirmation shall be suspended and may be debarred pursuant to section 103D-702, HRS.

1. Certification of Compliance for Final Payment, State Procurement Office Form-22. Must be Signed Original.

3. **ADD** Section 8.7e, Hawaii Compliance Express:

- e. In lieu of submitting the tax clearances from Taxation and IRS, and SPO Form -22, the Contractor may choose to use the Hawaii Compliance Express as described on page SP-1 of this Special Provisions.

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SECTION 01019

GENERAL SPECIFICATIONS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

Work shall consist of furnishing all labor, tools, materials, and equipment necessary and required to construct in place complete all work as indicated on the PLANS and as specified herein.

1.2 GENERAL

- A. Examination of Premises: The Contractor shall contact the Engineer and obtain permission before visiting the site.
- B. All lines and grades shall be established by a licensed surveyor, or licensed Civil Engineer, registered in the State of Hawaii. The Contractor shall submit evidence of current and valid registration.
- C. Notices: The Contractor shall notify the Engineer and give at least three (3) working days notice before starting any work.
- D. Disruption of Utility Services: All work related to the temporary disconnection of electrical systems shall be pre-arranged with the Engineer so that any disruption of such services will be kept to a minimum. In the event temporary power hook-up is required, the Contractor shall provide the necessary services.
- E. Contractor's Operations
 - 1. The Contractor must employ, insofar as possible, such methods and means of carrying out the work so as not to cause any interruption or interference to the facility's operations. Where the Contractor's operations would result in interruptions which would hamper the operations of the facilities, the Contractor shall rearrange the schedule of work accordingly.
 - 2. The Contractor shall maintain safe passageway to and from the facility for the user agency personnel and the public at all times.
- F. Construction Schedule. Work on the Kuhio Beach Restoration project shall be completed within 150 consecutive calendar days. The Contractor shall not commence construction until all approved material, tools, and equipment required for the project are ready to be used at the project site.

G. Lead Paint

1. When the project includes paint to be disturbed that was applied prior to 1980, it shall be assumed to contain lead. The Contractor shall inform its employees, subcontractors, and all other persons engaged in the project that lead containing paints are present in the existing buildings at the job site and to follow the requirements of the Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Title 12, Subtitle 8, Chapter 148, Lead Exposure in Construction, Hawaii Administrative Rules (Chapter 12-148, HAR).

H. Parking Policy for Contractor

1. The Contractor and its employees will not be allowed to park in zones assigned to facility personnel.
2. Areas to be used by the Contractor shall be as designated by the Engineer. Any lawn damaged by the Contractor shall be restored as instructed by the Engineer at no cost to the State.

I. Toilet Accommodations: Contractor is responsible for providing toilet accommodations for its employees.

J. Protection of Property: The Contractor shall continually maintain adequate protection of all its work from damage and shall protect all property, including but not limited to buildings, equipment, furniture, grounds, vegetation, material, and utility systems located at and adjoining the job site. The Contractor shall repair, replace, or pay the expense of repair of damages resulting from its operations.

K. Use of Power Driven Equipment: The Contractor is cautioned to take all necessary safety precautions to protect the facility personnel and the public whenever power driven equipment is used.

L. Safety: The Contractor shall carefully read and strictly comply with the requirements of the Hawaii Occupational Safety and Health Law, Chapter 396, Hawaii Revised Statutes, as amended, is applicable and made a part of the Contract.

M. Clean Up Premises: The Contractor shall clean up and remove from premises all debris accumulated from operations as necessary or as directed.

N. Responsibility

1. The State will hold the Contractor liable for all the acts of Subcontractors and shall deal only with the prime Contractor in matters pertaining to other trades employed on the job. The Contractor shall be responsible for coordinating the work of all trades on the job.
2. Should the Contractor discover any discrepancy in the PLANS or specifications, the Contractor shall immediately notify the Engineer before proceeding any further with

the work, otherwise, the Contractor will be held responsible for any cost involved in correction of work placed due to such discrepancy.

- O. Cooperation With Other Contractors: The State reserves the right at any time to contract for or otherwise perform other or additional work within the contract zone limits of this Contract. The Contractor of this project shall, to the extent ordered by the State, conduct its work so as not to interfere with or hinder the progress or completion of the work performed by other contractors.
- P. Division of the Work: The Divisions and Sections into which these Specifications are divided shall not be considered an accurate or complete segregation of work by trades. This also applies to all work specified within each Section.
- Q. Drawings and Specifications
1. The Contractor shall not make alterations in the PLANS and specifications. In the event the contractor discovers any errors or discrepancies, the Contractor shall immediately notify the Engineer in accordance with the General Conditions.
 2. Where devices, or items, or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many such devices, items or parts as are required to properly complete the work.
 3. Specifications and PLANS are prepared in abbreviated form and include incomplete sentences. Omission of words or phrases such as "the Contractor shall", "as shown on the drawings", "a", "an", and "the" are intentional. Omitted words and phrases shall be provided by inference to form complete sentences.
- R. Required Submittals
1. Required submittals as specified in the Technical Sections of these specifications include one or more of the following: Shop drawings; color samples; material samples; technical data; schedules of materials; schedules of operations; guarantees; operating and maintenance manuals; and as-built drawings.
 2. The Contractor shall make a comprehensive list of the required submittals, by Specification Section, and submit this list to the Engineer within 15 days after notice to proceed.
 3. As-Built Drawings: When as-built drawings are required for submittal, the following shall apply:
 - a. As-built drawings, the intent of which is to record the actual in-place construction so that any future renovations or tie-ins can be anticipated accurately, shall be required.
 - b. All deviations from alignments, elevations and dimensions which are stipulated on the PLANS shall be recorded in red on the as-built drawings.
 - c. The following procedure shall be followed:

- 1) Immediately after these changes are constructed in place, the Contractor shall record them on the field office PLANS.
- 2) Within two weeks after final inspection of the project, the Contractor shall transfer the changes marked on the field office PLANS onto a clean copy of PLANS using a red pencil. Any deletions shall be so noted and redrawn as necessary. The Contractor shall stamp or mark the tracings "AS-BUILT", and also sign and date each drawing so marked.
- 3) The Contractor shall submit the as-built drawings to the Engineer for review and approval. After the Engineer approves the as-built drawings, the Contractor shall submit an electronic copy in Adobe PDF format.
- 4) Any as-built drawing which the Engineer determines does not accurately record the deviation shall be corrected by the State, and the Contractor shall be charged for the services.

END OF SECTION

SECTION 01090

STANDARD REFERENCES

PART 1 – GENERAL

Wherever used in the project, the following abbreviations will have the meanings listed:

<u>Abbreviation</u>	<u>Company</u>
AA	Aluminum Association Incorporated 818 Connecticut Avenue, N.W. Washington, D.C. 20006
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W., Suite 225 Washington, D.C. 20001
ACI	American Concrete Institute P.O. Box 19150 Detroit, MI
AEIC	Association of Edison Illuminating Companies 51 East 42nd Street New York, NY 10017
AFBMA	Anti-Friction Bearing Manufacturer's Association 60 East 42nd Street New York, NY 10017
AGA	American Gas Association 8501 East Pleasant Valley Road Cleveland, OH 44131
AGMA	American Gear Manufacturer's Association 1330 Massachusetts Avenue, N.W. Washington, D.C.
AISC	American Institute of Steel Construction 101 Park Avenue New York, NY 10017
AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, D.C. 20036
AITC	American Institute of Timber Construction 333 West Hampden Avenue Englewood, CO 80110

<u>Abbreviation</u>	<u>Company</u>
AMCA	Air Moving and Conditioning Association, Inc. 30 West University Drive Arlington Heights, IL 60004
ANSI	American National Standards Institute, Inc. 1430 Broadway New York, NY 10018
APA	American Plywood Association 1119 A Street Tacoma, WA 98401
API	American Petroleum Institute 1801 K Street N.W. Washington, DC 20006
ARI	Air-Conditioning and Refrigeration Institute 1814 North Fort Myer Drive Arlington, VA 22209
ASCE	American Society of Civil Engineers 345 East 47th Street New York, NY 10017
ASCII	American Standard Code for Information Interchange United States of America Standards Institute 1430 Broadway New York, NY 10018
ASE Code	American Standard Safety Code for Elevators, Dumbwaiter and Escalators American National Standards Institute 1430 Broadway New York, NY 10018
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers United Engineering Center 345 East 47th Street New York, NY 10017
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103

<u>Abbreviation</u>	<u>Company</u>
AWPA	American Wood Preservers Association 1625 Eye Street Washington, DC 20006
AWS	American Welding Society 2501 N.W. 7th Street Miami, FL 33125
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235
CBM	Certified Ballast Manufacturers 2120 Keith Building Cleveland, OH 44115
CMAA	Crane Manufacturers Association of America, Inc. (Formerly called: Overhead Electrical Crane Institute - OECI) 1326 Freeport Road Pittsburgh, PA 15238
CRSI	Concrete Reinforcing Steel Institute 180 North La Salle Street Chicago, IL 60601
CSA	Canadian Standards Association 178 Rexdale Boulevard Rexdale, Ontario, M9W 1R3, Canada
DEMA	Diesel Engine Manufacturer's Association 122 East 42nd Street New York, NY 10017
DIS	Division of Industrial Safety California Department of Industrial Relations 2422 Arden Way Sacramento, CA 95825
EI	Edison Electric Institute 90 Park Avenue New York, NY 10016
EIA	Electronic Industries Association 2001 Eye Street N.W. Washington, DC 20006

<u>Abbreviation</u>	<u>Company</u>
EJMA	Expansion Joint Manufacturer's Association 331 Madison Avenue New York, NY 10017
ESO	Electrical Safety Orders, California Administrative Code, Title 8, Chap. 4, Subarticle 5 Office of Procurement, Publications Section P.O. Box 20191 8141 Elder Creek Road Sacramento, CA 95820
FEDSPEC	Federal Specifications General Services Administration Specification and Consumer Information Distribution Branch Washington Navy Yard, Bldg. 197 Washington, DC 20407
FEDSTDS	Federal Standards (see FEDSPECS)
FM	Factory Mutual Research 1151 Boston-Providence Turnpike Norwood, MA 02062
HEI	Heat Exchange Institute 122 East 42nd Street New York, NY 10017
HI	Hydraulic Institute 1230 Keith Building Cleveland, OH 44115
IAPMO	International Association of Plumbing and Mechanical Officials 5032 Alhambra Avenue Los Angeles, CA 90032
ICBO	International Conference of Building Officials 5360 South Workman Mill Road Whittier, CA 90601
ICEA	Insulated Cable Engineers Association P.O. Box P South Yarmouth, MA 02664

<u>Abbreviation</u>	<u>Company</u>
IEEE	Institute of Electrical and Electronics Engineers, Inc. 345 East 47th Street New York, NY 10017
IES	Illuminating Engineering Society c/o United Engineering Center 345 East 47th Street New York, NY 10017
ISA	Instrument Society of America 400 Stanwix Street Pittsburgh, PA 15222
JIC	Joint Industrial Council 7901 Westpark Drive McLean, VA 22101
MILSPEC	Military Specifications Naval Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. 127 Park Street, N.E. Vienna, VA 22180
NAAMM	National Association of Architectural Metal Manufacturers 100 South Marion Street Oak Park, IL 60302
NACE	National Association of Corrosion Engineers P.O. Box 986 Katy, TX 77450
NEC	National Electric Code National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NEMA	National Electrical Manufacturer's Association 155 East 44th Street New York, NY 10017

<u>Abbreviation</u>	<u>Company</u>
NESC	National Electric Safety Code American National Standards Institute 1430 Broadway New York, NY 10018
NFPA	National Forest Products Association (Formerly called: National Lumber Manufacturer's Association) 1619 Massachusetts Avenue, N.W. Washington, DC 20036
OSHA	Occupational Safety and Health Act U.S. Department of Labor San Francisco Regional Office 450 Golden Gate Avenue, Box 36017 San Francisco, CA 94102
PPIC	The Plumbing & Piping Industry Council, Inc. Suite 402 510 Shatto Place Los Angeles, CA 90020
SAE	Society of Automotive Engineers 2 Pennsylvania Street New York, NY 10001
SAMA	Scientific Apparatus Makers Association One Thomas Circle Washington, DC 20005
SBCC	Southern Building Code Congress 1116 Brown-Marx Building Birmingham, AL 35203
SMACNA	Sheet Metal and Air Conditioning Contractors National Association, Inc. 8224 Old Courthouse Road Tysons Corner Vienna, VA 22180
SSPWC	Standard Specifications for Public Works Construction Building News, Inc. 3055 Overland Avenue Los Angeles, CA 90034
TEMA	Tubular Exchanger Manufacturer's Association 331 Madison Avenue New York, NY 10017

<u>Abbreviation</u>	<u>Company</u>
UBC	Uniform Building Code Published by ICBO
UL	Underwriters Laboratories Inc. 207 East Ohio Street Chicago, IL 60611
UMC	Uniform Mechanical Code Published by ICBO
UPC	Uniform Plumbing Code Published by IAPMO
USBR	Bureau of Reclamation U.S. Department of Interior Engineering and Research Center Denver Federal Center, Building 67 Denver, CO 80225
WWPA	Western Wood Products Association (Formerly called: West Coast Lumberman's Association - WCLA) Yeon Building Portland, CA 97204

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

- END OF SECTION -

SECTION 01100

ARCHAEOLOGICAL PROTECTION

PART 1 - GENERAL

- 1.1 This section covers the requirements for the protection and preservation of historical sites and values.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.1 **CONSTRUCTION METHOD:** Representatives of the State will from time to time examine the area as work proceeds. If historical values are noted, the State may order a halt to the work in the vicinity of the historical values until the State can examine further. The Contractor shall notify the State if he finds anything he suspects to be of historic significance and shall discontinue further work in the vicinity of the find until the State can examine the area. In either case, further work in the vicinity of such historical or suspected historical values may proceed only upon approval by the State. Such approval can be normally expected within one week and shall in no case require more than one month.

