



**STATE OF HAWAII**

**DEPARTMENT OF TRANSPORTATION**

**HIGHWAYS**

**HONOLULU, HAWAII**

**SPECIAL PROVISIONS  
PROPOSAL, CONTRACT,  
BOND AND PLANS**

**FOR**

**TRAFFIC SIGNAL MODERNIZATION**

**OAHU – PHASE 2A**

**FEDERAL-AID PROJECT NO. STP-0300(214)**

**DISTRICT OF HONOLULU**

**ISLAND OF OAHU**

**FY 2024**

**NOTICE TO BIDDERS**  
Hawaii Revised Statutes (HRS),  
Chapter 103D

The receiving of bids for **Traffic Signal Modernization, Oahu – Phase 2A, District of Honolulu, Island of Oahu, Federal-Aid Project No. STP-0300(214)**, will begin as of the HiePRO Release Date. Bidders shall register and submit complete bids through HiePRO only. Refer to the following HiePRO link for important information on Vendor Registration: <https://hiepro.ehawaii.gov/welcome.html>.

The solicitation plans, specifications, proposal, and additional documents designated or incorporated by reference shall be available in HiePRO.

HiePRO OFFER DUE DATE & TIME is November 15, 2024, at 2:00 p.m., Hawaii Standard Time (HST). **Bidders shall submit and upload the complete proposal to HiePRO prior to the offer due date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HiePRO. Bidders shall not include confidential and/or proprietary documents as part of their proposal. The record of each bidder and their respective proposal shall be open to public inspection.**

**FAILURE TO UPLOAD THE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION.**

The scope of work consists of modernizing the intersection of Kalanianaʻole Highway with Kalaniiki Street/Waieli Street, including removing existing traffic signal equipment; removing portions of roadway pavement, curb, gutter, sidewalks, driveways, curb ramps, guardrails, and crash attenuators; installing new traffic signal equipment, curb, gutter, sidewalks, driveways, curb ramps, guardrails, crash attenuators, signing, and pavement markings;

relocation of existing irrigation system; restoration of asphalt concrete roadway pavement and landscaping. The estimated cost of construction is between \$ 1,000,000.00 and \$ 3,000,000.00.

To be eligible for award, bidders shall possess a valid State of Hawaii General Engineering "A" license **prior to the award of contract.**

A virtual pre-bid conference is scheduled for October 25, 2024, at 9:00 a.m., HST. Interested bidders shall contact Steven Yoshida, Project Manager, directly at [steven.yoshida@hawaii.gov](mailto:steven.yoshida@hawaii.gov), no later than five working days prior to the scheduled pre-bid conference to receive the meeting invitation. All prospective bidders and/or their respective representatives are encouraged to attend, however, attendance is not mandatory. All information presented at the pre-bid conference shall be provided for clarification and information only. Any amendments to the solicitation shall be made by formal addendum and posted in HiePRO.

All Request for Information (RFI) questions and Substitution Requests shall be submitted in HiePRO **no later than November 1, 2024, at 2:00 p.m., HST.** RFI questions received after the stated deadline shall not be addressed. Substitution Requests received after the stated deadline shall not be considered. Verbal RFI(s) shall not receive a response. All responses to RFI questions shall be provided for clarification and information only and issued by formal addendum. Any amendments to the solicitation shall be made by formal addendum and posted in HiePRO.

If there is a conflict between the solicitation and information stated in the pre-bid conference, the meeting minutes, and/or the responses to RFI questions, the solicitation shall govern and control, unless as amended by formal addendum.

**Campaign contributions by State and County Contractors.** Contractors are hereby notified of the applicability of HRS § 11-355 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. For more information, contact the

Campaign Spending Commission at (808) 586-0285.

Protests. Any protest of this solicitation shall be submitted in writing to the Director of Transportation, in accordance with HRS § 103D-701 and Hawaii Administrative Rules § 3-126.

The Equal Employment Opportunity Regulations of the Secretary of Labor implementing Executive Order 11246, as amended, shall be complied with on this project.

The U.S. Department of Transportation Regulation entitled “Nondiscrimination in Federally Assisted Programs of the U.S. Department of Transportation”, Title 49, Code of Federal Regulations (CFR), Part 21, is applicable to this project. Bidders are hereby notified that the Department of Transportation shall affirmatively ensure that the contract entered into pursuant to this advertisement shall be awarded to the lowest responsible bidder without discrimination on the grounds of race, color, national origin, or sex (as directed by 23 CFR Part 200).

The U.S. Department of Transportation Regulations entitled "Participation by Disadvantaged Business Enterprise in Department of Transportation Financial Assistance Programs", Title 49, CFR, Part 26, is applicable to this project. Bidders are hereby notified that the Department of Transportation shall strictly enforce full compliance with all the requirements of the Disadvantaged Business Enterprise program with respect to this project.

Bidders shall read the Disadvantaged Business Enterprise Requirements, included in this solicitation, which establishes the program requirements pursuant to Title 49, CFR, Part 26, and includes the requirements of certification, method of award, and evidence of good faith. All Bidders shall email Steven Yoshida, Project Manager, at [steven.yoshida@hawaii.gov](mailto:steven.yoshida@hawaii.gov), the following: “Disadvantaged Business Enterprise Contract Goal Verification and Good Faith Efforts Documentation for Construction”; “Disadvantaged Business Enterprise Confirmation and Commitment Agreement – Trucking Company”; and “Disadvantaged Business Enterprise

Confirmation and Commitment Agreement – Subcontractor, Manufacturer, or Supplier”, **no later than November 20, 2024, at 4:30 p.m., HST**. Failure to provide the respective documents shall be grounds for rejection of bid.

Driving While Impaired (DWI) Education. The Hawaii Department of Transportation (HDOT) encourages all organizations contracted with HDOT to have an employee education program preventing DWI. DWI is defined as operating a motor vehicle while impaired by alcohol or other legal or illegal substances. HDOT promotes this type of program to accomplish our mission to provide a safe environment for motorists, bicyclists, and pedestrians utilizing our State highways, and expects its contractors to do so as well.

For additional information, contact Steven Yoshida, Project Manager, by phone at (808) 692-7679, or by email at [steven.yoshida@hawaii.gov](mailto:steven.yoshida@hawaii.gov).

The State reserves the right to reject any or all proposals and to waive any defects in said proposals in the best interest of the public.



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ROBIN K. SHISHIDO  
Deputy Director of Transportation for Highways

HIePRO RELEASE DATE: October 16, 2024

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Disadvantaged Business Enterprise (DBE) Confirmation and Commitment  
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## INSTRUCTIONS FOR CONTRACTOR'S LICENSING

"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 where 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. 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.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL  
EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Bidder's attention is called to the "Equal Opportunity" and the "Specific Equal Employment Opportunity Responsibilities" set forth in the "Required Federal Aid Construction Contract Provisions."

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work on this project are as follows:

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CATEGORY	TIMETABLE	GOAL
Female participation in each trade	Indefinite	6.9%
Minority participation in each	None	69.1% (Oahu)
Trade (female included)	None	70.4% (Hawaii, Maui, Kauai)

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These goals are applicable to all the Contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal or Federally assisted construction contract or subcontract.

The Contractor's compliance with the Executive Order shall be based on its implementation of the Equal Opportunity Clause, and its efforts to meet the goals established for the contract resulting from this solicitation. The hours of female and minority employment and training must be substantially uniform throughout the length of the contract, and in trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract and Executive Order. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Area Director, Hawaii Area Office, Office of Federal Contract Compliance Programs, U.S. Department of Labor, 300 Ala Moana Blvd., P.O. Box 50149, Honolulu, Hawaii 96850, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; and estimated starting and completion dates of the subcontract. The Contractor shall indicate which are minority group subcontractors and the ethnic identity and sex of the owner(s) and policy-making official(s).

# DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

## I. GENERAL

This project is subject to Title 49, Code of Federal Regulations, Part 26, entitled "Participation by Disadvantaged Business Enterprise in Department of Transportation Financial Assistance Programs," hereinafter referred to as the ("DBE Regulations") and is incorporated and made a part of this contract herein by this reference. The following shall be incorporated as part of the contract documents for compliance. If any requirements herein are in conflict with the general provisions or special provisions applicable to this project, the requirements herein shall prevail unless specifically superseded or amended in the special provisions or by addendum.

## II. POLICY

It is the policy of the U.S. Department of Transportation ("USDOT") and the State of Hawaii, Department of Transportation and its political subdivisions ("Department") that Disadvantaged Business Enterprises ("DBE"), as defined in the DBE Regulations, have an equal opportunity to receive and participate in federally assisted contracts.

## III. DBE ASSURANCES

Each contract signed with a prime contractor (and each subcontract the prime contractor signs with a subcontractor) shall include the following assurance:

"The contractor, sub-recipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate which may include, but is not limited to; 1) withholding monthly progress payments; 2) assessing sanctions; 3) liquidated damages; and/or 4) disqualifying the contractor from future bidding as non-responsible."

The prime contractor agrees to include the above statements in any subsequent contracts that it enters into with other contractors and shall require those contractors to include similar statements in further agreements.

## IV. BIDDER/OFFEROR RESPONSIBILITIES

All bidders/offerors are required to register with the Department's OCR, DBE Section, using the Bidder Registration Form, which can be downloaded from the Department's website at <http://hidot.hawaii.gov/administration/ocr/dbe/dbe-program-forms/>. Certified DBEs are considered registered with the Department and are not required to submit a

Bidder Registration Form. All other bidders/offerors are required to complete this form which may be faxed to (808) 831-7944, e-mailed to HDOT-DBE@hawaii.gov, or mailed to the HDOT DBE Section at 200 Rodgers Boulevard, Honolulu, Hawaii, 96819. Registered bidders/offerors are posted on the website listed above.

Bidders/offerors, subcontractors, manufacturers, vendors or suppliers, and trucking companies shall fully inform themselves with respect to the requirements of the DBE Regulations. Particular attention is directed to the following matters:

- A. Bidders/offerors shall take all necessary steps to ensure that DBEs have an opportunity to participate in this contract.
- B. DBEs may participate as a consultant, prime contractor, subcontractor, trucking company, or vendor of materials or supplies. DBEs may also team with other DBEs or non-DBE firms as part of a joint venture or partnership.
- C. Agreements between a bidder/offeror and a DBE in which an DBE promises not to provide subcontracting quotations to other bidders/offerors are strictly prohibited.
- D. A DBE shall be certified by the Department under the appropriate North American Industry Classification System (NAICS) code and work in their registered field of work in order for credit to be allowed.
- E. Information regarding the current certification status of DBEs is available on the internet at <https://hdot.dbesystem.com/>.
- F. Commercially Useful Function (“CUF”). An DBE must perform a CUF. This means that an DBE must be responsible for the execution of a distinct element of the work, must carry out its responsibility by actually performing, managing, and supervising at least 30% of the work involved by using its own employees and equipment, must negotiate price, determine quality and quantity, order and install material (when applicable), and must pay for the material itself.<sup>1</sup>

To determine whether an DBE is performing a CUF, the Department must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing, the DBE credit claimed for performance of the work, and other relevant factors. The prime contractor is responsible to ensure that the DBE performs a CUF.

## V. PROPOSAL REQUIREMENTS

- A. DBEs must be certified by the bid opening date.

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<sup>1</sup> The use of joint checks payable to an DBE subcontractor and supplier may be allowed to purchase materials and supplies under limited circumstances. See VII USE OF JOINT CHECKS UNDER THE DBE PROGRAM

- B. DBE subcontractors, manufacturers, suppliers, trucking companies, and any second tier subcontractors shall be listed on the respective DBE forms as specified below in order to receive credit.
- C. The following forms are due to the Department's Project Manager or designee **by the close of business, 4:30 P.M. Hawaii Standard Time (HST), five (5) days after bid opening:**<sup>2</sup>
1. DBE Confirmation and Commitment Agreement. This form must be signed by the bidder/offeror and each DBE subcontractor, manufacturer, supplier, or trucking company. Information to be provided on the form shall include, among other things, the project number, the DBE's NAICS codes, description of work, bid items with corresponding price information, prime contractor name and contact information DBE name and contact information and subcontractor name and contact information if the DBE is a second tier subcontractor.
  2. DBE Contract Goal Verification and Good Faith Efforts (GFE) Documentation for Construction. List the dollar amount of all subcontractors, manufacturers, suppliers, and trucking companies (both DBE and non-DBE firms). Bidder/offeror must also list the DBE project goal on this form (See paragraph D below regarding goal calculation). The bidder/offeror must submit documentation demonstrating how the DBE goal was met or how the bidder/offeror attempted to meet the goal if the goal was not met. This documentation shall include quotations for both DBE and non-DBE subcontractors when a non-DBE is selected over a DBE for the project. **Documentation of good faith efforts is required irrespective of whether the bidder/offeror met the DBE project goal.**
- The above forms must be complete and provide the necessary information to properly evaluate bids/proposals. Failure to provide any of the above shall be cause for bid/proposal rejection.**
- D. Calculation of the DBE contract goal for this project is the proportionate contract dollar value of work performed, materials, and goods to be supplied by DBEs. DBE credit shall not be given for mobilization, force account items and allowance items. This DBE contract goal is applicable to all the contract work performed for this project and is calculated as follows:
1. DBE contract goal percentage = Contract Dollar Value of the work to be performed by DBE subcontractors and manufacturers, plus 60% of the contract dollar value of DBE suppliers, divided by the sum of all contract items (sum of all contract items is the total amount for comparison of bids less mobilization, force account items, and allowance items).

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<sup>2</sup> In computing calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or holiday.

2. The Department shall adjust the bidder's/offeror's DBE contract goal to the amount of the project goal if it finds that the bidder/offeror met the goal but erroneously calculated a lower percentage. If the amount the bidder/offeror submits as its contract goal exceeds the project goal, the bidder/offeror shall be held to the higher goal.

**VI. COUNTING DBE PARTICIPATION TOWARDS CONTRACT GOAL**

- A. Count the entire amount of the portion of a contract (or other contract not covered by paragraph B below) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work on the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
- B. Count the entire amount of fees or commissions charged by an DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, toward DBE goals, provided the Department determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- C. When an DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself an DBE. Work that an DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- D. When an DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.
- E. Count expenditures to an DBE contractor toward DBE goals only if the DBE is performing a CUF on that contract.
- F. The following is a list of appropriate DBE credit to be allowed for work to be performed by an DBE subcontractor. Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:
  1. If the materials or supplies are obtained from an DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE goals;
  2. For purposes of determining DBE goal credit, a manufacturer is a firm that operates or maintains a factory or establishment that produces (on the premises) the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications;

3. If the materials or supplies are purchased from an DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE goals;
4. For purposes of determining DBE goal credit, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business;
5. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question;
6. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided in the DBE Regulations, if the person both owns and operates distribution equipment for the products. Any supplementing of a regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis;
7. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers;
8. With respect to materials or supplies purchased from an DBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided that the Department determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. Do not count any portion of the cost of the materials and supplies themselves toward DBE goals; however,
9. If a firm is not currently certified as an DBE in accordance with standards of this part at the time of the execution of the contract, do not count the firm's participation toward any DBE goals, except as provided for in §26.87(i);
10. Do not count the dollar value of work performed under a contract with a firm after it has ceased to be certified toward the Department's overall goal; and
11. Do not count the participation of an DBE subcontractor toward a contractor's final compliance with its DBE obligations on a contract until the amount being counted has actually been paid to the DBE.

G. The following factors are used in counting DBE participation for trucking companies:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular



contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals;

2. The DBE must itself own and operate at least one (1) fully licensed, insured, and operational truck used on the contract;
3. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs;
4. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as an DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract;
5. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement. If a recipient chooses this approach, it must obtain written consent from the appropriate Department operating administration.  
EXAMPLE: DBE firm X uses two (2) of its own trucks on a contract, leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four (4) of the six (6) trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight (8) trucks. With respect to the other two (2) trucks provided by Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks Firm X receives as a result of the lease with Firm Z;
6. The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.  
EXAMPLE: DBE Firm X uses two (2) of its own trucks on a contract. It leases two (2) additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all four (4) trucks; and
7. For purposes of determining whether a trucking firm performs a CUF, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

- H. The bidder/offeror may be a joint venture or partnership that has a certified DBE as a partner. A “Joint Venture” means an association between an DBE firm and one (1) or more other firms to carry out a single, for-profit, business enterprise for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract, and whose share in the capital contribution, control, management, risks and profits are commensurate with its ownership interest.
- I. Effects of a Summary Suspension of an DBE. When an DBE’s certification is suspended, the DBE may not be considered to meet a contract goal on a new contract and any work it does on a contract received during the suspension shall not be counted towards the overall goal. The DBE may continue to perform work under an existing contract executed before the DBE received a Notice of Suspension and may be counted towards the contract goal during the period of suspension as long as the DBE is performing a CUF under the existing contract.
- J. Effects of Decertification of an DBE. Should an DBE become decertified during the term of the subcontract for reasons beyond the control of and with no fault or negligence on the part of the contractor, the work remaining under the subcontract may be credited towards the contract goal, but are not included in the overall accomplishments.

Should the DBE be decertified after contract award and before notice to proceed, the contractor must still meet the DBE goal by either: a) withdrawing the subcontract from the DBE and expending good faith efforts to replace it with an DBE that is currently certified for that same work; or b) continuing with the subcontract with the decertified firm and expending good faith efforts to find other work not already subcontracted out to DBEs in an amount to meet the DBE goal either by; 1) increasing the participation of other DBEs on the project; 2) documenting good faith efforts; or 3) by a combination of the above.

## **VII. USE OF JOINT CHECKS UNDER THE DBE PROGRAM**

- A. The following guidelines apply to the use of joint checks:
1. The second party (typically the prime contractor) acts solely as a guarantor;
  2. The DBE must release the check to the supplier;
  3. The use of joint checks is a commonly recognized business practice;
  4. The Department must approve the use of joint checks prior to use by contractors and/or DBEs. As part of this approval process the Department will analyze industry practice to confirm that the use of joint checks is commonly employed outside of the DBE program for non-DBE subcontractors on both federal and state funded contracts. Using joint checks shall not be approved if it conflicts with other aspects of the DBE Regulations regarding CUF; and
  5. The Department will monitor the use of joint checks closely to avoid abuse.

- B. Contractors and DBEs should review the following general guidelines when determining whether to use joint checks closely to avoid abuse:
1. That standard industry practice applies to all contractors (federal and state contracts);
  2. Use of joint checks must be available to all subcontractors;
  3. Material industry sets the standard industry practice, not prime contractors;
  4. Short term, not to exceed reasonable time (i.e., one (1) year, two (2) years) to establish/increase a credit line with the material supplier;
  5. No exclusive arrangement between one (1) prime and one (1) DBE in the use of joint checks that might bring the independence of the DBE into question;
  6. Non-proportionate ratio of DBE's normal capacity to size of contract and quantity of material to be provided under the contract;
  7. The DBE is normally responsible to install and furnish the work item; and
  8. The DBE must be more than an extra participant in releasing the check to the material supplier.
- C. The Department shall allow the use of joint checks if the following general conditions are met:
1. DBE submits request to the Department for action;
  2. There is a formalized agreement between all parties that specify the conditions under which the arrangement shall be permitted;
  3. There is a full and prompt disclosure of the expected use of joint checks;
  4. The Department will provide prior approval;
  5. DBE remains responsible for all other elements of 49 CFR 26.55(c)(1);
  6. The agreement states clearly and determines that independence is not threatened because the DBE retains final decision making responsibility;
  7. The Department will determine that the request is not an attempt to artificially inflate DBE participation;
  8. Standard industry practice is only one (1) factor;
  9. The Department will monitor and maintain oversight of the arrangement by reviewing cancelled checks and/or certification statement of payment; and
  10. The Department will verify there is no requirement by prime contractor that the DBE is to use a specific supplier nor the prime contractor's negotiated unit price.

## **VIII. DEMONSTRATION OF GOOD FAITH EFFORTS FOR CONTRACT AWARD**

- A. When a project goal is not met, the Department shall conduct the initial review of GFE submitted by the bidder/offeror and shall determine whether the bidder/offeror has performed the quality, quantity, and intensity of efforts that demonstrate a reasonably active and aggressive attempt to meet the contract goal in accordance with 49 CFR Part 26, Appendix A.

- B. The bidder/offeror bears the responsibility of demonstrating that it met the contract goal, or if the contract goal was not met, by documenting the GFE it made in an attempt to meet the goal. It is the sole responsibility of the bidder/offeror to submit any and all documents, logs, correspondence, and any other records or information to the Department that will demonstrate that the bidder/offeror made good faith efforts to meet the DBE goal.
- C. In its good faith evaluation, the Department shall perform the following as part of its evaluation: a) compare the bidder's/offeror's bid against the bids/offers of other bidders/offerors, and compare the DBEs and DBE work areas utilized by the bidder/offeror with the DBEs listed in other bids/offers submitted for this contract (If other bidders obtained DBEs in a particular work area in which the low bidder did not, the Department shall take this into consideration in its evaluation); b) verify contacts by bidders/offerors with DBEs; and c) compare the DBE and the categories of DBE work targeted by the bidder/offeror for participation in the contract, with the total pool of available DBEs ready, willing and able to perform work on each particular subcontract targeted by the bidder/offeror.
- D. Actions on the part of the bidder/offeror that will be considered demonstrative of good faith efforts include, but are not limited to, the following:
1. Whether the bidder/offeror submitted the required information (i.e., DBE name, address, NAICS code, description of work, project name, and number), and dollar amounts for all subcontractors, within five (5) days of bid opening;
  2. Whether the bidder/offeror solicited through all reasonable and available means (e.g., attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform part or all of the work to be included under the contract. The Department will also consider whether the bidder/offeror solicited the participation of potential DBEs as early in the procurement process as practicable, and allowed sufficient time for the DBEs to properly inquire about the project and respond to the solicitation. The Department will also review whether the bidder/offeror took appropriate steps to follow up with interested DBEs in a timely manner to facilitate participation by DBEs in this project;
  3. Whether the bidder/offeror identified and broke up portions of work that can be performed by DBEs in order to increase the likelihood that an DBE will be able to participate, and that the DBE goal could be achieved (e.g., breaking out contract items into economically feasible units to facilitate DBE participation even when the bidder/offeror might otherwise prefer to self-perform these work items with its own forces);
  4. Whether the bidder/offeror made available or provided interested DBEs with adequate information about the plans, specifications, and requirements of the project in a timely manner, and assisted them in responding to the bidder's/offeror's solicitation;

5. Whether the bidder/offeror negotiated in good faith with interested DBEs. Evidence of such negotiations includes documenting: a) the names, addresses and telephone numbers of DBEs that were contacted; b) a description of the information that was provided to DBEs regarding the plans and specifications; and c) detailed explanation for not utilizing individual DBEs on the project;
6. Whether the bidder/offeror solely relied on price in determining whether to use an DBE. The fact that there may be additional or higher costs associated with finding and utilizing DBEs are not, by itself, sufficient reasons for a bidder's/offeror's refusal to utilize an DBE, or the failure to meet the DBE goal, provided that such additional costs are not unreasonable. Also, the ability or desire of a bidder/offeror to perform a portion of the work with its own forces, that could have been undertaken by an available DBE, does not relieve the bidder/offeror of the responsibility to make good faith efforts to meet the DBE goal, and to make available and solicit DBE participation in other areas of the project to meet the DBE goal;
7. Whether the bidder/offeror rejected DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The DBEs standing within the industry, membership in specific groups, organizations or associations, and political or social affiliation are not legitimate basis for the rejection or non-solicitation of bids from particular DBEs;
8. Whether the bidder/offeror made efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance;
9. Whether the bidder/offeror made efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services;
10. Whether the bidder/offeror effectively used the services of available minority/women community organizations, minority/women business groups, contractors' groups, and local, state and federal minority/women business assistance offices or other organizations to provide assistance in recruitment and placement of DBEs;
11. Whether the bidder/offeror, who selects a non-DBE over an DBE subcontractor, has quotes of each DBE and non-DBE subcontractor submitted to the bidder for work on the contract; and for each DBE that was contacted but not utilized by the bidder/offeror for a contract, the bidder/offeror has a detailed written explanation for each DBE detailing the reasons for the bidder's/offeror's failure or inability to utilize, or to allow the DBE to participate in the contract; and
12. Whether other bidders/offerors met the goal and whether the apparent successful bidder/offeror could have met the goal with additional efforts. The Department may determine that an apparent successful bidder/offeror who fell short of meeting the goal, made good faith efforts when it met or exceeded the average DBE participation obtained by other bidders/offerors.

**IX. ADMINISTRATIVE RECONSIDERATION.**

If it is determined by the Department that the apparent successful bidder/offeror has failed to meet the provisions of 49 CFR Section 26.53(a), the bidder/offeror may submit a request for administrative reconsideration. If under the provisions of 49 CFR, Section 26.53(d), it is determined by the Department that the apparent successful bidder/offeror has failed to meet the provisions of this subsection, the bidder/offeror may submit a written request for administrative reconsideration.

- A. Within five (5) working days of being informed in writing by the Department that the bidder/offeror has not documented sufficient GFE, a bidder/offeror may request administrative reconsideration. Bidders/offerors should make this request in writing to the following official:

Director of Transportation  
Hawaii Department of Transportation  
869 Punchbowl Street, Room 509  
Honolulu, Hawaii 96813

- B. The reconsideration official, or his or her designee (referred to as “reconsideration official”), shall not have played any role in the original determination that the bidder/offeror failed to meet the goal or make adequate good faith efforts to do so.
- C. As part of this reconsideration, the bidder/offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate GFE to do so. The bidder/offeror will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate GFE to do so.
- D. In an administrative reconsideration, the reconsideration official will review all previously submitted documents, oral and written arguments, and other evidence presented in the reconsideration, in making the decision.
- E. The Department shall inform the bidder/offeror of the decision within thirty (30) days of the proceeding. The decision will state the Department’s findings, and explain the basis of those findings, with respect to whether or not the bidder/offeror met the contract goal, or whether or not the bidder/offeror made adequate GFE to achieve the contract goal.
- F. The reconsideration decision is not administratively appealable to USDOT but is appealable under HRS 103D-709.

**X. AWARD OF CONTRACT**

- A. In a sealed bid procurement, the Department reserves the right to reject any or all bids. The award of contract, if it is awarded, will be to the lowest responsive and responsible bidder who meets or exceeds the DBE project goal, or who makes

good faith efforts to meet or exceed the DBE project goal, as determined by the Department.

- B. If the lowest responsible bidder does not meet the DBE project goal and does not demonstrate to the satisfaction of the Department that it made good faith efforts to meet the DBE project goal, such bid shall be rejected as non-responsive. The Department will then consider the next lowest responsive and responsible bidder for award in accordance with paragraph A above.

## **XI. REPLACEMENT OF AN DBE ON A PROJECT WITH A CONTRACT GOAL**

Under this contract, the prime contractor shall utilize the specific DBE listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department to replace an DBE. If the Department's consent is not provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. The Department reserves the right to request copies of all DBE subcontracts.

The Department will require a contractor to make good faith efforts to replace an DBE that is terminated or has otherwise failed to complete its work on a contract with another certified DBE, to the extent needed to meet the contract goal. A prime contractor's inability to find a replacement DBE at the original price is not sufficient to demonstrate that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

The Department will require the prime contractor to promptly provide written notice to the project manager of the DBE's inability or unwillingness to perform and provide reasonable documentation.

The written notice by the contractor must include the following:

1. The date the contractor determined the certified DBE to be unwilling, unable or ineligible to perform work on the contract;
2. The projected date that the contractor shall require a substitution or replacement DBE to commence work if consent is granted by the Department;
3. Documentation of facts that describe and cite specific actions or inactions on the part of the affected DBE that led to the contractor's conclusion that the DBE is unwilling, unable, or ineligible to perform work on the contract;
4. A brief statement of the affected DBE's capacity and ability or inability to perform the work as determined by the contractor;
5. Documentation of contractor's good faith efforts to enable affected DBE to perform the work;
6. The current percentage of work completed on each bid item by the affected DBE;

7. The total dollar amount currently paid per bid item for work performed by the affected DBE;
8. The total dollar amount per bid item remaining to be paid to the DBE for work completed but for which the DBE has not received payment, and with which the contractor has no dispute; and
9. The total dollar amount per bid item remaining to be paid to the DBE for work completed, for which the DBE has not received payment, and with which the contractor and DBE have a dispute.

The prime contractor shall send a copy of the written notice to replace a certified DBE on a contract to the affected DBE. The affected DBE may submit a written response within five (5) calendar days to the Department to explain its position on its performance on the committed work. The Department shall consider both the prime contractor's request and DBE's stated position before approving the termination or substitution request, or determining if any action shall be taken against the contractor.

There shall be no substitution or termination of an DBE subcontractor at any time without the prior written consent of the Department. The Department will provide written consent only if the contractor has good cause, as determined by the Department, to terminate the DBE. Good cause may include, but is not limited to the following circumstances:

1. The DBE subcontractor fails or refuses to execute a written contract;
2. The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards;
3. The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
4. The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
5. The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1200 or applicable state law;
6. The Department has determined that the listed DBE subcontractor is not a responsible contractor;
7. The listed DBE subcontractor voluntarily withdraws from the project and provides to the Department written notice of its withdrawal;
8. The listed DBE is ineligible to receive DBE credit for the type of work required; and
9. An DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Upon approval from the Department to replace an DBE, the contractor's good faith efforts shall be documented and submitted to the Department within seven (7) calendar days. This time period may be extended for another seven (7) calendar days upon request by the prime contractor.

If an DBE subcontractor is unable to perform work under the contract, and is to be



replaced, the contractor's failure to obtain a substitute certified DBE or to make good faith efforts to obtain such a substitute DBE subcontractor to perform said work, may constitute a breach of this contract for which the Department may terminate the contract or pursue such remedy as deemed appropriate by the Department.

## **XII. CONTRACT COMPLIANCE**

This contract is subject to contract compliance tracking, and the prime contractor and all subcontractors are required to report payments electronically in the HDOT online Certification and Contract Compliance Management System (hereafter referred to as "online tracking system"). The prime contractor shall report the date payment was made by the Department and shall report payment to all subcontractors for the audit period. The prime contractor and all subcontractors are responsible for responding by any noted response date or due date to any instructions or request for information, and to check the online tracking system on a regular basis to manage contact information and contract records.

The prime contractor is responsible for ensuring all subcontractors have completed all requested items and that their contact information is accurate and up-to-date. HDOT may require additional information related to the contract to be provided electronically through the online tracking system at any time before, during, or after contract award. Information related to contractor access of the online tracking system will be provided to designated point of contact with each contractor upon award of the contract. The online tracking system is web-based and can be accessed at the following Internet address: <https://hdot.dbesystem.com/>.

## **XIII. PAYMENT**

- A. The Department will make an estimate in writing each month based on the items of work performed and materials incorporated in the work and the value therefore at the unit prices or lump sum prices set forth in the contract. All progress estimates and payments will be approximate only and shall be subject to correction at any time prior to or in the final estimate and payment. The Department will not withhold any amount from any payment to the contractor, including retainage.
- B. The contractor shall pay all subcontractors within ten (10) calendar days after receipt of any progress payments from the Department. This clause applies to both DBE and non-DBE subcontractors, and all tiers of subcontracts.
- C. The contractor will verify that payment or retainage has been released to the subcontractors or its suppliers within the specified time through entries in the Department's online tracking system during the corresponding monthly audits. Prompt payment will be monitored and enforced through the contractor's reporting of payments to its subcontractors and suppliers in the online tracking system.

Subcontractors, including lower tier subcontractors and/or suppliers will confirm the timeliness and the payment amounts received utilizing the online tracking system. Discrepancies will be investigated by the DBE Program Office and the project engineer. Payments to the subcontractors, including lower tier subcontractors, and including retainage released after the subcontractor or lower tier subcontractor's work has been completed to the Department's satisfaction, will be reported by the Contractor or the subcontractor.

- D. When any subcontractor has satisfactorily completed its work as specified in the subcontract, and there are no bona fide disputes, the contractor shall make prompt and full payment to the subcontractor of all monies due, including retainage, within ten (10) calendar days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented, as required by the Department. The contractor must obtain the prior written approval from the Department before it can continue to withhold retainage from any subcontractor who has completed its portion of the work. This clause applies to both DBE and non-DBE subcontractors, and all tiers of subcontracts.

#### **XIV. RECORDS**

The contractor shall maintain and keep all records necessary for the Department to determine compliance with the contractor's DBE obligations. The records shall be available at reasonable times and places for inspection by the Department and appropriate Federal agencies. The records to be kept by the contractor shall include:

1. The names, race/ethnicity, gender, address, phone number, and contact person of all DBE and non-DBE consultants, subcontractors, manufacturers, suppliers, truckers and vendors identified as DBEs;
2. The nature of work of each DBE and non-DBE consultant, subcontractor, manufacturer, supplier, trucker and vendor;
3. The dollar amount contracted with each DBE and non-DBE consultant, subcontractor, manufacturer, supplier, trucker and vendor; and
4. Cumulative dollar amount of all change orders to the subcontract.

#### **XV. FAILURE TO COMPLY WITH DBE REQUIREMENTS**

The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted contracts. All contractors, subcontractors, manufacturers and suppliers are hereby advised that failure to carry out all DBE requirements specified herein shall constitute a material breach of contract that may result in termination of the contract or such other remedy as deemed appropriate by the Department including but not limited to: 1) withholding monthly progress payments; 2) assessing sanctions; 3) liquidated damages; and/or 4) disqualifying the contractor from future bidding as non-responsible.



## Disadvantaged Business Enterprise (DBE) Contract Goal Verification and Good Faith Efforts (GFE) Documentation For Construction

<b>Project #:</b>	<b>County:</b>
<b>DBE Project Goal:</b>	<b>Prime Contractor:</b>

As required by the specifications “*Disadvantaged Business Enterprise Requirements*,” the dollar amount of each subcontract (both DBE and non-DBE firms) for all subcontractors, manufacturers, suppliers, and trucking companies is due by the close of business, 4:30 P.M. Hawaii Standard Time (HST) five (5) days after bid opening. **Failure to provide required information sufficient to evaluate the bid/proposal shall be cause for bid/proposal rejection.**

Calculation of the DBE contract goal for this project is the proportionate contract dollar value of work performed, materials, and goods to be supplied by DBEs. DBE credit shall not be given for mobilization, force account items, and allowance items. This DBE contract goal is applicable to all the contract work performed for this project and is calculated as follows:

1. DBE contract goal percentage = Contract Dollar Value of the work to be performed by DBE subcontractors and manufacturers, plus 60% of the contract dollar value of DBE suppliers, divided by the sum of all contract items (sum of all contract items is the total amount for comparison of bids less mobilization, force account items, and allowance items).
2. The Department shall adjust the bidder’s/offeror’s DBE contract goal to the amount of the project goal if it finds that the bidder/offeror met the goal but erroneously calculated a lower percentage. If the amount the bidder/offeror submits as its contract goal exceeds the project goal, the bidder/offeror shall be held to the higher goal.

Name of Subcontractor, Supplier, Manufacturer, and Trucking Company	DBE (Y/N)	Bid Item Number and Description	Approx. Quantity/ Hours	Unit	Unit Price/ Rate	Dollar Amount

A. Dollar amount of the work to be performed by DBE subcontractors, manufacturers, and trucking companies, plus 60% of the dollar amount of DBE suppliers	
B. Sum of all work items less mobilization, force account items, allowance items	
<b>A/B = DBE contract goal</b>	

NAME and SIGNATURE of AUTHORIZED REPRESENTATIVE of PRIME CONTRACTOR: \_\_\_\_\_ DATE: \_\_\_\_\_

## Summary of Good Faith Efforts (GFE)

As required by the specifications “*Disadvantaged Business Enterprise Requirements*,” documentation of GFE shall be submitted by the close of business, 4:30 P.M. HST five (5) days of bid opening. **The bidder/offeror shall respond to the following questions and describe efforts to obtain DBE participation whether or not the DBE project goal is met.** Responses must be sufficient to properly evaluate the bidder’s/offeror’s good faith efforts. Copies of correspondence return receipts, telephone logs, or other documentation will be required to support GFE. Attach additional sheets, if necessary. Based on responses given, HDOT shall make a determination of the bidders’ GFE. **Failure to provide required information sufficient to evaluate the bid/proposal shall be cause for bid/proposal rejection.**

1. Did you submit the required information by the close of business, 4:30 P.M. HST, five (5) days after bid opening (i.e. DBE name, address, NAICS code, description of work, project name, and number)?
2. Explain your GFE if any, to solicit through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform part or all of the work to be included under the contract.
  - a. Explain your GFE if any, to solicit the participation of potential DBEs as early in the procurement process as practicable.
  - b. Explain your GFE if any, to allow sufficient time for the DBEs to properly inquire about the project and respond to the solicitation.
  - c. Explain your GFE if any, to take appropriate steps to follow up with interested DBEs in a timely manner to facilitate participation by DBEs in this project.
3. Explain your GFE if any, to identify and break up portions of work that can be performed by DBEs in order to increase the likelihood that a DBE will be able to participate, and that the DBE goal could be achieved (e.g. breaking out contract items into economically feasible units to facilitate DBE participation even when you might otherwise prefer to self-perform these work items).
4. Explain your GFE if any, to make available or provide interested DBEs with adequate information about the plans, specifications, and requirements of the project in a timely manner, and assist them in responding to your solicitation.
5. Explain your GFE if any, to negotiate in good faith with interested DBEs. Evidence of such negotiations includes documenting:
  - a) the names, addresses and telephone numbers of DBEs that were contacted; b) a description of the information that was provided to DBEs regarding the plans and specifications; and c) detailed explanation for not utilizing individual DBEs on the project.
6. Did you solely rely on price in determining whether to use a DBE? If yes please explain. The fact that there may be additional or higher costs associated with finding and utilizing DBEs are not, by themselves, sufficient reasons for your refusal to utilize a DBE or

NAME and SIGNATURE of AUTHORIZED REPRESENTATIVE of PRIME CONTRACTOR:

DATE:

failure to meet the DBE goal, provided that such additional costs are not unreasonable. Also, the ability or desire to perform a portion of the work with your own forces, that could have been undertaken by an available DBE, does not relieve you of the responsibility to make good faith efforts to meet the DBE goal, and to make available and solicit DBE participation in other areas of the project to meet the DBE goal.

7. Did you reject DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities? If yes, please explain. The DBEs standing within the industry, membership in specific groups, organizations or associates, and political or social affiliation are not legitimate basis for the rejection or non-solicitation of bids from particular DBEs.
8. Explain your GFE to assist interested DBEs in obtaining bonding, lines of credit, or insurance.
9. Explain your GFE if any, to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.
10. If you selected a non-DBE over a DBE subcontractor, please provide the quotes of each DBE and non-DBE subcontractor submitted to you for work on the contract; and for each DBE that was contacted but not utilized for a contract, provide a detailed written explanation for each DBE detailing the reasons for not utilizing or allowing the DBE to participate in the contract.
11. Explain your GFE if any, to effectively use the services of available minority/women community organizations, minority/women business groups, contractors' groups, and local, state and federal minority/women business assistance offices or other organizations to provide assistance in recruitment and placement of DBEs.

NAME and SIGNATURE of AUTHORIZED REPRESENTATIVE of PRIME CONTRACTOR:

DATE:



**Disadvantaged Business Enterprise (DBE)  
Contract Goal Verification and Good Faith Efforts (GFE)  
Documentation For Construction  
INSTRUCTIONS**

Project #	Self-explanatory
County	County where project is located
DBE Project Goal	Indicate DBE goal listed in the proposal on P-1
Prime Contractor	Name of prime contractor
Name of Subcontractor, Supplier, Manufacturer, and Trucking Company	Company name of subcontractor, supplier, manufacturer, or trucking firm
DBE (Y/N)	Y for yes and N for no
Bid Item Number and Description	Pay item and description
Approx. Quantity/ Hours	Self-explanatory
Unit	Unit of measure
Unit Price/ Rate	Self-explanatory
Dollar Amount	Total dollar amount committed to subcontractor, supplier, manufacturer, or trucking firm
A. Dollar amount of the work to be performed by DBE subcontractors, manufacturers, and trucking companies, plus 60% of the dollar amount of DBE suppliers	Total amount of DBE participation
B. Sum of all work items less mobilization, force account items, allowance items	List total of work items minus mobilization, force accounts and allowances. DBE credit shall not be given for mobilization, force account items, and allowance items.
A/B = DBE contract goal	Self-explanatory
Name and Signature of Authorized Representative of Prime Contractor	Self-explanatory (Note: bidder must sign and date every page of form.)
Date	Date form is signed
Summary of Good Faith Efforts (GFE)	Complete by answering questions in detail and providing documentation to support how bidder demonstrated good faith efforts to meet the goal, irrespective of whether or not the goal was met.



## Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Trucking Company

This commitment is subject to the award and receipt of a signed contract from the Hawaii Department of Transportation (HDOT) for the subject project. DBEs must be certified by the bid opening date.

<b>Project #:</b>	<b>County:</b>
<b>NAICS CODE/DESCRIPTION OF WORK:</b>	<b>SECONDARY NAICS CODE:</b>

\*All quantities and units should match the bid tab item whenever possible.

The prime contractor shall inform HDOT the dates when the trucking firm starts and completes all work under the subcontract.

<b>Estimated Beginning Date (Month/Year):</b>	<b>Estimated Completion Date (Month/Year):</b>
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<b>TRUCKING COMPANY:</b>	Item No.	Item Description	Unit	Unit Price / Rate	Amount
				\$	\$
				\$	\$
				\$	\$
<b>TOTAL COMMITMENT AMOUNT</b>					<b>\$</b>

1. Number of hours contracted or quantities to be hauled: \_\_\_\_\_
2. Number of fully operational trucks to be used: \_\_\_\_\_ Tractor/trailers: \_\_\_\_\_ Dump trucks: \_\_\_\_\_
3. Number of fully operational trucks owned by DBE: \_\_\_\_\_ Dump trucks: \_\_\_\_\_ Tractors/trailers: \_\_\_\_\_
4. If Owner Operators or additional trucking companies are to be used answer the following:

Name of Trucking Company	DBE Y/N	Estimated Dollar Amount to be Contracted	Number and Type of Trucks (specify)
		\$	
		\$	

The prime contractor certifies by signature on this agreement to utilize the DBE trucking company as listed on the agreement form. If a DBE trucking company is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the contract DBE requirements. **IMPORTANT! The signatures of the DBE, prime contractor, and subcontractor (only if the DBE will be a second tier sub) confirms that all information on this Agreement is true and correct. Parties should sign Agreement in the order in which they are listed.**

<b>DBE NAME:</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	
<b>Prime Contractor:</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	
<b>Subcontractor (only if the DBE will be a second tier sub):</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	

HDOT retains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you.



## Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Trucking Company INSTRUCTIONS

The purpose of this agreement is to secure the commitment of the bidder/offeror to utilize the listed DBE trucking company, and the DBE's confirmation that it will perform work for the bidder/offeror on this project. The information on this form shall be provided by the DBE.

Project #	Self-explanatory
County	County where project is located
NAICS Code/Description of Work	Primary North American Industry Classification System code under which DBE is certified to perform and description of work to be done
Secondary NAICS Code	List other NAICS codes firm is certified to perform
Estimated Beginning Date (Month/Year)	Date DBE shall begin work on the project
Estimated Completion Date (Month/Year)	Date DBE's work will be completed
Trucking Company	Name of DBE trucking company
Item No.	List pay item number
Item Description	Description of item
Unit	Unit of measure – e.g. weight or hours
Unit Price/Rate	Cost per unit or hourly rate
Amount	Total amount per pay item
Total Commitment Amount	Sum of all pay items and total commitment of bidder/offeror to DBE
Number of hours contracted or quantities to be hauled	Approximate number of hours or tonnage to be hauled
Number of fully operational trucks to be used:	Total number of trucks to be used for the project
Tractor/Trailers	Number of tractor trailers to be used
Dump Trucks	Number of dump trucks to be used
Number of fully operational trucks owned by DBE	Number of listed DBE's trucks to be used on this project
Name of Trucking Company	If other trucking companies (DBE or non-DBE) are to be leased, list name and information about type of trucks in this section
Estimated Dollar Amount to be Contracted	Provide information about estimated cost to lease trucks
Number of Dump Trucks, Tractor/Trailer	Self-explanatory
DBE NAME	DBE Company name
Name/Title	Name and title of DBE's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of DBE's representative
Date	Date agreement is signed
Prime Contractor	Company name



Name/Title	Name and title of prime contractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of prime contractor's representative
Date	Date agreement is signed
Subcontractor (only if the DBE will be a second tier sub):	Name of subcontractor only if the listed DBE trucking company will be performing work under this subcontractor
Name/Title	Name and title of the subcontractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of subcontractor
Date	Date agreement is signed



## Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Subcontractor, Manufacturer, or Supplier

This commitment is subject to the award and receipt of a signed contract from the Hawaii Department of Transportation (HDOT) for the subject project. DBEs must be certified by the bid opening date.

<b>Project #:</b>	<b>County:</b>
<b>NAICS CODE/DESCRIPTION OF WORK:</b>	<b>SECONDARY NAICS CODE:</b>

\*All quantities and units should match the bid tab item whenever possible.

The prime contractor shall inform HDOT of the dates when the subcontractor starts and completes all work under the subcontract.

<b>Estimated Beginning Date (Month/Year):</b>	<b>Estimated Completion Date (Month/Year):</b>
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<b>SUBCONTRACTOR:</b>	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
					\$	\$
					\$	\$
<b>TOTAL COMMITMENT AMOUNT</b>						\$

<b>MANUFACTURER:</b>	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
<b>TOTAL COMMITMENT AMOUNT</b>						\$

<b>SUPPLIER:</b>	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
<b>TOTAL COMMITMENT AMOUNT</b>						\$

The prime contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the contract DBE requirements. **IMPORTANT! The signatures of the DBE, prime contractor, and subcontractor (only if the DBE will be a second tier sub) confirms that all information on this Agreement is true and correct. Parties should sign Agreement in the order in which they are listed.**

<b>DBE NAME:</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	Date:
<b>Prime Contractor:</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	Date:
<b>Subcontractor (only if the DBE will be a second tier sub):</b>	Name/Title (please print):
Address:	Signature:
Phone:                      Fax:	
Email:	Date:

HDOT retains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you.



## Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Subcontractor, Manufacturer, or Supplier INSTRUCTIONS

The purpose of this agreement is to secure the commitment of the bidder/offeror to utilize the listed DBE, and the DBE's confirmation that it will perform work for the bidder/offeror on this project. The information on this form shall be provided by the DBE.

Project #	Self-explanatory
County	County where project is located
NAICS Code/Description of Work	Primary North American Industry Classification System code under which DBE is certified to perform and description of work to be done
Secondary NAICS Code	List other NAICS codes firm is certified to perform
Estimated Beginning Date (Month/Year)	Date DBE shall begin work on the project
Estimated Completion Date (Month/Year)	Date DBE's work will be completed
Subcontractor	Name of DBE subcontractor (company name)
Item No.	List pay item number
Item	Description of item
Approx. Quantity	Self-explanatory
Unit	List unit of measure
Unit Price	Cost per unit
Amount	Total amount per pay item
Total Commitment Amount	Sum of all pay items and total commitment of bidder/offeror to DBE
Manufacturer	Name of DBE manufacturer
Supplier	Name of DBE supplier (aka regular dealer)
DBE NAME	DBE Company name
Name/Title	Name and title of DBE's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of DBE's representative
Date	Date agreement is signed
Prime Contractor	Company name
Name/Title	Name and title of prime contractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of prime contractor's representative
Date	Date agreement is signed
Subcontractor (only if the DBE will be a second tier sub):	Name of subcontractor only if the listed DBE will be performing work under this subcontractor as a second tier subcontractor/supplier/manufacturer

Name/Title	Name and title of the subcontractor's representative that the listed DBE will work under as a second tier subcontractor/supplier/manufacture
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of subcontractor's representative
Date	Date agreement is signed

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

**II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)**

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;



(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker ( e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or



mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

**1. Instructions for Certification – First Tier Participants:**

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

\*\*\*\*\*

**3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily



excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

\* \* \* \* \*

#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

\* \* \* \* \*

#### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
**HIGHWAYS DIVISION**  
**HONOLULU, HAWAII**

**SPECIAL PROVISIONS**

These Special Provisions shall supplement and/or amend the applicable provisions of the Hawaii Standard Specifications for Road and Bridge Construction, 2005, hereinafter referred to as the "Standard Specifications".

1 Amend **Section 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS** to read as  
 2 follows:

3  
 4 **“DIVISION 100 - GENERAL PROVISIONS**

5  
 6  
 7 **SECTION 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS**

8  
 9 **101.01 Meaning of Terms.** The specifications are generally written in the  
 10 imperative mood. In sentences using the imperative mood, the subject, “the  
 11 Contractor shall”, is implied. In the material specifications, the subject may also  
 12 be the supplier, fabricator, or manufacturer supplying material, products, or  
 13 equipment for use on the project. The word “will” generally pertains to decisions  
 14 or actions of the State.

15  
 16 When a publication is specified, it refers to the most recent date of issue,  
 17 including interim publications, before the bid opening date for the project, unless a  
 18 specific date or year of issue is provided.

19  
 20 **101.02 Abbreviations.** Meanings of abbreviations used in the specifications,  
 21 on the plans, or in other contract documents are as follows:

22

23	AAN	American Association of Nurserymen
24		
25	AASHTO	American Association of State Highway and Transportation Officials
26		
27		
28	ACI	American Concrete Institute
29		
30	ADA	Americans with Disabilities Act
31		
32	ADAAG	Americans with Disabilities Act Accessibility Guidelines
33		
34	AGC	Associated General Contractors of America
35		
36	AIA	American Institute of Architects
37		
38	AISC	American Institute of Steel Construction
39		
40	AISI	American Iron and Steel Institute
41		
42	ANSI	American National Standards Institute
43		
44	APA	American Plywood Association
45		

46	ARA	American Railway Association
47		
48	AREA	American Railway Engineering Association
49		
50	ASA	American Standards Association
51		
52	ASCE	American Society of Civil Engineers
53		
54	ASLA	American Society of Landscape Architects
55		
56	ASTM	American Society for Testing and Materials
57		
58	AWG	American Wire Gauge
59		
60	AWPA	American Wood Preserver's Association
61		
62	AWS	American Welding Society
63		
64	AWWA	American Water Works Association
65		
66	BMP	Best Management Practice
67		
68	CCO	Contract Change Order
69		
70	CFR	Code of Federal Regulations
71		
72	CRSI	Concrete Reinforcing Steel Institute
73		
74	DCAB	Disability and Communication Access Board, Department of Health, State of Hawaii
75		
76		
77	DOTAX	Department of Taxation, State of Hawaii
78		
79	EPA	U.S. Environmental Protection Agency
80		
81	FHWA	Federal Highway Administration, U.S. Department of Transportation
82		
83		
84	FSS	Federal Specifications and Standards, General Services Administration, U.S. Department of Defense
85		
86		
87	HAR	Hawaii Administrative Rules
88		
89	HDOT	Department of Transportation, State of Hawaii
90		

91	HIOSH	Occupational Safety and Health, Department of Labor and Industrial Relations, State of Hawaii
92		
93		
94	HMA	Hot Mix Asphalt
95		
96	HRS	Hawaii Revised Statutes
97		
98	ICEA	Insulated Cable Engineers Association (formerly IPCEA)
99		
100	IMSA	International Municipal Signal Association
101		
102	IRS	Internal Revenue Service
103		
104	ITE	Institute of Transportation Engineers
105		
106	MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways, FHWA, U.S. Department of Transportation
107		
108		
109	NCHRP	National Cooperative Highway Research Program
110		
111	NEC	National Electric Code
112		
113	NEMA	National Electrical Manufacturers Association
114		
115	NFPA	National Forest Products Association
116		
117	NPDES	National Pollutant Discharge Elimination System
118		
119	OSHA	Occupational Safety and Health Administration/Act, U.S. Department of Labor
120		
121		
122	SAE	Society of Automotive Engineers
123		
124	SI	International Systems of Units
125		
126	UFAS	Uniform Federal Accessibility Standards
127		
128	UL	Underwriter's Laboratory
129		
130	USGS	U.S. Geological Survey
131		
132	VECP	Value Engineering Cost Proposal
133		
134		

135 **101.03 Definitions.** Whenever the following words, terms, or pronouns are  
136 used in the contract documents, unless otherwise prescribed therein and without  
137 regards to the use or omission of uppercase letters, the intent and meaning shall  
138 be interpreted as follows:

139  
140 **Addendum (plural - Addenda)** - A written or graphic document, including  
141 drawings and specifications, issued by the Director during the bidding period. This  
142 document modifies or interprets the bidding documents by additions, deletions,  
143 clarifications or corrections.

144  
145 **Addition** (to the contract sum) - Amount added to the contract sum by change  
146 order.

147  
148 **Advertisement** - A public announcement inviting bids for work to be performed or  
149 materials to be furnished.

150  
151 **Amendment** - A written document issued to amend the existing contract between  
152 the State and Contractor and properly executed by the Contractor and Director.

153  
154 **Award** - Written notification to the bidder that the bidder has been awarded a  
155 contract.

156  
157 **Bad Weather Day (or Unworkable Day)** - A day when weather or other conditions  
158 prevent a minimum of four hours of work with the Contractor's normal work force  
159 on critical path activities at the site.

160  
161 **Bag** - 94 pounds of cement.

162  
163 **Barrel** - 376 pounds of cement.

164  
165 **Base Course** - The layer or layers of specified material or selected material of a  
166 designed thickness placed on a subbase or subgrade to support a surface course.

167  
168 **Basement Material** - The material in excavation or embankments underlying the  
169 lowest layer of subbase, base, pavement, surfacing or other specified layer.

170  
171 **Bid** - See Proposal.

172  
173 **Bidder** - An individual, partnership, corporation, joint venture or other legal entity  
174 submitting, directly or through a duly authorized representative or agent, a  
175 proposal for the work or construction contemplated.

176  
177 **Bidding Documents (or Solicitation Documents)** - The published solicitation  
178 notice, bid requirements, bid forms and the proposed contract documents including  
179 all addenda and clarifications issued prior to receipt of the bid.

180

181 **Bid Security** - The security furnished by the bidder from which the State may  
182 recover its damages in the event the bidder breaches its promise to enter into a  
183 contract with the State, or fails to execute the required bonds covering the work  
184 contemplated, if its proposal is accepted.

185

186 **Blue Book** - EquipmentWatch Cost Recovery (formerly known as  
187 EquipmentWatch Rental Rate Blue Book), available from EquipmentWatch, a  
188 division of Penton, Inc.

189

190 **Calendar Day** - See Day.

191

192 **Change Order (or Contract Change Order)** - A written order signed by the  
193 Engineer issued with or without the consent of the Contractor directing changes in  
194 the work, contract time or contract price. The purposes of a change order include,  
195 but are not limited to (1) establishing a price or time adjustment for changes in the  
196 work; (2) establishing full payment for direct, indirect, and consequential costs,  
197 including costs of delay; (3) establishing price adjustment or time adjustment for  
198 work covered and affected by one or more field orders; or (4) settling Contractor's  
199 claims for direct, indirect, and consequential costs, or for additional contract time,  
200 in whole or in part.

201

202 **Completion** - See Substantial Completion and Final Completion.

203

204 **Completion Date** - The date specified by the contract for the completion of all  
205 work on the project or of a designated portion of the project.

206

207 **Comptroller** - the Comptroller of the State of Hawaii, Department of Accounting  
208 and General Services.

209

210 **Contract** - The written agreement between the Contractor and the State, by which  
211 the Contractor shall provide all labor, equipment, and materials and perform the  
212 specified work within the contract time stipulated, and by which the State of Hawaii  
213 is obligated to compensate the Contractor at the prices set forth in the contract  
214 documents.

215

216 **Contract Certification Date** - The Date on which the Deputy Comptroller for the  
217 State of Hawaii (or authorized representative) signs the Contract Certification.

218

219 **Contract Completion Date** - The calendar day on which all work on the project,  
220 required by the contract, must be completed. See CONTRACT TIME.

221



222 **Contract Documents** - The contract, solicitation, addenda, notice to bidders,  
223 Contractor's bid proposal (including wage schedule, list of subcontractors and  
224 other documentations accompanying the bid), notice to proceed, bonds, general  
225 provisions, special provisions, specifications, drawings, all modifications, all written  
226 amendments, change orders, field orders, orders for minor changes in the work,  
227 the Engineer's written interpretations and clarifications issued on or after the  
228 effective date of the contract.

229  
230 **Contract Item (Pay Item)** - A specific unit of work for which there is a price in the  
231 contract.

232  
233 **Contract Modification (Modification)** - A change order that is mutually agreed to  
234 and signed by the parties to the contract.

235  
236 **Contract Price** - The amount designated on the face of the contract for the  
237 performance of work.

238  
239 **Contract Time (or Contract Duration)** - The number of calendar or working days  
240 provided for completion of the contract, inclusive of authorized time extensions.  
241 Contract time shall commence on the Start Work Date and end on the Substantial  
242 Completion Date. If in lieu of providing a number of calendar or working days, the  
243 contract requires completion by a certain date, the work shall be completed by that  
244 date.

245  
246 **Contracting Officer** - See Engineer.

247  
248 **Contractor** - Any individual, partnership, firm, corporation, joint venture, or other  
249 legal entity undertaking the execution of the work under the terms of the contract  
250 with the State.

251  
252 **Critical Path** - Longest logical sequence of activities that must be completed on  
253 schedule for the entire project to be completed on schedule.

254  
255 **Day** - Any day shown on the calendar, beginning at midnight and proceeding up  
256 to, but not including, midnight the following day. If no designation of calendar or  
257 working day is made, "day" shall mean calendar day.

258  
259 **Department** - The Department of Transportation of the State of Hawaii  
260 (abbreviated HDOT).

261  
262 **Director** - The Director of the HDOT acting directly or through duly authorized  
263 representatives.

264  
265 **Plans (or Drawings)** - The contract drawings in graphic or pictorial form including  
266 the notes, tables and other notations thereon indicating the design, location,  
267 character, dimensions, and details of the work.

268

269 **Engineer** - The Highway Administrator, Highways Program, HDOT, or the  
270 authorized person delegated to act on the Administrator's behalf.

271

272 **Equipment** - All machinery, tools, and apparatus needed to complete the contract.

273

274 **Field Order** - A written order issued by the Engineer or the Engineer's authorized  
275 representative to the Contractor requiring a change or changes to the contract  
276 work. A field order may (1) establish a price adjustment or time adjustment; or (2)  
277 may declare that no adjustment will be made to contract price or contract time; or  
278 (3) may request the Contractor to submit a proposal for an adjustment to the  
279 contract price or contract time.

280

281 **Final Acceptance** - The Status of the project when the Engineer finds that the  
282 Contractor has satisfactorily completed all contract work in compliance with the  
283 contract including all plant establishment requirements, and all the materials have  
284 been accepted by the State.

285

286 **Final Completion** - The date set by the Director that all work required by the  
287 contract has been completed in full compliance with the contract documents.

288

289 **Final Inspection** - Inspection where all contract items (with the exception of  
290 Planting Period and Plant Establishment Period) are accepted by the Engineer.  
291 Substantial Completion will be issued by the Engineer based on the satisfactory  
292 results of the Final Inspection.

293

294 **Float** - The amount of time between when an activity can start and when an activity  
295 must start, i.e., the time available to complete non-critical activities required for the  
296 performance of the work without affecting the critical path.

297

298 **Guarantee** - Legally enforceable assurance of the duration of satisfactory  
299 performance of quality of a product or work.

300

301 **Hawaii Administrative Rules** - Rules adopted by the State in accordance with  
302 Chapter 91 of the Hawaii Revised Statutes, as amended.

303

304 **HAWAII ePROCUREMENT SYSTEM (HiePRO)** - The State of Hawaii  
305 eProcurement System for issuing solicitations, receiving proposals and responses,  
306 and issuing notices of award.

307

308 **Highway (Street, Road, or Roadway)** - A public way within a right-of-way  
309 designed, intended, and set aside for use by vehicles, bicyclists, or pedestrians.

310

311 **Highways Program** - The Highways Program of the Hawaii Department of  
312 Transportation constituted under the laws of Hawaii for the administration of  
313 highway work.

314

315 **Holidays** - The days of each year which are set apart and established as State  
316 holidays pursuant to Chapter 8 of the Hawaii Revised Statutes, as amended.

317

318 **Inspector** - The Engineer's authorized representative assigned to make detailed  
319 inspections of contract performance, prescribed work, and materials supplied.

320

321 **Laboratory** - The testing laboratory of the Highways Program or other testing  
322 laboratories that may be designated by the Engineer.

323

324 **Laws** - All Federal, State, and local laws, executive orders and regulations having  
325 the force of law.

326

327 **Leveling Course** - An aggregate mixture course of variable thickness used to  
328 restore horizontal and vertical uniformity to existing pavements or shoulders.

329

330 **Liquidated Damages** - The amount prescribed in Subsection 108.08 - Liquidated  
331 Damages for Failure to Complete the Work or Portions of the Work on Time, to be  
332 paid to the State or to be deducted from any payments payable to or, which may  
333 become payable to the Contractor.

334

335 **Lump Sum (LS)** - When used as a payment method means complete payment  
336 for the item of work described in the contract documents.

337

338 **Material** - Any natural or manmade substance or item specified in the contract to  
339 be incorporated in the work.

340

341 **Notice to Bidders** - The advertisement for proposals for all work or materials on  
342 which bids are required. Such advertisement will indicate the location of the work  
343 to be done or the character of the material to be furnished and the time and place  
344 for the opening of proposals.

345

346 **Notice to Proceed** - Written notice from the Engineer to the Contractor identifying  
347 the date on which the Contractor is to begin procuring materials and required  
348 permits and adjusting work forces, equipment, schedules, etc. prior to beginning  
349 physical work.

350

351 **Pavement** - The uppermost layer of material placed on the traveled way or  
352 shoulders or both. Pavement and surfacing may be interchangeable.

353

354 **Pavement Structure** - The combination of subbase, base, pavement, surfacing or  
355 other specified layer of a roadway constructed on a subgrade to support the traffic  
356 load.

357

358 **Payment Bond** - The security executed by the Contractor and surety or sureties  
359 furnished to the Department to guarantee payment by the Contractor to laborers,  
360 material suppliers and subcontractors in accordance with the terms of the contract.

361

362 **Physical Work** - Physical construction activities on the project site or at  
363 appurtenant facilities including staging areas. It includes; (i) building or installing  
364 any structures or facilities including, but not limited to sign erection; BMP  
365 installation; field office site grading and building; (ii) removal, adjustment, or  
366 demolition of physical obstructions on site; (iii) any ground breaking activities; and  
367 (iv) any utility work. It does not include pre-construction environmental testing  
368 (such as water quality baseline measurements) that may be required as part of  
369 contract.

370

371 **Pre-Final Inspection** - Inspection scheduled when Contractor notifies Engineer  
372 that all physical work on the project, with the exception of planting period and plant  
373 establishment period, has been completed. Notice from Contractor of substantial  
374 completion will suspend contract time until Contractor receives punchlist from  
375 Engineer.

376

377 **Profile Grade** - The elevation or gradient of a vertical plane intersecting the top  
378 surface of the proposed pavement.

379

380 **Project Acceptance Date** - The calendar day on which the Engineer accepts the  
381 project as completed. See Final Completion.

382

383 **Proposal (Bid)** - The executed document submitted by a Bidder in response to a  
384 solicitation request, to perform the work required by the proposed contract  
385 documents, for the price quoted and within the time allotted.

386

387 **Public Traffic** - Vehicular or pedestrian movement on a public way.

388

389 **Punchlist** - A list compiled by the Engineer specifying work yet to be completed or  
390 corrected by the Contractor in order to substantially complete the contract.

391

392 **Questionnaire** - The specified forms on which the bidder shall furnish required  
393 information as to its ability to perform and finance the work.

394

395 **Request for Change Proposal** - A written notice from the Engineer to the  
396 Contractor requesting that the Contractor provide a price and/or time proposal for  
397 contemplated changes preparatory to the issuance of a field order or change order.

398

399 **Right-of-Way** - Land, property, or property interests acquired by a government  
400 agency for, or devoted to transportation purposes.

401

402 **Roadbed** - The graded portion of a highway within top and side slopes, prepared  
403 as a foundation for the pavement structure and shoulders.

404

405 **Roadside** - The area between the outside edges of the shoulders and the right-of-  
406 way boundaries. Unpaved median areas between inside shoulders of divided  
407 highways and infield areas of interchanges are included.

408 **Section and Subsection** - Section or subsection shall be understood to refer to  
409 these specifications unless otherwise specified.

410  
411 **Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data  
412 or information which are specifically prepared or assembled by or for the  
413 Contractor and submitted by the Contractor to illustrate some portion of the work.

414  
415 **Shoulder** - The portion of the roadway next to the traveled way for:  
416 accommodation of stopped vehicles, placement of underground facilities,  
417 emergency use, and lateral support of base and surface courses.

418  
419 **Sidewalk** - That portion of the roadway primarily constructed for use by  
420 pedestrians.

421  
422 **Solicitation** - An invitation to bid or request for proposals or any other document  
423 issued by the Department to solicit bids or offers to perform a contract. The  
424 solicitation may indicate the time and place to receive the bids or offers and the  
425 location, nature and character of the work, construction or materials to be provided.

426  
427 **Specifications** - Compilation of provisions and requirements to perform  
428 prescribed work.

429  
430 **(A) Standard Specifications.** Specifications by the State intended for  
431 general application and repetitive use.

432  
433 **(B) Special Provisions.** Revisions and additions to the standard  
434 specifications applicable to an individual project.

435  
436 **Standard Plans** - Drawings provided by the State for specific items of work  
437 approved for repetitive use.

438  
439 **State** - The State of Hawaii, its Departments and agencies, acting through its  
440 authorized representative(s).

441  
442 **State Waters** – All waters, fresh, brackish, or salt, around and within the State,  
443 including, but not limited to, coastal waters, streams, rivers, drainage ditches,  
444 ponds, reservoirs, canals, ground waters, and lakes; provided that drainage  
445 ditches, ponds, and reservoirs required as a part of a water pollution control system  
446 are excluded.

447  
448 **Start Work Date** - Date on which Contractor begins physical work on the contract.  
449 This date shall also be the beginning of Contract Time.

450  
451 **Structures** - Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing,  
452 manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation  
453 drains, and other such features that may be encountered in the work.

454

455 **Subbase** - A layer of specified material of specified thickness between the  
456 subgrade and a base.

457

458 **Subcontract** - Any written agreement between the Contractor and its  
459 subcontractors which contains the conditions under which the subcontractor is to  
460 perform a portion of the work for the Contractor.

461

462 **Subcontractor** - An individual, partnership, firm, corporation, joint venture or other  
463 legal entity, **as licensed or required to be licensed under** Chapter 444, Hawaii  
464 Revised Statutes, as amended, which enters into an agreement with the  
465 Contractor to perform a portion of the work.

466

467 **Subgrade** - The top surface of completed earthwork on which subbase, base,  
468 surfacing, pavement, or a course of other material is to be placed.

469

470 **Substantial Completion** - The Status of the project when the Contractor has  
471 completed the work, except for the planting period and plant establishment period,  
472 and each of the following requirements are met:

473

474 (1) All traffic lanes (including shoulders, ramps, sidewalks and bike  
475 paths) are in their final configuration as designed and the final  
476 wearing surface has been installed;

477

478 (2) All operational and safety devices have been installed in accordance  
479 with the contract documents including guardrails, end treatments,  
480 traffic barriers, required signs and pavement markings, drainage,  
481 parapet, and bridge and pavement structures;

482

483 (3) All required illumination and lighting for normal and safe use and  
484 operation is installed and functional in accordance with the contract  
485 documents;

486

487 (4) All utilities and services are connected and working;

488

489 (5) The need for temporary traffic controls or lane closures at any time  
490 has ceased, except for lane closures required for routine  
491 maintenance;

492

493 (6) The building, structure, improvement or facility can be used for its  
494 intended purpose.

