Contract # 55211

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII

SPECIAL PROVISIONS PROPOSAL, CONTRACT, AND BOND

FOR

MAMALAHOA HIGHWAY

PAVEMENT PREVENTIVE MAINTENANCE

PUU WAAWAA RANCH TO PUUANAHULU

PROJECT NO. 190BC-02-06M

DISTRICT OF NORTH KONA

ISLAND OF HAWAII

FY 2006

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

MAMALAHOA HIGHWAY
PAVEMENT PREVENTIVE MAINTENANCE
PUUWAAWAA RANCH TO PUUANAHULU

PROJECT NO. 190BC-02-06M

DISTRICT OF NORTH KONA

ISLAND OF HAWAII

FY2006

A. SPECIAL PROVISIONS

1. Amend **407.03 (D)** first paragraph to read as follows:

   "**(D) Application of Tack Coat.** Use the tack coat undiluted. Submit the quantity, rate of application, temperature, and areas to be treated for acceptance before applying the tack coat."

2. Amend **645.03 (F)** first paragraph to read as follows:

   "**(F) Lane Closures.** Lane closures will be allowed only from 8:30 a.m. to 3:30 p.m., Monday through Friday. Exceptions to lane closure hours specified require written acceptance by the Engineer. No increase in contract price or contract time will be given for lane closure restrictions specified."

B. PLANS

1. Amend Plan Sheet **3** by adding the following notes under "General Notes":

   "18. Contractor is apprised of the proposed channelization of the Big Island Country Club entrance, vicinity of Mile Post 20, timetable unknown. Contractor shall coordinate activities, as necessary, to minimize inconvenience to public traffic.

19. Contractor's attention is called to Sheet **7**, Detailed Plan for New Pullout, widened shoulder locations."

2. Amend Plan Sheet **7** as follows:

   a. Add the following notes under TYPICAL SECTION:
   "Notes:
   1. The Contractor shall grade and compact with on-site windrowed cold-planed materials all 1½" dropoffs along the edge of the shoulders. This work shall be incidental to Pay Item 401.0400 - Asphalt Concrete Pavement, Mix No. IV.

   2. Should there be insufficient cold-planed material for compacting and grading the edge of shoulder, the Contractor will use AC Mix V as directed by the Engineer. This work shall be incidental to Pay Item 401.0500 - Asphalt Concrete Pavement, Mix No. V.

   3. The Contractor shall maintain a slope not to exceed 16.7% at the edge of shoulder at all times.

   4. The Contractor shall pave 3 feet of shoulder as required on the plans. In areas where existing paved shoulder exceeds 3 feet, the Contractor shall be required to pave more than 3 feet up to the existing edge of shoulder. In some areas where the existing paved shoulder cannot be more than 3 feet, the Contractor shall be required to pave up to the existing edge of shoulder as directed by the Engineer. This work shall be incidental to Pay Item 401.0400 - Asphalt Concrete Pavement, Mix No. IV."

   b. Change line 3 Note, under DETAILED PLAN FOR NEW PULLOUT from "**Sta. 628+40 Rt. to Sta. 629+50 Rt. ** 110 ft.**" to "**Sta. 628+40 Rt. to Sta. 629+50 Rt. ** 86 ft.**"

   c. Add the following note under PULLOUT PAVEMENT DETAIL:
   "Note:
   As directed by the Engineer, the Contractor shall apply AC Mix V as a leveling course at designated pullout areas before applying AC Mix IV."

C. PROPOSAL SCHEDULE

Replace the Proposal Schedule pages P-13 to P-14 dated r06/14/05 with the attached Proposal Schedule pages P-13 to P-14 dated r06/01/06.

D. PRE-BID CONFERENCE MINUTES

Attached are the May 30, 2006 Pre-Bid Conference Minutes for your information.

Please acknowledge receipt of this Addendum No. 1 by recording the date of its receipt in the space provided on Page P-4 of the Proposal.

RODNEY K. HARAGA
Director of Transportation

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$_____
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$20,000.00
401.0400	Asphalt Concrete Pavement, Mix No. IV	7100	Ton	$_____	$_____
401.0500	Asphalt Concrete Pavement, Mix No. V	1600	Ton	$_____	$_____
613.0110	Adjusting Centerline and Reference Survey Monuments	23	Each	$_____	$_____
621B.0110	Regulatory and Warning Signs (10 Square Feet or Less)	L.S.	L.S.	L.S.	$_____
621B.0120	Regulatory and Warning Signs (More than 10 Square Feet)	L.S.	L.S.	L.S.	$_____
621B.6110	Route Marker Sign	L.S.	L.S.	L.S.	$_____
621C.0120	Reflector Marker (RM-2) with White Flexible Post	L.S.	L.S.	L.S.	$_____
621C.0130	Reflector Marker (RM-3) with Yellow Flexible Post	L.S.	L.S.	L.S.	$_____
621C.0230	Reflector Marker (RM-3) (Bi-Dir) with Yellow Flexible Post	L.S.	L.S.	L.S.	$_____
621C.7610	Mile Post Marker with Post (Bi-Directional)	L.S.	L.S.	L.S.	$_____
629.1011	4-inch Pavement Striping, Yellow (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1013	4-inch Pavement Striping, White (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1018	4-inch Double Pavement Striping, Yellow (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.2030	Type C Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2040	Type D Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2070	Type H Pavement Markers	L.S.	L.S.	L.S.	$_____
629.2080	Type J Pavement Markers	L.S.	L.S.	L.S.	$_____
636.0100	Field Office Trailer (Not to exceed $32,000.00)	L.S.	L.S.	L.S.	$_____
645.0100	Traffic Control	L.S.	L.S.	L.S.	$_____
645.0200	Additional Police Officers, Additional Control Devices, and Advertisement	F.A.	F.A.	F.A.	$40,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$_____
652.0100	Cold Planing	L.S.	L.S.	L.S.	$_____
699.0100	Mobilization (Not to Exceed 10 Percent of the Sum of All Items Excluding the Bid Price of this Item, Field Office, and Force Account Items)	L.S.	L.S.	L.S.	$_____
Sum of All Items					$_____

Note: Bidders must complete all unit prices and amounts.
Failure to do so may be grounds for rejection of bid.

DOT 1-026
(Dir 2/65)

DEPARTMENT OF TRANSPORTATION

MEMORANDUM FOR THE RECORD

DATE: May 30, 2006

HIGHWAYS
DIVISION

HAWAII DISTRICT
BRANCH OR SECTION

==========

PURPOSE OF MEETING: PRE-BID CONFERENCE for:
Mamalahoa Highway Pavement Preventive Maintenance
Puu Waawaa Ranch to Puuanahulu
District of North Kona
Island of Hawaii
190BC-02-06M

DATE, TIME & PLACE:
May 30, 2006, 9:00 A.M., HAWAII DISTRICT OFFICE, 50 Makaala Street, Hilo, HI

PARTICIPANTS:
Kevin Yamabashi, Grace Pacific Corp.
Dennis Yokomizo, Jas W. Glover, Ltd.
Roy Shioji, State Highways Division
Francis Perez, State Highways Division

BRIEF SUMMARY OF MEETING:

The meeting was called to order at 9:06 a.m. (Note: Project No. 190B-02-04M was held at the same date, time and place).

State gave a brief description of the project. Then the meeting was opened for questions and comments.

1. Proposal Schedule: Item No. 209.0100 Installation, Maintenance, Monitoring, and Removal of BMP. What is included in this lump sum item? RESPONSE: BMP's or mitigation measures are highly dependent on individual contractors. NOI/NPDES permits are not required for these two projects. POST NOTE: If the Contractor's staging area(s) and pullout areas exceed 1 acre, then an NPDES Permit is required.

2. Plan Sheet No. 7: Made comment on the 1 ½" dropoff along the edge of the shoulder. Details were not clear on how the edge of the shoulder be treated by the Contractor. RESPONSE: Acknowledged the question and State will address the issue and clarify work by Addendum.

3. Plan Sheet No. 7: Asked for the interpretation of "3-feet minimum" shoulder width. Asked if there is any excavation work to be done? RESPONSE: State will clarify by Addendum "3-feet minimum" shoulder as called for in the plans. For Project 190BC-02-06M, there is no excavation work to be performed by the Contractor.

4. Plan Sheet No. 9: Made comment on some wide shoulder locations. Asked whether the Contractor will pave more than 3-feet of shoulder as part of the plan. RESPONSE: State will clarify and addressed this issue by Addendum.

5. Section 645: Made comment on page 645-6a regarding Lane Closures window time. Requested for a change of end time, that is, until 3:30 p.m. instead of 3:00 p.m. Response: Agreed, end time will be changed to 3:30 p.m. and it will be put in the forth coming Addendum.

6. Section 645: Made comment on page 645-2a regarding who will furnish 2 Police Officers in the Traffic Control Plan. RESPONSE: This is the Contractor's responsibility.

7. Section 407: Made comment on page 407-1a regarding actual dilution of Tack Coat. RESPONSE: For Project Number 190BC-02-06M, Tack Coat should not be diluted and therefore, Special Provisions will be revised and changes will be put in the addendum.

8. Plan Sheet 7: Asked if Contractor will apply AC Mix V (leveling) on the pullout areas before putting AC Mix IV. Details not specified in the plans. RESPONSE: Noted down the question, and state will address this issue by Addendum.

9. Plan Sheet 7: Made comment on Note under DETAILED PLAN FOR NEW PULLOUT. Last note had length discrepancy. RESPONSE: State will fix discrepancy and the change will be included in the forthcoming Addendum.

10. SECTION 636: Made a comment on the materials used for Field Office. Does Trailer need to be new? RESPONSE: Contractor should bid according to Specifications.

The meeting was adjourned at 10:15 a.m.

Signed F Perez

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DIVISION 600 - INCIDENTAL CONSTRUCTION		
Section	**Description**	**Pages**
613	Centerline and Reference Survey Monuments	613-1a – 613-3a
621B	Traffic Control Regulatory, Warning, and Miscellaneous Signs	621B-1h – 621B-3h
621C	Markers	621C-1a – 621C-2a
629	Pavement Markings	629-1a – 629-10a
636	Field Office and Project Site Laboratory Trailer	636-1a – 636-6a
645	Work Zone Traffic Control Devices	645-1a – 645-17a
648	Field-Posted Drawings	648-1a
652	Cold Planing Of Existing Pavement	652-1a – 652-2a
699	Mobilization	699-1a – 699-2a

DIVISION 700 – MATERIALS		
Section	**Description**	**Pages**
702	Bituminous Materials	702-1a
703	Aggregates	703-1a – 703-7a
712	Miscellaneous	
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	Reflective Thermoplastic Compound Pavement Markings	712.55-1a
713	Structural Steel And Related Material	713-1a – 713-3a
717	Cullet And Cullet-Made Materials	717-1a – 717-2a

Requirements of Chapter 104, HRS
Wages and Hours of Employees on Public Works Law

Proposal Title Page

Proposal ..... P-1 – P-12

Proposal Schedule ..... P-13 – P-15

Supplement to Proposal Schedule ..... P-16 – P-18

Surety Bid Bond

Sample Form Title Page

Contract

Performance Bond (Surety)

Performance Bond

Labor and Material Payment Bond (Surety)

Labor and Material Payment Bond

Chapter 104, HRS Compliance Certificate

Certification of Compliance for Final Payment

NOTICE TO BIDDERS

(Chapter 103D, HRS)

SEALED BIDS for:

Mamalahoa Highway
Pavement Preventive Maintenance
Puu Waawaa Ranch to Puuanahulu
Project No. 190BC-02-06M
District of North Kona
Island of Hawaii

will be received at the:

__√__ Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813,

__√__ Office of the District Engineer - Hawaii, 50 Makaala Street, Hilo, Hawaii 96720

until 2:00 P.M., June 15, 2006, at which time and place(s) they will be publicly opened and read.

The project consists of leveling and resurfacing the existing pavement; cold planning transitions; and replacing and installing signs, pavement striping, and reflector markers.

Plans and specifications may be examined and borrowed at the appropriate offices. Borrowed plans and specifications shall be returned in good condition within 30 calendar days after the bid opening date.

A pre-bid conference is set for 9:00 A.M., May 30, 2006, at the Highways Division, Hawaii District Office, 50 Makaala Street, Hilo, Hawaii 96720. All prospective bidders or their representatives (employees) are encouraged to attend, but attendance is not mandatory.

Persons needing special accommodations at the pre-bid conference due to a disability may contact Robert Taira, Project Manager, by phone at (808) 933-8866 or by facsimile at (808) 933-8866.

To be eligible to bid, bidders must possess a valid State of Hawaii General Engineering Contractor's "A" license.

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of Section 11-205.5, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

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 will affirmatively ensure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the grounds of race, color, national origin and sex (as directed by 23 CFR Part 200).

In accordance with Section 3-124-4, Hawaii Administrative Rules, the Hawaii Products Preference is applicable to this project. The Hawaii Product List may be examined at the State Procurement Office, Kalanimoku Building, 1151 Punchbowl Street, Honolulu, Hawaii 96813.

Each proposal shall be on a form furnished by said Department.

Estimated construction cost is between $1.5 and $2 million.

For additional information on this project, contact Mr. Robert Taira at (808) 933-8866, 50 Makaala St., Hilo, HI 96720.

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

RODNEY K. HARAGA
Director of Transportation

Internet Posting: May 18, 2006

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.

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, Bridge, and Public Works Construction, 1994, hereinafter referred to as the "Standard Specifications".

Amend **Section 101 - Definitions and Terms** to read as follows:

"SECTION 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS

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

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

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

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AGC	Associated General Contractors of America
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association
ARA	American Railway Association
AREA	American Railway Engineering Association

ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
BMP	Best Management Practice
CCO	Contract Change Order
CFR	Code of Federal Regulations
CRSI	Concrete Reinforcing Steel Institute
DCAB	Disability and Communication Access Board, Department of Health, State of Hawaii
DOTAX	Department of Taxation, State of Hawaii
DOTAX	State Department of Taxation
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration, U.S. Department of Transportation
FSS	Federal Specifications and Standards, General Services Administration, U.S. Department of Defense
HAR	Hawaii Administrative Rules
HDOT	Department of Transportation, State of Hawaii
HIOSH	Occupational Safety and Health, Department of Labor and Industrial Relations, State of Hawaii

HRS	Hawaii Revised Statutes
ICEA	Insulated Cable Engineers Association (formerly IPCEA)
IMSA	International Municipal Signal Association
IRS	Internal Revenue Service
ITE	Institute of Transportation Engineers
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways, FHWA, U.S. Department of Transportation
NCHRP	National Cooperative Highway Research Program
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Forest Products Association
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration/Act, U.S. Department of Labor
SAE	Society of Automotive Engineers
SI	International Systems of Units
UFAS	Uniform Federal Accessibility Standards
UL	Underwriter's Laboratory
USGS	U.S. Geological Survey
VECP	Value Engineering Cost Proposal

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

Addendum (plural - Addenda) - A written or graphic document, including drawings and specifications, issued by the Director during the bidding period.

This document modifies or interprets the bidding documents by additions, deletions, clarifications or corrections.

Addition (to the contract sum) - Amount added to the contract sum by change order.

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

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

Award - Written notification to the bidder that the bidder has been awarded a contract.

Bad Weather Day (or Unworkable Day) - A calendar day when weather or other conditions prevent a minimum of four hours of work with the Contractor's normal work force on controlling items of work at the site.

Bag – 94 pounds of cement.

Barrel – 376 pounds of cement.

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

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

Bid - See Proposal

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

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

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

Blue Book – "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch, A Premedia Business Directories and Book Group.

Calendar Day – See Day.

Change Order (or Contract Change Order) - A written order signed by the Engineer issued with or without the consent of the Contractor directing changes in the work, contract time or contract price. The purposes of a change order include, but is not limited to (i) establishing a price or time adjustment for changes in the work; (ii) establishing full payment for direct, indirect, and consequential costs, including costs of delay; (iii) establishing price adjustment or time adjustment for work covered and affected by one or more field orders; or (iv) settling Contractor's claims for direct, indirect, and consequential costs, or for additional contract time, in whole or in part.

Completion - See Substantial Completion and Final Completion.

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

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

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

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

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

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

Contract Price - The amount designated on the face of the contract for the performance of work.

Contract Time (or Contract Duration) - The number of calendar or working days provided for completion of the contract, inclusive of authorized time extensions. The number of days shall begin running on the effective date in the notice to proceed. If in lieu of providing a number of calendar or working days, the contract requires completion by a certain date, the work shall be completed by that date.

Contracting Officer – See Engineer.

Contractor – Any individual, partnership, firm, corporation, joint venture, or other legal entity undertaking the execution of the work under the terms of the contract with the State.

Critical Path – Longest logical sequence of activities that must be completed on schedule for the entire project to be completed on schedule.

Day - Any day shown on the calendar, beginning at midnight and ending at midnight the following day. If no designation of calendar or working day is made, "day" shall mean calendar day.

Department - The Department of Transportation of the State of Hawaii (abbreviated HDOT).

Director - The Director of the HDOT acting directly or through duly authorized representatives.

Drawings - The contract drawings in graphic or pictorial form including the notes, tables and other notations thereon indicating the design, location, character, dimensions and details of the work.

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

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

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

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

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

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

Hawaii Administrative Rules - Rules adopted by the State in accordance with Chapter 91 of the Hawaii Revised Statures.

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

Highways Division - The Highways Division of the Hawaii Department of Transportation constituted under the laws of Hawaii for the administration of highway work.

Holidays - The days of each year which are set apart and established as State holidays pursuant to HRS Chapter 8 as amended.

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

Laboratory - The testing laboratory of the Highways Division or other testing laboratories that may be designated by the Engineer.

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

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

Liquidated Damages - The amount prescribed in Subsection 108.09 - Liquidated Damages for Failure to Complete the Work or Portions of the Work on Time, to be paid to the State or to be deducted from any payments payable to or, which may become payable to the Contractor.

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

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

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

Notice to Proceed - Written notice from the Engineer to the Contractor identifying the date on which work is to begin. This date shall also be the beginning of contract time.

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

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

Payment Bond - The security executed by the Contractor and Surety or Sureties furnished to the State to guarantee payment by the Contractor to laborers, material suppliers and subcontractors in accordance with the terms of the contract.

Plans - See Drawings.

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

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

Project Guarantee - A guarantee issued by the Contractor to the State. See GUARANTEE.

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

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

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

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

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

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

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

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

Roadway – In general, the portion of a highway, including shoulders, for vehicular use. In construction specifications, the portion of a highway within the construction limits.

Saturated, Surface-Dry - Condition of an aggregate particle or other porous solid when the permeable voids are filled with water, but there is no water on the exposed surface.

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

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

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

Sidewalk - That portion of the roadway primarily constructed for use by pedestrians.

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

Specifications - Compilation of provisions and requirements to perform prescribed work.

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

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

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

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

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

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

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

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

Subcontractor. An individual, partnership, firm, corporation, or joint venture or other legal entity as covered in Chapter 444, Hawaii Revised Statutes, which enters into an agreement with the Contractor to perform a portion of the Work.

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

Substantial Completion - The status of the project when the Contractor has completed the work except for plant establishment and;

(1) All utilities and services are connected and working,

(2) All equipment is in acceptable working condition,

(3) Additional activity by the Contractor to correct punchlist items will not prevent or disrupt use of the work or the facility in which the work is located, and

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

For bridge and highway work, substantial completion is the point at which all bridge deck, parapet, pavement structure, shoulder, permanent traffic

signals, signs, and markings, traffic barrier, highway lighting and safety appurtenance work is complete.

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

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

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

Traveled Way - The portion of the roadway for the movement of vehicles, exclusive of shoulders.

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

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

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

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

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

Work - The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient for the successful execution of all the duties and obligations imposed by the contract.

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

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

(2) Days in which the Engineer suspends work for four or more hours through no fault of the Contractor."

END OF SECTION 101

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

Make the following amendments to said Section:

(I) Amend **102.01 Prequalification of Bidders** to read as follows:

"102.01 Prequalification of Bidders. Prospective bidders shall be capable of performing the work for which they are bidding.

According to said Section 103D-310, the Department may require any prospective bidder to submit answers to questions contained in the 'Standard Qualification Questionnaire For Prospective Bidders On Public Works Contracts' on the form furnished by the Department, properly executed and notarized, setting forth a complete statement of the experience of such prospective bidder and its organization in performing similar work and a statement of the equipment proposed to be used, together with adequate proof of the availability of such equipment. Whenever it appears to the Department, from answers to the questionnaire or otherwise, that the prospective bidder is not fully qualified and able to perform the intended work, the Department will, after affording the prospective bidder an opportunity to be heard and if still of the opinion that the bidder is not fully qualified to perform the work, refuse to receive or consider any bid offered by the prospective bidder. All information contained in the answers to the questionnaire shall be kept confidential. Questionnaire so submitted shall be returned to the bidders after serving their purpose.

Failure to complete the prequalification questionnaire will be sufficient cause for the Department to disqualify a prospective bidder.

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

(II) Amend **102.04 Estimated Quantities** by revising the last sentence of the last paragraph to read as follows:

"The Department may increase, decrease, or omit each scheduled quantities of work to be done and materials to be furnished. When the Department increases or decreases the estimated quantity of a contract item by more than 15% the Department will make payment for such items according to Subsection 104.11 – Variations in Estimated Quantities.