END OF SECTION

SECTION 01200

QUALIFICATION OF BIDDERS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The prospective bidders must be capable of working with rock rubble mound structures, for which bids are being called, using work force members who meet the minimum experience requirements established by the State. Prior to the opening of bids, the State shall evaluate bidders' work force qualifications and, from these evaluations, the State shall be the sole judge as to whether bidders are "qualified" or "disqualified".
- B. Bidders shall thoroughly reference and understand the provisions and instructions of this section, the NOTICE TO BIDDERS, and the BIDDER'S STATEMENT OF QUALIFICATION form of these Contract Documents.

1.2 BIDDER'S STATEMENT OF QUALIFICATION

- A. In accordance with the Notice to Bidders, each prospective bidder must complete, have notarized, and submit through the HiePRO system the BIDDER'S STATEMENT OF QUALIFICATION form that has been made a part of the Proposal of these Contract Documents. Failure to submit a fully completed and notarized form will be sufficient cause for the State to disqualify a prospective bidder.
- B. From the responses to the BIDDER'S STATEMENT OF QUALIFICATION form and other available information, the State will determine whether a bidder's work force meets the minimum requirements established by the State for satisfactory performance of the intended work. The final decision whether a bidder is deemed qualified or disqualified lies solely with the State. Bidders, who in the judgment of the State have not provided qualified work force members or have not provided adequate evidence of qualification, will be deemed disqualified to undertake the Project and will have their bids rejected.
- C. All members of the Contractor's work force must be under the Contractor's, or his subcontractor's, employment **at the time of Notice to Proceed**.

1.3 WORK FORCE QUALIFICATIONS

- A. All work involving the repair and construction of rubble mound groins shall be performed by a work force that can be shown to possess experience in work similar in scope and technical requirements to the Project. The following minimum experience requirements shall be met by the work force to be qualified for the Project. The qualified work force shall include, but not be limited to, a work supervisor and a work

crew member experienced in shoreline rubble mound construction. Qualified work force members must directly provide the specific work for which they have been qualified until such work has been completed and accepted by the State.

1. All phases of the groin repair and construction work shall be performed under the direct supervision of an experienced supervisor who has field experience on successfully completed shoreline rubble mound projects performed in the United States within the last ten (10) years, in which he had direct supervision over shoreline rubble mound construction work. The qualifying projects shall have involved the successful construction of shoreline rubble mound structures.

1.4 PERSONNEL REASSIGNMENT

1. If the Contractor desires to reassign or replace personnel who have been qualified by the State, a written request to the State naming replacement personnel shall be made. The request shall include documentation of replacement personnel work qualifications and experiences which demonstrates that the minimum qualifications of this special provision is met. Written favorable review from the State of replacement personnel's qualifications shall be obtained prior to replacing or reassigning qualified personnel on the Project.
2. If qualified personnel leave the Contractor's employment during the Contract, the Contractor shall provide replacement personnel that meet the minimum qualifications established by the State.

END OF SECTION

SECTION 01230

ADDITIVE BID ITEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for additive bid items.
- B. The description of additive bid items is not intended to give a detailed description of all additional work required by the additive bid item(s), as only the principal features of such additional work are listed.
- C. Should anyone or all of the additive bid items become a part of the contract, the cost of all additional work required by the additive bid item(s), even though not specifically mentioned herein, are included in the lump sum bid price.

1.2 DEFINITIONS

- A. **Additive Bid Item:** An amount proposed by Bidders (Offerors) and stated on the Proposal Form for certain work defined in the Bidding Requirements that may be added to the Total Lump Sum Base Bid Price amount if State decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

The cost for each additive bid item is the net addition to the Contract Sum to incorporate additive bid item into the Work. No other adjustments are made to the Total Lump Sum Base Bid Price.

1.3 PROCEDURES

- A. **Coordination:** Modify or adjust affected adjacent work as necessary to completely integrate work of the additive bid item into the Project.

Include as part of each additive bid item, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of additive bid item.
- B. **Notification:** Immediately following award of the Contract, notify each party involved, in writing, of the status of each additive bid item. Indicate if additive bid items have been accepted, rejected, or deferred for later consideration.
- C. **Execute accepted additive bid items under the same conditions as other work of the Contract.**
- D. **Schedule:** A Schedule of Additive Bid Items is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each additive bid item.

PART 2 – GENERAL (Not Used)

PART 3 – EXECUTION

3.1 SCHEDULE OF ADDITIVE BID ITEMS

A. Additive Bid Item: Ewa Groin repairs (See proposal schedule)

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

Submittals shall be required for work as called for in the PLANS, specifications, or by the Engineer.

1.2 SUBMITTALS:

- A. Furnish required submittals specified in this Section and in the Technical Sections. Submittals include one or more of the following: shop drawings, color samples, material samples, technical data, material safety data information, schedules or materials, schedules of operations, guarantees, certifications, operating and maintenance manuals, and field posted as-built drawings.
- B. Required Submittals: Provide a comprehensive list of the required submittals by Specification Section. Furnish this list to the Engineer within fifteen (15) calendar days after notice to proceed (NTP) or upon earlier written instructions from the Engineer.
1. The listing shall indicate and include the following:
 - a. The number of copies required for submittal.
 - b. Planned submittal date.
 - c. Approval date required by the Contractor.
 - d. A space where the "date of submittal" can be inserted.
 - e. A space where the "date of approval" can be inserted.
 - f. A space where an "action code" can be inserted.
 2. The schedule shall accommodate a minimum of twenty-one (21) calendar days for the State's review.
- C. The following listing of required submittals is provided for the contractor's convenience. The Contractor shall review the technical sections of this specification, prepare and submit a comprehensive listing of required submittals as described under Section 01019 – General Specifications.

SUBMITTAL LIST

Section No.	Title	Description of Submittal	Copies
01567	Environmental Protection	Best Management Practices and Environmental Protection Plan	6
		Record of Protected Species Observations	6
01581	Project Sign	Shop Drawings	6
02260	Sand Recovery, Transportation, and Placement	Work Plan and Schedule	6
		Daily Work Activities Log	4
		Sand Placement Survey Data	4

1.3 BIDDER'S SPECIAL RESPONSIBILITY FOR COORDINATING CONTRACTUAL WORK AND SUBMITTALS:

- A. The Contractor is responsible for the coordination of all contractual work and submittals.
- B. The Contractor shall have a rubber stamp made up in the following format:

CONTRACTOR NAME

PROJECT: _____

JOB NO: _____

THIS SUBMITTAL HAS BEEN CHECKED BY THIS GENERAL CONTRACTOR. IT IS CERTIFIED CORRECT, COMPLETE, AND IN COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ALL AFFECTED CONTRACTORS AND SUPPLIERS ARE AWARE OF, AND WILL INTEGRATE THIS SUBMITTAL INTO THEIR OWN WORK.

DATE RECEIVED _____
 SPECIFICATION SECTION _____
 SPECIFICATION PARAGRAPH _____
 DRAWING NUMBER _____
 SUBCONTRACTOR NAME _____
 SUPPLIER NAME _____
 MANUFACTURER NAME _____

CERTIFIED BY: _____

- C. This stamp, "filled in", should appear on the title sheet of each shop drawing, on a cover sheet of submittals in an 8-1/2" x 11" format, or on one face of a cardstock tag (min. 3" x 6") tied to each sample. The tag on the samples should state what the sample is so that, if the tag is accidentally separated from the sample, it can be matched up again. The back of this tag will be used by the Engineer for his receipt, review, and log stamp and for any comments

that relate to the sample.

- D. All submittals for material, equipment, and shop drawings listed in the contract documents, including dimensioned plumbing shop drawings, shall be required and shall be reviewed by the Engineer, prior to any ordering of materials and equipment.
- E. Unless otherwise noted, the Contractor shall submit to the Engineer for his review six copies of all shop drawings, piping layout, and/or catalog cuts for fabricated items and manufactured items (including mechanical and electrical equipment) required for the construction. Drawings shall be submitted in sufficient time to allow the Engineer not less than twenty regular working days for examining the drawings.
- F. The drawing shall be accurate, distinct, and complete and shall contain all required information, including satisfactory identification of items, units and assemblies in relation to the contract drawings and specifications.
- G. Unless otherwise approved by the Engineer, shop drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the drawings or other approved means that the Contractor has checked the shop drawings and that the work or equipment shown is in accordance with contract requirements and has been checked for dimensions and relationship with work of all other trades involved. All deviations from the PLANS and specifications shall be listed. The practice of submitting incomplete or unchecked shop drawings for the Engineer to correct or finish will not be acceptable, and shop drawings which, in the opinion of the Engineer, clearly indicate that they have not been checked by the Contractor will be considered as not complying with the intent of the contract documents and will be returned to the Contractor for resubmission in the proper form.
- H. When the shop drawings have been reviewed by the Engineer, two sets of submittals will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the drawing may be rejected and one set will be returned to the Contractor with such changes or corrections indicated, and the Contractor shall correct and resubmit eight copies of the drawings, unless otherwise directed by the Engineer. No changes shall be made by the Contractor to the resubmitted shop drawings other than those changes indicated by the Engineer. The resubmittal shall be so indicated on the shop drawing.
- I. The review of such drawings and catalog cuts by the Engineer shall not relieve the Contractor from responsibility for correctness of the dimensions, fabrication details, and space requirements or for deviations from the contract drawings and specifications, unless the Contractor has called attention to such deviations, in writing, by a letter accompanying the drawings and the Engineer approved the change or deviations, in writing, at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call such deviations to the attention of the Engineer, he shall state in his letter whether or not such deviations involve any deduction or extra cost adjustment.
- J. The approval of the above drawings, lists, prints, specifications, or other data shall in no way release the Contractor from his responsibility for the proper fulfillment of the requirements of this contract nor for fulfilling the purpose of the installation nor from his liability to replace the same should it prove defective or fail to meet the specified requirements.

- K. Submission of documents in .pdf, .csv, or other approved format via email shall be allowed at the discretion of the Engineer. If allowed, Engineer will provide a list of email addresses.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01505

MOBILIZATION AND DEMOBILIZATION

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

A. Description: This section covers the requirements for mobilization and demobilization.

1.2 MOBILIZATION: Mobilization shall consist of the transporting, assembling, constructing, installing, and making ready for use at the job site, all the equipment, machinery, structures, utilities, materials, labor, and incidentals necessary to do the work covered by this contract.

1.3 DEMOBILIZATION: Demobilization shall consist of the dismantling and removal of the above-mentioned equipment, machinery, structures, utilities, materials, and incidentals, and the cleaning up of the site.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GUIDELINES: If the Contractor utilizes private lands other than the sites provided by the Department for mobilization purposes, the provisions of this section shall apply, and the mobilization and demobilization work on said private lands shall be in accordance with the agreement between the Contractor and the landowner.

Any and all additional mobilization or demobilization costs in excess of the maximum amounts specified in the Proposal shall be included in the appropriate unit prices bid in the Proposal. The Contractor shall not receive any compensation for mobilization and demobilization in addition to those specified in the Proposal.

All equipment, machinery, buildings, utilities and incidentals mobilized and demobilized under this section shall remain the property of the Contractor.

END OF SECTION

SECTION 01530

BARRICADES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Description. This work shall consist of furnishing, installing and maintaining barricades in accordance with the requirements of the contract.

Barricade application shall be provided for in the latest edition of the FHWA publication, Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and as amended.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Lumber: Lumber for rails, frames and braces shall be dry, sound, undamaged, well seasoned, and free from any defect which may impair their strength and durability.
- B. Hardware: Nails shall be galvanized wire nails. As many and as large a size as is practicable shall be used.
- C. Paints: Paints shall be exterior enamel paint of the best grade or first line as made by approved manufacturers.
- D. Sheet Reflecting Material: Sheet reflecting material shall conform to the applicable requirements of Subsection 712.20(C) of the "Standard Specifications for Road and Bridge Construction".
- E. Alternate Designs: Alternate barricade designs such as plastic molded barricades may be used subject to the Engineer's approval. The Contractor shall submit shop drawings or catalog cuts for approval.

PART 3 - EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

- A. General: Barricades shall be constructed in a first class, workmanlike manner in accordance with details shown on the PLANS and as specified herein.
 - a. Barricades shall be in good condition and approved by the Engineer for use within the project limits. Barricade application and installation shall be as shown on the PLANS and as directed by the Engineer in accordance with the guidelines provided in the latest edition of the FHWA publication, Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), and any amendments or revisions thereof as may be made from time to time.