495

496 **Substantial Completion Date** - The date the Substantial Completion is granted  
497 by the Engineer in Writing and Contract Time stops.

498

499 **Superintendent** - The employee of the Contractor who is responsible for all the  
500 work and is a Contractor's agent for communications to and from the State.

501

502 **Surety** - The qualified individual, firm or corporation other than the Contractor,  
503 which executes a bond with and for the Contractor to insure its acceptable  
504 performance of the contract.

505  
506 **Surfacing** - The uppermost layer of material placed on the traveled way or  
507 shoulders. This term is used interchangeably with pavement.

508  
509 **Traveled Way** - The portion of the roadway for the movement of vehicles,  
510 exclusive of shoulders.

511  
512 **Unsuitable Material** - Materials that contain organic matter, muck, humus, peat,  
513 sticks, debris, chemicals, toxic matter, or other deleterious materials not suitable  
514 for use in earthwork.

515  
516 **Utility** - A line, facility, or system for producing, transmitting, or distributing  
517 communications, power, electricity, heat, gas, oil, water, steam, waste, or storm  
518 water.

519  
520 **Utility Owner** - The entity, whether private or owned by a State, Federal, or County  
521 governmental body, that has the power and responsibility to grant approval for, or  
522 undertake construction work involving a particular utility.

523  
524 **Water Pollutant** - Dredged spoil, solid refuse, incinerator residue, sewage,  
525 garbage, sewage sludge, munitions, chemical waste, biological materials,  
526 radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil,  
527 sediment, cellar dirt and industrial, municipal, and agricultural waste.

528  
529 **Water Pollution** - **(1)** Such contamination or other alteration of the physical,  
530 chemical, or biological properties of any state waters, including change in  
531 temperature, taste, color, turbidity, or odor of the waters, or **(2)** Such discharge of  
532 any liquid, gaseous, solid, radioactive, or other substances into any state waters,  
533 as will or is likely to create a nuisance or render such waters unreasonably harmful,  
534 detrimental, or injurious to public health, safety, or welfare, including harm,  
535 detriment, or injury to public water supplies, fish and aquatic life and wildlife,  
536 recreational purposes and agricultural and industrial research and scientific uses  
537 of such waters or as will or is likely to violate any water quality standards, effluent  
538 standards, treatment and pretreatment standards, or standards of performance for  
539 new sources adopted by the Department of Health.

540  
541 **Work** - The furnishing of all labor, material, equipment, and other incidentals  
542 necessary or convenient for the successful execution of all the duties and  
543 obligations imposed by the contract.

544  
545 **Working Day** - A calendar day in which a Contractor is capable of working four or  
546 more hours with its normal work force, exclusive of:

547

548           **(1)**     Saturdays, Sundays, and recognized legal State holidays and such  
549           other days specified by the contract documents as non-working days,

550

551           **(2)**     Day in which the Engineer suspends work for four or more hours  
552           through no fault of the Contractor.”

553

554

555

556

557

**END OF SECTION 101**



1 Make this section a part of the Standard Specifications:  
2

3 **“SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS**  
4  
5

6 **102.01 Prequalification of Bidders.** Prospective bidders shall be capable of  
7 performing the work for which they are bidding.  
8

9 In accordance with HRS Chapter 103D-310, the Department may require  
10 any prospective bidder to submit answers to questions contained in the 'Standard  
11 Qualification Questionnaire For Prospective Bidders On Public Works Contracts'  
12 furnished by the Department, properly executed and notarized, setting forth a  
13 complete statement of the experience of such prospective bidder and its  
14 organization in performing similar work and a statement of the equipment proposed  
15 to be used, together with adequate proof of the availability of such equipment.  
16 Whenever it appears to the Department, from answers to the questionnaire or  
17 otherwise, that the prospective bidder is not fully qualified and able to perform the  
18 intended work, the Department will, after affording the prospective bidder an  
19 opportunity to be heard and if still of the opinion that the bidder is not fully qualified  
20 to perform the work, refuse to receive or consider any bid offered by the  
21 prospective bidder. All information contained in the answers to the questionnaire  
22 shall be kept confidential. Questionnaire so submitted shall be returned to the  
23 bidders after serving their purpose.  
24

25 No person, firm or corporation may bid where (1) the person, firm, or  
26 corporation, or (2) a corporation owned substantially by the person, firm, or  
27 corporation, or (3) a substantial stockholder or an officer of the corporation, or (4)  
28 a partner or substantial investor in the firm is in arrears in payments owed to the  
29 State or its political subdivisions or is in default as a surety or failure to do faithfully  
30 and diligently previous contracts with the State.  
31

32 **102.02 Contents of Proposal Forms.** The Department will furnish prospective  
33 bidders with proposal forms posted in HlePRO stating:  
34

- 35 (1) The location,
- 36
- 37 (2) Description of the proposed work,
- 38
- 39 (3) The approximate quantities,
- 40
- 41 (4) Items of work to be done or materials to be furnished,
- 42
- 43 (5) A schedule of items, and
- 44
- 45 (6) The time in which the work shall be completed.  
46

47 Papers bound with or attached to the proposal form are part of the proposal.  
48 The bidder shall not detach or alter the papers bound with or attached to the  
49 proposal when the bidder submits its proposal through HlePRO.  
50

51 Also, the bidder shall consider other documents including the plans and  
52 specifications a part of the proposal form whether attached or not.  
53

54 **102.03 (Unassigned).**  
55

56 **102.04 Estimated Quantities.** The quantities shown in the contract are  
57 approximate and are for the comparison of bids only. The actual quantity of work  
58 may not correspond with the quantities shown in the contract. The Department will  
59 make payment to the Contractor for unit price items in accordance with the contract  
60 for only the following:  
61

62 (1) Actual quantities of work done and accepted, not the estimated  
63 quantities; or  
64

65 (2) Actual quantities of materials furnished, not the estimated quantities.  
66

67 The Department may increase, decrease, or omit each scheduled quantities  
68 of work to be done and materials to be furnished. When the Department increases  
69 or decreases the estimated quantity of a contract item by more than 15% the  
70 Department will make payment for such items in accordance with Subsection  
71 104.06 - Methods of Price Adjustment.  
72

73 **102.05 Examination of Contract and Site of Work.** The bidder shall examine  
74 carefully the site of the proposed work and contract before submitting a proposal.  
75

76 By the act of submitting a bid for the proposed contract, the bidder warrants  
77 that:  
78

79 (1) The bidder and its Subcontractors have reviewed the contract  
80 documents and found them free from ambiguities and sufficient for the  
81 purpose intended;  
82

83 (2) The bidder and its workers, employees and subcontractors have the  
84 skills and experience in the type of work required by the contract documents  
85 bid upon;  
86

87 (3) Neither the bidder nor its employees, agents, suppliers or  
88 subcontractors have relied upon verbal representations from the  
89 Department, its employees or agents, including architects, engineers or  
90 consultants, in assembling the bid figure; and  
91

92           **(4)**    The basis for the bid figure are solely on the construction contract  
93 documents.

94

95           Also, the bidder warrants that the bidder has examined the site of the work.  
96 From its investigations, the bidder acknowledges satisfaction on:

97

98           **(1)**    The nature and location of the work;

99

100          **(2)**    The character, quality, and quantity of materials;

101

102          **(3)**    The difficulties to be encountered; and

103

104          **(4)**    The kind and amount of equipment and other facilities needed;

105

106           Subsurface information or hydrographic survey data furnished are for the  
107 bidders' convenience only. The data and information furnished are the product of  
108 the Department's interpretation gathered in investigations made at the specific  
109 locations. These conditions may not be typical of conditions at other locations  
110 within the project area or that such conditions remain unchanged. Also, conditions  
111 found at the time of the subsurface explorations may not be the same conditions  
112 when work starts. The bidder shall be solely responsible for assumptions,  
113 deductions, or conclusions the bidder may derive from the subsurface information  
114 or data furnished.

115

116           If the Engineer determines that the natural conditions differ from that  
117 originally anticipated or contemplated by the Contractor in the items of excavation,  
118 the State may treat the difference in natural conditions, as falling within the  
119 meaning of Subsection 104.02 – Changes.

120

121           Whereas variances for Community Noise Control have been granted for  
122 work at the intersection Kalaniana'ole Highway with Kalaniiki Street/Waieli Street  
123 (Docket No. 24-NR-VN-10); the bidder also warrants that:

124

125          **(1)**    The bidder shall conduct work to construct improvements at the  
126 intersection of Kalaniana'ole Highway with Kalaniiki Street/Waieli Street  
127 during the following days/times:

128

129                   Mondays to Fridays:       8:00 p.m. to Midnight

130                   Tuesdays to Saturdays:    Midnight to 5:00 a.m.

131

132          **(2)**    The bidder shall not use of auger drill-rig, jackhammers and drills,  
133 and concrete-saws after midnight within 500 feet of residences.

134

135          **(3)**    The bidder shall notify the Indoor and Radiological Health Branch as  
136 to the date and time of variance hour activity as soon as the dates are  
137 confirmed, and when the project is completed.

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182

**(4)** The bidder shall make every effort to minimize noise from heavy vehicles travelling to and from the project.

**(5)** The bidder use of reverse signal alarms shall be prohibited from 8:00 p.m. to 7:00 a.m. Alternative methods such as utilizing a ground guide shall be employed.

**(6)** The bidder shall minimize traffic noise near residences from heavy vehicles travelling to and from the project site.

**(7)** The bidder shall have a job-site person to whom immediate complaints can be forwarded for prompt response, and who shall have the general responsibility of monitoring quiet work procedures.

**(8)** The bidder shall give sufficient notification to residences and businesses that may be impacted by the activity. The notification for the planned nighttime activity shall contain the name and telephone number of the bidder's job-site person. In addition, a copy of any notifications, as well as progress reports shall be sent to the Indoor and Radiological Health Branch.

**(9)** If noise level is such that numerous complaints are received by the Department of Health, the bidder shall cease operations upon receipt of an order and complete the project during the weekdays and weekends as directed.

**(10)** The bidder shall perform noise sampling during the variance hours and report the results of such sampling to the Indoor and Radiological Health Branch.

**(11)** The bidder warrants that all equipment operating within 1,000 feet of a residence during the noise variance period will comply with the following noise level parameters. Unless authorized by the Contracting Officer, noise levels produced by the Contractor's operations:

**(a)** Will not exceed 85dBA for more than 10 percent of the time at a 100-foot distance from 6:00 pm to midnight each day; and

**(b)** Will not exceed 75 dBA at a 100-foot distance for more than 10 percent of the time between midnight and 6:00 am each night.

**(12)** The bidder shall comply with the following requirements during the noise variance period:

183 (a) Construction equipment with exposed engine compartments  
184 will not be used on the job site.

185  
186 (b) Applicable State Department of Health daytime and nighttime  
187 noise limits will not be exceeded at the property plane of any  
188 residence, unless authorized by the Engineer, or unless it can be  
189 demonstrated by sound level measurements that the normal  
190 background ambient noise levels are equal to or greater than the  
191 construction noise levels.

192  
193 Also, the bidder warrants that the bidder will not disturb, remove or trim  
194 woody plants greater than 15 feet tall from June 1 through September 15 to avoid  
195 impacts to the Hawaiian hoary bat.

196  
197 **102.06 Preparation of Proposal.** The submittal of its proposal shall be on  
198 forms furnished by the Department. The bidder shall specify in words or figures:

- 199  
200 (1) A unit price for each pay item with a quantity given;  
201  
202 (2) The products of the respective unit prices and quantities  
203  
204 (3) The lump sum amount; and  
205  
206 (4) The total amount of the proposal obtained by adding the amounts of  
207 the several items.

208  
209 The words and figures shall be in ink or typed. If a discrepancy occurs  
210 between the prices written in words and those written in figures, the prices written  
211 in words shall govern.

212  
213 When an item in the proposal contains an option to be made, the bidder  
214 shall choose in accordance with the contract for that particular item. Determination  
215 of an option will not permit the Contractor to choose again.

216  
217 The bidder shall sign the proposal properly in ink. A duly authorized  
218 representatives of the bidder or by an agent of the bidder legally qualified and  
219 acceptable to the Department shall sign, including one or more partners of the  
220 bidder and one or more representatives of each entity comprising a joint venture.

221  
222 When an agent, other than the officer(s) of a corporation authorized to sign  
223 contracts for the corporation or a partner of a partnership, signs the proposals, a  
224 'Power of Attorney' shall be on file with the Department or submitted with the  
225 proposal. Otherwise, the Department will reject the proposal as irregular and  
226 unauthorized.

227

228 The bidder shall submit acceptable evidence of the authority of the partner,  
229 member(s) or officer(s) to sign for the partnership, joint venture, or corporation  
230 respectively with the proposal. Otherwise, the Department will reject the proposal  
231 as irregular and unauthorized.

232  
233 **102.07 Irregular Proposals.** The Department may consider proposals irregular  
234 and may reject the proposals for the following reasons:

235  
236 (1) The proposal is a form not furnished by the Department, altered, or  
237 detached;

238  
239 (2) The proposal contains unauthorized additions, conditions, or  
240 alternates. Also, the proposal contains irregularities that may tend to make  
241 the proposal incomplete, indefinite, or ambiguous to its meaning;

242  
243 (3) The bidder adds provisions reserving the right to accept or reject an  
244 award. Also, the bidder adds provisions into a contract before an award;

245  
246 (4) The proposal does not contain a unit price for each pay item listed  
247 except authorized optional pay items; and

248  
249 (5) Prices for some items are out of proportion to the prices for other  
250 items.

251  
252 (6) If in the opinion of the Director, the bidder and its listed  
253 subcontractors do not have the Contactor's licenses or combination of  
254 Contractor's licenses necessary to complete the work.

255  
256 Where the prospective bidder is bidding on multiple projects simultaneously  
257 and the proposal limits the maximum gross amount of awards that the bidder can  
258 accept at one bid letting, the proposal is not irregular if the limit on the gross  
259 amount of awards is clear, and the Department selects the awards that can be  
260 given.

261  
262 **102.08 Proposal Guaranty.** The Department will not consider a proposal of  
263 \$25,000 or more unless accompanied by:

264  
265 (1) A deposit of legal tender; or

266  
267 (2) A valid surety bid bond, underwritten by a company licensed to issue  
268 bonds in the State of Hawaii, in the form and composed, substantially, with  
269 the same language as provided herewith and signed by both parties; or

270  
271 (3) A certificate of deposit, share certificate, cashier's check, treasurer's  
272 check, teller's check, or official check drawn by, or a certified check  
273 accepted by and payable on demand to the State by a bank, savings

274 institution, or credit union insured by the Federal Deposit Insurance  
275 Corporation (FDIC) or the National Credit Union Administration (NCUA).

276  
277 (a) The bidder may use these instruments only to a maximum of  
278 \$100,000.

279  
280 (b) If the required security or bond amount totals over \$100,000  
281 more than one instrument not exceeding \$100,000 each and issued  
282 by different financial institutions shall be acceptable.

283  
284 (c) The instrument shall be made payable at sight to the  
285 Department.

286  
287 (d) **If bidder elects options (1) or (3) above for its bid security,**  
288 **said bid security shall be in its original form and shall be**  
289 **submitted before the bid deadline to the Contract Office,**  
290 **Department of Transportation, Aliiimoku Hale, 869 Punchbowl**  
291 **Street, Room 105, Honolulu, Hawaii 96813. Original surety bid**  
292 **bonds do not need to be submitted to the Contracts Office.**  
293 **Bidders are reminded that a copy of its surety bid bond shall be**  
294 **included with its bid submitted and uploaded to HlePRO.**  
295

296 In accordance with HRS Chapter 103D-323, the above shall be in a sum  
297 not less than 5% of the amount bid.

298  
299 **102.09 Delivery of Proposal. Bidders shall submit and upload the**  
300 **complete proposal to HlePRO prior to the bid opening date and time.**  
301 **Proposals received after said due date and time shall not be considered.**  
302 **Any additional support documents explicitly designated as confidential**  
303 **and/or proprietary shall be uploaded as a separate file to HlePRO. Bidders**  
304 **shall not include confidential and/or proprietary documents with the**  
305 **proposal. The record of each bidder and respective bid shall be open to**  
306 **public inspection. Original (wet ink, hard copy) proposal documents are not**  
307 **required to be submitted. Contract award shall be based on evaluation of**  
308 **proposals submitted and uploaded to HlePRO.**  
309

310 **FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO**  
311 **SHALL BE GROUNDS FOR REJECTION OF THE BID.**  
312

313 If there is a conflict between the specification document and the HlePRO  
314 solicitation, the specifications shall govern and control, unless otherwise specified.

315  
316 **102.10 Withdrawal or Revision of Proposals.** Bids may be modified or  
317 withdrawn prior to the bid opening date and time. Withdrawal or revision of  
318 proposal shall be completed, and submitted and uploaded to HlePRO prior to the  
319 bid opening date and time.

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**102.11 Public Opening of Proposals.** Not applicable.

**102.12 Disqualification of Bidders.** The Department may disqualify a bidder and reject its proposal for the following reasons:

- (1) Submittal of more than one proposal whether under the same or different name.
- (2) Evidence of collusion among bidders. The Department will not recognize participants in collusion as bidders for any future work of the Department until such participants are reinstated as qualified bidders.
- (3) Lack of proposal guaranty.
- (4) Submittal of an unsigned or improperly signed proposal.
- (5) Submittal of a proposal without a listing of subcontractors or containing only a partial or incomplete listing of subcontractors.
- (6) Submittal of an irregular proposal in accordance with Subsection 102.07 - Irregular Proposals.
- (7) Evidence of assistance from a person who has been an employee of the agency within the preceding two years and who participated while in State office or employment in the matter with which the contract is directly concerned, pursuant to HRS Chapter 84-15.
- (8) Suspended or debarred in accordance with HRS Chapter 104-25.
- (9) Failure to complete the prequalification questionnaire, if applicable.
- (10) Failure to attend the mandatory pre-bid meeting, if applicable.

**102.13 Material Guaranty.** The successful bidder may be required to furnish a statement of the composition, origin, manufacture of materials, and samples.

**102.14 Substitution of Materials and Equipment Before Bid Opening.** See Subsection 106.13 for Substitution Of Materials and Equipment After Bid Opening.

- (A) **General.** When brand names of materials or equipment are specified in the contract documents, they are to indicate a quality, style, appearance, or performance and not to limit competition. The bidder shall base its bid on one of the specified brand names unless alternate brands are qualified as equal or better in an addendum. Qualification of such proposed alternate brands shall be submitted via email to the Contact



366 person listed in HlePRO for the solicitation and also post a question in  
367 HlePRO under the question/answer tab referencing the email with the  
368 request. The request must be posted in HlePRO no later than 14 calendar  
369 days before the bid opening date, not including the bid opening date.  
370

371 An addendum will be issued to inform all prospective bidders of any  
372 accepted substitution in accordance with Subsection 102.17 – Addenda.  
373

374 **(B) Statement of Variances.** The statement of variances must list all  
375 features of the proposed substitution that differ from the contract documents  
376 and must further certify that the substitution has no other variant features.  
377 The brochure and information submitted shall be clearly marked showing  
378 make, model, size, options, and any other features requested by the  
379 Engineer and must include sufficient evidence to evaluate each feature  
380 listed as a variance. A request will be denied if submitted without sufficient  
381 evidence. If after installing the substituted product, an unlisted variance is  
382 discovered, the Contractor shall immediately replace the product with a  
383 specified product at no increase in contract price and contract time.  
384

385 **(C) Substitution Denial.** Any substitution request not complying with  
386 the above requirements will be denied.  
387

388 **102.15 Preferences.** Preferences shall not apply to this project.  
389

390 **102.16 Certification for Safety and Health Program for Bids in excess of**  
391 **\$100,000.** In accordance with HRS Chapter 396-18, the bidder or offeror, by  
392 signing and submitting this proposal, certifies that a written safety and health plan  
393 for this project will be available and implemented by the notice to proceed date for  
394 this project. Details of the requirements of this plan may be obtained from the  
395 State Department of Labor and Industrial Relations, Occupational Safety and  
396 Health Division (HIOSH).  
397

398 **102.17 Addenda.** Addenda issued shall become part of the contract  
399 documents. Addenda to the bid documents will be provided to all prospective  
400 bidders via HlePRO. Each addendum shall be an addition to the contract  
401 documents. The terms and requirements of the bid documents (i.e., drawings,  
402 specifications and other bid and contract documents) cannot be changed prior to  
403 the bid opening except by a duly issued addendum.”  
404

405  
406

**END OF SECTION 102**

1 Make this section a part of the Standard Specifications:  
2

3 **“SECTION 103 - AWARD AND EXECUTION OF CONTRACT**  
4

5 **103.01 Consideration of Proposals.** The Department will compare the  
6 proposals in terms of the summation of the products of the approximate quantities  
7 and the unit bid prices after the submittal date and time established in HlePRO. If  
8 a discrepancy occurs between the unit bid price and the bid price, the unit bid price  
9 shall govern.  
10

11 The “Buy America” provisions in the Surface Transportation Assistance Act  
12 of 1982 is applicable to Federal-aid projects. Bidders may submit a bid based  
13 upon the furnishing and use of domestic steel or foreign steel. Manufacturing  
14 processes for domestic steel shall occur in the United States.  
15

16 The Department reserves the right to reject proposals, waive technicalities  
17 or advertise for new proposals, if the rejection, waiver, or new advertisement favors  
18 the Department.  
19

20 **103.02 Award of Contract.** The award of contract, if it be awarded, will be  
21 made within 60 calendar days after the opening of bids, to the lowest responsible  
22 and responsive bidder whose proposal complies with all the prescribed  
23 requirements. The Department may request the bidders to allow the Department  
24 to consider the bids for the issuance of an award beyond the 60-calendar day  
25 period. Agreement to such an extension must be made by a bidder in writing. Only  
26 bidders who have agreed to such an extension will be eligible for the award.  
27

28 **(1) Requirement for Award.** The Bidder, as proof of compliance  
29 with the requirements of section 103D-310(c), HRS, upon award of a  
30 contract made pursuant to section 103D-302, HRS, shall provide the  
31 documents listed below. The documents shall be submitted promptly  
32 to the Department. If a valid certificate/clearance is not submitted  
33 on a timely basis upon award, the Bidder may be deemed non-  
34 responsible. See also Subsection 108.03 – Preconstruction Data  
35 Submittal.  
36

37 **(A) Tax Clearance.** Pursuant to §103D-310(c), 103-53 and 103D-328,  
38 HRS, the bidder shall submit a tax clearance certificate from the State of  
39 Hawaii Department of Taxation (DOTAX) and the Internal Revenue Service  
40 (IRS), subject to section 103D-328, HRS, current within six months of  
41 issuance date.  
42

43 FORM A6, TAX CLEARANCE CERTIFICATE, is available at the  
44 following website:  
45

46 <https://tax.hawaii.gov/>

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To receive DOTAX Forms by fax or mail, phone:  
(808) 587-4242 or 1-800-222-3229.

The application for the Tax Clearance Certificate is the responsibility of the bidder. Bidder shall submit directly to the DOTAX or IRS. The approved certificate may then be submitted to the Department.

**(B) DLIR Certificate of Compliance.** Pursuant to §103D-310(c), HRS, the bidder shall submit a certificate of compliance for Hawaii Employment Security Law (Chapter 383, HRS), Workers' Compensation Law (Chapter 386, HRS), Temporary Disability Insurance (Chapter 392, HRS), and Prepaid Health Care Act (Chapter 393, HRS), from the State of Hawaii Department of Labor and Industrial Relations (DLIR), current within six months of issuance date.

FORM LIR#27, APPLICATION FOR CERTIFICATE OF COMPLIANCE WITH SECTION 3-122-112, HAR, is available at the following website:

<http://labor.hawaii.gov/>

Contact the DLIR Unemployment Insurance Division at (808) 586-8926 for additional information.

Inquiries regarding the status of a LIR#27 Form may be made by calling the DLIR Disability Compensation Division at (808) 586-9200.

The application for the Certificate of Compliance is the responsibility of the bidder. Bidder shall submit directly to the DLIR. The approved certificate may then be submitted to the Department.

**(C) DCCA Certificate of Good Standing.** Pursuant to §103D-310(c), HRS, the bidder shall submit a certificate of good standing from the business registration division (BREG) of the State of Hawaii Department of Commerce and Consumer Affairs (DCCA), current within six months of issuance date, to demonstrate it is either:

- (1) Incorporated or organized under the laws of the State; or
- (2) Registered to do business in the State as a separate branch or division that is capable of fully performing under the contract.

A Hawaii business that is a sole proprietorship, is not required to register with the BREG, and therefore not required to submit a certificate of

92 good standing. Bidders are advised of costs associated with registering  
93 and obtaining a Certificate of Good Standing from the DCCA.

94  
95 To purchase a CERTIFICATE OF GOOD STANDING, go to On-Line  
96 Services at the following website:

97  
98 <http://cca.hawaii.gov/>  
99

100 The application for the Certificate of Good Standing is the  
101 responsibility of the bidder. Bidder shall submit directly to the DCCA. The  
102 approved certificate may then be submitted to the Department.

103  
104 **(D) Hawaii Compliance Express (HCE).** In lieu of the certificates  
105 referenced in subsection A, B, and C, the bidder may make available proof  
106 of compliance through a state procurement office designated certification  
107 process.

108  
109 **103.03 Cancellation of Award.** The Department reserves the right to cancel  
110 the award of contracts before the execution of said contract by the parties. There  
111 will be no liability to the awardee and to other bidders.

112  
113 **103.04 Return of Proposal Guaranty.** The Department will return the proposal  
114 guaranties, except those of the three lowest bidders, after the Department checks  
115 the proposals. The Department will return the proposal guaranties of the remaining  
116 two lowest bidders, not awarded the contract, within five working days following  
117 the execution of the contract. The Department will return the successful bidder's  
118 proposal guaranty after the successful bidder furnishes a bond and executes the  
119 contract.

120  
121 **103.05 Requirement of Contract Bond.** At the time of execution of the  
122 contract, the successful bidder shall file a good and sufficient performance bond  
123 and a payment bond on the forms furnished by the Department conditioned for the  
124 full and faithful performance of the contract in accordance with the terms and intent  
125 thereof and for the prompt payment to all others for all labor and material furnished  
126 by them to the bidder and used in the prosecution of the work provided for in the  
127 contract. The bonds shall be of an amount equal to 100 percent of the amount of  
128 the contract price and include 5 percent of the contract amount estimated to be  
129 required for extra work. The bidder shall limit the acceptable performance and  
130 payment bonds to the following:

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132 **(a)** Legal tender;

133  
134 **(b)** Surety bond underwritten by a company licensed to issue bonds in  
135 the State of Hawaii; or  
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(c) A certificate of deposit; share certificate; cashier's check; treasurer's check, teller's check drawn by or a certified check accepted by and payable on demand to the State by a bank savings institution or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA).

1. The bidder may use these instruments only to a maximum of \$100,000.
2. 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 acceptable.

Such bonds shall also by the terms insure to the benefit of any and all persons entitled to file claims for labor done or material furnished in the work so as to give them a right of action as contemplated by HRS Section 103D-324.

**103.06 Execution of the Contract.** The contract bond and HRS Chapter 104 - Compliance Certificate, similar to a copy of the same annexed hereto, shall be executed by the successful bidder and returned within ten days after the award of the contract or within such further time as the Director may allow after the bidder has received the contract for execution.

The contract shall not bind the Department unless said parties execute the contract and the Director of Finance endorses the bidder's certificate in accordance with HRS Section 103-39.

**103.07 Failure to Execute Contract.** Failure to execute the contract and file acceptable bonds shall be cause for the cancellation of the award in accordance with Subsection 103.06 - Execution of the Contract. Also, the Contractor forfeits the proposal guaranty which becomes the property of the Department. This is not a penalty, but liquidated damages sustained by the State. The Department may then make award to the next lowest responsible and responsive bidder or the Department may readvertise and construct the work under contract."

**END OF SECTION 103**

1    **SECTION 104 – SCOPE OF WORK**

2  
3 Make the following amendment to said Section:

4  
5 **(I) Amend Section 104.11(B) Contractor’s Duty to Locate and Protect**  
6 **Utility** by adding the following after line 291:

7  
8            **(4)** The Contractor shall contact the Hawaii One Call Center at 811 prior  
9 to any execution in a public right of way or on private property.”

10  
11 **(II) Amend Section 104.06 Methods of Price Adjustment** as follows:

12  
13 **“104.06 Methods of Price Adjustment.** Any adjustment in the contract price  
14 pursuant to a change or claim shall be made in one or more of the following ways:

15  
16            **(1)** By written agreement on a fixed price adjustment before  
17 commencement of the pertinent performance.

18  
19            **(2)** By unit prices or other price adjustments specified in the contract or  
20 subsequently agreed upon before commencement of the pertinent  
21 performance.

22  
23            **(3)** The Engineer may base the adjustment for a lump sum item on a  
24 calculated proportionate unit price. The Engineer will calculate the  
25 proportionate unit price by dividing the original contract lump sum price by  
26 the actual or original estimated quantity established by the contract  
27 documents.

28  
29            **(4)** In any other lawful manner as the parties may mutually agree upon  
30 before commencement of the pertinent performance.

31  
32            **(5)** At the sole option of the Engineer, work may be paid for on a force  
33 account basis in accordance with Subsection 109.06 - Force Account  
34 Provisions and Compensation.

35  
36            **(6)** By the cost variations attributable to the events or situations with  
37 adjustment of profit and fee, all as specified in the contract or subsequently  
38 agreed upon before commencement of the pertinent performance.

39  
40            **(7)** In the absence of agreement by the parties:

41  
42            **(A)** For change orders with value not exceeding \$50,000 by  
43 documented actual costs of the work, allowing for overhead and  
44 profit as set forth in Section 109.05 - Allowances for Overhead and  
45 Profit. A change order shall be issued within fifteen days of  
46 submission by the contractor of proper documentation of completed  
47 force account work, whether periodic (conforming to the applicable

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billing cycle) or final. The Engineer shall return any documentation that is defective, to the contractor within fifteen days after receipt, with a statement identifying the defect; or

**(B)** For change orders with value exceeding \$50,000 by a unilateral determination by the Engineer of the costs attributable to the events or situations with adjustment of profit and fee, all as computed by the Engineer in accordance with applicable sections of HAR Chapters 3-123 and 3-126, and Section 109.05 - Allowances for Overhead and Profit. When a unilateral determination has been made, a unilateral change order shall be issued within ten days. Upon receipt of the unilateral change order, if the contractor does not agree with any of the terms or conditions, or the adjustment or non-adjustment of the contract time or contract price, the contractor shall file a notice of intent to claim within thirty days after the receipt of the written unilateral change order. Failure to file a protest within the time specified shall constitute agreement on the part of the contractor with the terms, conditions, amounts, and adjustment or non-adjustment of the contract time or the contract price set forth in the unilateral change order.

A contractor shall be required to submit cost or pricing data if any adjustment in contract price is subject to the provisions of HAR Chapter 3-122, Subchapter 15. A fully executed change order or other document permitting billing for the adjustment in price under any method listed in Subsections 104.06(1) through 104.06(7) shall be issued within ten days after agreement on the method of adjustment."

**END OF SECTION 104**





47           **(C) Authority of the Consultant and Construction Management.** The  
48 State may engage consultants and construction managements to perform  
49 duties in connection with the work. Unless otherwise specified in writing to  
50 the Contractor, such retained consultants and construction managements  
51 shall have no greater authority than an Inspector.”  
52

53 **(II) Amend Subsection 105.02 - Submittals** by revising the first paragraph  
54 from lines 52 to 61 to read as follows:  
55

56 **“105.02 Submittals.** The contract contains the description of various items that  
57 the Contractor must submit to the Engineer for review and acceptance. The  
58 Contractor shall review all submittals for correctness, conformance with the  
59 requirements of the contract documents and completeness before submitting them  
60 to the Engineer. The submittal shall indicate the contract items and specifications  
61 subsections for which the submittal is provided. The submittal shall be legible and  
62 clearly indicate what portion of the submittal is being submitted for review. The  
63 Contractor shall provide six copies of the required submissions at the earliest  
64 possible date.”  
65

66 **(III) Amend Subsection 105.08 (A) - Furnishing Drawings and Special**  
67 **Provisions** to read as follows:  
68

69 **“(A) Furnishing Drawings and Special Provisions.** The State will  
70 furnish the Contractor an electronic set of the special provisions and plans.”  
71 The Contractor shall have and maintain at least one set of plans and  
72 specifications on the work site, at all times.”  
73

74 **(IV) Amend Subsection 105.14(D) – No Designated Storage Area** from lines  
75 421 to 432 to read as follows:  
76

77 **“(D) No Designated Storage Area.** If no storage area is designated  
78 within the contract documents, materials and equipment may be stored  
79 anywhere within the State highway right-of-way, provided such storage and  
80 access to and from such site, within the sole discretion of the Engineer,  
81 does not create a public or traffic hazard or an impediment to the movement  
82 of traffic.”  
83

84 **(V) Amend 105.16(A) – Subcontract Requirements** by adding the following  
85 paragraph after line 483:  
86

87           The 'Specialty Items' of work for this project are as follows:  
88

	<b>Section No.</b>	<b>Description</b>
89		
90		
91		
92	401	Contract Item No. 401.0100 under Section 401 – Hot Mix Asphalt Pavement
93		
94		
95	606	All Contract Items under Section 606 - Guardrail
96		
97	623	All Contract Items under Section 623 - Traffic Signal System
98		
99	629	All Contract Items under Section 629 - Pavement Markings
100		
101	630	All Contract Items under Section 630 - Traffic Control Guide Signs
102		
103		
104	631	All Contract Items under Section 631 - Traffic Control Regulatory, Warning, and Miscellaneous Signs
105		
106		
107	632	All Contract Items under Section 632 - Markers
108		
109	645	Contract Item No. 645.0100 under Section 645 – Work Zone Traffic Control”
110		
111		

112 **(VI)** Amend **Subsection 105.16(B) – Substituting Subcontractors** from line  
113 487 to line 494 to read:

114  
115 **“(B) Substituting Subcontractors.** Under HRS Chapter 103D-302, the  
116 Contractor is required to list the names of persons or firms to be engaged  
117 by the Contractor as a subcontractor or joint contractor in the performance  
118 of the contract. No subcontractor may be added or deleted, unless  
119 authorized by the Engineer. Substitutions will be allowed only if the  
120 subcontractor:

121  
122  
123  
124  
125 **END OF SECTION 105**

1 Make the following amendment to said Section:  
2

3 **SECTION 106 – MATERIAL RESTRICTIONS AND REQUIREMENTS**  
4  
5

6 **(I)** Amend **106.05(B) – Deviation** by revising the third sentence from line 106  
7 to 108 to read as follows:  
8

9 “Any deviations will be subject to Subsection 102.14 – Substitution of  
10 Materials and Equipment Before Bid Opening.  
11

12 **(II)** Amend **Section 106 – Material Restrictions and Requirements** by  
13 adding the following after line 334  
14

15 **106.14 Construction Materials.**  
16

17 **(A)** Buy America requirements apply to the following construction  
18 materials if permanently incorporated into the project unless otherwise  
19 specified:  
20

- 21 **(1)** Non-ferrous metals.
- 22 **(2)** Plastic and polymer-based products such as:
  - 23 **(a)** High Density Polyethylene
  - 24 **(b)** Polyvinylchloride.
  - 25 **(c)** Composite building materials.
  - 26 **(d)** Polymers used in fiber optic cables.
- 27 **(3)** Glass (including optic glass).
- 28 **(4)** Fiber optic cable (including drop cable).
- 29 **(5)** Optical fiber.
- 30 **(6)** Lumber.
- 31 **(7)** Engineered wood.
- 32 **(8)** Drywall.
- 33 **(9)** Manufactured products containing steel and iron material  
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Where one or more of these construction materials have been combined by a manufacturer with other materials through a manufacturing process, Buy America requirements do not apply unless otherwise specified. Furnish construction materials to be incorporated into the work with certificates of compliance with each project delivery. Manufacturer's certificate of compliance must identify where the construction material was manufactured and attest specifically to Buy America compliance. All manufacturing processes for these materials must occur in the United States.

Non-ferrous metals, such as aluminum, copper, lead, nickel, tin, titanium, zinc, brass, and bronze, are subject to Buy America requirements if used as construction materials in various shapes, sizes, and gauges including channels, bars, pipe, couplers, fittings, bolts, nuts, and products made of 100 percent of the non-ferrous metal. If the non-ferrous metal is combined with other construction materials during a manufacturing process, the product is considered a manufactured product and not subject to Buy America requirements.

One hundred percent plastic or polymer materials are subject to Buy America requirements. This includes high-density polyethylene or polyvinyl chloride pipe and fittings. Plastics or polymers that are combined with other construction materials in a manufacturing process are considered a manufactured product and not subject to these requirements.

Glass construction materials subject to Buy America requirements are composed solely of glass. This includes glass beads incorporated into pavement striping and 100 percent Fiberglass material.

Fiber optic cable (including drop cable) and optical fiber are subject to Buy America requirements.

Lumber products including engineered lumber are subject to Buy America requirements.

Manufactured products containing steel or iron including pre-cast concrete products are subject to Buy America requirements.

**END OF SECTION 106**

1           **SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC**

2  
3           Make the following amendments to said Section:

4  
5           **(I)**       Amend **Section 107.01 Insurance Requirements** from lines 5 to 81 to  
6           read as follows:

7  
8           **“(A) Obligation of Contractor.** Contractor shall not commence any  
9           work until it obtains, at its own expense, all required insurance described  
10          herein. Such insurance shall be provided by an insurance company  
11          authorized by the laws of the State to issue such insurance in the State of  
12          Hawaii. Coverage by a “Non-Admitted” carrier is permissible provided the  
13          carrier has a Best’s Rating of “A-VII” or better. The Contractor shall  
14          maintain and ensure all insurance policies are current for the full period of  
15          the contract until final acceptance of the work by the State.

16  
17          The Certificate of Insurance shall contain: a clause that it is agreed  
18          that any insurance maintained by the State of Hawaii will apply in excess  
19          of, and not contribute with, insurance provided by this policy; and shall be  
20          accompanied by endorsement form CG2010 or equivalent naming the State  
21          as an additional insured to the policy which status shall be maintained for  
22          the full period of the contract until final acceptance of the work by State.

23  
24          The Contractor shall obtain all required insurance as part of the  
25          contract price. Where there is a requirement for the State of Hawaii and its  
26          officers and employees to be named as additional insureds under any  
27          Contractor’s insurance policy, before the State of Hawaii issues the Notice  
28          to Proceed, the Contractor shall obtain and submit to the Engineer a  
29          Certificate of Insurance and a written policy endorsement that confirms the  
30          State of Hawaii and its officers and employees are additional insureds for  
31          the specific State project number and project title under such insurance  
32          policies. The written policy endorsement must be issued by the insurance  
33          company insuring the Contractor for the specified policy type or by an agent  
34          of such insurance company who is vested with the authority to issue a  
35          written policy endorsement. The insurer’s agent shall also submit written  
36          confirmation of such authority to bind the insurer. Any delays in the  
37          issuance of the Notice to Proceed attributed to the failure to obtain the proof  
38          of the State of Hawaii and its officers and employees’ additional insured  
39          status shall be charged to the Contractor.

40  
41          A mere Certificate of Insurance issued by a broker who represents  
42          the Contractor (but not the Contractor’s insurer), or by any other party who  
43          is not authorized to contractually name the State as an additional insured  
44          under the Contractor’s insurance policy, is not sufficient to meet the  
45          Contractor’s insurance obligations.

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Certificates shall contain a provision that coverages being certified will not be cancelled or materially changed without giving the Engineer at least thirty (30) days prior written notice. Contractor will immediately provide written notice to the Director should any of the insurance policies evidenced on its Certificate of Insurance form be cancelled, reduced in scope or coverage, or not renewed upon expiration. Should any policy be canceled before final acceptance of the work by the State, and the Contractor fails to immediately procure replacement insurance as specified, the State, 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 or to become due to the Contractor.

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 State harmless pursuant to other provisions of this contract. In no instance will the State'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.

All insurance described herein shall be primary and cover the insured for all work to be performed under the contract, all work performed incidental thereto or directly or indirectly connected therewith, including but not limited to traffic detour work, barricades, warnings, diversions, lane closures, and other work performed outside the work area and all change order work.

The Contractor shall, from time to time, furnish the Engineer, when requested, satisfactory proof of coverage of each type of insurance required 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.

**(B) Types of Insurance.** 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 any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

**(1) Workers' Compensation.** The Contractor shall obtain worker's compensation insurance for all persons whom they employ in carrying out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and

93 applicable State of Hawaii Worker's Compensation Insurance laws  
94 in effect on the date of the execution of this contract and as modified  
95 during the duration of the contract.  
96

97 **(2) Auto Liability.** The Contractor shall obtain Auto Liability  
98 Insurance covering all owned, non-owned and hired autos with a  
99 Combined single Limit of not less than \$1,000,000 per occurrence  
100 for bodily injury and property damage with the State of Hawaii named  
101 as additional insured. Refer to SPECIAL CONDITIONS for any  
102 additional requirements.  
103

104 **(3) General Liability.** The Contractor shall obtain General  
105 Liability insurance with a limit of not less than \$2,000,000 per  
106 occurrence and in the Aggregates for each of the following:  
107

- 108 (a) Products - Completed/Operations Aggregate,
- 109
- 110 (b) Personal & Advertising Injury, and
- 111
- 112 (c) Bodily Injury & Property Damage  
113

114 The General Liability insurance shall include the State as an  
115 Additional Insured. The required limit of insurance may be provided  
116 by a single policy or with a combination of primary and excess  
117 policies. Refer to SPECIAL CONDITIONS for any additional  
118 requirements.  
119

120 **(4) Builders Risk For All Work.** The Contractor shall take out  
121 a policy of builder's risk insurance for the full replacement value of  
122 the project work; from a company licensed or otherwise authorized  
123 to do business in the State of Hawaii; naming the State as an  
124 additional insured under each policy; and covering all work, labor,  
125 and materials furnished by such Contractor and all its  
126 subcontractors against loss by fire, windstorm, tsunamis,  
127 earthquakes, lightning, explosion, other perils covered by the  
128 standard Extended Coverage Endorsement, vandalism, and  
129 malicious mischief. Refer to SPECIAL CONDITIONS for any  
130 additional requirements."  
131

132  
133 **END OF SECTION 107**

1 Amend **Section 108 – PROSECUTION AND PROGRESS** to read as follows:  
2

3 **“SECTION 108 – PROSECUTION AND PROGRESS**  
4

5  
6 **108.01 Notice to Proceed (NTP).** A Notice To Proceed will be issued to the  
7 Contractor not more 30 calendar days after the contract certification date. The  
8 Engineer may suspend the contract before issuing the Notice To Proceed, in which  
9 case the Contractor’s remedies are exclusively those set forth in Subsection 108.10  
10 – Suspension of Work.

11  
12 The Contractor shall be allowed up to 60 calendar days after the Notice to  
13 Proceed to begin physical work. The Start Work Date will be established when this  
14 period ends or on the actual day that physical work begins, whichever is first.  
15 Charging of Contract Time will begin on the Start Work Date. The Contractor shall  
16 notify the Engineer, in writing, at least five working days before beginning physical  
17 work.

18  
19 In the event that the Contractor fails to start physical work within the time  
20 specified, the Engineer may terminate the contract in accordance with Subsection  
21 108.11 – Termination of Contract for Cause.

22  
23 During the period between the Notice to Proceed and the Start Work Date  
24 the Contractor should adjust work forces, equipment, schedules, and procure  
25 materials and required permits, prior to beginning physical work.

26  
27 Any physical work done prior to the Start Work Date will be considered  
28 unauthorized work. If the Engineer does not direct that the unauthorized work be  
29 removed, it shall be paid for after the Start Work Date and only if it is acceptable.

30  
31 In the event that the Engineer establishes, in writing, a Start Work Date that  
32 is beyond 60 calendar days from the Notice to Proceed date, the Contractor may  
33 submit a claim in accordance with, Subsection 107.15 – Disputes and Claims for  
34 increased labor and material costs which are directly attributable to the delay  
35 beyond the first 60 calendar days after the Notice to Proceed date.

36  
37 The Contractor shall notify the Engineer at least 24 hours before restarting  
38 physical work after a suspension of work pursuant to Subsection 108.10 –  
39 Suspension of Work.

40  
41 Once physical work has begun, the Contractor shall work expeditiously and  
42 pursue the work diligently to completion with the contract time. If a portion of the  
43 work is to be done in stages, the Contractor shall leave the area safe and usable for  
44 the user agency and the public at the end of each stage.  
45



46 **108.02 Prosecution of Work.** Unless otherwise permitted by the Engineer, in  
47 writing, the Contractor shall not commence with physical construction unless  
48 sufficient materials and equipment are available for either continuous construction  
49 or completion of a specified portion of the work.

50  
51 **108.03 Preconstruction Submittals.** The awardee shall submit to the Engineer  
52 for information and review the pre-construction submittals within 21 calendar days  
53 from award. Until the items listed below are received and found acceptable by the  
54 Engineer, the Contractor shall not start physical work unless otherwise authorized  
55 to do so in writing and subject to such conditions set by the Engineer. Charging of  
56 Contract Time will not be delayed, and additional contract time will not be granted  
57 due to Contractor delay in submitting acceptable preconstruction submittals. No  
58 progress payment will be made to the Contractor until the Engineer acknowledges,  
59 in writing, receipt of the following preconstruction submittals acceptable to the  
60 Engineer:

- 61  
62 (1) List of the Superintendent and other Supervisory Personnel, and their  
63 contact information.
- 64  
65 (2) Name of person(s) with signature specimen(s) authorized to sign for  
66 the Contractor.
- 67  
68 (3) Work Schedule including hours of operation.
- 69  
70 (4) Initial Progress Schedule (See Subsection 108.06 – Progress  
71 Schedule).
- 72  
73 (5) Water Pollution and Siltation Control Submittals, including Site-  
74 Specific Best Management Practice Plan.
- 75  
76 (6) Solid Waste Disposal form.
- 77  
78 (7) Tax Rates.
- 79  
80 (8) Insurance Rates.
- 81  
82 (9) Certificate of Insurance, satisfactory to the Engineer, indicating that  
83 the Contractor has in place all insurance coverage required by the contract  
84 documents.
- 85  
86 (10) Schedule of agreed prices.
- 87  
88 (11) List of suppliers.
- 89  
90 (12) Traffic Control Plan, if applicable.

91 **108.04 Character and Proficiency of Workers.** The Contractor shall at all times  
92 provide adequate supervision and sufficient labor and equipment for prosecuting the  
93 work to full completion in the manner and within the time required by the contract.  
94 The superintendent and all other representatives of the Contractor shall act in a civil  
95 and honest manner in all dealings with the Engineer, all other State officials and  
96 representatives, and the public, in connection with the work.

97  
98 All workers shall possess the proper license, certification, job classification,  
99 skill, training, and experience necessary to properly perform the work assigned to  
100 them.

101  
102 The Engineer may direct the removal of any worker(s) who does not carry  
103 out the assigned work in a proper and skillful manner or who is disrespectful,  
104 intemperate, violent, or disorderly. The worker shall be removed forthwith by the  
105 Contractor and will not work again without the written permission of the Engineer.

106  
107 **108.05 Contract Time.**

108  
109 **(A) Calculation of Contract Time.** When the contract time is on a  
110 working day basis, the total contract time allowed for the performance of the  
111 work will be the number of working days shown in the contract plus any  
112 additional working days authorized in writing as provided hereinafter. The  
113 count of elapsed working days to be charged against contract time, will begin  
114 from the Start Work Date and will continue consecutively to the date of  
115 Substantial Completion. When multiple shifts are used to perform the work,  
116 the State will not consider the hours worked over the normal eight working  
117 hours per day or night as an additional working day.

118  
119 When the contract is on a calendar day basis, the total contract time  
120 allowed for the performance of the work will be the number of days shown in  
121 the contract plus any additional days authorized in writing as provided  
122 hereinafter. The count of elapsed days to be charged against contract time  
123 will begin from the Start Work Date and will continue consecutively to the  
124 date of Substantial Completion. The Engineer will exclude days elapsing  
125 between the orders of the Engineer to suspend work and resume work for  
126 suspensions not the fault of the Contractor.

127  
128 **(B) Modifications of Contract Time.** Whenever the Contractor believes  
129 that an extension of contract time is justified, the Contractor shall serve  
130 written notice on the Engineer not more than five working days after the  
131 occurrence of the event that causes a delay or justifies a contract time  
132 extension. Contract time may be adjusted for the following reasons or  
133 events, but only if and to the extent the critical path has been affected:

134  
135 **(1) Changes in the Work, Additional Work, and Delays Caused**  
136 **by the State.** If the Contractor believes that an extension of time is

137 justified on account of any act or omission by the State, and is not  
138 adequately provided for in a field order or change order, it must  
139 request the additional time as provided above. At the request of the  
140 Engineer, the Contractor must show how the critical path will be  
141 affected and must also support the time extension request with  
142 schedules, as well as statements from its subcontractors, suppliers, or  
143 manufacturers, as necessary. Claims for compensation for any  
144 altered or additional work will be determined pursuant to Subsection  
145 104.02 – Changes.  
146

147 Additional time to perform the extra work will be added to the  
148 time allowed in the contract without regard to the date the change  
149 directive was issued, even if the contract completion date has passed.  
150 A change requiring time issued after contract time has expired will not  
151 constitute an excusal or waiver of pre-existing Contractor delay.  
152

153 **(2) Delay for Permits.** For delays in the routine application and  
154 processing time required to obtain necessary permits, including  
155 permits to be obtained from State agencies, the Engineer may grant  
156 an extension provided that the permit takes longer than 30 days to  
157 acquire and the delay is not caused by the Contractor, and provided  
158 that as soon as the delay occurs, the Contractor notifies the Engineer  
159 in writing that the permits are not available. Permits required by the  
160 contract that take less than 30 days to acquire from the time which the  
161 appropriate documents are granted shall be acquired between Notice  
162 to Proceed and Start Work Date or accounted for in the contractor's  
163 progress schedule. Time extensions will be the exclusive relief  
164 granted on account of such delays.  
165

166 **(3) Delays Beyond Contractor's Control.** For delays caused by  
167 acts of God, a public enemy, fire, inclement weather days or adverse  
168 conditions resulting therefrom, earthquakes, floods, epidemics,  
169 quarantine restrictions, labor disputes impacting the Contractor or the  
170 State, freight embargoes and other reasons beyond the Contractor's  
171 control, the Contractor may be granted an extension of time provided  
172 that:  
173

174 **(a)** In the written notice of delay to the Engineer, the  
175 Contractor describes possible effects on the completion date of  
176 the contract. The description of delays shall:  
177

- 178 **1.** State specifically the reason or reasons for the  
179 delay and fully explain in a detailed chronology how the  
180 delay affects the critical path.  
181

182 2. Include copies of pertinent documentation to  
183 support the time extension request.

184  
185 3. Cite the anticipated period of delay and the time  
186 extension requested.

187  
188 4. State either that the above circumstances have  
189 been cleared and normal working conditions restored as  
190 of a certain day or that the above circumstances will  
191 continue to prevent completion of the project.

192  
193 (b) The Contractor shall notify the Engineer in writing when  
194 the delay ends. Time extensions will be the exclusive relief  
195 granted and no additional compensation will be paid the  
196 Contractor for such delays.

197  
198 (4) **Delays in Delivery of Materials or Equipment.** For delays in  
199 delivery of materials or equipment, which occur as a result of  
200 unforeseeable causes beyond the control and without fault of the  
201 Contractor, its subcontractor(s) or supplier(s), time extensions shall be  
202 the exclusive relief granted and no additional compensation will be  
203 paid the Contractor on account of such delay. The delay shall not  
204 exceed the difference between the originally scheduled delivery date  
205 and the actual delivery date. The Contractor may be granted an  
206 extension of time provided that it complies with the following  
207 procedures:

208  
209 (a) The Contractor's written notice to the Engineer must  
210 describe the delays and state the effect such delays may have  
211 on the critical path.

212  
213 (b) The Contractor, if requested, must submit to the  
214 Engineer within five days after a firm delivery date for the  
215 material and equipment is established, a written statement  
216 regarding the delay. The Contractor must justify the delay as  
217 follows:

218  
219 1. State specifically all reasons for the delay.  
220 Explain in a detailed chronology the effect of the delay  
221 on the critical path.

222  
223 2. Submit copies of purchase order(s), factory  
224 invoice(s), bill(s) of lading, shipping manifest(s), delivery  
225 tag(s), and any other documents to support the time  
226 extension request.

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3. Cite the start and end date of the delay and the time extension requested.

**(5) Delays for Suspension of Work.** When the performance of the work is totally suspended for one or more days (calendar or working days, as appropriate) by order of the Engineer in accordance with Subsections 108.10(A)(1), 108.10(A)(2), or 108.10(A)(5) the number of days from the effective date of the Engineer’s order to suspend operations to the effective date of the Engineer’s order to resume operations shall not be counted as contract time and the contract completion date will be adjusted. During periods of partial suspensions of the work, the Contractor will be granted a time extension only if the partial suspension affects the critical path. If the Contractor believes that an extension of time is justified for a partial suspension of work, it must request the extension in writing at least five working days before the partial suspension will affect the critical operation(s) in progress. The Contractor must show how the critical path was increased based on the status of the work and must also support its claim if requested, with statements from its subcontractors. A suspension of work will not constitute a waiver of pre-existing Contractor delay.

**(6) Contractor Caused Delays.** No time extension will be granted under the following circumstances:

- (a)** Delays within the Contractor’s control in performing the work caused by the Contractor, subcontractor, supplier, or any combination thereof.
- (b)** Delays within the Contractor’s control in arrival of materials and equipment caused by the Contractor, subcontractor, supplier, or any combination thereof, in ordering, fabricating, and delivery.
- (c)** Delays requested for changes which do not affect the critical path.

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(d) Delays caused by the failure of the Contractor to make submittals in a timely manner for review and acceptance by the Engineer, such as but not limited to shop drawings, descriptive sheets, material samples, and color samples except as covered in Subsection 108.05(B)(3) – Delays Beyond Contractor’s Control and 108.05(B)(4) – Delays in Delivery of Materials or Equipment.

(e) Delays caused by the failure to submit sufficient information and data in a timely manner in the proper form in order to obtain necessary permits related to the work.

(f) Failure to follow the procedure within the time allowed by contract to request a time extension.

(g) Failure of the Contractor to provide evidence sufficient to support the time extension request.

(7) **Reduction in Time.** If the State deletes or modifies any portion of the work, an appropriate reduction of contract time may be made in accordance with Subsection 104.02 - Changes.

**108.06 Progress Schedules.**

(A) **Forms of Schedule.** All schedules shall be submitted using the specific computer program designated in the bid documents. If no such scheduling software program is designated, then all schedules shall be submitted using the latest version of Microsoft Project by Microsoft or approved equivalent software program.

Schedule submittals shall be as follows:

(1) **For Contracts \$2,000,000 or less or For Contract Time 100 Working Days or 140 Calendar Days or Less.** For contracts of \$2,000,000 or less or for contract time of 100 working days or 140 calendar days or less, the progress schedule will be a Time Scaled Logic Diagram (TSLD). The Contractor shall submit a TSLD submittal package meeting the following requirements and having these essential and distinctive elements:

(a) The major features of work, such as but not limited to BMP installation, grubbing, roadway excavation, structure excavation, structure construction, shown in the chronological order in which the Contractor proposes to work that feature or work and its location on the project. The schedule shall account for normal inclement weather, unusual soil or other conditions

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that may influence the progress of the work, schedules, and coordination required by any utility, off or on site fabrications, and other pertinent factors that relate to progress;

**(b)** All features listed or not listed in the contract documents that the Contractor considers a controlling factor for the timely completion of the contract work.

**(c)** The time span and sequence of the activities or events for each feature, and its interrelationship and interdependencies in time and logic to other features in order to complete the project.

**(d)** The total anticipated time necessary to complete work required by the contract.

**(e)** A chronological listing of critical intermediate dates or time periods for features or milestones or phases that can affect timely completion of the project.

**(f)** Major activities related to the location on the project.

**(g)** Non-construction activities, such as submittal and acceptance periods for shop drawings and material, procurement, testing, fabrication, mobilization, and demobilization or order dates of long lead material.

**(h)** Set schedule logic for out of sequence activities to retain logic. In addition, open ends shall be non-critical.

**(i)** Show target bars for all activities.

**(j)** Vertical and horizontal sight lines both major and minor shall be used as well as a separator line between groups. The Engineer will determine frequency and style.

**(k)** The file name, print date, revision number, data and project title and number shall be included in the title block.

**(l)** Have columns with the appropriate data in them for activity ID, description, original duration, remaining duration, early start, early finish, total float, percent complete, resources. The resource column shall list who is responsible for the work to be done in the activity. These columns shall be to the left of the bar chart.

356 **(2) For Contracts Which Have A Contract Amount More Than**  
357 **\$2,000,000 Or Having A Contract Time Of More Than 100 Working**  
358 **Days Or 140 Calendar Days.** For contracts which have a contract  
359 amount more than \$2,000,000 or contract time of more than 100  
360 working days or 140 calendar days, the Contractor shall submit a  
361 Timed-Scaled Logic Diagram (TSLD) meeting the following  
362 requirements and having these essential and distinctive elements:

363  
364 **(a)** The information and requirements listed in Subsection  
365 108.06(A)(1) – For Contracts \$2,000,000 or Less or For  
366 Contract Time 100 Working Days or 140 Calendar Days or  
367 Less.

368  
369 **(b)** Additional reports and graphics available from the  
370 software as requested by the Engineer.

371  
372 **(c)** Sufficient detail to allow at least weekly monitoring of the  
373 Contractor and subcontractor's operations.

374  
375 **(d)** The time scaled schematic shall be on a calendar or  
376 working days basis. What will be used shall be determined by  
377 how the contract keeps track of time. It will be the same. Plot  
378 the critical calendar dates anticipated.

379  
380 **(e)** Breakdown of activity, such as forming, placing  
381 reinforcing steel, concrete pouring and curing, and stripping in  
382 concrete construction. Indicate location of work to be done in  
383 such detail that it would be easily determined where work would  
384 be occurring within approximately 200 feet.

385  
386 **(f)** Latest start and finish dates for critical path activities.

387  
388 **(g)** Identify responsible subcontractor, supplier, and others  
389 for their respective activity.

390  
391 **(h)** No individual activity shall have duration of more than 20  
392 calendar days unless requested and approved by the Engineer.

393  
394 **(i)** All activities shall have work breakdown structure codes  
395 and activity codes. The activity codes shall have coding that  
396 incorporates information for phase, location, who is  
397 responsible for doing work and type of operation and activity  
398 description.

399  
400 **(j)** Incorporate all physical access and availability  
401 restraints.



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**(B) Inspection and Testing.** All schedules shall provide reasonable time and opportunity for the Engineer to inspect and test each work activity.

**(C) Engineer’s Acceptance of Progress Schedule.** The submittal of, and the Engineer’s receipt of any progress schedule, shall not be deemed an agreement to modify any terms or conditions of the contract. Any modifications to the contract terms and conditions that appear in or may be inferred from an acceptable schedule will not be valid or enforceable unless and until the Engineer exercises discretion to issue an appropriate change order. Nor shall any submittal or receipt imply the Engineer’s approval of the schedule’s breakdown, its individual elements, any critical path that may be shown, nor shall it obligate the State to make its personnel available outside normal working hours or the working hours established by the Contract in order to accommodate such schedule. The Contractor has the risk of all elements (whether or not shown) of the schedule and its execution. No claim for additional compensation, time, or both, shall be made by the Contractor or recognized by the Engineer for delays during any period for which an acceptable progress schedule or an updated progress schedule as required by Subsection 108.06(E) – Contractor’s Continuing Schedule Submittal Requirements had not been submitted. Any acceptance or approval of the schedule shall be for general format only and shall not be deemed an agreement by the State that the construction means, methods, and resources shown on the schedule will result in work that conforms to the contract requirements or that the sequences or durations indicated are feasible.

**(D) Initial Progress Schedule.** The Contractor shall submit an initial progress schedule. The initial progress schedule shall consist of the following:

- (1)** Four sets of the TSLD schedule.
- (2)** All the software files and data to re-create the TSLD in a computerized software format as specified by the Engineer.
- (3)** A listing of equipment that is anticipated to be used on the project. Including the type, size, make, year of manufacture, and all information necessary to identify the equipment in the Rental Rate Blue Book for Construction Equipment.
- (4)** An anticipated manpower requirement graph plotting contract time and total manpower requirement. This may be superimposed over the payment graph.

447 (5) A Method Statement that is a detailed narrative describing the  
448 work to be done and the method by which the work shall be  
449 accomplished for each major activity. A major activity is an activity  
450 that:

- 451 (a) Has a duration longer than five days.
- 452 (b) Is a milestone activity.
- 453 (c) Is a contract item that exceeds \$10,000 on the contract  
454 cost proposal.
- 455 (d) Is a critical path activity.
- 456 (e) Is an activity designated as such by the Engineer.

457 Each Method Statement shall include the following items  
458 needed to fulfill the schedule:

- 459 (a) Quantity, type, make, and model of equipment.
- 460 (b) The manpower to do the work, specifying worker  
461 classification.
- 462 (c) The production rate per eight hour day, or the working  
463 hours established by the contract documents needed to meet  
464 the time indicated on the schedule. If the production rate is not  
465 for eight hours, the number of working hours shall be indicated.
- 466 (6) Two sets of color time-scaled project evaluation and review  
467 technique charts ("PERT") using the activity box template of Logic –  
468 Early Start or such other template designated by the Engineer.

469 If the contract documents establish a sequence or order for the work,  
470 the initial progress schedule shall conform to such sequence or order.

471 **(E) Contractor's Continuing Schedule Submittal Requirements.** After  
472 the acceptance of the initial TSLD and when construction starts, the  
473 Contractor shall submit four plotted progress schedules, two PERT charts,  
474 and reports on all construction activities every two weeks (bi-weekly). This  
475 scheduled bi-weekly submittal shall also include an updated version of the  
476 project schedule in a computerized software format as specified by the  
477 Engineer. The submittal shall have all the information needed to re-create  
478 that time period's TSLD plot and reports. The bi-weekly submittal shall  
479 include, but not limited to, an update of activities based on actual durations,  
480

492 all new activities and any changes in duration or start or finish dates of any  
493 activity.

494  
495 The Contractor shall submit with every update, in report form  
496 acceptable to the Engineer, a list of changes to the progress schedule since  
497 the previous schedule submittal. The Engineer may change the frequency  
498 of the submittal requirements but may not require a submittal of the schedule  
499 to be more than once a week. The Engineer may decrease the frequency of  
500 the submittal of the bi-weekly schedule.

501  
502 The Contractor shall submit updates of the anticipated work  
503 completion graph, equipment listing, manpower requirement graph or  
504 method statement when requested by the Engineer. The Contractor shall  
505 submit such updates within 4 calendar days from the date of the request by  
506 the Engineer.

507  
508 The Engineer may withhold progress payment until the Contractor is  
509 in compliance with all schedule update requirements

510  
511 **(F) Float.** All float appearing on a schedule is a shared commodity. Float  
512 does not belong to or exist for the exclusive use or benefit of either the State  
513 or the Contractor. The State or the Contractor has the opportunity to use  
514 available float until it is depleted. Float has no monetary value.

515  
516 **(G) Scheduled Meetings.** The Contractor shall meet on a bi-weekly basis  
517 with the Engineer to review the progress schedule. The Contractor shall have  
518 someone attending the meeting that can answer all questions on the TSLD  
519 and other schedule related submittals.

520  
521 **(H) Accelerated Schedule; Early Completion.** If the Contractor submits  
522 an accelerated schedule (shorter than the contract time), the Engineer's  
523 review and acceptance of an accelerated schedule does not constitute an  
524 agreement or obligation by the State to modify the contract time or completion  
525 date. The Contractor is solely responsible for and shall accept all risks and  
526 any delays, other than those that can be directly and solely attributable to the  
527 State, that may occur during the work, until the contract completion date. The  
528 contract time or completion date is established for the benefit of the State  
529 and cannot be changed without an appropriate change order or Substantial  
530 Completion granted by the State. The State may accept the work before the  
531 completion date is established, but is not obligated to do so.

532 If the TSLD indicates an early completion of the project, the Contractor  
533 shall, upon submittal of the schedule, cooperate with the Engineer in  
534 explaining how it will be achieved. In addition, the Contractor shall submit  
535 the above explanation in writing which shall include the State's part, if any, in  
536 achieving the early completion date. Early completion of the project shall not  
537 rely on changes to the Contract Documents unless approved by the  
538 Engineer.

539  
540 **(I) Contractor Responsibilities.** The Contractor shall promptly respond  
541 to any inquiries from the Engineer regarding any schedule submission. The  
542 Contractor shall adjust the schedule to address directives from the Engineer  
543 and shall resubmit the TSLD package to the Engineer until the Engineer finds  
544 it acceptable.

545  
546 The Contractor shall perform the work in accordance with the  
547 submitted TSLD. The Engineer may require the Contractor to provide  
548 additional work forces and equipment to bring the progress of the work into  
549 conformance with the TSLD at no increase in contract price or contract time  
550 whenever the Engineer determines that the progress of the work does not  
551 insure completion within the specified contract time.

552  
553 **108.07 Weekly Meeting.** In addition to the bi-weekly schedule meetings, the  
554 Contractor shall be available to meet once a week with the Engineer at the time and  
555 place as determined by the Engineer to discuss the work and its progress including  
556 but not limited to, the progress of the project, potential problems, coordination of  
557 work, submittals, erosion control reports, etc. The Contractor's personnel attending  
558 shall have the authority to make decisions and answer questions.

559  
560 The Contractor shall bring to weekly meetings a detailed work schedule  
561 showing the next three weeks' work. Number of copies of the detailed work  
562 schedule to be submitted will be determined by the Engineer. The three-week  
563 schedule is in addition to the TSLD and shall in no way be considered as a substitute  
564 for the TSLD or vice versa. The three-week schedule shall show:

565  
566 **(a)** All construction events, traffic control and BMP related activities in  
567 such detail that the Engineer will be able to determine at what location and  
568 type of work will be done for any day for the next three weeks. This is for the  
569 State to use to plan its manpower requirements for that time period.

570  
571 **(b)** The duration of all events and delays.

572  
573 **(c)** The critical path clearly marked in red or marked in a manner that  
574 makes it clearly distinguishable from other paths and is acceptable to the  
575 Engineer.

576  
577 **(d)** Critical submittals and requests for information (RFI's).

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(e) The project title, project number, date created, period the schedule covers, Contractor's name and creator of the schedule on each page.

Two days prior to each weekly meeting, the Contractor shall submit a list of outstanding submittals, RFIs and issues that require discussion.

**108.08 Liquidated Damages for Failure to Complete the Work or Portions of the Work on Time.** The actual amount of damages resulting from the Contractor's failure to complete the contract in a timely manner is difficult to accurately determine. Therefore, the amount of such damages shall be liquidated damages as set forth herein and in the special provisions. The State may, at its discretion, deduct the amount from monies due or that may become due under the contract.