(III) Amend **102.07 Irregular Proposals** by adding the following after item **(5)**:

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

(IV) Amend **102.08 Proposal Guaranty** to read as follows:

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

(1) A deposit of legal tender; or

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

(3) A certificate of deposit, share certificate, cashier's check, treasurer's check, teller's check, or official 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).

(a) The bidder may use these instruments only to a maximum of $100,000

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

(c) The instrument shall be made payable at sight to the Department of Transportation, State of Hawaii.

According to Section 103D-323, HRS, the above shall be in a sum not less than 5% of the amount bid."

(V) Amend **102.12 Disqualification of Bidders** to read as follows:

"**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 according to 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 Section 84-15, HRS.

(8) Suspended or debarred in accordance with HRS 104-25.

(9) Failure to complete the prequalification questionnaire.

(10) Failure to attend the mandatory pre-bid meeting, if applicable."

(VI) Delete **Section 102.14 - American Products Preference** in its entirety.

(VII) Amend **102.15 Declaration of Non-Collusion** to read as follows:

"**102.15** (Unassigned)."

(VIII) Amend **102.16 Substitution Of Materials and Equipment** to read as follows:

"**102.16 Substitution Of Materials and Equipment Before Bid Opening.** (See Subsection 106.16 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 in writing and addressed to the Contracts Officer. The face of the envelope containing the request must be clearly marked 'SUBSTITUTION REQUEST'. The request may be hand-carried or mailed to the DOT Contracts Office, Room 105, 869 Punchbowl Street, Honolulu, Hawaii 96813. In either case, the written request must be received by the DOT

Contracts Office no later than 14 calendar days before the bid opening date, not including the bid opening date. The written request will be time stamped by the DOT Contracts Office. For the purpose of this section, the time designated by the time stamping device in the DOT Contracts Office shall be official. If the written request is hand-carried, the bearer is responsible to ensure that the request is time stamped by the DOT Contracts Office.

Submit 5 sets of the written request, technical brochures, and a statement of variances.

An addendum will be issued to inform all prospective bidders of any accepted substitution in accordance with Subsection 102.21 – Addenda.

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

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

(IX) Add the following:

"102.18 Preferences.

(A) Preference for Hawaii Products. The bidder's attention is directed to Sections 103D-1001 and 103D-1002, HRS and Subchapter 1, Chapter 124, Subtitle 11 of Title 3, HAR which provide preferences for Hawaii Products. According to Section 103D-1002, HRS, the bidder may examine the Hawaii Products List at the State Procurement Office, State Office Building, 1151 Punchbowl Street, Honolulu, Hawaii 96813.

If a product listed in the Hawaii Products List is available and meets project specifications, such product will be designated in the contract documents as a qualified product which may be used in the performance of the project.

If the bidder intends to claim preference for products on the Hawaii Product List and such is not listed, the bidder shall immediately notify the

Contracts Office, Department of Transportation, so the Engineer may take corrective or other appropriate actions.

It is further understood by the bidder that if the bidder elects to furnish qualified Hawaii Products, and is awarded the contract, then fails to use such products or meet the requirements of such preference, the bidder shall be subject to the statutory penalties, provided in Section 103D-1002, HRS, and such other remedies as may be available to the State.

For the purpose of determining the lowest bid price only, the provisions of Section 103D-1002, HRS., shall apply. Any contract awarded or executed in violation of Section 103D-1002, HRS, shall be void and no payment shall be made on account of such contract.

(B) Preference for Recycled Products. Recycled Products shall not apply to this project.

(C) Evaluation Procedures and Contract Award. For bid evaluation, the Engineer will evaluate the bids by applying the applicable preferences selected by the bidders according to the contract. The Engineer will base the calculations for adjustments upon the original bid prices offered. If more than one preference applies, the evaluated bid price shall be the sum of the original bid price plus applicable preference adjustments.

If a bidder has designated use of a Hawaii Product and fails to provide the product, the contract will become void and no payments will be made.

The Engineer will award the contract to the responsible bidder submitting the responsive bid with the lowest evaluated bid price. The contract amount of the contract awarded shall be the original bid price offered exclusive of any preference.

102.19 Certification for Safety and Health Program for Bids in excess of $100,000. According to Section 396-18 of the Hawaii Revised Statutes, the bidder or offeror, by signing and submitting this proposal, certifies that a written safety and health plan for this project will be available and implemented by the notice to proceed date for this project. Details of the requirements of this plan may be obtained from the State Department of Labor and Industrial Relations, Occupational Safety and Health Division (HIOSH).

102.20 (Unassigned).(Tax clearance moved to 103.03 – Award of Contract)

102.21 Addenda. Addenda issued shall become part of the contract documents. Addenda to the bid documents will be provided to all prospective bidders at the respective offices furnished for such purposes. Each addendum

shall be an addition to the contract documents. The terms and requirements of the bid documents (i.e. drawings, specifications and other bid and contract documents) cannot be changed prior to the bid opening except by a duly issued addendum."

END OF SECTION 102

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

Make the following amendments to said Section:

(I) Amend **103.01 Consideration of Proposal** to read as follows:

"**103.01 Consideration of Proposals.** The Department will compare the proposals in terms of the summation of the products of the approximate quantities and the unit bid prices after the Contracts Officer opens and reads the proposals. The Department will make the results immediately available to the public. If a discrepancy occurs between the unit bid price and the bid price, the unit bid price shall govern.

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

(II) Amend **103.03 Award of Contract** to read as follows.

"**103.03 Award of Contract.** The award of contract, if it be awarded, will be made within 60 calendar days after the opening of bids, to the lowest responsible bidder whose proposal complies with all the requirements. The successful bidder will be notified by letter mailed to the address shown on his/her proposal, that his/her proposal has been accepted, and that he/she has been awarded the contract.

(1) Requirement for Award. To be eligible for award, the apparent low Bidder will be contacted to submit copies of the documents listed below to demonstrate compliance with Section 103D-310(c), HRS. The documents should be submitted to the Department as soon as possible. If a valid certificate/clearance is not submitted on a timely basis for award of a contract, a Bidder otherwise responsive and responsible may not receive the award. See also Subsection 108.04 – Preconstruction Data Submittal.

(A) Tax Clearance. Pursuant to §§103D-310(c), 103-53 and 103D-328, HRS, the successful bidder shall be required to submit a certified copy of its tax clearance issued by the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS) to demonstrate its compliance with Chapter 237, HRS. The tax clearance is valid for 6 months from the most recent approval stamp date on the tax clearance. The tax clearance must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date.

DOTAX Website (Forms & Information):
http://www.state.hi.us/tax/alphalist.html#a

To receive DOTAX Forms by Fax or mail, phone (808)587-7572 or 1-800-222-7572.

The application for the clearance is the responsibility of the bidder,

and must be submitted directly to the DOTAX or IRS and not to the Department.

(B) DLIR Certificate of Compliance. Pursuant to §103D-310(c), HRS, the successful bidder shall be required to submit a copy (faxed copies are acceptable) of its approved certificate of compliance issued by the Hawaii State Department of Labor and Industrial Relations (DLIR) to demonstrate its compliance with unemployment insurance (Chapter 383, HRS), workers' compensation (Chapter 386, HRS), temporary disability insurance (Chapter 392, HRS), and prepaid health care (Chapter 393, HRS). The certificate is valid for 6 months from the most recent approval stamp date on the certificate. The DLIR certificate must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date. For DLIR certificates which receive a "pending" approval stamp, a DLIR approval stamp is required prior to the issuance of the Notice to Proceed.

The 'APPLICATION FOR CERTIFICATE OF COMPLIANCE WITH SECTION 3-122-112, HAR', Form LIR#27 is available at the following website: www.dlir.state.hi.us

The form is also available at the DLIR Administrative Services Office, phone no. (808)586-8888 and fax no. (808)586-8899, or any of its District Offices. The DLIR will return the form to the bidder who in turn shall submit a copy to the Department.

The application for the certificate is the responsibility of the bidder, and must be submitted directly to the DLIR and not to the Department.

(C) DCCA Certificate of Good Standing. Pursuant to §103D-310(c), HRS, the successful bidder shall be required to submit a copy (faxed copies are acceptable) of its approved Certificate of Good Standing issued by the Hawaii State Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) to demonstrate that 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.

The DCCA certificate is valid for 6 months from the approval date on the certificate. The DCCA certificate must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date. A Hawaii business that is a sole proprietorship, however, is not required to register with the BREG, and therefore not required to submit the certificate. Bidders are advised that there are costs associated with registering and obtaining a "Certificate of Good Standing" from the DCCA.

To obtain this certificate, go online to: www.BusinessRegistrations.com and follow the prompt instructions. To register or to obtain a certificate by phone, call (808)586-2727 (M-F 7:45 am to 4:30 pm Hawaii Standard Time).

The application for the DCCA certificate is the responsibility of the bidder, and must be submitted directly to the DCCA and not to the Department."

(III) Amend **103.06 Requirement of Contract Bond** to read as follows:

"**103.06 Requirement of Contract Bond.** At the time of execution of the contract, the successful bidder shall file a good and sufficient performance bond and a payment bond on the forms furnished by the Department (see attached) conditioned for the full and faithful performance of the contract according to the terms and intent thereof and for the prompt payment to all others for all labor and material furnished by them to the bidder and used in the prosecution of the work provided for in the contract. The bonds, each of which shall be of an amount equal to 100% of the amount of the contract price and including 5% of the contract amount estimated to be required for extra work. The bidder shall limit the acceptable performance and payment bonds to the following:

(a) Legal tender;

(b) Surety bond underwritten by a company licensed to issue bonds in the State of Hawaii; or

(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 inure 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 Section 103D-324, HRS."

(IV) Amend **103.07 Execution of the Contract** by revising the first paragraph to read as follows:

"**103.07 Execution of Contract.** The contract bond and 'Chapter 104, HRS 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."

(V) Delete **103.09 Submission of Insurance Certification** in its entirety. See Subsection 107.29 – Insurance Requirements.

END OF SECTION 103

SECTION 104 - SCOPE OF WORK

Make the following amendments to said Section:

(I) Amend **104.01 Contract** to read as follows:

"**104.01 Intent of Contract, Duty of Contractor.** The intent of the contract is to provide for the construction, complete in every detail, of the work described at the accepted bid price and within the time established by the contract. The Contractor has the duty to furnish all labor, materials, equipment, tools, transportation, incidentals and supplies and to determine the means, methods and schedules required to complete the work in accordance with the contract documents."

(II) Amend **104.02 Alterations of Plans or Type of Work** to read as follows:

"**104.02 Changes.** The Engineer may at any time, during the progress of the work, by written order and without notice to the sureties, make changes in the work as may be found to be necessary or desirable. Such changes shall not invalidate the contract nor release the surety and the Contractor will perform the work as changed, as though it had been a part of the original contract.

(A) Minor Changes. The Engineer may direct minor changes in the work with no changes in contract price or time of performance. If the Contractor believes a minor change directive justifies an increase in contract price or time it must follow the oral and written notice requirements set forth in Subsection 104.02(B) – Orders and Directives.

(B) Orders and Directives. Only a duly issued change order or field order may alter the contract terms and work requirements. Any order, direction, instruction, interpretation or determination from the Engineer that is not a field order or change order, may be considered as a compensable change only if the Contractor gives the Engineer an oral notice of its intent to treat such order, direction, instruction, interpretation or determination as a change directive. Such notice must be given before the Contractor acts in conformity with the order, direction, instruction, interpretation or determination but not later than noon of the following working day. The oral notice shall be followed by a written notice of a potential claim that must be delivered to the Engineer within five days after communication of the order, direction, instruction, interpretation, or determination to the Contractor. The written notice of a potential claim shall state the date, circumstances, and source of the order, direction, instruction, interpretation, or determination that the Contractor regards as a compensable change, and provide a detail justification for additional payment for time. Such written notice may not be waived and shall be a condition precedent to the filing of any claim by

the Contractor. Unless the Contractor acts in accordance with this procedure, any such order or directive shall not be treated as a change for which the Contractor may make a claim for an increase in the contract time, compensation, or contract price related to such work.

No more than ten working days after receipt of the written notice of potential claim from the Contractor, a written response shall be issued for the subject work if the State agrees that it constitutes a change. The Contractor shall deem it a rejection of its potential claim if a written response is not issued in the time established. If the Contractor objects to the Engineer's position, it shall file a written claim with the Engineer within 30 days after delivery to the Engineer of the Contractor's written notice of a potential claim. Failure by the Contractor to submit a written notice of a potential claim in the time specified waives all rights for an increase in contract time or compensation related to such work. The protest shall be determined as provided in Subsection 105.18 – Claim for Adjustments and Disputes. In all cases, the Contractor shall proceed with the work as specified in the order, direction, instruction, interpretation, or determination immediately upon providing the Engineer with the oral notice described above, unless otherwise directed in writing by the Engineer.

(C) Penal Sum of the Surety Performance and Payment Bonds. The penal sum of the Surety Performance and Payment Bonds will be adjusted by the amount of each and every Contract Change Order"

(III) Move and Amend **104.02(C) Differing Site Conditions.** (See 104.12 – Differing Site Conditions)

(IV) Amend **104.03 Extra Work** to read as follows:

"**104.03 Field Orders.** Upon receipt of the field order the Contractor shall proceed with the work as changed by the field order without delay. If the Contractor does not agree with any of the terms or conditions or the adjustment or nonadjustment to the contract time and/or contract price set forth therein, the Contractor shall file a written notice of potential claim with the Engineer not later than three days after receipt of the field order. No more than ten working days after receipt of the written notice of a potential claim from the Contractor, a written response shall be issued for the subject work if the State agrees that it constitutes a change. The Contractor shall deem it a rejection of its potential claim if a written response is not issued in the time established. If the Contractor objects to the Engineer's position, it shall file a written claim with the Engineer within 30 days after delivery to the Engineer of the Contractor's written notice of a potential claim. Failure to file the written notice of a potential claim or to protest any portion(s) of the field order by the time specified shall constitute agreement on the part of the Contractor with all the terms, conditions, amounts and adjustment or non-adjustment to contract price and/or contract time set forth

in the field order or the non-protested portion of the field order. Timely written notice shall be a non-waivable condition precedent to the assertion of a claim."

(V) Delete **104.04 Maintenance of Traffic** in its entirety. (See Section 645 – Work Zone Traffic Control)

(VI) Amend **104.05 Construction and Maintenance of Detour** by deleting the second paragraph in its entirety.

(VII) Amend **104.06 Rights in and Use of Materials Found on the Work** by deleting it in its entirety. (See 106.02 –Material Sources)

(VIII) Add the following:

"104.09 Methods of Price Adjustment. Any adjustment in the contract price pursuant to a change or claim in this contract shall be made in one or more of the following ways:

(1) By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;

(2) By unit prices or other price adjustments specified in the contract or subsequently agreed upon;

(3) The Engineer may base the adjustment for a lump sum item on a calculated proportionate unit price. The Engineer will calculate the proportionate unit price by dividing the original contract lump sum price by the actual or original estimated quantity established by the Contract Documents;

(4) In such other manner as the parties may mutually agree;

(5) At the sole option of the Department, by the costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as specified in Subsection 109.03 - Allowances for Overhead and Profit and Subsection 109.04 - Force Account Provisions and Compensation;

(6) By a determination by the Department of the reasonable and necessary costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as computed by the generally accepted accounting principles and applicable sections of Chapter 3-123 and 3-126 of the HAR and Subsection 109.03 - Allowances for Overhead and Profit herein.

(IX) Amend **Subsection 105.19 Value Engineering** to read as follows:

"**104.10 Value Engineering Incentive Proposal.** On any contract in an amount greater than $100,000, the Contractor shall be entitled to an equitable adjustment to share in cost savings resulting from the value engineering proposal, subject to the following conditions:

(1) A value engineering proposal must result in savings to the State by providing less costly items than those specified in the contract without impairing any of their essential functions and characteristics such as service life, reliability, substitutability, economy of operations, ease of maintenance, and necessary standardized features;

(2) A value engineering proposal shall not be deemed accepted until a change order has been issued establishing the proposed as part of the work;

(3) A value engineering proposal must be submitted in conformity with, and is subject to the terms and conditions of HAR §3-132."

(X) Add the following:

"**104.11 Variations in Estimated Quantities.** Where the quantity of a unit price item in this contract is estimated on the proposal schedule and where the actual quantity of such pay item varies more than 15 percent above or below the estimated quantity stated in this contract, an adjustment in the contract price shall be made upon demand of either party. The adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. The adjustment shall be subject to Subsection 104.09 – Method of Price Adjustment and Subsection 109.03 - Allowances for Overhead and Profit."

104.12 Differing Site Conditions. The Contractor shall promptly and before such conditions are disturbed, notify the Engineer of:

(1) Subsurface or latent physical conditions at the site differing materially from those indicated in this Contract; or

(2) Unknown physical conditions at the site of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.

(A) Adjustments of Price or Time for Performance. After receipt of the notice, the Engineer shall promptly investigate the site and if it is found that the conditions do materially so differ and cause an increase in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made and the Contract

modified by contract change order. Any adjustment in contract price or time made pursuant to this clause shall be determined in accordance with the price and/or time adjustment subsections of this contract.

(B) Timeliness of Claim. No claim of the Contractor under this subsection shall be allowed unless: The Contractor shall give a verbal notice within 12 hours of discovery of the differing site condition and written notification to the Engineer no later than 5 days after the discovery of the differing site condition. The Engineer in writing may extend the time prescribed in this subsection for giving verbal and written notice. The notices to the Engineer are non-waivable conditions precedent to any claim under this Section.

(C) No Claim After Final Payment. No request by the Contractor for an equitable adjustment to the contract shall be allowed if asserted after final payment under this contract.

(D) Knowledge. Nothing contained in this subsection shall be grounds for an adjustment in compensation if the Contractor had actual knowledge of the existence of such conditions prior to the submission of the bids.

104.13 Contract Change Orders. The Engineer will issue sequentially numbered contract change orders at times it deems appropriate during the contract period. A contract change order may contain the adjustment in contract price and/or time for a number of field orders. In all cases, the Contractor shall proceed with the work as changed by the contract change order. No payment for any changes will be made until the contract change order is issued.

104.14 Duty of Contractor to Provide Change Proposals. A field order may request the Contractor to supply the Engineer with a detail proposal for an adjustment to the contract time or contract price for the work described therein. Any such request for a proposal shall not affect the duty of the Contractor to proceed as ordered with the work described in the field order.

The Engineer at times may issue a Request for Change Proposal to the Contractor requesting price and/or time adjustment proposals for contemplated changes in the work. The Request for Change Proposal is not a directive for the Contractor to perform the work described therein.

The Contractor shall submit a detailed written proposal in a time span allowed by the Engineer or if a time span is not stated by the Engineer it shall be within 15 days after receipt of a request for Request for Change Proposal or field order containing a request for proposal. The format shall set forth all charges the Contractor proposes for the change and a detailed justification for the proposed adjustment of the contract time, all properly itemized and supported by

sufficient substantiating data to permit evaluation. The Engineer will determine whether the proposal is acceptable.

No payment shall be allowed to the Contractor for pricing or negotiating or research or designs for proposed or actual changes. No time extensions will be granted for delay caused by late Contractor pricing of changes or proposed changes or time spent in negotiation.

The Engineer may accept the entire proposal, or any discrete cost item contained within the proposal, or the proposed adjustment to contract time by a notice in writing to the Contractor delivered to the contractor within thirty days after receipt of the proposal. The written acceptance by the Engineer of all or part of the Contractor's proposal shall create a binding agreement between the parties for that aspect of the change.

If the Engineer refuses to accept the Contractor's entire proposal, the Engineer may issue a field order for the work; or if a field order has already been issued, the Engineer may issue a supplemental field order establishing new contract prices, the remaining adjustments to contract price and /or contract time for the ordered changes. If the Contractor disagrees with any term, condition or adjustment contained in such field order or supplemental field order, it shall follow the protest procedures set forth in and be subject to the other terms of Subsection 104.03 - Field Orders.

104.15 Overweight Vehicle Control. All weight tags for aggregates and hot mix asphalt concrete transported to the worksite shall be submitted daily to the Engineer. The maximum legal total gross weight (W) as calculated by the formulas in HRS 291-35 Gross weight, axle, and wheel loads, for the transporting vehicle shall be clearly indicated on the weight tag. The Engineer may inspect any material transporting vehicle for compliance with HRS 291-34 to 291-36 at no additional cost to the State. The Engineer may refuse entry to or demand the removal from the worksite of any vehicle that exceeds the maximum legal total gross weight and shall inform the appropriate enforcement authority of the violation."

104.16 Use of Explosives. The use of explosives will not be permitted.

END OF SECTION 104

SECTION 105 - CONTROL OF WORK

Make the following amendments to said Section:

(I) Amend **105.01 Authority of the Engineer** to read as follows:

"**105.01 Authority.**

(A) Authority of the Engineer. The Engineer is the representative of the Director and has all the authority of the Director with respect to the contract. The Engineer will make decisions on all questions that may arise regarding the contract, such as, but not limited to:

(1) Interpretation of the contract documents;

(2) Acceptability of the materials furnished and work performed;

(3) Manner of performance and rate of progress of the work;

(4) Acceptable fulfillment of the contract on the part of the Contractor;

(5) Compensation under the contract.