- b. Sand bags or other approved weights shall be provided where required or as directed by the Engineer. Sand bags or other approved weights shall not be placed on any striped barricade rail.
 - c. Steady burn and/or flashing lamps shall be required on selected barricades used during hours of darkness. Locations shall be as shown on the PLANS and as directed by the Engineer. Lamps shall be attached on the barricade ends closest to the traveled way and shall be visible to the motorist.
 - d. Barricades furnished and paid for as provided herein may be used for temporary detours, construction phasing, or other temporary traffic control work.
 - e. Barricades furnished and paid for use in temporary detours or construction phasing may be used for permanent location called for on the PLANS.
 - f. Upon completion of the construction work, barricades shall be left in place, relocated, or removed and disposed of as shown on the PLANS or as directed by the Engineer. Barricades left in place, or relocated to new permanent locations shall become the property of the State. Barricades directed to be removed and disposed of shall become the property of the Contractor.
- B. Painting: Wooden rails, frames and braces shall be given a prime coat and 2 finish coats of new white exterior enamel paint. Rail faces to be reflectorized may be left unpainted unless otherwise specified or directed.
- C. Reflectorization: Reflectorization of barricade rails shall be done in a first class, workmanlike manner and the attachment of reflective sheeting shall be as shown on the PLANS, specified herein, or as directed and approved by the Engineer.
- a. Both vertical faces of each barricade rail shall be reflectorized as shown on the PLANS.
 - b. Wooden rails shall be reflectorized with one of the following:
 - c. Reflective sheeting specified in Subsection 712.20(C)(4) of the "Standard Specifications for Road and Bridge Construction" and backed with a 26 gage galvanized steel sheet, or
 - d. A hardened aluminum backed reflective sheeting as specified in Subsection 712.20(C)(5) of the "Standard Specifications for Road and Bridge Construction."
- D. Color: Rails, frames and braces shall be white.
- a. The front and back faces of barricade rails shall have 6-inch wide alternative colored and white striped sloping downward toward the traveled way at an angle of 45 degrees with the vertical. The colored stripes shall be either orange or red in accordance with the following requirements:
 - b. Orange and white stripes shall be used in the following conditions:

- i. Construction work.
 - ii. Detours.
 - iii. Maintenance work.
 - c. Red and white stripes shall be used in the following conditions:
 - i. On roadways with no outlet (i.e., dead-ends, cul-de-sacs).
 - ii. Ramps or lanes closed for operational purposes.
 - iii. Permanent or semipermanent closure or termination of a roadway.
- E. Maintenance: Barricades shall be kept in good condition throughout their usage during construction until the end of the contract.
- F. The Contractor shall repair, repaint, clean or replace the barricades as required and as directed by the Engineer to maintain their effectiveness and appearance.
- G. The Constructor shall immediately replace all lost, stolen or damaged barricades, lamps, sand bags and other approved weights.
- H. Barricades used during construction phasing, temporary detours or other temporary traffic control work shall be cleaned and repaired as necessary, prior to being relocated to a permanent location shown on the PLANS or as directed.
- I. No extra payment will be made for any repair work, repainting, or cleaning of barricades. The Engineer shall determine the suitable condition of each barricade and shall determine when each barricade shall be repaired, repainted or cleaned.

END OF SECTION

SECTION 01567

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 GENERAL:

This section covers the requirements of environmental and pollution control during construction activities. The Contractor shall be responsible for conformance to Title 11, Chapter 60 of the Public Health Regulations, Department of Health, State of Hawaii.

- A. With the exception of those measures set forth elsewhere in these specifications, environmental protection shall consist of the prevention of environmental pollution as the result of construction operations under this contract. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare, unfavorably alter ecological balances of importance to human life, affect other species of importance to man, or degrade the utilization of the environment for aesthetic and recreational purposes.
- B. The work under this section shall include, but is not limited to, the following:
 - 1. Make sure that all permits required for project construction and/or listed in these specifications are obtained and valid for the construction period.
 - 2. Provide water quality testing and monitoring work as required by the permits during construction.
 - 3. Provide all facilities, equipment and structural controls for minimizing adverse impacts upon the environment during the construction period.

1.2 GENERAL REQUIREMENTS:

- A. Applicable Regulations: In order to provide for abatement and control of environmental pollution arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with the intent of the applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, including, but not limited to the following regulations:
 - 1. State of Hawaii, Department of Health, Administrative Rules, Title 11:
 - a. Chapter 44A, VEHICULAR NOISE CONTROL.
 - b. Chapter 54, WATER QUALITY STANDARDS.
 - c. Chapter 55, WATER POLLUTION CONTROL
 - d. Chapter 59, AMBIENT AIR QUALITY
 - e. Chapter 60, AIR POLLUTION CONTROL LAW.

2. State of Hawaii, Occupational Safety and Health Standards, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Subparagraph 12-202-13, ASBESTOS DUST: Environmental Protection Agency, Code of Federal Regulations Title 40, Part 61 Subpart A, NATIONAL EMISSION STANDARDS FOR AIR POLLUTANTS and Subpart B, NATIONAL EMISSION STANDARDS FOR ASBESTOS; and U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Code of Federal Regulations Title 29, Part 1910.
- B. Required Permits. The Contractor shall comply with the following permits and complete any information required therein to effectuate the permits:
1. Department of the Army Permit, including all special conditions.
 2. Section 401 Water Quality Certification from the State Department of Health, including the “Applicable Monitoring and Assessment Plan for Clean Water Act Section 401 Water Quality Certification.”
 3. National Pollutant Discharge Elimination System (NPDES) permit from the State Department of Health.
 4. State Department of Land and Natural Resources, Small Scale Beach Nourishment Permit including all conditions.
 5. City and County of Honolulu Special Management Area (SMA) Permit.
 6. State Department of Health Disability and Communication Access Board (DCAB) Review.
 7. Coastal Zone Management Federal Consistency Determination Review from the State Office of Planning and Sustainable Development.

Copies of the above permits are attached to the end of this section. The permit applications or placeholders are attached where the permits are pending.

- C. The Contractor shall provide the Department of Health with any required general contractor’s information, including the general contractor’s legal name, address (location where papers can be hand-delivered), contact person(s), telephone numbers, and fax numbers.
- D. The Contractor shall be responsible for submitting any report, documents, or other submissions to the Department of Health (DOH) as required by the pertinent permits including but not limited to: Section 401 Water Quality Certification (WQC), Applicable Monitoring and Assessment Plan (AMAP), Department of the Army Permit (DA), etc.

1.3 SUBMITTAL:

- A. Submit under provisions of Section 01300 – SUBMITTALS.
- B. The Contractor shall provide the State with six (6) copies of the Best Management Practices and Environmental Protection Plan for review and approval by the State. The submittal

shall be made a minimum of twenty-one (21) calendar days prior to the proposed scheduled start of construction work.

- C. The Contractor shall provide the State and the National Marine Fisheries Service (NMFS) with six (6) copies of the Record of Protected Species Observations for review. The submittal shall be made weekly.

1.4 GUIDELINES AND CRITERIA:

The Contractor shall prepare and submit a Best Management Practice Plan (BMPP) specific to his proposed construction operations to help minimize adverse impacts to coastal water quality and the marine ecosystem. The project specifications will require the Construction Contractor to adhere to environmental protection measures, including, but not limited to, the Guidelines, Criteria, and Environmental Protection Requirements in this specification section and in the attached permits.

1.5 GENERAL BEST MANAGEMENT PRACTICES

A. SUITABLE MATERIAL

1. All equipment and material shall be free of contaminants of any kind including: excessive silt, sludge, anoxic or decaying organic matter, clay, dirt, oil, floating debris, grease or foam or any other pollutant that would produce an undesirable condition to the shoreline or water quality. The equipment will be brought to the site in clean condition.
2. All materials shall be free from any objectionable sludge, oil, grease, scum, excessive silt, organic material or other floating material.

B. HISTORIC OR CULTURAL FEATURES

1. No adverse impacts to any historical or cultural features are expected.
2. Should any unanticipated archaeological site(s), such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentrations of charcoal or shells be uncovered by the work activity, all work shall cease in the immediate area and the contractor shall notify the State Historic Preservation Office at (808) 692-8015 or (808) 243-5169. No work shall resume until the owner/contractor obtains clearance from the State Historic Preservation Office.

C. ENVIRONMENTAL PROTECTION

1. All permits and clearances shall be obtained prior to the start of any project activities. The contractor and sub-contractors shall ensure that all restoration work complies with all permit conditions and commitments made with environmental agencies.
2. The contractor shall perform the work in a manner that minimizes environmental pollution and damage as a result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of the project

activities.

3. The contractor shall complete daily inspection of equipment for conditions that could cause spills or leaks; clean equipment prior to operation near the water; properly maintain site storage, refueling, and servicing sites; and implement spill response procedures and stormy weather preparation plans.
4. The project shall be completed in accordance with all applicable Federal, State and County health and safety regulations.
5. The Contractor shall provide notifications to the National Marine Fisheries Services, 808.725.5000, including the Protected Resources Division, at least 72 hours prior to the scheduled start of project activities.
6. Project operations must cease if unusual conditions, such as large tidal events and high surf conditions, affect the project site, except for efforts to avoid or minimize resource damage.

D. DEBRIS MANAGEMENT AND REMOVAL

1. Project site inspection and debris sweeps will be completed by the Contractor at the end of each work day. A full inspection of the project site will be conducted by the Contractor at the end of the project to ensure that no visible debris introduced by recovery efforts or project waste is present at the site upon completion of the project.

E. SOLID WASTE AND DISPOSAL

1. Any project activity related debris that is not a part of the design must be removed from the project site if not actively being used and/or at the conclusion of the project.
2. The Contractor shall not dispose of any concrete, steel, wood, and any other debris into State or Federal waters.
3. No contamination (trash or debris disposal, alien species introductions, etc.) of marine (reef flats, lagoons, open oceans, etc.) environments adjacent to the project site shall result from project related activities.
4. The Contractor shall remove all floating or submerged materials and/or debris at the end of each day, with the exception of any silt containment devices, as needed.
5. No contamination of the marine environment shall result from the permitted activities. Particular care must be taken to ensure that no petroleum products, trash, or other debris enter near-shore and open ocean waters. When such material is found within the project area, the Contractor, or his designated construction agent, shall collect and dispose of this material at an approved upland disposal site.
6. Waste materials and waste waters directly derived from project activities shall not be allowed to leak, leach, or otherwise enter marine waters.

F. WASTE WATERS

1. Project operations shall be conducted so as to prevent discharge or accidental spillage of pollutants, solid waste, debris, and other objectionable wastes in surface waters and underground water sources.

G. EROSION CONTROL

1. Silt fences will be left in place each night.
2. The Contractor is responsible for the proper handling, storage and/or disposal of all waste generated by project activities.
3. The Contractor shall confine all project activities to areas defined by the drawings and specifications. No materials shall be stockpiled in the marine environment.
4. The Contractor shall keep project activities under surveillance, management and control to avoid pollution of surface or marine waters. Daily visual inspection of the project site and its environs will be conducted by a designated individual, or his representative, to verify that the permitted activities do not result in uncontrolled adverse environmental impacts.
5. Visual inspections will include monitoring of the effectiveness of the silt curtains and/or booms to ensure proper function.
6. Visual inspections will be documented with photographs, a photo-orientation map, and written descriptions.
7. Sand recovery/placement shall not be done during storms or periods of high surf.
8. Visual monitoring will include ongoing inspections for turbidity outside of the confines of the silt curtain(s). In the event that turbidity is observed outside of the silt curtains, work shall stop, and the silt curtains shall remain in place until the turbidity dissipates. Silt curtains shall be inspected after dissipation and prior to returning to project operations.
9. Wherever equipment and/or vehicles leave the site and enter surrounding paved streets, the contractor shall prevent any material from being carried onto the pavement. There will be no washing of equipment on the beach or near the shoreline.

H. PUBLIC SAFETY

1. Operational bounds on land will be marked with and patrolled by contractor's employees as needed to ensure that members of the public do not enter the project area.
2. A contractor's representative will be available at the project site during construction hours to answer questions the public may have.
3. Contractor shall provide crossing guards placed at designated crossings along the

shoreline to assist the public in transiting across the access route while trucks are operating.

4. Project implementation will not interfere with the public's right to reasonable navigation.
5. Materials stored or stockpiled shall not interfere with public beach access.
6. Signs will be posted at the project site to educate the public of project activities.
7. Hotels nearby will be informed of the project's purpose and approximate duration.

I. NOISE CONTROL

1. Best management practices shall be utilized to minimize adverse effects to air quality and noise levels, including the use of emission control devices and noise attenuating devices.
2. Noise shall be kept within acceptable levels at all times in conformance with HAR Title 11 § 46 Community Noise Control, State Department of Health, Public Health Regulations. The contractor shall obtain and pay for a community noise permit from the State Department of Health when equipment or other devices emit noise at levels exceeding the allowable limits.
3. Equipment shall be equipped with suitable mufflers to maintain noise within levels complying with applicable regulations.
4. Starting of land-based equipment meeting allowable noise limits shall not be done prior to 6:30 a.m. without prior approval.
5. Pursuant to HAR §11-46-7 construction exceeding permissible sound levels shall not occur before 7:00 a.m. or after 6:00 p.m. Monday through Friday; and before 9:00 a.m. or after 6:00 p.m. on Saturday, Sunday, and holidays.

J. DUST CONTROL

1. Dust, which could damage property, or cause nuisance to persons, shall be abated and control measures shall be performed.
2. The Contractor, for the duration of the contract, shall maintain all excavations, embankments, paved roads, plant sites, waste disposal areas, and all other work areas within or without the project limits free from dust which would cause a hazard to the work, or the operations of other contractors, or to persons or property. Industry accepted methods of stabilization suitable for the area involved, such as sprinkling or similar methods will be permitted. Chemicals or oil treating shall not be used.
3. The Contractor shall prevent dust from becoming airborne at all times including non-working hours, weekends and holidays in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 60 - Air Pollution Control.

K. AIR POLLUTION CONTROL

1. Emission: The Contractor shall not be allowed to operate equipment and vehicles that show excessive emissions of exhaust gases until corrective repairs or adjustments are made.

L. OIL AND SPILL CONTAINMENT

1. The Contractor shall ensure that the Oil Spill Response Plan, detailed in this document, is in place which shall detail procedures for managing the accidental release of petroleum products to the aquatic environment during construction. Fueling of project related vehicles and equipment should take place away from the water. Absorbent pads, containment booms, and skimmers will be stored on site to facilitate the cleanup of petroleum spills.
2. Any spills or other contaminations shall be immediately reported to the DOH Clean Water Branch (808-586-4309) and through email: cleanwaterbranch@doh.hawaii.gov.

M. MONITORING/MEASURES FOR VISUALLY DETECTED CONTAINMENT

1. All work operations shall be performed in conformance with the applicable provisions of the Hawaii Administrative Rules (HAR), Title 11 Chapter 55 Water Pollution Control and Title 11, Chapter 54 Water Quality Standards, and to the Erosion and Sedimentation Control Standards and Guidelines of the Department of Public Works, County of Maui, Hawaii.
2. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface or marine waters. Daily visual inspection of the construction site and its environs will be conducted by a designated individual, or his representative, to verify that the permitted activities do not result in uncontrolled adverse environmental impacts. Visual inspections will be documented with photographs and written descriptions.
 - i. Daily Inspection: The project site will be inspected daily to ensure BMPs are maintained to confine and isolate potential pollutants from being discharged into surrounding areas. The site will be inspected to ensure that materials are properly stored, rubbish is being collected and disposed of properly, etc.
 - ii. Deficiencies identified by daily inspections shall be corrected immediately. Work activities will stop and remain stopped until the deficiencies have been corrected.
3. Prior to delivery to the site, all construction material shall be inspected to ensure they are free of contaminants of any kind including: excessive silt, sludge, anoxic or decaying organic matter, turbidity, temperature or abnormal water chemistry, clay, dirt, organic material, oil, floating debris, grease or foam or any other pollutant that would produce an undesirable condition to the beach or water quality.