When the Contractor fails to reach substantial completion of the work for which liquidated damages are specified, within the time or times fixed in the contract or any extension thereof, in addition to all other remedies for breach that may be available to the State, the Contractor shall pay liquidated damages to the State, in the amount of \$ 3,000.00 per working day.

**(A) Liquidated Damages Upon Termination.** If the State terminates on account of Contractor's default, liquidated damages may be charged against the defaulting Contractor and its surety until final completion of work.

**(B) Liquidated Damages for Failure to Complete the Punchlist.** The Contractor shall complete the work on any punchlist created after the pre-final inspection, within the contract time or any extension thereof.

When the Contractor fails to complete the work on such punchlist within the contract time or any extension thereof, the Contractor shall pay liquidated damages to the State of 20 percent of the amount of liquidated damages established for failure to substantially complete the work within contract time. Liquidated damages shall not be assessed for the period between:

- (1) Notice from the Contractor that the project is substantially complete and the time the punchlist is delivered to the Contractor.
- (2) The date of the completion of punchlist as determined by the Engineer and the date of the successful final inspection, and
- (3) The date of the Final Inspection that results in Substantial Completion and the receipt by the Contractor of the written notice of Substantial Completion.

623 (C) **Actual Damages Recoverable If Liquidated Damages Deemed**  
624 **Unenforceable.** In the event a court of competent jurisdiction holds that any  
625 liquidated damages assessed pursuant to this contract are unenforceable,  
626 the State will be entitled to recover its actual damages for Contractor's failure  
627 to complete the work, or any designated portion of the work within the time  
628 set by the contract.

629  
630 **108.09 Rental Fees for Unauthorized Lane Closure or Occupancy.** In  
631 addition to all other remedies available to the State for Contractor's breach of the  
632 terms of the contract, the Engineer will assess the rental fees in the amount of  
633 \$2,500 for every one-to fifteen-minute increment for each roadway lane closed to  
634 public use or occupied beyond the time periods authorized in the contract or by the  
635 Engineer. The maximum amount assessed per day shall be \$25,000. The State  
636 may, at its discretion, deduct the amount from monies due or that may become due  
637 under the contract. The rental fee may be waived in whole or part if the Engineer  
638 determines that the unauthorized period of lane closure or occupancy was due to  
639 factors beyond the control of the Contractor. Equipment breakdown is not a cause  
640 to waive liquidated damages.

641  
642 **108.10 Suspension of Work.**

643  
644 (A) **Suspension of Work.** The Engineer may, by written order, suspend  
645 the performance of the work, either in whole or in part, for such periods as  
646 the Engineer may deem necessary, for any cause, including but not limited  
647 to:

648  
649 (1) Weather or soil conditions considered unsuitable for  
650 prosecution of the work.

651  
652 (2) Whenever a redesign that may affect the work is deemed  
653 necessary by the Engineer.

654  
655 (3) Unacceptable noise or dust arising from the construction even  
656 if it does not violate any law or regulation.

657  
658 (4) Failure on the part of the Contractor to:

659  
660 (a) Correct conditions unsafe for the general public or for  
661 the workers.

662  
663 (b) Carry out orders given by the Engineer.

664 (c) Perform the work in strict compliance with the provisions  
665 of the contract.

666  
667 (d) Provide adequate supervision on the jobsite.  
668 (5) The convenience of the State.  
669

670 (B) **Partial and Total Suspension.** Suspension of work on some but not  
671 all items of work shall be considered a “partial suspension”. Suspension of  
672 work on all items shall be considered “total suspension”. The period of  
673 suspension shall be computed from the date set out in the written order for  
674 work to cease until the date of the order for work to resume.

675  
676 (C) **Reimbursement to Contractor.** In the event that the Contractor is  
677 ordered by the Engineer in writing as provided herein to suspend all work  
678 under the contract for the reasons specified in Subsections 108.10(A)(2),  
679 108.10(A)(3), or 108.10(A)(5) of the “Suspension of Work” paragraph, the  
680 Contractor may be reimbursed for actual direct costs incurred on work at the  
681 jobsite, as authorized in writing by the Engineer, including costs expended  
682 for the protection of the work. An allowance of 5 percent for indirect  
683 categories of delay costs will be paid on any reimbursed direct costs,  
684 including extended branch and home-office overhead and delay impact  
685 costs. No allowance will be made for anticipated profits. Payment for  
686 equipment which is ordered to standby during such suspension of work shall  
687 be made as described in Subsection 109.06(H) - Idle and Standby  
688 Equipment.  
689

690 (D) **Cost Adjustment.** If the performance of all or part of the work is  
691 suspended for reasons beyond the control of the Contractor except an  
692 adjustment shall be made for any increase in cost of performance of this  
693 contract (excluding profit) necessarily caused by such suspension, and the  
694 contract modified in writing accordingly.  
695

696 However, no adjustment to the contract price shall be made for any  
697 suspension, delay, or interruption:  
698

699 (1) For weather related conditions.  
700

701 (2) To the extent that performance would have been so  
702 suspended, delayed, or interrupted by any other cause, including the  
703 fault or negligence of the Contractor.  
704

705 (3) Or, for which an adjustment is provided for or excluded under  
706 any other provision of this Contract.  
707

708 **(E) Claims for Adjustment.** Any adjustment in contract price made shall  
709 be determined in accordance with Subsections 104.02 – Changes and  
710 104.06 – Methods of Price Adjustment.  
711

712 Any claims for such compensation shall be filed in writing with the  
713 Engineer within 30 days after the date of the order to resume work or the  
714 claim will not be considered. The claim shall conform to the requirements of  
715 Subsection 107.15(D) – Making of a Claim. The Engineer will take the claim  
716 under consideration, may make such investigations as are deemed  
717 necessary and will be the sole judge as to the equitability of the claim. The  
718 Engineer’s decision will be final.  
719

720 **(F) No Adjustment.** No provision of this clause shall entitle the  
721 Contractor to any adjustments for delays due to failure of its surety, the  
722 cancellation or expiration of any insurance coverage required by the contract  
723 documents, for suspensions made at the request of the Contractor, for any  
724 delay required under the contract, for suspensions, either partial or whole,  
725 made by the Engineer under Subsection 108.10(A)(4) of the “Suspension of  
726 work” paragraph.  
727

728 **108.11 Termination of Contract for Cause.**  
729

730 **(A) Default.** If the Contractor refuses or fails to perform the work, or any  
731 separable part thereof, with such diligence as will assure its completion within  
732 the time specified in this contract, or any extension thereof, or commits any  
733 other material breach of this contract, and further fails within seven days after  
734 receipt of written notice from the Engineer to commence and continue  
735 correction of the refusal or failure with diligence and promptness, the  
736 Engineer may, by written notice to the Contractor, declare the Contractor in  
737 breach and terminate the Contractor’s right to proceed with the work or the  
738 part of the work as to which there has been delay or other breach of contract.  
739 In such event, the State may take over the work, perform the same to  
740 completion, by contract or otherwise, and may take possession of, and utilize  
741 in completing the work, the materials, appliances, and plants as may be on  
742 the site of the work and necessary therefore. Whether or not the Contractor’s  
743 right to proceed with the work is terminated, the Contractor and the  
744 Contractor’s sureties shall be liable for any damage to the State resulting  
745 from the Contractor’s refusal or failure to complete the work within the  
746 specified time.  
747

748 **(B) Additional Rights and Remedies.** The rights and remedies of the  
749 State provided in this contract are in addition to any other rights and remedies  
750 provided by law.  
751

752 **(C) Costs and Charges.** All costs and charges incurred by the State,  
753 together with the cost of completing the work under contract, will be deducted



754 from any monies due or which would or might have become due to the  
755 Contractor had it been allowed to complete the work under the contract. If  
756 such expense exceeds the sum which would have been payable under the  
757 contract, then the Contractor and the surety shall be liable and shall pay the  
758 State the amount of the excess.  
759

760 In case of termination, the Engineer will limit any payment to the  
761 Contractor to the part of the contract satisfactorily completed at the time of  
762 termination. Payment will not be made until the work has satisfactorily been  
763 completed and all required documents, including the tax clearance required  
764 by Subsection 109.11 – Final Payment are submitted by the Contractor.  
765 Termination shall not relieve the Contractor or Surety from liability for  
766 liquidated damages.  
767

768 **(D) Erroneous Termination for Cause.** If, after notice of termination of  
769 the Contractor's right to proceed under this section, it is determined for any  
770 reason that good cause did not exist to allow the State to terminate as  
771 provided herein, the rights and obligations of the parties shall be the same  
772 as, and the relief afforded the Contractor shall be limited to, the provisions  
773 contained in Subsection 108.12 – Termination for Convenience.  
774

#### 775 **108.12 Termination For Convenience.**

776

777 **(A) Terminations.** The Director may, when the interests of the State so  
778 require, terminate this contract in whole or in part, for the convenience of the  
779 State. The Director will give written notice of the termination to the Contractor  
780 specifying the part of the contract terminated and when termination becomes  
781 effective.  
782

783 **(B) Contractor's Obligations.** The Contractor shall incur no further  
784 obligations in connection with the terminated work and on the date set in the  
785 notice of termination the Contractor shall stop work to the extent specified.  
786 The Contractor shall also terminate outstanding orders and subcontracts as  
787 they relate to the terminated work. The Contractor shall settle the liabilities  
788 and claims arising out of the termination of subcontracts and orders  
789 connected with the terminated work subject to the State's approval. The  
790 Engineer may direct the Contractor to assign the Contractor's right, title, and  
791 interest under terminated orders or subcontracts to the State. The Contractor  
792 must still complete the work not terminated by the notice of termination and  
793 may incur obligations as necessary to do so.  
794

795 **(C) Right to Construction and Goods.** The Engineer may require the  
796 Contractor to transfer title and to deliver to the State in the manner and to the  
797 extent directed by the Engineer, the following:

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- (1) Any completed work.
- (2) Any partially completed construction, goods, materials, parts, tools, dies, jigs, fixtures, drawings, information, and contract rights (hereinafter called "construction material") that the Contractor has specifically produced or specially acquired for the performance of the terminated part of this contract.
- (3) The Contractor shall protect and preserve all property in the possession of the Contractor in which the State has an interest. If the Engineer does not elect to retain any such property, the Contractor shall use its best efforts to sell such property and construction materials for the State's account in accordance with the standards of HRS Chapter 490:2-706.

**(D) Compensation.**

- (1) The Contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data, submitted to the extent required by HAR Subchapter 15, Chapter 3-122. If the Contractor fails to file a termination claim within one year from the effective date of termination, the Engineer may pay the Contractor, if at all, an amount set in accordance with Subsection 108.12(D)(3).
- (2) The Engineer and the Contractor may agree to a settlement provided the Contractor has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the State, the proceeds of any sales of construction, supplies, and construction materials under Subsection 108.12(C)(3), and the proportionate contract price of the work not terminated.
- (3) Absent complete agreement, the Engineer will pay the Contractor the following amounts less any payments previously made under the contract:
  - (a) The cost of all contract work performed prior to the effective date of the notice of termination work plus a 5 percent markup on the actual direct costs, including amounts paid to subcontractor, less amounts paid or to be paid for completed portions of such work; provided, however, that if it appears that the Contractor would have sustained a loss if the entire contract would have been completed, no markup shall be allowed or included and the amount of compensation shall

844 be reduced to reflect the anticipated rate of loss. No anticipated  
845 profit or consequential damage will be due or paid.

846  
847 **(b)** Subcontractors shall be paid a markup of 10 percent on  
848 their direct job costs incurred to the date of termination. No  
849 anticipated profit or consequential damage will be due or paid  
850 to any subcontractor. These costs must not include payments  
851 made to the Contractor for subcontract work during the contract  
852 period.

853  
854 **(c)** The total sum to be paid the Contractor shall not exceed  
855 the total contract price reduced by the amount of any sales of  
856 construction supplies, and construction materials.

857  
858 **(4)** Cost claimed, agreed to, or established by the State shall be in  
859 accordance with HAR Chapter 3-123.

860  
861 **108.13 Pre-Final and Final Inspections.**

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863 **(A) Inspection Requirements.** Before the Engineer undertakes a final  
864 inspection of any work, a pre-final inspection must first be conducted. The  
865 Contractor shall notify the Engineer that the work has reached substantial  
866 completion and is ready for pre-final inspection.

867  
868 **(B) Pre-Final Inspection.** Before notifying the Engineer that the work has  
869 reached substantial completion, the Contractor shall inspect the project and  
870 test all installed items with all of its subcontractors as appropriate. The  
871 Contractor shall also submit the following documents as applicable to the  
872 work:

- 873  
874 **(1)** All written guarantees required by the contract.  
875  
876 **(2)** Two accepted final field-posted drawings as specified in  
877 Section 648 – Field-Posted Drawings;  
878  
879 **(3)** Complete weekly certified payroll records for the Contractor  
880 and Subcontractors.  
881  
882 **(4)** Certificate of Plumbing and Electrical Inspection.  
883  
884 **(5)** Certificate of building occupancy as required.  
885  
886 **(6)** Certificate of Soil and Wood Treatments.  
887  
888 **(7)** Certificate of Water System Chlorination.  
889

890 (8) Certificate of Elevator Inspection, Boiler and Pressure Pipe  
891 Inspection.

892  
893 (9) Maintenance Service Contract and two copies of a list of all  
894 equipment installed.

895  
896 (10) Current Tax clearance. The contractor will be required to  
897 submit an additional tax clearance certificate when the final payment  
898 is made.

899  
900 (11) And any other final items and submittals required by the  
901 contract documents.

902  
903 (C) Procedure. When in compliance with the above requirements, the  
904 Contractor shall notify the Engineer in writing that the project has reached  
905 substantial completion and is ready for pre-final inspection.

906  
907 The Engineer will then make a preliminary determination as to whether  
908 or not the project is substantially complete and ready for pre-final inspection.  
909 The Engineer may, in writing, postpone until after the pre-final inspection the  
910 Contractor's submittal of any of the items listed in Subsection 108.13(B) –  
911 Pre-Final Inspection, herein, if in the Engineer's discretion it is in the interest  
912 of the State to do so.

913  
914 If, in the opinion of the Engineer, the project is not substantially  
915 complete, the Engineer will provide the Contractor a punchlist of specific  
916 deficiencies in writing which must be corrected or finished before the work  
917 will be ready for a pre-final inspection. The Engineer may add to or otherwise  
918 modify this punchlist from time to time. The Contractor shall take immediate  
919 action to correct the deficiencies and must repeat all steps described above  
920 including written notification that the work is ready for pre-final inspection.

921  
922 After the Engineer is satisfied that the project appears substantially  
923 complete a final inspection shall be scheduled within ten working days after  
924 receipt of the Contractor's latest letter of notification that the project is ready  
925 for final inspection.

926  
927 If, as a result of the pre-final inspection, the Engineer determines the  
928 work is not substantially complete, the Engineer will inform the Contractor in  
929 writing as to specific deficiencies which must be corrected before the work  
930 will be ready for another pre-final inspection. If the Engineer finds the work  
931 is substantially complete but finds deficiencies that must be corrected before  
932 the work is ready for final inspection, the Engineer will prepare in writing and  
933 deliver to the Contractor a punchlist describing such deficiencies.

934 At any time before final acceptance, the Engineer may revoke the  
935 determination of substantial completion if the Engineer finds that it was not  
936 warranted and will notify the Contractor in writing the reasons therefore  
937 together with a description of the deficiencies negating the declaration.  
938

939 When the date of substantial completion has been determined by the  
940 State, liquidated damages for the failure to complete the punchlist, if due to  
941 the State will be assessed in pursuant to Subsection 108.08(B) - Liquidated  
942 Damages for Failure to Complete the Punchlist.  
943

944 **(D) Punchlist; Clean Up and Final Inspection.** Upon receiving a  
945 punchlist after pre-final inspection, the Contractor shall promptly devote all  
946 required time, labor, equipment, materials and incidentals to correct and  
947 remedy all punchlist deficiencies. The Engineer may add to or otherwise  
948 modify this punchlist until substantial completion of the project.  
949

950 Before final inspection of the work, the Contractor shall clean all  
951 ground occupied by the Contractor in connection with the work of all rubbish,  
952 excess materials temporary structures and equipment, shall remove all  
953 graffiti and defacement of the work and all parts of the work and the worksite  
954 must be left in a neat and presentable condition to the satisfaction of the  
955 Engineer.  
956

957 Final inspection will occur within ten working days after the Contractor  
958 notifies the Engineer in writing that all punchlist deficiencies remaining after  
959 the pre-final inspection have been completed and the Engineer concurs. If  
960 the Engineer determines that deficiencies still remain at the final inspection,  
961 the work will not be accepted and the Engineer will notify the Contractor, in  
962 writing, of the deficiencies which shall be corrected and the steps above  
963 repeated.  
964

965 If the Contractor fails to correct the deficiencies and complete the work  
966 by the established or agreed date, the State may correct the deficiencies by  
967 whatever method it deems appropriate and deduct the cost from any  
968 payments due the Contractor.  
969

970 **108.14 Substantial Completion and Final Acceptance.**  
971

972 **(A) Substantial Completion.** When the Engineer finds that the  
973 Contractor has satisfactorily completed all work for the project in compliance  
974 with the contract, with the exception of the planting period and the plant  
975 establishment period, the Engineer will notify the Contractor, in writing, of the  
976 project's substantial completion, effective as of the date of the final  
977 inspection. The substantial completion date shall determine end of contract  
978 time and relieve contractor of any additional accumulation of liquidated  
979 damages for failure to complete the punchlist.

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**(B) Final Acceptance.** When the Engineer finds that the Contractor has satisfactorily completed all contract work in compliance with the contract including all plant establishment requirements, and all the materials have been accepted by the State, the Engineer will issue a Final Acceptance Letter. The Final Acceptance date shall determine the commencement of all guaranty periods subject to Subsection 108.16 – Contractor’s Responsibility for Work; Risk of Loss or Damage.

**108.15 Use of Structure or Improvement.** The State has the right to use the structure, equipment, improvement, or any part thereof, at any time after it is considered by the Engineer as available. In the event that the structure, equipment or any part thereof is used by the State before final acceptance, the Contractor is not relieved of its responsibility to protect and preserve all the work until final acceptance.

**108.16 Contractor’s Responsibility for Work; Risk of Loss or Damage.** Until the written notice of final acceptance has been received, the Contractor shall take every precaution against loss or damage to any part of the work by the action of the elements or from any other cause whatsoever, whether arising from the performance or from the non-performance of the work. The Contractor shall rebuild, repair, restore and make good all loss or damage to any portion of the work resulting from any cause before its receipt of the written notice of final acceptance and shall bear the risk and expense thereof.

The risk of loss or damage to the work from any hazard or occurrence that may or may not be covered by a builder’s risk policy is that of the Contractor and Surety, unless such risk of loss is placed elsewhere by express language in the contract documents.

**108.17 Guarantee of Work.**

**(1)** Regardless of, and in addition to, any manufacturers’ warranties, all work and equipment shall be guaranteed by the Contractor against defects in materials, equipment or workmanship for one year from the date of final acceptance or as otherwise specified in the contract documents.

**(2)** When the Engineer determines that repairs or replacements of any guaranteed work and equipment is necessary due to materials, equipment, or workmanship which are inferior, defective, or not in accordance with the terms of the contract, the Contractor shall, at no increase in contract price or contract time, and within five working days of receipt of written notice from the State, commence to all of the following:

**(a)** Correct all noted defects and make replacements, as directed by the Engineer, in the equipment and work.

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(b) Repair or replace to new or pre-existing condition any damages resulting from such defective materials, equipment or installation thereof.

(3) The State will be entitled to the benefit of all manufacturers and installers warranties that extend beyond the terms of the Contractor's guaranty regardless of whether or not such extended warranty is required by the contract documents. The Contractor shall prepare and submit all documents required by the providers of such warranties to make them effective, and submit copies of such documents to the Engineer. If an available extended warranty cannot be transferred or assigned to the State as the ultimate user, the Contractor shall notify the Engineer who may direct that the warranted items be acquired in the name of the State as purchaser.

(4) If a defect is discovered during a guarantee period, all repairs and corrections to the defective items when corrected shall be guaranteed for a new duration equal to the original full guarantee period. The running of the guarantee period shall be suspended for all other work affected by any defect. The guarantee period for all other work affected by any such defect shall restart for its remaining duration upon confirmation by the Engineer that the deficiencies have been repaired or remedied.

(5) Nothing in this section is intended to limit or affect the State's rights and remedies arising from the discovery of latent defects in the work after the expiration of any guarantee period.

**108.18 No Waiver of Legal Rights.** The following will not operate or be considered as a waiver of any portion of the contract, or any power herein reserved, or any right to damages provided herein or by law:

- (1) Any payment for, or acceptance of, the whole or any part of the work.
- (2) Any extension of time.
- (3) Any possession taken by the Engineer.

A waiver of any notice requirement or of any noncompliance with the contract will not be held to be a waiver of any other notice requirement or any other noncompliance with the contract.

**108.19 Final Settlement of Contract.**

(A) **Closing Requirements.** The contract will be considered settled after the project acceptance date and when the following items have been satisfactorily submitted, where applicable:

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- (1) All written guarantees required by the contract.
- (2) Complete and certified weekly payrolls for the Contractor and its subcontractor's.
- (3) Certificate of plumbing and electrical inspection.
- (4) Certificate of building occupancy.
- (5) Certificate for soil treatment and wood treatment.
- (6) Certificate of water system chlorination.
- (7) Certificate of elevator inspection, boiler and pressure pipe installation.
- (8) Tax clearance.
- (9) All other documents required by the Contract or by law.

**(B) Failure to Meet Closing Requirements.** The Contractor shall meet the applicable closing requirements within 60 days from the date of Project Acceptance or the agreed to Punchlist complete date. Should the Contractor fail to comply with these requirements, the Engineer may terminate the contract for cause.”

**END OF SECTION 108**



1                               **SECTION 109 – MEASUREMENT AND PAYMENT**

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3     Make the following amendment to said Section:

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5     **(I) Amend Subsection 109.05 Allowances for Overhead and Profit** by

6     revising lines 101 to 110 to read as follows:

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8               **“(1) 20 percent of the direct cost for any work performed by the**

9               **Contractor’s own labor force.**

10

11              **“(2) 20 percent of the direct cost for any work performed by each**

12              **subcontractor’s own labor force.**

13

14              **“(3) For the Contractor or any subcontractor for work performed**

15              **by their respective subcontractor or tier subcontractor, 10 percent of**

16              **the amount due to the performing subcontractor or tier**

17              **subcontractor.”**

18

19     **(II) Amend Subsection 109.08(B) Payment for Material On Hand** by revising

20     lines 421 to 423 to read as follows:

21

22              **“(2) The materials shall be stored and handled in accordance with**

23              **Subsection 105.14 – Storage and Handling of Materials and**

24              **Equipment.”**

25

26

27     **(III) Amend Subsection 109.11 Final Payment** by revising lines 568 to 576 to

28     read as follows:

29

30              **“(3) A current “Certificate of Vendor Compliance” issued by the**

31              **Hawaii Compliance Express (HCE). The Certificate of Vendor**

32              **Compliance is used to certify the Contractor’s compliance with**

33

34                   **(a) Section 103D-328, HRS (for all contracts \$25,000 or**

35                   **more) which requires a current tax clearance certificate issued**

36                   **by the Hawaii State Department of Taxation and the Internal**

37                   **Revenue Service;**

38

39                   **(b) Chapters 383, 386, 392, and 393, HRS; and**

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41                   **(c) Subsection 103D-310(c), HRS. The State reserves the**

42                   **right to verify that compliance is current prior to the issuance**

43                   **of final payment. Contractors are advised that non-**

44                   **compliance status will result in final payment being withheld**

45                   **until compliance is attained.**

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53  
54

Sums necessary to meet the claims of any governmental agencies may be withheld from the sums due the Contractor until said claims have been fully and completely discharged or otherwise satisfied.”

**END OF SECTION 109**

1                                   **SECTION 201 – CLEARING AND GRUBBING**

2  
3     Make the following amendments to said Section:

4  
5     **(I)**     Amend **201.04 – Measurement** by revising lines 167 to 168 to read as  
6     follows:

7  
8     **“201.04     Measurement.** The Engineer will measure clearing and grubbing  
9     per square yard in accordance with the contract documents.

10  
11             The Engineer will measure ISA Certified Arborist fees on a force account  
12     basis according to Subsection 109.06 – Force Account Provisions and  
13     Compensation.”

14  
15     **(II)**     Amend **201.05 – Payment** by revising lines 170 to 179 to read as follows:

16  
17     **“201.05     Payment.** The Engineer will pay for the accepted clearing and  
18     grubbing per square yard. Payment will be full compensation for the work  
19     prescribed in this section and the contract documents.

20  
21             The Engineer will pay for ISA Certified Arborist fees on a force account  
22     basis according to Subsection 109.06 – Force Account Provisions and  
23     Compensation. An estimate amount for the force account is allocated in the  
24     proposal schedule under ISA Certified Arborist. The actual amount to be paid will  
25     be the sum shown on the accepted force account records whether this sum be  
26     more or less than the estimated amount allocated in the proposal schedule.

27  
28             The Engineer will pay for the following pay item when included in the  
29     proposal schedule:

30

<b>Pay Item</b>	<b>Pay Unit</b>
Clearing and Grubbing	Square Yard
ISA Certified Arborist	Force Account”

31  
32  
33  
34  
35  
36

37  
38  
39                                   **END OF SECTION 201**



1                                   **SECTION 203 – EXCAVATION AND EMBANKMENT**

2  
3    Make the following amendments to said Section:

4  
5    **(I)**     Amend **203.03(C)(2)(a) – Maximum Dry Unit Weight** from line 245 to line  
6    255 to read as follows:

7  
8                                   **“(a) Maximum Dry Unit Weight.**    Test for maximum dry  
9                                   unit weight according to AASHTO T 180, and apply the  
10                                   correction for fraction larger than 3/4 inch. Use Hawaii Test  
11                                   Method HDOT TM 5 for sample preparation of sensitive soils  
12                                   when so designated by the Engineer.”

13  
14   **(II)**    Amend **203.04 – Measurement** by revising lines 345 to 366 to read as  
15    follows:

16  
17   **“203.04 Measurement.**

18  
19                   **(A)**    The Engineer will measure roadway excavation per cubic yard. The  
20                   Engineer will compute quantities of roadway excavation by average end  
21                   area method and centerline distances. Curvature correction will not be  
22                   applied to quantities within roadway prism, as indicated in the contract  
23                   documents. In computing excavation quantities from outside the roadway  
24                   prism, where roadway centerline is used as a base, curvature correction will  
25                   be applied when centerline radius is 1,000 feet or less.

26  
27                                   When roadway excavation quantities by average end area method  
28                                   cannot be computed due to the nature of a particular operation or changed  
29                                   conditions, the Engineer will determine and use computation method that  
30                                   will produce an accurate quantity estimate.

31  
32                   **(B)**    The Engineer will measure borrow excavated material per cubic  
33                   yard. The Engineer will compute quantities of borrow material incorporated  
34                   into the work on a volume basis, using average end area method in place  
35                   at work site.

36  
37                   **(C)**    The Engineer will measure imported borrow per cubic yard in  
38                   accordance with the contract documents. The Engineer will compute  
39                   quantities of imported borrow incorporated into the work on a volume basis,  
40                   using average end area method in place at work site.”

41  
42   **(III)**   Amend **203.05 – Payment** by revising lines 368 to 457 to read as follows:

43  
44   **“203.05 Payment.** The Engineer will pay for the accepted pay items listed below  
45    at the contract price per pay unit, as shown in the proposal schedule. Payment

46 will be full compensation for the work prescribed in this section and the contract  
47 documents.

48  
49 The Engineer will pay for each of the following pay items when included in  
50 the proposal schedule:

51

52	Pay Item	Pay Unit
53		
54	(A) Roadway Excavation	Cubic Yard

55  
56 The Engineer will pay for:

- 57
- 58 (1) 15 percent of the contract bid price upon completion of  
59 obliterating old roadways and hauling.
  - 60
  - 61 (2) 30 percent of the contract bid price upon completion of  
62 preparing subgrade.
  - 63
  - 64 (3) 40 percent of the contract bid price upon completion of placing  
65 selected material in final position, rounding of slopes, and using water  
66 for compaction.
  - 67
  - 68 (4) 15 percent of the contract bid price upon completion of  
69 disposing of surplus excavation material.

70  
71 The Engineer will pay for accepted quantities of subexcavation, as roadway  
72 excavation at the contract unit price per cubic yard, when ordered by the Engineer,  
73 for work prescribed in Subsection 203.03(A)(4) – Subexcavation. Payment will be  
74 full compensation for the work prescribed therein and in the contract documents.

75  
76 The Engineer will pay for accepted quantities of unlined gutter excavation  
77 as roadway excavation at the contract unit price per cubic yard, when gutter is  
78 located as follows: within median area of a divided highway; and between roadbed  
79 shoulder and adjacent cut slope. Payment will be full compensation for removing  
80 and disposing of excavated material; backfilling and compacting; and for the work  
81 prescribed in the contract documents.

82  
83 The Engineer will not pay for stockpiling selected material, placing selected  
84 material in final position, or placing selected material in windrows along tops of  
85 roadway slopes for erosion control work, separately and will consider the cost as  
86 included in the unit prices for the various excavation contract pay items. The cost  
87 is for work prescribed in this section and the contract documents.

88  
89 The Engineer will not pay for overhaul separately and will consider the cost  
90 as included in the unit prices for the various excavation contract pay items. The  
91 cost is for work prescribed in this section and the contract documents.

92  
93  
94  
95  
96  
97  
98

The Engineer will not pay for embankment separately and will consider the cost as included in the unit price for roadway excavation. The cost is for work prescribed in this section and the contract documents.”

**END OF SECTION 203**

1 Amend **Section 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION**  
2 **CONTROL** to read as follows:

3  
4  
5 **“SECTION 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION**  
6 **CONTROL**

7  
8  
9 **209.01 Description.** This section describes the following:

10  
11 **(A)** Including detailed plans, diagrams, and written Site-Specific Best  
12 Management Practices (BMP); constructing, maintaining, and repairing  
13 temporary water pollution, dust, and erosion control measures at the project  
14 site, including local material sources, work areas and haul roads; removing  
15 and disposing hazardous wastes; control of fugitive dust (defined as  
16 uncontrolled emission of solid airborne particulate matter from any source  
17 other than combustion); and complying with applicable State and Federal  
18 permit conditions.

19  
20 **(B)** Work associated with construction stormwater, dewatering, and  
21 hydrotesting activities and complying with conditions of the National Pollutant  
22 Discharge Elimination System (NPDES) permit(s) authorizing discharges  
23 associated with construction stormwater, dewatering, and hydrotesting  
24 activities.

25  
26 **(C)** Potential pollutant identification and mitigation measures are listed in  
27 Appendix A for use in the development of the Contractor’s Site-Specific BMP.

28  
29 Requirements of this section also apply to construction support  
30 activities including concrete or asphalt batch plants, rock crushing plants,  
31 equipment staging yards/areas, material storage areas, excavated material  
32 disposal areas, and borrow areas located outside the State Right-of-Way.  
33 For areas serving multiple construction projects, or operating beyond the  
34 completion of the construction project in which it supports, the Contractor  
35 shall be responsible for securing the necessary permits, clearances, and  
36 documents, and following the conditions of the permits and clearances, at no  
37 cost to the State.

38  
39 **209.02 Materials.** Comply with applicable materials described in Chapters 2 and  
40 3 of the current HDOT “Construction Best Management Practices Field Manual”. In  
41 addition, the materials shall comply with the following:

42  
43 **(A) Grass.** Grass shall be a quick growing species such as rye grass,  
44 Italian rye grass, or cereal grasses. Grass shall be suitable to the area and  
45 provide a temporary cover that will not compete later with permanent cover.  
46 Alternative grasses are allowable if acceptable to the Engineer.



47 **(B) Fertilizer and Soil Conditioners.** Fertilizer and soil conditioners shall  
48 be a standard commercial grade acceptable to the Engineer. Fertilizer shall  
49 conform to Subsection 619.02(H)(1) - Commercial Fertilizer.  
50

51 **(C) Hydro-mulching.** Hydro-mulching used as a temporary vegetative  
52 stabilization measure shall consist of materials in Subsections 209.02(A) -  
53 Grass, and 209.02(B) – Fertilizer and Soil Conditioners. Mulches shall be  
54 recycled materials including bagasse, hay, straw, wood cellulose bark, wood  
55 chips, or other material acceptable to the Engineer. Mulches shall be clean  
56 and free of noxious weeds and deleterious materials. Potable water shall  
57 meet the requirements of Subsection 712.01 - Water. Submit alternate  
58 sources of irrigation water for the Engineer’s acceptance if deviating from  
59 712.01 - Water. Installation and other requirements shall be in accordance  
60 with portions of Section 641- Hydro-Mulch Seeding including 641.02(D) - Soil  
61 and Mulch Tackifier, 641.03(A) – Seeding, and 641.03(B) - Planting Period.  
62 Install non-vegetative controls including mulch or rolled erosion control  
63 products while the vegetation is being established. Water and fertilize grass.  
64 Apply fertilizer as recommended by the manufacturer. Replace grass the  
65 Engineer considers unsuitable or sick. Remove and dispose of trash and  
66 debris. Remove invasive species. Mow as needed to prevent site or signage  
67 obstructions, fire hazard, or nuisance to the public. Do not remove down  
68 stream sediment control measures until the vegetation is uniformly  
69 established, including no large bare areas, and provides 70 percent of the  
70 density of pre-disturbance vegetation. Temporary vegetative stabilization  
71 shall not be used longer than one year.  
72

73 **(D) Silt Fences.** Comply with ASTM D6462, Standard Practice for Silt  
74 Fence Installation.  
75

76 Alternative materials or methods to control, prevent, remove and dispose  
77 pollution are allowable if acceptable to the Engineer.  
78

79 **209.03 Construction.**  
80

81 **(A) Preconstruction Requirements.**  
82

83 **(1) Water Pollution, Dust, and Erosion Control Meeting.**  
84 Schedule a water pollution, dust, and erosion control meeting with the  
85 Engineer after Site-Specific BMP is accepted in writing by the  
86 Engineer. Meeting shall be scheduled a minimum of 7 calendar days  
87 prior to the Start Work Date. Discuss sequence of work, plans and  
88 proposals for water pollution, dust, and erosion control.  
89

90 **(2) Water Pollution, Dust, and Erosion Control Submittals.**

91 Submit a Site-Specific BMP Plan within 21 calendar days of date of  
92 award. Submission of complete and acceptable Site-Specific BMP  
93 Plan is the sole responsibility of the Contractor and additional contract  
94 time will not be issued for delays due to incompleteness. Include the  
95 following:

96  
97 **(a)** Written description of activities to minimize water  
98 pollution and soil erosion into State waters, drainage or sewer  
99 systems. BMP shall include the following:

100  
101 **1.** An identification of potential pollutants and their  
102 sources.

103  
104 **2.** A list of all materials and heavy equipment to be  
105 used during construction.

106  
107 **3.** Descriptions of the methods and devices used to  
108 minimize the discharge of pollutants into State waters,  
109 drainage or sewer systems.

110  
111 **4.** Details of the procedures used for the  
112 maintenance and subsequent removal of any erosion or  
113 siltation control devices.

114  
115 **5.** Methods of removing and disposing hazardous  
116 wastes encountered or generated during construction.

117  
118 **6.** Methods of removing and disposing concrete and  
119 asphalt pavement cutting slurry, concrete curing water,  
120 and hydrodemolition water.

121  
122 **7.** Spill Control and Prevention and Emergency Spill  
123 Response Plan.

124  
125 **8.** Fugitive dust control, including dust from grinding,  
126 sweeping, or brooming off operations or combination  
127 thereof.

128  
129 **9.** Methods of storing and handling of oils, paints  
130 and other products used for the project.

131  
132 **10.** Material storage and handling areas, and other  
133 staging areas.

134  
135 **11.** Concrete truck washouts.

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- 12.** Concrete waste control.
- 13.** Fueling and maintenance of vehicles and other equipment.
- 14.** Tracking of sediment offsite from project entries and exits.
- 15.** Litter management.
- 16.** Toilet facilities.
- 17.** Other factors that may cause water pollution, dust and erosion control.

**(b)** Provide plans indicating location of water pollution, dust and erosion control devices; provide plans and details of BMPs to be installed or utilized; show areas of soil disturbance in cut and fill, indicate areas used for construction staging and storage including items (1) through (17) above, storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or solid waste, equipment and vehicle parking, and show areas where vegetative practices are to be implemented. Indicate intended drainage pattern on plans. Include flow arrows. Include separate drawing for each phase of construction that alters drainage patterns. Indicate approximate date when device will be installed and removed.

**(c)** Construction schedule.

**(d)** Name(s) of specific individual(s) designated responsible for water pollution, dust, and erosion controls on the project site. Include home, cellular, and business telephone numbers, fax numbers, and e-mail addresses.

**(e)** Description of fill material to be used.

**(f)** For projects with an NPDES Permit for Construction Activities, submit information to address all sections in the Storm Water Pollution Prevention Plan (SWPPP).

**(g)** For projects with an NPDES Permit, information required for compliance with the conditions of the Notice of General Permit Coverage (NGPC)/NPDES Permit.

181 (h) Site-Specific BMP Review Checklist. The checklist may  
182 be downloaded from HDOT’s Stormwater Management  
183 website at <http://stormwaterhawaii.com>.  
184

185 Date and sign Site-Specific BMP Plan. Keep accepted  
186 copy on site or at an accessible location so that it can be made  
187 available at the time of an on-site inspection or upon request by  
188 the Engineer, HDOT Third-Party Inspector, and/or DOH/EPA  
189 Representative. Amendments to the Site-Specific BMP Plan  
190 shall be included with original Site-Specific BMP Plan. Modify  
191 SWPPP if necessary to conform to revisions. Include date of  
192 installation and removal of Site-Specific BMP measures.  
193 Obtain written acceptance by the Engineer before  
194 implementing revised Site-Specific BMPs in the field.  
195

196 Follow the guidelines in the current HDOT “Construction  
197 Best Management Practices Field Manual”, in developing,  
198 installing, and maintaining Site-Specific BMPs for all projects.  
199 For any conflicting requirements between the Manual and  
200 applicable bid documents, the applicable bid documents will  
201 govern. Should a requirement not be clearly described within  
202 the applicable bid documents, notify the Engineer immediately  
203 for interpretation. For the purposes of clarification “applicable  
204 bid documents” include the construction plans, standard  
205 specifications, special provisions, Permits, and the SWPPP  
206 when applicable.  
207

208 Follow Honolulu’s City and County “Rules for Soil  
209 Erosion Standards and Guidelines” for all projects on Oahu.  
210 Use respective Soil Erosion Guidelines for Maui, Kauai and  
211 Hawaii projects.  
212

213 **(B) Construction Requirements.** Do not begin work until submittals  
214 detailed in Subsection 209.03(A)(2) - Water Pollution, Dust, and Erosion  
215 Control Submittals are completed and accepted in writing by the Engineer.  
216

217 Install, maintain, monitor, repair and replace site-specific BMP  
218 measures, such as for water pollution, dust and erosion control; installation,  
219 monitoring, and operation of hydrotesting activities; removal and disposal of  
220 hazardous waste indicated on plans, concrete cutting slurry, concrete curing  
221 water; or hydrodemolition water. Site-Specific BMP measures shall be in  
222 place, functional and accepted by HDOT personnel prior to initiating any  
223 ground disturbing activities.  
224

225 If necessary, furnish and install rain gage in a secure location prior to  
226 field work including installation of site-specific BMP. Provide rain gage with  
227 a tolerance of at least 0.05 inches of rainfall. Install rain gage on project site  
228 in an area that will not deter rainfall from entering the gate opening. Do not  
229 install in a location where rain water may splash into rain gage. The rain  
230 gage installation shall be stable and plumbed. Maintain rain gage and  
231 replace rain gage that is stolen, does not function properly or accurately, is  
232 worn out, or needs to be relocated. Do not begin field work until rain gage is  
233 installed and Site-Specific BMPs are in place. Rain gage data logs shall be  
234 readily available. Submit rain gage data logs weekly to the Engineer.

235  
236 Address all comments received from the Engineer.

237  
238 Modify and resubmit plans and construction schedules to correct  
239 conditions that develop during construction which were unforeseen during  
240 the design and pre-construction stages.

241  
242 Coordinate temporary control provisions with permanent control  
243 features throughout the construction and post-construction period.

244  
245 Limit maximum surface area of earth material exposed at any time to  
246 300,000 square feet. Do not expose or disturb surface area of earth material  
247 (including clearing and grubbing) until BMP measures are installed and  
248 accepted in writing by the Engineer. Protect temporarily or permanently  
249 disturbed soil surface from rainfall impact, runoff and wind before end of the  
250 work day.

251  
252 Immediately initiate stabilizing exposed soil areas upon completion of  
253 earth disturbing activities for areas permanently or temporarily ceased on any  
254 portion of the site. Earth-disturbing activities have permanently ceased when  
255 clearing and excavation within any area of the construction site that will not  
256 include permanent structures has been completed. Earth-disturbing  
257 activities have temporarily ceased when clearing, grading, and excavation  
258 within any area of the site that will not include permanent structures will not  
259 resume for a period of 14 or more calendar days, but such activities will  
260 resume in the future. The term "immediately" is used in this section to define  
261 the deadline for initiating stabilization measures. "Immediately" means as  
262 soon as practicable, but no later than the end of the next work day, following  
263 the day when the earth-disturbing activities have temporarily or permanently  
264 ceased.

265  
266 For projects with an NPDES Permit for Construction activities:  
267

268 (1) For construction areas discharging into waters not impaired for  
269 nutrients or sediments, complete initial stabilization within 14 calendar  
270 days after the temporary or permanent cessation of earth-disturbing  
271 activities.

272  
273 (2) For construction areas discharging into nutrient or sediment  
274 impaired waters, complete initial stabilization within 7 calendar days  
275 after the temporary or permanent cessation of earth-disturbing  
276 activities.

277  
278 For projects without an NPDES Permit for Construction activities,  
279 complete initial stabilization within 14 calendar days after the temporary or  
280 permanent cessation of earth-disturbing activities.

281  
282 Any of the following types of activities constitutes initiation of  
283 stabilization:

- 284  
285 (1) Prepping the soil for vegetative or non-vegetative stabilization;  
286  
287 (2) Applying mulch or other non-vegetative product to the exposed  
288 area;  
289  
290 (3) Seeding or planting the exposed area;  
291  
292 (4) Starting any of the activities in items (1) – (3) above on a portion  
293 of the area to be stabilized, but not on the entire area; and  
294  
295 (5) Finalizing arrangements to have stabilization product fully  
296 installed in compliance with the deadline for completing initial  
297 stabilization activities.

298  
299 Any of the following types of activities constitutes completion of initial  
300 stabilization activities:

- 301  
302 (1) For vegetative stabilization, all activities necessary to initially  
303 seed or plant the area to be stabilized; and/or  
304  
305 (2) For non-vegetative stabilization, the installation or application  
306 of all such non-vegetative measures.

307  
308 If the Contractor is unable to meet the deadlines above due to  
309 circumstances beyond the Contractor's control, and the Contractor is using  
310 vegetative cover for temporary or permanent stabilization, the Contractor  
311 may comply with the following stabilization deadlines instead as agreed to by  
312 the Engineer:

313

314 (1) Immediately initiate, and complete within the timeframe shown  
315 above, the installation of temporary non-vegetative stabilization  
316 measures to prevent erosion;

317  
318 (2) Complete all soil conditioning, seeding, watering or irrigation  
319 installation, mulching, and other required activities related to the  
320 planting and initial establishment of vegetation as soon as conditions  
321 or circumstances allow it on the site; and

322  
323 (3) Notify and provide documentation to the Engineer the  
324 circumstances that prevent the Contractor from meeting the deadlines  
325 above for stabilization and the schedule the Contractor will follow for  
326 initiating and completing initial stabilization and as agreed to by the  
327 Engineer.

328  
329 Follow the applicable requirements of the specifications and special  
330 provisions including Section 619 Planting and Section 641 Hydro-Mulch  
331 Seeding.

332  
333 Immediately after seeding or planting the area to be vegetatively  
334 stabilized, to the extent necessary to prevent erosion on the seeded or  
335 planted area, select, design, and install non-vegetative erosion controls that  
336 provide cover (e.g., mulch, rolled erosion control products) to the area while  
337 vegetation is becoming established.

338  
339 Protect exposed or disturbed surface area with mulches, grass seeds  
340 or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add  
341 tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate  
342 of 125 pounds per acre. For hydromulch, use the ingredients and rates  
343 required for mulches and grass seeds. Submit recommendations from a  
344 licensed Landscape Architect when deviating from the application rates  
345 above.

346  
347 Apply fertilizer to mulches, grass seed or hydromulch per  
348 manufacturer's recommendations. Submit recommendations from a licensed  
349 Landscape Architect when deviating from the manufacturer's  
350 recommendations.

351  
352 Install velocity dissipation measures when exposing erodible surfaces  
353 greater than 15 feet in height.

354  
355 BMP measures shall be in place and operational at the end of work  
356 day or as required by Section 209.03(B) Construction Requirements.

357

358 Install and maintain either or both stabilized construction entrances  
359 and wheel washes to minimize tracking of dirt and mud onto roadways.  
360 Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other  
361 material tracked onto the road, sidewalk, or other paved area by the end of  
362 the same day in which the track-out occurs. Modify stabilized construction  
363 entrances to prevent mud from being tracked onto road. Stabilize entire  
364 access roads if necessary.

365  
366 Chemicals may be used as soil stabilizers for either or both erosion  
367 and dust control if acceptable to the Engineer.

368  
369 Provide temporary slope drains of rigid or flexible conduits to carry  
370 runoff from cuts and embankments. Provide portable flume at the entrance.  
371 Shorten or extend temporary slope drains to ensure proper function.

372  
373 Protect ditches, channels, and other drainageways leading away from  
374 cuts and fills at all times by either:

- 375  
376 (1) Hydro-mulching the lower region of embankments in the  
377 immediate area.  
378  
379 (2) Installing check dams and siltation control devices.  
380  
381 (3) Other methods acceptable to the Engineer.

382  
383 Provide for controlled discharge of waters impounded, directed, or  
384 controlled by project activities or erosion control measures.

385  
386 Cover exposed surface of materials completely with tarpaulin or  
387 similar device when transporting aggregate, soil, excavated material or  
388 material that may be source of fugitive dust.

389  
390 Cleanup and remove any pollutant that can be attributed to the  
391 Contractor.

392  
393 Install or modify Site-Specific BMP measures due to change in the  
394 Contractor's means and methods, or for omitted condition that should have  
395 been allowed for in the accepted Site-Specific BMP or a Site-Specific BMP  
396 that replaces an accepted Site-Specific BMP that is not satisfactorily  
397 performing. Modifications to Site-Specific BMP measures shall be accepted  
398 in writing by the Engineer prior to implementation.

399  
400 Properly maintain all Site-Specific BMP measures.

401  
402 For projects with an NPDES Permit for Construction Activities:  
403



404 (1) For construction areas discharging into nutrient or sediment  
405 impaired waters, inspect, prepare a written report, and make repairs  
406 to BMP measures at the following intervals:

- 407
- 408 (a) Weekly.
- 409
- 410 (b) Within 24 hours of any rainfall of 0.25 inch or greater  
411 which occurs in a 24-hour period.
- 412
- 413 (c) When existing erosion control measures are damaged  
414 or not operating properly as required by Site-Specific BMP.
- 415

416 (2) For construction areas discharging to waters not impaired for  
417 nutrients or sediments, inspect, prepare a written report, and make  
418 repairs to BMP measures at the following intervals:

- 419
- 420 (a) Weekly.
- 421
- 422 (b) When existing erosion control measures are damaged  
423 or not operating properly as required by Site-Specific BMP.
- 424

425 For projects without an NPDES Permit for Construction activities,  
426 inspect, prepare a written report, and make repairs to BMP measures at the  
427 following intervals:

- 428
- 429 (a) Weekly.
- 430
- 431 (b) When existing erosion control measures are damaged  
432 or not operating properly as required by Site-Specific BMP.
- 433

434 Temporarily remove, replace or relocate any Site-Specific BMP that  
435 must be removed, replaced or relocated due to potential or actual flooding,  
436 or potential danger or damage to project or public.

437

438 Maintain records of inspections of Site-Specific BMP work. Keep  
439 continuous records for duration of the project. Submit copy of Inspection  
440 Report to the Engineer within 24 hours after each inspection.

441

442 The Contractor's designated representative specified in Subsection  
443 209.03(A)(2)(d) shall address any Site-Specific BMP deficiencies brought up  
444 by the Engineer immediately, including weekends and holidays, and  
445 complete work to fix the deficiencies by the close of the next work day if the  
446 problem does not require significant repair or replacement, or if the problem  
447 can be corrected through routine maintenance. Address any Site-Specific  
448 BMP deficiencies brought up by the State's Third-Party Inspector in the  
449 timeframe above or as specified in the Consent Decree or MS4 NPDES

450 Permit, whichever is more stringent. The Consent Decree timeframe  
451 requirement applies statewide. The MS4 NPDES Permit only applies to  
452 Oahu. In this section, “immediately” means the Contractor shall take all  
453 reasonable measures to minimize or prevent discharge of pollutants until a  
454 permanent solution is installed and made operational. If a problem is  
455 identified at a time in the day in which it is too late to initiate repair, initiation  
456 of repair shall begin on the following work day. When installation of a new  
457 pollution prevention control or a significant repair is needed, complete  
458 installation or repair no later than 7 calendar days from the time of  
459 notification/Contractor discovery. Notify the Engineer and document why it  
460 is infeasible to complete the installation or repair within 7 calendar days and  
461 complete the work as soon as practicable and as agreed to by the Engineer.  
462 Address Site-Specific BMP deficiencies discovered by the Contractor within  
463 the timeframe above. The Contractor’s failure to satisfactorily address these  
464 Site-Specific BMP deficiencies, the Engineer reserves the right to employ  
465 outside assistance or use the Engineer’s own labor forces to provide  
466 necessary corrective measures. The Engineer will charge the Contractor  
467 such incurred costs plus any associated project engineering costs. The  
468 Engineer will make appropriate deductions from the Contractor’s monthly  
469 progress estimate. Failure to apply Site-Specific BMP measures may result  
470 in one or more of the following: assessment of liquidated damages,  
471 suspension, or cancellation of Contract with the Contractor being fully  
472 responsible for all additional costs incurred by the State.

473  
474 **(C) Discharges of Storm Water Associated with Construction**  
475 **Activities.** If work includes disturbance of one acre or more, an NPDES  
476 Permit authorizing Discharges of Storm Water Associated with Construction  
477 Activity (CWB-NOI Form C) or Individual Permit authorizing storm water  
478 discharges associated with construction activity is required from the  
479 Department of Health Clean Water Branch (DOH-CWB).

480  
481 Do not begin construction activities until all required conditions of the  
482 permit are met and submittals detailed in Subsection 209.03(A)(2) – Water  
483 Pollution, Dust, and Erosion Control Submittals are completed and accepted  
484 in writing by the Engineer.

485  
486 **(D) Discharges Associated with Hydrotesting Activities.** If  
487 hydrotesting activities require effluent discharge into State waters or drainage  
488 systems, an NPDES Hydrotesting Waters Permit (CWB-NOI Form F) or  
489 Individual Permit authorizing discharges associated with hydrotesting from  
490 DOH-CWB is required from the DOH-CWB.

491  
492 Do not begin hydrotesting activities until the DOH-CWB has issued an  
493 Individual NPDES Permit or Notice of General Permit Coverage (NGPC).  
494 Conduct Hydrotesting operations in accordance with the conditions of the  
495 permit or NGPC.

496 **(E) Discharges Associated with Dewatering Activities.** If dewatering  
497 activities require effluent discharge into State waters or drainage systems, an  
498 NPDES Dewatering Permit (CWB-NOI Form G) or Individual Permit  
499 authorizing discharges associated with dewatering from DOH-CWB is  
500 required from the DOH-CWB.  
501

502 Do not begin dewatering activities until the DOH-CWB has issued an  
503 Individual NPDES Permit or Notice of General Permit Coverage (NGPC).  
504 Conduct dewatering operations in accordance with the conditions of the  
505 permit or NGPC.  
506

507 **(F) Solid Waste.** Submit the Solid Waste Disclosure Form for  
508 Construction Sites to the Engineer within 21 calendar days of date of award.  
509 Provide a copy of all the disposal receipts from the facility permitted by the  
510 Department of Health to receive solid waste to the Engineer monthly. This  
511 should also include documentation from any intermediary facility where solid  
512 waste is handled or processed, or as directed by the Engineer.  
513

514 **(G) Construction BMP Training.** The Contractor's representative  
515 responsible for development of the Site-Specific BMP Plan and  
516 implementation of Site-Specific BMPs in the field shall attend the State's  
517 Construction Best Management Practices Training. The Contractor shall  
518 keep training logs updated and readily available.  
519

520 **209.04 Measurement.**  
521

522 **(A)** Installation, maintenance, monitoring, and removal of BMP will be paid  
523 on a lump sum basis. Measurement for payment will not apply.  
524

525 **(B)** The Engineer will only measure additional water pollution, dust and  
526 erosion control required and requested by the Engineer on a force account  
527 basis in accordance with Subsection 109.06 – Force Account Provisions and  
528 Compensation.  
529

530 **209.05 Payment.** The Engineer will pay for accepted pay items listed below at  
531 contract price per pay unit, as shown in the proposal schedule. Payment will be full  
532 compensation for work prescribed in this section and contract documents.  
533

534 The Engineer will pay for each of the following pay items when included in  
535 proposal schedule:  
536

537 <b>Pay Item</b>	538 <b>Pay Unit</b>
539 Installation, Maintenance, Monitoring, and Removal of BMP	540 Lump Sum

541 Payment for all work prescribed in this section including submittals,

542 sampling, testing, reporting, dust control measures, installation,  
543 maintenance, monitoring, implementation of the SWPPP, and removal of  
544 BMPs shall be paid for under the lump sum pay item shown in the  
545 proposal schedule. This includes payment for: installation or  
546 modification of Site-Specific BMP measures due to changes in the  
547 Contractor's means and methods, omitted conditions that should have  
548 been allowed for in the Contractor's accepted SWPPP, Site-Specific BMP  
549 repairs, or replacement of an accepted Site-Specific BMP that is not  
550 satisfactorily performing.

551  
552 **Additional Water Pollution, Dust, and Erosion Control** **Force Account**

553  
554 An estimated amount for force account is allocated in the proposal  
555 schedule under 'Additional Water Pollution, Dust, and Erosion Control',  
556 but the actual amount to be paid will be the sum shown on accepted force  
557 account records, whether this sum is more or less than estimated amount  
558 allocated in proposal schedule. The Engineer will pay for BMP measures  
559 requested by the Engineer that are beyond the scope of the original contract  
560 work on a force account basis.

561  
562 No progress payment will be authorized until the Engineer accepts  
563 in writing Site-Specific BMP or when the Contractor fails to maintain  
564 project site in accordance with accepted BMP.

565  
566 For all citations or fines received by the Department for non-  
567 compliance, including compliance with NPDES Permit conditions, the  
568 Contractor shall reimburse State within 30 calendar days for full amount  
569 of outstanding cost the State has incurred, or the Engineer will deduct  
570 cost from progress payment.

571  
572 The Engineer will not pay for work to repair or compensate for  
573 damages caused by dust or water.

574  
575 The Engineer may assess liquidated damages up to \$27,500  
576 per day for non-compliance of each BMP requirement and all other  
577 requirements in this section in accordance with HDOT's Enforcement  
578 Response Plan.

579

580 An estimated amount for force account is allocated in proposal schedule  
581 under 'Additional Water Pollution, Dust, and Erosion Control', but actual amount to  
582 be paid will be the sum shown on accepted force account records, whether this sum  
583 be more or less than estimated amount allocated in proposal schedule. The  
584 Engineer will pay for BMP measures requested by the Engineer that are beyond  
585 scope of accepted Site-Specific BMP on a force account basis.

586  
587 No progress payment will be authorized until the Engineer accepts in writing  
588 Site-Specific BMP or when the Contractor fails to maintain project site in accordance  
589 with accepted BMP.

590  
591 For all citations or fines received by the Department for non-compliance,  
592 including compliance with NPDES Permit conditions, the Contractor shall reimburse  
593 State within 30 calendar days for full amount of outstanding cost State has incurred,  
594 or the Engineer will deduct cost from progress payment.

595  
596 The Engineer will assess liquidated damages up to \$27,500 per day for non-  
597 compliance of each BMP requirement and all other requirements in this section.  
598

599 **Appendix A**

600

601 The following list identifies potential pollutant sources and corresponding  
602 BMPs used to mitigate the pollutants. Each BMP is referenced to the corresponding  
603 section of the current HDOT Construction Best Management Practices Field Manual  
604 or appropriate Supplemental Sheets. The Manual may be obtained from the HDOT  
605 Statewide Stormwater Management Program Website at  
606 <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under  
607 Construction Best Management Practices Field Manual. Supplemental BMP sheets  
608 are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing  
609 and Irrigation Water.  
610

611

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<p><i>Construction debris, green waste, general litter</i></p>	<ul style="list-style-type: none"> <li>• <i>Separate contaminated clean up materials from construction and demolition (C&amp;D) wastes.</i></li> <li>• <i>Provide waste containers (e.g., dumpster or trash receptacle) of sufficient size and number to contain construction and domestic wastes.</i></li> <li>• <i>Inspect construction waste and recycling areas regularly.</i></li> <li>• <i>Schedule solid waste collection regularly.</i></li> <li>• <i>Schedule recycling activities based on construction/demolition phases.</i></li> <li>• <i>Empty waste containers weekly or when they are two-thirds full, whichever is sooner.</i></li> <li>• <i>Do not allow containers to overflow. Clean up immediately if they do.</i></li> <li>• <i>On work days, clean up and dispose of waste in designated waste containers.</i></li> <li>• <i>See Solid Waste Management Section SM-6 for additional requirements.</i></li> <li>• <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i></li> <li>• <i>Collect and dispose of all waste materials in trash dumpsters. Place dumpsters, with secure watertight lids, away from storm water conveyances and drains, in a covered materials storage area.</i></li> <li>• <i>Dispose of construction and non- construction solid waste in accordance with State DOH regs.</i></li> <li>• <i>Load removed non- recyclable vegetation directly onto trucks; cover and transport to a licensed facility</i></li> </ul>	<p><i>See Solid Waste Management Section SM-6. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i></p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<p><i>Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid leakage</i></p>	<ul style="list-style-type: none"> <li>• <i>Use off-site wash racks, repair and maintenance facilities, and fueling sites when practical.</i></li> <li>• <i>Designate bermed wash area if cleaning on site is necessary.</i></li> <li>• <i>Place drip pans or drop cloths under vehicles and equipment to absorb spills or leaks.</i></li> <li>• <i>Provide an ample supply of readily available spill cleanup materials.</i></li> <li>• <i>Clean up spills immediately, using dry cleanup methods where possible, and dispose of used materials properly.</i></li> <li>• <i>Do not clean surfaces or spills by hosing the area down.</i></li> <li>• <i>Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.</i></li> <li>• <i>Inspect on-site vehicles and equipment regularly and immediately repair leaks.</i></li> <li>• <i>Regularly inspect fueling areas and storage tanks.</i></li> <li>• <i>Train employees on proper maintenance and spill practices and procedures and fueling and cleanup procedures.</i></li> <li>• <i>Store diesel fuel, oil, hydraulic fluid, or other petroleum products or other chemicals in water-tight containers and provide cover or secondary containment.</i></li> <li>• <i>Do not remove original product labels and comply with manufacturer's labels for proper disposal.</i></li> <li>• <i>Dispose of containers only after all the product has been used.</i></li> <li>• <i>Dispose of or recycle oil or oily wastes according to Federal, State, and Local requirements.</i></li> <li>• <i>Store soaps, detergents, or solvents under cover or other means to prevent contact with rainwater.</i></li> <li>• <i>See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13 and Material Storage and Handling Section SM-2 for additional requirements.</i></li> </ul>	<p><i>See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13, and Material Storage and Handling, Section SM-2, and Spill Prevention and Control SM-10.</i></p>



<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
Soil erosion from the disturbed areas	<ul style="list-style-type: none"> <li>• Provide Soil Stabilization, Slope Protection, Storm Drain Inlet Protection SC-1, Perimeter Controls and Sediment Barriers, Sediment Basins and Detention Ponds, Check Dams SC-3 ,Level Spreader EC-6, Paving Operations SM-20, Construction Roads and Parking Area Stabilization SC-10, Controlling Storm Water Flowing Onto and Through the Project, Post-Construction BMPs, and Non-Structural BMPs (Construction BMP Training SM-1, Scheduling SM-14, Location of Potential Sources of Sediment SM-15, Preservation of Existing Vegetation SM-17).</li> <li>• Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas defined in the SWPPP.</li> <li>• Preserve native topsoil where practicable.</li> <li>• In areas where vegetative stabilization will occur, restrict vehicle/equipment use in areas to avoid soil compaction or condition soil to promote vegetative growth.</li> <li>• For Storm Drain Inlet Protection, clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised.</li> <li>• Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same day in which it is found or by the end of the following work day if removal by the same day is not feasible.</li> <li>• Sediment basins shall be designed and maintained in accordance with HAR Chapter 11-55.</li> <li>• Minimize disturbance on steep slopes (Greater than 15% in grade).</li> <li>• If disturbance of steep slopes are unavoidable, phase disturbances and use stabilization techniques designed for steep grades.</li> <li>• For temporary drains and swales use velocity dissipation devices within and at the outlet to minimize erosive flow velocities.</li> </ul>	<p>Soil Stabilization</p> <ol style="list-style-type: none"> <li>1. SM-22 Topsoil Management</li> <li>2. EC-12 Seeding and Planting</li> <li>3. EC-14 Mulching</li> <li>4. EC-11 Geotextiles and Mats</li> </ol> <p>Slope Protection</p> <ol style="list-style-type: none"> <li>1. EC-12 Seeding and Planting</li> <li>2. EC-14 Mulching</li> <li>3. EC-11 Geotextiles and Mats</li> <li>4. EC-4 Slope Roughening, Terracing, and Rounding</li> <li>5. EC-7 Slope Drains and Subsurface Drains</li> <li>6. EC-9 Slope Interceptor or Diversion Ditches/Berms</li> </ol> <p>SC-1 Storm Drain Inlet Protection</p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
		<p><i>Perimeter Controls and Sediment Barriers</i></p> <ol style="list-style-type: none"> <li>1. <i>SC-7 Silt Fence or Filter Fabric Fence</i></li> <li>2. <i>SC-2 Vegetated Filter Strips and Buffers</i></li> <li>3. <i>SC-6 Compost Filter Berm/Sock</i></li> <li>4. <i>SC-8 Sandbag Barrier</i></li> <li>5. <i>SC-9 Brush or Rock Filter</i></li> </ol> <p><i>Sediment Basins and Detention Ponds</i></p> <ol style="list-style-type: none"> <li>1. <i>SC-4 Sediment Trap</i></li> <li>2. <i>SC-5 Sediment Basin</i></li> </ol> <p><i>SC-3 Check Dams</i></p> <p><i>EC-6 Level Spreader</i>  <i>SM-20 Paving Operations</i>  <i>SC-10 Construction Roads and Parking Area Stabilization</i></p>

616

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
		<p><i>Controlling Storm Water Flowing onto and Through the Project</i></p> <ol style="list-style-type: none"> <li>1. <i>EC-3 Run-On Diversion</i></li> <li>2. <i>EC-5 Earth Dike, Swales and Ditches</i></li> </ol> <p><i>Post Construction BMPs</i></p> <ol style="list-style-type: none"> <li>1. <i>EC-2 Flared Culvert End Sections</i></li> <li>2. <i>EC-10 Rip-Rap and Gabion Inflow Protection</i></li> <li>3. <i>EC-8 Outlet Protection and Velocity Dissipation Devices</i></li> <li>4. <i>SM-22 Topsoil Management</i></li> </ol> <p><i>Non-Structural BMPs</i></p> <ol style="list-style-type: none"> <li>1. <i>SM-1 Construction BMP Training</i></li> <li>2. <i>SM-14 Scheduling</i></li> <li>3. <i>SM-15 Location of Potential Sources of Sediment</i></li> <li>4. <i>SM-17 Preservation of Existing Vegetation</i></li> </ol>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<i>Sediment from soil stockpiles</i>	<ul style="list-style-type: none"> <li>• <i>Locate stockpiles a minimum of 50 feet or as far as practicable from concentrated runoff or outside of any natural buffers identified on the SWPPP.</i></li> <li>• <i>Place bagged materials on pallets and under cover.</i></li> <li>• <i>Provide physical diversion to protect stockpiles from concentrated runoff.</i></li> <li>• <i>Cover stockpiles with plastic or comparable material when practicable.</i></li> <li>• <i>Place silt fence, fiber filtration tubes, or straw wattles around stockpiles.</i></li> <li>• <i>Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or state water.</i></li> <li>• <i>Unless infeasible, contain and securely protect stockpiles from the wind.</i></li> <li>• <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. See Stockpile Management Section SM-3 for additional requirements.</i></li> </ul>	<p><i>See Stockpile Management Section SM-3. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i></p>
<i>Emulsified asphalt or prime/tack coat</i>	<ul style="list-style-type: none"> <li>• <i>Provide training for employees and contractors on proper material delivery and storage practices and procedures.</i></li> <li>• <i>Restrict paving operations during wet weather to prevent paving materials from being discharged.</i></li> <li>• <i>Use asphalt emulsions such as prime coat when possible.</i></li> <li>• <i>Protect drain inlet structures and manholes during application of tack coat, seal coat, slurry seal, and fog seal.</i></li> <li>• <i>Keep ample supplies of drip pans and absorbent materials on site.</i></li> <li>• <i>Inspect inlet protection devices.</i></li> <li>• <i>See Material Storage and Handling Section SM-2 and Paving Operations Section SM-20 for additional requirements.</i></li> <li>• <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i></li> </ul>	<p><i>See Material Storage and Handling Section SM-2, and Stockpile Management Section SM-3, Paving Operations Section SM-20, Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i></p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<p><i>Materials associated with painting, such as paint and paint wash solvent</i></p>	<ul style="list-style-type: none"> <li>• <i>Hazardous chemicals shall be well-labeled and stored in original containers.</i></li> <li>• <i>Keep ample supply of cleanup materials on site.</i></li> <li>• <i>Dispose container only after all of the product has been used.</i></li> <li>• <i>Remove as much paint from brushes on painted surface.</i></li> <li>• <i>Rinse from water-based paints shall be discharged into the sanitary sewer system where possible. If not, direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.</i></li> <li>• <i>Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.</i></li> <li>• <i>Do not dump liquid wastes into the storm drainage system.</i></li> <li>• <i>Filter and re-use solvents and thinners.</i></li> <li>• <i>Dispose of oil-based paints and residue as a hazardous waste.</i></li> <li>• <i>Ensure collection, removal, and disposal of hazardous waste complies with regulations.</i></li> <li>• <i>Immediately clean up spills and leaks.</i></li> <li>• <i>Properly store paints, solvents, and epoxy compounds.</i></li> <li>• <i>Properly store and dispose waste materials generated from painting and structure repair and construction activities.</i></li> <li>• <i>Mix paints in a covered and contained area, when possible, to minimize adverse impacts from spills.</i></li> <li>• <i>Do not apply traffic paint or thermoplastic if rain is forecasted.</i></li> <li>• <i>See Material Storage and Handling Use SM-2, Hazardous Materials and Waste Management Section SM-9, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-21 for additional requirements.</i></li> </ul> <p><i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i></p>	<p><i>See Material Storage and Handling Use Section SM-2, Stockpile Management Section SM-3, Hazardous Materials and Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-21, Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i></p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<p><i>Industrial chemicals, fertilizers, and/or pesticides</i></p>	<ul style="list-style-type: none"> <li>• <i>Hazardous chemicals shall be well-labeled and stored in original containers.</i></li> <li>• <i>Keep ample supply of cleanup materials on site.</i></li> <li>• <i>Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.</i></li> <li>• <i>Do not clean surfaces or spills by hosing the area down.</i></li> <li>• <i>Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.</i></li> <li>• <i>Dispose container only after all of the product has been used.</i></li> <li>• <i>Retain a complete set of safety data sheets (formerly MSDS) on site.</i></li> <li>• <i>Store industrial chemicals in water-tight containers and provide either cover or secondary containment.</i></li> <li>• <i>Provide cover when storing fertilizers or pesticides to prevent these chemicals from coming into contact with rainwater.</i></li> <li>• <i>Restrict amount of pesticide prepared to quantity necessary for the current application.</i></li> <li>• <i>Do not apply fertilizers or pesticides during or just before a rain event.</i></li> <li>• <i>Do not apply to stormwater conveyance channels with flowing water.</i></li> <li>• <i>Comply with fertilizer and pesticide manufacturer's recommended usage and disposal instructions. Document departures from manufacturer's specifications in Attachment J.</i></li> <li>• <i>Apply fertilizers at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth.</i></li> <li>• <i>Follow federal, state, and local laws regarding fertilizer application.</i></li> <li>• <i>Do not dispose of toxic liquid wastes (solvents, used oils, and paints) or chemicals (additives, acids, and curing compounds) in dumpsters allocated for construction debris.</i></li> </ul>	<p><i>See Material Storage and Handling Use Section SM-2, Stockpile Management Section SM-3, and Hazardous Materials and Waste Management Section SM-9, and Spill Prevention and Control SM-10</i></p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
	<ul style="list-style-type: none"> <li>• <i>Ensure collection, removal, and disposal of hazardous waste complies with regulations. Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.</i></li> <li>• <i>See Material Storage and Handling Use SM-2, and Hazardous Materials and Waste Management Section SM-9 for additional requirements.</i></li> </ul>	
<p><i>Hazardous waste (Batteries, Solvents, Treated Lumber, etc.)</i></p>	<ul style="list-style-type: none"> <li>• <i>Do not dispose of toxic materials in dumpsters allocated for construction debris.</i></li> <li>• <i>Ensure collection, removal, and disposal of hazardous waste complies with regulations.</i></li> <li>• <i>Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.</i></li> <li>• <i>Segregate and recycle wastes from vehicle/equipment maintenance activities such as used oil or oil filters, greases, cleaning solutions, antifreeze, automotive batteries, and hydraulic and transmission fluids.</i></li> <li>• <i>Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, and local requirements.</i></li> <li>• <i>All containers stored outside shall be kept away from surface waters and within appropriately sized secondary containment (e.g., spill berms, decks, spill containment pallets). Provide cover if possible.</i></li> <li>• <i>Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.</i></li> <li>• <i>Do not clean surfaces or spills by hosing the area down.</i></li> <li>• <i>Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.</i></li> </ul>	<p><i>See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Maintenance SM-12</i></p>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
	<ul style="list-style-type: none"> <li>• Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and is in compliance with federal, state, and local requirements.</li> <li>• See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Management, Vehicle and Equipment Maintenance SM-12 for additional requirements.</li> </ul>	
<i>Metals and Building Materials</i>	<ul style="list-style-type: none"> <li>• Inspect construction waste and recycling areas regularly.</li> <li>• Schedule solid waste collection regularly.</li> <li>• If building materials or metals are stored on site (such as rebar or galvanized poles) store under cover under tarps or in containers.</li> <li>• Minimize the amount of material stored on site.</li> <li>• Do not stockpile uncovered metals or other building materials in close proximity to discharge points.</li> <li>• See Solid Waste Management Section SM-6 for additional requirements.</li> </ul>	See Solid Waste Management Section SM-6
<i>Contaminated Soil</i>	<ul style="list-style-type: none"> <li>• See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9 for additional requirements.</li> <li>• At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheets.</li> </ul>	See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9