The Engineer's decisions on questions, claims, and disputes will be final and conclusive subject to Subsection 105.18 – Disputes and Claims.

The Engineer may delegate specific authority to act for the Engineer to a specific person or persons. Such delegation of authority shall be established in writing and shall become effective upon delivery to the Contractor.

(B) Authority of the Inspectors. Inspectors, as a representative of the Engineer or other agencies, will inspect the work done and materials furnished. Such inspection may extend to the preparation, fabrication or manufacture of the materials to be used. The Inspector does not have authority vested in the Engineer unless specifically delegated in writing. The Inspector may not alter or waive the provisions of the contract, issue instructions contrary to the contract, or act as agent or representative of the Contractor.

Failure of an Inspector at any time to reject non-conforming work shall not be considered a waiver of the State's right to require work in strict conformity with the contract documents as a condition of final acceptance.

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

(II) Amend **105.02 Contract Plans and Working and Shop Drawings** to read as follows:

"**105.02 Shop Drawings.**

(A) Shop Drawing Requirements. The Contractor shall prepare, thoroughly check, approve, and submit all shop drawings to the Engineer for review. Whenever possible, electronic files in MS Word, MS Excel and Microstation format shall be submitted with the hard copies. The Contractor shall indicate its approval by stamping and signing each submittal of shop drawing. Any shop drawing submitted without being reviewed, stamped and signed will be returned as an incomplete submittal, and any delay caused thereby shall be the Contractor's responsibility.

All drawings, which require an engineering stamp, shall be stamped by professional engineers licensed in the State of Hawaii. Shop drawings shall indicate in detail all parts of an item of work, including erection and setting instructions and engagements with work of other trades or other separate contractors. Shop drawings for structural steel, millwork, pre-cast concrete and falsework, formwork or centering with heights of 40 feet or more or open spans of 20 feet or more shall consist of calculations, fabrication details, erection drawings and other shop drawings, as necessary, to show the details, dimensions, sizes of members, anchor bolt plans, insert locations and other information necessary for the complete fabrication and erection of the structure to be constructed. Shop drawings shall also include stress sheets, drawings, bending diagrams for reinforcing steel, and plans for erection, falsework, framework, cofferdam, and other items or such other similar data required for the successful completion of the work.

All shop drawings as required by the contract, or as determined by the Engineer to be necessary to illustrate details of the work shall be submitted to the Engineer with such promptness as to cause no delay in the work or the work of any other Contractor. Delay caused by the failure of the Contractor to submit shop drawings on a timely basis to allow for review, possible resubmittal and acceptance will not be considered as a justifiable reason for a contract time extension. Contractor, at its own risk, may proceed with the work affected by the shop drawings after they are submitted but before receiving acceptance. The State shall not be liable for any increase in contract price or contract

time required for the correction of work done without the benefit of accepted shop drawings.

The Contractor shall not make changes to the accepted shop drawings without submitting a written request to the Engineer and reviewing a written acceptance of the change by the Engineer.

By approving and submitting shop drawings, the Contractor thereby represents that it has determined and verified all field measurements and field construction criteria, or will do so, and that it has checked and coordinated each shop drawing with the requirements of the work and the contract documents. When shop drawings are prepared and processed before field measurements and field construction criteria can be or have been determined or verified, the Contractor shall make all necessary adjustments in the work or resubmit further shop drawings, all at no increase in contract price or contract time.

The shop drawing submitted must be accompanied by a transmittal giving a list of the titles and numbers of the drawings. Each series shall be numbered consecutively for ready reference and the submittal shall be marked with enough information to identify itself, including date, project name and number, name of the submitting Contractor or subcontractor, revision number, and revision box which gives date of the revision and what the revisions changed.

The size of the sheets that shop drawings are prepared on shall be as appropriate to suit the drawing being presented so that the information is clearly and legibly depicted. The Engineer will determine what size is appropriate.

When required by the contract, the Contractor shall submit to the Engineer descriptive sheets such as brochures, catalogs and illustrations, which will completely describe the material, product, equipment, furniture or appliances to be used in the project as shown in the drawings and specifications and indicate such conformity by marking, or stamping and signing each sheet.

(B) Submittal for Deviations and Variances. The Contractor shall include with the submittal, written notification clearly identifying and summarizing all deviations or variances from the contract drawings, specifications and other contract documents. The variances shall also be clearly indicated on the shop drawing, descriptive sheet, and material sample or color sample. Failure to so notify of and identify such variance shall be grounds for rejection of the related work or materials, notwithstanding that the Engineer accepted the submittal. If the variances are not acceptable to the Engineer, the Contractor will be

required to furnish the item as specified or indicated on the contract documents at no increase in contract price or contract time."

(III) Delete **105.03 Conformity with the Contract** in its entirety and replace it with the following:

"105.03 Review and Acceptance Process. The Engineer will complete the review of the submittal within 30 days from the date of receipt unless a different review time is established by the contract documents. The Engineer will advise the Contractor, in writing, as to the acceptability of the submittal. Should the Engineer partially or totally reject the submittal, the Contractor shall modify the submittal as required by the Engineer and resubmit the item within 15 days. At this time, the review and acceptance cycle described above shall begin again. The review and acceptance cycle shall begin again as described above each time the submittal is returned to the Contractor for modification. If the volume of the shop drawings submitted at any time for review is unusually large, the Contractor shall inform the Engineer of its preferred order for reviews, and the Engineer will use reasonable efforts to accommodate the Contractor's priority.

The acceptance by the Engineer of the Contractor's submittal relates only to their sufficiency and compliance with the intention of the contract. Acceptance by the Engineer of the Contractor's submittal does not relieve the Contractor of any responsibility for accuracy of dimensions, details, and proper fit, and for agreement and conformity of submittal with the contract drawings and specifications. Nor will the Engineer's acceptance relieve the Contractor of responsibility for variance from the contract documents unless the Contractor, at the time of submittal, has provided notice and identification of such variances required by this section. Acceptance of a variance shall not justify a contract price or time adjustment unless the contractor requests such adjustment at the time of submittal and the adjustment is explicitly agreed to in writing by the Engineer. Any such request shall include price details and proposed scheduling modifications. Acceptance of a variance is subject to all contract terms, stipulations and covenants, and is without prejudice to any and all rights under the surety bond.

If the Engineer returns a submittal to the Contractor that has been rejected, the Contractor, so as not to delay the work, shall promptly make a resubmittal conforming to the requirements of the contract documents and indicating in writing on the transmittal and the subject submittal what portions of the resubmittal have been altered in order to meet the acceptance of the Engineer. Any other differences between the resubmittal and the prior submittal shall also be specifically described in the transmittal.

No mark or notation made by the Engineer on or accompanying the return of any submittal to the Contractor shall be considered a request or order for a change in work. If the Contractor believes any such mark or notation constitutes a request for a change in the work for which it is entitled to an

adjustment in contract price or contract time, or both, the Contractor must follow the procedures established in Subsection 104.02 – Changes or lose its right to claim for an adjustment.

(IV) Amend **105.04 Furnishing and Coordination of the Contract** to read as follows:

"**105.04 Interpretations of the Contract Documents; Drawings.**

(A) Interpretations of the Contract Documents; Conflicts and Ambiguity. The contract documents are complementary. Any requirement occurring in one document is as binding as though occurring in all. A stricter requirement prevails over any less strict requirement. The stricter requirement will be the requirement that provides the greater product life, durability, strength and function.

The Contractor shall carefully study and compare the contract documents with each other, with field conditions and with the information furnished by the State and shall immediately report to the Engineer errors, conflicts, ambiguities, inconsistencies, or omissions discovered. Should an item not be sufficiently detailed or explained in the contract documents, the Contractor shall report to the Engineer immediately and request the Engineer's clarification and interpretation. The Engineer will issue a clarification or interpretation that is consistent with the intent of and reasonably inferred from the contract documents.

(B) Priority Within Drawings.

(1) Numerical dimensions govern over scaled dimensions,

(2) Larger scale drawings govern over smaller scale drawings, and

(3) Notations, directions, and dimensions (whether word or numerical) control over schedules and table references.

Any requirement occurring in one or more of the sheets is as binding as though occurring in all applicable sheets.

(V) Delete **105.05 Cooperation with Utility Companies** in its entirety. (See 107.21 – Utilities and Services).

(VI) Amend **105.06 Cooperation Between Contractors** to read as follows:

"**105.06 Coordination Between the Contractors.** Other work by other Contractors may be in progress within or near the project limits. Each Contractor shall conduct work so as not to hinder the progress of the work by

other Contractors within or near the project limit. Each Contractor shall be responsible for any damage it causes to work of another Contractor. Contractors shall cooperate with each other, including but not limited to:

(1) Coordinating their work schedules and traffic control plans;

(2) Placing and disposing the materials used;

(3) Operating and storage of equipment.

(VII) Amend **105.07 Construction Stakes, Lines and Grade** to read as follows:

"105.07 Construction Stakes, Lines and Grades.

(A) General. The Contractor shall survey and stake out the work including verification and establishment of all lines, grades, dimensions, and elevations within the tolerances shown in Table 105.10-1 – Construction Survey and Staking Tolerances. The Contractor shall prepare and maintain field notes and supporting data in a manner acceptable to the Engineer. The field notes and supporting data shall be made available to the Engineer immediately upon request. The personnel doing the survey work and preparing the calculations derived therefrom shall be made available by the Contractor to the Engineer for explanation, clarification, or both, immediately upon request.

The Contractor shall immediately correct or replace deficient or inaccurate layout and construction work at no increase in contract price or contract time.

(B) Survey and Staking Requirements. The Engineer will furnish control points for the project limits, points of intersection, and benchmarks set by the Engineer or others. The Contractor shall be responsible for the laying out of all other necessary work from the given information. The Contractor shall reset the layout as many times as necessary to perform the work.

The Contractor shall preserve control points and stakes or marks that the Engineer or others have furnish. If the Contractor destroys or disturbs the control points, stakes, or marks, the State will charge the Contractor the cost of replacing the stakes or marks.

Table 105.10-1 Construction Survey and Staking Tolerances[1]		
Staking Phase	**Horizontal**	**Vertical**
Existing State network control points	±0.06 feet	±0.035 feet × $\sqrt{M}$ [2]
Local supplemental control points set from existing State network points	±0.03 feet	±0.01 feet × $\sqrt{N}$ [3]
Centerline points [4] — (PC), (PT), (POT), and (POC) including references	±0.03 feet	±0.03 feet
Other centerline points	±0.16 feet	±0.16 feet
Cross-section points and slope stakes [5]	±0.16 feet	±0.16 feet
Slope stake references [5]	±0.16 feet	±0.16 feet
Culverts, ditches, and minor drainage structures	±0.16 feet	±0.06 feet
Retaining walls and curb and gutter	±0.06 feet	±0.03 feet
Bridge substructures	±0.03 feet [6]	±0.03 feet
Bridge superstructures	±0.03 feet [6]	±0.03 feet
Clearing and grubbing limits	±2.00 feet	—
Roadway subgrade finish stakes [7] [8]	±0.16 feet	±0.03 feet
Roadway finish stakes [7] [8]	±0.16 feet	±0.03 feet

(1) At 95% confidence level. Tolerances are relative to existing State network control points.
(2) M is the distance in miles.
(3) N is the number of instrument setups.
(4) Centerline points: PC - point of curve, PT - point of tangent, POT - point on tangent, POC - point on curve.
(5) Take the cross-sections normal to the centerline ±1 degree.
(6) Bridge control is established as a local network and the tolerances are relative to that network.
(7) Includes paved ditches.
(8) Set stakes at the top of subgrade and the top of each aggregate course.

(VIII) Delete **105.08 Authority and Duties of Project Engineer** in its entirety. (See 105.01 – Authority).

(IX) Delete **105.09 Duties of the Inspector** in its entirety. (See 105.01 – Authority).

(X) Amend **105.10 Inspection of Work** to read as follows:

105.10 Inspection of the Work and Materials. Materials and each part or details of the work shall be subject to inspection by the Engineer. The Contractor shall furnish the Engineer information, assistance, and provide appropriate safeguards and equipment to allow a complete inspection to be made.

The Engineer may inspect the production, fabrication, and manufacture of materials and items that are to be incorporated into the work. The Contractor shall ensure that the producer, fabricator, and manufacturer provide access to the Engineer, without adjustment in contract price or contract time, at the source of such materials and items or at any other place such materials or items may be located before they are incorporated into the work. The Engineer will comply with safety procedures established by the facility. When any government agency or any utility company is to pay a portion of the cost of the work covered by this contract, they shall have the right to inspect the work. Such inspection shall not make that government or utility company a party to this contract.

For any inspection, the Contractor shall expose or uncover such portions of the work as requested by the Engineer. After inspection, the Contractor shall restore that portion of the work to the standard required by the contract. When the Engineer orders an inspection that is not considered a normal daily, pre-final or final inspection, that requires uncovering, damage to or destruction of or work in place:

(1) If the exposed and inspected work conforms to the contract requirements, the State will reimburse the reasonable costs of exposing, inspecting and or restoring the work, as extra work and extend contract time as appropriate.

(2) If the exposed and inspected work is non-conforming or otherwise non-acceptable, the costs and time relating to the exposing, inspecting and restoring of the work is not reimbursable.

(3) No reimbursement will be allowed for the costs and time of exposing, inspecting and restoring work that the Engineer had not been given reasonable opportunity to inspect before it was covered.

When the contract documents or a written directive from the Engineer requires that certain work not proceed until the Engineer is given notice and the opportunity to inspect, the Engineer may order the work done or materials used

without the Engineer having been given notice and opportunity to inspect, to be removed and replaced at no increase in contract price or contract time.

Inspections are performed for the exclusive benefit of the State. The inspection of or the failure to inspect the work shall not relieve the Contractor of obligations to fulfill the contract as prescribed, to correct defective work, and to replace unsuitable or rejected materials regardless of whether payment for such work has been made."

(XI) Amend **105.12 Removal of Unacceptable and Unauthorized Work** to read as follows:

"**105.12 Removal of Non-Conforming and Unauthorized Work.** All work that does not conform to the requirements of the contract shall be remedied or removed and replaced by the Contractor at no increase in contract price, contract time, or both. No payment will be made for non-conforming work.

Any work done beyond the work limits shown on the drawings and specifications or established by the Engineer or any additional work done without written authority will be considered as unauthorized work. No payment will be made for unauthorized work. Unauthorized work may be ordered removed at no increase in contract price, contract time, or both.

The Engineer may require that the Contractor submit a schedule acceptable to the Engineer for the performance of corrective or remedial work at the convenience of the State. Should the Contractor fail to submit an acceptable schedule or fail to comply with the accepted schedule for performance of corrective or remedial work, or otherwise fail to comply with any order of the Engineer regarding remedial, corrective, removal and replacement work, the Engineer shall have the authority, in addition to all other remedies, provided by contract or law, to cause non-conforming work to be remedied or removed and replaced, and unauthorized work removed, by someone other than the Contractor. The Engineer may charge the Contractor the cost of such work, or to deduct the costs from any monies due or to become due the Contractor, or combination thereof."

(XII) Delete **105.13 Load Restrictions** in its entirety. See 104.15 – Overweight Vehicle Control and 401.05(B)(5) – Material Transfer Vehicle (MTV).

(XIII) Amend **105.14 Maintenance** to read as follows:

"**105.14 Maintenance.** The Contractor shall maintain the work including the removal of all graffiti and defacement, until final acceptance of the project. If the Contractor fails to remedy unsatisfactory maintenance after receipt of a written directive from the Engineer, the Engineer shall have the authority , in addition to other remedies by law, to have such maintenance performed by someone other than the Contractor, to charge the Contractor for such

maintenance or deduct the cost of such maintenance from monies due or become due to the Contractor."

(XIV) Amend **105.17 Acceptance** to read as follows:

"**105.17 Final Acceptance.** When the Engineer finds that the project has been satisfactorily completed in compliance with the contract, the Engineer will notify the Contractor in writing of the project's completion and acceptance and will notify the Contractor in writing of its acceptance effective as of the date of the final inspection. The final acceptance date shall determine end of contract time, liquidated damages for failure to complete the punchlist and commencement of all guaranty periods subject to Subsection 108.16 – Contractor's Responsibility for Work; Risk of loss or Damage."

(XV) Amend **105.18 Claims for Adjustment and Disputes** to read as follows:

"**105.18 Disputes and Claims.**

(A) Written Notice A Condition Precedent to Claim. As a condition precedent to any claim for damages, or any matter dealing with contract price or contract time, the Contractor must give notice of a potential claim in writing as required by the contract documents including but not limited to the following Subsections of these general provisions:

(1) 104.02 – Changes
(2) 104.03 – Field Orders
(3) 104.12 – Differing Site Conditions
(4) 104.13 – Contract Change Orders
(5) 105.02(B) – Review and Acceptance Process
(6) 106.03 – Sample Submittals
(7) 108.07 – Contract Time

(B) Contractor's Duty to Maintain Accurate and Contemporaneous Records. Upon delivering written notice of a potential claim as described in Subsection 105.18(A) – Written Notice A Condition Precedent to Claim, the Contractor has the duty to support and substantiate all claims by maintaining accurate, contemporaneous records of the subject work and the time and costs thereof. The Engineer may direct the manner and the format in which such records must be prepared, maintained, and verified. The Contractor shall comply with such directives at no increase in contract price or contract time. Any directive from the Engineer regarding the manner and format for the keeping of records associated with the potential claim shall not in any way be deemed an agreement by the State regarding the validity of any element of the claim.

(C) Contractor to Proceed with Work. The Contractor shall at all times continue with performance of the contract in full compliance with the directions of the Engineer. Continued performance by the Contractor shall not prejudice any claim for damages or any matter dealing with contract price or contract time provided that the notice of a potential claim is given in writing by the Contractor in the manner and within the time set forth in the contract documents.

(D) Making of a Claim. All Contractors' claims for damages or any matter dealing with contract price or contract time shall be submitted in writing to the Engineer. The written submission (THE CLAIM) shall be clearly identified and labeled as a claim. The Contractor shall sequentially number its claims in the chronological order submitted to the Engineer. No claim shall be valid if it is delivered to the Engineer after the date of final acceptance or later than 180 days after Contractor's delivery of its notice of potential claim, whichever comes first.

The Claim shall, at a minimum, contain the following:

(1) A detailed description of the facts and circumstances that justify every element of claim. The detailed description shall include, but is not limited to, providing all necessary dates, locations, and items of work affected by the claim.

(2) The specific provisions of the contract or laws which support the claim and a statement of the reasons why such provisions support the claim.

(3) A copy of the related written notice of potential claim required by Subsection 105.18(A) – Written Notice A Condition Precedent to Claim.

(4) Any other documents that support the claim.

(5) If an adjustment of time for the performance of the contract is sought:

(a) The specific days and dates for which it is sought.

(b) The specific reasons the Contractor believes a time adjustment should be granted.

(c) The specific provisions of the contract under which additional time is sought.

(d) The Contractor's detailed analysis of its previously submitted time scaled logic diagram (TSLD) schedule and impact on the critical path.

(6) If additional monetary compensation is sought, the exact amount sought and a breakdown of that amount into the following categories:

(a) Labor. Listing of individuals, description and location of work performed, classification, hours worked, wage rate, fringe benefits, employee number if available, etc.

(b) Materials. Invoices, purchase orders, evidence of payment, descriptions and quantities, etc.

(c) Equipment. Detailed description (make, model, year, attachments, serial number, etc.), hours of use and dates of use. Equipment rates shall be subject to the terms and limitations as set forth in Subsection 109.02 – Payment for Additional and Force Account Work.

(d) Contractor's Margin for Profit and Overhead.

(e) Other categories as specified by the Contractor or the State.

(7) The claim shall be certified on behalf of the Contractor by an authorized representative, as follows:

Under penalty of law for submission of false claims, false statements, and misrepresentation, the undersigned,

_____

(Name)

_____

(Title)

_____

(Company)

hereby certifies that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the State of Hawaii is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

_____

Signature Date

(E) Engineer's Review and Decision. The Engineer shall review the claim, and may request and the Contractor shall provide additional information, documentation, and other evidence from the Contractor. The Engineer may conduct interviews with Contractor's employees and other persons having knowledge related to the claim.

The Engineer shall render a written decision on the claim after the claim is complete and fully documented, as follows:

(i) Within 60 days for claims less than $50,000

(ii) Within 90 days on claims exceeding $50,000.

If the Engineer does not issue a written decision within the time period described herein, then the Contractor may proceed as if the claim has been denied in its entirety. If the claim submittal is found to be incomplete, the Contractor shall be notified to provide the additional information that is required. When this occurs, the Engineer's review time will be adjusted as deemed appropriate and the Contractor will be notified.

The decision will be sent to the Contractor by Certified Mail, Return Receipt Requested.

(F) Appeal of the Engineer's Decision.

(1) Any Contractor aggrieved by an adverse decision by the Engineer on a claim may appeal the decision to the Director, as head of the purchasing agency as specified in the Hawaii Administrative Rules for Procurement Disputes.

(2) Appeals of the Engineer's decision must be filed in writing not later than 30 days after delivery of the Engineer's decision on the claim to the Contractor, or if no written decision is delivered, within 30 days after the deadline for the Engineer's decision. A copy of the notice of appeal of the Engineer's decision shall be delivered to the Engineer.