4. No contamination of the marine environment shall result from the permitted activities. Particular care must be taken to ensure that no petroleum products, trash or other debris enter near-shore and open ocean waters. When such material is found within the project area, the Contractor, or his designated construction agent, shall collect and dispose of this material at an approved upland disposal site.
5. Waste materials and waste waters directly derived from construction activities shall not be allowed to leak, leach or otherwise enter marine waters.
6. The Contractor shall ensure that the Oil Spill Response Plan (below) is in place and shall detail procedures for managing the accidental release of petroleum products to the aquatic environment during construction. Absorbent pads, containment booms, and skimmers will be available to facilitate the cleanup of petroleum spills.
7. Any spills or other contaminations shall be immediately reported to the DOH Clean Water Branch (808-586-4309).
8. In the event that floating hydrocarbon (oil, gas) products are observed, the Contractor or his designated individual will be responsible for directing that in-water work be halted so that appropriate corrective measures are taken in accordance with the Oil Spill Response Plan. The Department of Land and Natural Resources shall be notified as soon as practicable, and the activity causing the plume will be modified by containment. The responsible individual will document the event and the measures taken to correct the issue and will report the incident (with photographs) to the Office of Conservation and Coastal Lands and the Department of the Army Regulatory Office as soon as is practicable. Work may continue only after the issue is no longer visible.

N. WATER QUALITY MONITORING

1. Water quality monitoring during construction shall be conducted in accordance with the Section 401 Water Quality Certification from the State Department of Health and the “Applicable Monitoring and Assessment Plan for Clean Water Act Section 401 Water Quality Certification.”
2. The Contractor shall visually monitor the nearshore for turbidity or other water quality issues that may be associated with the project operations.
3. The Contractor shall incorporate all erosion control measures shown in the drawings and the BMP Plan for this project. The PLANS may be modified as necessary to adjust to conditions that develop during construction. Any changes to the BMP Plan must immediately be submitted to the DA for review.
4. The water quality will be quantitatively measured following the plan set forth by the approved Applicable Monitoring and Assessment Plan by a qualified individual.

O. PROTECTED SPECIES

1. The project manager shall designate a competent observer to survey the areas adjacent to the proposed action for ESA-listed species, including but not limited to the green sea turtle, hawksbill sea turtle, and Hawaiian monk seal.
2. Visual surveys for ESA-listed species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than one half hour, to ensure that no protected species are in the area (typically within 50 yards of the proposed work).
3. Work shall be postponed or halted when ESA-listed species are within 50 yards of the proposed work and shall only begin/resume after the animals have voluntarily departed the area. If ESA-listed species are noticed after work has already begun, that work may continue only if there is no way for the activity to adversely affect the animal(s).
4. Do not attempt to feed, touch, ride, or otherwise intentionally interact with any ESA listed species.
5. All on-site project personnel must be apprised of the status of any listed species potentially present in the project area and the protections afforded to those species under federal laws. A brochure explaining the laws and guidelines for listed species in Hawaii, American Samoa, and Guam may be downloaded from: http://www.nmfs.noaa.gov/prot_res/MMWatch/Hawaii.htm. A list of protected species in Hawaii can be found at <http://www.wpcouncil.org/managed-fishery-ecosystems/hawaii-archipelago/protected-species-hawaii/>
6. The Contractor shall keep a record of all protected species sightings, incidents of disturbance, or injury, and shall provide a report to the State and the National Marine Fisheries Service (NMFS) weekly. Contractor's representative will be the contact person for any issues involving green sea turtles during project activities.
7. Upon sighting of a monk seal or turtle within the safety zone during project activity, immediately halt the activity until the animal has left the zone. In the event that a protected species enters the safety zone and the project activity cannot be halted, conduct observations and immediately contact NMFS staff in Honolulu to facilitate agency assessment of collected data. For monk seals contact the Marine Mammal Response Coordinator at (808) 944-2269, as well as the monk seal hotline at (888) 256-9840. For turtles, contact the turtle hotline at (808) 983-5730.
8. The Contractor shall immediately report any incidental take of marine mammals. The incident must be reported immediately to NOAA Fisheries' 24-hour hotline at 1-888-256-9840, and the Regulatory Branch of the USACE at 808-835-4303. In Hawaii, any injuries, incidents of disturbance, or injury to sea turtles must be immediately reported and must include the name and phone number of a point of contact, the location of the incident, and nature of the take and/or injury. The incident should also be reported to the Pacific Island Protected Species Program Manager, Southwest Region (Tel: 808-973-2987, fax: 808-973-2941).

9. Equipment operators shall employ “soft starts” when initiating work that directly impacts the bottom. Buckets and other equipment shall be sent to the bottom in a slow and controlled manner for the first several cycles before achieving full operational impact strength or tempo.
10. For any equipment used in undertaking the authorized work, the 160 dB and 120 dB isopleths shall not exceed the 50-yard shut-down range for impulsive and continuous sounds sources, respectively.

1.6 OPERATIONAL CONTROLS

- A. The BMP Plan will be reviewed with the project field staff prior to the start of work.
- B. All activities impacting the environment will not begin until appropriate BMPs are properly installed.
- C. Construction will be immediately stopped, reduced, or modified; and/or new or revised BMPs will be immediately implemented as needed to stop or prevent polluted discharges to receiving waters. New or revised BMPs will be approved by appropriate regulatory agencies prior to re-commencing work.

1.7 STRUCTURE, AUTHORITY, AND RESPONSIBILITY

- A. The Project Manager/Superintendent/Project Engineer will ensure compliance with the BMP Plan.
- B. The Project Manager/Superintendent/Project Engineer will appoint and train one (1) additional individual to properly install all BMPs and to comply with all aspects of this BMP Plan.

1.8 TRAINING

- A. Employees will be instructed on the proper installation of the BMP materials.
- B. BMPs will be covered in a toolbox safety meeting.
- C. BMPs will be discussed, as applicable, for each new phase of work.

1.9 INSPECTION AND MONITORING

- A. The Project Manager/Superintendent/Project Engineer or the assigned trained individual will conduct a visual inspection of all BMPs daily.
- B. All minor repairs and maintenance of the BMPs will be completed within 48 hours of detection. Major repairs of BMPs shall be completed as soon as practical, and in-water work shall be stopped until repairs are complete.
- C. If any BMP is damaged, work will immediately be stopped and shall not resume until repairs to the BMP have been completed.

1.10 EMERGENCY PROCEDURES

- A. Natural disaster related pollutant discharge: See Contingency Plan in this section.
- B. Spill prevention and control: See Emergency Spill Response Plan in this section.

1.11 RECORD KEEPING AND DOCUMENTATION

- A. A copy of the BMP Plan will be kept on site.
- B. All BMP inspection reports will be kept on site.
- C. Records of inspection and repair of control measures will be retained in the project files for a minimum of five years.

1.12 SITE-SPECIFIC MANAGEMENT PRACTICES

A. Material Management

1. Only a minimum quantity of materials necessary for the work will be stored on site.
2. All flammable and reactive liquids will be kept in sealed and clearly labeled original or compatible containers and stored under cover more than fifty (50) feet from the edge of the property and away from the nearest drain and receiving waters.
3. Storage area will be kept clean and well organized.
4. Materials will be used in strict accordance with the manufacturer's instructions.

B. Waste Management

1. All waste will be collected and placed daily in the container located in the staging area.
2. The Contractor will arrange for pick up and disposal of the filled container as necessary.
3. Any spillage on pavement and concrete surfaces will be cleaned up immediately. Cleanup of waste will be conducted through sweeping, shoveling, or vacuuming operations only.
4. Care shall be exercised in the removal and transporting of debris and rubbish for disposal. Loads will be covered when transported.
5. Removed materials stored or stockpiled shall not interfere with public beach access.
6. There will be no effluent, storm discharge, or dewatering caused by this activity.

C. Hazardous Waste Management

Note: No hazardous wastes are anticipated for this project. The following will apply should hazardous waste be encountered:

1. Non-hazardous or less hazardous materials should be used whenever possible.
2. Hazardous waste shall be placed in secondary containment.
3. Hazardous waste shall not be mixed with other waste and repair debris placed in the dumpster.
4. Flammable or reactive waste will be placed in a separate area more than 50 feet from the edge of the property, nearest drain inlet, and the shoreline.

D. Vehicle and Equipment Management

1. Fueling operations will be monitored to prevent spills, leaks and overflows. Equipment will be fueled away from any drain or shoreline. A spill pan will be used to catch spill/leaks. Equipment will not be "topped off". Spill cleanup materials will be readily accessible.
2. Vehicles and construction equipment (except small tools and generators) shall be maintained off-site. If emergency repairs or maintenance on large equipment (e.g., bulldozer) must be performed, drip pans or drop cloths will be placed under the vehicle or equipment to catch any spills/leaks.

E. Erosion and Sediment Control Measures

1. Silt curtains shall be deployed as shown on the construction PLANS. The length of the silt curtains will be adequate to completely contain the area where sand recovery work is taking place.

1.13 SUSPENSION OF WORK

- A. Violations of any of the above requirements or any other pollution control requirements which may be specified in the Technical Specifications herein shall be cause for suspension of the work creating such violation. No additional compensation shall be due to the Contractor for remedial measures to correct the offense. Also, no extension of time will be granted for delays caused by such suspensions.
- B. If no corrective action is taken by the Contractor within 72 hours after a suspension is ordered by the State, the State reserves the right to take whatever action is necessary to correct the situation and to deduct all cost incurred by the State in taking such action from monies due to the Contractor.
- C. The Owner may also suspend any operations which he feels are creating pollution problems although they may not be in violation of the above-mentioned requirements. In this instance, the work shall be done by force account.

1.14 CONTINGENCY PLAN

- A. The following plan will be implemented by the Contractor to prevent/respond to polluted discharges resulting from a severe storm or natural disaster. It is the Contractor's responsibility to abide by the following plan as well as any other binding plan, agreement, regulation, rule, law, or ordinance applicable.
- B. All contractors associated with the following construction project will follow this plan when a severe storm is either forecast or anticipated. Contractors must:
1. Regularly monitor local weather reports for forecasted and/or anticipated severe storm events, advisories, watches, warnings, or alerts. The contractor shall inspect and document the condition of all erosion control measures on that day prior, during, and after the event. The contractor shall prepare for forecasted and/or anticipated severe weather events to minimize the potential for polluted discharges.
 2. Secure the construction site. Securing the site should generally include:
 - i. Removing or securing equipment, machinery, and maintenance materials.
 - ii. Cleaning up all maintenance debris.
 - iii. Implementing all Best Management Practices detailed in the BMP Plan. This includes BMPs for materials management, spill prevention, and erosion and sediment control.
 3. In the event of a severe weather advisory (hurricanes, tropical storms, natural disasters) or when deemed necessary, cease regular construction operations. Work crews must finalize securing the project site and evacuate until the severe weather condition has passed.
 4. Upon return to the site, all BMPs shall be inspected, repaired and/or re-installed as needed. If repair is necessary, it shall be initiated immediately after the inspection and repairs or replacement will be complete within 24 hours. To facilitate repair or replacement, the contractor will be required to store surplus material on the project site if the site is located where replacement materials will not be readily available.
 5. When there either has been a discharge which violates Hawaii Water Pollution rules and regulations OR there is an imminent threat of a discharge which violates Hawaii Water Pollution rules and regulations and/or endangers human and/or environmental health, the contractor shall at a minimum execute the following steps:
 - i. Assess whether construction needs to stop or if additional BMPs are needed to stop or prevent a violation.
 - ii. Take all reasonable measures to protect human and environmental health.
 - iii. Notify the engineer and responsible parties listed below and immediately notify the DOH of the incident. The notification shall also include the

identity of the pollutant sources and the implemented control or mitigation measures.

- a. David A. Smith, PhD, PE, Project Manager, Sea Engineering Inc. 1-808-460-3434
 - b. Michael Cain, Administrator, DLNR-OCCL, 1-808-587-0381
 - c. Department of Health: Clean Water Branch (During regular working hours): 808-586-4309
 - d. Document corrective actions, take photographs of discharge and receiving waters.
- iv. Take representative samples of the affected water, as resulted from the discharge(s), and submit analytical reports to the Department of Health Clean Water Branch.
- v. Revise BMP Plan to prevent future discharges of a similar nature.

1.15 EMERGENCY SPILL RESPONSE PLAN

A. Pre-Emergency Planning

1. An initial and periodic assessment shall be made of the project site and potential hazardous spills that may be encountered during the normal course of work. This plan is not intended to address issues relating to materials such as PCB, Lead, Asbestos, etc. since these types of materials would have specific work PLANS already developed. This plan should be revised as necessary to correspond to the assessment and resubmitted to the appropriate regulatory agencies.
2. A Hazardous Materials inventory list and MSDS sheets, to include subcontractors' materials, will be filed in a binder and located in the Project Office. The inventory list and MSDS sheets will be updated and maintained by the Project Manager and site safety officer as new materials are added.
3. Personnel will consult the applicable MSDS sheet prior to its use.
4. Personnel will handle hazardous materials safely and use personal protective equipment (PPE), recommended/required by the MSDS when handling hazardous materials.
5. Personnel will receive "Hazard Communication" training within three (3) working days of arrival and "product specific" training prior to the initial use/exposure of a product. This training will be conducted by the Project Manager/Superintendent or site safety officer.
6. All personnel will be trained on the contents of this plan within the first month of maintenance and at least annually thereafter. The training should include a rehearsal of this plan. An attendance sheet will be kept on file at the Project Office.

7. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans or DOT approved containers shall be used the handling and use of flammable liquids in quantities of five (5) gallons or less. For quantities of one (1) gallon or less, only the original container or approved metal safety can shall be used, for storage, use and handling of flammable liquids.
8. Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people.

B. Personal Protective and Emergency Spill Response Equipment

1. ABC fire extinguishers will be located in the project field office and in each of the company vehicles. There will be at least one fire extinguisher, rated at not less than 10B, within 50 feet of any stockpile of 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas storage.

NOTE: Fire extinguishers should not be located “directly” with hazardous materials, so as to endanger first responders.

2. Spill kits will be located at the project field office and/or within 50 feet of the hazardous material storage area. The spill kit contents shall be determined by the Project Manager/Superintendent based on the anticipated hazardous materials to be stored and/or used on the project. The spill kits will be inventoried quarterly, and appropriate logbook entries made.
3. Emergency response personal protective equipment (PPE) shall consist of:
 - i. Face shield
 - ii. Tyvex coveralls
 - iii. Rubber gloves
 - iv. Air-purifying respirators with HEPA and organic vapor combination cartridges will be issued to the Emergency Response Team members and maintained in the project office. Separate Respiratory Protection Equipment shall be designated and labeled as such; this equipment will be inspected at least every 30 calendar days and appropriate logbook entries made.

C. Personnel Roles, Lines of Authority and Communication

1. Emergency Response Coordinator (ERC)
 - i. The Project Superintendent is the designated ERC. If the Project Superintendent is not available, the safety officer is the designated ERC.
 - ii. The ERC will be in charge of and will coordinate the appropriate emergency response procedures in this plan.

2. Emergency Response Team (ERT)

- i. The ERT consists of Construction General Foreman, Labor Foreman, and a Laborer designated by the Project Superintendent.
- ii. The ERT will appropriately respond to the emergency in accordance with this plan at the direction of the ERC.

D. Emergency Alerting and Response Procedures

1. Any person causing or discovering a known hazardous or unknown release or spill will:

- i. Immediately alert nearby personnel who may be exposed to the effects of the release or spill.
- ii. Report the release or spill immediately to the ERC and the ERT. All pertinent information regarding the release should be provided to the ERC, such as the amount and type of material released, location of the release, and other factors, which may affect the response operation.
- iii. If the spill or release is a petroleum product or known non-toxic chemical, the person will take immediate and appropriate measures to stop or limit the rate of release, (i.e. close the spigot to the drum or form oil or curing compound) and or contain or stop the migration of the release (e.g., create a berm of dirt around the release) until the ERC and ERT arrive.
- iv. If the spill release is a toxic, highly flammable, or unknown chemical, the person will first notify the ERC before approaching the spill area from upwind to determine the source, type, and quantity of the release. The person should monitor the spill until the ERC and ERT arrive.
- v. The ERC will assess possible hazards to human health or the environment that may result from the release, fire, or explosion.
- vi. If the spill or release is less than 25 gallons of a known petroleum product or non-toxic chemical, the ERC will direct the ERT to contain and cleanup the spill or release.
- vii. If the spill or release is toxic or unknown, the ERC will immediately notify the Maui County Fire Department and ask for assistance from the HAZMAT Response Team.
- viii. Immediately after the emergency, the ERC will arrange for disposing of the recovered waste, contaminated soil, or any other material that results from the release, fire, or explosion at the project site in accordance with Maui County and State regulations and manufacturer's instructions (if source of spill or release is known).

E. Emergency Notification and Reporting Procedures

1. In the event that a release enters the storm or sewer system, the ERC will immediately notify the engineer, the Nation Response Center (NRC) at 1.800.424.8802, the Hawaii Department of Health, Hazard Evaluation and Emergency Response Office (HEER) at 808.586.4249 and Maui County Local Emergency Planning Committee (LEPC) at 808.870.7404.
 2. The ERC will immediately notify appropriate agencies and submit written follow-up notification in accordance with the Hazardous Substance Release Notification Guideline.
- F. Safe Distance Staging Area
1. A staging area at safe distance upwind and higher than the location of the spill or release and its source will be immediately established.
 2. Access to the spill or release location will be cleared for emergency vehicles and equipment to be used to contain and clean up the spill or release.
- G. Site Security and Control
1. If the spill or release is located on or near the roadway, stop all traffic until the release is cleaned up.
 2. If the spill or release is located away from vehicle or pedestrian traffic, install barricades/safety fencing around the affected area.
 3. If the spill or release occurs during night operations, provide adequate light and use ground guides to escort emergency vehicles to the affected area.
- H. Evacuation Routes and Procedures
1. Persons injured during the emergency condition will be evacuated to the staging area where they will be treated and or further evacuated to the nearest medical facility. The appropriate MSDS(s) will be provided to emergency service personnel and are intended to be delivered to the emergency room physicians.
 2. Persons working at the affected area and who are not needed in the response effort; will report the staging areas for accountability.
- I. Decontamination and Disposal Procedures
1. Persons involved in the spill clean-up are required to perform personal hygiene, utilizing soap and fresh water prior to eating, drinking, or smoking.
 2. Contaminated PPE shall be appropriately cleaned and disinfected if possible. If this is not possible it shall be disposed of per the same requirements of the contaminated substance.
 3. Sorbent pads/materials and the spilled substance will be placed in appropriate containers and disposed of as specified by the appropriate MSDS.

4. Contaminated soil will be placed in an appropriate container(s) or on plastic sheeting. The ERC will arrange with an environmental services company to properly characterize, prepare the manifest, label the containers, transport, and dispose of the contaminated soil. The generator's copy of the manifest will be kept in the project files for a minimum of three (3) years.
5. In the event of a substantial release (25 gallons or more) of a suspected or known toxic chemical, the Fire Department HAZMAT Response Team will be called to control/cleanup the release. They will establish and provide the decontamination operations as required.

J. Emergency Medical Treatment and First Aid

1. First aid kits will be maintained at the project field office, all company vehicles, and gang boxes.
2. Injured person(s) will be treated at the staging area by a certified first aid trained individual at the project site until the ambulance arrives or they are evacuated to the nearest medical facility.
3. The appropriate MSDS(s) will be provided to emergency service personnel and are intended to be delivered to the emergency room physicians.

K. After the Spill Procedures

1. The ERC will review what happened and implement changes and/or corrections to prevent spill from occurring and to improve the spill response and clean-up procedures. This Plan will be revised to reflect those changes/corrections/improvements implemented.
2. The ERC will prepare a record of the spill response and keep it in the project files for a minimum of three (3) years.
3. The ERC will submit Follow-up Notification to HEER when required.
4. Spill response kits shall be replenished directly after the emergency.

1.16 EMERGENCY CONTACTS

National Response Center (NRC)	1-800-424-8802
Coast Guard Operation Center, Honolulu (working hours)	1-808-522-8264
(after hours)	1-808-927-0830
Hawaii State Department of Health Hawaii Evaluation and Emergency Response (HEER)	1-808-586-4249
City and County of Honolulu Fire Department	911
In the event that a release enters the storm or sewer system, the ERC will immediately notify NRC, HEER, and LEPC	1-808-870-7404
State Historic Preservation Division	1-808-692-8015
DLNR Office of Conservation and Coastal Lands	1-808-587-0377
DLNR Engineering Division	1-808-587-0230
(name), Contactor Project Manager, (company)	TBD

1.17 MEASUREMENT AND PAYMENT

The cost for any environmental protection activity specified above or deemed necessary by the State will not be measured nor paid for directly but will be considered as incidental to and included in the total sum bid.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01581

PROJECT SIGN

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

Furnish all labor, materials and equipment necessary to construct and install all project sign as specified hereinafter.

1.2 SUBMITTAL

The contractor shall provide the Engineer with six (6) shop drawings of the project sign for review and approval by the Engineer prior to ordering the sign.

1.3 LETTER STYLE

Copy is centered and set in Adobe Type Futura Heavy. If this specific type is not available, Futura Demi Bold may be substituted. Copy should be set and spaced by a professional typesetter and enlarged photographically for photo stencil screen process.

1.4 ART WORK

Constant elements of the sign layout - frame, outline, stripe, and official state information - may be duplicated following drawing measurements, or be reproduced and enlarged photographically using a layout template if provided. The "STATE OF HAWAII" masthead should be reproduced and enlarged as specified, using the artwork provided.

1.5 TITLES

The specific major work of the project under construction is emphasized by using 3-3/4" type, all capitals. Secondary information such as location or buildings uses 2-1/4" type, all capitals. Other related information of lesser importance uses letter heights as indicated on 01581-3, upper / lower case letters.

Design should follow the example on page 01581-3.

PART 2 - PRODUCTS

2.1 MATERIALS

A. LUMBER

1. Panel is 3/4" exterior grade high density overlaid plywood, with resin-bonded surfaces on both sides.
2. 4"x4" sign posts shall be Douglas Fir No. 1 or better.

B. PAINTS & INKS

Screen print inks are matte finish. Paints are satin finish, exterior grade. References to Ameritone Color Key Paint are for color match only.

COLOR:	1.	1BL10A	Bohemian Blue
	2.	2H16P	Softly (White)
	3.	2VR2A	Hot Tango (Red)
	4.	1M52E	Tokay (Gray)

C. CONCRETE

Concrete shall be class B with a 2,500 psi 28-day compressive strength.

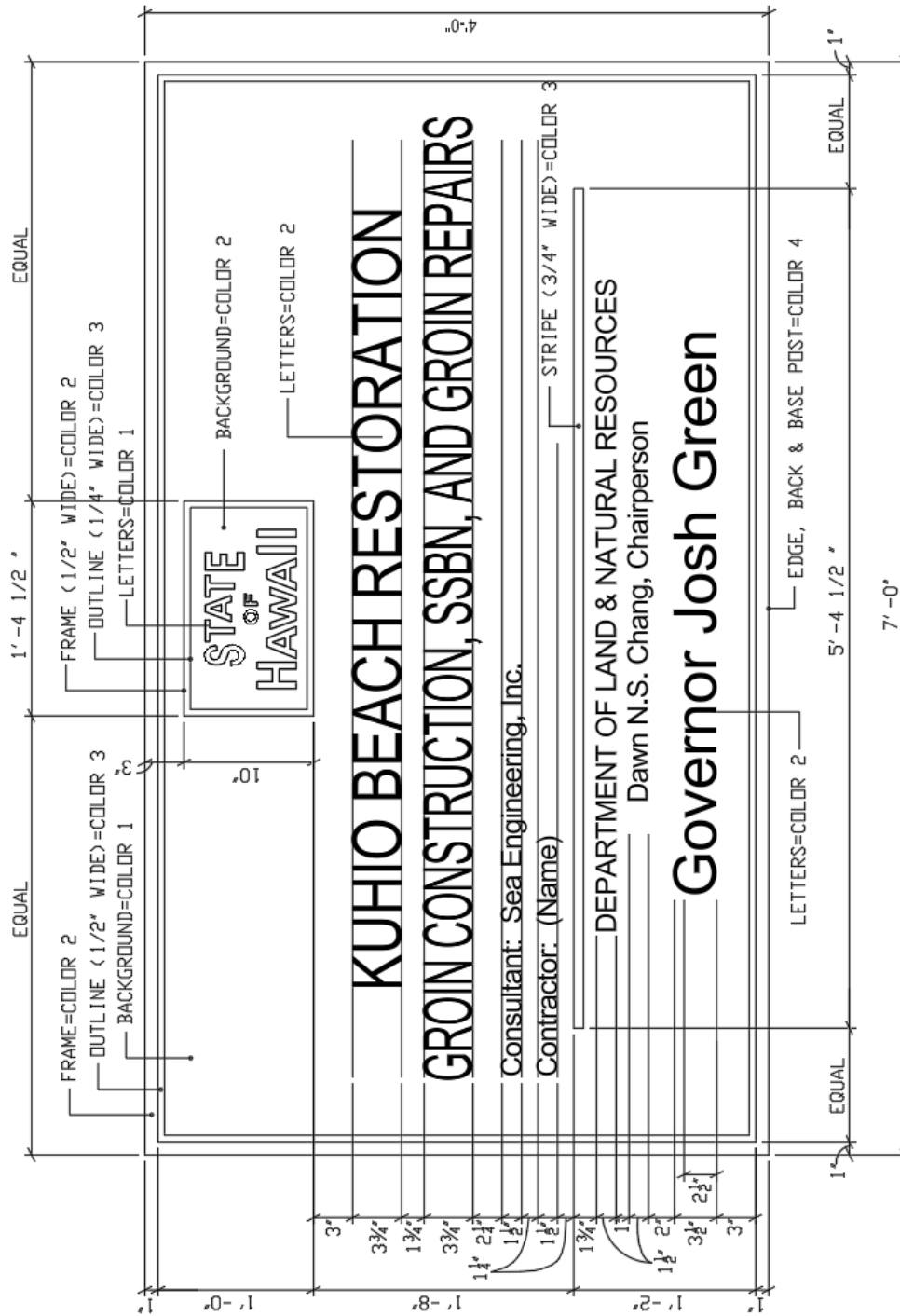
PART 3 - EXECUTION

3.1 GENERAL

- A. The Project Sign shall be constructed with new materials as specified above.
- B. The Project sign shall be installed at the location indicated on the drawings or as designated by the Engineer. The project sign shall be erected upon commencement of work.