<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<i>Fugitive Dust Control and Dust Control Water</i>	<ul style="list-style-type: none"> <li>• <i>Do not over spray water for dust control purposes which will result in runoff from the area.</i></li> <li>• <i>Apply water as conditions require.</i></li> <li>• <i>Washing down of debris or dirt into drainage, sewage systems, or State waters is not allowed.</i></li> <li>• <i>Minimize exposed areas through the schedule of construction activities.</i></li> <li>• <i>Utilize vegetation, mulching, sprinkling, and stone/gravel layering to quickly stabilize exposed soil.</i></li> <li>• <i>Direct construction vehicle traffic to stabilized roadways.</i></li> <li>• <i>Cover dump trucks hauling material from the site with a tarpaulin.</i></li> </ul> <p><i>See Dust Control Section SM-19 for additional requirements.</i></p>	<i>See Dust Control Section SM-19</i>
<i>Concrete Truck Wash Water</i>	<ul style="list-style-type: none"> <li>• <i>Disposal of concrete truck wash water via percolation is prohibited.</i></li> <li>• <i>Wash concrete-coated vehicles or equipment off-site or in the designated wash area.</i></li> <li>• <i>Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.</i></li> <li>• <i>Runoff from the on-site concrete wash area shall be contained in a temporary pit or level bermed area where the concrete can set.</i></li> <li>• <i>Design the area so that no overflow can occur due to inadequate wash area sizing or precipitation.</i></li> <li>• <i>The temporary pit shall be lined with plastic to prevent seepage of wash water into the ground.</i></li> <li>• <i>Allow wash water to evaporate or collect wash water and all concrete debris in a concrete washout system bin.</i></li> <li>• <i>Do not dump liquid wastes into storm drainage system.</i></li> <li>• <i>Dispose of liquid and solid concrete wastes in compliance with federal, state, and local standards.</i></li> <li>• <i>See Waste Management, Concrete Wash and Waste Management Section SM-4 for additional requirements.</i></li> </ul>	<i>See Waste Management, Concrete Wash and Waste Management Section SM-4</i>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<i>Sediment Track-Out</i>	<ul style="list-style-type: none"> <li>• <i>Include Stabilized Construction Entrance at all points that exit onto paved roads.</i></li> <li>• <i>A sediment trapping device is required if a wash rack is used in conjunction with the stabilized construction entrance/exit.</i></li> <li>• <i>The pavement shall not be cleaned by washing down the street.</i></li> <li>• <i>If sweeping is ineffective or it is necessary to wash the streets, wash water must be contained either by construction of a sump, diverting the water to an acceptable disposal area, or vacuuming the wash water.</i></li> <li>• <i>Use BMPs for adjacent drainage structures.</i></li> <li>• <i>Remove sediment tracked onto the street by the end of the day in which the track-out occurs.</i></li> <li>• <i>Restrict vehicle use to properly designated exit points.</i></li> <li>• <i>Include additional BMPs that remove sediment prior to exit when minimum dimensions cannot be met.</i></li> </ul> <p><i>See Stabilized Construction Entrance/Exit Section SC-11 for additional requirements.</i></p>	<i>See Stabilized Construction Entrance/Exit Section SC-11</i>
<i>Irrigation Water</i>	<ul style="list-style-type: none"> <li>• <i>Consider irrigation requirements.</i></li> <li>• <i>Where possible, avoid species which require irrigation.</i></li> <li>• <i>Design, timing and application methods of irrigation water to eliminate the runoff of excess irrigation water into the storm water drainage system.</i></li> </ul> <p><i>See Seeding and Planting Section EC-12 and California Stormwater BMP Handbook SD-12 Efficient Irrigation included in SWPPP Attachment A for additional requirements.</i></p>	<i>See Seeding and Planting Section EC-12 and California Stormwater BMP Handbook SD-12 Efficient Irrigation</i>
<i>Hydrotesting Effluent</i>	<ul style="list-style-type: none"> <li>• <i>If work includes removing, relocation or installing waterlines, and Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, the Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form F application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Hydrotesting Activities if necessary. Site specific BMPs will be included in the NOI/NPDES Permit Form F submittal.</i></li> </ul>	<i>Site specific BMPs will be included in the NOI/NPDES Permit Form F submittal.</i>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<i>Dewatering Effluent</i>	<i>If excavation or backfilling operations require dewatering, and Contractor elects to discharge dewatering effluent into State waters or existing drainage systems, Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form G application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Dewatering Activities if necessary. See Site Planning and General Practices, Dewatering Operations Section SM-18 for additional requirements.</i>	<i>See Dewatering Operations SM-18. Site specific BMPs will be included in the NOI/NPDES Permit Form G submittal.</i>
<i>Saw-cutting Slurry</i>	<ul style="list-style-type: none"> <li>• <i>Saw cut slurry shall be removed from the site by vacuuming.</i></li> <li>• <i>Provide storm drain protection during saw cutting. See Paving Operations Section SM-20 for additional requirements.</i></li> </ul> <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i>	<i>See Paving Operations Section SM-20, Storm Drain Inlet Protection SC-1, Perimeter sediment controls where applicable</i>
<i>Concrete Curing Water</i>	<ul style="list-style-type: none"> <li>• <i>Avoid overspraying of curing compounds.</i></li> <li>• <i>Apply an amount of compound that covers the surface, but does not allow any runoff of the compound.</i></li> </ul> <i>See California Stormwater BMP Handbook NS-12 Concrete Curing included in SWPPP Attachment A for additional requirements.</i>	<i>See California Stormwater BMP Handbook NS-12 Concrete Curing</i>

<b>Pollutant Source</b>	<b>Appropriate Site-Specific BMP to be Implemented</b>	<b>BMP Requirements</b>
<i>Plaster Waste Water</i>	<ul style="list-style-type: none"> <li>• <i>Direct all wastewater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.</i></li> <li>• <i>Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.</i></li> <li>• <i>Any significant residual materials remaining on the ground after the completion of construction shall be removed and properly disposed. If the residual materials contaminate the soil, then the contaminated soil shall also be removed and properly disposed of.</i></li> <li>• <i>Plaster waste water shall not be allowed to flow into drainage structures or State waters. See Material, Storage and Handling Use SM-2, Stockpile Management Use Section SM-3, and Hazardous Materials and Waste Management Section SM-9 for additional requirements.</i></li> </ul>	<i>See Material, Storage and Handling Use Section SM-2, Stockpile Management Use Section SM-3, and Hazardous Materials and Waste Management Section SM-9</i>
<i>Water-Jet Wash Water</i>	<ul style="list-style-type: none"> <li>• <i>For Water-Jet Wash Water used to clean vehicles, use off site wash racks or commercial washing facilities when practical.</i></li> <li>• <i>See Vehicle and Equipment Cleaning Section SM-11 for additional information.</i></li> <li>• <i>For Water-Jet Wash Water used to clean impervious surfaces, the runoff shall not be allowed to flow into drainage structures or State Waters.</i></li> </ul>	<i>See Vehicle and Equipment Cleaning Section SM-11</i>
<i>Sanitary/Septic Waste</i>	<ul style="list-style-type: none"> <li>• <i>Locate Sanitary facilities in a convenient place away from drainage facilities.</i></li> <li>• <i>Position sanitary facilities so they are secure and will not be tipped over or knocked down.</i></li> <li>• <i>Wastewater shall not be discharged to the ground or buried.</i></li> <li>• <i>A licensed service provider shall maintain sanitary/septic facilities in good working order.</i></li> <li>• <i>Schedule regular waste collection by a licensed transporter.</i></li> <li>• <i>See Sanitary Waste Section SM-7 for additional requirements.</i></li> </ul>	<i>See Sanitary Waste Section SM-7.</i>

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**END OF SECTION 209**

**STP-0300(214)  
209-29a**

**1-14-22**

1 Make the following Section a part of the Standard Specifications:  
2

3 **SECTION 219 – DETERMINATION AND CHARACTERIZATION OF FILL**  
4 **MATERIAL**  
5  
6

7 **219.01 Description.** This section describes determination and characterization  
8 of fill material for project sites.  
9

10 Requirements of this section apply to all waste generated from construction  
11 and demolition (C&D) activities on the project.  
12

13 **219.02 Definitions.**  
14

15 **(A) Inert Fill Material.** Inert Fill Material is defined in the Hawaii Revised  
16 Statutes (HRS) 342H-1. Materials that do not meet this definition shall be  
17 disposed of at the appropriate Hawaii Department of Health (HDOH) Solid  
18 and Hazardous Waste Branch permitted solid waste management facility.  
19

20 The October 2021 State of Hawaii Department of Transportation,  
21 Highways Division, Construction Best Management Practices Field Manual,  
22 specifies inert fill material shall not be contaminated with asbestos or lead-  
23 based paint. In addition, inert fill materials do not decompose or produce  
24 leachate or other products harmful to the environment.  
25

26 **(B) Lead-Based Paint (LBP).** Lead Based Paint (LBP) is defined by  
27 Section 403 of the Toxic Substances Control Act (TSCA), as amended by  
28 the Environmental Protection Agency (EPA) or as defined in approved  
29 subsequent revisions.  
30

31 **219.03 Construction.**  
32

33 **(A) Preconstruction Requirements.** Retain the services of an  
34 Environmental Professional as accepted by the Engineer. Submit  
35 documentation the Environmental Professional has a minimum of five (5)  
36 years of experience in solid and hazardous waste management and fill  
37 material characterization within 30 calendar days of contract certification  
38 date.  
39

40 **(B) Construction Requirements.**  
41

42 **(1) Reclassification of Solid Waste into Inert Fill Material.** If  
43 reclassifying solid waste as inert fill, obtain written acceptance from  
44 the Engineer before following the requirements of Section  
45 219.03(B)(2) Inert Fill Material.  
46

47 **(2) Inert Fill Material.** The State reserves the right to reject

48 imported fill from sources known to contain hazardous material or if  
49 any of the requirements in this specification are not met. The source  
50 and/or stockpiled location of the material shall remain accessible at  
51 all times to State personnel for sampling, testing, and inspection as  
52 determined by the Engineer. Prior to importing/removal of material,  
53 the Contractor shall provide the specific location and quantity of  
54 material that is to be transported to/from the project site.  
55

56 **(a) Certificates.** Provide a written certificate indicating that  
57 the fill material meets the inert fill material definition specified  
58 herein. The written certificate shall include a description of  
59 the evidence (including but not limited to historical  
60 documentation of land use, test results, fill material  
61 characterization report, and/or Phase I Environmental Site  
62 Assessment) used by the Contractor to determine that the fill  
63 material is inert fill material. The written certificate shall be  
64 prepared and signed by an Environmental Professional.  
65 Submit the written certificate to the Engineer 14 calendar days  
66 before the fill material is imported to or removed from the  
67 project site. Do not import the fill material to, or export the fill  
68 material from the project site until the Engineer has accepted  
69 the certificate. Revise the written certificate as requested by  
70 the Engineer until the Engineer has accepted the certificate at  
71 no additional cost to the State. If the Engineer does not  
72 accept the certificate, the fill material shall not be considered  
73 inert fill material; and the Contractor shall dispose of the fill  
74 material in accordance with all applicable Federal, state, and  
75 Local laws and regulations at no additional cost to the State.  
76

77 **(b) Documentation.** Provide documentation that the  
78 material will be taken to a properly permitted site. At minimum  
79 the documentation shall include the location of the disposal  
80 site (name, address, Tax Map Key No., telephone number,  
81 and map) with a revised Solid Waste Disclosure Form to  
82 indicate the material that was reclassified as inert fill and the  
83 location that the inert fill will be taken to.  
84

85 **(c) Laboratory Certification.** Samples shall be tested by  
86 a laboratory certified to perform the specific analyses.  
87

88 **(d) Hawaii Department of Health Guidance Documents.**  
89 The HDOH has published guidance documents for the  
90 characterization of fill material and construction and  
91 demolition (C&D) waste. Comply with all applicable Federal,  
92 State, and Local laws and regulations. The procedures of the  
93 most recent versions of the following guidance documents or  
94 their replacements for the determination and characterization

of the fill material or waste may be used as a reference:

1. Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material.
2. Evaluation of Fill Material for Chemical Contaminants (Fact Sheet).
3. Guidance for Construction & Demolition (C&D) Waste Disposal.
4. Technical Guidance Manual for the Implementation of the Hawai'i State Contingency Plan.

Obtain and follow the latest versions of the applicable HDOH guidance documents.

**(e) Lead Based Paint Restriction.** Test for lead based paint as directed by the Engineer a minimum of five (5) working days prior to cold planing existing pavement or other demolition activities. Remove lead based paint from cold planed asphalt prior to use as a fill material. Lead based paint does not have to be removed if recycled for reclaimed asphalt for pavement.

**219.04 Measurement.** Determination and characterization of fill material will be paid on a lump sum basis. Measurement for payment will not apply. The Engineer will only measure testing for lead based paint required and requested by the Engineer on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation.

**219.05 Payment.** The Engineer will pay for the accepted pay items listed below at contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for the following pay item when included in proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Determination and Characterization of Fill Material	Lump Sum
Testing for Lead Based Paint	Force Account

An estimated amount for force account is allocated in the proposal schedule under "Testing for Lead Based Paint", but actual amount to be paid will be the sum shown on accepted force account records, whether this sum be more or less than

142 the estimated amount allocated in the proposal schedule.

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145 The Engineer may assess liquidated damages up to \$27,500 per day for  
146 non-compliance of each requirement and all other requirements in this section.

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**END OF SECTION 219**



1                                   **SECTION 301 – HOT MIX ASPHALT BASE COURSE**

2  
3    Make the following amendments to said Sections:

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5    **(I)**    Amend **Section 301.03(B)            Compaction** by revising the second  
6    paragraph from lines 84 to 87 to read as follows:

7  
8                    “Compact mixture immediately upon completion of spreading  
9                    operations to density of not less than 92.0 percent of maximum theoretical  
10                   specific gravity in accordance with AASHTO T 209, modified by deletion of  
11                   Supplemental Procedure for Mixtures Containing Porous Aggregate.”

12  
13  
14   **(II)**   Amend **Section 301.04   Measurement** from lines 98 to 100 to read as  
15    follows:

16  
17   **“301.04        Measurement.** The Engineer will measure HMAB course per ton in  
18    accordance with contract documents.”

19  
20  
21   **(III)**   Amend **Section 301.05   Payment,** from lines 102 to 111 to read as follows:

22  
23   **“301.05        Payment.** The Engineer will pay for the accepted pay items listed  
24    below at the contract price per pay unit, as shown in the proposal schedule.  
25    Payment will be full compensation for the work prescribed in this section and the  
26    contract documents.

27  
28                    The Engineer will pay for one of the following pay items when included in  
29    the proposal schedule:

30

<b>Pay Item</b>	<b>Pay Unit</b>
Hot Mix Asphalt Base Course	Ton
<b>(1)</b> 80% of the contract unit price upon completion of submitting a job-mix formula acceptable to the Engineer; preparing the surface, spreading, and finishing the mixture; and compacting the mixture by rolling;	
<b>(2)</b> 20% of the contract unit price upon completion of cutting samples from the compacted pavement for testing; placing and compacting the sampled area with new material conforming to the surrounding area; protecting the pavement; and final analysis.	

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45                    The Engineer may, in lieu of requiring removal and replacement, use the  
46    sliding scale factor to accept HMAB compacted below 92.0 percent. The Engineer

47 will make payment for the material in that production day at a reduced price  
48 arrived at by multiplying the contract unit price by the pay factor shown in Table  
49 301.05-1.  
50

<b>Table 301.05-1 – Sliding Scale Pay Factor</b>	
<b>Percent Compaction</b>	<b>Percent Payment</b>
92.0 or greater	100
90.0 – 91.9	80
<90.0	Removal

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**END OF SECTION 301**

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**SECTION 304 – AGGREGATE BASE COURSE**

Make the following amendments to said Section:

**(I)** Amend **304.04 – Measurement** by revising lines 54 to 55 to read as follows:

**“304.04 Measurement.** The Engineer will measure aggregate base course per cubic yard in accordance with the contract documents.”

**(II)** Amend **304.05 – Payment** by revising lines 57 to 66 to read as follows:

**“304.05 Payment.** The Engineer will pay for the accepted aggregate base course at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Aggregate Base Course	Cubic Yard”

**END OF SECTION 304**



1 Amend SECTION 401 – HOT MIX ASPHALT (HMA) PAVEMENT to read as  
2 follows:

3  
4                   **“SECTION 401 – HOT MIX ASPHALT (HMA) PAVEMENT**

5  
6 **401.01 Description.** This section describes furnishing and placing dense  
7 graded HMA pavement (herein referred to as HMA) on a prepared surface.

8  
9 **401.02 Materials.**

10  
11 Asphalt Cement (PG 64-16) 702.01(A)

12  
13 Use for non-surface mixes, unless otherwise specified in the project documents.

14  
15 Asphalt Cement (PG 64E-22) 702.01(B)

16  
17 Use for all surface mixes, except for on Lanai and Molokai, and unless otherwise  
18 specified in the project documents. Polymer modified asphalt (PMA) pavement  
19 refers to asphalt mix using PG 64E-22, unless otherwise indicated.

20  
21 Emulsified Asphalt 702.04

22  
23 Warm Mix Asphalt Additive 702.06

24  
25 Aggregate for Hot Mix Asphalt Pavement 703.09

26  
27 Filler 703.15

28  
29 Hydrated Lime or a liquid anti-strip approved by the engineer 712.03

30  
31 **(A) General.** HMA pavement shall be plant mixed and shall include  
32 mixture of aggregate and asphalt binder and may include reclaimed asphalt  
33 pavement (RAP) or filler, or both.

34  
35 The manufacture of HMA may include warm mix asphalt (WMA)  
36 processes in accordance with these specifications. WMA processes  
37 include combinations of organic additives, chemical additives, and  
38 foaming.

39  
40 HMA pavement shall include surface course and may include one or  
41 more binder courses, depending on HMA pavement thickness indicated in  
42 the contract documents.

43  
44 RAP is defined as removed or reprocessed pavement materials  
45 containing asphalt and aggregates. Process RAP by crushing until 100  
46 percent of RAP passes 3/4-inch sieve. Size, grade uniformly, and combine  
47 materials such that blend of RAP and aggregate material conforms to  
48 grading requirements of Subsection 703.09 - Aggregate for Hot Mix Asphalt  
49 Pavement.

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In surface and binder courses, aggregate for HMA may include RAP quantities up to 20 percent of total mix weight.

Quantity of filler material to correct deficiencies in aggregate gradation passing the No. 200 sieve shall not exceed 3 percent by weight of fine aggregates.

**(B) Job-Mix Formula and Tests.** Design job-mix formula in accordance with procedures contained in current edition of Asphalt Institutes *Mix Design Methods for Asphalt Concrete and Other Hot Mix Types*, Manual Series No. 2 (MS-2) for either Marshall Method or Hveem Method of Mix Design.

Limit compacted lift thickness and asphalt content of job-mix formula as specified in Table 401.02-1 - Limits of Compacted Lift Thickness and Asphalt Content.

<b>TABLE 401.02-1 - LIMITS OF COMPACTED LIFT THICKNESS AND ASPHALT CONTENT</b>				
<b>MIX NO.</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
Minimum to Maximum Compacted Thickness for Individual Lifts (Inches)	2-1/4	2	1-1/2	1-1/4
	to	to	to	to
	3	3	3	3
Asphalt Content Limits (Percent of Total Weight of Mix)	3.8	4.3	4.3	4.8
	to	to	to	to
	6.1	6.1	6.5	7.0

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Asphalt content limits for porous aggregate may be exceeded only if it is requested ahead of placement and is reviewed then accepted in writing by the Engineer.

Meet job-mix formula design criteria specified in Table 401.02-2 - Job-Mix Formula Design Criteria.

<b>TABLE 401.02-2 - JOB-MIX FORMULA DESIGN CRITERIA</b>	
<b>Hveem Method Mix Criteria (AASHTO T 246 and AASHTO T 247)</b>	
Stability, minimum	37
Air Voids (percent) <sup>1</sup>	3 - 5
<b>Marshall Method Mix Criteria (AASHTO T 245)</b>	
Compaction (number of blows each end of specimen)	75
Stability, minimum (pounds)	1,800
Flow (x 0.01 inch)	8 - 16
Air Voids (percent) <sup>1</sup>	3-5
<b>Notes:</b>	
1. Air Voids: AASHTO T 166 or AASHTO T 275; AASHTO T 209, AASHTO T 269.	

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Minimum percent voids in mineral aggregates (VMA) of job-mix formula shall be as specified in Table 401.02-3 - Minimum Percent Voids in Mineral Aggregates (VMA).

<b>TABLE 401.02-3 - MINIMUM PERCENT VOIDS IN MINERAL AGGREGATES (VMA)</b>					
Nominal Maximum Particle Size, (Inches)	1-1/2	1	3/4	1/2	3/8
VMA, (percent) <sup>1</sup>	11.0	12.0	13.0	14.0	15.0
<b>Notes:</b>					
1. VMA: See Asphalt Institute Manual MS-2					

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**(C) Submittals.** Establish and submit job-mix formula for each type of HMA pavement mix indicated in the contract documents a minimum of 30 days before paving production. Job mix shall include the following applicable information:

- (1) Design percent of aggregate passing each required sieve size.
- (2) Design percent of asphalt binder material (type determined by type of mix) added to the aggregate (expressed as% by weight of total mix),
- (3) Design proportion of processed RAP.

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- (4) Design temperature of mixture at point of discharge at paver.
- (5) Source of aggregate.
- (6) Grade of asphalt binder.
- (7) Test data used to develop job-mix formula.

Except for item (4) in this subsection, if design requirements are modified after the Engineer accepts job-mix formula, submit new job-mix formula before using HMA produced from modified mix design. Submit any changes to the design temperature of mixture at point of discharge for acceptance by the Engineer.

Submit a certificate of compliance for the asphalt binder, accompanied by substantiating test data from a certified testing laboratory.

**(D) Range of Tolerances for HMA.** Provide HMA within allowable tolerances of accepted job mix formula as specified in Table 401.02-4 - Range of Tolerances HMA. These tolerances are not to be used for the design of the job mix, they are solely to be used during the testing of the production field sample of the HMA mix.

<b>TABLE 401.02-4-RANGE OF TOLERANCES HMA</b>	
Passing No. 4 and larger sieves (percent)	± 7.0
Passing No. 8 to No. 100 sieves (inclusive) (percent)	±4.0
Passing No. 200 sieve (percent)	±3.0
Asphalt Content (percent)	± 0.4
Mixture Temperature (degrees F)	± 20

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The tolerances shown are the allowable variance between the physical characteristics of laboratory job mix submitted mix design and the production or operational mix, i.e., field samples.

**401.03 Construction.**

**(A) Weather Limitations.** Placement of HMA shall not be allowed under the following conditions:

- (1) On wet surfaces, e.g., surface with ponding or running water, surface that has aggregate or surface that appears beyond surface saturated dry, as determined by the Engineer.



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(2) When air temperature is below 50 degrees F and falling. HMA may be applied when air temperature is above 40 degrees F and rising. Air temperature will be measured in shade and away from artificial heat.

(3) When weather conditions prevent proper method of construction.

**(B) Equipment.**

(1) **Mixing Plant.** Use mixing plants that conform to AASHTO M 156, supplemented as follows:

**(a) All Plants.**

1. **Automated Controls.** Control proportioning, mixing, and mix discharging automatically. When RAP is incorporated into mixture, provide positive controls for proportioning processed RAP.

2. **Dust Collector.** AASHTO M 156, Requirements for All Plants, Emission Controls is amended as follows:

Equip plant with dust collector. Dispose of collected material. In the case of baghouse dust collectors, dispose of collected material or return collected material uniformly.

3. **Modifications for Processing RAP.** When RAP is incorporated into mixture, modify mixing plant in accordance with plant manufacturer's recommendations to process RAP.

**(b) Drum Dryer-Mixer Plants.**

1. **Bins.** Provide separate bin in cold aggregate feeder for each individual aggregate stockpile in mix. Use bins of sufficient size to keep plant in continuous operation and of proper design to prevent overflow of material from one bin to another.

2. **Stockpiling Procedures.** Separate aggregate for Mix II, Mix III and Mix IV into at least three stockpiles with different gradations as follows: coarse, intermediate, and fine. Separate aggregates for Mix V into at least two stockpiles. Stockpile RAP separately from virgin aggregates.

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**3. Checking Aggregate Stockpile.** Check condition of the aggregate stockpile often enough to ensure that the aggregate is in optimal condition.

**(c) Batch and Continuous Mix Plants.**

**1. Hot Aggregate Bin.** Provide bin with three or more separate compartments for storage of screened aggregate fractions to be combined for mix. Make partitions between compartments tight and of sufficient height to prevent spillage of aggregate from one compartment into another.

**2. Load Cells.** Calibrated load cells may be used in batch plants instead of scales.

**(2) Hauling Equipment.** Use trucks that have tight, clean, smooth metal beds for hauling HMA.

Thinly coat truck beds with a minimum quantity of non-stripping release agent to prevent mixture from adhering to beds. Diesel or petroleum-based liquid release agents, except for paraffin oil, shall not be used. Drain excess release agent from truck bed before loading with HMA.

Provide a designated clean up area for the haul trucks.

Equip each truck with a tarpaulin conforming to the following:

- (a)** In good condition, without tears and holes.
- (b)** Large enough to be stretched tightly over truck bed, completely covering mix. The tarpaulin shall be secured in such a manner that it remains stretched tightly over truck bed and HMA mix until the bed is about to be raised up in preparation for discharge.

**(3) Asphalt Pavers.** Use asphalt pavers that are:

- (a)** Self-contained, power-propelled units.
- (b)** Equipped with activated screed or strike-off assembly, heated if necessary.
- (c)** Capable of spreading and finishing courses of HMA mixtures in lane widths applicable to typical section and thicknesses indicated in the contract documents.

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(d) Equipped with receiving hopper having sufficient capacity for uniform spreading operation.

(e) Equipped with automatic feed controls to maintain uniform depth of material ahead of screed.

(f) Equipped with automatic screed controls with sensors capable of sensing grade from outside reference line, sensing transverse slope of screed, and providing automatic signals to control screed grade and transverse slope.

(g) Capable of operating at constant forward speeds consistent with satisfactory laying of mixture.

(h) Equipped with a means of preventing the segregation of the coarse aggregate particles from the remainder of the bituminous plant mix when that mix is carried from the paver hopper back to the paver augers. The means and methods used shall be approved by the paver manufacturer and may consist of chain curtains, deflector plates, or other such devices and any combination of these.

The following specific requirements shall apply to the identified bituminous pavers:

1. **Blaw-Knox Bituminous Pavers.** Blaw-Knox bituminous pavers shall be equipped with the Blaw-Knox Materials Management Kit (MMK).
2. **Cedarapids Bituminous Pavers.** Cedarapids bituminous pavers shall be those that were manufactured in 1989 or later.
3. **Barber-Green/Caterpillar Bituminous Pavers.** Barber-Green/Caterpillar bituminous pavers shall be equipped with deflector plates as identified in the December 2000 Service Magazine entitled "New Asphalt Deflector Kit {6630, 6631,6640}".

Bituminous pavers not listed above shall have similar attachments or designs that shall make them equivalent to the bituminous pavers listed above. The Engineer will solely decide if it is equal to or better than the setups described for the equipment listed above.

Submit for review and acceptance, prior to the start of using the paver for the placing of plant mix, a full description in writing of the means and methods that will be used to prevent the bituminous paver from having both aggregate and

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temperature segregation. Use of any paver that has not been accepted is prohibited until acceptance of the paver is received from the Engineer. Any pavement placed with an unaccepted paver will be regarded as not compliant work and may not be paid for and may require removal.

Supply a Certificate of Compliance that verifies that the manufacturer's approved means and methods used to prevent bituminous paver from having both aggregate and temperature segregation have been implemented on all pavers used on the project and are working in accordance with the manufacturer's requirements and Contract Documents.

**(4) Rollers.** Rollers shall be self-propelled, steel-tired tandem, pneumatic-tired, or vibratory-type rollers capable of reversing without shoving or tearing the just placed HMA mixture. Provide sufficient number, sequencing, type, and rollers of sufficient weight to compact the mixture to required density while mixture is still in workable condition. Equipment shall not excessively crush aggregate. Operate rollers in accordance with manufacturer's recommendations and Contract Documents. The use of intelligent compaction is encouraged and may be required elsewhere in the Contract Documents.

**(a) Steel-Tired Tandem Rollers.** Steel-tired tandem rollers used for initial breakdown or intermediate roller passes shall have minimum gross weight of 12 tons and shall provide minimum 250-pound weight per linear inch of width on drive wheel.

Steel-tired tandem rollers used for finish roller passes shall have minimum total gross weight of 3 tons.

Do not use roller with grooved or pitted rolling drum or worn scrapers or wetting pads. Replace excessively worn scrapers and wetting pads before use.

**(b) Pneumatic-Tired Rollers.** Pneumatic-tired rollers shall be oscillating-type, equipped with smooth-tread pneumatic tires of equal size and diameter. Maintain tire pressure within 5 pounds per square inch of designated operational pressure when hot. Space tires so that gaps between adjacent tires are covered by following set of tires.

Pneumatic-tired rollers used for breakdown or intermediate roller passes shall have a ballast capable of establishing an operating weight per tire of not less than 3,000 pounds. Equip rollers with tires having minimum 20-inch

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wheel diameter with tires inflated to 70 to 75 pounds per square inch pressure when cold and 90 pounds per square inch when hot. Equip rollers with skirt-type devices to maintain temperature of tires during rolling operations.

Pneumatic-tired rollers used for kneading finished asphalt surfaces shall have a ballast capable of establishing an operating weight per tire of not less than 1,500 pounds. Equip rollers with tires having minimum 15-inch wheel diameter with tires inflated to 50 to 60 pounds per square inch pressure. If required, equip rollers with skirt-type devices to maintain temperature of tires during rolling operations.

**(c) Vibratory Rollers.** Vibratory rollers shall be steel-tired tandem rollers having minimum total weight of 3 tons. Equip vibratory rollers with amplitude and frequency controls and speedometer. Operate vibratory roller in accordance with manufacturer's recommendations. For very thin lifts, 1 inch or less in thickness, vibratory rollers shall not be used in the vibratory mode. Instead, operate the unit in the static mode.

**(5) Hand Tools.** Keep hand tools used in production, hauling, and placement of HMA clean and free of contaminants. Diesel or mineral spirits or other cleaning material that is potentially deleterious to HMA may be used to clean hand tools providing:

- (a)** It does not contaminate HMA with cleaning material.
- (b)** Clean hand tools over catch pan with capacity to hold all the cleaning material.
- (c)** Remove all diesel or mineral spirits or other cleaning material that is potentially deleterious to HMA from hand tools before using with HMA.
- (d)** Hand tools used shall be in a condition such that it meets the requirements that it was manufactured for, e.g., a straightedge shall meet the straightness requirement of the manufacturer.

**(6) Material Transfer Vehicle (MTV).**

**(a) Usage.** MTV usage applies to surface courses of paving projects on all Islands except Lanai, unless otherwise indicated. When placing HMA surface course use MTV to independently deliver mixtures from hauling equipment to paving equipment MTV usage will not be required for the following:

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1. Projects with less than 1,000 tons of HMA.
2. Temporary pavements.
3. Bridge deck approaches.
4. Shoulders.
5. Tapers.
6. Turning lanes.
7. Driveways.
8. Areas with low overhead clearances.

**(b) Equipment.** When using MTV, install minimum 10-ton-capacity hopper insert in conventional paver hopper. Provide the following equipment:

1. High-capacity truck unloading system in MTV capable of receiving HMA from hauling equipment.
2. MTV storage bin with minimum 15-ton capacity.
3. An auger mixing system in one of the following: the MTV storage bin, or paver hopper insert, or paver hopper to continuously mix HMA prior to discharging to the paver's conveyor system.

Avoid stop-and-go operations by coordinating plant production rate, number of haul units, and MTV and paver speeds to provide a continuous, uniform, segregation-free material flow and smooth HMA pavement. Maintain uniform paver speed to produce smooth pavements.

**(c) Performance Evaluation.** Evaluate the performance of MTV and mixing equipment by measuring mat temperature profile immediately behind paver screed on first day of paving and when it feels the need to do so due to perceived changes in performance or as directed by the Engineer.

Use a hand-held temperature device that has been calibrated within the past 12 months. It shall be an infrared temperature gun is capable of measuring in one degree or finer increments between the temperatures of 80 degrees to 400 degrees F with a laser to indicate where the temperature reading is being taken. Six temperature profile measurements shall be taken of mat surface using infrared

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temperature gun at 50-foot intervals behind paver. Each temperature profile shall consist of three surface temperature measurements taken transversely across the mat in approximately a straight line from screed while paver is operating. For each profile, temperatures shall be measured approximately 1 foot from each edge and in middle of mat. The difference between maximum and minimum temperature measurements for each temperature profile shall not exceed 10 degrees F. If any two or more temperature profiles exceeds the allowable 10-degree F temperature differential, halt paving operation and adjust MTV or mixing equipment to ensure that material placed by paver meets specified temperature requirements. Redo the measuring of mat temperature profile until adjustment of the MTV or mixing equipment is adequate. Submit all temperature profiles to the Engineer by next business day. Information on the report shall show location and temperature readings and time test was performed. Enough information shall be given, so the Engineer will be able to easily locate the test site of the individual measurement.

When requested temperature profile measurements shall be done in the presence of the Engineer.

Once adjustments are made, repeat measurement procedure for the next two placements to verify that material placed by paver meets specified temperature requirements. Terminate paving if temperature profile requirements are not met during repeated measurement procedure. If equipment fails to meet requirements after measurement procedure is repeated once, replace equipment before conducting any further temperature profile measurements.

The Engineer may perform surface temperature profile measurements at any time during project. The Engineer may in lieu of a hand-held infrared temperature device use an infrared camera or device that is capable of measuring temperatures to locate cold spots. If such cold spots exist, the Engineer may require adjustments to the MTV.

If bleeding or fat spots occur in the pavement adjust means and methods to eliminate such pavement defects and perform remedial repair to pavement acceptable to the Engineer. Bleeding is defined as excess binder occurring on the surface of the pavement. It may create a shiny, glass-like, reflective appearance and may be tacky to the touch. Fat spots are localized bleeding.

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**(d) Transport.**

**1. Trailered MTV.** Transport MTV by means of truck-tractor/trailer combination in accordance with Chapter 104 of Title 19, Department of Transportation, entitled "The Movement by Permit of Oversize and Overweight Vehicles on State Highways".

**2. Crossing Bridges for Self-Powered MTV.**

When self-powered MTV exceeds legal axle or total weight limits for vehicles under the HRS, Chapter 291, conform to the following when crossing bridges within project limits unless otherwise indicated in the Contract Documents:

- a. Completely remove mix from MTV.
- b. Move MTV at relatively constant speed not exceeding 5 miles per hour. MTV will not be allowed to stop on bridge.
- c. No other vehicle or equipment will be allowed on bridge.
- d. The MTV shall not attempt to cross a bridge where the posted load limit is less than or equal to the weight of the MTV empty. Permission to cross the bridge shall be obtained from the Engineer and HWY-DB in writing.

**(C) Preparation of Surface.** Clean existing pavement in accordance with Section 310 - Brooming Off. Apply tack coat in accordance with Section 407 - Tack Coat. Tack coat shall not be applied to surfaces to receive an application of joint adhesive.

Where indicated in the Contract Documents, bring irregular surfaces to uniform grade and cross section by furnishing and placing one or more leveling courses of HMA Mix V. Spread leveling course in variable thicknesses to eliminate irregularities in existing surface. Place leveling course such that maximum depth of each course, when thoroughly compacted, does not exceed 3 inches.

In multiple-lift leveling course construction, spread subsequent lifts beyond edges of previously spread lifts in accordance with procedures contained in current edition of the Asphalt institute's *Construction of Hot Mix Asphalt Pavements*, Manual Series No. 22 (MS-22) for leveling wedges.

Notify the Engineer of existing surfaces that may not be in a condition that will have enough strength to be a good bonding surface or foundation



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and should be removed or have remedial repairs done before new pavement placement.

**(D) Plant Operation.**

**(1) Preparation of Asphalt Binder.** Uniformly heat asphalt binder and provide continuous supply of heated asphalt cement from storage to mixer. Do not heat asphalt binder above the recommendation of the supplier for modified binders or above 350 degrees F for neat binders.

**(2) Preparation of Aggregate.** Dry and heat aggregate material at temperature sufficient to produce design temperature of job-mix formula. Do not exceed 350 degrees F. Adjust heat source used for drying and heating to avoid damage to and contamination of aggregate. When dry, aggregate shall not contain more than 1 percent moisture by weight.

For batch plants, screen aggregates immediately after heating and drying into three or more fractions. Convey aggregates into separate compartments ready for batching and mixing with asphalt binder.

**(3) Mixing.** Measure aggregate and asphalt; or aggregate, RAP, and asphalt into mixer in accordance with an accepted job-mix formula. Mix until components are completely mixed and adequately coated with asphalt binder in accordance with AASHTO M 156. Percent of coated particles shall be 95 percent when tested in accordance with AASHTO T 195.

**(4) Plant Inspection.** For control and acceptance testing during periods of production, provide a testing laboratory that meets the requirements of AASHTO M 156. Provide space, utilities, and equipment required for performing specified tests.

**(E) Spreading and Finishing.** Prior to each day's paving operation, check screed or strike-off assembly surface with straight edge to ensure straight alignment and there is no damage or wear to the machine that will affect performance. Provide screed or strike-off assembly that produces finished surface without tearing, shoving, and gouging HMA. Discontinue using spreading equipment that leaves ridges, indentations, or other marks, or combination thereof in surface that cannot be eliminated by rolling or affects the final smoothness of the pavement or be prevented by adjustment in operation.

Maintain HMA at minimum 250 degrees F temperature at discharge to paver. The Engineer shall observe the contractor measuring the temperature of mix in hauling vehicle just before depositing into spreader or paver or MTV.

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Deposit HMA in a manner that minimizes segregation. Raise truck beds with tailgates closed before discharging HMA.

Lay, spread, and strike off HMA upon prepared surface. Where practical, use asphalt pavers to distribute mixture.

Where practical, control horizontal alignment using automatic grade and slope controls from reference line, slope control device. Existing pavements or features shall not be used for grade control alone.

Obtain sensor grade reference, horizontal alignment by using established grade and slope controls. For subsequent passes, substitution of one ski with joint-matching shoe riding on finished adjacent pavement is acceptable. Use of a comparable non-contact mobile reference system and joint matching shoe is acceptable.

Avoid stop-and-go operation. Maintain a constant forward speed of paver during paving operation and minimize other methods that impact smoothness.

Offset longitudinal joint in successive lifts by approximately 6 inches. Incorporate into paving method an overlap of material of 1-inch +/- 0.5 inches at the longitudinal joint. The HMA overlap material shall be left alone when initially placed and shall not be bumped back or pushed back with a lute or any other hand-held device. If the overlap exceeds the maximum amount remove the excess with a flat shovel, allowing recommended amount of overlap HMA material to remain in place to be compacted. Do not throw the removed excess HMA material on to the paving mat. The longitudinal joint in a surface course when total roadway width is comprised of two lanes shall be near the centerline of pavement or near lane lines when roadway is more than two lanes in width. The longitudinal joint shall not be constructed in the wheel path or under the longitudinal lane lines. Make a paving plan drawing showing how the longitudinal joint will not be located in these areas.

Control the horizontal alignment of the longitudinal edge of the HMA mat being installed so that the edge is parallel to the centerline or has a uniform alignment, e.g., the edge of the mat is straight line or uniform curve, no wavy edge, etc. to have a consistent amount of HMA material at the joint.

Check the compaction of the longitudinal joint during paving often enough to ensure that it will meet the compaction requirements.

If nuclear gauges and ground penetrating radar are used as the contractor's quality control method, they shall be properly calibrated and periodically checked by comparison to cores taken from the pavement. The

622 use of sand as an aid in properly seating the gauge may also be considered  
623 for improving the accuracy of the gauge.

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625 In areas where irregularities or unavoidable obstacles make use of  
626 mechanical spreading and finishing equipment impracticable, spread, rake,  
627 and lute mixture by hand tools. For such areas, deposit, spread evenly,  
628 and screed mixture to required compacted thickness.

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630 Demonstrate competence of personnel operating grade and crown  
631 control device before placing surface courses. If automatic control system  
632 becomes inoperative during the day's work, the Engineer will permit the  
633 Contractor to finish day's work using manual controls. The Engineer may  
634 also allow additional HMA to be ordered and placed using manual controls  
635 if it will provide a safer work site for the public to travel through. Do not  
636 resume work until automatic control system is made operative. The  
637 Engineer may waive requirement for electronic screed control device when  
638 paving gores, shoulders, transitions, and miscellaneous reconstruction  
639 areas where the use of the devices is not practical.

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641 When production of HMA can be maintained and when practicable,  
642 use pavers in echelon shall be used to place surface course in adjacent  
643 lanes.

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645 At the end of each workday, HMA pavement that is open to traffic shall  
646 not extend beyond the panel of the adjacent new lane pavement by more  
647 than the distance normally placed in one workday. At end of each day's  
648 production, construct tapered transitions along all longitudinal and  
649 transverse pavement drop-offs; this shall apply to areas where existing  
650 pavement is to meet newly placed pavement. Use slopes of 6:1 for  
651 longitudinal taper transitions and 48:1 for transverse tapered transitions.  
652 Maximum drop-off height along the joints shall be 2 inches. Also, using a  
653 48:1 slope provides a taper around any protruding object, e.g., manholes,  
654 drain boxes, survey monuments, inlets, etc., that may be above pavement  
655 surface when opened to the public. If the object is below the surface of the  
656 pavement then fill the depression until it is level with the surrounding  
657 pavement or raise depressed objects to the finish grade of the placed  
658 pavement. Remove and dispose of all transition tapers before placing  
659 adjoining panel or next layer of HMA. Notify traveling public of pavement  
660 drop-offs or raised objects with signs placed in every direction of traffic that  
661 may use and encounter pavement drop-offs or protruding objects or holes.

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663 Use the same taper rates for areas where there is a difference in  
664 elevation due to construction work.

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666 At end of each workweek, complete full width of the roadway's  
667 pavement, including shoulders, to same elevation with no drop-offs.

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669 **(F) Compaction.** Immediately after spreading and striking off HMA and  
670 adjusting surface irregularities, uniformly compact mixture by rolling.

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Initiate compaction at highest mix temperature allowing compaction without excessive horizontal movement. Temperature shall not be less than 220 degrees F.

Finish rolling using tandem roller while HMA temperature is at or above 175 degrees F.

On superelevated curves, begin rolling at lower edge and progress to higher edge by overlapping of longitudinal trips parallel to centerline.

If necessary, repair damage immediately using rakes and fresh mix. Do not displace line and grade of HMA edges during rolling.

Keep roller wheels properly moistened with water or water mixed with small quantities of detergent. Use of excess liquid, diesel, and petroleum-based liquids will not be allowed on rollers.

Along forms, curbs, headers, walls and other places not accessible to rollers, compact mixture with hot hand tampers, smoothing irons, or mechanical tampers. On depressed areas, trench roller or cleated compression strips under roller may be used to transmit compression.

Before the start of compaction or during compaction or both remove pavement that is loose, broken, or contaminated, or combination thereof; pavement that shows an excess or deficiency in asphalt binder content; and pavement that is defective in anyway. Replace with fresh HMA pavement of same type, and compact. Remove and replace defective pavement and compact at no increase in contract price or contract time.

Operate rollers at slow and uniform speed with no sudden stops. The drive wheels shall be nearest to the paver. Continue rolling to attain specified density and until roller marks are eliminated.

Rollers shall not be parked on the pavement placed that day or shift.

**(1) HMA Pavement Courses One and a Half Inches Thick or Greater.** Where HMA pavement compacted thickness indicated in the Contract Documents is 1-1/2 inches or greater, compact to not less than 93.0 percent nor greater than 97.0 percent of the maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate.

Place HMA pavement in individual lifts that are within minimum and maximum allowable compacted thickness for various types of mixture as specified in Table 401.02-1 - Limits of Compacted Lift Thickness and Asphalt Content.

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**(2) HMA Pavement Courses Less Than One and a Half Inches Thick.** Where HMA pavement compacted thickness indicated in the contract documents is less than 1-1/2 inches, compaction to a specified density will not be required.

Use only non-vibratory, steel-tired, tandem roller. Roll entire surface with minimum of two roller passes. A roller pass is defined as one trip of the roller in one direction over any one spot.

For intermediate rolling, roll entire surface with minimum of four passes of roller.

Finish rolling using steel-tired, tandem roller. Continue rolling until entire surface has been compacted with minimum of three passes of roller, and roller marks have been eliminated.

Do not use rollers that will excessively crush aggregate.

**(3) HMA Pavement Courses One and a Half Inches Thick or Greater In Special Areas Not Designated For Vehicular Traffic.**

For areas such as bikeways that are not part of roadway and other areas not subjected to vehicular traffic, compact to not less than 90.0 percent of maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate. Increase asphalt content by at least 0.5 percent above that used for HMA pavements designed for vehicular traffic. Paved shoulders shall be compacted in the same manner as pavements designed for vehicular traffic.

**(G) Joints, Trimming Edges and Utility Marking.** At HMA pavement connections to existing pavements, make joints vertical to depth of new pavement. Saw cut existing pavement and cold plane in accordance with Section 415 - Cold Planing of Existing Pavement to depth equal to thickness of surface course or as indicated in the Contract Documents.

At HMA connections to previously placed lifts, form transverse joints by cutting back on previous run to expose full depth of course. Dispose of material trimmed from edges. Protect end of freshly laid mixture from rollers.

Before and after paving, identify and mark location of existing utility manholes, valves, and handholes on finished surface. Adjust existing frames and covers and valve boxes to final pavement finish grade in accordance with Section 604- Manholes, Inlets and Catch Basins and Section 626 -Manholes and Valve Boxes for Water and Sewer Systems.

**(1)** Longitudinal joints. Submit for review the means and methods that will be used to install longitudinal joints at the required

769 compaction and density. Compact longitudinal joints to be not less than  
770 91.0 percent of the maximum specific gravity determined in accordance  
771 with AASHTO T 209, modified by deletion of Supplemental Procedure for  
772 Mixtures Containing Porous Aggregate. Verify the compaction of the  
773 longitudinal joints meets requirements by using non-destructive testing  
774 methods during paving and submit the results on the daily quality control  
775 test reports.

776  
777 Test for compaction and density regardless of layer thickness.  
778 Compaction and density of the longitudinal joint shall be determined by  
779 using six-inch diameter cores. For longitudinal joints made using butt  
780 joints cores shall be taken over the joint with half of the core being on  
781 each side of the joint. For longitudinal joints using notched wedge joints,  
782 center core over the center of the wedge so that 50 percent of the material  
783 is from the most recently paved material and the remaining 50 percent of  
784 the core is from the material used to pave the previous layer. One core  
785 shall be taken at a maximum frequency of every 1,500 lineal feet (LF) of  
786 the second side of the longitudinal joint and any fraction of that length for  
787 each day of paving with a minimum of one core taken for each longitudinal  
788 joint per day. Cores taken for the testing of the longitudinal joint may be  
789 used to determine pavement thickness.

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791 When the longitudinal joints are found to have less than 91.0  
792 percent of the maximum specific gravity, overband all longitudinal joints  
793 within the entire lot represented by the non-compliant core, PG binder  
794 seal coat, or other type of joint enrichment accepted by the Engineer.  
795 The overband shall not decrease the skid resistance of the pavement  
796 under any ambient weather condition. Submit overband material's  
797 catalog cuts, test results and application procedure for review and  
798 acceptance by the Engineer before use. Center the overband over the  
799 longitudinal joint. The overband shall be placed in a uniform width and  
800 horizontal alignment. The overband shall have no holidays or  
801 streaking in its placement. The width of the overband shall be based  
802 on how the longitudinal joint was constructed or as directed by the  
803 Engineer. If a butt joint is used, the overband width shall be a minimum  
804 of 12-inches. For notch wedge or wedge joints the overband width shall  
805 be the width of the wedge plus an additional six-inches minimum.  
806 Replace any pavement markings damaged or soiled by the overband  
807 remedial repair process.

808  
809 For longitudinal joints that have a compaction of less than 89  
810 percent of the maximum specific gravity; removal may be required by the  
811 Engineer instead of overbanding the non-compliant joint.

812  
813 Persistent low compaction results may be cause to suspend work  
814 and remove non-conforming work. During the suspension of paving,  
815 revise means and methods used in constructing longitudinal joints and  
816 submit to the Engineer for review and acceptance. Suspension may  
817 occur when:

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(1) Two or more longitudinal joints tests fail to meet the minimum compaction

(2) One sample reveals that the joint compaction is 89 percent or less.

**(H) HMA Pavement Samples.** Obtain test samples from compacted HMA pavement within 72 hours of lay down. Provide minimum 4-inch diameter cores consisting of undisturbed, full-depth portion of compacted mixture taken at locations designated by the Engineer in accordance with the "Sampling and Testing Guide for Acceptance and Verification" in Hawaii DOT Highways Division, *Quality Assurance Manual for Materials*, Appendix 3. Cores shall be taken in the presence of the Engineer. Turn cores over to Engineer immediately after cores have been taken.

For pavement samples for longitudinal joints provide 6-inch diameter cores minimum. For pavement samples for other than longitudinal joints 4-inch diameter cores minimum shall be taken. All cores shall consist of undisturbed, full-depth of the lift of the compacted mixture taken at locations designated by the Engineer in accordance with the "Sampling and Testing Guide for Acceptance and Verification" in Hawaii DOT Highways Division, *Quality Assurance Manual for Materials*, appendix 3.

Cores that separate shall indicate to the Engineer that there is insufficient bonding of layers. Modify the previously used paving means and methods to prevent future debonding of layers. Debonding of a core sample after adjustment of the Contractor's methods will be an indication of continued non-conforming work and the Engineer may direct removal of the layer at no additional cost or contract time.

Restore HMA pavement immediately after obtaining samples. Clean core hole and walls of all deleterious material that will prevent the complete filling of the core hole and the bonding of the new HMA to the existing. Apply tack coat to vertical faces of sample holes. Fill sampled area with new HMA pavement of same type as that removed. If hand compaction is used; fill in layers not exceeding the minimum thickness stated in Table 401.02-1 -Limits of Compacted Lift Thickness And Asphalt Content. Compact each layer to compaction requirements. If Mechanical Compaction methods are used, then layers may be the maximum layer thickness stated in Table 401.02-1 - Limits of Compacted Lift Thickness And Asphalt Content. Using tires or hand tamping to compact the HMA material to restore the pavement shall not be considered as mechanical compaction.

Only sample and test leveling course if 1-1/2 inches or greater. No compaction requirements for less than 1-1/2 inches.

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**(I) HMA Pavement Thickness Tolerances.**

Thickness of finished HMA pavement shall be within 0.25 inch of thickness indicated in the Contract Documents. Pavement not meeting the thickness requirements of the Contract Documents may be required by the Engineer to be removed and replaced.

Corrective methods taken on pavement exceeding specified tolerances, e.g., insufficient thickness by methods accepted by the Engineer, including removal and replacement, shall be at no increase in contract price or contract time.

The checking of pavement thickness shall be done after all remedial repairs, e.g., smoothness compliance repairs, compaction, have been completed, reviewed, and accepted by the Engineer.

**(J) Quality Control Using New Technology.** The Engineer and MTRB reserves the right to utilize new technology and methods to improve the detection of noncompliant work on the project. The technology or method may be used to locate defects in the work, e.g., ground penetrating radar to locate delaminations, moisture damage, thin sections, voids, non-compliant compaction, other non-destructive testing to locate flaws. The defect will be verified by the methods stated in the Contract Documents or by other established conventional means. If the technology or method has already been accepted elsewhere or has standardized testing procedures the results may be judged acceptable by the Engineer and no further testing will be required. These new technologies and methods may be used for the selection of sampling locations.

**(K) Protection of HMA Pavement.** Except for construction equipment directly connected with paving operations, keep traffic off HMA pavement.

Protect HMA pavement from damage until it has cooled and set.

Do not refuel equipment or clean equipment or hand tools over paved surfaces unless catch pan or device that will contain spilled fuel and other products is provided. After completion of refueling or cleaning, remove catch pan or device without spilling any of the collected content.

Do not park roller or other paving equipment on HMA pavement paved within 24 hours of laydown.

**(L) Pavement Joint Adhesive**

**(1) Pavement Joint Adhesive on Joints.** Use on all asphalt pavement construction where joints are formed at such locations but not limited to the following:



- 916 (a) Adjacent asphalt pavements, e.g., trafficked lanes,  
 917 shoulders, etc.  
 918  
 919 (b) Asphalt pavement and adjacent concrete pavement  
 920 or curb and gutter or any other surface where the bonding of  
 921 the asphalt pavement and concrete surface is desired,  
 922  
 923 (c) Transverse joints between asphalt pavements not  
 924 placed at the same time or if the pavement's temperature on  
 925 one side of the joint is below the minimum temperature the mix  
 926 can be at, during asphalt pavement compaction or installation.  
 927  
 928 (d) Cut face of an existing pavement where it will have  
 929 new HMA pavement placed against it, e.g., utility trenches,  
 930 partial or full depth repairs, etc.

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 932 Pavement joint adhesive is not required on a longitudinal  
 933 construction joint between adjacent hot mix asphalt pavements  
 934 formed by echelon paving. Echelon paving is defined as paving  
 935 multiple lanes side-by-side with adjacent pavers slightly offset at  
 936 the same time.  
 937

938 A longitudinal construction joint between one shift's work  
 939 and another shall have pavement joint adhesive applied at the  
 940 joint. Any longitudinal construction joint formed, with the  
 941 temperature on one side of the joint that is below the minimum  
 942 temperature the mix can be when compacted to contract  
 943 requirements during asphalt pavement installation, shall have  
 944 pavement joint adhesive applied at the joint.  
 945

946 (2) **Material requirements.** Asphalt joint adhesive shall meet  
 947 requirements as specified in Table 401.03-1 - Asphalt Joint  
 948 Adhesive 924 Specifications.  
 949

<b>TABLE 401.03-1 -ASPHALT JOINT ADHESIVE SPECIFICATIONS</b>		
<b>TEST</b>		<b>SPECIFICATION</b>
Brookfield Viscosity, 204°C [400°F]	ASTM D 3236	4,000-10,000 cp
Cone Penetration, 25°C [77°F]	ASTM D 5329	60-100 dmm
Resilience, 25°C [77°F]	ASTM D 5329	30% minimum
Ductility, 25°C [77°F]	ASTM D 113	30 cm minimum
Ductility, 4°C [39.2°F]	ASTM D 113	30 cm minimum
Tensile Adhesion, 25°C [77°F]	ASTM D 5329	500% minimum
Softening Point	ASTM D 36	77 °C [170 °F] min.
Asphalt Compatibility	ASTM D 5329	Pass

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**(3) Construction Requirements for Asphalt Joint Adhesive**

**(a) Equipment Requirements.** Use a jacketed double boiler type melting unit, with both agitation and recirculation systems. Provide a pressure feed wand application system.

**(b) Material Handling.** Submit a copy of the manufacturer's recommendations for heating, re-heating, and applying the joint adhesive material. Follow manufacturer's recommendations. Do not remove the joint adhesive from the package until immediately before it is placed in the melter. Joint adhesive boxes must be clearly marked with the name of the manufacturer, the trade name of the adhesive, the manufacturer's batch and lot number, the application/pour temperature, and the safe heating temperature. Feed additional material into the melter at a rate equal to the rate of material used.

Verify the pouring temperature of the joint adhesive at least once per hour at the point of discharge. Stop production if the adhesive falls below the recommended application/pour temperature. When the temperature of the adhesive exceeds the maximum safe heating temperature, stop production, empty the melter, and dispose of that adhesive in an environmentally safe method. No payment will be made for this material or its disposal.

Do not blend or mix different manufacturer's brands or different types of adhesives.

**(c) Joint Adhesive Application:** The face of the joint that the new asphalt pavement will bind to shall be clean and dry before the joint adhesive is applied. Apply the pavement joint adhesive material to the entire face of the surface where HMA pavement shall be installed. The thickness of the asphalt adhesive application shall be approximately 1/8 inch. Use an application shoe attached to the end of application wand. Do not overlap the joint by greater than 1/2-inch at the top of the joint or two-inches at the bottom of the joint. Apply the joint adhesive immediately in front of the paving operation. If the adhesive is tracked by construction vehicles, repair the damaged area, and restrict traffic from driving on the adhesive.

**(d) Field Sampling.** Take a sample from the application wand during the first 20 minutes of placing sealant. One sample should be taken per manufacturer's batch or minimum

998 of every 6 months on the Project in the presence of the  
999 Engineer.

1000 Each sample shall consist of one quart in an aluminum  
1001 or steel sample container. The sampling container shall be  
1002 labeled with Contractor's name; project name and number;  
1003 date and time sample taken; location of where material was  
1004 used at, e.g., from where to where it was used at in stations;  
1005 manufacturer and lot number of the sealant. Turn over  
1006 samples to Engineer without Engineer losing sight of the  
1007 sample. The Engineer reserves the right to conduct  
1008 supplementary sampling and testing of the sealant material.  
1009

1010 **(M) Pavement Smoothness Rideability Test.** Perform surface  
1011 profile tests frequently to ensure that the means and methods being used  
1012 produces pavement that is compliant with the surface profile smoothness  
1013 requirement. Test the pavement surface for smoothness with High-  
1014 Speed Inertial Profiler to determine the International Roughness Index  
1015 (IRI) of the pavement. For the locations determined by the Engineer, a  
1016 10-foot straightedge shall be used to measure smoothness.  
1017

1018 All smoothness testing must be performed with the presence of the  
1019 Engineer. The High-Speed Inertial Profiler operator shall be a certified  
1020 operator by MTRB or the manufacturer.  
1021

1022 The High-Speed Inertial Profiler operator's certification shall be no  
1023 older than five years old at the date of the Notice to Proceed and at the day  
1024 of the pavement profile measurement.  
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1026 The finished pavement shall comply to all the following requirements:  
1027

1028 **(a) Smoothness Test using 10-Foot Straightedge (Manual**  
1029 **or rolling)** The 10-foot straightedge is used to identify the locations  
1030 that vary more than 3/16 inch from the lower edge when the 10-  
1031 foot straightedge is laid on finished pavement on the direction  
1032 parallel with the centerline or perpendicular to centerline. Remove  
1033 the high points that cause the surface to exceed that 3/16 inch  
1034 tolerance by grinding.  
1035

1036 The Contractor shall use a 10-foot straightedge for the  
1037 following locations:  
1038

1039 **1.** Longitudinal profiling parallel to centerline, when within  
1040 15 feet of a bridge approach or existing pavement which  
1041 is being joined.  
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1043 **2.** Transverse profiling of cross slopes, approaches,  
1044 and as otherwise directed. Lay the straightedge in a direction  
1045 perpendicular to the centerline.

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3. When pavement abuts bridge approaches or pavement not under this Contract, ensure that the longitudinal slope deviations of the finished pavement comply with Contract Document's requirements.

4. Short pavement sections up to 600 feet long, including both mainline and non-mainline sections on tangent sections and on horizontal curves with a centerline radius of curve less than 1,000 feet.

5. Within a superelevation transition on horizontal curves having centerline curve radius less than 1,000 feet, e.g., curves, turn lanes, ramps, tapers, and other non-mainline pavements.

6. Within 15 feet of transverse joint that separates pavement from existing pavement not constructed under the contract, or from bridge deck or approach slab for longitudinal profiling.

7. At miscellaneous areas of improvement where width is less than 11 feet, such as medians, gore areas, and shoulders.

8. As otherwise directed by the Engineer. The Engineer may confine the checking of through traffic lanes with the straightedge to joints and obvious irregularities or choose to use it at locations not specifically stated in this Section.

**(b) High-Speed Inertial Profiler**

There shall be a minimum 3 profile runs per lane, for each wheel path (left and right) which is approximately three feet from edge lane line. The segment length shall be 0.1 mi. The final segments in a lane that are less than 0.1 mi shall be evaluated as an independent segment and pay adjustments will be prorated for length. The profiles shall be taken in the direction of traffic only.

The latest version of FHWA ProVAL software shall be used to conduct profile analysis to determine IRI and areas of localized roughness. The IRI values shall be reported in units of in/mi.

Areas of localized roughness will be identified by using ProVAL's "Smoothness Assurance" analysis, calculating IRI with a continuous short interval of 25 feet and the 250-mm filter applied.

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Additional runs may be required by the Engineer if the data indicate a lack of repeatability of results. A 92% agreement is required for repeatability and IRI values shall have at minimum a 95% confidence level.

**(N) Required Pavement Smoothness**

The IRI for the left and right wheel paths in an individual lane will be computed and then averaged to determine the Mean Roughness Index (MRI) values. The MRI will be used to determine acceptance and pay adjustment. Each lane shall be tested and evaluated separately.

There are three (3) categories of target MRI values:

<b>TABLE 401.03-2 - PAVEMENT SMOOTHNESS CATEGORIES</b>		
Category	Description	MRI
Type A	Three or more opportunities for improving ride	Shall not exceed 60 in/mi
Type B	Two opportunities for improving ride	Shall not exceed 70 in/mi
Type C	One opportunity for improving ride	Shall not exceed 75 in/mi

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An opportunity for improving ride is considered as one (1) lift of asphalt pavement, including but not limited to HMAB, HMA, PMA, and SMA.

For the location where a 10-foot manual straightedge is required, the surface shall not vary more than 3/16 inch from the lower edge of a straightedge.

No pre-final inspection, final inspection, and substantial completion granted will be made until the pavement meets smoothness requirement and all required profile reports are submitted to the Engineer and MTRB and are accepted.

**(O) Request for Profile Testing by the Department.**

For Type C, prior to pavement activities, the Engineer will measure the smoothness of the existing pavement.

The Contractor shall submit a written request to the Engineer to perform all required profile tests.

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The request shall be made at least 30 days before desired testing date and shall include an approximate acceptance profile testing date, a plan view drawing of the area to be tested with the limits of the test area highlighted.

The Contractor shall reimburse HOOT for any incurred cost related to any Contractor-caused cancellation or a deduction to the monthly payment will be made.

**(P) Department Requirements for Profile Testing.** When a request for testing is made, the requested area to be tested shall be 100% of the total area indicated to be paved in the Contract Documents unless the requirement is waived by the Engineer and MTRB.

Department acceptance surface tests will not be performed earlier than 14 days after HMA placement.

Clean debris and clear obstructions from area to be tested, as well as a minimum of 100 feet before and beyond the area to be tested before testing starts for use as staging areas. Provide traffic control for all profile testing.

The Engineer or MTRB or both may cancel the profile testing if the test area is not sufficiently clean, traffic control is unsatisfactory, or the area is not a safe work environment or test area does not meet Contract Document requirements. This canceled profile test will count as one profile test.

**(Q) Cost of Acceptance Profile Testing by The Department.** The Engineer, MTRB, or State's Third-Party Consultant will perform one initial profile test, at no cost to the Contractor for each area to be tested.

The Department's High-Speed Inertial Profiler pavement profile will be used to determine if the pavement's profile, i.e., smoothness is acceptable.

If the profile of the pavement does not meet the requirements of the Contract Documents, the Contractor shall perform remedial work, i.e. corrective work then retest the area to ensure that the area has the required MRI, i.e., smoothness, before requesting another profile test by the Engineer.