(3) The record on appeal by the Contractor to the Director shall be limited to the Claim as submitted by the Contractor described in Subsection 105.18(D) – Making of a Claim, the Engineer's response to the claim, the project file, and any other material or evidence the Director, in the Director's discretion, believes may be useful in deciding the merits of the appeal.

(4) In its notice of appeal of the Engineer's decision, the Contractor shall provide specific citations to the Engineer's decision and explanations as to why the Contractor believes the Engineer's decision was incorrect.

(5) All controversies and claims which are appealed to the Director shall be decided by the Director within 90 days after the filing of the appeal by the Contractor; provided that:

(a) If the Director does not issue a written decision within 90 calendar days after written request for a final decision, or within such longer period as may be agreed upon by the parties, then the Contractor may proceed as if the appeal was denied.

(b) The Director immediately furnishes a copy of the decision to the Contractor, by certified mail, return receipt requested, or by any other method that provides evidence of receipt.

(c) Any such decision shall be final and conclusive, unless fraudulent, or unless the Contractor brings an action seeking judicial review of the decision in a Hawaii circuit court within the six months from the date of receipt of the decision.

(G) Contractor's Duty to Continue Work. During the Claim review and appeal process including any litigation in relation to the Claim, the Contractor shall proceed diligently with performance of this contract, except where:

(1) The State has suspended the work, or has terminated the contract for default of the Contractor or for the convenience of the State;

(2) There has been an alleged material breach of contract by the State excusing further performance by the Contractor; provided that in such event the Contractor shall proceed diligently with the performance of the contract where the Director has made a written determination that continuation of work under the contract is essential to the public health and safety."

(XVI) Delete **105.19 Value Engineering** in its entirety. (See 104.10 – Value Engineering Incentive Proposal).

(XVII) Amend **105.20(A) General** by revising the first sentence to read as follows:

"**(A) General.** The Contractor and the Department will establish a Disputes Review Board (Board) when the proposal amount is more than fifty million dollars ($50,000,000) or the completion time is more than 360 working days."

(XVIII) Add the following:

"**105.21 Coordination Between the Contractor and the State.**

(A) Furnishing Drawings and Special Provisions. The State will furnish the Contractor 12 sets of the project plans and special provisions. The project plans furnished will be the same size as that issued for bidding purposes except as noted in Section 648 – Field-Posted Drawings. The Contractor shall have and maintain at least one set of plans and specifications on the work site, at all times.

(B) Superintendent. The Contractor shall have a competent superintendent on the work site while work is being performed under the contract. The superintendent shall be able to read and understand the contract documents, shall be experienced in the type of project being undertaken and the work being performed, and shall be fluent in the English language. If a superintendent is not present at the work site, the Engineer shall have the right to suspend the work as described under Subsection 108.11 – Suspension of Work.

The Contractor shall provide the Engineer a written statement giving the name of the superintendents assigned to the project. The Contractor shall be responsible for notifying the Engineer in writing of any change in the superintendents in a timely manner.

105.22 Submittals. The contract contains the description of various items that the Contractor must submit to the Engineer for review and acceptance. The Contractor shall review all submittals for correctness, conformance with the requirements of the contract documents and completeness before submitting them to the Engineer. The submittal shall indicate the contract items and specifications subsections for which the submittal is provided. The submittal shall be legible and clearly indicate what portion of the submittal is being submitted for review if more than the required submissions at the earliest possible date. The Contractor shall provide six copies of the required submissions at the earliest possible date.

Failure to furnish acceptable submittal(s) may result in the suspension of payments due the Contractor.

The Contractor shall not add onto the submittals any conditions or disclaimers that conflict with the contract requirements."

105.23 Storage and Handling of Materials and Equipment.

(A) Contractor's Responsibility. The Contractor as part of the contract price shall provide all storage space. Materials shall be stored and handled to preserve their quality and fitness for the work. The Contractor shall locate stored materials so as to facilitate their prompt inspection by the Engineer. No State land outside the project limits may be used without authority granted by the State agency having jurisdiction over the site. Prior to final inspection, the Contractor at no increase in contract price or contract time shall restore all storage sites within the project limits to their pre-existing or to a different condition approved by the Engineer.

(B) Permit. Consistent with State law and subject to the application of the Contractor, the State shall issue a permit for storage of materials and equipment within the State highway right-of-way.

(C) Designated Storage Area. The Contractor may store materials and equipment only within the areas designated in the contract documents.

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

No State land outside the project limits may be used without authority granted by the State agency having jurisdiction over the site. Prior to final inspection, the Contractor at no increase in contract price or contract time shall restore all storage sites within the project limits to their pre-existing or to a different condition approved by the Engineer.

(E) Contractor's Risk. The Contractor assumes all risk of loss or damage to the stored materials and equipment within the State highway right-of-way. Storage of materials and equipment within the highway right-of-way is an element of the Contractor's "performance" as referred to in Subsection 107.27 – Responsibility for Damage; Indemnity. The failure of the Engineer to deny the Contractor the opportunity to store materials and equipment at any particular location at any particular time shall not relieve the Contractor of the primary responsibility to avoid creating traffic and public safety hazards.

105.24 Examination of Contract Documents and Project Site. The Contractor shall examine carefully the project site to become familiar with the conditions to be encountered in performing the work and the requirements of the contract documents. The Contractor shall be charged with knowledge of all conditions at the site that may affect the work, including the storage of materials and equipment and access thereto, that would normally be discovered by a reasonable pre-bid site inspection.

When the contract drawings include a log of test borings showing a record of the data obtained by the State's investigation of subsurface conditions, said log represents only the finding of the State as to the character of material encountered in its test borings and only at the location of each boring. Underground site conditions in Hawaii vary widely. Accordingly there is no warranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the work or any part of it, or that other conditions may not occur.

Subsurface investigations, reports, explorations, and tests utilized by the State in preparation of the contract documents are not part of the contract documents, whether or not they are made available for review and inspection by the Contractor.

105.25 Dimensions, Performance Standards and Other Values Required by the Contract. When work required by the contract is subject to contractually established tolerances, the Contactor's means and methods shall nevertheless be designed to meet the precise dimensions, performance standards and other values required by the contract. Contractor shall not intentionally attempt to provoke work that does not strictly meet the precise dimensions, performance standards and other values required by the contract."

END OF SECTION 105

Amend **Section 106 – Control Of Material** to read as follows:

"SECTION 106 - CONTROL OF MATERIAL

"106.01 Source of Supply and Quality Requirements. The Contractor shall furnish, pay for, and install all materials required to complete the work, except materials that are designated in the contract documents to be furnished by the State.. Materials shall be in new condition as of the time of final acceptance subject to normal wear.

All materials proposed to be used may be inspected and tested at any time and place including but not limited to the source of supply and locations of manufacture and fabrication. When requested by the Engineer, the Contractor shall notify the Engineer of the Contractor's proposed sources of materials prior to delivery. At the request of the Engineer, the Contractor shall provide reasonable and adequate testing facilities and equipment for the Engineer at the inspection site, at no cost to the State.

106.02 Material Sources. The written permission and subject to conditions set by the Engineer, the Contractor may, at no increase in contract price or contract time, use stone, gravel, sand, or other materials found within the project limits. Such permission will not be considered a change and may be revoked at any time for any reason by the Engineer at no increase in contract price or contract time.

The contract documents or Engineer may make available to the Contractor the option to use material from sources made available by the State. Designation of a source for material is not a representation by the Engineer of the quantity or quality of material obtainable or the method, equipment or work required to obtain material from the source. The Contractor is not obligated to use material from such sources. The Contractor bears all costs of using such material and assumes the risk that such material does not conform to contract requirements.

106.03 Material Sample; Sample Submittals; Notice of Change.

(A) Material Sample. Submission of material samples and equipment data required by the contract documents or by the Engineer are exclusively for the benefit of the State's quality control monitoring of the project. Any statement or representation by the Engineer that any submitted sample or equipment data is "ACCEPTED", "APPROVED", or other words to similar effect, shall not be deemed conclusive that the material and equipment data for which a sample was submitted will conform to the contract requirements when incorporated into the work. The 'ACCEPTANCE" or "APPROVAL" of any sample by the Engineer does not change or modify any contract requirements.

The Engineer may conduct tests of or take samples of any materials at any time. The Contractor shall collect and forward samples and provide other assistance when requested by the Engineer. In all cases, the Contractor shall furnish the required samples at no cost to the State. The Contractor shall not be entitled to payment for work that incorporates materials required to be tested or inspected until the Engineer completes the tests or inspections. Where samples are required from the completed work, the Contractor shall cut and furnish samples from the completed work at the sites and quantities designated by the Engineer. The work where sample so removed shall be restored with new material conforming to the contract requirements or accepted by the Engineer at no increase in contract price or contract time.

Tests of the material samples will be made in accordance with the latest standards of HDOT Hawaii Test Methods, AASHTO, ASTM, or other recognized material organizations as amended prior to the date of advertisement unless otherwise provided. References to HDOT Hawaii Test Method means "Hawaii Test Methods", published by the State of Hawaii, Department of Transportation, Highways Division, Materials Testing and Research Branch. The Engineer shall decide the tests to be conducted and standards to be applied, whether a submitted material sample passes the tests and meets the standards, and whether a submitted material sample shall be retested.

Each sample submitted shall have a label indicating project title and number, date sampled, the material represented, its place of origin, the names of the producers and suppliers, the Contractor, and the portion of the work for which the material is intended. Samples shall be marked to indicate where the materials represented are required by the contract documents.

A letter in duplicate shall accompany each delivery of samples and shall contain a list of the samples and the same information required on the labels accompanying each sample.

For Sampling/Testing Guide for Acceptance and Verification, go to: http://www.state.hi.us/dot/highways/specs94/provisions/provhme.htm (106A)

(B) Sample Submittals.

(1) Contractor's Duty. When sample submittals are required by the contract documents, the Contractor shall review, approve, indicate its approval and submit to the Engineer samples of the materials to be used in the work. It is the responsibility of the Contractor to submit required material and color samples for review at the earliest possible date after the date of award. Delays

caused by the failure of the Contractor to submit material and color samples will not be considered as justifiable reasons for contract time extension or additional compensation.

(2) Deviations. The Contractor shall include with the submittal of samples written notification of, and shall clearly identify, all deviations from the contract documents. Failure to so notify the Engineer of, and identify, such deviations shall be grounds for the subsequent rejection of the related work or materials, notwithstanding that the sample upon its submittal was accepted by the Engineer. Any deviations will be subject to Subsection 102.16 – Substitution of Materials and Equipment Before Bid Opening. If the deviations are not acceptable to the Engineer, the Contractor shall be required to furnish the samples as specified or indicated on the contract documents at no additional cost or time.

(3) Review Process. The Engineer will inspect or test samples and communicate the results of the inspection or test within 45 days of receipt unless otherwise agreed between the Contractor and the Engineer or as stated in the contract documents. If the volumes of samples submitted at any time for review is unusually large, the Contractor may inform the Engineer of its preferred order for review and the Engineer will use reasonable efforts to accommodate the Contractor's priorities.

If the Engineer notifies the Contractor that a sample does not conform to the contract documents, the Contractor shall promptly submit a sample conforming to the requirements of the contract documents, indicating in writing on the transmittal and the subject sample what portions of the resubmittal have been altered.

No mark or notation made by the Engineer on or accompanying the return of any sample to the Contractor shall be considered a request or order for a change or extra work. If the Contractor believes any such mark or notation constitutes a request for a change or extra work for which it is entitled to an adjustment in contract price and contract time, or both, the Contractor must follow the procedures established in Subsection 104.02 – Changes for oral orders, directions, instructions, interpretations, or determinations from the Engineer or else lose its right to claim for an adjustment.

(4) Conformance of Material to Submittal. After a material submittal has been accepted by the Engineer, the Contractor shall provide materials for the work that conform to such submittal. Materials that do not conform to such submittal are non-conforming

material in accordance with Subsection 106.07 – Non-Conforming Materials, even if they otherwise meet the contract requirements. If Contractor intends to substitute a material in place of a material for which a submittal has been accepted, the Contractor shall submit the substitute material in accordance with the sampling and testing procedures described herein. The Contractor shall not use the substitute material until the Engineer accepts it.

(C) Notice of Change. If during the course of the work the Contractor intends to change the source of supply of any previously submitted material, or the location of any manufacturing or fabrication plant, the Contractor shall provide the Engineer written notice of such intended change not less than ten days before the change is made. The Engineer may require that the Contractor repeat the submittal process in accordance with this Section 106 – Control of Materials for any such material.

106.04 Plant Inspection. (Unassigned). (See 105.10 – Inspection of the Work and Materials.)

106.05 (Unassigned) (See Subsection 105.23 – Storage and Handling of Materials and Equipment).

106.06 (Unassigned). (See 105.23 – Storage and Handling of Materials and Equipment).

106.07 Non-Conforming Materials. All materials not conforming to the contract requirements, whether in place or not, shall be promptly removed from the site of the work when directed by the Engineer in writing. If the Contractor fails to comply forthwith with any order of the Engineer made under the provisions of this subsection, the Engineer shall have the authority to remove and replace non-conforming materials and charge the removal and replacement to the Contractor.

106.08 State-Furnished Material. The Contractor shall furnish all materials required to complete the work, except those specified to be furnished by the State. The contract documents or the Engineer will establish the time and means of delivery or the turning over of State-furnished materials.

Unless otherwise stated in the contract documents, it shall be conclusively presumed that State-furnished materials conform to the contract documents as of the time of delivery to the Contractor

Upon receipt, the Contractor shall inventory, store, inspect, protect, distribute, and install State-furnished material at its risk and cost."

106.09 Special Test Methods. (Unassigned). (See 106.03 (A)-Material Sample).

106.10 Certificate of Compliance. In addition to or instead of the submission of material samples for inspection or testing, the Engineer or the contract documents may require the Contractor to submit to the Engineer a Certificate of Compliance from the manufacturer or supplier, or both.

A Certificate of Compliance shall be an English language document containing:

(1) A description of the material supplied.

(2) Means of material identification, including but not limited to label, lot number, heat number, batches, or marking including the respective quantities of each supplied for the work.

(3) Statement that the material complies in all respects with the requirements of the cited specifications within the contract documents.

(4) When required by the Engineer, test results confirming that the material complies in all respect with the requirements of the contract documents.

(5) The name, title, and signature of the authorized person acting on behalf of the manufacturer or the supplier of the material,. the date of the signature, and the name and address of the manufacturer or supplier of the material.

106.11 Steel and Iron Construction Material. (Not Applicable)

106.12 Recycling of Waste Glass. (Unassigned) See 717 - Cullet and Cullet-Made Materials).

106.13 Payment for Deleted Materials.

(A) Canceled Orders. If acceptable material was ordered by the Contractor for any item deleted by an ordered change in the work prior to the date of notification of such deletion by the Engineer, the Contractor shall use its best efforts in a timely manner to cancel the order. The State will pay reasonable cancellation charges required by the supplier. The Contractor will be paid a 7 percent markup on all reasonable cancellation charges for compensation for overhead and profit.

(B) Returned Materials. If acceptable deleted material is in the possession of the Contractor or is ultimately received by the Contractor, if such material is returnable to the supplier and the Engineer so directs, the

material shall be returned. After the Contractor returns acceptable material to the supplier, the State will pay for the reasonable charges made by the supplier or other source for the return of the material. The Contractor shall be paid a markup for overhead and profit on charges made by the supplier. The Contractor shall be paid a 7 percent markup on the reasonable charges made by the supplier or other source for returning the material for compensation for overhead and profit. The cost to the Contractor for handling the returned material will be paid as provided in Subsection 104.09 - Methods of Price Adjustment.

(C) Uncancelled Material. If orders for acceptable material that was deleted cannot be canceled at a reasonable cost or returned, it will be paid for at the actual cost to the Contractor including a markup for overhead and profit of 7 percent. In such cases the material paid for shall become the property of the State and the cost of further storage and handling will be paid as provided in Subsection 104.09 - Methods of Price Adjustment.

All charges the Contractor proposes for the acceptable material that was deleted shall be properly itemized and supported by sufficient substantiating legible data to permit evaluation. The Engineer will determine whether the proposal is acceptable.

106.14 Assignment Of Antitrust Claims For Overcharges For Goods and Materials Purchased. Vendor and purchaser recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, vendor hereby assigns to purchaser any and all claims for such overcharges as to goods and materials purchased in connection with this order or contract, except as to overcharges which result from antitrust violations commencing after the price is established under this order or contract and which are not passed on to the purchaser under an escalation clause.

Contractor and owner recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the owner. Therefore, Contractor hereby assigns to owner any and all claims for such overcharges as to goods and materials purchased in connection with this order or contract, except as to overcharges which result from antitrust violations commencing after the price is established under this order or contract and any contract change order. In addition, Contractor warrants and represents that each of its first tier suppliers and subcontractors shall assign any and all such claims to owner, subject to the aforementioned exception."

106.15 Unauthorized Excavation. Unless otherwise expressly directed or authorized by the contract documents, Contractor shall not excavate beyond the excavation limits for the purpose of obtaining materials. The site disturbed by unauthorized excavation shall be returned to the condition existing before such

unauthorized excavation at no cost to the State. Any unauthorized excavation shall be filled, at the direction of the Engineer, with either the material taken out or a substitute material selected by the Engineer.

106.16 Substitution Of Materials and Equipment After Bid Opening. (See 102.16 for Substitution Of Materials and Equipment Before Bid Opening). Substitution of material or equipment will not be allowed after the bid opening date except under the following circumstances:

(1) A specified or pre-qualified item is delayed by an unforeseeable event beyond the control of the Contractor which would impact the timely completion of the project.

(2) A specified or prequalified item is no longer being manufactured or is no longer reasonably commercially available.

(3) A specified or pre-qualified item is found to be unsuitable for reasons beyond the control of the Contractor.

(4) When a manufacturer or supplier of a prequalified or specified item makes available at no increase in contract price or contract time a suitable item, determined by the Engineer to be equal to or better than the item prequalified or specified.

(5) Under such other terms and conditions acceptable to the Engineer

Every substitution request shall be fully explained in writing, by the Contractor and shall include the justification, the quantities and unit prices involved, quotations and such other documents as are deemed necessary to support the request. Any savings in cost will accrue to the State.

The burden of proof as to the comparative quality and suitability of alternate equipment, articles or materials shall be upon the Contractor. The Contractor shall furnish, at no increase in contract price or contract time, all information required by the Engineer.

The Engineer reserves the right to deny any request the Engineer deems irregular or not in the best interest of the State and shall be the sole judge of the comparative quality and suitability of alternates, equipment, articles, or materials."

END OF SECTION 106

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Make the following amendments to said Section:

(I) Amend **107.01 Laws to be Observed** to read as follows:

"**107.01 Laws to be Observed; Indemnity.** The Contractor at all times shall observe and comply with all Federal, State, and local laws, ordinances, rules, regulations, and permit and license requirements which in any manner affect those engaged or employed in the work, the materials used in the work, and the conduct of the work. The Contractor shall comply with all orders and decrees of government bodies or officials having any jurisdiction or authority over the work whether such orders or decrees are directed to the Contractor, its subcontractors, vendors, and suppliers, or to the State.

No instruction in the contract documents or contained within any directive from the Engineer to the Contractor to observe and comply with any specific law, ordinance, rule, regulation or permit or license requirement shall limit the duty of the Contractor to observe and comply with all other laws, ordinances, rules, regulations or permit or license requirement that relate to the work.

The Contractor shall immediately notify the Engineer in writing of any orders, directives, notices, decrees, or warnings issued by any governmental agency to the Contractor, its subcontractors, vendors, and suppliers that a violation of law, rules, regulations, or permit or license requirement is alleged to have occurred or is occurring in connection with the work.

The Contractor shall defend, protect, hold harmless, compensate, and indemnify the State, its officers and employees, against any claim or liability arising from or based on the violation of any laws, ordinances, rules and regulations, orders or decrees, or the terms and conditions of any permits and licenses, whether such orders or decrees are directed to the Contractor, its subcontractors, vendors, and suppliers or to the State."

(II) Amend **107.02 Wages and Hours Requirements** as follows:

Amend the first paragraph to read as follows:

"**107.02 Wages and Hours Requirements.** The Contractor shall at all times observe and comply with all provisions of Chapter 104, HRS, which are emphasized in Attachment I entitled 'Requirements of Chapter 104, HRS Wages and Hours of Employees On Public Work Law', appended hereto and which require, in part, the following:"

Amend **(A) Hours of Labor** by revising the first paragraph to read as follows:

"**(A) Hours of Labor.** No work shall be done over 8 hours in any one day, Saturdays, Sundays, or legal holidays of the State without written consent of the Engineer. If the Engineer gives consent, workers shall

receive compensation at a rate of not less than one and a half times the worker's basic hourly rate if the worker works:

(1) Over 8 hours in one day;

(2) Over 40 hours in one week; or

(3) On Saturdays, Sundays or legal State holidays

plus the cost of fringe benefits according to wage rate schedules issued by the Director of Labor and Industrial Relations."