3.2 MEASUREMENTS AND PAYMENT

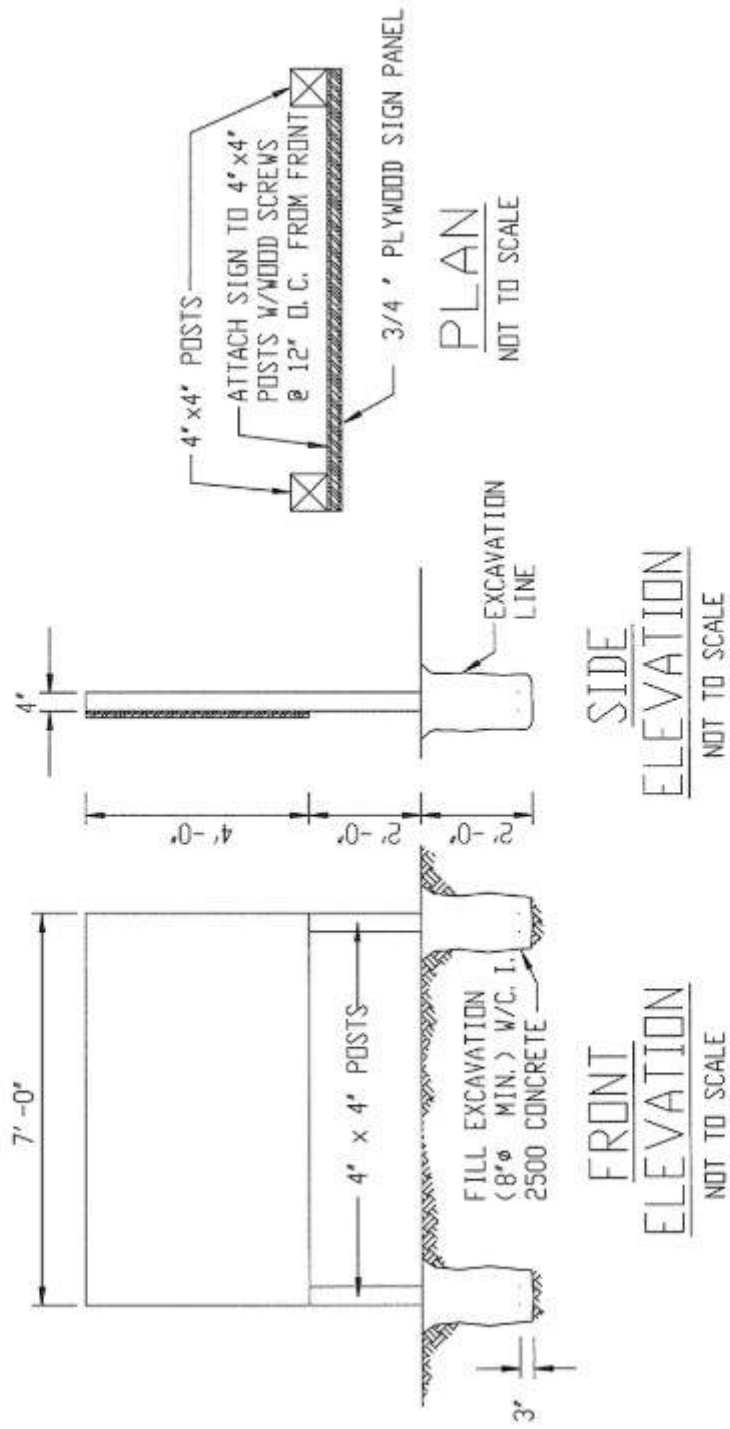
The construction of the project sign, including all equipment, labor and material necessary to furnish and install the project sign will be paid for under the "Project Sign" proposal item.



NOTE: Number of signs required 1

Job No. E00CO30A

Project Sign
01581-3



END OF SECTION

Project Sign
01581-4

SECTION 02100

SITE PREPARATION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

The work to be performed under this section shall include clearing the premises of all obstacles and obstructions, the removal of which will be necessary for the proper reception, construction, execution and completion of the other work included in this contract.

1.2 COORDINATION WITH OTHER SECTIONS

- A. Earthwork is specified in Section 02200 - EARTHWORK.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. **Maintenance of Traffic:** The Contractor shall conduct operations with minimum interference to streets, driveways, sidewalks, passageways, etc. Approved access routes are shown on the PLANS. Operations affecting traffic shall be coordinated with the State of Hawaii Department of Transportation, City and County of Honolulu Department of Transportation Services, and other departments as necessary.

When necessary, the Contractor shall provide and erect barriers, signage, etc., with special attention to protection of personnel and the public. A safety fence shall completely surround the work area(s) to control access and protect public safety.

- B. **Protection:** Throughout the progress of the work protection shall be provided for all property and equipment, and temporary barricades shall be provided as necessary. Work shall be done in accordance with the safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, and the State of Hawaii's Occupational Safety and Health Standards, Rules and Regulations.
- C. **Fires:** No burning of fires of any kind will be allowed.
- D. **Reference Points:** Benchmarks, etc., shall be carefully maintained, but if disturbed or destroyed, shall be replaced as directed, at the Contractor's expense.
- E. The Contractor shall protect from damage all improvements, including but not limited to roads, curbs, sidewalks, walls, and foundations. Any damage to existing improvements shall be repaired or replaced by the Contractor to the satisfaction of the Engineer.
- F. The Contractor shall protect from injury and damage all surrounding trees, plants, etc., and

shall leave all in as good a condition as at present. Any damage to existing trees, plants, etc., shall be repaired or replaced by the Contractor to the satisfaction of the Engineer.

- G. Disposal: All materials resulting from operations under this Section shall become the property of the Contractor and shall be removed from the site. Loads of materials shall be trimmed to prevent droppings.

3.2 EXISTING UTILITY LINES

- A. The existence of active underground utility lines within the construction area is not definitely known other than those indicated in their approximate locations on the PLANS. Should any unknown line be encountered during excavation, the Contractor shall immediately notify the Engineer of such discovery. The Engineer shall then investigate and issue instructions for the preservation or disposition of the unknown line. Authorization for extra work shall be issued by the Engineer only as he deems necessary.

3.3 CLEAN UP OF PREMISES

- A. Clean up and remove all debris accumulated from construction operations from time-to-time as necessary. Upon completion of the construction work and before final acceptance of the contract work, remove all surplus materials, equipment, etc., and leave entire job site raked clean and neat to the satisfaction of the Engineer.

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

This section covers the requirements for earthwork.

- A. It shall be the responsibility of the Contractor to examine the project site and determine for himself the existing conditions.
- B. Obvious conditions of the site existing on the date of the bid opening shall be accepted as part of the work, even though they may not be clearly indicated on the PLANS and/or described herein or may vary therefrom.
- C. All debris of any kind accumulated from clearing shall be disposed of from the site, and the whole area left clean. The Contractor shall be required to make all necessary arrangements relative to the proposed place of disposal.

1.2 REMOVAL AND REPAIR WORK

A. General

The Contractor shall exercise every precaution to preserve and protect all structures, walkways or utility improvements which are to remain or be relocated. Portions of walkway and pavement which are to remain shall be saw cut neat and true to line. Restore all pavement and curbs upon completion of the work.

1.3 SEQUENCE OF WORK

All sequence of work shall be subject to the approval of the Engineer.

1.4 PROTECTION

- A. Barricade: Erect temporary barricade and/or safety fence to prevent people from entering into project area, to the extent as approved by the Engineer. Such barricade shall be as defined in Section 01530 - BARRICADES. The extent of barricades may be adjusted as necessary with the approval of the Engineer. This work shall be accomplished at no extra cost to the State of Hawaii.
- B. Take all precautions and safety measures as required to protect the State of Hawaii free and harmless from liability of any kind. Conduct operations with minimum interference to streets, driveways, sidewalks passages, etc.
- C. Adequate precautions shall be taken before commencing and during the course of the work to ensure the protection of life, limb, and property.
- D. The Contractor shall protect from damage all surrounding structures, trees, plants, grass, walks, pavements, etc. Any damage will be repaired or replaced by the Contractor to the

satisfaction of the Engineer at no cost to the State.

1.5 PERMITS

Necessary Federal and State permits for construction of the project have been obtained by the State. The Contractor shall adhere to all permit requirements and conditions. Any additional local permit requirements, such as for temporary road closure, are the responsibility of the Contractor. The Contractor shall obtain and pay for all necessary additional permits prior to the commencement of work.

1.6 MAINTAINING TRAFFIC

- A. The Contractor shall conduct operations with minimum interference to streets, driveways, sidewalks, traffic activities, etc. Approved access routes are shown on the PLANS. Operations affecting traffic shall be coordinated with the City and County of Honolulu Department of Transportation Services or other departments as necessary.
- B. When necessary, the Contractor shall provide, erect and maintain lights, barriers, etc., as required by traffic and safety regulations with special attention to protection of life.

1.7 CONSTRUCTION LINES, LEVELS AND GRADES

- A. The Contractor shall verify all lines, levels and elevations indicated on the PLANS before any clearing, excavation or construction begins. Any discrepancy shall be immediately brought to the attention of the Engineer and any changes shall be made in accordance with his instructions. The Contractor shall not be entitled to extra payment if he fails to report the discrepancies before proceeding with any work whether within the area affected or not.
- B. The laying out of base lines, establishment of grades and staking out the entire work shall be done by a licensed Surveyor or a licensed Civil Engineer, registered in the State of Hawaii. He shall be solely responsible for their accuracy. Erect and maintain substantial batter boards showing construction lines and levels.

1.8 CLEANUP

Clean up and remove all debris accumulated from construction operations from time to time, as directed by the Engineer. Upon completion of the construction work and before final acceptance of work, remove all surplus materials, equipment, etc., and leave entire jobsite clean and neat.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Beach Sand Fill: Beach Sand fill material shall be obtained from the sand recovery site shown on the Plans.

PART 3 - EXECUTION

3.1 EXCAVATION

A. Protective Measures

1. All excavation shall be protected and guarded against danger to life, limb, and property.
2. Shoring, cribbing, and logging, as required to safely preserve the excavations and earth banks, free from damages resulting from the work shall be provided and installed by the Contractor.
3. Grading shall be controlled so that the ground surface is properly sloped to prevent water run-off into structural foundations and open trenching excavations.
4. No underground utility lines traversing the construction area are known to exist by the designer. Should any be encountered during excavation, the Contractor shall not disconnect same without authorization from the Engineer but shall inform the latter immediately of each discovery. The Engineer shall investigate and issue proper authorization for procedure.

3.2 BEACH SAND FILL

A. Sand Fill Area

1. Sand fill shall be recovered and placed to the lines and grades shown on the plans.

END OF SECTION

SECTION 02260

SAND RECOVERY, TRANSPORTATION, AND PLACEMENT

PART 1 – GENERAL

- 1.1 GENERAL REQUIREMENTS: The work shall include the furnishing of all labor, materials, and equipment necessary to recover and place sand within Kuhio Beach to the lines and grades shown on the PLANS, and other work required to complete the work as indicated on the PLANS.
- 1.2 SUBMITTALS:
- A. No later than 15 days after notice to proceed (NTP) the Contractor shall submit six (6) hard copies and one (1) digital copy of the Work Plan and Schedule to the State for approval. No work shall commence until the operation and performance schedule has been approved by the State. The Work Plan shall include, but not be limited to, the following information: sand recovery equipment type and specifications; turbidity containment types; sand recovery methodology; estimated daily sand recovery and placement rate; sand transportation equipment and methodology; sand placement verification methodology; sand placement grade stake recovery plan; and public safety plan during sand recovery and placement.
 - B. The Contractor shall maintain a Daily Log of work activities, to include but not be limited to work activities conducted that day, problems encountered or issues of concern, inspection of critical equipment, equipment operation and performance, work stoppage and reason why (e.g., equipment malfunction, turtle sighting in work vicinity), estimated volumes of sand recovered and placed on the beach. The Daily Log shall cover a 24-hour period beginning at 4:00 am each day, and four (4) copies shall be submitted to the State within 24 hours following each log period.
 - C. On days that sand is recovered and/or placed, surveys shall be conducted in the recovery and placement areas prior to commencement of work and immediately after completion of work that day. Surveys shall be taken at alongshore intervals of no more than 25 feet, and sufficient points shall be acquired on each profile to adequately represent the topography. The survey shall cover any area where sand will be recovered or placed for that day. Survey data shall be submitted to the State within 24 hours following each placement day. The survey data shall be in graphical format and shall show the design lines and grades, envelope of acceptability based on listed tolerances (see section 3.2D below) and shown on the PLANS, and the surveyed pre- and post-fill profiles, and shall be referenced to the vertical datum and horizontal baseline shown on the PLANS. Submittal shall include digital files of the survey data in .csv format.
- 1.3 CONTRACTOR'S RESPONSIBILITY: The Contractor shall comply with a) all permit requirements and conditions for this project, b) all applicable Federal, State, and County laws, rules and regulations, including Hawaii Public Health regulations, and c) all laws, rules and regulations concerning pollution control and abatement.

The Contractor shall provide, erect, and maintain, at no cost to the State, warning signs, lights, barricades, fences, or other means as necessary to prevent unauthorized persons and the general public from entering onto the site where they may suffer injury or create a hazard to construction

operations. The Contractor shall also take all necessary precautions for safety in his operations and to prevent injury to his employees and to others having lawful access to the site.

The Contractor shall use all proper precautions and methods of procedure in his operations to ensure that no debris or other deleterious materials be allowed to fall, flow, leach, or otherwise enter the water. The Contractor shall promptly retrieve any misplaced materials/equipment. The Contractor shall maintain complete control of the movement of all equipment and material on and below the surface of the water. No loose floating or submerged equipment or material will be permitted.

All work shall be confined to the Contractor work areas and construction easements as shown on the PLANS. The contractor shall exclude the public from the work area in the immediate vicinity of his operations. Any damage to private or public property or structures caused by the Contractor in his execution of the work shall be repaired promptly at the expense of the Contractor. Recognizing that the project area is a very heavily utilized public beach, the Contractor shall endeavor to accomplish the project with the least adverse impact to public and commercial beach activities as is practicable, reasonable and necessary for the accomplishment of the work.