**(1) Additional testing.** Additional testing, by the Department beyond the initial test will be performed at cost to the Contractor as follows:

**(a)** \$2,500 per test will be required when Department personnel or State's Third-Party Consultant is used.

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**(R) Remedial Work for Pavements.**

**(1)** Corrective work shall be required for any 25 ft interval with a localized roughness in excess of 160 in/ mi. The Engineer may waive localized roughness requirements for deficiencies resulting from manholes or other similar appurtenances. Adjust manholes or other similar appurtenances so that using a 10-ft. straightedge the area around that manhole or other similar appurtenance shall not have more than 3/16-in. variation between any 2 contacts on the straightedge.

If corrective action is not successful, the Engineer may require continued corrective action, or apply a payment adjustment of \$250 per occurrence.

**(2)** Corrective work shall also be required for any 0.1 mile interval with an average MRI above 95.0 in/mi for Types A and B. For Type A, correct the deficient section to an MRI of 60 in/mi or less. For Type B, correct the deficient section to an MRI of 70 in/mi or less. For Type C, corrective work may be required by the Engineer for 0.1 mile intervals that have an average MRI above the threshold shown in Tables 401.03-4 and 5 as applicable.

If corrective action does not produce the required improvement, the Engineer may require continued corrective action, or apply payment adjustment as shown in Tables 401.03-4 and 5.

**(3)** The Contractor shall notify the Engineer at least 24 hours prior to commencement of the corrective work. The Contractor shall not commence corrective work until the methods and procedure have been approved in writing by the Engineer.

**(4)** All smoothness corrective work for areas of localized roughness shall be for the entire lane width. Pavement cross slope shall be maintained through corrective areas.

**(5)** The remedial repair areas shall be neat, rectangular areas having a uniform surface appearance.

**(6)** If grinding is used on HMA pavement, the surface shall have nearly invisible grinding marks to passing motorist.

**(7)** Other methods may include milling and overlaying HMA pavement. The length, depth of the milling and the replacement material will be solely decided by the Engineer.

**(8)** The finished repaired pavement surface shall leave no ridges or valleys or fins of pavement other than those allowed below.

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**(9)** Remedial repairs shall not leave any drainage structures' inlets higher than the surrounding pavement or alter the Contract Document's drainage pattern.

**(10)** For items in the pavement other than drainage structures, e.g., manhole frame and covers, survey monuments, expansion joints etc., the finish pavement, ground or not, shall not be more than 1/4 inch in elevation difference. Submit to the Engineer remedial repair method to correct these conditions for acceptance.

**(11)** Pick up immediately grinding operation residue by using a vacuum attached to grinding machine or other method acceptable to the Engineer.

**(a)** Any remaining residue shall be picked up before the end of shift or before the area is open to traffic, whichever is earlier.

**(b)** Prevent residue from flowing across pavement or from being left on pavement surface or both.

**(c)** Residue shall not be allowed to enter the drainage system.

**(d)** The residue shall not be allowed to dry or remain on the pavement.

**(e)** Dispose of all material that is the result of the remedial repair operation, e.g., HMA residue, wastewater, and dust at a legal facility.

**(12)** Complete corrective work before determining pavement thickness for HMA pavements in accordance with Subsection 401.03(1) - HMA Pavement Thickness Tolerances.

**(13)** All HMA wearing surface areas that have been ground shall receive a coating, e.g., a coating material that will restore any lost impermeability of the HMA due to the grinding of the surface. The coating used shall not be picked up or tracked by passing vehicles or be degraded after a short period of time has passed, i.e., it shall have a service life equal to or greater than the HMA pavement. The coating shall not decrease the pavement's friction value. The coating's limits shall be the full width of the lane regardless how small. If the remedial repair area extends into the next lane, then the repair area will be full lane width also. Extend the length of coating areas in order for the coating area to look like the rest of the road and does not have patches on it, i.e., make the road look uniform in color. The coating shall be of a color that matches the surrounding



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pavement. The areas receiving the coating shall not be open to traffic until it has cured enough so that it cannot be picked up or tracked by passing vehicles or degrade. Submit means and methods of the coating and type of coating to the Engineer or MTRB for review and acceptance. Do not proceed with the coating without acceptance from the Engineer.

**(14)** Recompacting cold HMA, i.e., HMA that has reached ambient temperature is not an acceptable remedial repair method.

**(15)** Replace all pavement markings damaged or discolored by remedial repairs.

**(16)** Reprofile the corrected area and provide the Engineer the results that show the corrective action, i.e., remedial repairs were successful.

**(S) Pavement Smoothness and Acceptance.**

**(1)** Price and payment in various paving sections, e.g., 401 (Hot Mix Asphalt Pavement), shall be full compensation for all work and materials specified in the various paving sections and this section, including but not limited to furnishing all labor, materials, tools, equipment, testing, incidentals and for doing all work involved in micro milling, milling (cold planing), grinding existing or new pavement, removing residue, cleaning the pavement, necessary disposal of residue, furnishing of any water or air used in cleaning the pavement and any other related ancillary work or material or services. Also, it includes any remedial work, e.g., re-paving, surface grinding, application of a coating, curing compound, and replacement of damaged pavement markings.

**(2)** The contract price in those sections may be adjusted for pavement smoothness by the Engineer. The pavement smoothness contract unit price adjustments and work acceptance will be made in accordance with the following schedules.

<b>TABLE 401.03-3-SMOOTHNESS PAY INCENTIVES</b>		
<b>Category</b>	<b>MRI (in/mi)</b>	<b>Pay Adjustment \$ per 0.1 mi</b>
Type A	< 30.0	\$580
	30.0- less than 35.0	\$480
	35.0- less than 40.0	\$380
	40.0- less than 45.0	\$280
	45.0- less than 50.0	\$180
	50.0- less than 55.0	\$80
	55.0- less than 60.0	\$0
Type B	< 35.0	\$420
	35.0- less than 40.0	\$360
	40.0- less than 45.0	\$300
	45.0- less than 50.0	\$240
	50.0- less than 55.0	\$180
	55.0- less than 60.0	\$120
	60.0- less than 65.0	\$60
	65.0- less than 70.0	\$0
Type C	< 40.0	\$280
	40.0- less than 45.0	\$240
	45.0- less than 50.0	\$200
	50.0- less than 55.0	\$160
	55.0- less than 60.0	\$120
	60.0- less than 65.0	\$80
	65.0- less than 70.0	\$40
	70.0- less than 75.0	\$0

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**(3)** Pay Pavement Smoothness Adjustment will be based on the initial measured MRI for both left and right wheel path, prior to any corrective work for the 0.10-mile section, except for sections that the Contractor has chosen to remove and replace. For sections that are replaced, assessments will be based on the MRI determined after replacement.

**(a)** The Pavement Smoothness Adjustment will be computed using the plan surface area of pavement shown in the Contract Documents. This Pavement Smoothness Adjustment will apply to the total area of the 0.10-mile section for the lane width represented by MRI for the same lane. It does not include any other price adjustments specified in the Contract Documents. Those price adjustments will be, for each adjustment, calculated separately using the original contract price to determine the amount of adjustment to be made to the contract price. Sections shorter than 0.1 mile and longer than 50 feet shall be prorated.

**(b)** For 0.1 mile intervals with an average MRI above the threshold shown in Table 401.03-3, the Engineer shall apply a disincentive payment adjustment up to the limit shown.

**i.** For Types A and B, payment adjustments shall be applied up to an MRI of 95.0 per Table 401.03-4.

**ii.** For Type C, the payment adjustment shall be dependent on the average MRI of the pavement prior to paving activities

1. If the MRI of the pavement prior to paving activities is 125.0 in/mi or less, the payment adjustment shall be per Table 401.03-4.

2. If the MRI of the pavement prior to paving activities is more than 125.0 in/mi, the disincentive payment adjustment shall be per Table 401.03-5, and based on the percent improvement using the following formula:

$$\% \text{ Improvement} = (\text{Initial segment MRI} - \text{Final segment MRI}) \times 100 / (\text{Initial Segment MRI})$$

<b>TABLE 401.03-4-SMOOTHNESS PAY DISINCENTIVES WITH MRI</b>		
<b>Category</b>	<b>MRI (in/mi)</b>	<b>Pay Adjustment \$ per 0.1 mi</b>
Type A	60.0- less than 70.0	-\$100
	70.0- less than 75.0	-\$250
	75.0- less than 80.0	-\$350
	80.0- less than 85.0	-\$450
	85.0- less than 95.0	-\$550
	> 95.0	Corrective Work
Type B	70.0- less than 75.0	-\$100
	75.0- less than 80.0	-\$200
	80.0- less than 85.0	-\$300
	85.0- less than 95.0	-\$400
	> 95.0	Corrective Work
Type C (pre-paving MRI < 125)	75.0- less than 80.0	-\$50
	80.0- less than 85.0	-\$100
	85.0- less than 90.0	-\$150
	90.0- less than 100.0	-\$200
	> 100.0	-\$250

1368

<b>TABLE 401.03-5 -SMOOTHNESS PAY DISINCENTIVES FOR PERCENT IMPROVEMENT</b>		
<b>Category</b>	<b>Percent Improvement %</b>	<b>Pay Adjustment \$ per 0.1 mi</b>
Type C (pre-paving MRI > 125)	≥ 40	\$0
	20.0- less than 40.0	-\$100
	< 20	-\$200

1369

1370 (c) Incentives will not apply to areas where payment  
1371 deductions or remedial repairs has been made for non-  
1372 compliant work, e.g., low compaction, thin pavement,  
1373 thermal segregation, low compressive or flexural strength,  
1374 non-compliant alignment. Incentives will also not apply to  
1375 areas where corrective work was required to meet contract  
1376 smoothness requirements, unless the pavement section was  
1377 replaced. All areas where corrective work was performed  
1378 shall be tested again to ensure the smoothness  
1379 requirements are met.

1380  
1381 (d) There will be no incentive price adjustments to the  
1382 contract prices regardless of the pavement meeting the  
1383 Contract Documents' requirements for incentive contract  
1384 price adjustment, when 25% of the total area paved of that  
1385 particular type of pavement on the project has failed to meet  
1386 any of the Contract document requirements, e.g.,  
1387 smoothness, thickness, unit weight, asphalt content,  
1388 pavement defects, compaction, flexural or compressive  
1389 strength. Areas exempt from the smoothness requirements  
1390 may not be included in the total area calculation unless it is  
1391 non-compliant.

1392  
1393 (e) For contracts using lump sum the method described in  
1394 Subsection 104.06 Methods of Price Adjustment paragraph  
1395 (3), will be used to calculated proportionate unit price, i.e.,  
1396 the Engineer's calculated theoretical unit price. This  
1397 calculated proportionate unit price will be used to calculate  
1398 the unit price adjustment.

1399  
1400 **401.04 Measurement.**

1401  
1402 (A) The Engineer will measure PMA pavement per ton in accordance  
1403 with the Contract Documents.

1404  
1405 (B) Engineer will measure additional State pavement profiling work  
1406 when applicable on a cost-plus basis as specified in this section and as  
1407 ordered by Engineer. The Engineer will issue a billing for the pavement  
1408 profile work done for the time period with the invoices and receipts that the  
1409 billing was based on attached to the Contractor for each contract item. The  
1410 Contractor's pavement profile work required in this section will not be  
1411 measured and will be considered incidental to the various paving items  
1412 unless stated otherwise.

1413  
1414 **401.05 Payment.** The Engineer will pay for the accepted PMA pavement at  
1415 the contract price per pay unit, as shown in the proposal schedule. Payment will

1416 be full compensation for the work prescribed in this section and the contract  
1417 documents.

1418  
1419 **(A)** Price and payment in Section 401 - PMA Pavement will be full  
1420 compensation for all work and materials specified in this Section including  
1421 furnishing all labor, materials, tools, equipment, testing, pavement profiles  
1422 and incidentals and for doing all work involved in grinding existing or new  
1423 pavement, removing residue, and cleaning the pavement, including  
1424 necessary disposal of residue and furnishing any water or air used in  
1425 cleaning the pavement and remedial work needed to conform to the  
1426 requirements of the Contract Documents.

1427  
1428 **(B)** No payment for the Contractor's pavement profile work required in this  
1429 section will be made. The Contractor's pavement profile work shall be  
1430 considered incidental to the various paving items unless stated otherwise.

1431  
1432 **(C)** Engineer will pay or deduct for the following pay items when included  
1433 in proposal schedule:

1434  
1435 **Pay Item** **Pay Unit**

1436  
1437 **(A)** PMA Pavement, Mix No. \_\_\_\_\_ Ton

1438  
1439 **(1)** 70% of the contract unit price or the theoretical calculated unit  
1440 price upon completion of submitting a job-mix formula acceptable to  
1441 the Engineer; preparing the surface, spreading, and finishing the  
1442 mixture; and compacting the mixture.

1443  
1444 **(2)** 20% of the contract unit price or the theoretical calculated  
1445 unit price upon completion of cutting samples from the compacted  
1446 pavement for testing; placing and compacting the sampled area  
1447 with new material conforming to the surrounding area; protecting  
1448 the pavement; and compaction acceptance. Maintain temporary  
1449 pavement markings and other temporary work zone items,  
1450 maintain a clean work site.

1451  
1452 **(3)** 10% of the contract unit price or calculate the unit price  
1453 when the final configuration of the pavement markings is in place.

1454  
1455 The Engineer will pay for adjusting existing frames and covers and  
1456 valve boxes in accordance with and under Section 604 - Manholes, Inlets  
1457 and Catch Basins. Adjustments for existing street survey monument frames  
1458 and covers will be paid for as if each were a valve box frame and cover.

1459  
1460 The Engineer may, at his sole discretion, use the sliding scale factor  
1461 as specified in Table 401.05-1 - Sliding Scale Pay Factor for Compaction to  
1462 accept HMA pavements compacted between 90.0 percent and 98.0 percent. If

1463 the sliding scale factor is used, the Engineer will make payment for the  
1464 material in that production day at a reduced price by multiplying the contract  
1465 unit price by the pay factor. The Engineer is not obligated to allow non-  
1466 compliant work to remain in place and may choose to require removal of the  
1467 pavement that is less than 93.0 percent or greater than 97.0 percent.  
1468

1469 Removal of non-compliant pavement shall be in accordance with  
1470 Subsection 105.12 Removal of Non-Conforming and Unauthorized Work.  
1471

<b>Table 401.05-1 – Sliding Scale Pay Factor for Compaction</b>	
<b>Percent Compaction</b>	<b>Percent of Quantity Paid</b>
> 98.0	Removal
97.1 - 98.0	95
92.0 - 97.0	100
90.0 - 91.9	80
< 90.0	Removal

1472  
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**END OF SECTION 401”**

1                                   **SECTION 411 - PORTLAND CEMENT CONCRETE PAVEMENT**  
2

3 Make the following amendments to said Section:

4  
5 **(I)** Amend **Subsection 411.03(I)(1) — General** by revising the first paragraph from  
6 line 205 to 210 to read:

7  
8                   **"(1)** General. Make advance arrangements for preventing delay in  
9 concrete delivery and placement. An interval of more than 30 minutes  
10 between placement of two consecutive batches or loads shall constitute  
11 cause for stopping paving operations and requiring construction joint to be  
12 placed, at no increase in contract price or contract time, at location and of  
13 the type ordered by the Engineer."  
14

15 **(II)** Amend **411.04 — Measurement** by revising lines 955 to 961 to read as follows:

16  
17 **"411.04 Measurement.** The Engineer will measure concrete pavement per square yard  
18 in accordance with the contract documents."  
19

20 **(III)** Amend **411.05 — Payment** by revising lines 971 to 983 to read as follows:

21

"Pay Item	Pay Unit
_____-Inch Concrete Pavement	Square Yard

22  
23  
24  
25

26                   The Engineer will not pay for longitudinal joints, transverse expansion joints,  
27 transverse contraction joints, or construction joints separately and will consider the cost  
28 for those items as included in the contract price for the concrete pavement pay item. The  
29 cost is for the work prescribed in this section, Section 411 — Portland Cement Concrete  
30 Pavement, and the contract documents."  
31

32  
33  
34  
35                                   **END OF SECTION 411**



1 **SECTION 507 – RAILING**

2  
3 Make the following amendments to said Section:

4  
5 **(I)** Amend **507.04 – Measurement** by revising lines 171 to 172 to read as  
6 follows:

7  
8 **“507.04 Measurement.** The Engineer will not measure railings of the  
9 various types when contracted on a lump sum basis.”

10  
11 **(II)** Amend **507.05 – Payment** by revising lines 174 to 186 to read as follows:

12  
13 **“507.05 Payment.** The Engineer will pay for the accepted quantities of  
14 railings at the contract lump sum price or linear foot as shown in the proposal.

15  
16 Payment will be full compensation for work prescribed in this section and  
17 the contract documents.

18  
19 The Engineer will pay for the following pay item when included in the  
20 proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
_____ Railing	Lump Sum

21  
22  
23  
24  
25  
26 The Engineer will pay for portions of railing bars that extend into slabs or  
27 beams in accordance with and under Section 602 - Reinforcing Steel.”

28  
29  
30  
31  
32  
33 **END OF SECTION 507**

1 Make the following section a part of the Standard Specifications:  
2

3 **“SECTION 509 – CONCRETE REHABILITATION**  
4

5 **509.01 Description.** This section describes the materials and workmanship  
6 required to repair concrete spalls and delaminations. All repairs shall be undertaken  
7 in-kind.  
8

9 **509.02 Materials.**

10  
11 **(A) Repair Mortar.** High Strength Repair Mortar: A high strength, factory  
12 blended repair material combined with a polymer type admixture, corrosion  
13 inhibitor admixture, super-plasticizing admixture and water. The polymer  
14 type admixture shall be added at a ratio of at least 1 part polymer admixture  
15 to one to three parts of water (by volume) in accordance with manufacturer’s  
16 recommendations. In addition, the ratio of polymer solids to cement weight  
17 shall not be less than 10%.  
18

19 **(1) High Strength, Factory Blended Repair Materials.** A fast-  
20 setting cementitious waterproof material (containing no gypsum)  
21 designed specifically for repairing concrete with the following minimum  
22 properties:  
23

24 Compressive Strength (ASTM C109)

25 28 Days: 7,000 psi  
26

27 Tensile Strength

28 28 Days: 900 psi  
29

30 Flexural Strength

31 28 Days: 2,000 psi  
32

33 **(2) Polymer Type Admixture.** An acrylic latex bonding admixture  
34 classified as non-reemulsifiable by the American Concrete Institute  
35 and shall be specifically designed for use as an additive for Portland  
36 cement mixes to improve adhesion, water resistance, and mechanical  
37 properties. The manufacturers’ test data shall show that shear bond,  
38 tensile, compressive and flexural strengths of admixture modified  
39 cement mixes are at least 50 percent greater than unmodified cement  
40 mixes. Material shall be as recommended by manufacturer for use in  
41 areas subject to tidal wave action.  
42

43 **(3) Super-Plasticizing Admixture.** High-range water-reducing  
44 liquid admixture, ASTM C 494, Type F or G.  
45

- 46                   (4)    **Water.** Water shall be fresh, clean, and potable.  
47  
48                   **(B)    Materials for Forms.** Provide wood, plywood, or steel. Use plywood  
49                   or steel forms where a smooth form finish is required. Lumber shall be  
50                   square edged or tongue-and-groove boards, free of raised grain, knotholes,  
51                   or other surface defects. Plywood: PS 1, B-B concrete form panels or better.  
52                   Steel form surfaces shall not contain irregularities, dents, or sags.  
53  
54                   **(C)    Reinforcement.**  
55  
56                   (1)    **Reinforcing Bars.** ACI 301 unless otherwise specified. ASTM  
57                   A 706, Grade 60 unless otherwise noted.  
58  
59                   **(D)    Materials for Curing Concrete.**  
60  
61                   (1)    **Impervious Sheeting.** ASTM C 171; waterproof paper, clear  
62                   or white polyethylene sheeting, or polyethylene-coated burlap.  
63  
64                   (2)    **Pervious Sheeting.** AASHTO M 182.  
65  
66                   (3)    **Liquid Membrane-Forming Compound.** ASTM C 309, white-  
67                   pigmented, Type 2, Class B, free of paraffin or petroleum.  
68  
69                   **(E)    Joint Sealants.**  
70  
71                   (1)    **Horizontal Surfaces (3 percent slope, maximum).** ASTM C  
72                   920, Type S or M, Grade NS, Class 25, Use T.  
73  
74                   (2)    **Horizontal Surfaces (greater than 3 percent slope).** ASTM  
75                   C 920, Type S or M, Grade NS, Class 25, Use NT.  
76  
77                   **(H)    Bonding Compound.**  
78  
79                   (1)    **Epoxy Bonding Compound.** ASTM C 881, Type IV and V,  
80                   Class C, except that epoxy shall be moisture insensitive before, during  
81                   and after cure. Provide Grade 1 or 2 for horizontal surfaces and  
82                   Grade 3 for vertical surfaces.  
83  
84                   (2)    **Polymer Bonding Compound.** Provide bonding agent  
85                   conforming to ASTM C 1059 for polymer modified concrete and  
86                   mortar.  
87  
88                   **(F)    Concrete Anti-corrosive Coating (Migrating Corrosion Inhibitor).**  
89                   Concrete anti-corrosive coating for repaired concrete surfaces and all  
90                   existing concrete surfaces shall be a water-based corrosion inhibiting

91 impregnation coating for hardened concrete. The material shall penetrate  
92 independently of orientation (horizontal, vertical and overhead), and shall be  
93 a continuous film on the reinforcing steel and displace chloride ions from the  
94 steel surface. The material shall meet or exceed the following criteria:

95  
96 Viscosity (Brookfield Viscometer, Spindle #1, Speed 100): 15 cps

97  
98 Appearance: Pale Yellow

99  
100 Minimum Depth of Penetration: 3 inches in 28 days  
101 (Secondary Neutron Mass Spectroscopy)

102  
103 Flash Point: None (water-based)

104  
105 Density: 9.4 lbs/gal

106  
107 pH: 11 (+1)

108  
109 **(G) Acceptable Concrete Repair and Related Materials.** All repair  
110 materials used shall be furnished from the same manufacturer and shall be  
111 used as a system. Acceptable concrete repair materials by Sika Corporation  
112 or pre-reviewed equal shall be as follows:

113	<u>Repair Type</u>	<u>Sika Product</u>
114		
115		
116	Concrete anti-corrosive coating	Ferrogard 903
117	(migrating corrosion inhibitor)	
118		
119	Bonding agent	Sikadur 32, Hi-Mod
120		
121	Anti-corrosion epoxy coat for reinforcing bars	Sikadur 32, Hi-Mod
122		
123	Trowel grade repair mortar	Sikatop 122 Plus
124		
125	Non-sag repair mortar	Sikatop 123 Plus
126		
127	Form & pour repair mortar	Sikatop 111 Plus
128		

129  
130 **509.03 Construction.**

131  
132 **(A) Submittals.** Submittals shall be submitted in accordance with  
133 Standard Specs Section 105.02.

134  
135 **(1) Product Data.** Submit the following:

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- (a) Materials for curing concrete
  - (b) Joint sealant
  - (c) Epoxy bonding adhesives
  - (d) Concrete anti-corrosive coating (migrating corrosion inhibitor)
  - (e) Patching mortar
  - (f) Polymer modified concrete and mortar
  - (g) Corrosion inhibitor admixture
- (2) Design Data.** Submit design data for the following:
- (a) Job Mix Formula
  - (b) Trial Batches
- (3) Test Reports.**
- (a) Aggregates: Sieve analysis in accordance with ASTM C 136 and ASTM C 117.
  - (b) Epoxy Resin System: ASTM C 881, including the following:
    - i) Viscosity
    - ii) Consistency
    - iii) Gel time
    - iv) Absorption
    - v) Shrinkage
    - vi) Thermal compatibility
- (4) Certificates.** Submit certificates of compliances for the following:

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- (a) Aggregates
  - (b) Cement
  - (c) Concrete anti-corrosive coating (migrating corrosion inhibitor)
  - (d) Welding procedures and qualifications
- (5) Manufacturer's Instructions.**
- (a) **Equipment.** Submit Descriptive information on the mixing and application equipment.
  - (b) **Job Mix Formula.** Fifteen days minimum prior to concrete repair work, submit a job mix formula for each type of epoxy resin and repair mortar. Test reports shall accompany the mix design. The formula shall identify the proposed source of the materials and state the proportions of material. Samples of materials to be used on the job shall be used to determine the job mix.
  - (c) **Trial Batches.** Trial batches for each use and each type of repair materials shall be performed by a certified testing laboratory. A minimum of three trial batches are required as proportioning is greatly affected by small variations in gradations and in the characteristics of individual particles of the aggregates. Different proportions shall be tried to obtain satisfactory placing and finishing characteristics. It is important that there be sufficient fines so that the binder materials can fill the voids among the individual aggregate particles. Include in the submittal the following data for the trial batches:
    - i) Proportions by weight
    - ii) Unit weights and specific gravities of constituents
    - iii) Batch weights
    - iv) Compressive strengths of 4 inch by 8 inch cylinders, made in accordance with ASTM C 31, cured for 3 days and 28 days and tested in accordance with ASTM C 39 or 2 inch cube specimens tested in accordance with ASTM C 109. Compressive strength shall be a minimum

226 of 7,000 psi at 28 days.  
227

228 **(6) Description of Work.** In the ACI publications referred to  
229 herein, the advisory provisions shall be considered to be mandatory,  
230 as though the word “shall” has been substituted for “should” wherever  
231 it appears; reference to the “Building Official,” the “Structural  
232 Engineer,” and the “Architect/Engineer” shall be interpreted to mean  
233 the Engineer.  
234

235 **(7) Delivery and Storage.** Inspect materials delivered to site for  
236 damage, unload and store with a minimum of handling. Deliver all  
237 epoxy resin components, patching materials and aggregates in  
238 original sealed containers and store in dry covered areas at  
239 temperatures below 90 degrees F.  
240

241 **(8) Safety Precautions.**  
242

243 **(a)** Provide Contractor personnel with and require them to  
244 use impervious clothing, gloves, face shields (eight-inch  
245 minimum), and other appropriate protective clothing necessary  
246 to prevent any possibility of skin contact with uncured resin  
247 components.  
248

249 **(b)** Place clothing contaminated with uncured resin  
250 components in closed containers for storage until it can be  
251 discarded or until provision is made for the removal of  
252 contaminants from the clothing.  
253

254 **(c)** Non-impervious clothing which becomes contaminated  
255 with uncured epoxy resin components shall be removed  
256 immediately and not reworn until the contaminant is removed  
257 from the clothing.  
258

259 **(d)** Use splash proof safety goggles.  
260

261 **(e)** Provide an eyewash fountain capable of providing not  
262 less than 15 minutes of water within the immediate work area  
263 where liquid resin components will be used; portable eyewash  
264 fountains which will provide 15 minutes of water is acceptable.  
265

266 **(f)** Wash immediately with soap and water to remove liquid  
267 resin components in contact with skin.  
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269 **(g)** No eating and smoking in areas where resin  
270 components are handled, processed, or stored.

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(h) Wash hands thoroughly with soap and water after handling resin components before eating, smoking, or using toilet facilities.

(9) **Weather Limitations.** Work shall not proceed when weather conditions detrimentally affect the quality of patching or bonding concrete. Apply epoxy resin materials only when the contact surfaces are completely dry and if the atmospheric temperature range is suitable for the specified type of epoxy adhesive or grout material.

(B) **Equipment.** The Equipment for blending the epoxy resin and repair materials shall be approved by the Contractor's quality control specialist. A suitable capacity metal or polyethylene container recommended by the epoxy manufacturer shall be used as the mixing vessel for blending the epoxy resin. Mixing shall be accomplished using a power drive (air or spark-proof) propeller type blade except that hand mixing may be used for small batches. Equipment for field mixing of epoxy resin shall be as specified by the epoxy manufacturer.

(C) **Construction Procedures.**

(1) **General.** ACI 318/318R, ACI 503R, ACI 503.2, ACI 503.4 for epoxy resin systems. Mix the repair materials with or without fillers in strict accordance with the manufacturer's instruction. All applications of the mixed materials shall be performed within the working life or pot life of the repair system. Unused mixed materials which have reached the end of the working or pot life shall be removed from the job site at the Contractor's expense. Field mixing and size of batch shall be determined by the Contractor. Repair systems shall be provided as indicated and required by this specification.

(2) **Repair Mortar.**

(a) **Preparation of Repair Area.** Remove loose concrete, oil, dirt, and coatings, from the spalled areas indicated to expose clean, sound concrete. Inspect the cavity for any remaining defective concrete by tapping with a hammer or steel rod throughout the indicated areas and listening for dull or hollow sounds. In areas where tapping does not produce a solid tone, remove additional concrete until testing produces a solid tone. Use a high frequency chipping hammer or concrete saw to deepen cavity. Make saw cuts to depths as indicated at a minimum distance of two inches outside the farthest edge of the spall or as indicated on the drawings. Roughen saw cut



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surfaces by power wire brushing or other acceptable means. Remove residual fines from all surfaces. Remove all rust from reinforcing steel by power wire brushing to expose clean, sound bare metal. Replace damaged reinforcing steel where indicated. Protect cleaned area from contaminating materials that may affect the bonding of the repair material. Provide a catchment/containment device to catch loose concrete, oil, dirt and coatings from the spalled areas during surface preparation.

**(b) Spalls at Joint.** Spalls to be repaired that are adjacent to all joints and working cracks shall have preformed joint filler of proper dimensions inserted to the bottom of the chipped spall cavities and shall be extended a minimum of one inch beyond (horizontally) the entire working faces of the spall. The joint filler strip shall be secured in place prior to and during placement of repair material. A bituminous cement bond breaker shall be applied to all working faces at keyed joints. Care shall be exercised to keep bituminous cement bond breaker off of concrete surface to be bonded. After the repair has completely cured, the top inch of the preformed joint filler shall be sawed out at the top of the slab and liquid joint sealer installed.

**(c) Mixing Materials.** Make batches small enough to assure placement before binder sets.

**(d) Prime Coat.** Coat existing reinforcing steel with an epoxy resin adhesive as specified in Subsection 509(F)(3)(b) "Application of Epoxy Resin Adhesive Over Reinforcing Steel". Prime all surfaces and around all reinforcing steel with a bonding compound as specified in Subsection 509.02(J) "Bonding Compound". Scrub prime coat into the surface with a stiff bristle brush. Apply coating in accordance with the manufacturer's recommendations. At contractor's option, for polymer modified concrete that will be formed and poured, bonding compound may be omitted if acceptable to the contractor and subject to Engineer's approval.

**(e) Preparation.** Mix patching material in accordance with manufacturer's recommendations.

**(f) Placement of Repair Material.** Place repair material in thin layers as recommended by the manufacturer. Each intermediate layer shall be cross-scratched for mechanical

361 bonding. All layers for each repair shall be placed on the same  
362 day. Use vibratory floats, plates, or hand tampers to  
363 consolidate the repair material. Level each layer and screed  
364 the final surface. Remove excess repair material on adjacent  
365 surfaces before it hardens. Do not feather out onto adjacent  
366 surfaces. Upon completion of finishing operations, cure in  
367 accordance with the manufacturer's recommendations. Protect  
368 repairs from wave and tidal action with watertight forms and/or  
369 covers until the repairs are properly cured.

370  
371 **(3) Non-pressure Epoxy Grout.** Prepare grout in accordance  
372 with the manufacturer's instructions.

373  
374 **(a) Cementing Dowels.** Immediately prior to placing the  
375 dowel, clean the hole of dust and other deleterious material.  
376 Fill the hole with non-pressure epoxy grout to a level that  
377 leaves enough space for the dowel without overflowing. Insert  
378 the dowel in the hole and tap down. If necessary add more  
379 grout.

380  
381 **(D) Placing Reinforcement and Miscellaneous Material.** ACI 301.  
382 Provide bars, wire fabric, wire ties, supports, and other devices necessary to  
383 install and secure reinforcement. Reinforcement shall not contain rust, scale,  
384 oil, grease, clay, and foreign substances that would reduce the bond.  
385 Rusting of reinforcement is a basis of rejection if the effective cross sectional  
386 area or the nominal weight per foot of the reinforcement has been reduced to  
387 less than specified in Subsection 509.02 (G)(1) entitled "Reinforcing Bars."  
388 Remove loose rust prior to placing steel.

389  
390 **(1) Tolerances.** Place reinforcement and secure with epoxy  
391 coated or noncorrodible chairs, spacers, or metal hangers.

392  
393 **(2) Installation of Epoxy Filled Anchors.** Install epoxy filled  
394 anchors in accordance with the manufacturer's printed instructions.  
395 The anchor bars/rods shall be clean of dirt, dust, paint, grease, oil,  
396 rust, or other contamination or other coating which would prevent  
397 direct coating adhesion. Drill proper sized holes. Clean out hole with  
398 wire brush and blowout-bulb or blowout hose attaches to the injector  
399 tool. Prior to injection, discharge approximately one fluid ounce of  
400 epoxy; the epoxy color shall match the color band on the nozzle valve  
401 nut. Insert the nozzle into the bottom of the hole and fill the hole to  
402 1/2 the hole depth. Insert the selected bar/rod slowly by hand into the  
403 bottom of the hole using a slow twisting motion to ensure the epoxy  
404 fills the voids and crevices. Hardening will begin in approximately 7  
405 minutes at room temperature.

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**(3) Splicing.** AWS D1.1 and AWS D1.4 as applicable. Splices shall be approved prior to use. Do not splice at points of maximum stress. All welded joints shall be cleaned to bare metal and epoxy coated.

**(4) Welding.** Welding operations in confined spaces shall meet applicable requirements of OSHA 29 CFR 1910. Welding shall conform to AWS D1.4; only competent, experienced, certified welders shall be employed. Three test samples, using six lengths of No. 9 bars shall be made by each welder under similar field conditions which will be encountered in the project. Samples shall have a lap of six inches and shall be made in the following positions: flat, vertical, and overhead. One sample shall be cut and the other two tested in tension to check the quality and strength of the weld. Cost of testing shall be paid for by the Contractor.

**(5) Setting Miscellaneous Material.** Place and secure anchors and bolts, pipe sleeves, conduits, and other such items in position before concrete placement. Plumb anchor bolts and check location end elevation. Temporarily fill voids in sleeves with readily removable material to prevent the entry of concrete.

**(E) Forms.** ACI 301. Provide forms, shoring, and scaffolding for concrete placement unless indicated or specified otherwise. Set forms mortar-tight and true to line and grade. Chamfer above grade exposed joints, edges, and external corners of concrete to match existing adjacent condition unless otherwise indicated. Provide formwork with clean-out openings to permit inspection and removal of debris.

**(1) Coating.** Before concrete placement, coat the contact surfaces of forms with a nonstaining material oil, nonstaining form coating compound, or two coats of nitrocellulose lacquer. Do not use mineral oil on forms for surfaces to which adhesive, paint, or other finish material is to be applied.

**(2) Removal of Forms.** Prevent concrete damage during form removal. After placing concrete, forms shall remain in place for the minimum time periods specified in Subsection 509.03 (H)(4) "Curing Periods and Minimum Temperatures."

**(F) Measuring, Mixing, Transporting, and Placing Concrete.** ASTM C94, ACI 301, ACI 302.1R, and ACI 304R, except as modified herein.

**(1) Mixing.** ASTM C94 and ASTM C 685 where applicable.

451 Machine mix concrete. Begin mixing within 30 minutes after the  
452 cement has been added to the aggregates. Place concrete within 90  
453 minutes of either addition of mixing water to cement and aggregates  
454 or addition of cement to aggregates if the air temperature is less than  
455 85 degrees F. Reduce mixing time and place concrete within 60  
456 minutes if the air temperature is greater than 85 degrees F.

457  
458 **(2) Transporting.** Transport concrete from the mixer to the forms  
459 as rapidly as practicable. Prevent segregation or loss of ingredients.  
460 Clean transporting equipment thoroughly before each batch. Do not  
461 use aluminum pipe or chutes. Remove concrete which has  
462 segregated in transporting and dispose of as directed.

463  
464 **(3) Placing.** Place concrete as soon as practicable after the forms  
465 and the reinforcement have been inspected and approved. Do not  
466 place concrete when weather conditions prevent proper placement  
467 and consolidation; in uncovered areas during periods of precipitation;  
468 or in standing water. Prior to placing concrete, remove dirt,  
469 construction debris and water from within the forms. Deposit concrete  
470 as close as practicable to the final position in the forms. Do not  
471 exceed a free vertical drop of 3 feet from the point of discharge. Place  
472 concrete in one continuous operation from one end of the structure  
473 towards the other.

474  
475 **(a) Vibration.** ACI 301. Furnish a spare vibrator on the job  
476 site whenever concrete is placed. Consolidate concrete slabs  
477 greater than 4 inches in depth with high frequency, internal,  
478 mechanical vibrating equipment supplemented by hand  
479 spading and tamping. Consolidate concrete slabs 4 inches or  
480 less in depth by wood tampers, spading, and settling with a  
481 heavy leveling straight edge. Operate vibrators with vibratory  
482 element submerged in the concrete, with a minimum frequency  
483 of not less than 6000 impulses per minute when submerged.  
484 Do not use vibrators approximately 18 inches apart. Penetrate  
485 the previously placed lift with the vibrator when more than one  
486 lift is required. Place concrete in 18-inch maximum vertical  
487 lifts. External vibrators shall be used on the exterior surface of  
488 the forms when internal vibrators do not provide adequate  
489 consolidation of the concrete.

490  
491 **(b) Application of Epoxy Resin Adhesive Over**  
492 **Reinforcing Steel.** ACI 503R and ACI 503.2. Clean existing  
493 reinforcing steel as specified in Subsection 509.03(C)(2)(a)  
494 "Preparation of Repair Area". Apply a thin coat of compound to  
495 existing reinforcing steel. Allow epoxy resin adhesive to dry

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prior to concrete placement. Follow manufacturer's instructions regarding safety and health precautions when working with epoxy-resins.

**(d) Hot Weather Concreting.** ACI 305R. Provide and maintain required concrete temperature using Figure 2.1.5 in ACI 305R to prevent the evaporation rate from exceeding 0.2 pound of water per square foot of exposed concrete per hour. Cool ingredients before mixing or use other suitable means to control concrete temperature and prevent rapid drying of newly placed concrete. Shade the fresh concrete as soon as possible after placing. Start curing when the surface of the fresh concrete is sufficiently hard to permit curing without damage. Provide water hoses, pipes, spraying equipment, and water hauling equipment (where worksite is remote to water source) to maintain a moist concrete surface throughout the curing period. Provide burlap cover or other suitable, permeable material with fog spray or continuous wetting of the concrete when weather conditions prevent the use of either liquid membrane curing compound or impervious sheets. For vertical surfaces, protect forms from direct sunlight and add water to top of structure once concrete is set.

**(G) Surface Finishes.**

**(1) Defects.** Repair formed surfaces by removing minor honeycombs, pits greater than one square inch surface area or 0.25 inch maximum depth, or otherwise defective areas. Provide edges perpendicular to the surface and patch with nonshrink grout. Patch tie holes and defects when the forms are removed. Concrete with extensive honeycomb (including exposed steel reinforcement, cold joints, entrapped debris, separated aggregate, or other defects) which affect the serviceability or structural strength will be rejected, unless correction of defects is approved. Obtain approval of corrective action prior to repair. The surface of the concrete shall not vary more than the allowable tolerances of ACI 347R. Exposed surfaces shall be uniform in appearance and finished to a smooth form finish unless otherwise specified.

**(2) All Surfaces.**

**(a) Formed and Unformed Surfaces.** The finished surface of concrete repairs shall match existing color, texture, and profile of immediately adjacent surfaces in original composition design, color, and texture. If a radius, chamfer, recess or

541 groove is encountered in the work and continues through the  
542 area to be repaired, the radius, chamfer, recess or groove shall  
543 be reproduced in the repairs.  
544

545 **(H) Curing and Protection.** ACI 301 unless otherwise specified. Begin  
546 curing immediately following form removal. Protect concrete from injurious  
547 action by sun, rain, flowing water, mechanical injury, tire marks, and oil  
548 stains. Do not allow concrete to dry out from time of placement until the  
549 expiration of the specified curing period. If forms are removed prior to the  
550 expiration of the curing period, provide another curing procedure specified  
551 herein for the remaining portion of the curing period.  
552

553 **(1) Moist Curing.** Provide for the removal of water without erosion  
554 or damage to the structure.  
555

556 **(a) Ponding or Immersion.** Continually immerse the  
557 concrete throughout the curing period. Water shall not be  
558 more than 20 degrees F less than the temperature of the  
559 concrete.  
560

561 **(b) Fog Spraying or Sprinkling.** Provide uniform and  
562 continuous application of water throughout the curing period.  
563

564 **(c) Pervious Sheeting.** Completely cover surface and  
565 edges of the concrete with two thicknesses of wet sheeting.  
566 Overlap sheeting 6 inches over adjacent sheeting. Sheeting  
567 shall be at least as long as the width of the surface to be cured.  
568 During application, do not drag the sheeting over the finished  
569 concrete nor over sheeting already placed. Wet sheeting  
570 thoroughly and keep continuously wet throughout the curing  
571 period.  
572

573 **(d) Impervious Sheeting.** Wet the entire exposed surface  
574 of the concrete thoroughly with a fine spray of water and cover  
575 with impervious sheeting throughout the curing period. Lay  
576 sheeting directly on the concrete surface and overlap edges 12  
577 inches minimum. Provide sheeting not less than 18 inches  
578 wider than the concrete surface to be cured. Secure edges  
579 and transverse laps to form closed joints. Repair torn or  
580 damaged sheeting or provide new sheeting. Cover or wrap  
581 columns, walls, and other vertical structural elements from the  
582 top down with impervious sheeting, overlap and continuously  
583 tape sheeting joints, and introduce sufficient water to soak the  
584 entire surface prior to completely enclosing.  
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**(2) Liquid Membrane-Forming Compound Curing.** Seal or cover joint openings prior to application of curing compound. Prevent curing compound from entering the joint. Provide and maintain compound on the concrete surface throughout the curing period. Do not use this method of curing where the use of Figure 2.1.5 in ACI 305R indicates that hot weather conditions will cause an evaporation rate exceeding 0.2 pound of water per square foot per hour.

**(a) Application.** Unless the manufacturer recommends otherwise, apply compound immediately after the surface loses its water sheen and has a dull appearance, and before joints are sawed. Mechanically agitate curing compound thoroughly during use. Use approved power-spraying equipment to uniformly apply two coats of compound in a continuous operation. The total coverage for the two coats shall be 200 square feet maximum per gallon of undiluted compound unless otherwise recommended by the manufacturer's written instructions. The compound shall form a uniform, continuous, coherent film that will not check, crack, or peel. Immediately apply an additional coat of compound to areas where the film is defective. Respray concrete surfaces subjected to rainfall within 3 hours after the curing compound application.

**(b) Protection of Treated Surfaces.** Prohibit foot and other sources of abrasion for not less than 72 hours after compound application. Maintain continuity of the coating for the entire curing period and immediately repair any damage.

**(3) Curing Periods and Minimum Temperatures.** After placing concrete, maintain air temperature adjacent to the concrete at 60 degrees F minimum for the specified time period, or 70 degrees F minimum for a period of 3 days after placing, unless otherwise directed.

**(a) Additional Curing.** Double the required curing period if either one or the average of both 7-day test cylinders indicate less than 90 percent of the strength specified (f'c).

**(4) Concrete Migrating Corrosion Inhibitor.** After concrete repairs are completed and accepted by Contractor's quality control specialist, coat entire bridge concrete surface. Apply coating per manufacturer's recommendations. Provide a minimum of two coats at 200 square foot per gallon per coat, or as recommended by the manufacturer.

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**(I) Inspection.** Examine material at the job site to determine that it is the material referenced in the report of test results or certificate of compliance. Surface preparations and application procedures will be examined by the Engineer to determine conformance with the requirements specified. Approve each separate operation prior to initiation of subsequent operations.

**(J) Manufacturer's Representative.** Arrange for manufacturer's technical representative to be available to be at the project site to advise installer of proper procedures and precautions for the use of materials and to check installation as required.

**509.04 Measurement.**

**(A)** The Engineer will measure spalls/delaminations per square foot in accordance with the contract documents.

**(B)** The Engineer will measure reinforcing splices per pound in accordance with the contract documents.

**509.05 Payment.** The Engineer will pay for the accepted pay items listed below at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and in the contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Repair Concrete Delaminations and Spalls	Square Foot
Reinforcing Splices	Pound

**END OF SECTION 509**



1 Amend **Section 511 – DRILLED SHAFTS** to read as follows:  
2

3 **“SECTION 511 - DRILLED SHAFTS**  
4

5  
6 **511.01 Description.** This section is for installing drilled shafts according to the  
7 contract. Drilled shafts include reinforced or unreinforced concrete with or without  
8 concrete bell footings.  
9

10 **511.02 Materials.** Materials shall conform to the following:  
11

12 **(A) Portland Cement Concrete.** Portland cement concrete shall conform to  
13 Section 601 - Structural Concrete, except concrete shall have a minimum 28-day  
14 compressive strength of 5,500 pounds per square inch.  
15

16 The in-place concrete shall have minimum 28-day compressive strength  $f'_c$   
17 = 5500 pounds per square inch and maximum water to cement ratio of 0.40 based  
18 on a maximum cementitious material content of 640 pounds per cubic yard. The  
19 in-place concrete density shall not be less than 3 pounds per cubic foot below the  
20 theoretical mix design density.  
21

22 Proportion the concrete mix designs to get properties of high workability,  
23 compaction under self-weight, resistance to segregation, and resistance to  
24 excessive bleeding. The maximum nominal aggregate size shall be 0.75 inch. The  
25 slump range shall be 7.0 inches  $\pm$  1.0 inch for concrete poured into a water free  
26 borehole and 8.0 inches  $\pm$  1.0 inch for concrete placed under water or under drilling  
27 slurry. Slump for the concrete shall be a minimum of four inches after four hours  
28 from initial mixing.  
29

30 The Engineer will permit superplasticizers.  
31

32 **(B) Reinforcing Steel.** Reinforcing steel shall conform to Section  
33 602 - Reinforcing Steel.  
34

35 **(C) Casings.** Casings shall have inside diameters not less than the required  
36 diameter of the shafts and wall thicknesses specified or adequate to withstand  
37 construction loads and stresses.  
38

39 **(D) Cement Grout.** Cement grout used for filling the cored holes, shall be  
40 prepackaged, non-shrink, non-metallic, and non-gaseous grout.  
41

42 **511.03 Construction**  
43

44 **(A) Qualifications of Drilled Shaft Contractor.** Be capable of installing  
45 drilled shafts and other related work as specified in the contract and shall have the  
46 following minimum experience requirements below.  
47

48 **(1) Drilled Shaft Experience.** Because of the expertise required to  
49 successfully complete the drilled shafts according to the contract, a qualified  
50 drilled shaft Contractor shall install the drilled shaft. The drilled shaft  
51 Contractor shall have installed at least three projects completed in the last  
52 three years on which the Contractor has installed a minimum of five drilled  
53 shafts per project of a diameter and length similar to those shown in the  
54 contract. Include in list of projects, names and phone numbers of owner's  
55 representatives who can verify the drilled shaft contractor's participation on  
56 those projects. Drilled shaft Contractor shall have on its payroll and on the  
57 project for the entire duration, supervisory personnel who have participated  
58 in drilled shaft construction, similar to the type proposed in the contract, for  
59 duration of at least three years within the last 10 years.

60  
61 **(B) Preconstruction Requirements.**

62  
63 **(1) Experience Information.** Submit the following information to the  
64 Engineer within 30 days after award of contract for acceptance by the  
65 Engineer:

66  
67 **(a)** List of drilled shaft projects completed in the past 10 years.  
68 The list of projects shall contain the names and phone numbers of  
69 owner's representatives who can verify participation on that project.

70  
71 **(b)** Name and experience record of the drilled shaft  
72 superintendent who will be in charge of drilled shaft operations for  
73 this project. Drilled shaft superintendent shall have minimum three  
74 years experience within the last 10 years in drilled shaft construction  
75 similar to type proposed. Drilled shaft superintendent shall remain  
76 on the project for the duration of the drilled shaft work. Drilled shaft  
77 superintendent who leaves the project shall be replaced with  
78 personnel with equal or better experience. Submit proposed  
79 superintendent's name and experience record for acceptance.

80  
81 **(C) Protection of Existing Structures.** Prevent damage to existing  
82 structures and utilities. Preventive measures shall include:

83  
84 **(1)** Selecting construction methods and procedures that will prevent  
85 caving of the shaft excavation and

86  
87 **(2)** Monitoring and controlling the vibrations from construction activities  
88 such as the driving of casing or sheeting or drilling of the shaft

89  
90 **(D) Installation Plan.** At least 30 days before constructing the drilled shafts,  
91 submit an installation plan for acceptance by the Engineer. This plan shall at a  
92 minimum provide information on the following:

93  
94 **(1)** List of proposed equipment such as cranes, drills, augers, bailing  
95 buckets, final cleaning equipment, concrete pumps, and casing,

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(2) Details of construction operation sequence and the sequence of shaft construction in bents or groups,

(3) Details of shaft excavation methods including how the excavated material from the drilled shaft will be controlled on site and removed; and method of setting and extracting casing,

(4) Details of methods to ensure shaft stability, including prevention of caving or bottom heave using casings or other means accepted by the Engineer. If casings are to be used, submit dimensions and detailed installation and dewatering procedures for temporary casings; and removal procedures for temporary casing.

(5) If the Contractor plans to use slurry, details of the methods to mix, circulate and desand slurry,

(6) Details of methods to clean the shaft excavation,

(7) Details of reinforcement placement including lifting, support, and centralization methods,

(8) Details of concrete placement including proposed operational procedures for pumping method,

(9) Proposed concrete mix design, including expected strengths at 3,7, and 28 days. Submit test results of both a trial mix and a slump loss test, conducted by State-accepted testing laboratory using methods specified in Section 601 - Structural Concrete. Tests shall demonstrate that concrete meets 4-hour plasticity requirement at expected ground ambient temperature and at highest expected ambient air temperature (two separate slump loss tests required), and

The Engineer will evaluate the drilled shaft installation plan for conformance with the contract documents. Within 30 days after receipt of the plan, the Engineer will notify the Contractor of additional information required including if applicable, changes necessary to meet the contract requirements. The Engineer will reject parts of the installation plan that are unacceptable. The Contractor shall resubmit changes for re-evaluation within 15 days. The Engineer will have another 30 days to review all resubmittals. Procedural acceptance given by the Engineer shall be subject to trial in the field. The acceptance shall not relieve the Contractor of the responsibility to complete the work according to the contract.

**(E). Construction Requirements.** This subsection shall be applicable to production drilled shafts unless otherwise directed by the Engineer.

**(1) Construction Sequence.** Drilling of shafts within a horizontal distance of 3.0 times the shaft diameter to the hole being drilled shall not

145 commence until a minimum of 24 hours after the drilled shaft has been  
146 completed by placement of concrete to the top of shaft elevation in order to  
147 avoid interaction effects between adjacent shafts.  
148

149 **(2) Construction Methods.** Excavate for shafts to the dimensions  
150 and elevations shown in the contract. Its methods and equipment shall be  
151 suitable for the intended purpose and materials met. Use the permanent  
152 casing method only when required by the contract or authorized by the  
153 Engineer. Blasting shall not be permitted.  
154

155 **(a) Dry Construction Method.** The dry method includes  
156 drilling the shaft excavation, removing accumulated water and loose  
157 material from the excavation, and placing the reinforcing cage and  
158 shaft concrete in a dry excavation. Use this method only at sites  
159 where the groundwater table and soil conditions are suitable to  
160 permit construction of the shaft in a dry excavation. The Engineer  
161 will inspect the sides and bottom of the shaft visually before placing  
162 the concrete. Dry excavation is defined as an excavation where  
163 maximum depth of water does not exceed 3 inches.  
164

165 **(b) Wet Construction Method.** This method includes using  
166 water, mineral, or polymer slurry to maintain stability of the hole  
167 perimeter while advancing the excavation to final depth, placing the  
168 reinforcing cage, and concreting the shaft. Use this method at sites  
169 where a dry excavation for placement of the shaft concrete cannot  
170 be maintained  
171

172 Reuse drilling water only if permitted by the Engineer and  
173 contingent upon control of unit weight to no more than 62.5 pounds  
174 per cubic foot and Marsh funnel viscosity to not more than 27  
175 seconds per quart, at the time drilling water is introduced into the  
176 borehole.  
177

178 When locating drilled shafts in open water areas, extend the  
179 exterior casings from above the water elevation into the ground.  
180 Install the exterior casing to produce a positive seal at the bottom of  
181 the casing so that no intrusion or extrusion of water or other materials  
182 occurs into or from the shaft excavation.  
183

184 **(c) Casing Construction Method.** The temporary casing  
185 method may be used at sites where the dry or wet construction  
186 methods are inadequate. Use permanent casing method only when  
187 required by the contract documents or authorized by Engineer. The  
188 casing may be placed either in a predrilled hole or advanced through  
189 the ground by twisting, driving, or vibration before cleaning the  
190 casing.  
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**(F) Excavation.**

**(1) General.** Make the shaft excavations at locations, and to shaft geometry and dimensions shown in the contract. After acceptance by the Engineer, adjust drilled shaft tip elevations when the material met during excavation is unsuitable and/or differs from that anticipated in the design of the drilled shaft.

Maintain a construction method log during shaft excavation. Submit method log within 24 hours of shaft drilling completion. The log shall contain information such as:

- (a)** Excavation diameters;
- (b)** Equipment used;
- (c)** Type of material excavated with the elevations of the material;
- (d)** Rate of excavation including time drilling started, when different material is encountered, tool changes, finish of shaft excavation, and difficulties encountered;
- (e)** The description of and approximate top and bottom elevation of each soil or rock material encountered.
- (f)** Elevation and approximate rate of any seepage or groundwater; and
- (g)** Remarks, including temporary stoppages

Any drilled shaft concrete over the theoretical amount required to fill any excavations for the shafts dimensioned on the plans shall be furnished at no additional cost.

On projects with cofferdams, provide a certified diver to inspect the cofferdam conditions when the contract requires a concrete seal for construction. Before placing the concrete seal, the diver shall inspect the cofferdam interior periphery. The cofferdam interior periphery inspection includes each sheeting indentation and around each drilled shaft.

Dispose the excavated material according to Section 203 - Excavation and Embankment.

Furnish drilled shaft concrete required to fill excavations for shafts dimensioned in the contract documents.

Do not permit workers to enter the shaft excavation unless:

- 241 (a) A suitable casing is in place.  
242  
243 (b) The water level is lowered and stabilized below the level the  
244 workers will occupy, and  
245  
246 (c) Adequate safety equipment and procedures are provided,  
247 performed and in place.  
248

249 **(2) Excavation and Drilling Equipment.** The excavation and drilling  
250 equipment shall have adequate capacity including power, torque, and down  
251 thrust to excavate a hole to the maximum diameter and to a depth of ten  
252 feet or 20% beyond the depths shown in the contract, whichever is greater.  
253

254 The excavation and overreaming tools shall be of adequate design, size,  
255 and strength to do the work shown in the contract.  
256

257 A portion of the project is underlain by rock fill materials. The Contractor  
258 shall exercise care when drilling through the anticipated rock fill materials  
259 so as not to disturb the adjacent utilities and pavement. Use of a temporary  
260 casing may be required in the upper portion of the borehole within the rock  
261 fill materials and soft soils. If undermining occurs below the adjacent  
262 asphalt pavement during drilling, CLSM or concrete backfill shall be placed  
263 in the annular area between the casing and the sides of the borehole. The  
264 casing will become permanent and the upper portion of the casing that  
265 extends into the pile cap shall be removed.  
266

267 **(a) Special Drilling Equipment.** When conventional earth  
268 augers and/or underreaming tools cannot be used for drilling, provide  
269 special drilling equipment including rock core barrels, rock tools, air  
270 tools and other equipment as necessary to construct the shaft  
271 excavation to the size and depth required.  
272

273 The use of special drilling equipment and/or procedures will  
274 be necessary to drill through the cobbles and boulders, and the  
275 basalt rock formation. The Contractor shall anticipate encountering  
276 an abundance of boulders of various sizes in deposits classified as  
277 "fill", "alluvium", and "residual soil" on the boring logs and shall make  
278 allowance for difficult drilling in his bid. In addition, the Contractor  
279 shall make allowance for difficult drilling in his bid within the basalt  
280 rock formation. The cost for the use of special drilling equipment and  
281 procedures necessary to drill through the cobbles and boulders, and  
282 basalt rock formation shall be incidental to unclassified shaft  
283 excavation. The Engineer will not permit blasting.  
284

285 **(b) Sidewall Overreaming.** When the sidewall of the hole has  
286 softened, swelled, or degraded, sidewall overreaming will be  
287 required by the Engineer. Overreaming thickness shall be a  
288 minimum of 0.5 inch and a maximum of 3.0 inches. The Contractor

289 may overream with a grooving tool or overreaming bucket. The  
290 thickness and elevation of sidewall overreaming shall be according  
291 to the contract or as directed by the Engineer. Overream sidewall  
292 and place additional shaft concrete at no cost to the State.

293  
294 **(3) Unclassified Excavation.** When the contract designates drilled  
295 shaft excavation as unclassified, provide the necessary equipment to  
296 remove and dispose of materials met in forming the drilled shaft excavation,  
297 including installation of temporary casing and/or use of slurry, as necessary.  
298 The Engineer will not make separate payment for excavation of materials  
299 of different densities and character (hardness) or employment of special  
300 tools and procedures necessary to excavate the drilled shaft. The Engineer  
301 will pay for obstruction removal separately.

302  
303 **(4) Obstructions Removal.** Remove obstructions at drilled shafts  
304 locations when authorized by the Engineer. Obstructions shall include  
305 man-made materials such as but not limited to old concrete foundations not  
306 shown on the Plans.

307  
308 The Contractor shall employ special procedures and/or tools after  
309 the Contractor cannot advance the hole using conventional augers fitted  
310 with soil or rock teeth, drilling buckets and/or underreaming tools. Such  
311 special procedures/tools may include: chisels, boulder breakers, core  
312 barrels, air tools, hand excavation, temporary casing, and increasing the  
313 hole diameter.

314  
315 Drilling tools and any other equipment, lost in excavation, are not  
316 considered obstructions. Remove the drilling tools and any other equipment  
317 promptly. The cost due to tools lost in the excavation shall be at no  
318 additional cost to the State including costs associated with hole degradation  
319 (requiring overreaming or other methods) due to removal operations or the  
320 time the hole remains open or any other remedial actions needed to be  
321 performed to correct the situation caused by the tool lost.

322  
323 Natural materials used as fill materials or present within alluvial  
324 deposits and residual soils such as cobbles and boulders shall be  
325 anticipated at the site during excavation and shall not be considered an  
326 obstruction regardless of the size and hardness of the boulder. These  
327 natural materials used as fill materials shall not be considered an  
328 obstruction under this section.

329  
330 **(G) Casings.**

331  
332 **(1) General.** Casings shall be steel, smooth, watertight, and of ample  
333 strength to withstand both handling and driving stresses and the pressure  
334 of concrete and the surrounding earth materials. The inside diameter of the  
335 casing shall not be less than the specified size of the shaft. The Engineer  
336 will not allow extra compensation for concrete required to fill the oversized

337 casing or oversized excavation. Remove casings from shaft excavations  
338 except when the casing is permanent.

339  
340 **(2) Temporary Casing.** The Engineer will consider subsurface casing  
341 temporary unless shown in the contract as permanent casing. Remove the  
342 temporary casing before completing the placing of concrete in the drilled  
343 shaft. The Contractor may require telescoping, predrilling with slurry, and/or  
344 overreaming to beyond the outside diameter of the casing to install casing.  
345

346 When choosing to remove a casing and substituting a longer or  
347 larger diameter casing through caving soils, stabilize the excavation with  
348 slurry or backfill before installing the new casing.  
349

350 Before withdrawing the casing, the level of fresh concrete in the  
351 casing shall be the higher of the following:  
352

- 353 **(a)** Minimum of five feet above the hydrostatic water level, or
- 354
- 355 **(b)** Level of drilling fluid, outside the casing.  
356

357 While withdrawing the casing, maintain an adequate level of concrete  
358 within the casing to:  
359

- 360 **(a)** Displace the fluid trapped behind the casing upward and
- 361
- 362 **(b)** Discharge the fluid at the ground surface without  
363 contaminating or displacing the shaft concrete.  
364

365 When temporary casings become bound or fouled during shaft  
366 construction and cannot be removed, the Engineer will consider the drill  
367 shaft defective. Improve such defective shafts according to the contract or  
368 submit remedial repair for acceptance by the Engineer. Such  
369 improvement may consist of removing the shaft concrete and extending the  
370 shaft deeper, providing straddle shafts to compensate for capacity loss, or  
371 providing a replacement shaft. Do corrective measures including redesign  
372 of footings caused by defective shafts according to the contract at no cost  
373 to the State or extension of the contract time. Any redesign of the footing  
374 shall be submitted to the Engineer for acceptance. The redesign shall be  
375 performed by a structural engineer and a civil engineer specializing in the  
376 geotechnical practice both licensed in the State of Hawaii. All remedial  
377 repairs shall have drawings and calculations signed and stamped by both  
378 of the above licensed engineers. The Engineer will not pay for the casing  
379 remaining in place as well as any redesign or remedial repair.  
380

381 **(H) Slurry.** If required, use only polymer or mineral slurries in the drilling  
382 process. The polymer slurry shall have sufficient viscosity and gel characteristics  
383 to transport excavated material to suitable screening system. The mineral slurry  
384 shall have a mineral grain size that will remain in suspension and sufficient  
385 viscosity and gel characteristics to transport excavated material to suitable



386 screening system. The percentage and specific gravity shall be sufficient to  
387 maintain the stability of the excavation and to allow proper concrete placement.  
388

389 During construction, maintain the level of the slurry at a height sufficient to  
390 prevent caving of the hole. When a sudden significant loss of slurry occurs, delay  
391 the construction of that foundation until an alternate construction procedure is  
392 submitted for acceptance by the Engineer.  
393

394 Premix the polymer or mineral slurry thoroughly with clean fresh water in  
395 slurry tanks and adequate time (as prescribed by the manufacturer) allotted for  
396 dehydration before introducing the slurry into the shaft excavation by pumping.  
397 The slurry tanks shall have capacity for adequate slurry circulation, storage, and  
398 treatment. Excavated slurry pits in lieu of slurry tanks will not be allowed without  
399 the written permission of the Engineer.  
400

401 Use desanding equipment to control slurry sand content to less than 4% by  
402 volume in the borehole for mineral slurry and less than 0.5% by volume for polymer  
403 slurry. The Engineer will not require desanding equipment for setting temporary  
404 casing, sign post, or lighting mast foundations.  
405

406 Prevent the slurry from "setting up" in the shaft, such as: agitation,  
407 circulation and/or adjusting the properties of the slurry. Dispose of slurry in suitable  
408 areas off from the project site.  
409

410 The Contractor shall have the representative from the manufacturer of the  
411 slurry product on site providing the technical support for the slurry preparation,  
412 placement, testing and other quality control. Carry out the control tests using  
413 suitable apparatus on the polymer or mineral slurry to resolve the density,  
414 viscosity, pH, and sand content. An acceptable range of values for those physical  
415 properties for mineral slurry is in Table 511-1 – Mineral Slurry in Fresh Water.  
416 Acceptable range of values for those physical properties for two types of polymer  
417 slurries is in Tables 511-2 – Shore Pac GVC (CETCO Drilling Products Group) in  
418 Fresh Water and 511-3 – SlurryPro CDP (KB Technologies Ltd.) in Fresh Water.  
419

420 Test the density, viscosity, and pH value during the shafts excavation to  
421 establish a consistent working pattern. Make a minimum of four sets of tests during  
422 the first 8 hours of slurry use. When the results show consistent behavior,  
423 decrease the testing frequency to one set every four hours of slurry use.  
424

<b>TABLE 511-1 - MINERAL SLURRY IN FRESH WATER</b>			
<b>Property</b>	<b>Range of Values *</b>		<b>Test Method</b>
	<b>Time of Slurry Introduction</b>	<b>In Hole At Time Of Concreting</b>	
Density (pcf)	64.3**- 69.1**	64.3**-75.0**	Density Balance
Viscosity (sec/qt)	28 - 45	28 – 45	Marsh Cone
PH	8.0 – 11.0	8.0 – 11.0	pH paper pH meter
<p>* At 20<sup>0</sup> C</p> <p>** Increase by two pounds per cubic foot in salt water</p> <p>Notes: a. When the Contractor does not need to control the bottom hole conditions or when tests show that other criteria are appropriate, the Engineer may modify the values.</p> <p>b. When the contract requires desanding, the sand content shall not exceed 4% percent (by volume) in the bore hole as resolved by the American Petroleum Institute sand content test.</p> <p>c. Submit changes for acceptance in writing by the Engineer.</p>			

425  
426

<b>TABLE 511-2 - Shore Pac GCV (CETCO Drilling Products Group) IN FRESH WATER</b>			
<b>Property</b>	<b>Range of Values *</b>		<b>Test Method</b>
	<b>Time of Slurry Introduction</b>	<b>In Hole At Time Of Concreting</b>	
Density (pcf)	Less than or equal to 64.0**	Less than or equal to 64.0**	Density Balance
Viscosity (sec/qt)	33 - 74	Less than or equal to 57	Marsh Cone
PH	8.0 – 11.0	8.0 – 11.0	pH paper pH meter
<p>* At 20<sup>0</sup> C</p> <p>** Increase by two pounds per cubic foot in salt water</p> <p>Notes: a. When the Contractor does not need to control the bottom hole conditions or when tests show that other criteria are appropriate, the Engineer may modify the values.</p> <p>b. When the contract requires desanding, the sand content shall not exceed 0.5% percent (by volume) in the bore hole as resolved by the American Petroleum Institute sand content test.</p> <p>c. Submit changes for acceptance in writing by the Engineer.</p>			

<b>TABLE 511-3 - SLURRYPRO CDP (KB Technologies Ltd.) IN FRESH WATER</b>			
<b>Property</b>	<b>Range of Values *</b>		<b>Test Method</b>
	<b>Time of Slurry Introduction</b>	<b>In Hole At Time Of Concreting</b>	
Density (pcf)	Less than or equal to 67.0**	Less than or equal to 64.0**	Density Balance
Viscosity (sec/qt)	50 - 120	Less than or equal to 70	Marsh Cone
PH	6.0 – 11.5	6.0 – 11.5	pH paper pH meter
<p>* At 20<sup>0</sup> C</p> <p>** Increase by two pounds per cubic foot in salt water</p> <p>Notes: a. When the Contractor does not need to control the bottom hole conditions or when tests show that other criteria are appropriate, the Engineer may modify the values.</p> <p>b. When the contract requires desanding, the sand content shall not exceed 0.5% percent (by volume) in the bore hole as resolved by the American Petroleum Institute sand content test.</p> <p>c. Submit changes for acceptance in writing by the Engineer.</p>			

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Before placing concrete in the shaft excavation, take slurry samples from the base of the shaft using a sampling tool. Extract slurry samples from the base of the shaft and at intervals not exceeding 10 feet up the shaft. Extract samples until two consecutive samples produce acceptable values for density, viscosity, pH, and sand content (within the values shown on Table 511-1 – Mineral Slurry in Fresh Water or 511-2 – Shore Pac GVC (CETCO Drilling Products Group) in Fresh Water or 511-3 – SlurryPro CDP (KB Technologies Ltd.) in Fresh Water).