Amend **(B) Rate of Wages** to read as follows:

"**(B) Rate of Wages.** The Contractor shall pay:

(1) No less than the prevailing wages, and

(2) No less than the increases to the prevailing wages

to the various classes of laborers and mechanics as published in the wage rate bulletins determined by the Director of the Department of Labor and Industrial Relations (DLIR) for the entire term of the contract.

For bidding purposes, the wage rate schedule established by DLIR five calendar days before the date of bid opening shall be applicable.

Said wage rate schedule may be obtained from the Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813. The Department will include the current State wage rate schedule physically in the contract documents executed by the successful bidder.

DLIR have established minimum wage rate schedules for workers. Do not pay the workers less than the wages set forth on the applicable schedules.

Consider flaggers who perform traffic safety duties and no actual construction work on this contract as laborers or mechanics.

Post the schedule of prevailing rates of minimum wages applicable to the work in a prominent and easily accessible place at the project site. Give to each worker employed under the contract a copy of that rates of wages required to be posted at the time of employment.

(III) Delete **107.04 Citizen Labor** in its entirety.

(IV) Amend **107.07 Contractor's Licensing Laws** by revising the third paragraph to read as follows:

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

(V) Amend **107.08 Permits, Licenses, And Taxes** to read as follows:

"**107.08 Permits and Licenses.** As part of the contract price, the Contractor shall obtain all permits and licenses required by law to perform the work and pay charges, fees, and taxes incidental to obtaining such permits and licenses. The Contractor assumes exclusive responsibility for identifying and acquiring all permits and licenses necessary to perform the work, except for those permits and licenses identified in the contract documents as being the responsibility of the State.

The terms and conditions of any permit or license required for performance of the work, whether or not issued in the name of the Contractor, are incorporated into the contract. Compliance with such terms and conditions are duties owed by the Contractor to the State under the contract. Notwithstanding the enforcement authority of the permitting or licensing agency, whether or not a State agency, non-compliance by the Contractor with any term or condition of such license or permit shall be deemed non-compliance with the contract and may constitute grounds for default.

The Engineer may grant a time adjustment, or cost adjustment, or both to the extent the Engineer determines that the Contractor was not a contributing factor for such delay."

(VI) Delete **107.11 Federal Aid Provisions** in its entirety.

(VII) Amend **107.12 Sanitary, Health, And Safety Provisions** to read as follows:

"**107.12 Safety: Accident Prevention.**

(1) The Contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the Engineer may determine, to be reasonably necessary to protect the life and health of employees and other persons on and around the worksite and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

(2) 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 promulgated by the Federal, State, and local authorities.

(3) Authorized Federal, State, and local officials shall have right of entry to any site of contract performance to inspect, investigate, and enforce the matter of compliance with the construction safety and health standards referred to herein."

(VIII) Amend **107.13 Public Convenience and Safety** to read as follows:

"**107.13 Contractor Duty Regarding Public Convenience.** The Contractor shall at all times conduct the work in such manner and in such sequence as will insure the least practicable interference with pedestrian, bicycle, and motor passageways. The Contractor shall plan and provide appropriate detours, signs, flashers, personnel, warnings, barricades and other devices for safely and legally handling pedestrian, bicycle, and motor traffic."

(IX) Delete **107.14 Barricades and Warning Signs** in its entirety.

(X) Delete **107.15 Use of Explosives or Combustibles** in its entirety. (See Subsection 104.16 – Use of Explosives)

(XI) Amend **107.16 Protection and Restoration of Property and Landscaping** to read as follows:

"**107.16 Protection of Persons and Property.**

(A) Contractor's Responsibility for Damage to Property. All damage, injury or loss to any property caused during the course of, or arising out of the work, whether or not caused by negligent acts or omissions, shall be the responsibility of the Contractor and shall be remedied promptly by the Contractor. This provision shall not affect the Contractor's legal rights of subrogation, contribution, and indemnity to recover the costs of remedial measures and other damages to which it may be entitled.

(B) Safety Precautions and Programs. The Contractor shall notify owners of adjacent properties and of underground (or overhead) utilities when performing work which may affect the owners; and shall cooperate with the owners in the protection, removal and replacement of their property.

The Contractor shall not permit any load to be placed on the work, any structure, or roadway or any other location that may endanger the safety of any persons or cause damage to any property. The Contractor shall not injure or destroy trees or shrubs that are identified in the contract documents for preservation nor remove or cut them without permission of the Engineer. Contractor shall protect all land monuments and property

marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

In the event the Contractor encounters on the site material reasonably believed to be asbestos or other hazard material that has not been rendered harmless, the Contractor shall stop work in the area and notify the Engineer promptly. The work in the affected area shall be resumed in the absence of hazard materials or when the hazard has been rendered harmless.

(C) Notification to the Engineer. The Contractor shall notify the Engineer in writing not later than noon of the following working day whenever:

(1) Police, fire or other public safety officers are called to the work site for any reason or are present at the work site for any public safety related reason.

(2) Any person is treated or evacuated from the work site by emergency medical services personnel.

(3) Any member of the public claims to have been injured at the work site.

(4) The Contractor witnesses a member of the public being involved in an accident at the worksite, or on account of conditions related to the work, whether or not visible injuries occur.

(5) Any representative of a Federal, State, or County regulatory or enforcement agency is present at the work site including but not limited to any representative of Department of Health, EPA, OSHA, and public works."

(XII) Amend **107.17 Protection of Rivers, Streams, Impoundments, Forests and Archeological, Historical, and Burial Site Findings** to read as follows:

"107.17 Pollution Control and Protection Of Archeological, Historical, and Burial Sites.

(A) Erosion, Siltation and Pollution Control. The Contractor shall exercise precaution to prevent silting and pollution of oceans, rivers, streams, lakes, and reservoirs and other bodies and conveyances of water.

The Contractor shall provide for pollution and erosion control during the work including periods of suspension of contract performance. If material begins to erode, the Contractor shall act immediately to bring

the siltation, erosion, and pollution under control. See Section 209 – Temporary Water Pollution, Dust and Erosion Control.

Follow guidelines in the City and County of Honolulu's "Best Management Practices Manual for Construction Sites in Honolulu", in developing, installing, and maintaining BMPs for all projects. Follow City and County of Honolulu's "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use appropriate Soil Erosion Guidelines for Maui, Kauai, and Hawaii projects.

(B) Archaeological, Historical, and Burial Sites. Whenever the Contractor encounters sites of potentially historic or archaeological significance such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentration of charcoal or shells, work shall cease in the immediate vicinity of the site and the site shall be protected from damage. The Contractor shall suspend any work that may affect the site and inform the Engineer immediately. Upon direction by the Engineer, the Contractor shall provide and install temporary fencing to protect such sites. The Contractor shall not resume the work suspended without the prior written direction of and subject to the conditions set by the Engineer."

(XIII) Amend **107.21 Contractor's Responsibility for Utility Property and Services** to read as follows:

"107.21 Utilities and Services.

(A) Contractor's Duty to Coordinate Utility Work. The Contractor shall contact and cooperate with each affected utility owner in order for the work to progress on schedule and without unreasonable disruption of such utility services. If the work calls for permanent utility service installations or corrections to, or modifications of existing utilities, the Contractor is responsible for scheduling and coordinating such work with appropriate utility owners. If the work required by the contract documents conflicts with the instructions, demands, or requirements of a utility owner, the Contractor shall notify the Engineer immediately. The Contractor shall furnish the Engineer with evidence that the Contractor has provided all relevant utility owners reasonable opportunity to review the drawings.

When the State has a separate agreement with a utility owners for work to be performed within the worksite, at the direction of the Engineer the Contractor shall make available all portions of the work and the worksite necessary for the utility owners to do their work.

The Contractor hereby holds the State harmless against all risks arising from acts or omissions of utility owners that damage the work, or create delays, disruptions, and additional cost to the Contractor in the performance of the work. Contract time for the work may be extended in accordance with Subsection 108.06 - Contract Time on account of acts

and omissions of utility owners that delay the work without fault of the Contractor.

The Contractor may relocate or adjust the utility lines or service connections for its convenience with the permission of the owner of the utility and the Engineer at no increase in contract price or contract time.

(B) Contractor's Duty to Locate and Protect Utility. Before beginning any work at the worksite, the Contractor shall:

(1) Ascertain and mark the exact location and depth of all utilities within the project area including taking reasonable steps to detect the existence and location of utilities not shown on the drawing.

(2) Acquaint all personnel working near utilities with the type, size, location, and depth of the utilities, as well as the consequences that might result from disturbances.

(3) Take reasonable steps to protect the utilities and prevent service disruption.

(C) Discovery of Unknown Utility; Damage to Utility. Upon discovery of a utility that was not shown to exist in the contract documents, or is found at a location that is substantially different than shown in the contract documents, the Contractor shall promptly notify the Engineer before the utility and its surrounding area are further disturbed. The Contractor shall be responsible for the safety and protection of the public and the utility subject to further direction from the Engineer. Whenever the Contractor damages a utility or causes any interruption to any utility service, the Contractor shall promptly notify the Engineer, the affected utility owner, and the appropriate governmental authorities. The Contractor shall cooperate with the affected utility owner, and the appropriate governmental authorities in the restoration of service If the damage is to a utility that is known, or should have been discovered before the damage occurred, the Contractor shall be responsible for all costs associated with its repair and restoration of service, at no increase in contract price or contract time."

(XIV) Add the following:

"107.25 Contaminated or Hazardous Items and Material; Regulated Items and Material; Waste.

(A) Known or Suspected Contaminated or Hazardous Items and Material. If the contract documents have noted an area of known or suspected contaminated or hazardous items or material within the project limits, in the absence of specific orders from the Engineer or directions in the contract documents, the Contractor shall report the discovery of such

items or material to the appropriate governmental agencies, cooperate with all investigations and either remediate or remove and dispose of such items and/or material as part of the contract price unless otherwise noted in the contract documents. Upon encountering any such items or material, the Contractor shall immediately notify the Engineer.

(B) Unknown Contaminated or Hazardous Items and Material. If the Contractor encounters or exposes any items, material or other conditions within the worksite not previously known or suspected to be contaminated or hazardous, but which exhibits properties which may indicate the presence of such items or material, the Contractor shall immediately notify the Engineer. Claims by the Contractor for additional money or time arising from work involving such items, material or other conditions, including the cost and time associated with notifying and providing written reports to government agencies listed below, shall be subject to the terms and conditions of Subsection 104.12 – Differing Site Conditions.

(C) Contractor's Duty to Report. Whenever the Contractor encounters or exposes any hazardous or contaminated items, material or conditions at the worksite whether the existence of which was previously known, suspected, or unknown, the Contractor shall notify the State Department of Health/HEER office, the Federal Environmental Protection agency, the U.S. Coast Guard, the National Response Center, and other appropriate government agencies, and comply with any directives or instructions provided by them.

(D) Material and Waste Brought to the Worksite. The Contractor shall assume sole responsibility for

(1) The management of all regulated materials and items brought to the worksite; and

(2) The management of all waste generated by or incidental to the Contractor's operations, including but not limited to lubricants, antifreeze, engine fluids, paints, and solvents.

Management of such materials and items includes, but is not limited to, their transport, storage, handling, and disposal.

(E) Reimbursement of State Expenses. In addition to all other remedies provided by law or contract, the State may withhold from or recover from the Contractor any money it is required to expend to remediate, remove, or dispose of any such items and material, as well as the cost of any fines or impositions made by appropriate enforcement agencies arising from the management of such items and material, whether or not the Contractor exercised due care."

107.26 Assignment or Change of Name.

(A) General. The Contractor shall not sell, transfer, assign, or otherwise dispose of this contract or any part hereof or any right, title, or interest herein without the written consent of the Engineer.

The Contractor may assign money due or to become due under the contract and such assignment will be recognized by the State, if given written notice thereof, to the extent permitted by law. Any assignment of monies shall be subject to all set-offs in favor of the State and to all deductions provided for in the contract including but not limited to liquidated or actual damages for delay and money retained by the State for the completion of the work in the event that the Contractors should be in default.

(B) Recognition of a Successor in Interest; Assignment. When in the best interest of the State, a successor in interest may be recognized in an assignment agreement in which the Contractor and the transferee and the State shall agree that:

(1) The transferee assumes all of the Contractor's obligation;

(2) The Contractor remains liable for all obligations under the contract but waives all rights under the contract against the State; and

(3) The Contractor shall continue to furnish, and the transferee shall also furnish, all required bonds.

(C) Change of Name. When a Contractor requests to change the name in which it holds a contract with the State, the Engineer shall, upon receipt of a document indicating such change of name (for example; an amendment to the articles of incorporation of the corporation), enter into an agreement with the requesting Contractor to effect such a change of name. The agreement changing the name shall specifically indicate that no other terms and conditions of the contract are thereby changed.

107.27 Responsibility For Damage Claims; Indemnity. The Contractor shall compensate and make whole the State for all loss or damage to the State's property and facilities arising out of any act or omission in the performance of the work by the Contractor, any subcontractor, or their employees and agents.

The Contractor shall defend, hold harmless, compensate, and indemnify the State, its employees and officers, against any loss, demand, claim, liability, suit, action, cause of action, judgment, cost and expenses including attorney's fees, based upon personal injury, death, or property damage which arise out of the Contractor's performance under the contract, including the operations and performance of one or more subcontractors, whether or not a

lawsuit is filed against the State and whether or not the Contractor is named as a party to any such lawsuit, unless and until a court of competent jurisdiction makes a final non-reviewable determination that the personal injury, death, or property damage was caused solely by the negligence of the State.

The State may participate in the defense of any claim or suit brought against its officers or employees, without relieving the Contractor of any obligation hereunder. The purchase of liability insurance shall not relieve the Contractor of the obligations described herein. If the Contractor and its insurer fail to undertake the defense of the State, its employees and officers, after a tender of defense has been duly made, the State may retain and withhold money to cover the Contractor's obligation whether or not the Contractor is terminated for cause.

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

107.28 Right to Audit Records, Records Maintenance, Retention and Access. Pursuant to HRS Chapter 103D-317 the State, at reasonable times and places, may audit the books and records of a Contractor, prospective contractor, subcontractor and prospective subcontractor relating to the Contractor's or subcontractor's cost or pricing data. Any such audits may be conducted by Federal and State employees or by consultants working on behalf of the State. The Contractor and subcontractor(s) shall maintain the books and records for a period of three years from the date of final payment under the contract.

The Contractor and its subcontractors shall, in accordance with generally acceptable accounting practices, maintain fiscal records and supporting documents and related files, papers, and reports that adequately reflect all direct and indirect expenditures and management and fiscal practices related to the Contractor and subcontractor's performance of work under this contract.

The representatives of the State, (and Federal government representatives when federal funds are utilized), have the right to inspect and copy any book, document, paper, file, or other record , that is related to the performance of the work of the Contractor and any subcontractor.

The Contractor shall provide full cooperation during any audit or inspection and shall insure that its subcontractors comply with this requirement. The Contractor shall bear all costs (including attorney's fees) of enforcement in the event of its or its subcontractor's failure or refusal to fully cooperate.

This right of inspection and audit shall not be limited to the required retention period but shall last as long as records are retained. The Contractor and subcontractor shall retain all records related to the Contractor and subcontractor's performance of work under this Agreement for three years from the date of final payment, except that if any litigation , claim, negotiation, investigation, audit or other action involving the records has been started before the expiration of the three year period, the Contractor and subcontractors shall retain the records until final resolution of all issues that arise from it, or until the end of the three year retention period, whichever occurs later.

107.29 Insurance Requirements.

(A) Obligation of Contractor. Contractor shall obtain all required insurance as part of the contract price. The Contractor shall not commence any work until it obtains all required insurance. All required insurance must be maintained with a company authorized by law to issue such insurance in the State of Hawaii. The Contractor shall maintain all insurance until final acceptance of the work by the State.

A certificate of insurance shall be from an insurance company or agency licensed in the State of Hawaii. Certificates shall contain a provision that coverages being certified will not be cancelled or materially changed without giving the Engineer at least 30 days prior written notice by registered mail. If the State and its officers and employees are to be Additional Insureds on any of the required insurance, it shall be so noted on the certificate. Should any policy be cancelled 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 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 and its officers and employees, harmless pursuant to other provisions of the contract documents. The State's exercise of an option to occupy and use portions of the work does not relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance.

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

Upon request, the Contractor shall furnish the Engineer, a copy of required policies or other proof of coverage satisfactory to the Engineer, of each type of insurance 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 the Contractor's default.

(B) Types of Insurance. Contractor shall purchase and maintain insurance described below:

(1) Commercial General Liability (Occurrence form). Minimum limit of $2,000,000 combined single limit per occurrence for each of the following:

(a) Products - Completed/Operations Aggregate,

(b) Personal & Advertising Injury, and

(c) Bodily Injury & Property Damage insurance with the following minimum limits of liability:

The State of Hawaii, its officers and employees, shall be as additional insureds under these coverages.

(2) Comprehensive Automobile Liability. Minimum limit of $1,000,000 combined single limit per accident for bodily injury and property damage

The State of Hawaii, its officers and employees, shall be as additional insureds under these coverages.

(3) Workers Compensation. Workers' Compensation insurance coverage shall be for all persons whom the Contractor and all its subcontractors employ in carrying out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract.

(C) Breach of Duty by Contractor or Insurer. If either the Contractor or its insurer wrongfully fails to defend or indemnify the State of Hawaii, its officers and employees, against any claims, the State may debar or suspend the Contractor from bidding, or working on construction projects, and may refuse to permit the insurer to provide insurance on State construction projects.

The State may exercise these remedies in addition to other legal or equitable remedies it may have against the Contractor, insurer, or both.

(D) Subcontractor Insurance. The Contractor shall either:

(1) Require its subcontractors to procure and to maintain during the life of its subcontract, subcontractor's comprehensive general liability, automobile liability and property damage liability insurance of the type and in the same amounts specified herein and further require that such coverage be required by its subcontractors from all lower tier subcontractors. On all such insurance coverages, the State of Hawaii, its officers and employees, shall be additional insureds.

(2) Insure the activities of its subcontractors and their lower tier subcontractors in its own policy.

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

107.30 Overtime and Night Work. Normal working hours shall be from 7:00 a.m. to 3:30 p.m., Monday through Friday, excluding holidays. Work performed between 3:30 p.m. and 7:00 a.m. of the following day is "night work".

Overtime work shall be considered as work performed in excess of eight hours in any one day or work performed on Saturday, Sunday or legal holiday of the State. Overtime and night work are permissible when approved by the Engineer in writing, or as called for elsewhere within the contract documents. The Contractor shall inform the Engineer in writing at least three working days in advance of its intent to work overtime and 10 working days in advance of any night work. In addition the Contractor shall inform the Engineer of what specific work is to be done during any overtime and night period. When, in the opinion of the Engineer, an emergency exists where overtime or night work is warranted, the written notice requirement may be waived and verbal approval of the Engineer will be sufficient. The Engineer may cancel any overtime or night work previously approved when the Engineer finds that work during these periods is detrimental to public welfare, safety, or the interest of the State.

107.31 Overtime and Night Payment for State Inspection Service.

(A) State's Responsibility for State's Cost. The State shall be responsible for overtime or night work payment for State's staff and

inspection personnel including consultants when the contract requires overtime or night work to be performed, or directs the Contractor to work additional shifts or overtime for State's convenience.

(B) Contractor's Responsibility for State's Cost. The Contractor shall be responsible for overtime or night work payment for State's staff and inspection personnel including consultants when the Contractor does any other overtime or night work.

The Contractor shall pay the following costs incurred by the State:

(1) The payroll costs for the State's staff and inspection personnel assigned in connection with such work, including but not limited to salaries, the State's share of contributions to the employee's retirement, medical plan, social security, vacation, sick leave, worker's compensation funds, per diem, and other applicable fringe benefits and overhead expenses, incurred on account of such work.

(2) The transportation costs incurred by the State's staff and inspection personnel, which are based on established rental rates or mileage allowance in use by the State for the particular equipment or vehicle.

(3) Fees and other costs billed the State by consultants engaged on the project for overtime and nighttime work.

(C) Payment for Inspection Service. The monies due the State for costs described herein shall be deducted from the monies due or to become due the Contractor. The Contractor shall not pay the State's employees directly."

END OF SECTION 107

Amend **Section 108 - Prosecution and Progress** to read as follows:

"SECTION 108 - PROSECUTION AND PROGRESS

108.01 Subcontracts.

(A) Subcontract Requirements. Nothing contained in the contract documents shall create a contractual relationship between the State and any subcontractor.

Subject to the provisions of HRS Chapter 103D-302, the Contractor may subcontract a portion of the work but the Contractor shall remain responsible for the work so subcontracted.

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of any duty the Contractor may have pursuant to the contract without the written consent of the State.

The Contractor shall perform with his/her own organization, work amounting to not less than 30 percent of the total contract cost, except that any items designated by the State in the contract as 'specialty items'. Where an entire item is subcontracted, the value of work subcontracted will be based on the contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be estimated by the Engineer and be based on the cost of such portion of the contract items.

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

Section No.	**Description**
401	All Contract Items under Section 401 - Asphalt Concrete Pavement
621B	All Contract Items under Section 621B - Traffic Control Regulatory, Warning, and Miscellaneous Signs
621C	All Contract Items under Section 621C - Markers
629	All Contract Items under Section 629 - Pavement Markings
645	Contract Item No. 645.0100 under Section 645 – Work Zone Traffic Control

No subcontract shall release the Contractor of any liability under the contract and bonds.