- 1.4 PLAN REVISION: It is understood that the project site is a dynamic sand beach, subject to rapid change. The State reserves the right to revise the sand recovery and placement plan no later than two (2) weeks before the start of construction in order to reflect beach conditions at the time of construction.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 SAND RECOVERY

- A. Only loose, unconsolidated sand from within the sand recovery areas shown on the PLANS is to be recovered. The sand may contain coral pieces and rubble. Care shall be exercised to not damage existing coastal infrastructure, including existing groins and walls. The total amount of sand to be recovered and placed is no more than $1,000 \pm 100$ cubic yards.
- B. Rocks, cobbles, and coral rubble larger than 1.0 inches in any dimension shall be removed from the recovered sand and disposed of by the Contractor prior to completion and acceptance of the in-place sand fill.
- C. The sand recovery shall be accomplished utilizing appropriate equipment, e.g., skid-steer or similar. The sand recovery equipment shall be sufficient to accomplish the work in as short a time as is reasonably possible. No equipment shall operate below the Mean Higher High Water line (+1.1 feet).
- D. Interference with Recreation Activities: The Contractor shall avoid interfering with recreational use of the nearshore waters in the project vicinity to the maximum extent practicable.

- E. Ranges and Markers: Place and maintain markers as necessary to ensure that all work activities are conducted within the designated sand recovery area as shown on the PLANS, including turbidity containment devices.
- F. Turbidity Control: Turbidity containment devices as shown on the PLANS shall completely surround the placement area. The development of a leak in the turbidity containment devices shall be promptly repaired and work shall be stopped until repairs are completed. Failure to repair the leaks or change the method of operation that is resulting in spillage that exceeds turbidity and water quality standards will result in suspension of work activities.

3.2 SAND TRANSPORTATION AND PLACEMENT

- A. Sand shall be recovered and placed to the lines, grades, and cross sections shown on the PLANS.
- B. Sand shall be graded to the to the lines, grades, and elevations shown on the PLANS using as small equipment as is practicable in order to minimize noise and other disturbance to adjacent properties.
- C. Dressing and Tolerance: Immediately following each alongshore incremental placement of sand the Contractor shall grade, level and dress the beach fill to meet the required elevations and dimensions indicated on the PLANS and achieve the sectional fill volume densities specified on the PLANS. The dressing for payment shall include the removal of humps and depressions, and shall be made prior to survey measurements for payment. A tolerance of three (3) inches plus or minus from the design beach crest elevation and beach slope will be acceptable. The total volume of material placed between 50-foot station intervals shall be within ten (10) percent plus or minus from the design volume shown on the PLANS; however, cumulative volumes between adjacent reaches and over the entire project length shall not deviate by more than plus two (2) percent and minus five (5) percent from the cumulative volumes shown on the PLANS. Total sand volume placed shall be between 900 and 1,100 cubic yards.
- D. The State reserves the right to modify or revise the sand placement lines and grades shown on the PLANS as necessary to accommodate changes in the existing beach conditions and to achieve the required beach profiles at the time of construction.
- E. Equipment used to move, distribute, and compact the sand to the design beach profiles shall be the smallest practicable equipment suitable to accomplish the work in order to minimize noise and inconvenience to beach users and adjacent properties. No equipment shall operate on the beach between 6:00 p.m. and 7:00 a.m. No land-based equipment shall operate (i.e., drive) in the water or below the mean higher high water elevation (+1.1 feet msl). Excavator buckets or similar may recover sand from within the water.
- F. Grade stakes and any other stakes for any purpose shall be made of material that can and will be removed after filling to the design cross sections and accepted by the Engineer. All stakes shall have sufficient length above grade so they will not be accidentally covered by the sand fill. The Contractor's Work Plan shall contain a grade stake recovery plan to insure accountability for and complete removal of all grade stakes.

- G. If any material is deposited elsewhere than as designated or approved, the Contractor may be required to remove such misplaced material and redeposit it where directed by the Engineer at his expense.
- 3.3 ENVIRONMENTAL CONTROLS: Turbidity containment devices as shown on the PLANS shall be maintained at all times during dredging, dewatering and sand placement work. Regular inspection of the devices shall be conducted by the Contractor, and should any leaks or breaks occur the associated work activities shall cease until the leaks are repaired. All work shall be accomplished in accordance with specification 01567 Environmental Protection and the project's BMP Plan.
- 3.4 EQUIPMENT REMOVAL: Upon completion of the work the Contractor shall promptly remove all equipment, markers and buoys, turbidity containment devices, and any other ancillary equipment or materials.
- 3.5 MEASUREMENT
- A. Surveys for payment shall be made by the Contractor at his expense. The survey methodology and qualifications of the survey personnel shall be included in the Contractor's Work Plan submittal for approval by the Engineer.
- B. Beach profiles shall be surveyed at maximum 25-foot intervals along the baseline and shall include the two nearest stations shown on the PLANS. The profile surveys shall extend from the hard backshore feature (wall, walkway, stairs) at the inshore edge of the beach to the offshore breakwaters. The profile surveys shall be accomplished immediately prior to initiation of sand placement each day and immediately post-placement the same day to determine and verify the sand placement. The profiles shall at a minimum contain spot elevations at maximum 10-foot intervals along the profile and at any slope change points. It is understood that there is potential for sand movement after placement; thus the Contractor shall make every effort to perform the pre-and post-placement beach profile surveys in as timely a manner as possible.
- C. The Contractor shall maintain detailed survey logs and the daily post-placement surveys plotted against the design profile. The profile survey data shall be submitted to the Engineer within 48 hours following each placement increment. Each survey submittal to the Engineer shall contain the statement "I hereby certify that this submittal is a correct representation of the work accomplished." The submittal shall be signed by an authorized Contractor's representative.
- D. For purposes of expediency and efficiency, it is the State's intent to utilize the Contractor's surveys for purposes of assessing the work's conformance to the job requirements and for payment. The State shall accept or reject each sand placement for each increment within 48 hours of receipt of the verification survey data from the Contractor. However, the State reserves the right to conduct independent surveys, at its own expense, for the purposes of verifying the Contractor's measurements. In the event that survey discrepancies are developed that cannot be otherwise resolved, the State reserves the right to request the Contractor to re-survey portions of the work at no additional cost to the State; and/or utilize the State's survey for measurement.

END OF SECTION

SECTION 02486

STONE MATERIAL AND PLACEMENT

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

This work shall consist of furnishing and placing underlayer and armor stone for groin construction as shown on the plans and specified herein. The approximate stations and limits of construction are indicated on the plans. The quantities of rocks indicated on the plans are estimates only, actual quantities may differ because of size and shape of rocks supplied. The Contractor shall conduct his own survey prior to bidding to verify all dimensions and conditions at the job site and determine the amount of imported rocks required.

1.2 SUBMITTAL

1.2.1 SAMPLES OF STONE

Representative samples of stone shall be delivered at the Contractor's expense to the State Testing Laboratory, Honolulu, Hawaii, at least 30 days in advance of the time when placing of stone is expected to begin. Sampling identification, preparation and transportation of samples shall be in accordance with ASTM D75-82.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 SOURCES OF STONE

The Contractor shall be responsible for locating and obtaining all stone required for this project. Stone may be either "field" stone or "new" stone obtained from existing operating commercial quarries as approved. All stones shall meet the requirements specified herein. The sources from which the Contractor proposes to obtain the material shall be selected well in advance of the time when the stones will be needed in the work. Approval of a source or sources of stone shall not be construed as approval of all material from that source or sources. The right is reserved to reject materials produced from localized areas, zones, or strata when such materials are unsuitable as determined by the Engineer. Any suitable size stone salvaged or recovered from required excavation and meeting the specified requirements may be used in the work.

2.1.2 STONE

All stones shall be dense, durable, and of a suitable quality to ensure permanence in the structure and in the climate in which it is to be used. Stones shall be free from cracks, seams, and other defects that would tend to increase unduly its deterioration from natural causes.

2.1.3 FIELD TESTING OF STONE

Prior to removal from the source, the Contractor shall field test representative rock pieces selected by the Engineer by dropping from a vertical height of ten feet on a solid rock surface or on a bed of comparable size rock proposed for the project. Broken, cracked, or otherwise damaged stones found by dropping will not be acceptable and shall be disposed of by the Contractor at his expense.

2.1.4 PHYSICAL REQUIREMENTS

Physical properties of the stones shall conform to the following requirements when tested in accordance with the respective ASTM Standards. Acceptance tests shall be performed on individual stone pieces 10 to 30 pounds in weight in lieu of the sizes specified in ASTM C 127. Test apparatus shall be improvised to accommodate the above stone sizes. All acceptance tests shall be made by and at the expense of the Contractor.

Bulk specific gravity (ASTM C127-81) not less than 2.5; and
Absorption not greater than four (4) percent (ASTM C127-81)

Duplicate sets of samples shall be taken, numbered, referenced and identified. One set shall remain at the Contractor's quarry (source) for later comparison with actual pieces of rock to be furnished for the project. The second set of samples shall be delivered at the Contractor's expense to the State Testing Laboratory, Honolulu, Hawaii, at least 30 days in advance of the time when placing of stone is expected to begin. Sampling identification, preparation and transportation of samples shall be in accordance with ASTM D75-82.

PART 3 - EXECUTION

3.1 CONSTRUCTION

The Contractor shall use equipment and workmen capable of performing the work. The construction methods which the Contractor intends to use shall be thoroughly discussed with the Engineer and approval of the methods obtained prior to commencing the operations.

3.1.1 PREPARATION OF GROUND SURFACE

The Contractor shall prepare the groin foundation to lines and grades indicated on the plans. All excavation shall be unclassified regardless of the nature of materials encountered.

3.1.2 UNDERLAYER STONE

Underlayer stones shall be placed to the lines, grades, and thicknesses indicated on the plans. Underlayer stone shall be placed to its full layer thickness in one operation and in such a manner to avoid displacing the underlying material. A tolerance of +/- 3 inches will be permitted. The desired distribution of sizes of stones throughout the mass may be obtained by selective loading, controlled dumping of successive loads during placing or by a combination of these methods.

Placing stones into chutes or by similar methods likely to cause segregation of the various sizes will not be permitted.

3.1.3 ARMOR STONE

Armor stone shall be placed within the lines, grades and thicknesses indicated on the plans to provide a one-stone thick layer. Allowable tolerance for the slope stones shall be plus 6 inches from the thickness shown. Crest stone tolerance of plus 6 inches from the elevation indicated is allowed. Extremes in the indicated tolerance shall be avoided, and extremes of this tolerance over an area greater than 100 square feet are not permitted. Stones shall be individually keyed and fitted in the structure such that each stone shall be in contact with all adjacent stones. The size of the voids between all stones shall be kept to a minimum to prevent underlayer stone from passing through the voids. Chinking of void spaces using smaller stones is not permitted. Stones shall be generally rectangular in cross-section. The maximum aspect ratio (greatest dimension:least dimension) of any piece of armor stone shall be not greater than 3:1 when measured across mutually perpendicular axes. Not more than 25 percent of the stones within a gradation range shall have an aspect ratio greater than 2:1. Armor stone shall be placed on the prepared underlayer using equipment and methods suitable for handling the sizes indicated without damage to the stones. Placement of the armor stones shall proceed as soon as practicable after the underlayer placement to prevent wave action from displacing the underlayer material. Underlayer stone shall not be left exposed over a distance of more than 25 feet ahead of armor stone placement.

END OF SECTION

SECTION 03240

SYNTHETIC FIBER REINFORCEMENT

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

This section covers the requirements for the furnishing and installing of Synthetic Fiber Reinforcement, including all materials, labor equipment and services necessary to complete this work.

1.2 RELATED SECTIONS

- A. Section 03320 – Marine Concrete.

1.3 REFERENCES

All materials provided under work of this section shall conform to American Society for Testing and Materials (ASTM): ASTM C-39 Standard Method of Testing for Compressive Strength of Cylindrical Concrete Specimens, ASTM C-78 Standard Test Method for Flexural Strength of Concrete (Using a Simple Beam with Third-Point Loading) and ASTM-496 Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens.

1.4 SUBMITTALS

- A. Submit copies of manufacturers printed product data, clearly marked, indicating proposed synthetic fiber reinforcement materials. Printed data should state a minimum of 5 lbs. of fiber to be added to each cubic yard of each type of concrete.
- B. Submit copies of manufacturers printed batching and mixing instructions.
- C. Submit copies of a certificate prepared by the concrete supplier stating that the approved synthetic fiber reinforcement materials at the rate of a minimum of 5 lbs. per cubic yard were added to each batch of concrete delivered to the project site.

PART 2 - PRODUCTS

2.1 SYNTHETIC FIBER REINFORCEMENT

- A. General: 100 percent virgin polypropylene fibrillated fibers specifically manufactured for use as secondary concrete reinforcement, containing no reprocessed olefin materials. Synthetic fiber reinforcement shall be as manufactured by Fibermesh Company, 4019 Industry Drive, Chattanooga, TN 37416, phone (615) 892-7243, Fiber-Lok, Inc., P.O.

Box 1087, Keller, Texas 76248, phone (800) 852-8889, or approved equivalent.

B. Physical Characteristics:

1. Specific Gravity: 0.91
2. Tensile strength: 70 to 110 ksi
3. Fiber lengths: 1/2", 3/4", 1-1/2", 2" per manufacturer

C. Synthetic fiber reinforcement materials provided by this Section shall produce concrete conforming to the requirements for each type and class of concrete required as indicated on the plans and specified in Section 03320 – Marine Concrete.

PART 3 - EXECUTION

3.1 EXECUTION

Add synthetic fiber reinforcement to concrete materials at the time concrete is batched in amounts in accord with approved submittals for each type of concrete required.

Mix batched concrete in strict accord with synthetic fiber reinforcement manufacturer's instruction and recommendations for uniform and complete dispersion.

3.2 MANUFACTURER'S FIELD SERVICE

Provide the services of a qualified technical representative to instruct the concrete supplier in proper batching and mixing of materials to be provided.

3.3 CONCRETE PLACING AND FINISHING

Place and finish concrete materials as specified in Section 03320 – Marine Concrete.

END OF SECTION

SECTION 03320
MARINE CONCRETE

PART 1 – GENERAL

1.1 GENERAL

This specification covers the furnishing, hauling, mixing, placing, and curing of concrete exposed to or immersed in salt water.