Ensure that the bottom of the shaft does not accumulate heavily contaminated slurry suspension. The heavily contaminated slurry suspension could impair the free flow of concrete. When finding unacceptable slurry samples, take actions necessary to bring the slurry as specified in the contract. Do not pour the concrete until re-sampling and testing results produce acceptable values.

Furnish the reports of tests required above to the Engineer on completion of each drilled shaft. An authorized person of the Contractor shall sign the reports.

During construction, maintain at the level of slurry not less than five feet above the highest piezometric water pressure along the depth of a shaft. When

452 the slurry construction method fails, stop this method and propose an alternate  
453 method for acceptance by the Engineer

454  
455 The Contractor shall use and dispose of slurry in accordance with applicable  
456 Federal, State, and County requirements.

457  
458 **(I) Excavation Inspection.** Provide equipment for checking the dimensions  
459 and alignment of each permanent shaft excavation. Determine the dimensions  
460 and alignment according to the contract. Measure the final shaft depths with a  
461 suitable weighted tape after final cleaning.

462  
463 A minimum of 50% of the base of each shaft shall have less than 0.5 inch  
464 of sediment at the time the concrete is placed. The maximum depth of sediment  
465 or debris on the base of the shaft shall not exceed 1.5 inches. The Contractor will  
466 measure the shaft cleanliness in the presence of the Engineer by methods deemed  
467 appropriate to the Engineer.

468  
469 Also, for dry excavations the maximum depth of water shall not exceed 3  
470 inches before pouring the concrete.

471  
472 **(J) Reinforcing Steel Cage Construction and Placement.** Assemble and  
473 place the reinforcing steel cage immediately after the Engineer inspects and  
474 accepts the shaft excavation before pouring the concrete. The reinforcing steel  
475 cage includes longitudinal bars, ties, cage stiffener bars, spacers, centralizers, and  
476 other necessary appurtenances to acceptably complete and place the cage.

477  
478 Tie and support the reinforcing steel in the shaft so that the reinforcing steel  
479 will remain within allowable tolerances given in Subsection 511.03(L) –  
480 Construction Tolerances. Use the concrete spacers or other approved non-  
481 corrosive spacing devices at sufficient intervals (near the bottom and at intervals  
482 not exceeding 10 feet up the shaft) to insure concentric spacing for the entire cage  
483 length. Use minimum of four spacers, equally spaced around circumference, at  
484 each vertical interval. The spacers shall be constructed of accepted material equal  
485 in quality and durability to concrete specified for the shaft, and shall be of adequate  
486 dimension to insure the minimum annular space shown on the drawings between  
487 the outer portion of the reinforcing steel cage and the side of the excavated hole.  
488 Provide accepted cylindrical concrete bottom supports to maintain the proper  
489 distance between bottom of the cage and base of the shaft excavation.

490  
491 Check the elevation of the top of the steel reinforcing cage before and after  
492 pouring the concrete. When not maintaining the rebar within the specified  
493 tolerances, make the corrections needed to bring to within tolerances of the  
494 contract. Do not construct additional shafts until after modifying the reinforcing  
495 steel cage support according to the contract.

496  
497 When the bottom of the constructed shaft elevation is lower than shown in  
498 the contract, extend at least half of the longitudinal bars required in the upper  
499 portion of the shaft the additional length. Continue the tie bars for the extra depth,

500 spaced two-foot on center measured along the circumference of the reinforcing  
501 steel cage. Extend the stiffener bars to the final depth. These bars may be lap  
502 spliced or unspliced bars of the proper length. The Engineer will not permit welding  
503 to the reinforcing steel. Unless the extra depth of the drilled shaft is required due  
504 to modifications by the Engineer, the additional reinforcing bars shall be at no  
505 additional cost to the State.

506  
507 **(K) Concrete Placement.**

508  
509 **(1) General.** Place the concrete through a concrete pump using  
510 accepted methods as described below.

511  
512 Concrete shall be placed in the shaft immediately after placing the  
513 reinforcing steel.

514  
515 Concrete placement shall be continuous from the bottom to the top  
516 of shaft cutoff elevation and for the overpour volume. To ensure that the  
517 drilled shaft concrete is sound below the top of shaft cutoff elevation, the  
518 drilled shaft shall be overpoured for a volume of at least four feet above the  
519 cutoff elevation after good quality concrete is evident at the top of shaft  
520 cutoff elevation. The drilled shaft overpour concrete shall be properly  
521 removed and disposed of offsite.

522  
523 A minimum of four, 6-inch by 12-inch concrete cylinders shall be  
524 made for the compressive strength testing. Production shafts with  
525 compressive strength less than the minimum 28-day compression strength  
526 will be considered defective. Contractor shall submit a corrective method  
527 plan for the defective shaft to the Engineer for review and approval prior to  
528 their use.

529  
530 The elapsed time from the beginning of concrete placement in the  
531 shaft to the completion of the placement shall not exceed two hours. Adjust  
532 admixtures accepted by the Engineer so that concrete remains in a  
533 workable plastic state throughout 2-hour placement limit. A longer  
534 placement time may be requested, and requests shall be submitted to the  
535 Engineer for review and acceptance 30 days prior to the time the concrete  
536 pour (with a longer placement time) is needed. Should the Contractor  
537 exceed the 2-hour limit without obtaining prior acceptance by the Engineer,  
538 the Contractor may be required to core the drilled shaft. These drilled shaft  
539 corings shall be at no additional cost to the State and no additional time will  
540 be granted.

541  
542 Before placing the concrete, provide results of 3-day, 7-day, 14-day  
543 and 28-day compressive strength tests of a trial mix and a slump loss test  
544 at least 30 days prior to placement of concrete. Supply a concrete mix that  
545 will maintain a slump of four inches or greater after four hours from initial  
546 mixing. Conduct the trial mix and slump loss tests using concrete and under  
547 ambient temperatures appropriate for the site conditions. The ambient

548 temperature used shall be the temperature at the elevation of existing  
549 ground before any excavation started.

550  
551 The top surface of the drilled shafts shall be leveled, cleaned, and  
552 roughened prior to concrete placement for the footing.

553  
554 **(2) Monitoring Concrete Volume.** For each drilled shaft, prepare and  
555 submit a monitoring record the next working day after concrete placement  
556 has been completed. All monitoring shall be performed in the presence of  
557 the Engineer or his representative. As a minimum, the monitoring record  
558 shall consist of the following:

559  
560 **(a)** A chart that is made up after drilled shaft excavation has been  
561 completed and accepted by the Engineer and before concrete  
562 placement has commenced. Indicated on the chart, depth of hole  
563 plotted with theoretical volume of concrete to fill drilled shaft hole.  
564 Plot concrete elevation (surface) along the vertical axis and concrete  
565 volume along the horizontal axis.

566  
567 **(b)** As concrete is being place, measure concrete surface at an  
568 interval of approximately each cubic yard of concrete discharged.  
569 Plot concrete volume actually placed at each elevation point. Use  
570 this chart to determine if any necking down or enlargement of shaft  
571 has occurred during concrete placement.

572  
573 **(c)** Keep records of steel and concrete movement to document  
574 the following conditions:

575  
576 **(1)** When removing temporary or permanent casing, elevation  
577 of the top of reinforcing cage shall not rise more than 2 inches  
578 from its original elevation;

579  
580 **(2)** As temporary casing is extracted, static level of fluid  
581 concrete shall not rise.

582  
583 **(3) Concreting by Pump.** Concrete pumps and discharge lines for  
584 concrete placement in wet or dry excavations may be used. Pumps and  
585 pump lines used to place concrete shall be of sufficient length, weight, and  
586 diameter to discharge concrete at the shaft base elevation. The pump and  
587 pump lines that will come in contact with concrete shall not contain  
588 aluminum parts. Discharge line shall have a minimum diameter of 4 inches  
589 and watertight joints. Concrete placement shall not begin until the pump line  
590 discharge orifice is at the shaft base elevation.

591  
592 For wet excavations, use a plug to separate the concrete from the  
593 fluid in the hole until pumping begins. Remove the plug from the excavation  
594 or use plugs, made from a material accepted by the Engineer that will not  
595 cause a defect, if not removed.

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The discharge orifice shall remain at least five feet below the surface of the fluid concrete. When lifting the pump line during concreting, reduce the line pressure temporarily until the orifice at a higher level in the excavation has been repositioned.

When removing the pumpline orifice from the fluid concrete column and discharging concrete above the rising concrete level during the concrete pour, the Engineer will consider the shaft defective. In such case, remove the reinforcing cage and concrete, the necessary sidewall removal specified by the Engineer, and repour the shaft. Costs of replacement of defective shafts shall be at no costs to the State and no additional time will be granted.

**(L) Construction Tolerances.** The following construction tolerances apply to drilled shafts:

**(1)** The drilled shaft shall be within 1/12 of the shaft diameter or 3 inches, whichever is less, in the horizontal plane at the plan elevation for the top of the shaft.

**(2)** The vertical alignment of the shaft excavation shall not vary from the plan alignment by more than 0.25 inch per foot of depth. The alignment of a battered shaft excavation shall not vary by more than 0.5 inch per foot of depth from the prescribed batter.

**(3)** After placing the concrete, the top of the reinforcing steel cage shall be no more than 6.0 inches above and no more than 3.0 inches below plan position.

**(4)** The cutoff (top) elevation of the shaft shall have a tolerance of  $\pm 0.5$  inch from the plan top of shaft elevation.

**(5)** The dimensions of casing are subject to American Pipe Institute tolerances applicable to regular steel pipe.

**(6)** Design the excavation equipment and methods so that the completed shaft excavation will have a flat bottom. The cutting edges of excavation equipment shall be normal to the vertical axis of the equipment within a tolerance of  $\pm 3/8$  inch per foot of diameter.

**(7)** Casing diameters shown in the contract documents to outside diameter (OD) dimensions. When accepted by the Engineer, a casing larger in diameter than shown in the contract documents may be provided to facilitate meeting this requirement. When using a series of telescoping casings, size casing to maintain shaft diameters.



643 Drilled shaft excavations that cannot be completed within the required  
644 tolerances are unacceptable. When accepted by the Engineer, corrections may be  
645 made to an unacceptable drilled shaft excavation by accepted combination of the  
646 following methods:

- 647  
648 (1) Overdrill the shaft excavation to a larger diameter to permit accurate  
649 placement of the reinforcing steel cage with the required minimum concrete  
650 cover.
- 651  
652 (2) Increase the number, size, or length of the reinforcing steel.
- 653  
654 (3) Redesign the foundation.
- 655  
656 (4) Other methods accepted by the Engineer.

657  
658 The acceptance of correction procedures is dependent on analysis of the  
659 effect of the degree of misalignment and improper positioning. The Contractor is  
660 solely responsible to submit remedial repair procedures that shall make the  
661 structure equal to or better than the original design. The Engineer will solely  
662 determine if the remedial repair meets the requirements and is acceptable. A  
663 Hawaii Licensed Professional Structural Engineer and a Hawaii Licensed  
664 Professional Civil Engineer who specializes in Geotechnical Engineering shall  
665 stamp and sign the redesign drawings and computations. Correct out of tolerance  
666 drilled shaft excavations including engineering analysis and redesign at no cost to  
667 the State. No time extension will be granted for any impact to the critical path due  
668 to the Contractor's incorrect installation of the drilled shaft.

669  
670 **(M) As-Built Drilled Shaft Location.** The Contractor shall provide survey  
671 ties to all as-built location of all drilled shafts.

672  
673 The Contractor shall notify the Engineer prior to performing the survey work  
674 and the Contractor shall survey the drilled shafts under the supervision of the  
675 Engineer or the Engineer's representative. A copy of the survey notes and the  
676 scaled plan locating all the completed drilled shafts in a given footing shall be  
677 submitted to the Engineer for review and approval. Submit accepted copy of the  
678 survey notes and the scaled plan as an electronic file, the Engineer will determine  
679 the acceptable format and media.

680  
681 No form work for any footing shall proceed until the drilled shafts are found  
682 acceptable by the Engineer.

683  
684 **(N) Coring for Integrity Testing.** Integrity testing will be performed on drilled  
685 shafts as determined by the Engineer. Integrity testing shall consist of partial or  
686 full depth concrete coring at drilled shafts determined by the Engineer. Coring  
687 shall be performed by the Contractor at the locations designated by the Engineer  
688 in the presence of the Engineer. The Engineer will solely determine if the cored  
689 shaft is acceptable or defective. Defective shafts shall be replaced or repair  
690 drawings and computations by a Hawaii Licensed Professional Engineer in the  
691 Structural Branch and Civil Branch (specializing in the Geotechnical field) stamped

692 and signed shall be submitted for acceptance by the Engineer. The Contractor  
693 shall core vertical holes at locations and depths determined by the Engineer. The  
694 number of core holes to be done shall be determined by the Engineer. The core  
695 hole shall be accepted by the Engineer. The recovered core samples shall have  
696 a minimum diameter of 3 inches or 3 times the nominal maximum aggregate size  
697 of the concrete mix, use whichever is larger. The cored holes shall be filled with  
698 prepackaged, non-shrink, non-metallic, non-gaseous grout of the same minimum  
699 strength as the drilled shaft.

700  
701 **511.04 Measurement.**

702  
703 **(A)** Furnishing drilled shaft drilling equipment and furnishing instrumentation  
704 and collecting data will be paid on a lump sum basis. Measurement for payment  
705 will not apply.

706  
707 **(B)** The Engineer will measure obstruction per hour in accordance with the  
708 contract documents. Once the Engineer authorizes compensation for obstruction  
709 removal, duration of obstruction removal, including time required for obstruction  
710 disposal, will be measured for payment. Depth of obstruction removed will be  
711 subtracted from total depth measured for payment under other applicable drilled  
712 shaft excavation pay items.

713  
714 **(C)** The Engineer will measure unclassified shaft excavation per linear foot,  
715 along shaft centerline, including bells. The Engineer will compute length between  
716 plan top of shaft elevation to plan estimated tip elevation.

717  
718 **(D)** The Engineer will measure drilled shaft per linear foot. The Engineer will  
719 compute length between plan top of shaft elevation and final bottom of shaft  
720 elevation.

721  
722 **(E)** The Engineer will measure coring for integrity testing per linear foot. The  
723 Engineer will compute length between the bottom of coring elevation and the top  
724 of the shaft concrete elevation.

725  
726 **511.05 Payment.** The Engineer will pay for the accepted pay items listed below at  
727 the contract price per pay unit, as shown in the proposal schedule.  
728 Payment will be full compensation for the work prescribed in this section  
729 and the contract documents.

730  
731 The Engineer will pay for each of the following pay items when included in the  
732 proposal schedule.

733

Pay Item	Pay Unit
Furnishing Drilled Shaft Drilling Equipment	Lump Sum

734  
735  
736  
737  
738 The Engineer will pay for:  
739

740 (A) 60 percent of the contract bid price when drilling equipment is on job site,  
741 assembled, and ready to drill foundation shafts.

742  
743 (B) 40 percent of the contract bid price upon completion of drilling shafts, and  
744 placing shaft concrete up to top of shafts.

745  
746 Obstruction Hour

747  
748 The Engineer will pay for:

749  
750 (A) 80 percent of the contract bid price upon completion of removing the  
751 obstruction.

752  
753 (B) 20 percent of the contract bid price upon removing and disposing of the  
754 obstruction.

755  
756 The maximum payment per designated obstruction shall not exceed 20  
757 times the unit cost for unclassified excavation.

758  
759 Unclassified Shaft Excavation (\_\_\_-Inch Diameter Shafts) Linear Foot

760  
761 The Engineer will pay for:

762  
763 (A) 60 percent of the contract bid price upon completion of using drilling  
764 equipment, using special tools and drilling equipment to excavated shaft.

765  
766 (B) 20 percent of the contract bid price upon completion of furnishing and  
767 installing temporary casing.

768  
769 (C) 20 percent of the contract bid price upon completion of removing and  
770 disposing of excavated material.

771  
772 Drilled Shaft (\_\_\_-Inch Diameter Shafts) Linear Foot

773  
774 The Engineer will pay for:

775  
776 (A) 60 percent of the contract bid price upon completion of drilling.

777  
778 (B) 15 percent of the contract bid price upon completion of furnishing,  
779 assembling, and placing steel cage.

780  
781 (C) 15 percent of the contract bid price upon completion of furnishing and  
782 placing concrete.

783  
784 (D) 10 percent of the contract bid price upon completion of removing and  
785 disposing of excavated material.

786  
787

788 Coring for Integrity Testing for acceptable drilled shaft. Linear Foot

789

790 The Engineer will pay for:

791

792 **(A)** 70 percent of the contract bid price upon completion of concrete coring.

793

794 **(B)** 20 percent of the contract bid price upon completion of filling cored holes  
795 with non-shrink grout of the same minimum strength as drilled shaft.

796

797 **(C)** 10 percent of the contract bid price upon completion of packaging the core  
798 samples and delivering them to the Engineer.”

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**END OF SECTION 511**

1 **DIVISION 600 - MISCELLANEOUS CONSTRUCTION**

2  
3 Amend **Section 601 - STRUCTURAL CONCRETE** to read as follows:

4  
5 **SECTION 601 - STRUCTURAL CONCRETE**

6  
7  
8 **601.01 Description.** This section describes structural concrete consisting of  
9 Portland Cement, fine aggregate, coarse aggregate, and water. This will include  
10 adding admixtures for the purpose of entraining air, retarding or accelerating set,  
11 tinting, and other purposes as required or permitted. To reduce the embodied carbon  
12 footprint of concrete, concrete design on the island of Oahu shall include the use of  
13 carbon dioxide mineralization or equivalent technology. Other methods to reduce the  
14 cement content such as use of supplementary cementitious materials (SCMs) or  
15 admixtures such as C-S-H nanoparticle-based strength-enhancing admixture (CSH-  
16 SEA) or equivalent may also be used to reduce the embodied carbon footprint  
17 including the combination thereof the previously mentioned methods.

18  
19 **601.02 Materials.**

20		
21	Portland Cement	701.01
22		
23	Fine Aggregate for Concrete	703.01
24		
25	Coarse Aggregate for Portland Cement Concrete	703.02
26		
27	Admixtures	711.03
28		
29	Water	712.01
30		

31 Use coarse aggregate for lightweight concrete conforming to ASTM C330  
32 except Sections 5, 7 and 9.

33  
34 **601.03 Construction.**

35  
36 **(A) Quality Control.** Portland Cement concrete production requires  
37 Contractor responsibility for quality control of materials during handling,  
38 blending, mixing, curing, and placement operations.

39  
40 Sample, test, and inspect concrete to ensure quality control of  
41 component materials and concrete. Sampling and testing for quality control in  
42 accordance with standard methods shall be performed by certified ACI  
43 Concrete Field Technician Grade I. Perform quality control tests for slump, air  
44 content, temperature, and unit weight during production of structural concrete  
45 other than concrete for incidental construction. Submit quality control test  
46 results.

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**(B) Design and Designation of Concrete.** Design concrete mixture for concrete work specified. Submit mix design using State Highways Division form DOT 4-151 or an Engineer accepted equivalent form. Do not start work until the Engineer accepts mix design. The Engineer will accept concrete mix design using information given in Table 601.03-1 - Design of Concrete, and other pertinent requirements.

Whenever 28-day compressive strength,  $f'_c$ , is 4,000 psi or greater, designate concrete by required minimum 28-day compressive strength.

The 28-day compressive strength,  $f'_c$ , less than 4,000 psi listed in Table 601.03-1 – Design of Concrete, is for design information and designation of class only.

Proportion concrete designated by compressive strength such that concrete conforms to required strength.

Design concrete placed in bridge decks and pavements exposed to traffic wear, with air content of 3 percent, including entrapped and entrained air. Maintain air content for plastic concrete within tolerance of 1 percent air content, plus or minus, during the work.

Use Class BD concrete in bridge deck unless concrete is designated by compressive strength. Incorporate anti-corrosion and shrinkage reduction, water-reducing and set-retarding admixture into concrete mix design, with capability of varying degree of retardation without adversely affecting other characteristics of concrete. Submit design admixture dosage.

Class A concrete shall be used when type of concrete is not indicated in the contract documents.

Design concrete as specified in Table 601.03-1 – Design of Concrete.

<b>TABLE 601.03-1 - DESIGN OF CONCRETE (800 Maximum Cement Content lbs./c.y.)</b>					
<b>Class of Concrete</b>	<b>28-Day Strength <math>f_c</math>, psi.</b>	<b>Minimum Cement Content lbs./c.y.</b>	<b>Maximum Water-Cement Ratio, lb./lb.</b>	<b>Minimum Cement Content with Mineralized CO2 lbs./c.y.</b>	<b>Maximum Water-Cement Ratio with Mineralized CO2 lb./lb.</b>
A	3000	532	0.59	504	0.62
B	2500	475	0.66	450	0.70
C	2000	418	0.75	396	0.79
D	1500	380	0.85	360	0.87
BD	3750	610	0.49	NA	NA
SEAL	3000	610	0.55	NA	NA
Designated by Strength $f_c$ or $f_r$	As Specified	610	0.49	NA	NA
$f_r$ = Specified Modulus of Rupture					

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Concrete Design – Projects on Oahu will utilize CO<sub>2</sub> Mineralization technology or equivalent. Supplementary cementitious materials (SCMs), CSH-SEA or equivalent or combination thereof the previously mentioned methods may also be used. Concrete design shall allow a reduction of portland cement content while maintaining the concrete design strength, durability and other requirements. See Table 601.03-1 Design of Concrete specified limits for adjusted minimum cement content and water cement ratio when using CO<sub>2</sub> mineralization. Material certifications for the above shall include a list of at least 3 projects that used the technology, SCMs, admixtures or combination thereof.

Use the absolute volume method to proportion concrete materials in accordance with requirements of concrete designated by class, cement content in pounds per cubic yards, or specified 28-day compressive strength. Use absolute volumetric proportioning methods as outlined in the American Concrete Institute (ACI) Standard 211.1, "Recommended Practices for Selecting Proportions for Normal and Heavyweight Concrete."

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Use coarse aggregate size No. 57 (one inch to No. 4) or No. 67 (3/4 inch to No. 4) for concrete. For concrete placed in bottom slabs and stems of box girders, use No. 67 size aggregate. Smaller size aggregates may be permitted when encountering limited space between forms and reinforcement or between reinforcement when accepted by the Engineer in writing. Maximum aggregate size shall not be greater than 1/3 of the space between reinforcing steel bars or reinforcing steel and the form.

Use the following standard methods in Table 601.03-2 – Standard Methods for determining compliance with requirements indicated in this subsection:

<b>TABLE 601.03-2 – STANDARD METHODS</b>	
Sampling Fresh Mixed Concrete	AASHTO T 141
Mass Per Cubic Meter (Cubic Foot) Yield and Air Content (Gravimetric) of Concrete	AASHTO T 121
Slump of Hydraulic Cement Concrete	AASHTO T 119
Air Content of Freshly Mixed Concrete by the Pressure Method	AASHTO T 152
Specific Gravity and Absorption of Fine Aggregate	AASHTO T 84
Specific Gravity and Absorption of Coarse Aggregate	AASHTO T 85
Temperature of Freshly Mixed Portland Cement Concrete	ASTM C1064
Making and Curing Concrete Test Specimens in the Field	AASHTO T 23
Compressive Strength of Molded Concrete Cylindrical Specimens	AASHTO T 22 (4 inch by 8 inch or 6 inch by 12 inch cylinders)
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	AASHTO T 97

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113



114 When concrete is designated by compressive strength,  $f'_c$ , or flexural  
115 strength,  $f'_r$ , or includes CO<sub>2</sub> Mineralization technology, CSH-SEA or SCMs,  
116 the Engineer will require prequalification of materials and mix proportions  
117 proposed for use before placing such concrete. The Engineer will prequalify  
118 concrete based on past performance records using statistical computations of  
119 population sizes and (n-1) weighting, or trial batch test reports in compliance  
120 with computed minimum average strength for material and mix proportions.  
121 The Engineer will determine minimum average strength on probability of not  
122 more than one in 20 tests falling below specified strength for the following  
123 conditions:

124  
125 **(1)** When past performance records are available, furnish the  
126 following documented performance records:

127  
128 **(a)** Minimum of 15 consecutive 28-day strength tests from  
129 projects having same materials and mix proportions.

130  
131 **(b)** Two groups totaling 30 or more test results representing  
132 similar materials in which mix proportion strengths are within 20  
133 percent of specified strength, from data obtained within one year  
134 of proposed use.

135  
136 The Engineer will analyze performance records to establish  
137 standard deviation.

138  
139 **(2)** When sufficient past performance records are not provided, the  
140 Engineer will assume current standard deviation to be 500 psi for  
141 compressive strength,  $f'_c$ , and 50 psi for flexural strength,  $f'_r$ .

142  
143 Unless sufficient performance records are available from other projects  
144 at DOT Materials Testing and Research Branch, submit test performance  
145 records or trial test reports for prequalifications, based on data of most recent  
146 tests made on concrete of proposed mix design, and data obtained within one  
147 year of proposed use.

148  
149 When shrinkage reducing admixtures are used, submit test results  
150 showing compliance to the Contract Documents' requirements.

151  
152 Include the following information in test data and trial batch test reports:  
153 date of mixing; mixing equipment and procedures used; size of batch in cubic  
154 yards and weight, type, and source of ingredients used; slump of concrete; air  
155 content of concrete when using air entraining agent; age at time of testing; and  
156 strength of concrete cylinders tested.

158 Show that concrete strength tests equal or exceed minimum average  
159 strength in trial test reports. Test is average 28-day test results of five  
160 consecutive concrete cylinders or concrete beams taken from single batch. No  
161 cylinder or beam shall have strength less than 85 percent of minimum average  
162 strength.

163  
164 Submit test data and trial test reports signed by official of firm that  
165 performed tests.

166  
167 The Engineer reserves the right to stop work when a series of low  
168 strength tests occur. Do not continue concrete work until cause is established  
169 and the Engineer is informed of and accepts, necessary corrective action to be  
170 taken.

171  
172 **(C) Batching.** Measure and batch materials in accordance with the  
173 following provisions:

174  
175 **(1) Portland Cement.** Either sacked or bulk cement may be used.  
176 Do not use fraction of sack of cement in concrete batch unless cement  
177 is weighed.

178  
179 Weigh bulk cement on weighing device accepted by the Engineer. Seal  
180 and vent bulk cement-weighing hopper properly to preclude dusting  
181 during operation. Do not suspend discharge chute from weighing  
182 hopper. Arrange discharge chute so that cement will not lodge in  
183 hopper or leak from hopper.

184  
185 Batching accuracy shall be within 1 percent, plus or minus, of  
186 required weight.

187  
188 **(2) Water.** Measure water by volume or by weight. Use readily  
189 adjustable device for measurement of water, with accuracy within 1  
190 percent, plus or minus, of quantity of water required for batch. Arrange  
191 device so that variable pressure in water supply line does not affect  
192 measurements. Equip measuring tanks with outside taps and valves or  
193 other accepted means to allow for checking calibration.

194  
195 **(3) Aggregates.** When storing and stockpiling aggregates, avoid  
196 separation of coarse and fine particles within each size, and do not  
197 intermix various sizes before proportioning. Protect stored or stockpiled  
198 aggregates from dust or other foreign matter. Do not stockpile together,  
199 aggregates from different sources and of different gradations.

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When transporting aggregates from stockpiles or other sources to batching plant, ensure uniform grading of material is maintained. Do not use aggregates that have become segregated or mixed with earth or foreign matter. Stockpile or bin aggregates at least 12 hours before batching. Produce or handle aggregates by hydraulic methods and wash and drain aggregates. If aggregates exhibit high or non-uniform moisture content, the Engineer will order storage or stockpiling for more than 12 hours.

Proportion aggregates by weight, with the exception that aggregates in concrete for minor structures, curbs, and sidewalks may be proportioned by either volume or weight. For volumetric proportioning, use measuring boxes of known capacity to measure quantity of each aggregate size.

Use batch weight based on dry materials plus total weight of moisture (both absorbed and surface) contained in aggregate. Measure individual aggregates to within 2 percent, plus or minus, of required weight, and total weight of aggregates to within 1 percent, plus or minus, of required weight.

**(4) Admixtures.** Store, proportion, and dispense admixtures in accordance with the following provisions:

**(a) Liquid Admixtures.** Dispense chemical admixtures, air entraining admixtures, and corrosion inhibiting admixtures in liquid form. Use mechanical dispensers for liquid admixtures with sufficient capacity to measure prescribed quantity for each batch of concrete. Include graduated measuring unit in each dispenser to measure liquid admixtures to within 5 percent, plus or minus, of prescribed quantity for each batch. Read graduations accurately from point of measuring unit, and control proportioning operations to permit visual check of batch accuracy before discharging. Mark each measuring unit clearly for type and quantity of admixture.

Arrange with supplier to provide sampling device consisting of valve located in safe and accessible location for sampling admixtures.

When using more than one liquid admixture for concrete mix, use separate measuring unit for each liquid admixture and dispense separately to avoid interaction that may interfere with admixture efficiency and adversely affect concrete. Dispense liquid admixture by injecting so as not to mix admixture at high concentrations.

246 When using liquid admixtures in concrete that is  
247 completely mixed in paving or continuous mixers, operate  
248 dispensers automatically with batching control equipment.  
249 Equip such dispensers with automatic warning system that shall  
250 provide visible or audible signals at points where proportioning  
251 operations are controlled, when the following occurs:

- 252
- 253 a. Quantity of admixture measured for each batch of  
254 concrete varies from pre-selected dosage by more  
255 than 5 percent; or
- 256
- 257 b. Entire contents of measuring unit from dispenser is  
258 not emptied into each batch of concrete.
- 259

260 Unless liquid admixtures are added to batch with  
261 pre-measured water, discharge liquid admixtures into stream of  
262 water that disperses admixtures uniformly throughout batch. An  
263 exception is that air-entraining admixtures may be dispensed  
264 directly into moist sand in batching bins, provided adequate  
265 control of concrete air content can be maintained.

266

267 Measure and disperse special admixtures, as  
268 recommended by admixture manufacturer, and as accepted by  
269 the Engineer. Special admixtures include high-range water  
270 reducers requiring dosages greater than capacity of  
271 conventional dispensing equipment. For site-added, high-range  
272 water reducers, use calibrated, portable dispenser supplied by  
273 manufacturer.

274

275 **(b) Mineral Admixtures.** Protect mineral admixtures from  
276 exposure to moisture until used. Pile sacked material of each  
277 shipment to permit access for tally, inspection, and identification.

278

279 Provide adequate facilities to ensure that mineral  
280 admixtures meeting specified requirements are kept separate  
281 from other mineral admixtures and that only specified mineral  
282 admixtures are allowed to enter into the work. Provide safe and  
283 suitable facilities for sampling mineral admixtures at weigh  
284 hopper or in feed line immediately in advance of hopper.

285

286 Incorporate mineral admixtures into concrete using  
287 equipment conforming requirements for Portland Cement weigh  
288 hoppers and charging and discharging mechanisms specified in  
289 ASTM C94 and Subsection 601.03(C) - Batching.

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When concrete is completely mixed in stationary paving or continuous mixers, weigh mineral admixture in separate weigh hopper. Introduce mineral admixture and cement simultaneously into mixer, proportionately with aggregate.

When interlocks are required for cement-charging mechanisms, and cement and mineral admixtures are weighed cumulatively, interlock their charging mechanisms to prevent introduction of mineral admixture until mass of cement in weigh hopper is within tolerances specified in Subsection 601.03(C)(1) - Portland Cement.

In determining maximum quantity of free water that may be used in concrete, consider mineral admixture and supplementary cementitious materials (SCMs) to be cement.

**(5) Bins and Scales.** At batching plant, use individual bins, hoppers, and scale for each aggregate size. Include separate bin, hopper, and scale for bulk cement and fly ash.

Except when proportioning bulk cement for pavement or structures, cement weigh hopper may be attached to separate scale for individual weighing or to aggregate scale for cumulative weighing. If cement is weighed cumulatively, weigh cement before other ingredients.

When proportioning for pavement or structures, keep bulk cement scale and weigh hopper separate and distinct from aggregate weighing equipment.

Use springless-dial or beam-type batching scales. When using beam-type scales, make provisions to show operator that required load in weighing hopper is approaching. Use devices that show condition within last 200 pounds of load and within 50 pounds of overload.

Maintain scale accuracy to 0.5 percent throughout range of use. Design poises to lock to prevent unauthorized change of position. Use scales inspected by the State Measurement Standards Branch of the Department of Agriculture to ensure their continued accuracy. Provide not less than ten 50-pound weights for testing scales.

Batching plants may be equipped to proportion aggregates and bulk cement by automatic weighing devices.

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**(6) Batching and Hauling.** When mixing is to be performed at work site, transport aggregates from batching plant to mixer in batch boxes, vehicle bodies, or other containers of adequate capacity and construction. Use partitions to separate batches and prevent spilling from one compartment to another while in transit or during dumping.

Transport bulk cement to mixer in tight compartments carrying full quantity of cement required for batch. Once cement is placed in contact with aggregates, batches shall be mixed and placed within 1-1/2 hours of contact. Cement in original shipping packages may be transported on top of aggregates. Ensure that each batch contains number of sacks required by job mix.

Deliver batches to mixer intact. Charge each batch into mixer without loss of cement. When carrying more than one batch on truck, charge batch into mixer without spilling material from one batch compartment into another.

**(D) Mixing.** Mix concrete in mechanically operated mixers.

Use stationary or truck mixers that distribute materials thoroughly and produce concrete uniform in color and appearance. When there is variation in mixed concrete attributable to worn pickup or throw-over blades, the Engineer will inspect mixer. If inspection reveals that blades are worn more than one inch below original height of manufacturer's design, repair or replace blades. Upon request, make copy of manufacturer's design, showing dimensions and arrangement of blades.

Charge batches into central or truck mixers so that portion of mixing water enters ahead of cement and aggregates. Deliver uniform flow of water. Place entire amount of batch water in mixer by end of first quarter of mixing period. When mixers with multiple compartment drums are used, time required to transfer material between compartments will be included as mixing time. Use drum rotation speed as designated by manufacturer. If mixing does not produce concrete of uniform and smooth texture, provide additional revolutions at same speed until thorough mixing of each concrete batch is attained. Begin measuring mixing time from time cement, aggregates, and 60 percent of water are in drum. Do not exceed manufacturer's rated capacity for volume of concrete mixed in each batch.

375 Equip central or truck mixers with attachment for automatically timing  
376 mixing of each concrete batch. Timing device shall include automatic feature  
377 for locking discharge chute and device for warning operator when required  
378 mixing duration has been met. If timing or locking device fails to operate,  
379 immediately furnish clock or watch that indicates seconds, to mixer operator. If  
380 timing device is not repaired within three days after becoming inoperative, shut  
381 down batching operation until timing device is repaired.  
382

383 For stationary mixers, use mixing time between 50 seconds and 5  
384 minutes. Select mixing time, as necessary, to produce concrete that meets  
385 uniformity criteria when tested in accordance with Section 11.3.3 of ASTM  
386 C94. The Contractor may designate mixing time for which uniformity tests are  
387 to be performed, provided mixing time is not less than 50 seconds or more  
388 than 5 minutes. Before using concrete for pavements or structures, mix  
389 concrete to meet specified uniformity requirements. The Contractor shall  
390 furnish labor, sampling equipment, and materials required for conducting  
391 uniformity tests of concrete mixture. The Engineer will furnish required testing  
392 equipment, including scales, cubic measure, and air meter; and will perform  
393 tests. The Engineer will not pay separately for labor, equipment, materials, or  
394 testing, but will consider the costs incidental to concrete. After batching and  
395 mixing operational procedures are established, the Engineer will not allow  
396 changes in procedures without the Contractor re-establishing procedures by  
397 conducting uniformity tests. Repeat mixer performance tests whenever  
398 appearance of concrete or coarse aggregate content of samples is not  
399 conforming to requirements of ASTM C94. For truck mixers, add four seconds  
400 to specified mixing time if timing starts as soon as skip reaches its maximum  
401 raised position.  
402

403 Unless otherwise indicated in the contract documents or accepted by  
404 the Engineer, concrete shall be mixed at proportioning plant. Operate mixer at  
405 agitating speed while in transit. Concrete may be truck-mixed only when  
406 cement or cement and mixing water are added at point of delivery. Begin  
407 mixing truck-mixed concrete immediately after introduction of mixing water to  
408 cement and aggregates, or introduction of cement to aggregates.  
409

410 Inclined-axis, revolving drum truck mixers shall conform to Truck Mixer,  
411 Agitator and Front Discharge Concrete Carrier Standards TMMB 100-01, 15th  
412 Revision, published by Truck Mixer Manufacturers Bureau. Truck mixers shall  
413 produce thoroughly mixed and uniform mass of concrete and shall discharge  
414 concrete without segregation.  
415

416 Manufacturer's standard metal rating plate shall be attached to each  
417 truck mixer, stating maximum rating capacity in terms of volume of mixed  
418 concrete for various uses and maximum and minimum mixing speeds. When  
419 using truck mixers for mixing, adhere to maximum capacity shown on metal  
420 rating plate for volume of concrete in each batch.

421 Operate truck mixers at mixing speed designated by manufacturer, but  
422 at not less than 6 or more than 18 revolutions per minute. Mix truck-mixed  
423 concrete initially between 70 and 100 revolutions at manufacturer-designated  
424 mixing speed, after ingredients, including water, are in mixer. Water may be  
425 added to mixture not more than two times after initial mixing is completed.  
426 Each time that water is added, turn drum an additional 30 revolutions or more  
427 at mixing speed until concrete is mixed uniformly.  
428

429 When furnishing shrink-mixed concrete, transfer partially mixed  
430 concrete at central plant to truck mixer. Apply requirements for truck-mixed  
431 concrete. The Engineer will not credit number of revolutions at mixing speed  
432 for partial mixing in central plant.  
433

434 When accepted by the Engineer, hand mixing may be allowed. The  
435 entire concrete placement at one location shall not exceed 1/3 cubic yard.  
436 It shall be hand mixed on a watertight, level platform. Use no aluminum to  
437 construct platform. Measure proper amount of coarse aggregate in  
438 measuring boxes and spread on platform. Spread fine aggregate on that  
439 coarse aggregate layer. Limit coarse and fine aggregate layers to total  
440 depth of one foot. Spread dry cement on this mixture. Turn whole mass  
441 not less than two times dry. Add sufficient clean water, distributed evenly.  
442 Turn whole mass again, not less than three times, not including placing in  
443 carriers or forms.  
444

445 **(E) Transporting Mixed Concrete.** Transport central-mixed concrete to  
446 delivery point in truck agitators or truck mixers operating at speed designated  
447 by equipment manufacturer as agitating speed; or in non-agitating hauling  
448 equipment, provided consistency and workability of mixed concrete upon  
449 discharge at delivery point is suitable for placement and consolidation in place;  
450 and provided mixed concrete after hauling to delivery point conforms to  
451 uniformity criteria when tested as specified in Section 12.5 of ASTM C94.  
452

453 For revolving drum truck mixers transporting central-mixed concrete,  
454 limit concrete volume to manufacturer's rated capacity for agitator operation.  
455 Maintain agitating speed for both revolving drum mixers and revolving blade  
456 type agitators as designated on manufacturer's data plate. Equip truck mixers  
457 or truck agitators with electrically or mechanically actuated counters. Actuate  
458 counters after introducing cement to aggregates.  
459

460 Bodies of non-agitating hauling equipment shall be smooth, watertight,  
461 metal containers equipped with gates to permit control of concrete discharge.  
462 Protect open-topped haul vehicle against weather with cover accepted by the  
463 Engineer.  
464

465 When hauling concrete in non-agitating trucks, complete discharge  
466 within 30 minutes after introducing mixing water to cement and aggregates.  
467



468 When truck mixer or agitator is used for transporting central-mixed  
469 concrete to delivery point, complete discharge within 1-1/2 hours, or before  
470 250 revolutions of drum or blades, whichever comes first after introduction of  
471 mixing water to cement and aggregates, or cement to aggregates. For truck-  
472 mixed concrete, complete concrete discharge within 1-1/2 hours, or before 300  
473 revolutions of drum or blades, whichever comes first. These limitations are  
474 permitted to waived if concrete is of such slump after the 1-1/2 hour time or  
475 300-revolution limit has been reached, that it can be placed, without addition of  
476 water to the batch.

477  
478 Submit delivery tickets from manufacturers of truck-mixed concrete and  
479 central-mixed concrete with each truckload of concrete before unloading at  
480 jobsite. Printed, stamped, or written delivery ticket shall include the following  
481 information:

- 482  
483 (1) Name of concrete plants.
- 484  
485 (2) Serial number of ticket.
- 486  
487 (3) Date and truck number.
- 488  
489 (4) Name of Contractor.
- 490  
491 (5) Specific project, route, or designation of job (name and location),  
492 and truck overweight permit number when required.
- 493  
494 (6) Specific class or designation of concrete in accordance with  
495 contract documents.
- 496  
497 (7) Quantity of concrete in cubic yards.
- 498  
499 (8) Time of loading batch or mixing of cement and aggregates.
- 500  
501 (9) Water added by receiver of concrete and receiver's initials.
- 502  
503 (10) Information necessary to calculate total mixing water added by  
504 producer. Total mixing water includes free water on aggregates, water,  
505 and water added by truck operator from mixer tank.
- 506  
507 (11) Readings of non-resettable revolution counters of truck mixers  
508 after introduction of cement to aggregates, or introduction of mixing  
509 water to cement aggregates.
- 510  
511 (12) Supplier's mix number or code.
- 512

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Furnish additional information designated by the Engineer and required by job specifications upon request.

**(F) Consistency.** Regulate quantity of water used in concrete mixes so that concrete consistency, as determined by AASHTO T 119 test method, is within nominal slump range specified in Table 601.03-3 - Slump for Concrete or as stated on the accepted concrete mix design. If concrete slump exceeds nominal slump, adjust mixture of subsequent batches. If slump exceeds maximum slump, the Engineer will reject concrete unless deemed satisfactory for its use.

The Engineer will also reject harsh or unworkable concrete that cannot be properly placed. Remove rejected concrete at no increase in contract price or contract time.

Slump for concrete shall be as specified in Table 601.03-3 – Slump for Concrete.

TABLE 601.03-3 - SLUMP FOR CONCRETE		
Type of Work	Nominal Slump Inches	Maximum Slump Inches
Concrete Pavements	0 – 3	3-1/2
Reinforced Concrete Structures: Sections Over 12 Inches	0 – 4	5
Sections 12 Inches Thick or Less	2 – 5	6
Non-Reinforced Concrete Facilities	1 – 3	4
Concrete Placed Underwater	6 – 8	9
Bridge Decks	0 – 3	3-1/2

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In adverse or difficult conditions that may affect placement of concrete, the above slump limitations may be exceeded for placement workability, with the addition of admixture conforming to Subsection 711.03 - Admixtures, if accepted by the Engineer in writing and provided water-cement ratio is maintained. Provide additional cement and water, or admixture at no increase in contract price or contract time.

**(G) Forms.** Construct forms in accordance with applicable sections.

**(H) Placing Concrete.** Place concrete in accordance with applicable sections.

**(I) Finishing Concrete Surfaces.** Finish concrete surfaces in accordance with applicable sections.

546           **(J) Curing Concrete.** Cure concrete in accordance with applicable  
547 sections.

548  
549 **601.04 Measurement.** The Engineer will measure concrete in accordance with the  
550 applicable sections.

551  
552 **601.05 Payment.** The Engineer will pay for the accepted concrete under the  
553 applicable sections.

554  
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558

**END OF SECTION 601**

1                   **SECTION 604 – MANHOLES, INLETS AND CATCH BASINS**

2  
3    Make the following amendment to said Section:

4  
5    **(I)**     Amend **604.04 - Measurement** by replacing lines 118 to 124 to read:

6  
7    **“604.04        Measurement.** The Engineer will measure reconstruct catch basin  
8 per each in accordance with the contract documents.”

9  
10   **(II)**    Amend **604.05 – Payment** by revising lines 126 to 237 to read as follows:

11  
12   **“604.05        Payment.** The Engineer will pay for the accepted pay items  
13 listed below at contract price per pay unit, as shown in the proposal schedule.  
14 Payment will be full compensation for the work prescribed in this section and the  
15 contract documents.

16  
17            The Engineer will pay for the following pay items when included in the  
18 proposal schedule:

19

<b>Pay Item</b>	<b>Pay Unit</b>
Reconstruct Catch Basin No. 1	Each

20  
21  
22  
23            Engineer will pay for:

24            (1)    80 percent of contract bid price upon completion of reconstructing  
25 catch basin.

26            (2)    20 percent of contract bid price upon completion of railing  
27 installation.

28  
29  
30  
31

Reconstruct Catch Basin No. 2	Each
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32  
33            Engineer will pay for:

34            (1)    80 percent of contract bid price upon completion of reconstructing  
35 catch basin.

36            (2)    20 percent of contract bid price upon completion of removing,  
37 cleaning, and painting existing frame and cover.”

38  
39  
40  
41  
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43                                   **END OF SECTION 604**

1 **SECTION 606 – GUARDRAIL**

2  
3 Make the following amendment to said Section:

4  
5 **(I)** Amend **606.04 - Measurement** by replacing lines 116 to 118 to read:

6  
7 **“606.04 Measurement.** The Engineer will measure guardrail per linear foot  
8 in accordance with the contract documents.

9  
10 The Engineer will measure from center to center of end posts. If the  
11 Contractor makes end connections to masonry or steel structures, the Engineer  
12 will measure to the face of such structures.

13  
14 The Engineer will measure median barrier per linear foot from end to end  
15 of the type specified.

16  
17 The Engineer will measure transition sections per each.”

18  
19 **(II)** Amend **606.05 – Payment** by revising lines 120 to 138 to read as follows:

20  
21 **“606.05 Payment.** The Engineer will pay for the accepted pay items  
22 listed below at contract price per pay unit, as shown in the proposal schedule.  
23 Payment will be full compensation for the work prescribed in this section and the  
24 contract documents.

25  
26 The Engineer will pay for the following pay items when included in the  
27 proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Guardrail Type _____	Linear Foot
Hawaii MASH Transition Section	Each
Median Barrier	Linear Foot”

36  
37 **END OF SECTION 606**

1                                   **SECTION 607 – CHAIN LINK FENCES AND GATES**

2  
3    Make the following amendment to said Section:

4  
5    **(I) Amend 607.04 - Measurement** by replacing lines 105 to 106 to read:

6  
7    **“607.04 Measurement.** The Engineer will measure fence by the linear foot.  
8    Measurement will be along the top of the fence from outside to outside of end post  
9    for each continuous run of fence.”

10  
11   **(II) Amend 607.05 – Payment** by revising lines 108 to 115 to read as follows:

12  
13   **“607.05 Payment.** The Engineer will pay for the accepted quantities of  
14    fence at the contract unit price per linear foot of the types and sizes specified in  
15    the proposal, complete in place.

16  
17    The Engineer will pay for following pay items when included in proposal schedule:

18

<b>Pay Item</b>	<b>Pay Unit</b>
_____ - Feet, Chain Link Fence	Linear Foot”

19  
20  
21  
22

23  
24                                   **END OF SECTION 607**

1 **SECTION 617 – PLANTING SOIL**

2  
3 Make the following amendments to said Section:

4  
5 **(I)** Amend **617.04 – Measurement** by revising lines 104 to 105 to read as  
6 follows:

7  
8 **“617.04 Measurement.** The Engineer will measure imported planting soil by the  
9 cubic yard.”

10  
11 **(II)** Amend **617.05 – Payment** by revising lines 107 to 123 to read as follows:

12  
13 **“617.05 Payment.** The Engineer will pay for the accepted quantities of imported  
14 planting soil at the contract unit price per cubic yard.

15  
16 Payment will be full compensation for work prescribed in this section and  
17 contract documents.

18  
19 The Engineer will pay for each of the following pay items when included in  
20 proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Imported Planting Soil	Cubic Yard

21  
22  
23  
24  
25  
26 The Engineer will consider planting soil obtained from within highway right-  
27 of-way as selected material. The Engineer will pay for this material under Section  
28 203 – Excavation and Embankment.

29  
30 The Engineer will not consider placing of materials in windrows as  
31 stockpiling as specified in Section 203 – Excavation and Embankment.”

32  
33  
34  
35 **END OF SECTION 617**





48 warranty; and furnishing equipment, tools, labor, materials; and other incidentals  
49 necessary to complete the work.

50  
51 The Engineer will pay for the foundation for controller cabinet at the contract  
52 unit price per each complete in place. The price includes full compensation for  
53 excavating and backfilling; forming; furnishing and placing the reinforcing steel;  
54 mixing, placing, and curing the concrete; furnishing and setting the anchor bolts;  
55 restoring the pavement; and furnishing equipment, tools, materials and other  
56 incidentals necessary to complete the work.

57  
58 The Engineer will pay for traffic signal and pedestrian signal assembly at  
59 the contract unit price per each complete in place. The price includes full  
60 compensation for submitting the equipment list and drawing; assembling the signal  
61 heads; wiring; bonding and grounding; painting the signal head mounting; testing;  
62 providing turn-on service; submitting warranty; and furnishing equipment, tools,  
63 labor, materials and other incidentals necessary to complete the work.

64  
65 The Engineer will pay for the pedestrian pushbutton with instruction sign at  
66 the contract unit price per each complete in place. The price includes full  
67 compensation for submitting the equipment list and drawing; furnishing and  
68 installing the pedestrian pushbutton with the instruction sign; wiring; bonding and  
69 grounding; testing; providing turn-on service; submitting warranty; and furnishing  
70 equipment, tools, labor, materials; and other incidentals necessary to complete the  
71 work.

72  
73 The Engineer will pay for the pull box at the contract unit price per each  
74 complete in place. The price includes full compensation for submitting the  
75 equipment list and drawing; furnishing and installing the pull box at the designated  
76 locations; saw cutting; excavating and backfilling; restoration of concrete  
77 sidewalks, asphalt concrete pavement and landscaping; coating the frames and  
78 covers; and furnishing equipment, tools, labor, materials and other incidentals  
79 necessary to complete the work.

80  
81 The Engineer will pay for the loop detector sensing unit at the contract unit  
82 price per each complete in place. The price includes full compensation for saw  
83 cutting; cleaning and blowing the saw cut areas; furnishing and inserting the loop  
84 cable; splicing in the pull box; filling the saw cut groove with epoxy sealer or hot  
85 applied rubberized sealant; and furnishing equipment, tools, labor, materials and  
86 other incidentals necessary to complete the work.

87  
88 The Engineer will pay for the emergency vehicle preemption (EVP) optical  
89 receiver at the contract unit price per each complete in place. The price includes  
90 full compensation for submitting the equipment list and drawing; furnishing and  
91 installing the EVP; wiring; bonding and grounding; testing; providing turn-on  
92 service; submitting warranty; and furnishing equipment, tools, labor, materials; and  
93 other incidentals necessary to complete the work.

94

95 The Engineer will pay for the traffic signal duct lines at the contract unit price  
 96 per linear foot complete in place. The price includes full compensation for saw  
 97 cutting; trenching; excavating and backfilling, including asphalt concrete  
 98 pavement, hot mix asphalt base course, aggregate base course and aggregate  
 99 subbase course for trench repair; concrete curb and/or gutter and concrete  
 100 sidewalk repair; furnishing and placing the reinforcing steel for concrete  
 101 encasement; mixing, placing, and curing the concrete for encasement; furnishing,  
 102 installing, bonding, and grounding the conduits and interconnect subducts; and  
 103 furnishing equipment, tools, labor, materials and other incidentals necessary to  
 104 complete the work.

105  
 106 The Engineer will pay for the traffic signal cables at the contract unit price  
 107 per linear foot complete in place. The price includes full compensation for  
 108 furnishing, installing, splicing, and taping the cable; furnishing and installing  
 109 interconnect fabric subducts; making the connections; providing turn-on service;  
 110 and furnishing equipment, tools, labor, materials and other incidentals necessary  
 111 to complete the work.

112  
 113 The Engineer will not pay for the inter-connect risers. The work includes  
 114 furnishing and installing the riser; and furnishing equipment, tools, labor, materials,  
 115 and other incidentals necessary to complete the work. The Engineer will consider  
 116 the cost for risers as included in the contract price for the various contract items.

117  
 118 The Engineer will consider full compensation for additional materials and  
 119 labor not shown in the contract that are necessary to complete the installation of  
 120 the various systems incidental to the various contract items. The Engineer will not  
 121 allow additional compensation.

122  
 123 The Engineer will pay for the following pay items when included in the  
 124 proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
128 Verify Location of Existing Underground Utilities	Force Account
130 Hawaiian Electric Company service connection fees	Force Account
132 Controller Assembly with Software	Each
134 Type _____ Traffic Signal Standard _____	Each
136 Foundation for _____	Each
138 _____ Signal Assembly _____	Each
140 Pedestrian Pushbutton with Instruction Sign	Each

142	_____ Type _____ Pullbox	Each
143		
144	Loop Detector Sensing Unit (6 Ft. x 6 Ft.) _____ Loops	Each
145		
146	EVP Optical Receiver with _____	Each
147		
148	Traffic Signal Ductline _____	Lin. Ft.
149		
150	EVP Cable	Lin. Ft.
151		
152	No. _____, _____ Cable	Lin. Ft.”
153		
154		
155	<b>END OF SECTION 623</b>	

1 **SECTION 624 – WATER SYSTEM**

2  
3 Make the following amendment to said Section:

4  
5 **(I) Amend 624.04 - Measurement** by replacing lines 587 to 588 to read:

6  
7 **“624.04 Measurement.** Water meter relocation will be paid on a lump sum  
8 basis. Measurement for payment will not apply.”

9  
10 **(II) Amend 624.05 – Payment** by revising lines 589 to 604 to read as follows:

11  
12 **“624.05 Payment.** The Engineer will pay for the accepted water meter relocation  
13 on a contract lump sum basis. Payment will be full compensation for work  
14 prescribed in this section and in contract documents.

15  
16 The Engineer will pay for each of the following pay items when included in  
17 proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Water Meter Relocation	Lump Sum

18  
19  
20  
21  
22  
23 The Engineer will not pay for excavation and backfill separately; this work  
24 shall be incidental to the contract item.”

25  
26 **END OF SECTION 624**  
27



1     **SECTION 626 – MANHOLES AND VALVE BOXES FOR WATER AND SEWER**  
2   **SYSTEMS**

3  
4     Make the following amendment to said Section:

5  
6     **(I) Amend 626.04 - Measurement** by replacing lines 172 to 173 to read:

7  
8     **“626.04 Measurement.** The Engineer will measure manholes and valve boxes  
9     per each for water and sewer systems.”

10  
11    **(II) Amend 626.05 – Payment** by revising lines 174 to 192 to read as follows:

12  
13    **“626.05 Payment.** The Engineer will pay for the accepted pay items listed below  
14    per each basis, as shown in proposal schedule. Payment will be full compensation  
15    for work prescribed in this section and in contract documents.

16  
17    The Engineer will pay for each of the following pay items when included in proposal  
18    schedule:

19

<b>Pay Item</b>	<b>Pay Unit</b>
Adjusting _____ Manhole Frame and Cover	Each

20  
21  
22             The Engineer will pay for excavation and backfill in accordance with and  
23             under Section 204 -- Excavation and Backfill for Miscellaneous Facilities.”

24  
25  
26  
27  
28   **END OF SECTION 626**

**SECTION 629 - PAVEMENT MARKINGS**

Make the following amendments to said Section:

**(I)** Amend **Subsection 629.03(B) – Temporary Pavement Markings** by revising the third paragraph from line 62 to 63 to read:

“Maintain and replace temporary pavement markings, flexible delineators, and barricades.”

**(II)** Amend **Table 629.03 – 1 – Temporary Pavement Markings** to read as follows:

<b>“TABLE 629.03-1 TEMPORARY PAVEMENT MARKINGS</b>	
<b>TYPE</b>	<b>PAVEMENT MARKINGS</b>
Passing Permitted - Both Sides	Single 4-inch yellow stripe 5 feet in length spaced 20 feet on center with Type D markers spaced 40 feet on center and located on center of 5-foot length of stripe.
Passing Prohibited - Both Sides	Double solid 4-inch yellow stripes with Type D markers placed 20 feet on center on one of 4-inch yellow stripes selected by the Engineer.
Passing Permitted - One Side Only	Single continuous 4-inch yellow stripe with Type D markers placed on stripe 20 feet on center on no-passing side and single 4-inch yellow stripes 5 feet in length spaced 20 feet on center on passing side.
Lane Lines - Lane Changing Permitted	Single 4-inch yellow or white stripe 5 feet in length spaced 20 feet on center with Type C or Type D markers spaced 40 feet on center.
Lane Lines - Lane Changing Prohibited	Double solid 4-inch white stripes with Type C markers placed 20 feet on center on one of the 4-inch white stripes selected by the Engineer.
Crosswalk	Two 12-inch white transverse lines spaced 8 feet on center or as ordered by the Engineer.
Stop Line	Single 12-inch white transverse line.
<b>Note:</b> Paint may be used for temporary markings in areas where final paving is not complete.”	

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60

(III) Amend **629.04 – Measurement** by revising lines 292 to 294 to read as follows:

**“629.04 Measurement.**

- (A) To facilitate installation of detour lanes, the Engineer will measure:
  - (1) Removal of pavement markings per linear foot; including single stripes, double stripes, and stripes of all widths.
  - (2) Removal of pavement markers per each; including various types.
  - (3) Removal of HOV Lane markings per each.
  - (4) Removal of pavement words per each.
  - (5) Removal of pavement arrows per each.

For installation of detour lanes, the Engineer will measure:

- (1) Thermoplastic and preformed pavement marking tape per linear foot in accordance with the contract documents. The longitudinal pavement markings will be measured per linear foot as a single stripe for the width specified in the contract and in the proposal. The Engineer will include the longitudinal gaps for skip striping, up to thirty (30) feet long, in the measurement.
  - (2) Pavement markers, HOV Lane markings, pavement words, and pavement arrows per each for the types shown in the proposal.
- (B) The Engineer will measure thermoplastic and preformed pavement marking tape per linear foot in accordance with the contract documents. The longitudinal pavement markings will be measured per linear foot as a single stripe for the width specified in the contract and in the proposal. The Engineer will include the longitudinal gaps for skip striping, up to thirty (30) feet long, in the measurement.

The Engineer will measure the crosswalk markings per lane in accordance with the contract documents.

The Engineer will not measure temporary pavement markings including flexible delineator posts with reflector markers or Type I Barricades



61 and temporary signs installed for the longitudinal guidance of public traffic  
62 over reconstructed areas, cold planed surfaces, newly paved surfaces or  
63 other unmarked or scarified areas for payment.  
64

65 The Engineer will measure the temporary pavement markings and  
66 temporary signs installed as ordered by the Engineer for special temporary  
67 traffic patterns on a force account basis, if the contract specifies payment in  
68 the proposal.  
69

70 **(C)** The Engineer will measure the pavement markers per each for the  
71 types shown in the proposal.  
72

73 The Engineer will measure HOV Lane markings, pavement words,  
74 and pavement arrows per each.”  
75

76 **(IV)** Amend **629.05 – Payment** by revising lines 296 to 330 to read as follows:  
77

78 **“629.05 Payment.**  
79

80 **(A)** The Engineer will pay for removal of pavement markings, markers,  
81 words, arrows, and HOV markings to facilitate installation of detour lanes at  
82 the contract unit prices bid. The prices shall be full compensation for  
83 removing such items according to the contract.  
84

85 The Engineer will pay for thermoplastic and preformed pavement  
86 marking tape for detour lanes at the contract price per linear foot according  
87 to the contract complete in place, including primers.  
88

89 The Engineer will pay pavement markers of various types for detour  
90 lanes at the contract price per each according to the contract, complete in  
91 place, including adhesives.  
92

93 The Engineer will pay HOV Lane markings, pavement words, and  
94 pavement arrows for detour lanes at the contract price per each according  
95 to the contract, complete in place.  
96

97 **(B)** The Engineer will pay for thermoplastic and preformed pavement  
98 marking tape at the contract price per linear foot according to the contract,  
99 complete in place, including primers.  
100

101 The Engineer will pay for double four (4) inch striping with a four (4)  
102 inch space between stripes at the contract price per linear foot according  
103 to the contract.  
104

105 The Engineer will pay for crosswalk markings at the contract price  
106 per lane of traffic marked, per each according to the contract.  
107

108 The Engineer will pay for pavement arrows (single and multiple  
109 heads), symbols, and words at the contract price per each according to the  
110 contract.

111  
112 The contract unit price paid shall be full compensation for furnishing  
113 labors, materials, tools, equipment and incidentals and for doing the work  
114 involved in furnishing and installing pavement markings complete in place  
115 according to the contract.

116  
117 The Engineer will not pay for the temporary pavement markings  
118 including flexible delineator posts with reflector markers or Type I  
119 Barricades and temporary signs installed for the longitudinal guidance of  
120 public traffic over reconstructed areas, cold planed surfaces, newly paved  
121 surfaces or other unmarked or scarified areas for payment if not shown in  
122 the proposal separately. The Engineer will consider them incidental to the  
123 various contract items.

124  
125 If the contract specifies payment for temporary pavement markings  
126 installed as ordered by the Engineer for special temporary traffic patterns,  
127 the Engineer will pay from an allowance for "Temporary Construction Zone  
128 Markings".

129  
130 The Engineer will compute the actual amount paid to the Contractor  
131 for force account work according to Subsection 109.06 – Force Account  
132 Provisions and Compensation.

133  
134 **(C)** The Engineer will pay for the various types of pavement markers at  
135 the contract price per each according to the contract, complete in place,  
136 including adhesives.

137  
138 The Engineer will pay for pavement words and pavement arrows at  
139 the contract price per each according to the contract, complete in place.

140  
141 The Engineer will pay for the following pay items when included in  
142 the proposal schedule:

143	144 <b>Pay Item</b>	145	146 <b>Pay Unit</b>
146	147 Removal of Pavement Markings for Detour Lanes	148	149 Linear Foot
148	149 Removal of Pavement Markers for Detour Lanes	150	151 Each
150	151 Removal of Pavement Words for Detour Lanes	152	153 Each
152	153 Removal of Pavement Arrows for Detour Lanes	154	154 Each
154	154 Removal of HOV Marking for Detour Lanes		Each

155		
156	_____ - Inch Pavement Striping for Detour Lanes	
157	(Tape, Type ____ Thermoplastic Extrusion) _____	Linear Foot
158		
159	Type _____ Pavement Marker for Detour Lanes	Each
160		
161	Pavement Words for Detour Lanes	Each
162		
163	Pavement Arrows for Detour Lanes	Each
164		
165	HOV Lane Marking for Detour Lanes	Each
166		
167	_____ - Inch Pavement Striping	
168	(Tape, Type ____ Thermoplastic Extrusion) _____	Linear Foot
169		
170	Crosswalk Marking (Tape, Type III or Thermoplastic Extrusion)	Lane
171		
172	HOV Lane Marking (Thermoplastic Extrusion)	Each
173		
174	Pavement Arrow (Tape, Type _____ or Thermoplastic Extrusion)	Each
175		
176	Pavement Word (Tape, Type _____ or Thermoplastic Extrusion)	Each
177		
178	Type _____ Pavement Marker	Each"
179		
180		
181		
182	<b>END OF SECTION 629</b>	

1                                   **SECTION 630 – TRAFFIC CONTROL GUIDE SIGNS**

2  
3    Make the following amendment to said Section:

4  
5    **(I)**     Amend **Section 630.02 - Materials**, by replacing lines 28 to 29 to read:

6  
7             “Retroreflective sheeting shall conform to criteria listed in ASTM D 4956  
8    for the applicable type and class, or as amended in accordance with Subsection  
9    750.01 - Signs.”

10  
11   **(II)**    Amend **Section 630.04 - Measurement**, by replacing lines 204 to 221 to  
12    read:

13  
14    **“630.04 Measurement.** The Engineer will measure street name signs as  
15    complete units of the type and design specified in the proposal.

16  
17            The Engineer will not measure removal and disposal and storing of existing  
18    and temporary signs and markers that the Contractor will not incorporate in the  
19    completed highway for payment.”

20  
21   **(III)**   Amend **630.05 – Payment** by revising lines 223 to 303 to read as follows:

22  
23    **“630.05 Payment.** The Engineer will pay for street name signs at the contract  
24    price per each for the type and design specified complete in place. Payment will  
25    be full compensation for the work prescribed in this section and the contract  
26    documents.

27  
28            The Engineer will not pay for removing and disposing or storing of existing  
29    and temporary signs that the Contractor will not incorporate in the completed  
30    highway separately. The Engineer will consider them incidental to the various  
31    contract items.

32  
33            The Engineer will pay for the following pay items when included in the  
34    proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Street Name Sign	Each
Street Name Sign on Traffic Signal Mast Arm	Each”

40  
41  
42  
43                                   **END OF SECTION 630**

1           **SECTION 631 – TRAFFIC CONTROL, REGULATORY, WARNING, AND**  
2   **MISCELLANEOUS SIGNS**

3  
4    Make the following amendment to said Section:

5  
6    **(I)** Amend Section 631.03(C) Labeling of Signs, from lines 42 to 51 to read:

7  
8               **“(C) Labeling of Signs.** Label back of each sign with sign stickers as  
9 directed by the State. Sign stickers will be provided by the State.”

10  
11   **(II)** Amend **Section 631.04 – Measurement** by replacing lines 67 to 69 to read:

12  
13   **“631.04        Measurement.** The Engineer will measure regulatory and warning  
14 signs as complete units of the type and design specified in the proposal.

15  
16    The Engineer will not measure removal and disposal and storing of existing and  
17 temporary signs that the Contractor will not incorporate in the completed highway  
18 for payment.”

19  
20   **(III)** Amend **Section 631.05 – Payment** by replacing lines 71 to 99 to read as  
21 follows:

22  
23   **“631.05        Payment.** The Engineer will pay for regulatory and warning signs  
24 at the contract price per each for the type and design specified complete in place.  
25 Payment will be full compensation for excavating and backfilling, furnishing and  
26 installing materials, furnishing equipment, tools, labors and incidentals necessary  
27 to complete the work.

28  
29            The Engineer will not pay for removing and disposing or storing of existing  
30 and temporary signs that the Contractor will not incorporate in the completed  
31 highway separately. The Engineer will consider them incidental to the various  
32 contract items.

33  
34            The Engineer will pay for the following pay items when included in the  
35 proposal schedule:

36

<b>Pay Item</b>	<b>Pay Unit</b>
Regulatory Sign (10 Square Feet or Less)	Each
Warning Sign (10 Square Feet or Less)	Each”

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**END OF SECTION 631**

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**SECTION 632 – MARKERS**

Make the following amendment to said Section:

**(I) Amend Section 632.04 - Measurement** by replacing lines 79 to 81 to read:

**“632.04 Measurement.** The Engineer will measure Type II object marker per each as complete units of the type and design specified in the proposal.”

**(II) Amend Section 632.05 – Payment** by replacing lines 83 to 100 to read:

**“632.05 Payment.** The Engineer will pay for Type II object marker at the contract price per each for the type and design specified complete in place. Payment will be full compensation for excavating and backfilling, furnishing and installing materials, furnishing equipment, tools, labors and incidentals necessary to complete the work.

The Engineer will pay for the following pay items when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Type _____ Object Marker	Each”

**END OF SECTION 632**

1                   **SECTION 634 – PORTLAND CEMENT CONCRETE SIDEWALKS**

2  
3    Make the following amendment to said Section:

4  
5    **(I) Amend Section 634.04 - Measurement** by replacing lines 60 to 61 to read:

6  
7    **“634.04 Measurement.** The Engineer will measure Portland cement  
8 concrete sidewalks by the square yard of finished surface.”