(B) Substituting Subcontractors. Under HRS Chapter 103D-302, the Contractor is required to list the names of persons or firms to be engaged by the Contractor as a subcontractor or joint contractor in the performance of the contract. Contractors may enter into subcontracts only with subcontractors listed in the proposal or with non-listed joint contractors/subcontractors permitted under Subsection 102.06 – Preparation of Proposal. No subcontractor may be added or deleted and substitutions will be allowed only if the subcontractor:

(1) Fails, refuses or is unable to enter into a subcontract, or

(2) Becomes insolvent; or

(3) Has its Contractor's license suspended or revoked; or

(4) Has defaulted or has otherwise breached the subcontract in connection with the subcontracted work; or

(5) Is unable to comply with other requirements of law applicable to Contractors, subcontractors and public works projects.

Bids that do not comply with the above requirements may be accepted if acceptance is in the best interest of the State and the value of the work to be performed by the subcontractor or joint contractor is equal to or less than one percent of the total bid amount.

When the subcontractor is not prosecuting the work in accordance with the contract, the Contractor shall immediately remove the subcontractor from the project, upon receipt of a written notice from the Engineer. The subcontractor shall not again be employed on the project.

Requests to substitute a subcontractor shall be allowed only upon the written approval of the Engineer. The Contractor agrees to hold the State harmless, defend and indemnify the State for all claims, liabilities, or damages whatsoever, including attorney's fees arising out of or related to the approval or disapproval of the substitution.

108.02 Notice to Proceed (NTP). A notice to proceed will be issued to the Contractor. It shall establish the date the Contractor is expected to start work and from which contract time will commence.

The Engineer will consult with the Contractor in an effort to set a mutually agreeable notice to proceed date. When the notice to proceed date is set by

mutual agreement, Contractor shall have no claim for delay impact costs resulting from the issuance of the notice to proceed for such date.

In the absence of an agreed notice to proceed date, the Engineer will issue a notice to proceed to the Contractor. In the event that the Engineer establishes a starting date that is more than 90 days after the effective date of the contract the Contractor may submit a claim in accordance with Subsection 107.15 – Disputes and Claims for increased labor and material costs which are directly attributable to the delay beyond the first 90 days. The Engineer may suspend the contract before issuing the notice to proceed, in which case the Contractor's remedies are exclusively those set forth in Subsection 108.11 – Suspension of Work.

The Contractor shall begin work within 10 working days from the date in the notice to proceed and shall diligently prosecute the same to completion within the contract time. In the event that the Contractor fails to start the work, the Engineer may terminate the contract in accordance with Subsection 108.12 – Termination of Contract for Cause. The Contractor shall notify the Engineer at least three working days before beginning work.

The Contractor shall notify the Engineer at least 24 hours before restarting work after a suspension of work pursuant to Subsection 108.11 – Suspension of Work.

The Contractor shall not begin work before the date in the notice to proceed. Any work done prior to the notice to proceed date will be considered unauthorized work. If the Engineer does not direct that the unauthorized work be removed, it shall be paid for after the notice to proceed date and only if it is acceptable.

When construction is started, the Contractor shall work expeditiously and pursue the work diligently until it is complete. If only a portion of the work is to be done in stages, the Contractor shall leave the area safe and usable for the user agency at the end of each stage.

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

108.04 Preconstruction Data Submittal. The awardee shall submit to the Engineer for information and review the pre-construction data within 15 days from the date of notice of intent to enter the contract. Until the items listed below are received and found acceptable by the Engineer, the Contractor shall not commence work unless otherwise authorized to do so in writing and subject to such conditions set by the Engineer. No progress payment will be made to

the Contractor until the Engineer acknowledges, in writing, receipt of the following preconstruction data submittals acceptable to the Engineer:

(1) List of the Superintendent and other Supervisory Personnel;

(2) Name of person(s) authorized to sign for the Contractor;

(3) Work Schedule;

(4) Initial Progress Schedule (See Subsection 108.07 – Progress Schedule)

(5) Water Pollution and Siltation Control Submittals;

(6) Solid Waste Disposal form;

(7) Tax Rates;

(8) Insurance Rates

(9) Certificate of Insurance satisfactory to the Engineer that the Contractor has in place all insurance coverage required by the contract documents; and

(10) Schedule of agreed prices; and

(11) List of Suppliers.

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

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

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

108.06 Contract Time.

(A) Calculation of Contract Time. When the contract time is on a working day basis, the total contract time allowed for the performance of the work will be the number of working days shown in the contract plus any additional working days authorized in writing as provided hereinafter. The count of elapsed working days to be charged against contract time, will begin from the date of notice to proceed and will continue consecutively to the date of final acceptance. When multiple shifts are used to perform the work, the State will not consider the hours worked over the normal eight working hours per day or night as an additional working day.

When the contract is on a calendar day basis, the total contract time allowed for the performance of the work will be the number of days shown in the contract plus any additional days authorized in writing as provided hereinafter. The count of elapsed days to be charged against contract time will begin from the date of notice to proceed and will continue consecutively to the date of final acceptance. The Engineer will exclude days elapsing between the orders of the Engineer to suspend work and resume work for suspensions not the fault of the Contractor.

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

> **(1) Changes in the Work, Additional Work, and Delays Caused by the State.** If the Contractor believes that an extension of time is justified on account of any act or omission by the State, and is not adequately provided for in a field order or change order, it must request the additional time as provided above. At the request of the Engineer, the Contractor must show how the critical path will be affected and must also support the time extension request with schedules, as well as statements from its subcontractors, suppliers, or manufacturers, as necessary. Claims for compensation for any altered or additional work will be determined pursuant to Subsection 104.02 – Changes.
>
> Additional time to perform the extra work will be added to the time allowed in the contract without regard to the date the change directive was issued, even if the contract completion date has passed. A change requiring time issued after contract time has expired will not constitute an excusal or waiver of pre-existing Contractor delay.

(2) Delay for Permits. For delays in the routine application and processing time required to obtain necessary permits, including permits to be obtained from State agencies, on the condition that the delay is not caused by the Contractor, and provided that as soon as the delay occurs, the Contractor notifies the Engineer in writing that the permits are not available. Time extensions will be the exclusive relief granted on account of such delays.

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

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

1. State specifically the reason or reasons for the delay and fully explain in a detailed chronology how the delay affects the critical path.

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

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

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

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

(4) Delays in Delivery of Materials or Equipment. For delays in delivery of materials or equipment which occur as a result of unforeseeable causes beyond the control and without fault of the Contractor, its subcontractor(s) or supplier(s), time extensions shall be the exclusive relief granted and no additional compensation will be paid the Contractor on account of such delay.

The delay shall not exceed the difference between the originally scheduled delivery date and the actual delivery date. The Contractor may be granted an extension of time provided that it complies with the following procedures:

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

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

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

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

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 108.11(A)(1), 108.11(A)(2), or 108.11(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.

(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 108.06(B)(3) and 108.06(B)(4).

(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.

108.07 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 SureTrak Project Manager by Primavera Systems, Inc.

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 and it shall meet the following requirements and have 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 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 milestone 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 shall 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; and

(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.

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

(a) The information and requirements listed in A above;

(b) Additional reports and graphics available from the software as requested by the Engineer;

(c) Sufficient detail to allow at least weekly monitoring of the Contractor and subcontractor's operations;

(d) The time scaled schematic shall be on a calendar or working days basis. What will be used shall be determined by how the Contract keeps track of time. It will be the same. Plot the critical calendar dates anticipated;

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

(f) Latest start and finish dates for critical path activities;

(g) Identify responsible subcontractor, supplier, and others for their respective activity;

(h) No individual activity shall have duration of more than 20 calendar days unless requested and approved by the Engineer;

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

(j) Incorporate all physical access and availability restraints.

(B) Inspection and Testing. All schedule 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 Department 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 or 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 108.07(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 Department 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.

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

(a) Has a duration longer than five days;

(b) Is a milestone activity;

(c) Is a contract item that exceeds $10,000 on the contract cost proposal;

(d) Is a critical path activity; or

(e) Is an activity designated as such by the Engineer.

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

(i) Quantity, type, make, and model of equipment,

(ii) The manpower to do the work, specifying worker classification, and

(iii) The production rate per eight hour day, needed to meet the time indicated on the schedule.

(6) Two sets of color time-scaled project evaluation and review technique charts ("PERT") using the activity box template of Logic – Early Start or such other template designated by the Engineer.

If the Contract Documents establish a sequence or order for the work, the initial progress schedule shall conform to such sequence or order.

(E) Contractor's Continuing Schedule Submittal Requirements. After the acceptance of the initial TSLD and when construction starts, the Contractor shall submit four plotted progress schedules, two PERT charts, and reports on all construction activities every two weeks (bi-weekly). This scheduled bi-weekly submittal shall also include an updated version of the project schedule in a computerized software format as specified by the Engineer. The submittal shall have all the information needed to re-create that time period's TSLD plot and reports. The bi-weekly submittal shall include, but not limited to, an update of activities based on actual durations, all new activities and any changes in duration or start or finish dates of any activity.

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

The Contractor shall submit updates of the anticipated work completion graph, equipment listing, manpower requirement graph or method statement when requested by the Engineer. Such updates shall be submitted within four calendar days from the date of the request by the Engineer.

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

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

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

(H) Accelerated Schedule; Early Completion. If the Contractor submits an accelerated schedule (shorter than the contract time), the Engineer's review and acceptance of an accelerated schedule does not constitute an agreement or obligation by the State to modify the contract time or completion date. The Contractor is solely responsible for and shall accept all risks and any delays, other than those that can be directly and solely attributable to the State that may occur during the work, until

the contract completion date. The contract time or completion date is established for the benefit of the State and cannot be changed without an appropriate change order or final acceptance by the State. The State may accept the work before the completions date is established, but is not obligated to do so.

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

(l) **Contractor Responsibilities.** The Contractor shall promptly respond to any inquiries from the Engineer regarding any schedule submission. The Contractor shall adjust the schedule to address directives from the Engineer and shall resubmit the TSLD package to the Engineer until the Engineer finds it acceptable.

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

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

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

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

(2) The duration of all events and delays;

(3) The critical path clearly marked in red or marked in a manner that makes it clearly distinguishable from other paths and is acceptable to the Engineer;

(4) Critical submittals and requests for information (RFI's);

(5) The project title, project number, dated 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.

108.09 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. 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 $1300.00 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 substantial completion, 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) Substantial completion of the work 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 inspection that results in final acceptance and the receipt by the Contractor of the written notice of the final acceptance.

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

108.10 Rental Fees for Unauthorized Lane Closure or Occupancy. In addition to all other remedies available to the State for Contractor's breach of the terms of the contract, the Engineer will assess the rental fees in the amount of $500 for every one-to fifteen-minute increment for each roadway lane closed to the public use or occupied beyond the time periods authorized in the contract or by the Engineer. The maximum amount assessed per day shall be $5,000. The State may, at its discretion, deduct the amount from monies due or that may become due under the contract. The rental fee may be waived in whole or part if the Engineer determines that the unauthorized period of lane closure or occupancy was due to factors beyond the control of the Contractor. Equipment breakdown is not a cause to waive liquidated damages.

108.11 Suspension of Work.

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

(1) Weather or soil conditions considered unsuitable for prosecution of the work;

(2) Whenever a redesign that may affect the work is deemed necessary by the Engineer;

(3) Unacceptable noise or dust arising from the construction even if it does violate any law or regulation;

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

(a) Correct conditions unsafe for the general public or for the workers;

(b) Carry out orders given by the Engineer;

(c) Perform the work in strict compliance with the provisions of the contract; or

(d) Provide adequate supervision on the jobsite.

(5) The convenience of the State.

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

(C) Reimbursement to Contractor. In the event that the Contractor is ordered by the Engineer in writing as provided herein to suspend all work under the contract for the reasons specified in Subsections 108.11(A)(2), 108.11(A)(3), or 108.11(A)(5) of the "Suspension of Work" paragraph, the Contractor may be reimbursed for actual direct costs incurred on work at the jobsite, as authorized in writing by the Engineer, including costs expended for the protection of the work. An allowance of 5 percent for indirect categories of delay costs will be paid on any reimbursed direct costs, including extended branch and home-office overhead and delay impact costs. No allowance will be made for anticipated profits. Payment for equipment which is ordered to standby during such suspension of work shall be made as described in Subsection 109.04(H) - Idle and Standby Equipment.

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

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

(1) For weather related conditions,

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

(3) For which an adjustment is provided for or excluded under any other provision of this Contract.

(E) Claims for Adjustment. Any adjustment in contract price made shall be determined in accordance with Subsections 104.02 – Changes and 104.09 – Methods of Price Adjustment.

Any claims for such compensation shall be filed in writing with the Engineer within 30 days after the date of the order to resume work or the claim will not be considered. The claim shall conform to the requirements of Subsection 105.18(D) – Making of a Claim. The Engineer will take the claim under consideration, may make such investigations as are deemed necessary and will be the sole judge as to the equitability of the claim. The Engineer's decision will be final.

(F) No Adjustment. No provision of this clause shall entitle the Contractor to any adjustments for delays due to failure of its surety, the cancellation or expiration of any insurance coverage required by the contract documents, for suspensions made at the request of the Contractor, for any delay required under the contract, or for suspensions, either partial or whole, made by the Engineer under Subsection 108.11(A)(4) of the "Suspension of work" paragraph.

108.12 Termination of Contract for Cause.

(A) Default. If the Contractor refuses or fails to perform the work, or any separable part thereof, with such diligence as will assure its completion within the time specified in this contract, or any extension thereof, or commits any other material breach of this contract, and further fails within seven days after receipt of written notice from the Engineer to commence and continue correction of the refusal or failure with diligence and promptness, the Engineer may, by written notice to the Contractor, declare the Contractor in breach and terminate the Contractor's right to proceed with the work or the part of the work as to which there has been a delay or other breach of contract. In such event, the State may take over the work, perform the same to completion, by contract or otherwise, and may take possession of, and utilize in completing the work, the materials, appliances, and plant as may be on the site of the work and necessary therefore. Whether or not the Contractor's right to proceed with the work is terminated, the Contractor and the Contractor's sureties shall be liable for any damage to the State resulting from the Contractor's refusal or failure to complete the work within the specified time.

(B) Additional Rights and Remedies. The rights and remedies of the State provided in this contract are in addition to any other rights and remedies provided by law.

(C) Costs and Charges. All costs and charges incurred by the State, together with the cost of completing the work under contract, will be deducted from any monies due or which would or might have become due to the Contractor had it been allowed to complete the work under the contract. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay the State the amount of the excess.

In case of termination, the Engineer will limit any payment to the Contractor to the part of the contract satisfactorily completed at the time of termination. Payment will not be made until the work has satisfactorily been completed and all required documents, including the tax clearance required by Subsection 109.11 – Final Payment are submitted by the Contractor. Termination shall not relieve the Contractor or Surety from liability for liquidated damages.

(D) Erroneous Termination for Cause. If, after notice of termination of the Contractor's right to proceed under this section, it is determined for any reason that good cause did not exist to allow the State to terminate as provided herein, the rights and obligations of the parties shall be the same as, and the relief afforded the Contractor shall be limited to, the provisions contained in Subsection 108.13 – Termination for Convenience.

108.13 Termination For Convenience.

(A) Terminations. The Director may, when the interests of the State so require, terminate this contract in whole or in part, for the convenience of the State. The Director will give written notice of the termination to the Contractor specifying the part of the contract terminated and when termination becomes effective.

(B) Contractor's Obligations. The Contractor shall incur no further obligations in connection with the terminated work and on the date set in the notice of termination the Contractor shall stop work to the extent specified. The Contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work subject to the State's approval. The Engineer may direct the Contractor to assign the Contractor's right, title, and interest under terminated orders or subcontracts to the State. The Contractor must still complete the work not terminated by the notice of termination and may incur obligations as necessary to do so.

(C) Right to Construction and Goods. The Engineer may require the Contractor to transfer title and to deliver to the State in the manner and to the extent directed by the Engineer, the following:

(1) Any completed work and

(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 Subchapter 15, Chapter 3-122, HAR. 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 be reduced to reflect the anticipated rate of loss. No anticipated profit or consequential damage will be due or paid.

(b) Subcontractors shall be paid a markup of 10 percent on their direct job costs incurred to the date of termination. No anticipated profit or consequential damage will be due or paid to any subcontractor. These costs must not include payments made to the Contractor for subcontract work during the contract period.

(c) The total sum to be paid the Contractor shall not exceed the total contract price reduced by the amount of any sales of construction supplies, and construction materials.

(4) Cost claimed, agreed to, or established by the State shall be in accordance with Chapter 3-123, HAR.

108.14 Pre-Final and Final Inspections.

(A) Inspection Requirements. Before the Engineer undertakes a final inspection of any work, a pre-final inspection must first be conducted. The Contractor shall notify the Engineer that the work has reached substantial completion and is ready for pre-final inspection.

(B) Pre-Final Inspection. Before notifying the Engineer that the work has reached substantial completion, the Contractor shall inspect the project and test all installed items with all of its subcontractors as appropriate. The Contractor shall also submit the following documents as applicable to the work:

(1) All written guarantees required by the contract.

(2) Two accepted final field-posted drawings accepted by the Engineer in accordance with Section 648 – Field-Posted Drawings.

(3) Complete weekly certified payroll records for the Contractor and Subcontractors.

(4) Certificate of Plumbing and Electrical Inspection.

(5) Certificate of building occupancy as required.

(6) Certificate of Soil and Wood Treatments.

(7) Certificate of Water System Chlorination.

(8) Certificate of Elevator Inspection, Boiler and Pressure Pipe Inspection.

(9) Maintenance Service Contract and two copies of a list of all equipment installed.

(10) Current Tax clearance. The contractor will be required to submit an additional tax clearance certificate when the final payment is made.

(11) Any other final items and submittals required by the contract documents.

(C) Procedure. When in compliance with the above requirements, the Contractor shall notify the Engineer in writing that the project has reached substantial completion and is ready for pre-final inspection.

The Engineer will then make a preliminary determination as to whether or not the project is substantially complete and ready for pre-final inspection. The Engineer may, in writing, postpone until after the pre-final inspection the Contractor's submittal of any of the items listed in Subsection 108.13(B) – Pre-Final Inspection, herein, if in the Engineer's discretion it is in the interest of the State to do so.

If, in the opinion of the Engineer, the project is not substantially complete, the Engineer will provide the Contractor a punchlist of specific deficiencies in writing which must be corrected or finished before the work will be ready for a pre-final inspection. The Engineer may add to or otherwise modify this punchlist from time to time. The Contractor shall take immediate action to correct the deficiencies and must repeat all steps described above including written notification that the work is ready for pre-final inspection.

After the Engineer is satisfied that the project appears substantially complete a pre-final inspection shall be scheduled within ten working days after receipt of the Contractor's latest letter of notification that the project is ready for pre-final inspection.

If, as a result of the pre-final inspection, the Engineer determines the work is not substantially complete, the Engineer will inform the Contractor in writing as to specific deficiencies which must be corrected before the work will be ready for another pre-final inspection. If the Engineer finds the work is substantially complete but finds deficiencies that must be corrected before the work is ready for final inspection, the

Engineer will prepare in writing and deliver to the Contractor a punchlist describing such deficiencies.

At any time before final acceptance, the Engineer may revoke the determination of substantial completion if the Engineer finds that it was not warranted and will notify the Contractor in writing the reasons therefore together with a description of the deficiencies negating the declaration.

When the date of substantial completion has been determined by the State, liquidated damages for the failure to complete the punchlist, if due to the State, will be assessed in pursuant to Subsection 108.09(B)(2)– Liquidated Damages for Failure to Complete the Punchlist.

(D) Punchlist; Final Inspection. Upon receiving a punchlist after substantial completion, the Contractor shall promptly devote all required time, labor, equipment, materials and incidentals to correct and remedy all punchlist deficiencies. The Engineer may add to or otherwise modify this punchlist until final acceptance of the project.

Before final inspection of the work, the Contractor shall clean all ground occupied by the Contractor in connection with the work of all rubbish, excess materials, temporary structures and equipment, and all parts of the work and the worksite must be left in a neat and presentable condition to the satisfaction of the Engineer.

Final inspection will occur within ten working days after the Contractor notifies the Engineer in writing that all punchlist deficiencies remaining after the pre-final inspection have been completed and the Engineer concurs. If the Engineer determines that deficiencies still remain at the final inspection, the work will not be accepted and the Engineer will in writing notify the Contractor of the deficiencies which shall be corrected and the steps above repeated.

If the Contractor fails to correct the deficiencies and complete the work by the established or agreed date, the State may correct the deficiencies by whatever method it deems appropriate and deduct the cost from any payments due the Contractor.

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 Final Acceptance. When the Engineer finds that the project has been satisfactorily completed in compliance with the contract, the Engineer will notify the Contractor in writing of the project's completion and acceptance and will notify the Contractor in writing of its acceptance effective as of the date of the final inspection. The final acceptance date shall determine end of contract time, liquidated damages for failure to complete the punchlist and commencement of all guaranty periods subject to Subsection 108.16 – Contractor's Responsibility for Work; Risk of loss or Damage.