1.2 CONCRETE

All concrete shall be 4000 psi compressive strength, unless otherwise specified or indicated on the plans.

A. Concrete Mix:

4000 psi – Minimum Strength at 28 days (pounds per sq. inch)

4.5 gallons of water per sack of Cement (Maximum)

7.0 sacks of Cement per cubic yard of concrete (Minimum)

Required Admixtures (as specified in Part 2.1.D.)

B. No reinforcing steel and welded wire mesh shall be used.

1.3 SUBMITTALS

Contractor shall submit six (6) copies of the concrete mix design and specifications for materials utilized under this section to the Engineer for review and approval.

- A. Thirty days minimum prior to concrete placement, submit a mix design for each strength and type of concrete. Furnish a complete list of materials including type brand; source and amount of cement, and admixtures; applicable reference specifications; and copies of test reports showing that the mix has been successfully tested to produce concrete with the properties specified and will be suitable for the job conditions. Indicate how concrete will be produced. Indicate how, when, and by whom super-plasticizer will be added and the controls exercised to ensure proper work. Obtain approval before concrete placement. Obtain acknowledgement of receipt prior to concrete placement. Submit additional data regarding concrete aggregates if the source of aggregate changes.

B. Certificates of Compliance for Sections 03300:

1. Aggregates
2. Admixtures
3. Cement

C. Catalog Data:

1. Materials for curing concrete
2. Curing compound

D. Test Results:

1. Strength

PART 2 – PRODUCTS

2.1 MATERIALS

A. Portland cement shall conform to the requirements of ASTM C150, Type II, for all concrete work.

B. Concrete Aggregates: All aggregates shall be clean, free from debris and other extraneous materials, and shall be stored in such a manner to prevent intrusion of foreign matter.

1. Fine aggregates shall be calcareous or basalt sand, or a combination thereof. They shall meet the grading requirements of ASTM C33 unless the concrete producer can provide past data that show that a proposed non-conforming gradation will produce concrete with the required strength and suitable workability.

Fine aggregate shall be graded within the following limits per ASTM C33:

<u>Sieve Size</u>	<u>Percentage Passing by Weight</u>
3/8"	100
No. 4	95 to 100
No. 8	80 to 100
No. 16	50 to 85
No. 30	25 to 60
No. 50	10 to 30
No. 100	2 to 10

If manufactured sands are used in the concrete mix, the Contractor may select and use a water-reducing and/or an air-entraining admixture as specified hereinafter to provide satisfactory workability in the concrete. The cement content of a mix shall be as specified hereinafter, and the use of an admixture shall in no way result in the reduction of the cement factor.

2. Coarse aggregates shall be crushed close-grained, blue lava rock meeting the grading requirements of sizes 57 or 67 (ASTM D448) or both. The maximum size of aggregate shall not be larger than 1/5 of the narrowest dimensions between sides of the forms of the member for which the concrete is to be used.

Coarse aggregate shall be graded for the maximum size specified within the following limits:

COARSE AGGREGATE

<u>Sieve Size</u>	<u>Percentage Passing by Weight</u>	
	<u>No. 67</u>	<u>No. 57</u>
1-1/2"	---	100
1"	100	95 to 100
3/4"	90 to 100	---
1/2"	---	25 to 60
3/8"	20 to 55	---
No. 4	0 to 10	0 to 10
No. 8	0 to 5	0 to 5

- C. Water used in mixing concrete shall be potable.
- D. Admixture
 1. Super-Plasticizing admixtures shall be of ASTM C 494, Type F or G.
 2. Fiber reinforcement shall be added at the minimum rate of 5 lbs. per cubic yard of concrete. Polypropylene fibers, such as Fibermix as manufactured by Fibermesh or other approved equal shall be utilized per Section 03240.

The handling and use of all admixtures shall be according to the respective manufacturer's instructions.

- E. Curing the compound shall conform to ASTM C309.

PART 3 – EXECUTION

3.1 DESIGN OF CONCRETE MIXES

- A. All concrete throughout shall be plant mixture in an approved type of power operated mixer that will insure uniformity and homogeneity of the concrete produced.
- B. Mixing at jobsite shall be done in accordance with ACI 614.
- C. Ready-mixed and mixed-in-transit concrete shall be mixed to conform to the provision of ASTM C94.

- D. Concrete shall be mixed only in such quantity as is required for immediate use. No retempering will be permitted and concrete that has started to harden shall be discarded and promptly removed from the job.
- E. Admixtures conforming to paragraph 2.1 may be used in the concrete as recommended by the supplier and approved by the Engineer.
- F. Concrete shall be designed for 2" (minimum) to 4" (maximum) of slump. Water-reducing high range super-plasticizing admixture conforming to ASTM M 494 shall be used to obtain the necessary slump. And with the use of these super-plasticizers, slump may be increased, not to exceed 8".

3.2 PLACING CONCRETE

- A. No concrete shall be placed in the absence of the Engineer or his representative who shall be given a three-day advance notice of starting time of concrete pour.
- B. Preparation:
 - 1. Concrete shall be placed upon clean, damp surfaces with no free water, or upon properly compacted fills but never upon soft mud or dry, porous earth.
 - 2. Before depositing new concrete on or against concrete which has set, all accumulations of mortar splashed upon the surfaces of forms shall be removed and the forms shall be retightened. The surfaces of previously set concrete shall be thoroughly roughened and cleaned of all foreign matter and laitance, saturated with water, and slushed with a coat of cement grout or epoxy grout, as directed by the Engineer. New concrete shall be placed before the grout has attained its initial set.
 - 3. Any concrete having initial set before placing and finishing shall be discarded and shall not be used for the work. No remixing with water or with other materials shall be permitted once the initial set has taken place.
- C. Conveying:
 - 1. Concrete shall be conveyed from mixer to forms as rapidly as practicable by methods what will prevent segregation.
 - 2. Concrete shall be deposited as nearly as practicable in its final position. Extensive spading as a means of transportation shall be avoided and in no case shall vibrators be used to transport concrete inside forms. The placement shall be completed within 30 minutes after water is first added to the mix. However, when the concrete is continually agitated, the time may be extended to 1-1/2 hours. Retempering shall not be permitted after the concrete has stiffened.

3. Open troughs and chutes shall have a slope not to exceed 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal. Chutes more than 20 feet long and chutes not meeting the slope requirements may be used provided they discharge into a hopper before distribution.
4. The concrete shall not be allowed to drop freely more than six feet except where specifically authorized by the Engineer. When placing operations would involve the dropping of concrete from a height of more than six feet, it shall be conveyed through pipes or flexible chutes.
5. If any appreciable segregation occurs through the conveying methods employed, their use shall be ordered discontinued by the Engineer and some other satisfactory method of placing concrete shall be used.
6. All chutes, troughs, pipes and other means of conveyance shall be kept clean and free from coatings of hardened cement or concrete by thoroughly cleaning with water and chipping after each pour. Water use for flushing shall be discharged away from the vicinity of the concrete or forms already in place.

D. Depositing:

1. Unless adequate protection is provided, concrete shall not be placed during rain. Rainwater shall not be allowed to increase the mixing water nor to damage the surface finish. Fresh concrete that has been deposited but has not attained its initial set shall be protected in the event of rain.
2. Placing of the concrete shall be started at the far end of work so that each batch will be dumped against previously placed concrete, not away from it.
3. Concrete shall be provided in sufficient quantities for continuous pour of the structure or unit section to avoid formation of cold joints. When work stoppage is required, a construction joint shall be made and constructed at locations shown on the drawings or approved by the Engineer. Before resuming placement of concrete, the joint shall be thoroughly cleaned and wetted.

E. Compaction:

1. All concrete shall be consolidated by vibration so that the concrete is thoroughly worked around the reinforcement, around embedded items, and into corners of forms, eliminating all air or stone pockets which may cause honeycombing, pitting, or planes of weakness. All compaction shall be done by use of high frequency internal vibrators. Where the vibrator cannot be inserted into the concrete, compaction shall be done by spading, rodding, or forking.
2. Frequency of vibrator shall be not less than 7,000 impulses per minute. The Contractor shall provide a sufficient number of vibrators to properly

consolidate all concrete immediately after placing. At least one standby vibrator shall be on hand at all times during placement of the concrete.

3.3 FLEXIBLE FORMING SYSTEM

Flexible formwork shall be used to form a concrete crest cap that firmly abuts against the adjacent crest armor stones. The flexible forming system shall be capable of containing concrete and preventing leaks during placement.

3.4 CURING AND PROTECTION

- A. All concrete shall be cured for a period of not less than seven (7) days by one of the four methods listed below:
1. Water Curing: If cured with water, concrete shall be kept wet by mechanical sprinklers, by ponding, or by any other method which will keep the surfaces continuously saturated during the entire curing period.
 2. Saturated Sand Curing: Surfaces cured with sand shall be covered with a minimum of one-inch thickness of sand which shall be kept uniformly distributed and continuously saturated during the curing period.
 3. Curing Compounds: Curing compounds shall not be used on concrete surfaces that are to receive paint, finish, acid stain or resilient flooring, except those that are recommended by the manufacturer to be compatible with the applied finish. The Contractor shall submit to the Engineer a letter certifying that the curing compound is compatible with the applied finish. Application shall be in accordance with the manufacturer's recommendations. If curing, sealing or other compounds are used which are incompatible with applied finish, such compound shall be thoroughly removed by grinding with a terrazzo grinder.
 4. Waterproof Paper: Waterproof paper or opaque polyethylene film conforming to ASTM C171 may be used. The paper or film shall be anchored securely and all edges sealed or applied in such a manner as to prevent moisture escaping from the concrete.
- B. During this curing period, the concrete shall be maintained with minimal moisture loss at a relatively constant temperature. Fresh concrete shall be protected from heavy rains, flowing water, mechanical injury, and injurious action of the sun. Curing method selected must be compatible with the finish to be applied to the concrete. Curing shall immediately follow the finishing operation.
- C. No pedestrian traffic shall be permitted on concrete for a period of three days after placing.

3.5 CONCRETE FINISHES

Heavy broom finish (1/16" to 1/8") shall be done after the concrete is hard enough to retain the scoring. Broom finish shall be done transversely to the direction of the grain. Tooling along the edges shall be performed to the radius shown on the drawings.

3.6 REMOVAL OF FORMS

- A. Forms shall not be disturbed until the concrete has set. They shall not be removed until the concrete has hardened and has attained the necessary strength to support its own weight and any construction live loads. Forms and supports shall not be removed without the consent of the Engineer.
- B. The listing below serves only as a guide in determining the minimum length of time required before removal of forms and is based on the use of Type II Portland cement. When high early strength Portland cement or high quality concrete is used, the length of time listed below may be reduced.

Walls in mass work	24 hours
Thin walls (12 inches or less) and sides of beams and girders . .	48 hours
Columns	7 days
Bottom forms of beams, girders, and slabs	7 to 14 days

- C. Any method of form removal likely to cause over-stressing of the concrete shall not be permitted. Supports shall be removed in such a manner as to permit the concrete to uniformly and gradually take the stress due to its own weight. The Contractor shall be responsible for safe practice in removing and shoring and for placing adequate reshores.
- D. After the forms are removed from any concrete work, the Contractor shall immediately cut all embedded wire and nails at a point at least 1/2 inch inside the concrete surface and fill the resulting void with mortar.

3.7 REPAIR OF DEFECTS

- A. After forms have been removed, any concrete which is not constructed as shown on the plans or is out of alignment or level beyond required tolerances or which shows a defective surface which in the opinion of the Engineer cannot be properly repaired or patched shall be removed.
- B. Where concrete which is exposed to view requires repairing or patching, the texture of the surface of such repair or patch shall closely match that of the surrounding surface.

3.8 SAMPLING AND TESTING

- A. Sampling – ASTM C172. Collect samples of fresh concrete to perform tests specified. ASTM C31 for making test specimens.
- B. Slump Tests – ASTM C143. Take concrete samples during concrete placement. The maximum slump may be increased as specified with the addition of an approved admixture provided that the water-cement ratio is not exceeded. Perform tests at commencement of concrete placement, when test cylinders are made, and for each batch (minimum) or every 10 cubic yards (maximum) of concrete.
- C. Compressive Strength Tests – ASTM C39. Make four test cylinders for each set of tests in accordance with ASTM C31. Test one cylinder at 7 days, two cylinders at 28 days, and hold one cylinder in reserve. Provide concrete cylinders for compression tests not less than once a day, nor less than once for each 100 cubic yards of concrete, nor less than once for each 5,000 square feet of surface for slabs or walls. If the average strength of the 28-day test cylinders is less than $f'c$ and a maximum of one single cylinder is less than $f'c$ minus 300 psi, take three ASTM C42 core samples and test. If the average strength of the 28-day test cylinders is less than $f'c$ minus 300 psi, take six core samples and test. Concrete represented by core tests shall be considered structurally adequate if the average of the three cores is equal to at least 85 percent of $f'c$ and if no single core is less than 75 percent of $f'c$. Locations represented by erratic core strengths shall be retested. Remove concrete not meeting strength criteria and provide new, acceptable concrete at no additional cost to the State. Repair core holes with nonshrink grout. Match color and finish of adjacent concrete.
- D. Testing – All sampling and testing shall be performed by an independent testing agency and all test results submitted to the Engineer for approval. All cost of sampling and testing shall be borne by the Contractor

3.9 CLEAN UP

The Contractor shall clean-up all concrete and cement materials, equipment, and debris upon completion of any portion of the concrete work when so directed by the Engineer and upon completion of the concrete and related work.

3.10 MEASUREMENT AND PAYMENT

Concrete, reinforcing steel, welded wire mesh, and synthetic fiber reinforcement furnished and installed in accordance with these specifications shall not be measured or paid for directly and shall be paid for under the applicable contract unit prices or lump sum prices covering construction requiring concrete which prices shall be full compensation for furnishing and installing all materials; an all equipment, tools, labor and incidentals necessary to complete the work.

END OF SECTION