9  
10   **(II) Amend Section 634.05 – Payment** by replacing lines 62 to 72 to read:

11  
12   **“634.05 Payment.** The Engineer will pay for the accepted quantities of  
13 Portland cement concrete sidewalk at the contract unit price per square yard  
14 complete in place as shown in the proposal.

15  
16           Payment will be full compensation for work prescribed in this section and  
17 contract documents.

18  
19           The Engineer will pay for following pay item when included in proposal  
20 schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Portland Cement Concrete Sidewalk	Square Yard

21  
22  
23  
24  
25  
26           The Engineer will pay for excavation of unsuitable material and backfill with  
27 material acceptable to the Engineer under Section 203 – Excavation and  
28 Embankment. If no pay item exists, refer to Subsection 104.02 – Changes.”

29  
30  
31  
32  
33   **END OF SECTION 634**

1           **SECTION 638 – PORTLAND CEMENT CONCRETE CURB AND GUTTER**

2  
3       Make the following amendments to said Section:

4  
5       **(I)**     Amend **638.04 – Measurement** by revising lines 130 to 131 to read as  
6 follows:

7  
8       **“638.04 Measurement.** The Engineer will measure curb and/or gutter, both new  
9 and reset, by the linear foot. The Engineer will measure along the front face of the  
10 curb at the finished grade elevation. If the Engineer measures gutter separately,  
11 the Engineer will measure gutter along the front face of the gutter. The Engineer  
12 will not make deduction in gutter length for drainage appurtenances installed such  
13 as catch basins and drop inlets.

14  
15             The Engineer will not measure curb and/or gutter both new and reset when  
16 contracted on a lump sum basis.

17  
18             The Engineer will measure curb and/or gutter transition for payment as  
19 follows:

20

From	To	Measurement for Payment
Cast-in-place Curb or Precast Curb	Cast-in-place Curb and Gutter	Cast-in-place Curb and Gutter
Cast-in-place Curb and Gutter	Precast Curb and Cast-in-place Gutter	Cast-in-place Curb and Gutter
Cast-in-place Curb and Gutter Type _____	Cast-in-place Curb and Gutter Type _____	Cast-in-place Curb and Gutter 1/2 of Transition to each type
Cast-in-place Curb Type _____	Cast-in-place Curb Type _____	Cast-in-place Curb 1/2 of Transition to each type

21  
22             The Engineer will measure precast concrete drop curb and driveway curb  
23 or cast-in-place integral driveway curb and gutter under the adjacent normal curb  
24 and/or gutter.”

25  
26       **(II)**     Amend **638.05 – Payment** by revising lines 133 to 148 to read as follows:  
27



28 **“638.05 Payment.** The Engineer will pay for the accepted quantities of curb  
29 and/or gutter at the contract lump sum price or at the contract unit price per linear  
30 foot for each type of curb and/or gutter specified.

31  
32 Payment will be full compensation for work prescribed in this section and  
33 contract documents.

34  
35 The Engineer will pay for each of the following pay items when included in  
36 proposal schedule:

37

Pay Item	Pay Unit
Curb, Type _____	Linear Foot
Curb and Gutter, Type _____	Linear Foot”

38  
39  
40  
41  
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46

**END OF SECTION 638**

1 **SECTION 641 – HYDRO-MULCH SEEDING**

2  
3 Make the following amendments to said Section:

4  
5 **(I)** Amend **Subsection 641.02(B) – Fertilizer** by revising the section from line  
6 33 to 36 to read:

7  
8 “**(B) Fertilizer.** Proper fertilizer shall be used in hydro-mulch mix,  
9 depending on condition of soil. Apply at rates and in amounts consistent  
10 with manufacturer’s specifications. Contractor shall provide a Soil Analysis  
11 Report, if requested by Engineer, and shall use report to determine quantity  
12 and ratio of fertilizer for sustained growth of grass. Submit  
13 recommendations from a licensed Landscape Architect when deviating  
14 from the application rates and amounts above.”

15  
16  
17 **(II)** Amend **Subsection 641.03(A) – Seeding** by revising the first paragraph  
18 from line 100 to 103 to read:

19  
20 “**(A) Seeding.** Apply seeded mulch within the timeframe in Subsection  
21 209.03(B) – Construction Requirements, if temporary stabilization will not  
22 be utilized, after completion of slopes or portion of slope when exposed face  
23 attains height of 15 feet. Notify Engineer not less than 24 hours ahead of  
24 hydro-mulch seeding operation. Do not hydro-mulch until the Engineer  
25 inspects and accepts areas for planting.”

26  
27 **END OF SECTION 641**

1 **SECTION 645 – WORK ZONE TRAFFIC CONTROL**

2  
3 Make the following amendments to said Section:

4  
5 **(I)** Amend **Subsection 645.03 Construction** by adding the following after line  
6 66:

7  
8 “The Contractor shall furnish a minimum of two police officers, unless otherwise  
9 requested by the State.”

10  
11 **(II)** Amend **Subsection** Error! No text of specified style in document..**03(F)**  
12 **Lane Closures** by revising lines 248 to 252 to read as follows:

13  
14 **(F) Lane Closures.** Lane closures at the intersection of Kalanianaʻole  
15 Highway with Kalaniiki Street / Waieli Street will be allowed only during the  
16 following days / times:

- 17  
18 (1) Mondays to Fridays: 8:00 p.m. to Midnight  
19  
20 (2) Tuesdays to Saturdays: Midnight to 5:00 a.m.

21  
22 Exceptions to lane closure hours specified require written  
23 acceptance by the Engineer. No increase in contract price or contract time  
24 will be given for lane closure restrictions specified.  
25  
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31 **END OF SECTION 645**

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### SECTION 650 – CURB RAMPS

Make the following amendments to said Section:

(I) Amend **650.04 – Measurement** by revising lines 41 to 42 to read as follows:

**650.04 Measurement.** The Engineer will measure accepted curb ramps and detectable warning mats per each in accordance with the contract documents.”

(II) Amend **650.05 – Payment** by revising lines 45 to 51 to read as follows:

**650.05 Payment.** The Engineer will pay for the accepted curb ramps and detectable warning mats at the contract unit price per each. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
Curb Ramp _____	Each
Detectable Warning Mat	Each”

END OF SECTION 650

1 Make the following section a part of the Standard Specifications:  
2

3 **“SECTION 671 – PROTECTION OF ENDANGERED SPECIES**  
4

5 **671.01 Description.** The Endangered Species Act (ESA) listed species  
6 Hawaiian Hoary Bat (*Lasiurus cinereus semotus*), Band-rumped Storm-petrel  
7 (*Hydrobates castro*), Hawaiian Common Gallinule (*Gallinula galeata*  
8 *sandvicensis*), Hawaiian Coot (*Fulica alai*), Hawaiian Duck (*Anas wyvilliana*),  
9 Hawaiian petrel (*Pterodroma sandwichensis*), Hawaiian Stilt Bird (*Himantopus*  
10 *mexicanus knudseni*), and the threatened Newell’s shearwater (*Puffinus newelli*)  
11 are in the general vicinity of the proposed project that may transit or visit the  
12 proposed project. The contractor shall protect these endangered species  
13 throughout the construction duration.  
14

15 **671.02 Materials.** None  
16

17 **671.03 Construction.**  
18

19 **(A) Pre-Construction and Construction Requirements.** Comply with  
20 the following conditions:  
21

22 **(1)** Hawaiian Hoary Bats nest in both exotic and native woody  
23 vegetation. To minimize impacts to the Hawaiian Hoary Bat, there  
24 will be no disturbance, removal, or trimming of woody plants greater  
25 than 15 feet (4.6 meters) tall during the birthing and pup rearing  
26 season (June 1 through September 14).  
27

28 Additionally, barbed wire will not be used for fencing and for  
29 any construction.  
30

31 **(2)** Hawaiian seabirds, Newell’s shearwater, and band-rumped  
32 storm-petrel may traverse the project area at night. If night time  
33 construction work is required for the proposed project, all lights will  
34 be fully shielded so the bulb can only be seen from below bulb height  
35 to reduce the potential for interactions of nocturnally flying seabirds  
36 with external lights and man-made structures. All outdoor lights will  
37 be turned off when human activity is not occurring in the lighted area.  
38

39 No night time construction will occur during the peak seabird  
40 fledging period (September 15 through December 15).  
41

42 **(3)** Hawaiian Stilt Birds – A biological monitor familiar with the  
43 species’ biology and approved by the FHWA will conduct Hawaiian  
44 Stilt Bird nest surveys where appropriate habitat occurs within the  
45 proposed maintenance site prior to cleaning culverts and drainage

46 structures. Survey will take place within three days of project  
47 initiation and after any subsequent delay of work of three or more  
48 days (during which the birds may attempt to nest). If a nest or active  
49 brood is found, cease work and contact the USFWS.

50  
51 **(B) Compliance Requirements.** The Contractor shall protect, Hawaiian  
52 Hoary Bats, Hawaiian seabirds, Newell’s shearwater, band-rumped storm-  
53 petrel, and Hawaiian Stilt birds for the duration of construction. Failure to  
54 comply with the construction requirements, harm or a taking of an individual  
55 during the construction duration shall be enforceable by the USFWS as set  
56 forth by the ESA and DOFAW. Resultant penalties and/or fines shall be at  
57 the Contractors expense without cost or liability to the State.

58  
59 **671.04 Measurement.** The Engineer will measure the work by a biological  
60 monitor required for the protection of endangered species on a force account basis  
61 in accordance with Subsection 109.06 – Force Account Provisions and  
62 Compensation and as ordered by the Engineer.

63  
64 **671.05 Payment.** The Engineer will pay for the accepted work by a biological  
65 monitor required for the protection of endangered species on a force account basis  
66 in accordance with Subsection 109.06 – Force Account Provisions and  
67 Compensation. Payment will be full compensation for the work prescribed in this  
68 section, by the Engineer, and in the contract documents.

69  
70 The Engineer will pay for the following pay item when included in the  
71 proposal schedule:

72	73	74
75	<b>Pay Item</b>	<b>Pay Unit</b>
76	Protection of Endangered Species	Force Account

77 An estimated amount may be allocated in the proposal schedule under  
78 “Protection of Endangered Species”, but the actual amount to be paid will be the  
79 sum shown on the accepted force account records, whether this sum be more or  
80 less than the estimated amount allocated in the proposal schedule.

81  
82 The Engineer will not pay for outdoor lighting for night-time work separately,  
83 this work shall be incidental to the various contract items.”

84  
85  
86 **END OF SECTION 671**

1 This Section shall be made a part of the Standard Specifications:  
2

3 **“SECTION 680 - ELECTRIC AND COMMUNICATION SYSTEMS**  
4

5 **680.01 Description.** This work shall consist of furnishing all labor, materials and  
6 equipment to install in place and in operating condition underground structures required  
7 for the facilities of Hawaiian Electric Company, herein referred to as HECO, the facilities  
8 of Hawaiian Telcom herein referred to as HECO, and the facilities of Spectrum herein  
9 referred to as Spectrum. Such works shall be performed and tested at the indicated  
10 locations in accordance with the requirements herein specified and the indicated details,  
11 or as ordered by the Engineer, and includes but is not limited to the following.  
12

13 (A) Complete installation of a new HECO handhole including excavation,  
14 trenching, backfilling, and concrete work. Work shall also include securing the  
15 approval of the HECO Inspector.  
16

17 (B) Coordinate work and arrange for periodic inspections by HECO and  
18 Engineer.  
19

20 (C) Immediately report and pay for damages to existing equipment.  
21

22 (D) Obtain and pay for electrical permits, arrange for periodic inspection by local  
23 authorities and deliver certificate of final inspection to Engineer.  
24

25 (E) Contractor shall check and test the installation for completeness and  
26 functional operation as described by the drawings and specified herein. Final test  
27 shall be in the presence of Engineer and representatives of utility companies.  
28 Contractor shall arrange and pay for all testing costs.  
29

30 (1) Incidental parts which are not shown on the plans or specified herein  
31 and which are necessary to complete the underground electrical duct  
32 system shall be furnished and installed by the Contractor as though such  
33 parts were shown on the plans, or specified herein or in the special  
34 provisions.  
35

36 (2) All electrical equipment shall conform to the NEMA Standards, and  
37 all electrical work shall conform to ordinances of City and County of  
38 Honolulu; latest edition of National Electrical Code; General Order No. 10,  
39 Public Utilities Commission, State of Hawaii; and Regulations and Standard  
40 Practices of HECO.  
41

42 (F) Applicable rules, standards and specifications of following associations  
43 shall apply to materials and workmanship:  
44

45 (1) American National Standards Institute (ANSI)  
46

47 (2) Edison Electric Institute (EEI)

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- (3) Illumination Engineer Society (IES)
- (4) National Board of Fire Underwriters (NBFU)
- (5) National Electrical Manufacturer's Association (NEMA)
- (6) National Fire Protection Association (NFPA)
- (7) Underwriters' Laboratories, Inc. (UL)

**680.02 Materials.**

(A) Materials shall meet the requirements specified in the following subsections of Division 700 - Materials.

Concrete Pull Boxes	712.06(B)
Conduits	712.27

(B) Ducts and Conduits shall conform to the requirements of Section 712.27 - Conduits. Ducts and conduits required shall be new and provided by the Contractor in accordance with the construction drawings and specifications.

(1) Polyvinyl Chloride (PVC) Schedule 40 type ducts shall be provided for the HECO duct systems. The fittings shall be of the same material as the conduit and duct.

(C) Concrete shall conform to the requirements of Section 601 - Structural Concrete, except that for concrete jackets and concrete caps, the maximum size of coarse aggregate shall be 3/4 inch in lieu of the one-inch to No. 4 specified and the slump shall be 6-inch minimum and 7-inch maximum. Concrete for manholes, handholes, and pullboxes shall be Class A. Concrete for jacketing conduits and ducts shall be Class B except that the cement content shall be 5.6 sacks per cubic yard.

(D) Concrete Bricks shall conform to Subsection 704.02 - Concrete Brick. The use of broken bricks will not be permitted.

(E) Cement Mortar for Setting Bricks shall conform to the requirements of Section 601 - Structural Concrete. Cement mortar shall be a one-to-three volumetric mix of portland cement and a combined fine aggregate. Combined fine aggregate shall conform to Section 703 - Aggregates.

(F) Concrete Covers, Steel Frames and Miscellaneous Metals and Appurtenances for Handholes and Manholes. Steel shapes shall conform to the applicable provisions of Section 713 - Structural Steel and Related Materials.



95 Fabrication of steel frames shall conform to the applicable provisions of Section  
96 501 - Steel Structures. Steel frames shall be hot-dipped galvanized after  
97 fabrication. Concrete for covers shall be Class A and shall conform to Section  
98 601 - Structural Concrete. Cast iron frame and cover shall conform to Subsection  
99 712.07 (A) - Frame and Covers.

100  
101 **(G) Reinforcing Steel.** Reinforcing Steel for manholes, handholes and  
102 pullboxes, and concrete jackets shall conform to the requirements of Section  
103 602 - Reinforcing Steel.

104  
105 **(H)** Materials will be subject to inspection at any time. Failure of the Engineer  
106 to note faulty material or workmanship during construction will not relieve the  
107 Contractor of his responsibility for removing or replacing such materials and  
108 dredging the work at his expense.

109  
110 **(I) Conductors.** Conductors shall be copper, No. 12 AWG minimum; No. 10  
111 AWG and smaller, solid and round; No. 8 AWG and larger, 7 or 19 strands  
112 concentric. All conductors No. 6 and smaller shall be types THW for interior use  
113 or RHW for exterior use. All conductors No. 4 AWG and larger shall be type  
114 THWN-2 for interior use; or RHW-2 or USE-2 for exterior use. Conductors used  
115 to serve critical operations power systems (power systems for facilities or parts of  
116 facilities that require continuous operations for reasons of public safety, emergency  
117 management, national security, or business continuity) including but not limited to  
118 emergency power, HVAC, fire alarm, security, telecommunications, and signaling  
119 shall be a listed 2-hour electrical circuit protective system. Conductors installed  
120 on roof tops and exposed to sunlight shall be derated per NEC Table  
121 310.15(B)(2)(b) or shall be type XHHW-2. Conduit sizes shall be increased as  
122 necessary to accommodate derated and type XHHW-2 conductors. Reduce  
123 conductor sizes at equipment terminations as required to accommodate maximum  
124 allowable conductor size accepted at equipment terminals per manufacturer's  
125 recommendations. Provide UL listed in-line reducer splice kit or UL listed cable  
126 reducing adapter plugs as required to reduce conductor sizes.

127  
128 **680.03 Construction.**

129  
130 **(A) General.**

131  
132 **(1)** The Contractor shall in performing required excavation and backfill,  
133 exercise due care to avoid disturbing existing facilities. He shall remove  
134 and dispose of all demolished or excess material from the job site.

135  
136 **(2)** Upon completion of the work, the Contractor shall submit an 'As Built'  
137 or corrected plan showing in detail thereon all construction changes.

138 **(3)** Before bidding, the Contractor shall visit project site, carefully review  
139 each section of the Specification and all Drawings of this Contract, and  
140 obtain and review the standards, specifications and drawings of the local  
141 utility companies.

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(a) The Contractor shall report any error, conflicts or omissions to the Engineer at least one week before submission of bids for interpretation or clarification. If errors or omissions are not reported, the Contractor shall provide necessary work at no cost to the State of Hawaii to properly complete intent of Specification and Plans.

(4) The Contractor shall make detailed arrangements for work by utility companies pertaining to this contract. Payment to utility companies for their work shall be by the State.

(5) Electric utility cables and equipment shall be by electric utility companies.

**(B) Existing Utilities.** Existing utilities are shown on the drawings in approximate locations for the convenience of the Contractor. It is not the intention of plans to imply that all existing utilities are drawn and located, and the fact that any utility is not shown on the drawings shall not relieve the Contractor of his responsibility under this Section. It shall be the Contractor's responsibility to ascertain the location of all existing utilities which may be subject to damages by construction under this Contract. The Contractor shall:

(1) Support and protect all HECO, HTCO, and Spectrum utilities during construction,

(2) Notify HECO, HTCO, and Spectrum immediately of any damage to its system caused by construction under this Contract, and

(3) Reconstruct, at his expense, damaged portions of the utility system in accordance with the requirements and specifications of HECO, HTCO, and Spectrum.

(4) The Contractor shall be responsible for and shall pay for all damages to existing utilities of all types.

**(C) HECO Facilities.** The Contractor shall provide HECO with 24-hour access to all existing HECO facilities that are to remain, or, for facilities that are to be removed, until they are removed and to all new HECO facilities after they are installed. The Contractor shall be responsible for any delays in utility company work due to his failure to provide access to utility company facilities. All existing HECO facilities shall remain in place until proposed permanent facilities are completed and energized. Any cost for temporary relocations arising during construction shall be borne by the Contractor.

(1) Electrical equipment or conductors, whether electrically energized or not, shall remain in place at all time during construction. Handling and moving of electrical equipment or conductors, when required by the Engineer, shall be done by HECO. Work by the Contractor in areas with

189 energized electrical equipment or conductors shall be performed with  
190 extreme caution to prevent accidents and to avoid disturbing or damaging  
191 this equipment or conductors or any temporary supports or protective  
192 guards that are constructed. Unless otherwise permitted by HECO, all work  
193 by the Contractor in areas with energized equipment of conductors shall be  
194 performed in the presence of a HECO inspector and/or standby man. The  
195 Contractor shall have the sole responsibility for maintaining safe and  
196 efficient working conditions and procedures in these areas.

197  
198 **(2)** Any existing or new HECO facilities including equipment or  
199 conductors damaged by the Contractor during construction shall be  
200 replaced by HECO at the Contractor's expense.

201  
202 **(3)** The Contractor shall give HECO two weeks advance notice for any  
203 work to be done by HECO on its facilities. Unless otherwise indicated on  
204 the drawings or otherwise directed by the Engineer, HECO will:

205  
206 **(a)** Remove the concrete envelope from existing underground  
207 HECO ducts containing electrical cables.

208  
209 **(b)** Construct temporary supports and protective barriers for bare  
210 duct and electrical cables immediately after removal of the concrete  
211 envelope is completed. Material for such supports and barriers shall  
212 be furnished by the Contractor as an incidental cost.

213  
214 **(c)** Remove temporary supports and protective barriers  
215 constructed under item (2) above.

216  
217 **(D) Excavation and Backfill.** All excavation and backfill for electric, telephone  
218 and cable television underground structures and trenches shall conform to the  
219 requirements of Section 204 - Excavation and Backfill for Miscellaneous Facilities,  
220 modified as follows:

221  
222 **(1)** Excavation.

223  
224 **(a)** The width of trenches for concrete encased ducts shall be not  
225 less than the width of the encasement nor more than that required to  
226 properly and safely execute the work.

227  
228 **(b)** Ducts encased in concrete jackets which are bedded in  
229 disturbed (fill) ground shall be installed in the following manner:  
230 Embankments shall be built up and thoroughly compacted to the  
231 elevation which is three feet above the top-of-jacket elevation, or to  
232 the required elevation shown on the plans, whichever is less than  
233 five times the width of the jacket. This work shall conform to the  
234 requirements of Section 203 - Excavation and Embankment. The  
235 trench to accommodate the jacket shall then be excavated through

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the constructed embankment.

**(c)** The Contractor shall not excavate for manholes, handholes and duct lines until he has the locations for these structures staked out and verified to be correct, and approved by the respective utility company inspectors.

**(d)** Trenches shall be excavated at least 50 feet ahead of duct placement so that any obstruction to the duct line can be avoided through gradual alignment. The profile grade may be adjusted by the Engineer to increase or decrease the excavation depth (up to 3 feet) as a result of unforeseen obstruction at no additional cost.

**(e)** Excavation for each handhole and manhole, plus 50 feet of trenching for all ducts connected to those structures shall be completed, and the locations and depths of the handholes and manholes shall be verified and approved by the respective utility company inspectors prior to construction or installation of the structures. All cuts in excess of depths required shall be filled with concrete, beach sand, or Type A backfill. The lateral limit for handholes and manholes shall be the vertical surfaces two feet outside the neat lines of the structures.

**(f)** The bottom of the trench excavation shall be flat and smooth. All trenches shall be approved by the Engineer and the utility company inspectors before any ducts or conduits are placed or any structures and foundations are constructed.

**(g)** The trenches shall be widened at handholes and manholes to permit proper entry of the ducts and conduits.

**(h)** The Contractor shall provide all sheathing and bracing to support the sides of the excavated trench. Provision and removal of these items are incidental to the trenching work.

**(2)** Backfill.

**(a)** No backfilling shall be done until the duct and conduit installations and the handhole and manhole placements have been verified to be correct and approved by the respective utility company inspectors.

**(b)** Material for use as trench backfill for direct buried cable above select backfill shall be non-expansive and shall conform to Subsection 680.03 (D) (2) (c) below. Backfilling and compaction shall be as specified in Section 204 - Excavation and Backfill for

283 Miscellaneous Facilities. Backfill material shall be beach sand, earth  
284 or earth and gravel mixture. If earth and gravel, mixture must pass  
285 1/2 inch mesh screen and contain not more than 20 percent of rock  
286 particles by volume.

287  
288 (c) Material for use as select backfill for direct buried cables shall  
289 be non-expansive and shall conform to the requirements of  
290 Subsection 703.04 (B) - Filler.

291  
292 (d) Backfilling shall be to finished grades indicated on  
293 accompanying drawings, and/or matching existing conditions.  
294 Backfill material shall be placed in maximum of 8" layers in loose  
295 thickness before compacting. Backfill shall be thoroughly compacted  
296 with hand or mechanical tampers to 95% of the ASTM D1557  
297 maximum dry density. In no case shall tamping be accomplished by  
298 using the wheels or tracks of a vehicle.

299  
300  
301 **(E) Installation of Conduits, Conductors and Duct Banks.** All joints shall be  
302 water tight and all ducts shall be installed to drain towards pull points unless  
303 otherwise shown on the plans.

304  
305 (1) Plastic Duct Joints.

306  
307 (a) Field cutting of plastic ducts shall be performed by the  
308 Contractor and only with the use of a miter box. Burrs shall be  
309 removed by filing before the joint is made. All foreign matter shall be  
310 wiped off the sockets of the fittings and the edges of the duct with a  
311 clean cloth.

312  
313 (b) Cement for plastic duct joints shall be obtained from the duct  
314 manufacturer. Thinning of the cement will not be permitted. A liberal  
315 and uniform coat of cement shall be applied with a natural bristle  
316 brush to the inside of the coupling and to the outside of the duct end.  
317 Immediately thereafter, the duct shall be slipped into the socket of  
318 the fitting with a half-twist, and the excess cement shall be wiped off.

319  
320 (c) Allow the joined members to cure for at least five minutes  
321 before disturbing or applying stress to the joint. After this initial cure,  
322 care must be exercised in handling to prevent twisting or pulling the  
323 joint. In damp weather, this interval shall be increased to allow for  
324 slower evaporation of the solvent.

325  
326  
327 (d) Another fitting or section of conduit may be added to the  
328 opposite end within 2 or 3 minutes if care is exercised in handling so  
329 that strain is not placed on the previous assembly.

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(e) Any joint included in a section of conduit to be bent in the trench shall be assembled above ground and allowed to lie undisturbed for at least two hours before installation. In cases where a plastic connection is made with the union under stress due to misalignment or other factors, the union shall be staked out to relieve stress on the joint until the conduit is backfilled or encased.

**(2) Plastic Duct Installation.**

(a) The Contractor shall provide spacers to maintain proper separation between ducts. The bottom duct spacers shall be placed on the prepared trench bottom, the first tier of ducts placed in the grooves of the spacers, and couplings attached to the duct ends. Spacers shall be 15 inches or more away from any coupling or joint. Successive lengths of ducts shall then be placed and connected to the preceding lengths as specified above. The second tier of duct spacers shall then be placed over the ducts previously placed and followed by installation of couplings. The operation shall be repeated for each successive tier until the top tier is set in place after which the top spacers are placed.

(b) When conduit is assembled above the ground, the spacer shall be supported in a vertical position by use of a No. 4 rebar and smooth black steel wire, No. 14 gage.

(c) Duct alignment shall be as straight as feasible. Such directional changes as are required shall be made by using field made bends or with segments using angle couplings or deflection couplings, except where otherwise indicated. The deflection angle between two adjacent lengths of duct shall not exceed five degrees, unless otherwise indicated.

(d) Spacers shall not be located at the centers of a long radius bend. On pre-fabricated bends, the spacer shall be located in the tangent, free of the coupling. On trench formed bend, the spacer shall be located midway between the tangent and center of the bend.

(e) Precaution shall be taken to prevent damage in plastic duct lines from thermal expansion and contraction. All ducts shall be cool when placed in trenches and when the concrete jacket is being poured.

(f) The terminated ends of the conduit in an underground structure shall be free of support for a distance of at least 10 feet from the structure. The conduit shall be aligned and supported inside







- 471 inch Polyolefin pull line between pull points in all ducts after testing.  
472
- 473 (1) For HECO ducts, provide duct measuring/cable pulling tape  
474 (NEPTCO WP1800P Muletape or approved equal) in each new duct.  
475
- 476 (l) **Concrete.** The Contractor shall notify the utility companies inspector a  
477 minimum of 72 hours prior to placement of any concrete.  
478
- 479 (1) Securely anchor duct banks prior to pouring concrete encasement to  
480 prevent ducts from floating.  
481
- 482 (2) When pouring concrete, prevent heavy masses of concrete from  
483 falling directly on ducts. If unavoidable, protect ducts with plank.  
484
- 485 (3) Direct flow of concrete down sides of duct bank to bottom, allowing  
486 concrete to rise between ducts, filling all open spaces uniformly.  
487
- 488 (4) To insure against voids in concrete, work a long, flat splicing bar or  
489 spatula liberally and carefully up and down the vertical rows of ducts.  
490 Mechanical vibrators shall be used for stacked duct banks of three ducts or  
491 higher.  
492
- 493 (5) Cure concrete for a minimum of 72 hours before permitting traffic  
494 and/or backfilling.  
495
- 496 (6) Convey concrete from mixer to forms rapidly to prevent segregation.  
497 Free drop shall be limited to five feet, unless authorized by inspector.  
498
- 499 (7) Placing.  
500
- 501 (a) Clean and remove all debris from inside forms and trenches  
502 before placing concrete.  
503
- 504 (b) Place concrete only on clean damp surfaces, free from water.  
505
- 506 (c) Place concrete in forms, in horizontal layers not exceeding 18"  
507 thickness.  
508
- 509 (d) Place concrete to avoid segregation of materials and  
510 displacement of ducts, inserts and reinforcing.  
511
- 512 (e) Vibrate structural concrete thoroughly during and immediately  
513 after placing to insure dense watertight concrete.  
514
- 515 (8) Forming.  
516
- 517 (a) Forms shall be of good sound lumber with sufficient strength

518 and conforming to shapes and dimensions indicated on drawings.

519  
520 **(b)** Forms shall be treated with non-staining form oil immediately  
521 before each use.

522  
523 **(9)** Patching: Patch all voids, pour joints and holes before concrete is  
524 thoroughly dry. Use mortar of same proportions as original concrete.

525  
526 **(10)** Curing: Curing of concrete shall be accomplished by impervious  
527 membrane method with liquid membrane compound. Apply two or more  
528 coats to obtain a total of one gallon for each 150 square feet of concrete  
529 surface.

530  
531 **(J) Reinforcing Steel.**

532  
533 **(1)** Clean reinforcing of mill or rust scale and form to dimensions  
534 indicated.

535  
536 **(2)** Install reinforcing in proper locations and secure in place to prevent  
537 movement during concrete placing or vibrating.

538  
539 **(K) Concrete Brick.**

540  
541 **(1)** Concrete brick shall be laid in full bed of mortar, both horizontally and  
542 vertically.

543  
544 **(2)** Mortar shall be one part cement and three parts sand, thoroughly  
545 mixed and used when fresh. Re-tampering will not be allowed.

546  
547 **(3)** Setting bed shall be of depth required to bring top of blocks flush with  
548 finish line.

549  
550 **(L) Restoration of Existing Streets and Other Improvements.** Street,  
551 sidewalks, curbs, gutters, traffic detection loops, and other improvements of the  
552 State, private owners, or those of the City and County which are maintained by the  
553 State, which are damaged by rearrangements to the electric, cable television or  
554 telephone system, shall be restored by the Contractor to their original condition.  
555 Materials and workmanship shall conform to the applicable sections in these  
556 specifications. Payment for all materials and labor required shall be considered as  
557 incidental to the various contract items.

558  
559 **(1)** Repairing of City streets and other improvements not maintained by  
560 the State and where such work is called for on the plans shall conform to  
561 the requirements of the City and County of Honolulu.

562  
563 **(2)** All disturbed unpaved surfaces shall be backfilled and graded to  
564 match the surrounding areas, and sodded areas shall be replanted with the

565 same type of grass. Fences and other improvements shall be restored to  
566 their original condition. This work shall be incidental to and included in the  
567 appropriate contract item under which the rearranged facility is provided.  
568

569 **680.04 Measurement.** The Engineer will measure the meter pedestals,  
570 coordination with HECO to drop down and extend the existing overhead service to  
571 underground to the new HECO meter locations in accordance with Hawaiian Electric  
572 Company (HECO) standards and contract documents.  
573

574 The Engineer will measure the secondary electrical ductline up to stub-outs,  
575 trenching for HECO secondary electrical ductline, HECO riser conduit per HECO  
576 standards, HECO secondary conductors, electrical system trenching for ductline, and  
577 concrete encasement for electrical ductlines per linear foot in accordance to contract  
578 documents.  
579

580 **680.05 Payment.** The Engineer will pay for the drop down and extension of the  
581 overhead service to underground to the new HECO meter locations. The work includes  
582 coordination with HECO and furnishing equipment, tools, labor, materials, and other  
583 incidentals necessary to complete the work.  
584

585 The Engineer will pay for the HECO pullbox/handhole, splice can, and the  
586 combination meter/main meter socket at the contract unit price per each complete in  
587 place. The price includes full compensation for submitting the equipment list and  
588 drawings; furnishing and installing the HECO handhole, splice can, and combination  
589 mete/main at the designated location; furnishing equipment, tools, labor, materials, HECO  
590 standards and other incidentals necessary to complete the work.  
591

592 The Engineer will pay for the meter pedestal at the contract unit price per each  
593 complete in place. The price includes full compensation for submitting the equipment list  
594 and drawings; assembling the meter pedestal; furnishing and installation of meter  
595 pedestal; saw cutting; excavating and backfilling; concrete base foundation; restoration  
596 and furnishing equipment, tools, labor, materials, HECO standards and other incidentals  
597 necessary to complete the work.  
598

599 The Engineer will pay for the conduits and conductors at the contract unit price  
600 linear foot complete in place. The price includes full compensation for submitting the  
601 equipment list and drawings; trenching and backfilling; installation of conduits,  
602 conductors, and concrete jacket; and furnishing equipment, tools, labor, materials and  
603 other incidentals necessary to complete the work.  
604

605  
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608

609 The Engineer will pay for each of the following pay items when included in proposal  
610 schedule:  
611

612	<b>Pay Item</b>	<b>Pay Unit</b>
613		
614	Coordinate with HECO To Extend The	
615	Overhead Service To Underground To The	
616	New Meter Location, Complete	Each
617		
618	Provide New HECO 2-Feet x 4-Feet Handhole,	
619	Complete	Each
620		
621	Provide New 10"W X 12"H X 6"D Splice Can,	
622	Complete	Each
623		
624	Provide New Combination Meter/Main Meter	
625	Socket, Complete	Each
626		
627	Provide New Meter Pedestal, Complete	Each
628		
629	Provide Conduit, Conductors, Trench	
630	Excavation, Trench Backfill, and Concrete	
631	Encasement, Complete	Linear Foot
632		
633		
634	The Engineer will pay for the accepted hauling and stockpiling of salvaged	
635	materials and equipment off the right-of-way, as ordered by the Engineer in accordance	
636	with Subsection 104.02 – Changes.”	
637		
638	<b>END OF SECTION 680</b>	

Make the following Section a part of the Standard Specifications:

### **"SECTION 693 -TERMINAL IMPACT ATTENUATOR**

**693.01 Description.** This section describes furnishing and installing a terminal impact attenuator TL-3 MASH Compliant approved by HDOT and transition attachment to MASH compliant guardrail.

#### **693.02 Materials.**

Terminal impact attenuator shall consist of crushable energy absorbing elements and transition attachment to MASH compliant guardrail. Submit certification attesting that terminal impact attenuator satisfies NCHRP 350, Test Level 3 requirements within 10 working days following award of contract.

#### **693.03 Construction Requirements.**

**(A) Equipment List and Drawings.** Submit six copies of list of materials and equipment to be incorporated in the work within 10 working days following the award of contract. Include manufacturer's name, dimensions and catalog number of unit, detailed scale drawings of special equipment, shop drawings for fabrication and proposed deviations.

**(B) Terminal Impact Attenuator.** Install terminal impact attenuator according in accordance with manufacturer's recommendations. Provide training for installation of system in field for period not to exceed three hours. Provide minimum eight hours of training at Oahu District Office, 727 Kakoi Street, Honolulu, HI 96819 for installation and maintenance of system. Furnish five copies of installation and maintenance system manuals.

**(C) Replacement Elements.** Furnish and deliver one set of replacement elements, including nose element and transition attachment, for each installation to locations designated by the Engineer and store as ordered.

**693.04 Method of Measurement.** The Engineer will measure terminal impact attenuation system and transition attachment to MASH compliant guardrail per each as complete units of the type and design specified in the proposal.

**693.05 Basis of Payment.** The Engineer will pay for terminal impact attenuation system and transition attachment to MASH compliant guardrail at the contract unit price per each complete in place. The price includes full compensation for submitting the equipment list and drawing; furnishing and installing the terminal impact attenuator systems at the designated locations; excavating and backfilling; concrete pad; transition to guardrail; and furnishing

equipment, tools, labor, materials and other incidentals necessary to complete the work.

The Engineer will pay for the following pay items when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
HDOT Approved Terminal Impact Attenuator – MASH Compliant, TL-3	Each”

**END OF SECTION 693**

1 **SECTION 699 – MOBILIZATION**

2  
3 Make the following amendments to said Section:

4  
5 **(I) Amend 699.03 Applicability** by revising from lines 21 to 24 to read as  
6 follows:

7  
8 **“699.03 Applicability.** Maximum bid allowed for this item is an amount not to  
9 exceed 6 percent of the sum of all items excluding the bid price of this item.”

10  
11 **(II) Amend 699.05 Payment** by revising from lines 44 to 47 to read as follows:

12  
13 “Mobilization (Not to exceed 6 percent of the sum of all items  
14 excluding the bid price of this item) Lump Sum”

15  
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20 **END OF SECTION 699**

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**SECTION 702 – BITUMINOUS MATERIALS**

Make the following amendments to said Section:

**(I)** Amend **Subsection 702.01** by replacing lines 4 to 5 to read:

**“702.01 Asphalt Cement.**

**(A) PG 64-16.** Performance graded (PG) asphalt binder (neat or unmodified) shall conform to AASHTO M 320.

**(B) PG 64E-22.** Performance graded binder (polymer modified) shall conform to AASHTO M 332 and meet the following additional requirement:

AASHTO T 315 Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR). Phase angle on original binder shall be less than 77 degrees.

**(C) Submittals.** Submit, before usage, a Certificate of Compliance, accompanied by substantiating test data, showing conformance with Performance Graded Asphalt Binder Specification. The Engineer will not accept the PG binder without adequate documentation.”

**(II)** Amend **Subsection 702.06 (Unassigned)** by replacing line 23 to read:

**“702.06 Warm Mix Asphalt (WMA) Additive.** Additives for WMA shall be approved by the Engineer.”

**END OF SECTION 702**



1                                   **SECTION 706 - CONCRETE, CLAY AND PLASTIC PIPE**

2  
3    Make the following amendments to said Section:

4  
5    **(I)**     Amend **Subsection 706.02(A) RCP for Drainage System** from lines 8 to  
6    28 to read as follows:

7  
8           **“(A) RCP for Drainage System.** RCP shall conform to AASHTO Load  
9           and Resistance Factor Design (LRFD) specifications, and AASHTO M 170  
10          for specified diameters and strength class, and requirements below:

11  
12                   **(1)**     Acceptance shall be based on:

13  
14                                   **(a)**     Plant Certification from the American Concrete Pipe  
15                                   Association (ACPA), National Precast Concrete Association  
16                                   (NPCA), or Precast/Prestressed Concrete Institute (PCI).

17  
18                                   **(b)**     Certified Plant Load Bearing Test results.

19  
20                                   **(c)**     Certified Material Test results.

21  
22                                   **(d)**     Inspection for visual defects and imperfections of the  
23                                   manufactured pipe.

24  
25                   **(2)**     Using three-edge-bearing test method, pipe shall be loaded  
26                   until 0.01-inch crack occurs. Pipe manufacturer shall furnish facilities  
27                   and provide personnel to perform test according to AASHTO T 280  
28                   (ASTM C 497). Each section of pipe, in addition to required pipe  
29                   markings, shall include project identification and inspection lot  
30                   designation.

31  
32                   **(3)**     Precast reinforced concrete pipe end sections shall conform  
33                   to the requirements above.”

34  
35  
36                                   **END OF SECTION 706**  
37

1 **DIVISION 710 – GUARDRAIL MATERIALS**

2  
3 Make the following amendments to said Section:

4  
5 **(I)** Insert **Section 710.12 Stainless Steel Pipe for Railings** after line 288 to read  
6 as follows:

7  
8 **“710.12 Stainless Steel Pipe for Railing.** Stainless steel pipe shall conform to ASTM  
9 A312 Type 316. Stainless steel pipe base plates shall conform to ASTM A1069 Type  
10 316. Welding electrodes and rods shall conform to AWS D1.6 Stainless steel  
11 mechanical fasteners shall be Type 316. Stainless steel anchor rods and nuts shall  
12 conform to ASTM A193. Stainless steel washers shall conform to ASTM A276.”

13  
14  
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16  
17  
18 **END OF SECTION 710**

1 **SECTION 712 - MISCELLANEOUS**

2  
3 Make the following amendment to said Section:

4  
5 **(I) Amend 712.07(A) Frame and Cover** from line 98 to line 112 to read as  
6 follows:

7  
8 **“(A) Frame and Cover.** Frame and cover for manhole or handhole  
9 shall meet requirements of AASHTO M 306.”

10  
11 **(II) Amend 712.07(B) Frame and Grate** from line 114 to line 132 to read as  
12 follows:

13  
14 **(B) Frame and Grate.** Cast iron frame and grate shall conform to  
15 AASHTO M 306, unless steel is specified in the contract documents.

16  
17 Steel frame and grate shall conform to ASTM A 283/A 283 M, Grade  
18 D; ASTM A 27/A 27M, Grade 65-35; or ASTM A 47/A 47 M, Grade 35018.  
19 Zinc coating shall be provided in accordance with ASTM A 123/A 123M.

20  
21 Reinforcing steel for grate shall conform to Subsection  
22 709.01 - Reinforcing Steel. Frame and grate shall be cleaned thoroughly  
23 and painted on all sides that will not be imbedded in concrete with one coat  
24 of high-grade asphalt conforming to ASTM A 849, Class M, Fully Coated,  
25 at shop. Second coat of paint shall be applied on all sides not imbedded in  
26 concrete just before the pre-final inspection. Any damage to the zinc-  
27 coating of a frame or grate shall be repaired in accordance with ASTM A780  
28 using a Zinc-based solder coating.

29  
30 Fabricated frame and grate shall be true to line and free of twists,  
31 bends, and open joints. Splices will not be allowed. Cut surfaces and edges  
32 shall be made smooth by machining or grinding before fabrication of frame  
33 and grate.

34  
35 Size and length of weld shall be as specified in contract documents.  
36 Welds shall be free of defects, discontinuities and shall have full  
37 penetration.”

38  
39  
40  
41  
42 **END OF SECTION 712**

1                   **SECTION 717 – CULLET AND CULLET-MADE MATERIALS**

2  
3    Make the following amendments to said Section:

4  
5    **(I) Amend Subsection 717.01 – Cullet and Cullet-Aggregate Mixtures as**  
6    **Construction Materials** by revising the third paragraph from line 16 to 20 to read:

7  
8            “Debris shall not exceed values specified in Tables 717.02-1 - Cullet in  
9    Roadway Applications, 717.03-1 - Cullet in Utility Applications, and 717.04-1 -  
10   Cullet in Drainage Applications. Debris is defined as deleterious material that  
11   includes plastics, papers, and non-ceramic constituents of cullet. Hazardous  
12   material will not be allowed in cullet such as but not limited to, TV or other cathode  
13   ray tubes, fluorescent light bulbs, and any toxic or hazardous materials. Test cullet  
14   stockpile for toxic or hazardous materials every 90 days and submit the results to  
15   the Engineer.”

16  
17   **(II) Amend Subsection 717.01 – Cullet and Cullet-Aggregate Mixtures as**  
18   **Construction Materials** by adding the following paragraph after line 21:

19  
20            “Cullet shall not be used in concrete.”

21  
22   **(III) Amend Table 717.03-1 – Cullet in Utility Applications** from line 37 to line  
23   39 to read:

24

<b>TABLE 717.03-1 - CULLET IN UTILITY APPLICATIONS</b>		
<b>Utility Trench Bedding and Backfill Applications</b>	<b>Maximum Cullet Content (Percent By Weight)</b>	<b>Maximum Debris Level (Percent By Weight Of Cullet)</b>
Sewer Pipes	25	0.3
Electrical Conduits	25	0.3
Fiber Optic Lines	25	0.3

25  
26

27  
28  
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39

**(IV)** Amend **Table 717.04-1 – Cullet in Drainage Applications** from line 47 to line 49 to read:

<b>TABLE 717.04-1 - CULLET IN DRAINAGE APPLICATIONS</b>		
<b>Drainage Fill Applications</b>	<b>Maximum Cullet Content (Percent By Weight)</b>	<b>Maximum Debris Level (Percent By Weight Of Cullet)</b>
Retaining Walls	25	0.2
Foundation Drains	25	0.2
Drainage Blankets	25	0.2
French Drains	25	0.2

40  
41  
42  
43  
44  
45

**END OF SECTION 717**

1           **SECTION 750 – TRAFFIC CONTROL SIGN AND MARKER MATERIALS**

2  
3       Make the following amendments to said Section:

4  
5       **(I)**     Amend **Subsection 750.01(A)(1) Retroreflectorization** by replacing lines  
6       8 through 31 to read:

7  
8       **“(1) Retroreflectorization.** The following shall be retroreflectorized:

9  
10       **(a)**     Background for illuminated guide signs and exit number panels (“E”  
11       designation) with ASTM D 4956 Type XI retroreflective sheeting.

12  
13       **(b)**     Background for non-illuminated guide signs and exit number panels  
14       (“D” designation) with ASTM D 4956 Type XI retroreflective sheeting.

15  
16       **(c)**     Messages, arrows, and borders of guide signs and exit number  
17       panels (“D” and “E” designations) with ASTM D 4956 Type XI retroreflective  
18       sheeting.

19  
20       **(d)**     Regulatory and warning signs, directional signs (“DIR” designation),  
21       route and auxiliary markers, shield symbols, yellow “EXIT ONLY” panels,  
22       construction warning signs, and barricade rails, completely, with Type III,  
23       IV, or IX retroreflective sheeting.

24  
25       **(e)**     Pedestrian, school, bicycle crossing series, completely with Type IX  
26       fluorescent yellow green retroreflective sheeting.”

27  
28  
29       **(II)**    Amend **Subsection 750.01(B) Backing** by replacing lines 72 through 73  
30       to read:

31  
32       “Aluminum sheet shall conform to ASTM B 209, alloy 5052-H38 or 6061-T6  
33       flat sheet.”

34  
35       **(III)**   Amend **Subsection 750.01(E) Retroreflective Sheeting Materials** by  
36       replacing lines 1126 through 1137 to read:

37  
38       **“(E) Retroreflective Sheeting Materials.** Retroreflective sheeting  
39       includes white or colored sheeting having smooth outer surface.

40  
41       Retroreflective sheeting shall be classified in accordance with ASTM D  
42       4956.

43  
44       The coefficient of retroreflection shall meet the minimum requirements of  
45       ASTM D 4956 for the type of reflective sheeting specified.

47           The color shall conform to the latest appropriate standard color tolerance  
48 chart issued by the U.S. Department of Transportation, Federal Highway  
49 Administration and to the daytime and nighttime color requirements of ASTM D  
50 4956.

51  
52           Test methods and procedures shall be in accordance with ASTM.

53  
54 **(IV)** Amend **Subsection 750.02 Sign Posts** by replacing lines 1168 through  
55 1172 to read:

56  
57 **“(C) Square Tube Posts.** Square and other tube posts shall conform to ASTM A  
58 653 for cold-rolled, carbon steel sheet, commercial quality; or ASTM A 787 for  
59 electric-resistance-welded, metallic-coated carbon steel mechanical tubing.”

60  
61  
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65

**END OF SECTION 750**

1                                   **SECTION 755 – PAVEMENT MARKING MATERIALS**  
2

3    Make the following amendments to said Section:  
4

5    **(I)**    Amend **Subsection 755.02 (C) Retroreflective Pavement Markers** by  
6    revising lines 223 to 236 to read:

7  
8            “Exterior surface of shell shall be smooth and contain one or two  
9    retroreflective faces of specified color.”  
10

11 **(II)**    Amend **Subsection 755.05 (C)(1) Glass Beads** by adding the following  
12    after line 869:

13  
14            **(f)**    The glass spheres shall not contain more than 200 ppm (total)  
15    arsenic, 200 ppm (total) antimony nor more than 200 ppm (total)  
16    lead, when tested according to EPA Methods 3052 and 6010C.  
17    Other suitable x-ray fluorescence spectrometry analysis methods  
18    may be used to screen samples of glass spheres for arsenic and lead  
19    content.”  
20  
21  
22  
23  
24

**END OF SECTION 755**



## **Requirements of Chapter 104, HRS Wages and Hours of Employees on Public Works Law**

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Chapter 104, HRS, applies to every public works construction project over \$2,000, regardless of the method of procurement or financing (purchase order, voucher, bid, contract, lease arrangement, warranty, SPRB).

### **Rate of Wages for Laborers and Mechanics**

- Minimum prevailing wages (basic hourly rate plus fringe benefits), as determined by the Director of Labor and Industrial Relations and published in wage rate schedules, shall be paid to the various classes of laborers and mechanics working on the job site. [§104-2(a), (b), Hawaii Revised Statutes (HRS)]
- If the Director of Labor determines that prevailing wages have increased during the performance of a public works contract, the rate of pay of laborers and mechanics shall be raised accordingly. [§104-2(a) and (b), HRS; §12-22-3(d) Hawaii Administrative Rules (HAR)]

### **Overtime**

- Laborers and mechanics working on a Saturday, Sunday, or a legal holiday of the State or more than eight hours a day on any other day shall be paid overtime compensation at not less than one and one-half times the basic hourly rate plus the cost of fringe benefits for all hours worked. If the Director of Labor determines that a prevailing wage is defined by a collective bargaining agreement, the overtime compensation shall be at the rates set by the applicable collective bargaining agreement [§§104-1, 104-2(c), HRS; §12-22-4.1, HAR]

### **Weekly Pay**

- Laborers and mechanics employed on the job site shall be paid their full wages at least once a week, without deduction or rebate, except for legal deductions, within five working days after the cutoff date. [§104-2(d), HRS]

### **Posting of Wage Rate Schedules**

- Wage rate schedules with the notes for prevailing wages and special overtime rates, shall be posted by the contractor in a prominent and easily accessible place at the job site. A copy of the entire wage rate schedule shall be given to each laborer and mechanic employed under the contract, except when the employee is covered by a collective bargaining agreement. [§104-2(d), HRS]

### **Withholding of Accrued Payments**

- If necessary, the contracting agency may withhold accrued payments to the contractor to pay to laborers and mechanics employed by the contractor or subcontractor on the job site any difference between the wages required by the public works contract or specifications and the wages received. [§104-2(e), HRS]

### **Certified Weekly Payrolls and Payroll Records**

- A certified copy of all payrolls shall be submitted weekly to the contracting agency. [§104-3(a), HRS; §12-22-10, HAR]
- The contractor is responsible for the submission of certified copies of the payrolls of all subcontractors. The certification shall affirm that the payrolls are correct and complete, that the wage rates listed are not less than the applicable rates contained in the applicable wage rate schedule, and that the classifications for each laborer or mechanic conform with the work the laborer or mechanic performed. [§104-3(a), HRS; §12-22-10, HAR]
- Payroll records shall be maintained by the contractor and subcontractors for three years after completion of construction. The records shall contain: [§104-3(b), HRS; §12-22-10, HAR]
  - the name and home address of each employee
  - the last four digits of social security number
  - a copy of the apprentice's registration with DLIR
  - the employee's correct classification
  - rate of pay (basic hourly rate + fringe benefits)
  - itemized list of fringe benefits paid
  - daily and weekly hours worked
  - weekly straight time and overtime earnings
  - amount and type of deductions
  - total net wages paid
  - date of payment
- Records shall be made available for examination by the contracting agency, the Department of Labor and Industrial Relations (DLIR), or any of its authorized representatives, who may also interview employees during working hours on the job. [§§104-3(c), 104-22(a), HRS; §12-22-10, HAR]

## Termination of Work on Failure to Pay Wages

- If the contracting agency finds that any laborer or mechanic employed on the job site by the contractor or any subcontractor has not been paid prevailing wages or overtime, the contracting agency may, by written notice to the contractor, terminate the contractor's or subcontractor's right to proceed with the work or with the part of the work in which the required wages or overtime compensation have not been paid. The contracting agency may complete this work by contract or otherwise, and the contractor or contractor's sureties shall be liable to the contracting agency for any excess costs incurred. [§104-4, HRS]

## Apprentices

- Apprentice wage rates apply to contractors who are a party to a bona fide apprenticeship program which has been registered with the DLIR. In order to be paid apprentice rates, apprentices must be parties to an agreement either registered with or recognized as a USDOL nationally approved apprenticeship program by the DLIR, Workforce Development Division, (808) 586-8877, and the apprentice must be individually registered by name with the DLIR. [§12-22-6(1) and (2), HAR]
- The number of apprentices on any public work in relation to the number of journeyworkers in the same craft classification as the apprentices employed by the same employer on the same public work may not exceed the ratio allowed under the apprenticeship standards registered with or recognized by the DLIR. A registered or recognized apprentice receiving the journeyworker rate will not be considered a journeyworker for the purpose of meeting the ratio requirement. [§12-22-6(3), HAR]

## Enforcement

- To ensure compliance with the law, DLIR and the contracting agency will conduct investigations of contractors and subcontractors. If a contractor or subcontractor violates the law, the penalties are: [§104-24, HRS]
  - First Violation Equal to 25% of back wages found due or \$250 per offense up to \$2,500, whichever is greater.
  - Second Violation Equal to amount of back wages found due or \$500 for each offense up to \$5,000, whichever is greater.
  - Third Violation Equal to two times the amount of back wages found due or \$1,000 for each offense up to \$10,000, whichever is greater; and  
**Suspension** from doing any new work on any public work of a governmental contracting agency for three years.
- A violation would be deemed a second violation if it occurs within two years of the **first notification of violation**, and a third violation if it occurs within three years of **the second notification of violation**. [§104-24, HRS; §12-22-25(b), HAR]
- **Suspension:** For a first or second violation, the department shall immediately suspend a contractor who fails to pay wages or penalties until all wages and penalties are paid in full. For a third violation, the department shall penalize and suspend the contractor as described above, **except that if the contractor continues to violate the law, then the department shall immediately suspend the contractor for a mandatory three years. The contractor shall remain suspended until all wages and penalties are paid in full.** [§§104-24, 104-25, HRS]
- **Suspension:** Any contractor who fails to make payroll records accessible or provide requested information within 10 days, or fails to keep or falsifies any required record, shall be assessed a penalty including suspension as provided in Section 104-22(b) and 104-25(a)(3), HRS. [§104-3(c), HRS; §12-22-26, HAR]
- If any contractor interferes with or delays any investigation, the contracting agency shall withhold further payments until the delay has ceased. Interference or delay includes failure to provide requested records or information within ten days, failure to allow employees to be interviewed during working hours on the job, and falsification of payroll records. The department shall assess a penalty of \$10,000 per project, and \$1,000 per day thereafter, for interference or delay. [§104-22(b), HRS; §12-22-26, HAR]
- Failure by the contracting agency to include in the provisions of the contract or specifications the requirements of Chapter 104, HRS, relating to coverage and the payment of prevailing wages and overtime, is not a defense of the contractor or subcontractor for noncompliance with the requirements of this chapter. [§104-2(f), HRS]



For additional information, visit the department's website at <http://labor.hawaii.gov/wsd> or contact any of the following DLIR offices:

Oahu (Wage Standards Division) .....(808) 586-8777  
Hawaii Island.....(808) 974-6464  
Maui and Kauai .....(808) 243-5322

"General Decision Number: HI20240001 10/04/2024

Superseded General Decision Number: HI20230001

State: Hawaii

Construction Types: Building, Heavy (Heavy and Dredging), Highway and Residential

Counties: Hawaii Statewide.

BUILDING CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories); HEAVY AND HIGHWAY CONSTRUCTION PROJECTS AND DREDGING

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.</li> </ul>
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024
2	01/19/2024
3	04/19/2024
4	05/17/2024
5	06/07/2024
6	07/19/2024
7	08/30/2024
8	09/06/2024
9	10/04/2024

ASBE0132-001 09/01/2024

	Rates	Fringes
Asbestos Workers/Insulator Includes application of all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems. Also the application of firestopping material for wall openings and penetrations in walls, floors, ceilings and curtain walls.....	\$ 45.80	30.35

BOIL0627-005 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 37.25	31.25

BRHI0001-001 09/05/2023

	Rates	Fringes
BRICKLAYER Bricklayers and Stonemasons.	\$ 48.03	32.23
Pointers, Caulkers and Weatherproofers.....	\$ 48.28	32.23

BRHI0001-002 09/05/2023

	Rates	Fringes
Tile, Marble & Terrazzo Worker Terrazzo Base Grinders.....	\$ 44.69	33.00
Terrazzo Floor Grinders and Tenders.....	\$ 43.14	33.00
Tile, Marble and Terrazzo Workers.....	\$ 46.50	33.00

CARP0745-001 10/01/2021

	Rates	Fringes
Carpenters: Carpenters; Hardwood Floor Layers; Patent Scaffold Erectors (14 ft. and		

over); Piledrivers; Pneumatic Nailers; Wood Shinglers and Transit and/or Layout Man.....	\$ 51.25	24.84
Millwrights and Machine Erectors.....	\$ 51.50	24.84
Power Saw Operators (2 h.p. and over).....	\$ 51.40	24.84

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CARP0745-002 09/04/2023

	Rates	Fringes
Drywall and Acoustical Workers and Lathers.....	\$ 53.00	27.74

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ELEC1186-001 08/25/2024

	Rates	Fringes
Electricians: Cable Splicers.....	\$ 62.77	32.46
Electricians.....	\$ 55.55	32.25
Telecommunication worker....	\$ 40.00	15.50

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ELEC1186-002 08/25/2024

	Rates	Fringes
Line Construction: Cable Splicers.....	\$ 62.77	32.46
Groundmen/Truck Drivers.....	\$ 41.66	26.50
Heavy Equipment Operators...\$	50.00	29.90
Linemen.....	\$ 55.55	32.25
Telecommunication worker....\$	40.00	15.50

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ELEV0126-001 01/01/2024

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 70.90	37.885+a+b

a. VACATION: Employer contributes 8% of basic hourly rate for 5 years service and 6% of basic hourly rate for 6 months to 5 years service as vacation pay credit.

b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day.

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ENGI0003-002 09/03/2018

	Rates	Fringes
Diver (Aqua Lung) (Scuba)) Diver (Aqua Lung) (Scuba) (over a depth of 30 feet)...	\$ 66.00	31.26
Diver (Aqua Lung) (Scuba) (up to a depth of 30 feet)..\$	56.63	31.26
Stand-by Diver (Aqua Lung) (Scuba).....	\$ 47.25	31.26
Diver (Other than Aqua Lung) Diver (Other than Aqua Lung).....	\$ 66.00	31.26

Diver Tender (Other than Aqua Lung).....	\$ 44.22	31.26
Stand-by Diver (Other than Aqua Lung).....	\$ 47.25	31.26
Helicopter Work		
Airborne Hoist Operator for Helicopter.....	\$ 45.80	31.26
Co-Pilot of Helicopter.....	\$ 45.98	31.26
Pilot of Helicopter.....	\$ 46.11	31.26
Power equipment operator - tunnel work		
GROUP 1.....	\$ 42.24	31.26
GROUP 2.....	\$ 42.35	31.26
GROUP 3.....	\$ 42.52	31.26
GROUP 4.....	\$ 42.79	31.26
GROUP 5.....	\$ 43.10	31.26
GROUP 6.....	\$ 43.75	31.26
GROUP 7.....	\$ 44.07	31.26
GROUP 8.....	\$ 44.18	31.26
GROUP 9.....	\$ 44.29	31.26
GROUP 9A.....	\$ 44.52	31.26
GROUP 10.....	\$ 44.58	31.26
GROUP 10A.....	\$ 44.73	31.26
GROUP 11.....	\$ 44.88	31.26
GROUP 12.....	\$ 45.24	31.26
GROUP 12A.....	\$ 45.60	31.26
Power equipment operators:		
GROUP 1.....	\$ 41.94	31.26
GROUP 2.....	\$ 42.05	31.26
GROUP 3.....	\$ 42.22	31.26
GROUP 4.....	\$ 42.49	31.26
GROUP 5.....	\$ 42.80	31.26
GROUP 6.....	\$ 43.45	31.26
GROUP 7.....	\$ 43.77	31.26
GROUP 8.....	\$ 43.88	31.26
GROUP 9.....	\$ 43.99	31.26
GROUP 9A.....	\$ 44.22	31.26
GROUP 10.....	\$ 44.28	31.26
GROUP 10A.....	\$ 44.43	31.26
GROUP 11.....	\$ 44.58	31.26
GROUP 12.....	\$ 44.94	31.26
GROUP 12A.....	\$ 45.30	31.26
GROUP 13.....	\$ 42.22	31.26
GROUP 13A.....	\$ 42.49	31.26
GROUP 13B.....	\$ 42.80	31.26
GROUP 13C.....	\$ 43.45	31.26
GROUP 13D.....	\$ 43.77	31.26
GROUP 13E.....	\$ 43.88	31.26

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Fork Lift (up to and including 10 tons); Partsman (heavy duty repair shop parts room when needed).

GROUP 2: Conveyor Operator (Handling building material); Hydraulic Monitor; Mixer Box Operator (Concrete Plant).

GROUP 3: Brakeman; Deckhand; Fireman; Oiler; Oiler/Gradechecker; Signalman; Switchman; Highline Cableway Signalman; Bargeman; Bunkerman; Concrete Curing Machine (self-propelled, automatically applied unit on streets, highways, airports and canals); Leveeman; Roller (5 tons and under); Tugger Hoist.

GROUP 4: Boom Truck or dual purpose ""A"" Frame Truck (5 tons

or less); Concrete Placing Boom (Building Construction); Dinky Operator; Elevator Operator; Hoist and/or Winch (one drum); Straddle Truck (Ross Carrier, Hyster and similar).

GROUP 5: Asphalt Plant Fireman; Compressors, Pumps, Generators and Welding Machines ("Bank" of 9 or more, individually or collectively); Concrete Pumps or Pumpcrete Guns; Lubrication and Service Engineer (Grease Rack); Screedman.

GROUP 6: Boom Truck or Dual Purpose "A" Frame Truck (over 5 tons); Combination Loader/Backhoe (up to and including 3/4 cu. yd.); Concrete Batch Plants (wet or dry); Concrete Cutter, Groover and/or Grinder (self-propelled unit on streets, highways, airports, and canals); Conveyor or Concrete Pump (Truck or Equipment Mounted); Drilling Machinery (not to apply to waterliners, wagon drills or jack hammers); Fork Lift (over 10 tons); Loader (up to and including 3 and 1/2 cu. yds); Lull High Lift (under 40 feet); Lubrication and Service Engineer (Mobile); Maginnis Internal Full Slab Vibrator (on airports, highways, canals and warehouses); Man or Material Hoist; Mechanical Concrete Finisher (Large Clary, Johnson Bidwell, Bridge Deck and similar); Mobile Truck Crane Driver; Portable Shotblast Concrete Cleaning Machine; Portable Boring Machine (under streets, highways, etc.); Portable Crusher; Power Jumbo Operator (setting slip forms, etc., in tunnels); Rollers (over 5 tons); Self-propelled Compactor (single engine); Self-propelled Pavement Breaker; Skidsteer Loader with attachments; Slip Form Pumps (Power driven by hydraulic, electric, air, gas, etc., lifting device for concrete forms); Small Rubber Tired Tractors; Trencher (up to and including 6 feet); Underbridge Personnel Aerial Platform (50 feet of platform or less).

GROUP 7: Crusher Plant Engineer, Dozer (D-4, Case 450, John Deere 450, and similar); Dual Drum Mixer, Extend Lift; Hoist and/or Winch (2 drums); Loader (over 3 and 1/2 cu. yds. up to and including 6 yards.); Mechanical Finisher or Spreader Machine (asphalt), (Barber Greene and similar) (Screedman required); Mine or Shaft Hoist; Mobile Concrete Mixer (over 5 tons); Pipe Bending Machine (pipelines only); Pipe Cleaning Machine (tractor propelled and supported); Pipe Wrapping Machine (tractor propelled and supported); Roller Operator (Asphalt); Self-Propelled Elevating Grade Plane; Slusher Operator; Tractor (with boom) (D-6, or similar); Trencher (over 6 feet and less than 200 h.p.); Water Tanker (pulled by Euclids, T-Pulls, DW-10, 20 or 21, or similar); Winchman (Stern Winch on Dredge).

GROUP 8: Asphalt Plant Operator; Barge Mate (Seagoing); Cast-in-Place Pipe Laying Machine; Concrete Batch Plant (multiple units); Conveyor Operator (tunnel); Deckmate; Dozer (D-6 and similar); Finishing Machine Operator (airports and highways); Gradesetter; Kolman Loader (and similar); Mucking Machine (Crawler-type); Mucking Machine (Conveyor-type); No-Joint Pipe Laying Machine; Portable Crushing and Screening Plant; Power Blade Operator (under 12); Saurman Type Dragline (up to and including 5 yds.); Stationary Pipe Wrapping, Cleaning and Bending Machine; Surface Heater and Planer Operator, Tractor (D-6 and similar); Tri-Batch Paver; Tunnel Badger; Tunnel Mole and/or Boring Machine Operator Underbridge Personnel Aerial Platform (over 50 feet of platform).

GROUP 9: Combination Mixer and Compressor (gunite); Do-Mor Loader and Adams Elegrader; Dozer (D-7 or equal); Wheel and/or Ladder Trencher (over 6 feet and 200 to 749 h.p.).

GROUP 9A: Dozer (D-8 and similar); Gradesetter (when required by the Contractor to work from drawings, plans or specifications without the direct supervision of a foreman or superintendent); Push Cat; Scrapers (up to and including 20 cu. yds); Self-propelled Compactor with Dozer; Self-Propelled, Rubber-Tired Earthmoving Equipment (up to and including 20 cu. yds) (621 Band and similar); Sheep's Foot; Tractor (D-8 and similar); Tractors with boom (larger than D-6, and similar).

GROUP 10: Chicago Boom; Cold Planers; Heavy Duty Repairman or Welder; Hoist and/or Winch (3 drums); Hydraulic Skooper (Koehring and similar); Loader (over 6 cu. yds. up to and including 12 cu. yds.); Saurman type Dragline (over 5 cu. yds.); Self-propelled, rubber-tired Earthmoving Equipment (over 20 cu. yds. up to and including 31 cu. yds.) (637D and similar); Soil Stabilizer (P & H or equal); Sub-Grader (Gurries or other automatic type); Tractors (D-9 or equivalent, all attachments); Tractor (Tandem Scraper); Watch Engineer.

GROUP 10A: Boat Operator; Cable-operated Crawler Crane (up to and including 25 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (up to and including 1 cu. yd.); Dozer D9-L; Dozer (D-10, HD41 and similar) (all attachments); Gradall (up to and including 1 cu. yd.); Hydraulic Backhoe (over 3/4 cu. yds. up to and including 2 cu. yds.); Mobile Truck Crane Operator (up to and including 25 tons) (Mobile Truck Crane Driver Required); Self-propelled Boom Type Lifting Device (Center Mount) (up to and including 25 tons) (Grove, Drott, P&H, Pettibone and similar; Trencher (over 6 feet and 750 h.p. or more); Watch Engineer (steam or electric).

GROUP 11: Automatic Slip Form Paver (concrete or asphalt); Band Wagon (in conjunction with Wheel Excavator); Cable-operated Crawler Cranes (over 25 tons but less than 50 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (over 1 cu. yd. up to 7 cu. yds.); Gradall (over 1 cu. yds. up to 7 cu. yds.); DW-10, 20, etc. (Tandem); Earthmoving Machines (multiple propulsion power units and 2 or more Scrapers) (up to and including 35 cu. yds., "struck" m.r.c.); Highline Cableway; Hydraulic Backhoe (over 2 cu. yds. up to and including 4 cu. yds.); Leverman; Lift Slab Machine; Loader (over 12 cu. yds); Master Boat Operator; Mobile Truck Crane Operator (over 25 tons but less than 50 tons); (Mobile Truck Crane Driver required); Pre-stress Wire Wrapping Machine; Self-propelled Boom-type Lifting Device (Center Mount) (over 25 tons m.r.c); Self-propelled Compactor (with multiple-propulsion power units); Single Engine Rubber Tired Earthmoving Machine (with Tandem Scraper); Tandem Cats; Trencher (pulling attached shield).