108.18 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:

(a) Correct all noted defects and make replacements, as directed by the Engineer, in the equipment and work; and

(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.

108.19 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, or

(2) Any extension of time, or

(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.

108.20 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:

(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

SECTION 109 - MEASUREMENT AND PAYMENT

Make the following amendments to said Section:

(I) Amend **109.01 Measurement of Quantities** to read as follows:

"**109.01 Measurement of Quantities.** The work will be measured in accordance with United States standard measure, or as otherwise stated in this contract. Final measurement shall be verified or determined by the Engineer. If the Contractor has a dispute about the measurement of the work, the Contractor must demonstrate the existence of an error by actual physical measurement before the work has progressed in a manner which would make a proper verification of the contested measurements impractical. If the Contractor's claim cannot be physically verified, the Engineer's measurements will be deemed as correct.

A station, when used as a definition or term of measurement, is 100 linear feet.

Longitudinal measurements for area computations of the various surfaces will be made in the horizontal projection of the actual surface. Transverse measurements for area computations will be the neat dimensions shown in the contract documents or the horizontal projection of the actual surface or as ordered in writing by the Engineer. No deductions in measurement for unit price payment purposes will be made for fixtures or structures in place having a combined area of nine square feet or less.

Work will be measured to the pay limits shown in the contract documents.

Measurement of items that are measured by the linear foot will be made parallel to the base or foundation.

The term 'gage' refers to the U. S. steel wire gage or U.S standard gage for uncoated hot and cold rolled sheets.

The term 'ton' will mean the short ton of 2,000 pounds avoirdupois weight. The Contractor shall weigh materials measured or proportioned by weight on properly certified scales.

Every vehicle hauling material specified for measurement and payment by "loose measurement" or "measurement by vehicle" shall be made available to the Engineer for verification of its load volume or capacity. A vehicle's full load shall be its water level capacity. The Engineer may direct that any load in a vehicle be leveled for purposes of measurement or payment.

The Contractor shall notify the Engineer 24 hours before hauling material, payment for which is based upon weight. Unless otherwise directed by the

Engineer, the truck used to haul material paid by weight shall be weighed with no load on a properly certified scale before each load is added.

When identifying standard manufactured items by gage, unit weight, or section dimensions, such identification will be nominal weights or dimensions. Standard manufactured items shall be such items as fence, wire, plates, rolled shapes, and pipe conduit. Unless specific allowable tolerances are set by the contract documents, tolerances generally accepted or established by the industries involved in the manufacture of the product are acceptable."

(II) Amend **109.02 Scope of Payment** to read as follows:

"**109.02 Full Compensation; Changes.** The contract price is full compensation for the work.

Change Order work as defined in Subsection 104.13 – Contract Change Orders, shall be paid for in the manner established by the related change order.

The total price adjustment as specified in the field order or the change order shall be considered full compensation for all materials, labor, insurance, bonds, fees, taxes, equipment use or rental, profit and all overhead, and any delay impact costs.

(III) Delete **109.03 Compensation for Altered Quantities** in its entirety.(See 104.11 – Variations in Estimated Quantities and 109.14 - Schedule of Agreed Prices for Lump Sum Price Items) and replace it with the following:

"**109.03 Allowances for Overhead and Profit.** In determining the cost or credit to the State resulting from a change, the allowances for all overhead, and profit combined, shall not exceed the percentages set forth below:

(1) 15 percent of the direct cost for any work performed by the Contractor's own labor force;

(2) 15 percent of the direct cost for any work performed by each subcontractor's own labor force;

(3) For the Contractor or any subcontractor for work performed by their respective subcontractor or tier subcontractor, 7 percent of the amount due to the performing subcontractor or tier subcontractor.

(A) Allowance Percentages. The allowance percentages will be applied to all credits and to the net increase of direct costs where work is added and deleted by the changes.

(B) Allowed Markup. Not more than three markup allowance line item additions not exceeding the maximum percentage noted in Subsections 109.03(1), 109.03(2), and 109.03(3) are allowed for profit and overhead, regardless of the number of tier subcontractors.

(IV) Amend **109.04 Extra and Force Account Work** to read as follows:

"**109.04 Force Account Provisions and Compensation.** The contract documents may provide that certain work be compensated by force account method, or the Contractor may be directed to provide changes compensable under the price adjustment provision of paragraph (5) of Subsection 104.09 – Methods of Price Adjustment. When performing force account work, the Contractor and its subcontractor(s) shall comply with the provisions of this section. Compensation by force account will not alter any rights, duties, and obligations under the contract. The Contractor shall follow these procedures:

(A) The Contractor's Duties; Engineer's Authority. The Contractor has the duty to perform the work payable under this provision efficiently and economically. When the Engineer determines the Contractor is working inefficiently or uneconomically, the Engineer may direct the Contractor to stop, modify its means and methods, or the Engineer may specifically direct means and methods of doing the force account work. The Engineer will not pay for work that is unacceptable or for the cost of correcting work that fails to conform to contract requirements.

(B) Records. The Contractor shall maintain accurate daily records of all allowable costs. The records, as well as all work and costs are subject to review, audit, and approval by the Engineer.

The Contractor shall use the State's Force Account Form and obtain the Inspector's signature thereon each day the Contractor performs force account work. As the condition of payment of the force account work, the Contractor shall submit an original and two copies of the force account records, together with invoices, receipts and other backup data to the Engineer.

(C) Allowable Costs. Allowable costs include labor, equipment and machinery, trucks, insurance, taxes and bonds, overhead, profit, and reimbursable expenses all as described herein. Other costs or items not covered under this section are subject to the Engineer's written approval.

(D) Labor. Allowable costs include Contractor and subcontractor(s) costs for hourly worker wages, and fringe benefits required by employment contracts, plus overhead and profit markup. The

Contractor shall provide the information on the force account form regarding each worker and supervisor.

Overtime compensation, per diem costs and other reimbursable costs are not allowed unless approved in writing by the Engineer prior to incurring the expense. Overhead and profit markup will not be allowed for such costs. Costs and time for employees' to travel to and from the project site are not allowed unless approved in writing by the Engineer prior to performing the work.

(E) Materials. Contractor and subcontractor(s) are allowed the actual cost of materials (excluding financing costs) delivered and incorporated into the work plus overhead and markup. The Contractor shall provide descriptions and quantities of materials, prices and extensions, and costs to transport materials if not included in the prices of the materials. The Contractor shall provide legible receipts and invoices for all materials used and transportation charges. The Contractor shall promptly inform the Engineer of any early payment discounts that are available, as well as scheduled or anticipated price increases.

If materials used are not specifically purchased for the force account work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall certify that the materials were taken from stock and that the amount claimed represents the actual cost to the Contractor.

(F) Equipment and Machinery. For equipment and machinery necessary and actually used (other than small tools defined under Subsection 109.04(I) – Small Tools) that are owned or leased or rented, the Contractor is allowed costs for use of equipment or machinery at a per hour rate.

Hourly rates shall include costs for fuel, oil, lubricants, supplies, necessary attachments, repairs, maintenance, tire wear, depreciation, storage, and other incidentals. The allowable hourly rates shall be the Contractor's actual customary charges e.g., shop rates or yard rates, or rental cost as verified by Contractor's records or invoices, provided that the maximum rate shall not exceed the current rates published in the Blue Book, effective at the time of equipment use. Blue Book hourly rates are calculated based upon the following formula:

Hourly Rates = [(Blue Book Monthly Rate ÷ 176) X (Regional Adjustment Factor) X (Rate Adjustment Table Factor)] + Hourly Operating Cost

Equipment and machinery costs are not subject to any additional overhead and profit markup.

Equipment and machinery shall be in good condition and suitable for the purpose for which the equipment and machinery are to be used.

For equipment and machinery that is not listed in the Blue Book, the Contractor shall obtain the Engineer's written approval of the monthly and hourly rates prior to using the equipment or machinery. If there is no agreement on the rates, the Engineer will set the rate. Engineer may, prior the use of rental equipment, approve in writing rates that are higher than the published rates, if justified by special circumstance.

(G) Equipment Charges. The rental period for equipment and machinery brought to the work site specifically for the force account work, begins when the equipment or machinery reaches the work site, and continues each day the equipment or machinery is at the site and terminates at the end of the day when the equipment or machinery is no longer needed for the force account work, or when the equipment or machinery leaves the project site, whichever comes first.

Rental times for all other equipment and machinery used for force account are paid for the time actually used. Prior to the performance of work, the Engineer must approve any hours or operation in excess of 8 hours in any one day. No additional premium beyond the normal rates used will be paid for equipment or machinery over 8 hours per day or 40 hours per week.

The total of all force account rental charges minus the operating cost accrued over the duration of the contract for a specific item of equipment or machinery (same make, model or kind of equipment or machinery doing the same kind of force account work) shall not exceed the replacement cost of that equipment. The Contractor shall provide the cost of replacement to the Engineer prior to using the equipment or machinery. If the Engineer does not agree with the replacement cost provided by the Contractor or if the Contractor does not provide the replacement cost, the Engineer shall set the replacement cost. The Contractor may contest the replacement cost set by the Engineer in accordance with Subsection 105.18 – Disputes and Claims. The Engineer will pay only the hourly operating cost should the replacement cost be reached. This provision shall not apply to the accrued rental charges for barricades and other traffic control devices, or while undergoing maintenance.

Rental times are not allowed or credited for any time during which equipment or machinery is inoperative due to its breakdown.

(H) Idle and Standby Equipment. In the event the equipment or machinery must standby due to work being delayed or halted by reasons

beyond the Contractor's control, the rental rate shall be: Standby/Idle Hourly Rental Rates = [(Blue Book Monthly Rate ÷ 176) X (Regional Adjustment Factor) X (Rate Adjustment Table Factor)] X 0.50 or the Contractor's shop rates or yard rates, whichever is lower. The Engineer may order the demobilization of standby/idle equipment or, may direct that equipment that was located at the jobsite at the start of the force account work cease to be used for force account work.

Payment will be made only when:

(1) The Contractor has notified the Engineer in writing at the beginning of the standby/idle period that compensation is expected for the individual piece of equipment or machinery.

(2) The Contractor submits to the Engineer on each Monday a list of the equipment or machinery that was idle the past week. This list shall have all information necessary to determine the hourly rental rate and the date and time it became idle and the reason for the equipment or machinery being idle. The list shall also have the date and time when any maintenance was performed on the equipment or machinery during the period the equipment was idle.

With the written approval of the Engineer, the Contractor may store the idle equipment or machinery on the project site for its own convenience at no increase in contract price or contract time.

(I) Small Tools. Contractor and subcontractor(s) are not allowed costs for depreciation or use of small tools, even if the small tools are consumed by use. Small tools are individual pieces of equipment, tools or other terms having a purchase price for that new item or equivalent replacement value of $500.

(J) Trucks and Utility Items. The Contractor's cost for utility vehicles and other items such as pickup trucks, van, flatbed trucks, storage trailers, containers, etc. that are already in use or planned for use on the entire project will not be allowed except for the time that, in the opinion of the Engineer, they: (1) are directly and necessarily used for the performance of the force account work; and (2) the use of such items has not been included within the Contractor's total project overhead costs.

Allowable rental rates for trucks not owned or leased by the Contractor shall not exceed the listed rates in the Blue Book or those established under the Hawaii State Public Utilities Commission, whichever is less.

The Contractor shall provide points of origin, destinations, mileage, and hourly rates for each travel segment.

Payment for use of trucks shall be in accordance with the provisions of Subsection 109.04(F) – Equipment and Machinery.

(K) Transportation, Mobilization, and Demobilization. The Contractor shall obtain the Engineer's approval of the location from which the equipment or machinery will be moved or transported.

Where the equipment or machinery must be transported to the work site, the Contractor will be paid the reasonable costs to mobilize and demobilize, load and unload, and transport the equipment or machinery, to and from its original location to the work site, or upon completion of the work to another location, whichever cost is less.

The cost to transport the equipment or machinery shall not exceed the rates established by the Hawaii State Public Utilities Commission. If the rates are nonexistent, then the rates will be determined by the Engineer based upon the prevailing rates charged by established haulers within the locale.

If the Contractor uses the equipment or machinery for other than force account work, the costs to mobilize and transport may be disallowed or prorated depending on the non-force account.

(L) Subcontractors. Subcontractor's costs are allowed plus a markup limited under Subsection 109.03 – Allowances for Overhead and Profit, and applicable State excise tax. Costs for insurance and taxes shall comply with the provisions of Subsections 109.04(M) – Insurance and Taxes.

(M) Insurance and Taxes. Contractor and subcontractor(s) are allowed actual additional costs attributable exclusively to the force account work for property damage, liability, workers compensation insurance premiums, State unemployment contributions, Federal unemployment taxes, social security and medicare taxes, plus an allowable markup of 6 percent.

(N) Other Costs. Any other costs or items not covered under this Subsection 109.04 – Force Account Provisions and Compensation are subject to the Engineer's written approval and conditions.

(O) Reimbursable Expenses. All costs are subject to HAR §3-123 – Cost Principles. Reimbursable expenses are subject to the Engineer's written approval and conditions. Overhead and profit markups are not permitted on reimbursable expenses.

Costs incurred by the Contractor for air transportation and associated ground transportation, and per diem or subsistence allowance costs (lodging and meals) are allowed as reimbursable expenses when the project conditions require special skilled workers not readily available on the island of the project site. Air transportation shall not exceed the actual cost of coach class airfare. Whenever possible, Contractor shall take advantage of advance purchase discount air fares. Ground transportation shall not exceed the actual cost of renting a compact-sized vehicle. Rental vehicles shall be shared among Contractor's employees to the greatest extent possible. Insurance coverage is not a reimbursable expense.

Per diem or subsistence costs (lodging and meals) shall not exceed the applicable daily authorized rates for inter-island or out-of-state travel for State government employees. No per diem is allowed for leaving and returning the same day. The Contractor shall obtain prior written approval from the Engineer for other conditions.

(P) State Excise Tax and Bond. The Contractor will be reimbursed for State excise taxes paid or payable on the allowable force account work. The actual bond premium, not to exceed 1 percent is allowed on items covered by Subsections 109.04(D) - Labor, 109.04(E) – Materials, 109.04(F) – Equipment and Machinery, 109.04(J) – Trucks and utility Items, 109.04(L) – Subcontractors, 109.04(M) – Insurance and Taxes, 109.04(N) - Other Costs, and 109.04(O) - Reimbursable Expenses when applicable. When the original contract price includes a bond premium for an allowance item to be paid by force account, no additional bond premium for such allowance items will be paid until the allowance amount is exhausted.

(V) Delete **109.05 – Eliminated Items** in its entirety. (See 106.13 – Payment for Deleted Materials)

(VI) Amend **109.06 – Deduction from Payment** to read as follows:

"109.06 Withholding of Payment for Unsatisfactory Progress. If the Contractor is progressing unsatisfactorily in completing or performing the project work unsatisfactorily, or both, the Engineer, upon written notice to the Contractor, may withhold sums not exceeding 5 percent of the total contract price from subsequent progress payments.

The Engineer may deduct from any amounts due to the Contractor sums assessed as liquidated damages as well as any other charges against the Contractor allowed by law or the contract documents.

If the Contractor refuses or fails to comply with the equal employment opportunity, affirmative action, non-discrimination, labor compliance, training, implementing and maintaining satisfactorily the BMP and NPDES standards and disadvantaged business enterprise requirements, the Engineer at its sole discretion and upon written notice to the Contractor may withhold any or all of the monthly progress payments that are due or to become due.

With the approval of the State, the Contractor may withdraw from time to time the whole or any portion of the sum withheld after endorsing over to the State and depositing with the State any general obligation bond of the State or its political subdivisions suitable to the State. But in no case will the bond have a face value less than the value of the amount to be withdrawn. The State may sell the bond and use monies directly withheld from progress payments or the final payment."

(VII) Amend **109.07 – Assignment of Payments** to read as follows:

"**109.07 Assignment of Payments.** The Contractor may not assign its right to receive monies due under the contract without the written consent of the State and the surety."

(VIII) Delete **109.08 – Payment for Material on Hand** in its entirety. (See 109.09(B) – Payment for Material on Hand)

(IX) Amend **109.09 Progress Payments** to read as follows:

"**109.09 Progress Payments.**

(A) Monthly Payment. The Contractor shall be paid progress payments monthly upon approval of a monthly payment estimate by the Engineer. The monthly payment estimate shall be based upon the value of the items of work that appears to be satisfactorily completed, including the value of materials incorporated in the work. Materials not yet incorporated in the work will be paid in accordance with Subsection 109.09(B) – Payment for Material On Hand. Monthly payments will be approximate only and shall be subject to correction before or in the final estimate and payment. Monthly shall mean the period between the 16th day of the month to the 15th day of the succeeding month. The Engineer and the Contractor may agree on a different monthly period.

The Engineer may withhold all or any part of a monthly payment due to the Contractor, without interest accruing to the contract, on account of:

(1) The failure of the Contractor to meet a requirement of law or the contract that is a condition precedent of payment; and

(2) The exercise of any right granted the Engineer to withhold money due the Contractor established by law or the contract.

No monthly payment will be made if the total value of the work done since the last estimate is less than $2,000. If the monthly payment includes work from Sections 617 - Planting Soil, 618 - Grassed Surfaces, 619 - Planting and Transplanting and 641 - Hydro-Mulch Seeding, the Engineer will not make a monthly payment if the total value of the work done since the last estimate is less than $500.

(1) Retainage. If the Engineer finds that the Contractor is progressing satisfactorily in completing the project work and:

a. Less than 50% of the whole contract cost is complete, the Engineer shall retain 5% of the value of the work done until the Engineer makes final payment;

b. More than 50% of the whole contract cost is complete, the Engineer may make the remaining progress payments in full.

c. After satisfactory completion of work other than landscaping items, the Engineer may adjust the amount of retainage to 15% of the landscaping items or 2½% of the total contract amount whichever is less. Do not use this subsection if the contract is only landscaping.

(B) Payment for Material On Hand. The Contractor will be paid the manufacturer's, supplier's, distributor's or fabricator's invoice cost of materials not yet incorporated into the work on the following conditions:

(1) If acceptance of submittals of such materials are required by the contract documents, the submittal processes have been completed and the materials for which payment is requested conform to the accepted submittal.

(2) The materials shall be stored and handled in accordance with Subsection 105.23 – Storage and Handling of Materials and Equipment.

(3) Payments shall be made only if:

(a) All materials are acceptable to the Engineer.

(b) Contractor provides legible documentary evidence that all materials for which payment is requested have been paid in full.

(c) The materials are insured for their full replacement value to the benefit of the State against theft, fire, damages incurred in transportation to the site, and other hazards.

(d) In case of materials stored off the project site, the materials are clearly marked and identified for the project, and are not commingled with other materials not to be incorporated into the project.

The payment authorized in this subsection will not exceed the contract price of that item. Payment for the material under this subsection is not final acceptance of the material nor shall any such payment shift the risk of loss or damage from the Contractor to the State.

Payment for the material does not relieve the Contractor of its obligations to furnish material acceptable to the Engineer and to properly incorporate the material into the project in accordance with the contract documents.

The State will not make material payment on living or perishable plant material or any material that may deteriorate or is not insurable."

(X) Amend **109.10 Acceptance and Final Payment** to read as follows:

109.11 Final Payment. The Engineer will prepare the final estimate when the State accepts the project in accordance with Subsection 108.17 – Final Acceptance. Prior progress estimates and payments shall be subject to correction in the final estimate and payment.

Upon final settlement, the State will pay the entire sum due less all previous payments and less any sums that may have been or may be deducted in accordance with the provisions of the contract upon receipt of the following documents in a format acceptable to the Engineer:

(1) Consent of the surety to payment of the final estimate and certificate of release from the surety.

(2) Evidence by affidavit that the Contractor fully paid the debts resulting from the contract.

(3) Original tax clearance certificates from the State Director of Taxation and the Federal Internal Revenue Service. The clearance certificates must be certified by the appropriate agency not more than 60 days before delivery to the Engineer.

(4) Certification of Compliance for Final Payment (SPO Form-22), attached, will be required for final payment. A copy of the form is also available at www.spo@hawaii.gov. Select 'Forms for Vendors/Contractors' from the HRS Chapter 103D, pop-up menu

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.

(XI) Amend **109.11 – Records, Accounts and Documents** to read as follows:

"**109.12 Records, Accounts, And Documents.** The Contractor shall retain and preserve its bid documents and estimates, contract records, accounts, data and documents of the Contractor and its subcontractors for not less than three years from the date of final payment or the final voucher of the project is submitted to FHWA which ever is longer. If any lawsuit or claim relating to the work is pending before the expiration of the three year period, the Contractor shall retain the documents until it is resolved. The Contractor shall provide written notice to the Engineer not less than 30 days of its intent to dispose of the contract records. The Engineer may direct in writing the Contractor to retain such records for an additional period of time at no increase in contract price or contract time. The documents shall be available for inspection and auditing by the State and other government agencies at the offices of the Contractor and its subcontractors upon 24 hours notice to the Contractor. The Contractor shall cooperate during such inspection and auditing of the documents at no increase in contract price or contract time."

(XII) Add the following Subsection:

"**109.13 Prompt Payment.**

(A) Contractor's Duty.