GROUP 12: Clamshell or Dipper Operator; Derricks; Drill Rigs; Multi-Propulsion Earthmoving Machines (2 or more Scrapers) (over 35 cu. yds "struck" m.r.c.); Operators (Derricks, Piledrivers and Cranes); Power Shovels and Draglines (7 cu. yds. m.r.c. and over); Self-propelled rubber-tired Earthmoving equipment (over 31 cu. yds.) (657B and similar); Wheel Excavator (up to and including 750 cu. yds.



per hour); Wheel Excavator (over 750 cu. yds. per hour).

GROUP 12A: Dozer (D-11 or similar or larger); Hydraulic Excavators (over 4 cu. yds.); Lifting cranes (50 tons and over); Pioneering Dozer/Backhoe (initial clearing and excavation for the purpose of providing access for other equipment where the terrain worked involves 1-to-1 slopes that are 50 feet in height or depth, the scope of this work does not include normal clearing and grubbing on usual hilly terrain nor the excavation work once the access is provided); Power Blade Operator (Cat 12 or equivalent or over); Straddle Lifts (over 50 tons); Tower Crane, Mobile; Traveling Truss Cranes; Universal, Liebherr, Linden, and similar types of Tower Cranes (in the erection, dismantling, and moving of equipment there shall be an additional Operating Engineer or Heavy Duty Repairman); Yo-Yo Cat or Dozer.

GROUP 13: Truck Driver (Utility, Flatbed, etc.)

GROUP 13A: Dump Truck, 8 cu.yds. and under (water level); Water Truck (up to and including 2,000 gallons).

GROUP 13B: Water Truck (over 2,000 gallons); Tandem Dump Truck, over 8 cu. yds. (water level).

GROUP 13C: Truck Driver (Semi-trailer. Rock Cans, Semi-Dump or Roll-Offs).

GROUP 13D: Truck Driver (Slip-In or Pup).

GROUP 13E: End Dumps, Unlicensed (Euclid, Mack, Caterpillar or similar); Tractor Trailer (Hauling Equipment); Tandem Trucks hooked up to Trailer (Hauling Equipment)

BOOMS AND/OR LEADS (HOURLY PREMIUMS):

The Operator of a crane (under 50 tons) with a boom of 80 feet or more (including jib), or of a crane (under 50 tons) with leads of 100 feet or more, shall receive a per hour premium for each hour worked on said crane (under 50 tons) in accordance with the following schedule:

Booms of 80 feet up to but not including 130 feet or Leads of 100 feet up to but not including 130 feet	0.50
Booms and/or Leads of 130 feet up to but not including 180 feet	0.75
Booms and/or Leads of 180 feet up to and including 250 feet	1.15
Booms and/or Leads over 250 feet	1.50

The Operator of a crane (50 tons and over) with a boom of 180 feet or more (including jib) shall receive a per hour premium for each hour worked on said crane (50 tons and over) in accordance with the following schedule:

Booms of 180 feet up to and including 250 feet	1.25
Booms over 250 feet	1.75

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 ENGI0003-004 09/04/2017

	Rates	Fringes
Dredging: (Boat Operators)		
Boat Deckhand.....	\$ 41.22	30.93
Boat Operator.....	\$ 43.43	30.93
Master Boat Operator.....	\$ 43.58	30.93
Dredging: (Clamshell or Dipper Dredging)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Derricks)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Hydraulic Suction Dredges)		
GROUP 1.....	\$ 43.58	30.93
GROUP 2.....	\$ 43.43	30.93
GROUP 3.....	\$ 43.28	30.93
GROUP 4.....	\$ 43.22	30.93
GROUP 5.....	\$ 37.88	26.76
Group 5.....	\$ 42.88	30.93
GROUP 6.....	\$ 37.77	26.76
Group 6.....	\$ 42.77	30.93
GROUP 7.....	\$ 36.22	26.76
Group 7.....	\$ 41.22	30.93

CLAMSHELL OR DIPPER DREDGING CLASSIFICATIONS

- GROUP 1: Clamshell or Dipper Operator.
- GROUP 2: Mechanic or Welder; Watch Engineer.
- GROUP 3: Barge Mate; Deckmate.
- GROUP 4: Bargeman; Deckhand; Fireman; Oiler.

HYDRAULIC SUCTION DREDGING CLASSIFICATIONS

- GROUP 1: Leverman.
- GROUP 2: Watch Engineer (steam or electric).
- GROUP 3: Mechanic or Welder.
- GROUP 4: Dozer Operator.
- GROUP 5: Deckmate.
- GROUP 6: Winchman (Stern Winch on Dredge)
- GROUP 7: Deckhand (can operate anchor scow under direction of Deckmate); Fireman; Leveeman; Oiler.

DERRICK CLASSIFICATIONS

- GROUP 1: Operators (Derricks, Piledrivers and Cranes).
- GROUP 2: Saurman Type Dragline (over 5 cubic yards).
- GROUP 3: Deckmate; Saurman Type Dragline (up to and including 5 yards).
- GROUP 4: Deckhand, Fireman, Oiler.

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ENGI0003-044 09/03/2018

	Rates	Fringes
Power Equipment Operators (PAVING) Asphalt Concrete Material		

Transfer.....	\$ 42.92	32.08
Asphalt Plant Operator.....	\$ 43.35	32.08
Asphalt Raker.....	\$ 41.96	32.08
Asphalt Spreader Operator...	\$ 43.44	32.08
Cold Planer.....	\$ 43.75	32.08
Combination Loader/Backhoe (over 3/4 cu.yd.).....	\$ 41.96	32.08
Combination Loader/Backhoe (up to 3/4 cu.yd.).....	\$ 40.98	32.08
Concrete Saws and/or Grinder (self-propelled unit on streets, highways, airports and canals).....	\$ 42.92	32.08
Grader.....	\$ 43.75	32.08
Laborer, Hand Roller.....	\$ 41.46	32.08
Loader (2 1/2 cu. yds. and under).....	\$ 42.92	32.08
Loader (over 2 1/2 cu. yds. to and including 5 cu. yds.).....	\$ 43.24	32.08
Roller Operator (five tons and under).....	\$ 41.69	32.08
Roller Operator (over five tons).....	\$ 43.12	32.08
Screed Person.....	\$ 42.92	32.08
Soil Stabilizer.....	\$ 43.75	32.08

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\* IRON0625-001 09/01/2024

	Rates	Fringes
Ironworkers:.....	\$ 48.00	41.86
a. Employees will be paid \$.50 per hour more while working in tunnels and coffer dams; \$1.00 per hour more when required to work under or are covered with water (submerged) and when they are required to work on the summit of Mauna Kea, Mauna Loa or Haleakala.		

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LAB00368-001 09/02/2024

	Rates	Fringes
Laborers:		
Driller.....	\$ 44.75	25.96
Final Clean Up.....	\$ 31.40	21.37
Gunite/Shotcrete Operator and High Scaler.....	\$ 42.25	25.96
Laborer I.....	\$ 41.75	25.96
Laborer II.....	\$ 39.15	25.96
Mason Tender/Hod Carrier...	\$ 42.25	25.96
Powderman.....	\$ 42.75	25.96
Window Washer (bosun chair).	\$ 41.25	25.96

LABORERS CLASSIFICATIONS

Laborer I: Air Blasting run by electric or pneumatic compressor; Asphalt Laborer, Ironer, Raker, Luteman, and Handroller, and all types of Asphalt Spreader Boxes; Asphalt Shoveler; Assembly and Installation of Multiplates, Liner Plates, Rings, Mesh, Mats; Batching Plant (portable and temporary); Boring Machine Operator (under streets and sidewalks); Buggymobile; Burning and Welding; Chainsaw, Faller, Logloader, and Bucker; Compactors (Jackson Jumping Jack and similar); Concrete Bucket Dumpman; Concrete Chipping; Concrete Chuteman/Hoseman (pouring concrete) (the

handling of the chute from ready-mix trucks for such jobs as walls, slabs, decks, floors, foundations, footings, curbs, gutters, and sidewalks); Concrete Core Cutter (Walls, Floors, and Ceiling); Concrete Grinding or Sanding; Concrete: Hooking on, signaling, dumping of concrete for tremie work over water on caissons, pilings, abutments, etc.; Concrete: Mixing, handling, conveying, pouring, vibrating, otherwise placing of concrete or aggregates or by any other process; Concrete: Operation of motorized wheelbarrows or buggies or machines of similar character, whether run by gas, diesel, or electric power; Concrete Placement Machine Operator: operation of Somero Hammerhead, Copperheads, or similar machines; Concrete Pump Machine (laying, coupling, uncoupling of all connections and cleaning of equipment); Concrete and/or Asphalt Saw (Walking or Handtype) (cutting walls or flatwork) (scoring old or new concrete and/or asphalt) (cutting for expansion joints) (streets and ways for laying of pipe, cable or conduit for all purposes); Concrete Shovelers/Laborers (Wet or Dry); Concrete Screeding for Rough Strike-Off: Rodding or striking-off, by hand or mechanical means prior to finishing; Concrete Vibrator Operator; Coring Holes: Walls, footings, piers or other obstructions for passage of pipes or conduits for any purpose and the pouring of concrete to secure the hole; Cribbers, Shorer, Lagging, Sheeting, and Trench Jacking and Bracing, Hand-Guided Lagging Hammer Whaling Bracing; Curbing (Concrete and Asphalt); Curing of Concrete (impervious membrane and form oiler) mortar and other materials by any mode or method; Cut Granite Curb Setter (setting, leveling and grouting of all precast concrete or stone curbs); Cutting and Burning Torch (demolition); Dri Pak-It Machine; Environmental Abatement: removal of asbestos, lead, and bio hazardous materials (EPA and/or OSHA certified); Falling, bucking, yarding, loading or burning of all trees or timber on construction site; Forklift (9 ft. and under); Gas, Pneumatic, and Electric tools; Grating and Grill work for drains or other purposes; Green Cutter of concrete or aggregate in any form, by hand, mechanical means, grindstone or air and/or water; Grout: Spreading for any purpose; Guinea Chaser (Grade Checker) for general utility trenches, sitework, and excavation; Headerboard Man (Asphalt or Concrete); Heat Welder of Plastic (Laborers' AGC certified workers) (when work involves waterproofing for waterpools, artificial lakes and reservoir) heat welding for sewer pipes and fusion of HDPE pipes; Heavy Highway Laborer (Rigging, signaling, handling, and installation of pre-cast catch basins, manholes, curbs and gutters); High Pressure Nozzleman - Hydraulic Monitor (over 100# pressure); Jackhammer Operator; Jacking of slip forms: All semi and unskilled work connected therewithin; Laying of all multi-cell conduit or multi-purpose pipe; Magnesite and Mastic Workers (Wet or Dry)(including mixer operator);Mortar Man; Mortar Mixer (Block, Brick, Masonry, and Plastering); Nozzleman (Sandblasting and/or Water Blasting): handling, placing and operation of nozzle; Operation, Manual or Hydraulic jacking of shields and the use of such other mechanical equipment as may be necessary; Pavement Breakers; Paving, curbing and surfacing of streets, ways, courts, under and overpasses, bridges, approaches, slope walls, and all other labor connected therewith; Pilecutters; Pipe Accessment in place, bolting and lining up of sectional metal or other pipe including corrugated pipe; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including

any and all forms of tubular material, whether pipe, HDPE, metallic or non-metallic, conduit, and any other stationary-type of tubular device used for conveying of any substance or element, whether water, sewage, solid, gas, air, or other product whatsoever and without regard to the nature of material from which tubular material is fabricated; No-joint pipe and stripping of same, Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, treating Creosote and similar-type materials (6-inch) pipe and over); Piping: resurfacing and paving of all ditches in preparation for laying of all pipes; Pipe laying of lateral sewer pipe from main or side sewer to buildings or structure (except Contactor may direct work be done under proper supervision); Pipe laying, leveling and marking of the joint used for main or side sewers and storm sewers; Laying of all clay, terra cotta, ironstone, vitrified concrete, HDPE or other pipe for drainage; Placing and setting of water mains, gas mains and all pipe including removal of skids; Plaster Mortar Mixer/Pump; Pneumatic Impact Wrench; Portable Sawmill Operation: Choker setters, off bearers, and lumber handlers connected with clearing; Posthole Digger (Hand Held, Gas, Air and Electric); Powderman's Tender; Power Broom Sweepers (Small); Preparation and Compaction of roadbeds for railroad track laying, highway construction, and the preparation of trenches, footings, etc., for cross-country transmission by pipelines, electrical transmission or underground lines or cables (by mechanical means); Raising of structure by manual or hydraulic jacks or other methods and resetting of structure in new locations, including all concrete work; Ramming or compaction; Rigging in connection with Laborers' work (except demolition), Signaling (including the use of walkie talkie) Choke Setting, tag line usage; Tagging and Signaling of building materials into high rise units; Riprap, Stonepaver, and Rock Slinger (includes placement of stacked concrete, wet or dry and loading, unloading, signaling, slinging and setting of other similar materials); Rotary Scarifier (including multiple head concrete chipping Scarifier); Salamander Heater, Drying of plaster, concrete mortar or other aggregate; Scaffold Erector Leadman; Scaffolds: (Swing and hanging) including maintenance thereof; Scaler; Septic Tank/Cesspool and Drain Fields Digger and Installer; Shredder/Chipper (tree branches, brush, etc.); Stripping and Setting Forms; Stripping of Forms: Other than panel forms which are to be re-used in their original form, and stripping of forms on all flat arch work; Tampers (Barko, Wacker, and similar type); Tank Scaler and Cleaners; Tarman; Tree Climbers and Trimmers; Trencher (includes hand-held, Davis T-66 and similar type); Trucks (flatbed up to and including 2 1/2 tons when used in connection with on-site Laborers' work; Trucks (Refuse and Garbage Disposal) (from job site to dump); Vibra-Screed (Bull Float in connection with Laborers' work); Well Points, Installation of or any other dewatering system.

Laborer II: Asphalt Plant Laborer; Boring Machine Tender; Bridge Laborer; Burning of all debris (crates, boxes, packaging waste materials); Chainman, Rodmen, and Grade Markers; Cleaning, clearing, grading and/or removal for streets, highways, roadways, aprons, runways, sidewalks, parking areas, airports, approaches, and other similar installations; Cleaning or reconditioning of streets, ways, sewers and waterlines, all maintenance work and work of an unskilled and semi-skilled nature; Concrete Bucket Tender

(Groundman) hooking and unhooking of bucket; Concrete Forms; moving, cleaning, oiling and carrying to the next point of erection of all forms; Concrete Products Plant Laborers; Conveyor Tender (conveying of building materials); Crushed Stone Yards and Gravel and Sand Pit Laborers and all other similar plants; Demolition, Wrecking and Salvage Laborers: Wrecking and dismantling of buildings and all structures, with use of cutting or wrecking tools, breaking away, cleaning and removal of all fixtures, All hooking, unhooking, signaling of materials for salvage or scrap removed by crane or derrick; Digging under streets, roadways, aprons or other paved surfaces; Driller's Tender; Chuck Tender, Outside Nipper; Dry-packing of concrete (plugging and filling of she-bolt holes); Fence and/or Guardrail Erector: Dismantling and/or re-installation of all fence; Finegrader; Firewatcher; Flagman (Coning, preparing, stablishing and removing portable roadway barricade devices); Signal Men on all construction work defined herein, including Traffic Control Signal Men at construction site; General Excavation; Backfilling, Grading and all other labor connected therewith; Digging of trenches, ditches and manholes and the leveling, grading and other preparation prior to laying pipe or conduit for any purpose; Excavations and foundations for buildings, piers, foundations and holes, and all other construction. Preparation of street ways and bridges; General Laborer: Cleaning and Clearing of all debris and surplus material. Clean-up of right-of-way. Clearing and slashing of brush or trees by hand or mechanical cutting. General Clean up: sweeping, cleaning, wash-down, wiping of construction facility and equipment (other than "Light Clean up (Janitorial) Laborer. Garbage and Debris Handlers and Cleaners. Appliance Handling (job site) (after delivery unloading in storage area); Ground and Soil Treatment Work (Pest Control); Gunite/Shotcrete Operator Tender; Junk Yard Laborers (same as Salvage Yard); Laser Beam "Target Man" in connection with Laborers' work; Layout Person for Plastic (when work involves waterproofing for waterpools, artificial lakes and reservoirs); Limbers, Brush Loaders, and Pilers; Loading, Unloading, carrying, distributing and handling of all rods and material for use in reinforcing concrete construction (except when a derrick or outrigger operated by other than hand power is used); Loading, unloading, sorting, stockpiling, handling and distribution of water mains, gas mains and all pipes; Loading and unloading of all materials, fixtures, furnishings and appliances from point of delivery to stockpile to point of installation; hooking and signaling from truck, conveyance or stockpile; Material Yard Laborers; Pipelayer Tender; Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, Creosote, and similar-type materials (pipe under 6 inches); Plasterer Laborer; Preparation, construction and maintenance of roadbeds and sub-grade for all paving, including excavation, dumping, and spreading of sub-grade material; Prestressed or precast concrete slabs, walls, or sections: all loading, unloading, stockpiling, hooking on of such slabs, walls or sections; Quarry Laborers; Railroad, Streetcar, and Rail Transit Maintenance and Repair; Roustabout; Rubbish Trucks in connection with Building Construction Projects (excluding clearing, grubbing, and excavating); Salvage Yard: All work connected with cutting, cleaning, storing, stockpiling or handling of materials, all cleanup, removal of debris, burning, back-filling and landscaping of the site; Sandblasting Tender (Pot Tender): Hoses and pots or markers; Scaffolds:

Erection, planking and removal of all scaffolds used for support for lathers, plasters, brick layers, masons, and other construction trades crafts; Scaffolds: (Specially designed by carpenters) laborers shall tend said carpenter on erection and dismantling thereof, preparation for foundation or mudsills, maintenance; Scraping of floors; Screeds: Handling of all screeds to be reused; handling, dismantling and conveyance of screeds; Setting, leveling and securing or bracing of metal or other road forms and expansion joints; Sheeting Piling/trench shoring (handling and placing of skip sheet or wood plank trench shoring); Ship Scalars; Shipwright Tender; Sign Erector (subdivision traffic, regulatory, and street-name signs); Sloper; Slurry Seal Crews (Mixer Operator, Applicator, Squeegee Man, Shuttle Man, Top Man); Snapping of wall ties and removal of tie rods; Soil Test operations of semi and unskilled labor such as filling sand bags; Striper (Asphalt, Concrete or other Paved Surfaces); Tool Room Attendant (Job Site); Traffic Delineating Device Applicator; Underpinning, lagging, bracing, propping and shoring, loading, signaling, right-of-way clearance along the route of movement, The clearance of new site, excavation of foundation when moving a house or structure from old site to new site; Utilities employees; Water Man; Waterscape/Hardscape Laborers; Wire Mesh Pulling (all concrete pouring operations); Wrecking, stripping, dismantling and handling concrete forms an false work.

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 LAB00368-002 09/03/2024

	Rates	Fringes
Landscape & Irrigation Laborers		
GROUP 1.....	\$ 28.40	17.15
GROUP 2.....	\$ 29.40	17.15
GROUP 3.....	\$ 23.00	17.15

LABORERS CLASSIFICATIONS

GROUP 1: Installation of non-potable permanent or temporary irrigation water systems performed for the purposes of Landscaping and Irrigation architectural horticultural work; the installation of drinking fountains and permanent or temporary irrigation systems using potable water for Landscaping and Irrigation architectural horticultural purposes only. This work includes (a) the installation of all heads, risers, valves, valve boxes, vacuum breakers (pressure and non-pressure), low voltage electrical lines and, provided such work involves electrical wiring that will carry 24 volts or less, the installation of sensors, master control panels, display boards, junction boxes, conductors, including all other components for controllers, (b) and metallic (copper, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe including all work incidental thereto, i.e., unloading, handling and distribution of all pipes fittings, tools, materials and equipment, (c) all soldering work in connection with the above whether done by torch, soldering iron, or other means; (d) tie-in to main lines, thrust blocks (both precast and poured in place), pipe hangers and supports incidental to installation of the entire irrigation system, (e) making of pressure tests, start-up testing, flushing, purging, water balancing, placing into operation all

irrigation equipment, fixtures and appurtenances installed under this agreement, and (f) the fabrication, replacement, repair and servicing of landscaping and irrigation systems. Operation of hand-held gas, air, electric, or self-powered tools and equipment used in the performance of Landscape and Irrigation work in connection with architectural horticulture; Choke-setting, signaling, and rigging for equipment operators on job-site in the performance of such Landscaping and Irrigation work; Concrete work (wet or dry) performed in connection with such Landscaping and Irrigation work. This work shall also include the setting of rock, stone, or riprap in connection with such Landscape, Waterscape, Rockscape, and Irrigation work; Grubbing, pick and shovel excavation, and hand rolling or tamping in connection with the performance of such Landscaping and Irrigation work; Sprigging, handseeding, and planting of trees, shrubs, ground covers, and other plantings and the performance of all types of gardening and horticultural work relating to said planting; Operation of flat bed trucks (up to and including 2 1/2 tons):.

GROUP 2. Layout of irrigation and other non-potable irrigation water systems and the layout of drinking fountains and other potable irrigation water systems in connection with such Landscaping and Irrigation work. This includes the layout of all heads, risers, valves, valve boxes, vacuum breakers, low voltage electrical lines, hydraulic and electrical controllers, and metallic (coppers, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe. This work also includes the reading and interpretation of plans and specifications in connection with the layout of Landscaping, Rockscape, Waterscape, and Irrigation work; Operation of Hydro-Mulching machines (sprayman and driver), Drillers, Trenchers (riding type, Davis T-66, and similar) and fork lifts used in connection with the performance of such Landscaping and Irrigation work; Tree climbers and chain saw tree trimmers, Sporadic operation (when used in connection with Landscaping, Rockscape, Waterscape, and Irrigation work) of Skid-Steer Loaders (Bobcat and similar), Cranes (Bantam, Grove, and similar), Hoptos, Backhoes, Loaders, Rollers, and Dozers (Case, John Deere, and similar), Water Trucks, Trucks requiring a State of Hawaii Public Utilities Commission Type 5 and/or type 7 license, sit-down type and "gang" mowers, and other self-propelled, sit-down operated machines not listed under Landscape & Irrigation Maintenance Laborer; Chemical spraying using self-propelled power spraying equipment (200 gallon capacity or more).

GROUP 3: Maintenance of trees, shrubs, ground covers, lawns and other planted areas, including the replanting of trees, shrubs, ground covers, and other plantings that did not "take" or which are damaged; provided, however, that re-planting that requires the use of equipment, machinery, or power tools shall be paid for at the rate of pay specified under Landscape and Irrigation Laborer, Group 1; Raking, mowing, trimming, and runing, including the use of "weed eaters", hedge trimmers, vacuums, blowers, and other hand-held gas, air, electric, or self-powered tools, and the operation of lawn mowers (Note: The operation of sit-down type and "gang" mowers shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer, Group 2); Guywiring, staking, propping, and supporting trees; Fertilizing, Chemical spraying using spray equipment



with less than 200 gallon capacity, Maintaining irrigation and sprinkler systems, including the staking, clamping, and adjustment of risers, and the adjustment and/or replacement of sprinkler heads, (Note: the cleaning and gluing of pipe and fittings shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer(Group 1); Watering by hand or sprinkler system and the performance of other types of gardening, yardman, and horticultural-related work.

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LAB00368-003 09/05/2023

	Rates	Fringes
Underground Laborer		
GROUP 1.....	\$ 41.25	24.96
GROUP 2.....	\$ 42.75	24.96
GROUP 3.....	\$ 43.25	24.96
GROUP 4.....	\$ 44.25	24.96
GROUP 5.....	\$ 44.50	24.96
GROUP 6.....	\$ 44.60	24.96
GROUP 7.....	\$ 44.85	24.96

GROUP 1: Watchmen; Change House Attendant.

GROUP 2: Swamper; Brakeman; Bull Gang-Muckers, Trackmen; Dumpmen (any method); Concrete Crew (includes rodding and spreading); Grout Crew; Reboundmen

GROUP 3: Chucktenders and Cabletenders; Powderman (Prime House); Vibratorman, Pavement Breakers

GROUP 4: Miners - Tunnel (including top and bottom man on shaft and raise work); Timberman, Retimberman (wood or steel or substitute materials thereof); Blasters, Drillers, Powderman (in heading); Microtunnel Laborer; Headman; Cherry Pickerman (where car is lifted); Nipper; Grout Gunmen; Grout Pumpman & Potman; Gunite, Shotcrete Gunmen & Potmen; Concrete Finisher (in tunnel); Concrete Screed Man; Bit Grinder; Steel Form Raisers & Setters; High Pressure Nozzleman; Nozzleman (on slick line); Sandblaster-Potman (combination work assignment interchangeable); Tugger

GROUP 5: Shaft Work & Raise (below actual or excavated ground level); Diamond Driller; Gunite or Shotcrete Nozzleman; Rodman; Groundman

GROUP 6: Shifter

GROUP 7: Shifter (Shaft Work & Raiser)

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PAIN1791-001 01/01/2024

	Rates	Fringes
Painters:		
Brush.....	\$ 41.65	30.05
Sandblaster; Spray.....	\$ 41.65	30.05

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PAIN1889-001 07/01/2024

	Rates	Fringes
Glaziers.....	\$ 46.00	37.15

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PAIN1926-001 03/05/2023

	Rates	Fringes
Soft Floor Layers.....	\$ 39.77	33.80

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PAIN1944-001 01/07/2024

	Rates	Fringes
Taper.....	\$ 45.20	31.40

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PLAS0630-001 09/04/2023

	Rates	Fringes
PLASTERER.....	\$ 46.12	34.53

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PLAS0630-002 09/04/2023

	Rates	Fringes
Cement Masons:		
Cement Masons.....	\$ 44.12	33.63
Trowel Machine Operators....	\$ 44.27	33.63

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PLUM0675-001 01/07/2024

	Rates	Fringes
Plumber, Pipefitter, Steamfitter & Sprinkler Fitter...	\$ 52.83	31.02

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ROOF0221-001 11/06/2022

	Rates	Fringes
Roofers (Including Built Up, Composition and Single Ply).....	\$ 43.15	21.21

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SHEE0293-001 03/05/2023

	Rates	Fringes
Sheet metal worker.....	\$ 47.37	31.71

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\* SUHI1997-002 09/15/1997

	Rates	Fringes
Drapery Installer.....	\$ 13.60 **	1.20
FENCE ERECTOR (Chain Link Fence).....	\$ 9.33 **	1.65

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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\*\* Workers in this classification may be entitled to a higher  
minimum wage under Executive Order 14026 (\$17.20) or 13658  
(\$12.90). Please see the Note at the top of the wage

determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

#### State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for

the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
**HIGHWAYS DIVISION**  
**HONOLULU, HAWAII**

**P R O P O S A L**

**6/02/98**

**PROPOSAL TO THE  
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION**

**PROJECT:**           **TRAFFIC SIGNAL MODERNIZATION, OAHU - PHASE 2A**  
                          **District of Honolulu**  
                          **Island of Oahu**

**PROJECT NO.:**    **STP-0300(214)**

**COMPLETION TIME:**   **279 Working days from the Start Work Date from**  
                                  **the Department (includes 65 working days for**  
                                  **no night work allowed between**  
                                  **September 15 through December 15).**

**DBE PROJECT GOAL:**   **5.9%**

**DESIGN PROJECT MANAGER:**

<b>NAME</b>	<b>Steven Yoshida</b>
<b>ADDRESS</b>	<b>601 Kamokila Boulevard, Room 601</b>
<b>PHONE NO.</b>	<b>(808) 692-7679</b>
<b>FAX NO.</b>	<b>(808) 692-7690</b>

**ELECTRONIC SUBMITTAL:**    **Bidders shall submit and upload the complete**  
  **proposal to HlePRO prior to the bid opening**  
  **date and time. Any additional support**  
  **documents explicitly designated as confidential**  
  **and/or proprietary shall be uploaded as a**  
  **separate file to HlePRO. See SPECIAL**  
  **PROVISIONS Subsection 102.09 - DELIVERY OF**  
  **PROPOSAL for complete details. FAILURE TO**  
  **UPLOAD THE COMPLETE PROPOSAL TO**  
  **HlePRO SHALL BE GROUNDS FOR REJECTION**  
  **OF THE BID.**

Director of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Sir:

The undersigned Bidder declares the following:

1. It has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.
2. It has not been assisted or represented on this matter by any individual who has, in a State capacity, been involved in the subject matter of this contract within the past two years.
3. It has not and will not, either directly or indirectly offered or given a gratuity (i.e., an entertainment or gift) to any State or County employee to obtain a contract or favorable treatment under a contract.
4. It will not maintain for its employees any segregated facilities at any of its establishments.
5. Does not and will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained.

The undersigned Bidder further agrees to the following:

1. If this proposal is accepted, it shall execute a contract with the Department to provide all necessary labor, machinery, tools, equipment, apparatus and any other means of construction, to do all the work and to furnish all the materials specified in the contract in the manner and within the time therein prescribed in the contract, and that it shall accept in full payment therefore the sum of the unit and/or lump sum prices as set forth in the attached proposal schedule for the actual quantities of work performed and materials furnished and furnish satisfactory security in accordance with Section 103D-324, Hawaii Revised Statutes, within 10 days after the award of the contract or within such time as the Director of Transportation may allow after the undersigned has received the contract documents for execution, and is fully aware that non-compliance with the aforementioned terms will result in the forfeiture of the full amount of the bid guarantee required under Section 1032D-323, Hawaii Revised Statutes.
2. That the quantities given in the attached proposal schedule are approximate only and are intended principally to serve as a guide in determining and comparing the bids.



3. That the Department does not either expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Director of Transportation, and that all increased or decreased quantities of work shall be performed at the unit prices set forth in the attached proposal schedule except as provided for in the specifications.
4. In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.
5. Unless amended by Special Provision, agrees to begin work within 10 working days after the date of notification to commence with the work, which date is in the notice to proceed, and shall finish the entire project within the time prescribed.
6. The Director of Transportation reserves the right to reject any or all bids and to waive any defects when in the Director's opinion such rejections or waiver will be for the best interest of the public.

The Bidder acknowledges receipt of and certifies that it has completely examined the following listed items: Hawaii Standard Specifications for Road and Bridge Construction, 2005, and/or the General Provisions for Construction Projects for AIR and WATER Transportation Facilities Division dated 2016, as applicable, the Notice to Bidders, Special Provisions, Proposal, Contract, Bond Forms, and Project Plans.

In accordance with Section 103D-323, Hawaii Revised Statutes, this proposal is accompanied with a bid security in the amount of 5% of the total amount bid, in the form checked below. (Check applicable bid security submitted with bid.)

\_\_\_\_\_ Surety Bid Bond (Use standard form),

\_\_\_\_\_ Cash,

\_\_\_\_\_ Cashier's Check,

\_\_\_\_\_ Certified Check, or

\_\_\_\_\_ (Fill in other acceptable security.)

The undersigned Bidder acknowledges receipt of any addendum issued by the Department by recording in the space below the date of receipt.

Addendum No. 1 \_\_\_\_\_ Addendum No. 3 \_\_\_\_\_

Addendum No. 2 \_\_\_\_\_ Addendum No. 4 \_\_\_\_\_

In accordance with Section 103D-302, Hawaii Revised Statutes, the undersigned as Bidder has listed the name of each person or firm who will be engaged by the Bidder on the project as Subcontractor or Joint Contractor and the nature of work to be done by each on the following page. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Subcontractor or Joint Contractor. For each listed firm, the Bidder declares the respective firm is a Subcontractor or Joint Contractor and is subject to evaluation as a Subcontractor or Joint Contractor. It is understood that failure to comply with the aforementioned requirements may be cause for rejection of the bid submitted.

The undersigned Bidder asserts that affirmative action has been taken to seek out and consider Disadvantaged Business Enterprises (DBEs) for portions of the work which can be subcontracted, and the affirmative actions of the Bidder are fully documented in its records and are available upon request by the Department. It is also understood that it must meet or exceed the DBE contract goal listed on page P-1 or demonstrate that it made good faith efforts to meet the DBE project goal. The undersigned as Bidder, agrees to utilize each participating DBE that it submitted to meet the contract goal of \_\_\_\_\_% (percentage to be completed by Bidder) DBE participation if the contract is awarded to it, and shall maintain such DBE participation during the construction of this project.

**SUBCONTRACTOR LISTING**  
(Attach additional sheets if necessary.)

	NAME OF FIRM	NATURE OF WORK
<b>SUBCONTRACTOR:</b>		
1.	_____	_____
	1a <sup>1</sup> . _____	_____
2.	_____	_____
	2a. _____	_____
3.	_____	_____
	3a. _____	_____
4.	_____	_____
	4a. _____	_____
5.	_____	_____
	5a. _____	_____
6.	_____	_____
	6a. _____	_____
7.	_____	_____
	7a. _____	_____

**NOTES:**

The Name of Firm and Nature of Work shall be indicated for all listed firms. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Sub- or Joint Contractor.

For each listed firm, the Bidder declares the respective firm is a Sub- or Joint Contractor and subject to evaluation as a Sub- or Joint Contractor.

\_\_\_\_\_

<sup>1</sup> Second tier subcontractors

**JOINT CONTRACTOR LISTING**  
 (Attach additional sheets if necessary.)

	NAME OF FIRM	NATURE OF WORK
<b>JOINT CONTRACTOR:</b>		
1.	_____	_____
	1a <sup>1</sup> . _____	_____
2.	_____	_____
	2a. _____	_____
3.	_____	_____
	3a. _____	_____
4.	_____	_____
	4a. _____	_____
5.	_____	_____
	5a. _____	_____
6.	_____	_____
	6a. _____	_____
7.	_____	_____
	7a. _____	_____

**NOTES:**

The Name of Firm and Nature of Work shall be indicated for all listed firms. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Sub- or Joint Contractor.

For each listed firm, the Bidder declares the respective firm is a Sub- or Joint Contractor and subject to evaluation as a Sub- or Joint Contractor.

\_\_\_\_\_

<sup>1</sup> Second tier joint contractors

The undersigned hereby certifies that the bid prices contained in the attached proposal schedule have been carefully checked and are submitted as correct and final.

This declaration is made with the understanding that the undersigned is subject to the penalty of perjury under the laws of the United States and is in violation of the Hawaii Penal Code, Section 710-1063, unsworn falsification to authorities, of the Hawaii Revised Statutes, for knowingly rendering a false declaration.

---

Bidder (Company Name)

---

Authorized Signature

---

Title

---

Business Address

---

Business Telephone

---

Email

---

Date

---

Contact Person (If different from above.)

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

NOTE:

If Bidder is a CORPORATION, the legal name of the corporation shall be set forth above, the corporate seal affixed, together with the signature(s) of the officer(s) authorized to sign contracts for the corporation. Please attach to this page current (not more than six months old) evidence of the authority of the officer(s) to sign for the corporation.

If Bidder is a PARTNERSHIP, the true name of the partnership shall be set forth above, with the signature(s) of the general partner(s). Please attach to this page current (not more than six months old) evidence of the authority of the partner authorized to sign for the partnership.

If Bidder is an INDIVIDUAL, the bidder's signature shall be placed above.

If signature is by an agent, other than an officer of a corporation or a partner of a partnership, a POWER OF ATTORNEY must be on file with the Department before opening bids or submitted with the bid. Otherwise, the Department may reject the bid as irregular and unauthorized.

**PROPOSAL SCHEDULE**

<b>ITEM NO.</b>	<b>ITEM</b>	<b>APPROX. QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>
201.0100	Clearing and Grubbing	900	S.Y.	\$ _____	\$ _____
201.0200	ISA Certified Arborist	F.A.	F.A.	F.A.	\$10,000.00
202.0101	Removal of Sign and Post	3	Each	\$ _____	\$ _____
202.1002	Removal of Sign	5	Each	\$ _____	\$ _____
202.2010	Removal of Asphalt Concrete Pavement	610	S.Y.	\$ _____	\$ _____
202.2020	Removal of P.C.C. Pavement	85	S.Y.	\$ _____	\$ _____
202.5030	Removal of Concrete Curb	275	S.Y.	\$ _____	\$ _____
202.5040	Removal of Concrete Curb and Gutter	320	L.F.	\$ _____	\$ _____
202.5050	Removal of Concrete Sidewalk and Curb Ramps	230	S.Y.	\$ _____	\$ _____
202.6060	Removal of Guardrail	380	L.F.	\$ _____	\$ _____
202.6070	Removal of Terminal Impact Attenuators	2	Each	\$ _____	\$ _____
202.6000	Removal of Traffic Signal System	L.S.	L.S.	L.S.	\$ _____
203.0100	Roadway Excavation	45	C.Y.	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, & Removal of BMP	L.S.	L.S.	L.S.	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	\$ <u>5,000.00</u>
219.0100	Determination and Characterization of Fill Material	L.S.	L.S.	L.S.	\$ _____
219.0200	Testing for Lead Based Paint	F.A.	F.A.	F.A.	\$ <u>4,000.00</u>
301.0100	Hot Mix Asphalt Base Course	15	Ton	\$ _____	\$ _____
304.0100	Aggregate Base Course	3	C.Y.	\$ _____	\$ _____
314.0100	Controlled Low-Strength Material	10	C.Y.	\$ _____	\$ _____
401.0100	PMA Pavement, Mix No. IV (with PG 64E-22)	60	Ton	\$ _____	\$ _____
411.0100	14-inch Concrete Pavement	65	S.Y.	\$ _____	\$ _____
507.0100	Stainless Steel Pipe Railing	L.S.	L.S.	L.S.	\$ _____
509.0100	Repair Concrete Delaminations and Spalls	7	S.F.	\$ _____	\$ _____
509.0200	Reinforcing Splices	14	Pound	\$ _____	\$ _____
511.0100	Furnishing Drilled Shaft Equipment	L.S.	L.S.	L.S.	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
511.0200	Obstruction	15	Hour	\$ _____	\$ _____
511.1024	Drilled Shaft (24-inch Diameter Shaft)	55	L.F.	\$ _____	\$ _____
511.1042	Drilled Shaft (42-inch Diameter Shaft)	60	L.F.	\$ _____	\$ _____
511.2024	Unclassified Shaft Excavation (24-inch Diameter)	55	L.F.	\$ _____	\$ _____
511.2042	Unclassified Shaft Excavation (42-inch Diameter)	60	L.F.	\$ _____	\$ _____
511.5000	Coring for Integrity Testing for Acceptable Drilled Shaft	40	L.F.	\$ _____	\$ _____
604.0100	Reconstruct Catch Basin No. 1	1	Each	\$ _____	\$ _____
604.0200	Reconstruct Catch Basin No. 2	1	Each	\$ _____	\$ _____
606.0100	Guardrail Type 3 – Beam Type Guardrail MASH Compliant	300	L.F.	\$ _____	\$ _____
606.0200	Hawaii MASH Transition Section	4	Each	\$ _____	\$ _____
606.0300	Median Barrier	44	L.F.	\$ _____	\$ _____
607.0100	4 - feet, Chain Link Fence	35	L.F.	\$ _____	\$ _____
617.0100	Imported Planting Soil	15	C.Y.	\$ _____	\$ _____



**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.0100	Verify Location of Existing Underground Utilities	F.A.	F.A.	F.A.	\$50,000.00
623.0200	Hawaiian Electric Company Service Connection Fees	F.A.	F.A.	F.A.	\$10,000.00
623.0100	Controller Assembly with Software	1	Each	\$ _____	\$ _____
623.0200	Type I Traffic Signal Standard, H = 10 Feet	5	Each	\$ _____	\$ _____
623.0301	Type II Traffic Signal Standard with 27-Foot Mast Arm mounted above Median Barrier	1	Each	\$ _____	\$ _____
623.0302	Type II Traffic Signal Standard with 28-Foot Mast Arm	1	Each	\$ _____	\$ _____
623.0303	Type II Traffic Signal Standard with 36-Foot Mast Arm mounted above Median Barrier	2	Each	\$ _____	\$ _____
623.0304	Type II Traffic Signal Standard with 37-Foot Mast Arm	1	Each	\$ _____	\$ _____
623.0400	Foundation for Controller Cabinet	1	Each	\$ _____	\$ _____
623.0501	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Type VI Mounting with Retroreflective Backplate)	10	Each	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.0502	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Programmable Visibility, Type VI Mounting with Retroreflective Backplate)	2	Each	\$ _____	\$ _____
623.0503	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Type IV Mounting)	3	Each	\$ _____	\$ _____
623.0504	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Programmable Visibility, Type IV Mounting)	1	Each	\$ _____	\$ _____
623.0505	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Type III Mounting)	2	Each	\$ _____	\$ _____
623.0506	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Programmable Visibility, Type III Mounting)	1	Each	\$ _____	\$ _____
623.0507	Traffic Signal Assembly (1-Way, 12-inch, 1-3 Section Vertical, Type I Mounting)	3	Each	\$ _____	\$ _____
623.0508	Pedestrian Signal Assembly (1-Way, 12-inch, One Vertical with Type IV Mounting)	8	Each	\$ _____	\$ _____
623.0601	Pedestrian Push Button with Instruction Sign	8	Each	\$ _____	\$ _____
623.0701	Type A Pull Box	12	Each	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.0702	Type B Pull Box	4	Each	\$ _____	\$ _____
623.0703	Special Type C Pull Box	8	Each	\$ _____	\$ _____
623.0801	Loop Detector Sensing Unit (6 FT x 6 FT) One Loop	6	Each	\$ _____	\$ _____
623.0802	Loop Detector Sensing Unit (6 FT x 6 FT) Two Loops	6	Each	\$ _____	\$ _____
623.0803	Loop Detector Sensing Unit (6 FT x 6 FT) Four Loops	3	Each	\$ _____	\$ _____
623.0804	Loop Detector Sensing Unit (6 FT x 6 FT) Six Loops	2	Each	\$ _____	\$ _____
623.0901	EVP Optical Receiver with Mast Arm Mounting	4	Each	\$ _____	\$ _____
623.1001	Traffic Signal Duct Line, One 2-inch Conduit, Schedule 40 PVC, Concrete Encased	245	L.F.	\$ _____	\$ _____
623.1002	Traffic Signal Duct Line, One 2-inch Conduit, Schedule 40 PVC, Reinforced Concrete Encased	15	L.F.	\$ _____	\$ _____
623.1003	Traffic Signal Duct Line, Two 2-inch Conduits, Schedule 40 PVC, Concrete Encased	75	L.F.	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.1004	Traffic Signal Duct Line, Two 2-inch Conduits, Schedule 40 PVC, Reinforced Concrete Encased	60	L.F.	\$ _____	\$ _____
623.1005	Traffic Signal Duct Line, Four 2-inch Conduits, Schedule 40 PVC, Concrete Encased	630	L.F.	\$ _____	\$ _____
623.1006	Traffic Signal Duct Line, Four 2-inch Conduits, Schedule 40 PVC, Reinforced Concrete Encased	125	L.F.	\$ _____	\$ _____
623.1007	Traffic Signal Ductline, Five 2-inch Conduits, Schedule 40 PVC, Concrete Encased	20	L.F.	\$ _____	\$ _____
623.1008	Traffic Signal Ductline, Seven 2-inch Conduits, Schedule 40 PVC, Concrete Encased	5	L.F.	\$ _____	\$ _____
623.1101	EVP Cable	1,400	L.F.	\$ _____	\$ _____
623.1102	No. 14, 2-Conductor Loop Detector Lead-in Cable	3,900	L.F.	\$ _____	\$ _____
623.1103	No. 14, 4-Conductor Signal Drop Cable	1,400	L.F.	\$ _____	\$ _____
623.1104	No. 14, 26-Conductor Traffic Control Cable	1,100	L.F.	\$ _____	\$ _____
623.1105	No. 6, 3-Conductor Power Cable	30	L.F.	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
624.0100	Water Meter Relocation	L.S.	L.S.	L.S.	\$ _____
625.0100	Concrete Jacket	11	L.F.	\$ _____	\$ _____
626.0100	Adjusting Sewer Manhole Frame and Cover	1	Each	\$ _____	\$ _____
629.0101	Removal of Pavement Markings for Detour Lanes	4,700	L.F.	\$ _____	\$ _____
629.0102	Removal of Pavement Markers for Detour Lanes	200	Each	\$ _____	\$ _____
629.0103	Removal of HOV Lane Marking for Detour Lanes	2	Each	\$ _____	\$ _____
629.0104	Removal of Pavement Word for Detour Lanes	2	Each	\$ _____	\$ _____
629.0105	Removal of Pavement Arrow for Detour Lanes	5	Each	\$ _____	\$ _____
629.0201	4-Inch Profiled Pavement Striping for Detour Lanes (Thermoplastic Extrusion), White	2,000	L.F.	\$ _____	\$ _____
629.0202	4-Inch Pavement Striping for Detour Lanes (Tape, Type I or Thermoplastic Extrusion), White	450	L.F.	\$ _____	\$ _____
629.0203	4-Inch Pavement Striping for Detour Lanes (Tape, Type I or Thermoplastic Extrusion), Yellow	1,450	L.F.	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.0204	4-Inch Pavement Striping for Detour Lanes (Tape, Type I or Thermoplastic Extrusion), Double Yellow	700	L.F.	\$ _____	\$ _____
629.0205	8-Inch Pavement Striping for Detour Lanes (Tape, Type I or Thermoplastic Extrusion) White	600	L.F.	\$ _____	\$ _____
629.0206	HOV Lane Marking for Detour Lanes (Tape, Type III or Thermoplastic Extrusion)	2	Each	\$ _____	\$ _____
629.0207	Pavement Words for Detour Lanes (Thermoplastic Extrusion)	2	Each	\$ _____	\$ _____
629.0208	Pavement Arrows for Detour Lanes (Tape, Type III or Thermoplastic Extrusion)	5	Each	\$ _____	\$ _____
629.0209	Type C Pavement Marker for Detour Lanes	110	Each	\$ _____	\$ _____
629.0210	Type D Pavement Marker for Detour Lanes	40	Each	\$ _____	\$ _____
629.0220	Type H Pavement Marker for Detour Lanes	40	Each	\$ _____	\$ _____
629.0301	4-Inch Profiled Pavement Striping (Thermoplastic Extrusion), White	2,200	L.F.	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.0302	4-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion), White	1,000	L.F.	\$ _____	\$ _____
629.0303	4-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion), Yellow	1,700	L.F.	\$ _____	\$ _____
629.0304	4-Inch Pavement Striping (Thermoplastic Extrusion), Double Yellow	800	L.F.	\$ _____	\$ _____
629.0305	8-Inch Pavement Striping (Tape, Type I or Thermoplastic Extrusion) White	760	L.F.	\$ _____	\$ _____
629.0306	12-Inch Pavement Striping (Tape, Type III or Thermoplastic Extrusion) White or Yellow	170	L.F.	\$ _____	\$ _____
629.0307	Crosswalk Marking (Thermoplastic Extrusion)	13	Lane	\$ _____	\$ _____
629.0308	HOV Lane Marking (Tape, Type III or Thermoplastic Extrusion)	2	Each	\$ _____	\$ _____
629.0309	Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)	12	Each	\$ _____	\$ _____
629.0310	Pavement Word (Thermoplastic Extrusion)	4	Each	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.0401	Type C Pavement Marker	110	Each	\$ _____	\$ _____
629.0402	Type D Pavement Marker	50	Each	\$ _____	\$ _____
629.0403	Type H Pavement Marker	50	Each	\$ _____	\$ _____
629.0404	Type F Pavement Marker	3	Each	\$ _____	\$ _____
630.0100	Street Name Sign	2	Each	\$ _____	\$ _____
630.0200	Street Name Sign on Traffic Signal Mast Arm	4	Each	\$ _____	\$ _____
631.0100	Regulatory Sign (10 Square Feet or Less)	6	Each	\$ _____	\$ _____
631.0200	Warning Sign (10 Square Feet or Less)	3	Each	\$ _____	\$ _____
632.0100	Type II Object Marker	10	Each	\$ _____	\$ _____
634.0100	Portland Cement Concrete Sidewalk	250	S.Y.	\$ _____	\$ _____
638.0100	Curb, Type 2A	260	L.F.	\$ _____	\$ _____
638.0200	Curb, Type 2D	15	L.F.	\$ _____	\$ _____
638.0300	Curb and Gutter, Type 2DG	310	L.F.	\$ _____	\$ _____



**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
641.0100	Hydro-Mulch Seeding (60 S.Y.)	L.S.	L.S.	L.S.	\$ _____
644.0100	Repair of Existing Sprinkler Systems	F.A.	F.A.	F.A.	\$ <u>25,000.00</u>
645.0100	Traffic Control	L.S.	L.S.	L.S.	\$ _____
645.2000	Additional Police Officers and/or Additional Control Device and Advertisement	F.A.	F.A.	F.A.	\$ <u>50,000.00</u>
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	\$ _____
650.0100	Curb Ramp, Type A	6	Each	\$ _____	\$ _____
650.0200	Curb Ramp, Type C	1	Each	\$ _____	\$ _____
650.0300	Detectable Warning Mat	8	Each	\$ _____	\$ _____
671.0100	Protection of Endangered Species	F.A.	F.A.	F.A.	\$ <u>10,000.00</u>
680.0100	Coordinate with HECO to Extend the Overhead Service to Underground to the New Meter Location, Complete	1	Each	\$ _____	\$ _____
680.0200	Provide New HECO 2-foot x 4-foot Handhole, Complete	1	Each	\$ _____	\$ _____

**PROPOSAL SCHEDULE**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
680.0300	Provide New 10"W x 12"H x 6"D Splice Can, Complete	1	Each	\$ _____	\$ _____
680.0400	Provide New Combination Meter/Main Meter Socket, Complete	1	Each	\$ _____	\$ _____
680.0500	Provide New Meter Pedestal, Complete	1	Each	\$ _____	\$ _____
680.0600	Provide Conduit, Conductors, Trench Excavation, Trench Backfill, and Concrete Encasement, Complete	100	L.F.	\$ _____	\$ _____
693.0100	HDOT Approved Terminal Impact Attenuator – MASH Compliant, TL-3	2	Each	\$ _____	\$ _____
696.0100	Maintenance of Trailers	F.A.	F.A.	F.A.	\$30,000.00
699.0100	Mobilization (Not to Exceed 6 Percent of the Sum of All Items Excluding the Bid Price of this Item)	L.S.	L.S.	L.S.	\$ _____

Total Amount for Comparison of Bids..... \$ \_\_\_\_\_

NOTES:

1. Bids shall include all Federal, State, County and other applicable taxes and fees.
2. The TOTAL AMOUNT FOR COMPARISON OF BIDS shall be used to determine the lowest responsible bidder.
3. Bidders shall complete all unit prices and amounts. Failure to do so shall be grounds for rejection of bid.
4. If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.
5. **Bidders shall submit and upload the complete proposal to HlePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HlePRO. Bidders shall not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HlePRO.**

**FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.**

If there is a conflict between the specification document and the HlePRO solicitation, the specifications shall govern and control, unless otherwise specified.

1 **PROPOSAL SCHEDULE**

2  
3 The bidder is directed to Subsection 105.16 – Subcontracts.

4  
5 The bidder's attention is directed to Sections 696 - Field Office and Project  
6 Site Laboratory and 699 - Mobilization for the limitation of the amount bidders are  
7 allowed to bid.

8  
9 If the bid price for any proposal item having a maximum allowable bid  
10 indicated therefore in any of the contract documents is in excess of such a  
11 maximum amount, the bid price for such proposal item shall be adjusted to reflect  
12 the limitation thereon. The comparison of bids to determine the successful bidder  
13 and the amount of contract to be awarded shall be determined after such  
14 adjustments are made, and such adjustments shall be binding upon the bidder.

15  
16 The bidder is directed to Section 717 – Cullet and Cullet-Made Materials  
17 regarding recycling of waste glass.

18  
19

**SURETY BID BOND**

Bond No. \_\_\_\_\_

KNOW ALL BY THESE PRESENTS:

That we, \_\_\_\_\_  
(Full name or legal title of offeror)

as Offeror, hereinafter called the Principal, and

\_\_\_\_\_  
(Name of bonding company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a Surety in the State of Hawaii, are held and firmly bound unto

\_\_\_\_\_  
(State/county entity)

as Owner, hereinafter called Owner, in the penal sum of

\_\_\_\_\_  
(Required amount of bid security)

Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS:**

The Principal has submitted an offer for \_\_\_\_\_

\_\_\_\_\_  
(Project by number and brief description)

**NOW, THEREFORE:**

The condition of this obligation is such that if the Owner shall reject said offer, or in the alternate, accept the offer of the Principal and the Principal shall enter into a contract with the Owner in accordance with the terms of such offer, and give such bond or bonds as may be specified in the solicitation or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof as specified in the solicitation then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

(Seal) \_\_\_\_\_  
Name of Principal (Offeror)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

(Seal) \_\_\_\_\_  
Name of Surety

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

SAMPLE FORMS

Contract

Performance Bond (Surety)

Performance Bond

Labor and Material Payment Bond (Surety)

Labor and Material Payment Bond

Disclosure of Lobbying Activities (Standard Form - LLL and LLL-A)

Statement of Compliance (Form WH-348)

Chapter 104, HRS Compliance Certificate

C O N T R A C T

THIS AGREEMENT, made this day \_\_\_\_\_, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE", and «CONTRACTOR», «STATE\_OF\_INCORPORATON», whose business/post office address is «ADDRESS» hereinafter referred to as "CONTRACTOR",

WITNESSETH: That for and in consideration of the payments hereinafter mentioned, the CONTRACTOR hereby covenants and agrees with the STATE to complete in place, furnish and pay for all labor and materials necessary for

“«PROJECT\_NAME\_AND\_NO»”,

or such a part thereof as shall be required by the STATE, the total amount of which labor, materials and construction shall be computed at the unit and/or lump sum prices set forth in the attached proposal schedule and shall be the sum of «BASIC»----- DOLLARS

(\$«BASIC\_NUMERIC») as follows:

TOTAL AMOUNT FOR COMPARISON OF BIDS.....\$«BASIC\_NUMERIC»

which shall be provided from the following funds:

Federal Funds.....  
State Funds.....  
TOTAL AMOUNT.....

all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal and plans for «PROJECT NO ONLY», and any supplements thereto, on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, and additions thereto and deductions therefrom, are attached hereto or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to complete such construction within «WORKING DAYS», from the date indicated in the notice to proceed from the STATE, subject, however, to such extensions as may be provided for under the specifications.

For and in consideration of the covenants, undertakings and agreements of the CONTRACTOR herein set forth and upon the full and faithful performance thereof by the CONTRACTOR, the STATE hereby agrees to pay the CONTRACTOR the sum of «BASIC»-----DOLLARS (\$«BASIC NUMERIC») in lawful money, but not more than such part of the same as is actually earned according to the STATE's determination of the actual quantities of work performed and materials furnished by the CONTRACTOR at the unit or lump sum prices set forth in the attached proposal schedule. Such payment, including any extras, shall be made, subject to such additions or deductions hereto or hereafter made in the manner and at the time prescribed in the specifications and this contract.

An additional sum of «EXTRAS»-----DOLLARS (\$«EXTRA NUMERIC») is hereby provided for extra work and shall be provided from the following funds:



Federal Funds.....  
State Funds.....  
Total.....

Where Federal funds are involved, it is covenanted and agreed by and between the parties hereto that the sum of ----«FEDERAL\_BASIC»----DOLLARS (\$«FEDERAL\_BASIC\_NUMERIC») and ----«FEDERAL\_EXTRAS»----DOLLARS (\$«FEDERAL\_EXTRAS\_NUMERIC»), a portion of the contract price and extras, respectively, shall be paid out of the applicable Federal funds, and that this contract shall be construed to be an agreement to pay said sums to the Contractor only out of the aforesaid Federal funds if and when such Federal funds shall be received from the Federal Government, and that this contract shall not be construed to be a general agreement to pay said portions at all events out of any funds other than those which may be so received from the Federal Government; provided, that if the Federal share of the cost of the project is not immediately forthcoming from the Federal Government, the STATE may advance the CONTRACTOR the anticipated Federal reimbursement of the cost of the completed portions of the work from funds which have been appropriated by the STATE for its pro rata share.

All words used herein in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. The use of any gender shall extend to and include all genders.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

STATE OF HAWAII

\_\_\_\_\_  
Director of Transportation

«CONTRACTOR»

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name

\_\_\_\_\_  
Print Title

\_\_\_\_\_  
Date

**PERFORMANCE BOND (SURETY)**  
(6/21/07)

**KNOW TO ALL BY THESE PRESENTS:**

That \_\_\_\_\_,  
*(Full Legal Name and Street Address of Contractor)*

as Contractor, hereinafter called Principal, and \_\_\_\_\_  
\_\_\_\_\_  
*(Name and Street Address of Bonding Company)*

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a  
surety in the State of Hawaii, are held and firmly bound unto the \_\_\_\_\_,  
*(State/County Entity)*

its successors and assigns, hereinafter called Obligee, in the amount of \_\_\_\_\_

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), to which payment Principal and Surety bind themselves,  
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by  
these presents.

**WHEREAS**, the above-bound Principal has signed a Contract with Obligee on  
\_\_\_\_\_, for the following project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter called Contract, which Contract is incorporated herein by reference and made a part  
hereof.

**NOW THEREFORE**, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in  
strict accordance with the terms of the Contract as said Contract may be modified or amended  
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblige to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Oblige in satisfaction of the surety's performance obligation on this bond.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal)

\_\_\_\_\_  
Name of Principal (Contractor)

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

(Seal)

\_\_\_\_\_  
Name of Surety

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**\*ALL SIGNATURES MUST BE ACKNOWLEDGED  
BY A NOTARY PUBLIC**

# PERFORMANCE BOND

## KNOW ALL BY THESE PRESENTS:

That we, \_\_\_\_\_  
(full legal name and street address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

(State/County entity)

its successors and assigns, as Obligee, hereinafter called Obligee, in the amount

\_\_\_\_\_ DOLLARS  
(\$ \_\_\_\_\_),  
(Dollar amount of Contract)

lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heir, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

**Legal Tender;**

**Share Certificate** unconditionally assigned to or made payable at sight to \_\_\_\_\_

Description: \_\_\_\_\_;

**Certificate of Deposit, No.** \_\_\_\_\_, dated \_\_\_\_\_, issued \_\_\_\_\_ by \_\_\_\_\_

drawn on \_\_\_\_\_ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**Cashier's Check No.** \_\_\_\_\_, dated \_\_\_\_\_, drawn \_\_\_\_\_ on \_\_\_\_\_

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**Teller's Check No.** \_\_\_\_\_, dated \_\_\_\_\_, drawn \_\_\_\_\_ on \_\_\_\_\_

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**Treasurer's Check No.** \_\_\_\_\_, dated \_\_\_\_\_, drawn \_\_\_\_\_ on \_\_\_\_\_

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**Official Check No.** \_\_\_\_\_, dated \_\_\_\_\_, drawn \_\_\_\_\_ on \_\_\_\_\_

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**Certified Check No.** \_\_\_\_\_, dated \_\_\_\_\_, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**WHEREAS:**

The Contractor has by written agreement dated \_\_\_\_\_ entered into a contract with Obligee for the following Project: \_\_\_\_\_

\_\_\_\_\_ hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

**NOW THEREFORE,**

The Condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

**AND IT IS HEREBY STIPULATED AND AGREED** that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal) \_\_\_\_\_  
Name of Contractor

\* \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\*ALL SIGNATURES MUST BE  
ACKNOWLEDGED BY A NOTARY PUBLIC

**LABOR AND MATERIAL PAYMENT BOND (SURETY)**  
(6/21/07)

**KNOW TO ALL BY THESE PRESENTS:**

That \_\_\_\_\_,  
*(Full Legal Name and Street Address of Contractor)*

as Contractor, hereinafter called Principal, and \_\_\_\_\_  
\_\_\_\_\_  
*(Name and Street Address of Bonding Company)*

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety in the State of Hawaii, are held and firmly bound unto the \_\_\_\_\_,  
*(State/County Entity)*

its successors and assigns, hereinafter called Oblige, in the amount of \_\_\_\_\_

\_\_\_\_\_ Dollars (\$\_\_\_\_\_), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the above-bound Principal has signed Contract with the Oblige on \_\_\_\_\_ for the following project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

**NOW THEREFORE**, the condition of this obligation is such that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor and materials supplied to the Principal for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligee's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal)

\_\_\_\_\_  
Name of Principal (Contractor)

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

(Seal)

\_\_\_\_\_  
Name of Surety

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**\*ALL SIGNATURES MUST BE ACKNOWLEDGED  
BY A NOTARY PUBLIC**



# LABOR AND MATERIAL PAYMENT BOND

## KNOW ALL BY THESE PRESENTS:

That we, \_\_\_\_\_  
(full legal name and street address of Contractor)  
as Contractor, hereinafter called Contractor, is held and firmly bound unto \_\_\_\_\_  
(State/County entity)  
its successors and assigns, as Obligee, hereinafter called Obligee, in the amount  
\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_),  
(Dollar amount of Contract)

lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heir, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- Legal Tender;**
  
- Share Certificate** unconditionally assigned to or made payable at sight to \_\_\_\_\_  
Description: \_\_\_\_\_
  
- Certificate of Deposit, No.** \_\_\_\_\_, dated \_\_\_\_\_  
issued by \_\_\_\_\_  
drawn on \_\_\_\_\_  
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;
  
- Cashier's Check No.** \_\_\_\_\_, dated \_\_\_\_\_  
drawn on \_\_\_\_\_  
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;
  
- Teller's Check No.** \_\_\_\_\_, dated \_\_\_\_\_  
drawn on \_\_\_\_\_  
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;
  
- Treasurer's Check No.** \_\_\_\_\_, dated \_\_\_\_\_  
drawn on \_\_\_\_\_  
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;
  
- Official Check No.** \_\_\_\_\_, dated \_\_\_\_\_  
drawn on \_\_\_\_\_  
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;
  
- Certified Check No.** \_\_\_\_\_, dated \_\_\_\_\_  
accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to \_\_\_\_\_;

**WHEREAS:**

The Contractor has by written agreement dated \_\_\_\_\_ entered into a contract with Obligee for the following Project: \_\_\_\_\_ hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

**NOW THEREFORE,**

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

**AND IT IS HEREBY STIPULATED AND AGREED** that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

**AND IT IS HEREBY STIPULATED AND AGREED** that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payments of mechanics' liens which may be filed of record against the Project, whether or not claim for the amount of such lien be presented under and against this bond.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal) \_\_\_\_\_  
Name of Contractor

\* \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\*ALL SIGNATURES MUST BE  
ACKNOWLEDGED BY A NOTARY PUBLIC

**DISCLOSURE OF LOBBYING ACTIVITIES**  
 Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352  
 (See reverse for public burden disclosure.)

Approved by  
 0348-0046

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> :  Congressional District, <i>if known</i> :		5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime  Congressional District, <i>if known</i> :
6. Federal Department/Agency:	7. Federal Program Name/Destination:  CFDA Number, <i>if applicable</i> :	
8. Federal Action Number, <i>if known</i> :	9. Award Amount, <i>if known</i> : \$	
10. a. Name and address of Lobbying Entity (if individual, last name, first name, MI):		b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):
(attach Continuation Sheet(s) SF-LLL-A, if necessary)		
11. Amount of Payment ( <i>check all that apply</i> ): \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment ( <i>check all that apply</i> ): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
12. Form of Payment ( <i>check all that apply</i> ): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____		
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employees(s) or Member(s) contacted, for Payment Indicated in Item 11:   (attach Continuation Sheet(s) SF-LLL-A, if necessary)		
15. Continuation Sheet(s) SF-LLL-A attached: <input type="checkbox"/> Yes <input type="checkbox"/> No		
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL

## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal Agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10.
  - (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
  - (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) or Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction (0348-0046), Washington, D.C. 20503.

DISCLOSURE OF LOBBYING ACTIVITIES  
CONTINUATION SHEET

Approved by  
0348-0046

Reporting Entity: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

STATEMENT OF COMPLIANCE

Date \_\_\_\_\_

I, \_\_\_\_\_ do hereby state:

(Name of signatory party) (Title)  
(1) That I pay or supervise the payment of the persons employed by \_\_\_\_\_ on  
(Contractor or subcontractor)  
the \_\_\_\_\_; that during the payroll period commencing on the \_\_\_\_\_ day of \_\_\_\_\_,  
(Building or work)  
\_\_\_\_\_ and ending the \_\_\_\_\_ day of \_\_\_\_\_, all persons employed on said project have been paid the  
full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said  
\_\_\_\_\_ from the full weekly wages earned by any person and that no deductions have  
(Contractor or subcontractor)  
been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in  
Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948.63  
Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 2760), and described below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborers or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above-  
Referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to  
appropriate program for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

Each Laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll, an  
amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe  
benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARK	

NAME AND TITLE	SIGNATURE
THE WILFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.	

## INSTRUCTIONS FOR PREPARATION OF STATEMENT OF COMPLIANCE

This statement of compliance meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay fringe benefits as predetermined by the Department of Labor, in addition to payment of the minimum rates. The contractor's obligation to pay fringe benefits may be met by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

The contractor should show on the face of his payroll all monies paid to the employees whether as basic or as cash in lieu of fringes. The contractor shall represent in the statement of compliance that he is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions follow:

### Contractors who pay all required fringe benefits:

A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor shall continue to show on the face of his payroll the basic cash hourly rate and overtime rate paid to his employees, just as he has always done. Such a contractor shall check paragraph 4(a) of the statement to indicate that he is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exception shall be noted in Section 4(c).

### Contractors who pay no fringe benefits:

A contractor who pays no fringe benefits shall pay to the employee and insert in the straight time hourly rate column of his payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on the basic or regular rate plus the required cash in lieu of fringes at the straight time rate. To simplify computation of overtime, it is suggested that the straight time basic rate and cash in lieu of fringes be separately stated in the hourly rate column, thus \$3.25/.40. In addition, the contractor shall check paragraph 4(b) of the statement to indicate that he is paying fringe benefits in cash directly to his employees. Any exceptions shall be noted in Section 4(c).

### Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employees as cash in lieu of fringes, and the hourly amount paid to plans, funds, or programs as fringes.

CHAPTER 104, HRS COMPLIANCE CERTIFICATE

The undersigned bidder does hereby certify to the following:

1. Individuals engaged in the performance of the contract on the job site shall be paid:

A. Not less than the wages that the director of labor and industrial relations shall have determined to be prevailing for corresponding classes of laborers and mechanics employed on public works projects; and

B. Overtime compensation at one and one-half times the basic hourly rate plus fringe benefits for hours worked on Saturday, Sunday, or a legal holiday of the State or in excess of eight hours on any other day.

2. All applicable laws of the federal and state governments relating to workers' compensation, unemployment compensation, payment of wages, and safety shall be fully complied with.

DATED at Honolulu, Hawaii, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
«CONTRACTOR»  
Name of Corporation, Partnership, or Individual  
\_\_\_\_\_  
Signature and Title of Signer

Notary Seal  
NOTARY ACKNOWLEDGEMENT  
  
Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_  
Notary signature \_\_\_\_\_  
Notary public, State of \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

Notary Seal  
NOTARY CERTIFICATION  
  
Doc. Date: \_\_\_\_\_ #Pages: \_\_\_\_\_  
Notary Name: \_\_\_\_\_ Circuit \_\_\_\_\_  
Doc. Description: \_\_\_\_\_  
\_\_\_\_\_  
Notary signature \_\_\_\_\_  
Date \_\_\_\_\_