(1) When any subcontractor has met all the terms and conditions of the subcontract, and there are no bona fide disputes, the Contractor, upon receiving payment from the State for the work, shall make full payment to the subcontractor of all monies due within 10 days from the receipt of an invoice from the subcontractor. This payment obligation applies to payments made to and payable to all tiers of subcontractors.

(2) Bona Fide Disputes. The existence of a bona fide dispute with a subcontractor or material supplier shall not release the Contractor of its prompt payment obligations as to all sums due that are not directly affected by such disputes.

The following are examples of 'bona fide disputes':

(a) When work done by a subcontractor is paid for and later found to be non-conforming or unacceptable and the amount previously paid by the State is deducted from the Contractor's subsequent payment request;

(b) When the subcontractor fails to promptly correct any deficiencies or non-conforming work; or

(c) When the subcontractor fails to fulfill any material term, condition or requirement of its subcontract.

(B) Filing Of Non-Payment Complaint And Verification Of Its Validity. Subcontractors and material suppliers may file in writing a complaint with the Engineer regarding non-payment by the Contractor. Such a complaint must state:

(1) The amount past due for work performed and already paid for by the State,

(2) The date the work was completed,

(3) The date payment was due from the Contractor,

(4) That all the terms, conditions or requirements of its subcontract have been met, and

(5) That no bona fide dispute over its performance exists.

The Engineer will investigate, hear and receive evidence and determine the validity of the complaint and the Engineer's decision on the matter shall be final.

(C) Follow-Up Action. If the Engineer determines that the Contractor failed to make prompt payment required under the subcontract or these contract documents to a subcontractor or material supplier with whom the Contractor has no bona fide dispute within the time period specified above, the Engineer shall inform the Contractor of the findings and request the Contractor make payment accordingly.

If the Contractor does not act promptly, the Engineer may:

(1) Take appropriate action as allowed under this contract,

(2) Refer the matter to the Contractor Licensing Board for appropriate action, and in accordance with HRS Chapter 444-

17(15), or both regarding the Revocation, Suspension and Renewal of (Contractor) Licenses or

(3) Initiate a petition for debarment.

The State may withhold from future progress payments amounts to cover any sums paid to the Contractor for work performed by a subcontractor if the State finds that the subcontractor's complaint regarding non-payment by the Contractor has merit.

109.14 Schedule of Agreed Prices for Lump Sum Price Items. After the award of contract, the Contractor shall submit a schedule of prices for the various items of work paid for by a lump sum price. For projects involving more than a single building, structure, or facility, the breakdown cost shall reflect a separate schedule of prices for the various items of work for each building, structure, and facility. The sum of the prices submitted for the various items must equal the lump sum bid in the bidder's proposal. This schedule will be subject to acceptance by the Engineer who may require the bidder to submit another or several other schedules if in the Engineer's opinion the prices are unbalanced or not sufficiently detailed. This schedule of prices **(1)** shall be used for the purpose of determining the value of monthly payments due the Contractor for work installed complete in place; and **(2)** may be used as the basis for determining cost and credit of added or deleted items of work, respectively.

As a condition of payment, the Contractor shall estimate at the close of each month the percentage of work completed under each of the various construction items during such month and submit the estimate to the Engineer for review and approval. The Contractor shall be paid the percentage of the price, as approved by the Engineer established for each item, less any permissible retention.

109.15 Payment is not Acceptance. No payment made to the Contractor prior to final acceptance is an acceptance by the State of the work or the portion of the work related to the payment; nor does a progress payment affect the State's rights to inspect, test or reject the work. A progress payment does not relieve the Contractor of the risk of loss or damage to the work for which payment is made. The Contractor still maintains the responsibility and duty with respect to the work for which payment is made, to protect against loss or damage, to insure the work, to insure and indemnify the State against claims, to maintain the required surety bonds, and to protect the work and the public."

END OF SECTION 109

Amend **Section 639 – Water Pollution Control** to read as follows:

"SECTION 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

209.01 Description. This section describes the following:

(A) Including detailed plans, diagrams, and written site-specific best management practices (BMP); constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site, including local material sources, work areas and haul roads; removing and disposing hazardous wastes; control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion); and complying with applicable State and Federal permit conditions.

(B) Work associated with dewatering activities and complying with conditions of the National Pollutant Discharge Elimination System (NPDES) general permit coverage authorizing discharges associated with construction activity dewatering.

Requirements of this section also apply to borrow pit operations, haul roads and Contractor's storage sites located outside State Right-of-Way.

209.02 Materials. Materials shall conform to the following:

(A) Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to Engineer.

(B) Mulches. Mulches shall be recycled materials include bagasse, hay, straw, wood cellulose, bark, wood chips, or other materials acceptable to Engineer. Mulches shall be clean and free of noxious weeds and deleterious materials.

(C) Grass. Grass shall be a quick growing species such as rye grass, Italian rye grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to Engineer.

(D) Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer. Fertilizer shall conform to Subsection 712.18(A) - Commercial Fertilizer.

(E) Hydro-mulching. Hydro-mulching used as a BMP shall consist of materials in Subsections 209.02(B) - Mulches, 209.02(C) - Grass, and

209.02(D) –Fertilizer and Soil conditioners, with potable water meeting the requirements of Subsection 712.01 - Water. Installation and other requirements shall be in accordance with portions of Section 641- Hydro-Mulch Seeding.

(F) Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in accordance with contract documents, and shall be in compliance with ASTM D6462, Standard Practice for Silt Fence Installation. Silt fence posts shall be spaced a maximum of 6 feet apart.

(G) Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to Engineer.

Alternative materials or methods to control, prevent, remove and dispose pollution are allowable if acceptable to Engineer.

209.03 Construction.

(A) Preconstruction Requirements.

(1) Water Pollution, Dust, and Erosion Control Meeting. Submit site specific BMP to Engineer. Schedule a water pollution, dust, and erosion control meeting with Engineer after site specific BMP is accepted in writing by Engineer. Meeting shall be scheduled 14 days before start of construction work. Discuss sequence of work, plans and proposals for water pollution, dust, and erosion control.

(2) Water Pollution, Dust, and Erosion Control Submittals. Submit the following:

(a) Written site-specific BMP describing activities to minimize water pollution and soil erosion into State waters, drainage or sewer systems. BMP shall include the following:

1. An identification of potential pollutants and their sources.

2. A list of all materials and heavy equipment to be used during construction.

3. Descriptions of the methods and devices used to minimize the discharge of pollutants into State waters, drainage or sewer systems.

4. Details of the procedures used for the

maintenance and subsequent removal of any erosion or siltation control devices.

5. Methods of removing and disposing hazardous wastes encountered or generated during construction.

6. Methods of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.

7. Spill control.

8. Fugitive dust control, including dust from grinding, sweeping, or brooming off operations or combination thereof.

9. Methods of storing and handling of oils, paints and other products used for the project.

10. Material storage and handling areas, and other staging areas.

11. Concrete truck washouts.

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 storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or waste, and show areas where vegetative practices are to be implemented. Indicate intended drainage pattern on plans. 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 and business telephone numbers, fax numbers, and e-mail addresses.

(e) Description of fill material to be used.

Date and sign BMP. Keep accepted copy on site throughout duration of the project. Revisions to the BMP shall be included with original BMP. Modify contract documents to conform to revisions. Include actual date of installation and removal of BMP. Obtain written acceptance by Engineer before revising BMP.

Follow guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", in developing, installing, and maintaining BMPs for all projects. Follow Honolulu's City and County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai, and Hawaii projects.

(B) Construction Requirements. Do not begin work until submittals detailed in Subsection 209.03(A)(2) - Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by Engineer.

Install, maintain, monitor, repair and replace site-specific BMP measures, such as for water pollution, dust and erosion control; installation, monitoring, and operation of hydrotesting activities; removal and disposal of hazardous waste indicated on plans, concrete cutting slurry, concrete curing water; or hydrodemolition water.

Furnish, install rain gage in a secure location for projects that require NPDES permit from the Department of Health prior to field work including installation of site-specific BMP. Provide rain gage with a tolerance of at least 0.05 inches of rainfall, and an opening of at least 1-inch diameter. Install rain gage on project site in an area that will not deter rainfall from entering the gate opening. Maintain rain gage and replace rain gage that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until rain gauge is installed and site specific BMPs are in place.

Address all comments received from Engineer.

Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

Limit maximum surface area of earth material exposed at any time to 300,000 square feet. Do not expose or disturb surface area of earth material (including clearing and grubbing) until BMP measures are installed and accepted in writing by Engineer. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff and wind before end of workday.

Protect exposed or disturbed surface area with mulches, grass seeds or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate of 125 pounds per acre. For hydromulch use the ingredients and rates required for mulches and grass seeds.

Apply fertilizer to mulches, grass seed or hydromulch at a rate of 450 pounds per acre. Apply an additional 250 pounds per acre every 90 calendar days.

Install velocity dissipation measures when exposing erodible surfaces greater than 15 feet in height.

BMP measures shall be in place and operational (such as shaping the earthwork to control and directing the runoff) at the end of workday. Shaping earthwork may include constructing earth berms along the top edges of embankments if acceptable to Engineer.

Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road immediately. Modify stabilized construction entrances to prevent mud from being tracked onto road. Stabilize entire access roads if necessary.

Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to Engineer.

Provide temporary slope drains of rigid or flexible conduits to carry runoff from cuts and embankments. Provide portable flume at the entrance. Shorten or extend temporary slope drains to ensure proper function.

Protect ditches, channels, and other drainageways leading away from cuts and fills at all times by either:

(1) Hydro-mulching the lower region of embankments in the immediate area.

(2) Placing an 8- to 15-inch layer of excavated rock, if available on-site, without reducing the cross section of the drainageway. Rocks shall be less than 4 inches in diameter.

(3) Installing check dams and salutation control devices.

(4) Other methods acceptable to Engineer.

Provide for controlled discharge of waters impounded, directed, or controlled by project activities or erosion control measures.

Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be source of fugitive dust.

Cleanup and remove any pollutant that can be attributed to Contractor.

Install or modify BMP measures due to change in Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted site specific BMP or a BMP that replaces an accepted site specific BMP that is not satisfactorily performing.

Properly maintain all BMP features. Inspect, prepare a written report, and make repairs to BMP measures at following intervals:

(1) Weekly during dry periods.

(2) Within 24 hours of any rainfall of 0.5 inch or greater which occurs in a 24-hour period.

(3) Daily during periods of prolonged rainfall.

(4) When existing erosion control measures are damaged or not operating properly as required by site specific BMP.

Remove, destroy, replace or relocate any BMP that must be removed, destroyed, replaced or relocated due to potential or actual flooding, or potential danger or damage to project or public.

Maintain records of inspections of BMP work. Keep continuous records for duration of the project. Submit weekly copy of records to Engineer.

In addition to weekly reports, submit to Engineer all amounts spent initializing and maintaining BMP during previous week. Amount spent includes, but is not limited to: purchases of erosion control material, construction of storage areas, and installation of water pollution, erosion and dust control measures. Submit report weekly along with site inspection report.

Protect finished and previously seeded areas from damage and from spillover materials placed in upper lifts of embankment.

The Contractor's designated representative specified in Subsection 209.03(A)(2)(d) shall address any BMP concerns brought up by Engineer within 24 hours of notification, including weekends and holidays. Failure to satisfactorily address these concerns, Engineer reserves the right to employ outside assistance or use Engineer's own labor forces to provide necessary corrective measures. Engineer will charge Contractor such incurred costs plus any associated project engineering costs. Engineer will make appropriate deductions from Contractor's monthly progress estimate. Failure to apply BMP measures shall result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP measures may result in one or more of the following: assessment of liquidated damages, suspension, or cancellation of contract with Contractor being fully responsible for all additional costs incurred by State.

(C) Hydrotesting Activities. If work includes removing, relocation or installing waterlines, and Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, obtain an NPDES Hydrotesting Waters Permit from Department of Health, Clean Water Branch (DOH-CWB).

Do not begin hydrotesting activities until the DOH-CWB has issued a Notice of General Permit Coverage (NGPC). Hydrotesting operations shall be in accordance with conditions in NGPC. Submit a copy of the NPDES Hydrotesting Waters Application and Permit to Engineer.

(D) Dewatering Activities. If excavation of backfilling operations require dewatering, and Contractor elects to discharge dewatering effluent into State waters or existing drainage systems, obtain NPDES General Permit Coverage authorizing discharges associated with construction activity dewatering from Department of Health, Clean Water Branch (DOH-CWB). If permit is required, prepare and submit permit application (CWB-NOI Form

G) to DOH-CWB.

Do not begin dewatering activities until DOH-CWB has issued Notice of General Permit Coverage (NGPC). Conduct dewatering operations in accordance with conditions in NGPC. Submit copy of NPDES Hydrotesting Waters Application and Permit to Engineer.

209.04 Measurement.

(A) Installation, maintenance, monitoring, and removal of BMP will be paid on a lump sum basis. Measurement for payment will not apply.

(B) Engineer will only measure additional water pollution, dust and erosion control required and requested by Engineer on a force account basis in accordance with Subsection 109.04 –Force Account Provisions and Compensation.

209.05 Payment. Engineer will pay for 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 each of the following pay items when included in proposal schedule:

Pay Item	**Pay Unit**
Installation, Maintenance, Monitoring, and Removal of BMP	Lump Sum
Additional Water Pollution, Dust, and Erosion Control	Force Account

An estimated amount for force account is allocated in proposal schedule under 'Additional Water Pollution, Dust, and Erosion Control', but actual amount to be paid will be the sum shown on accepted force account records, whether this sum be more or less than estimated amount allocated in proposal schedule. Engineer will pay for BMP measures requested by Engineer that are beyond scope of accepted site specific BMP and for litter management due to rubbish created by the public on a force account basis.

No progress payment will be authorized until Engineer accepts in writing site-specific BMP or when Contractor fails to maintain project site in accordance with accepted BMP.

For all citations or fines received by the Department for non-compliance with Notice of General Permit Coverage (NGPC), the Contractor shall reimburse State within 30 days for full amount of outstanding cost State has incurred, or Engineer will deduct cost from progress payment.

Engineer will assess liquidated damages up to $27,500 per day for non-compliance of each BMP requirement and all other requirements in this section."

END OF SECTION 209

Make the following Section a part of the Standard Specifications:

"SECTION 210 - DRESSING OF SHOULDER

210.01 Description. This work includes shaping, grading, filling, and compacting the unpaved shoulders according to the contract, in conformity with the lines, grades, and cross-sections shown on the plans or as specified by the Engineer.

210.02 Materials. Use suitable materials from roadway excavation, including topsoil and base material salvaged from this project. Consider asphalt concrete removed from cold planning, reconstruction and roadway excavation as surplus excavation material. Dispose of them as specified in Section 203 –Excavation and Embankment. Use additional materials from borrow or as specified by the Engineer at no increase in contract price or contract time.

210.03 Construction Requirements. Immediately shape, grade, and compact the shoulders after the completion of or in conjunction with the resurfacing of the pavement.

Compact all shoulder material placed uniformly and thoroughly by a roller weighing no less than three tons. Finish the shoulders and slopes, including ditches where necessary, to a reasonably smooth and uniform surface. The Engineer will not permit excessive variations in the elevations or alignment of the shoulders from the plan. Correct such variations to preserve a neat and uniform appearance.

Correct the irregularities in the surface, if any, resulting from grading and other operations to prevent formation of depressions or water pockets. Similarly, repair any damage to the surface or pavement due to the Contractor's operations at no cost to the State according to the contract and as specified by the Engineer.

Provide the Engineer with a copy of the written agreement with any property owner from whose property the borrow material is to be obtained or on which the excess excavation is to be disposed.

210.04 Method of Measurement. The Engineer will not measure dressing of shoulders for payment.

210.05 Basis of Payment. The Engineer will not pay for dressing of shoulders separately and will consider the cost for dressing of shoulders as included in the contract prices of the various contract items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 210

Amend **Section 310 - Brooming Off** to read as follows:

"**SECTION 310 - BROOMING OFF**

310.01 Description. This work includes cleaning an existing surface or a pavement according to the contract.

310.02 Materials. None specified.

310.03 Construction Requirements. Remove earth, dust or other foreign material and existing raised pavement markers from the entire area in question. Remove raveled materials from pockets in the surface. Remove grass and other growth from edges of the area. Crop the adjacent growth closely to prevent interference with subsequent operations. Dispose of debris resulting from the cleaning operations.

Clean the edges of the existing surface so that their original thickness and width may be reconstructed.

Remove loose material and excess dust by mechanically operated broom or air pressure, supplemented by hand brooming where required. Apply air pressure through pipe nozzles operating from a compressor producing 100 psi pressure. Do this work while the surface is thoroughly dry.

310.04 Method of Measurement. The Engineer will not measure brooming off for payment.

310.05 Basis of Payment. The Engineer will not pay for brooming off separately and will consider the cost for brooming off as included in the contract price of the various contract items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 310

Amend **Section 401 - Asphalt Concrete Pavement** to read as follows:

"SECTION 401 - ASPHALT CONCRETE PAVEMENT

401.01 Description. This section applies to the construction of asphalt concrete pavement on a prepared surface according to the contract.

Include pavement wearing course mixture and a binder course mixture when specified herein.

401.02 Materials. The plant mixed asphalt concrete includes a mixture of aggregate, filler or blending sand, if acceptable, and asphalt cement. Size, uniformly grade, and combine aggregates so that the resulting mixture meets the grading requirements of the job-mix formula. Conform to the following:

Asphalt Cement	702.01
Emulsified Asphalt	702.04
Aggregate for Hot Plant Mix Bituminous Pavement	703.09
Filler	703.15
Blending Sand	703.22
Hydrated Lime	712.03

Asphalt cement shall be PG 64-16.

401.03 Job-Mix Formula and Tests.

(A) Job-Mix Formula. Submit for acceptance, a job-mix formula for each mixture to be supplied for this project. The job-mix formula shall show the grade of cement in the mixture. Furnish only one grade of asphalt cement for the project. The Engineer may change the grade of the asphalt cement one step at no change in unit price. Make grade change only upon written acceptance by the Engineer. Submit a Certificate of Compliance, with substantiating test data, before using each lot or batch of asphalt cement. The Engineer will not accept the asphalt cement without adequate documentation.

The job-mix formula with allowable tolerances shall be within the master range for the type of asphalt concrete. The job-mix formula for a mixture shall be in effect until modified by the Engineer. Submit for acceptance a new job-mix formula before using the new material.

The job-mix formula for each mixture shall establish:

(1) a percent of aggregate passing each required sieve size,

(2) a percent of asphalt cement added to the aggregate, and

(3) a temperature the mixture is delivered to the point of discharge.

The job-mix formula of the mixture furnished shall be within tolerances in Table 401-I:

TABLE 401-I - RANGE OF TOLERANCES FOR JOB-MIX FORMULA	
Passing No 4 and larger sieves (%)	± 7
Passing No. 8 to No. 100 sieves (inclusive) (%)	± 4
Passing No. 200 sieve (%)	± 2
Bitumen (%)	± 0.4
Temperature of mixture (^{O} F)	± 20

When changing the source of material, establish a new job-mix formula before using the new material. When the results or conditions are unsatisfactory, the Engineer will require the Contractor to establish a new job-mix formula.

The Engineer may allow use of a nominal quantity of blending sand not exceeding 5 percent of the total weight of aggregate.

The Engineer may allow the use of filler material to correct deficiencies in materials passing the No. 200 sieve. Filler added shall not exceed 3 percent by weight of the fine aggregates.

Table 401-II - Limits of Bituminous Binder Content specifies the limits for each type of mixture. In case of dispute as to the optimum asphalt content, discontinue plant operations and allow the Engineer sufficient time to do the necessary laboratory testing. The Contractor may exceed the bituminous binder limits for porous aggregate only if acceptable in writing by the Engineer.

TABLE 401-II - LIMITS OF BITUMINOUS BINDER CONTENT					
MIX NO.	**I**	**II**	**IV**	**V**	**VI**
Used For	Binder Course	Binder or Surface Course	Surface Course	Surface Course	County Surface Course (Extra Fine)
Compacted Thickness Individual Layers (Inches)	1.5 to 3	1.25 to 3	1.25 to 3	0.75 to 3.0	1 to 2.5

Bituminous Binder Content Limits (% of dry weight of total aggregate)	4.0 - 6.5	4.5 - 6.5	4.5 - 6.6	5.0 - 7.5	6.0 - 8.0

(B) Tests. Base asphalt concrete job-mix formula on tests according to AASHTO T 245 (ASTM D 1559) or AASHTO T 246 (ASTM D 1560). The mixture shall conform to Table 401-IIIA - Job Mix Formula Design Criteria and Table 401 IIIB - Minimum Percent Voids in Mineral Aggregates. Submit the test data used to develop the job mix formula.

TABLE 401-IIIA - JOB-MIX FORMULA DESIGN CRITERIA	
HVEEM Method Mix Criteria	**Binder and Surface Course**
Stability, minimum	37
Swell, maximum (inch)	0.030
Air voids (%)	3 – 5
Marshall Method Mix Criteria	**Binder and Surface Course**
Compaction, Number of Blows each end of specimen	75
Stability, minimum (pounds)	1,800
Flow, 0.01 inch	8 – 16
Air voids (%)	3 – 5

TABLE 401-IIIB - MINIMUM PERCENT VOIDS IN MINERAL AGGREGATES					
Nominal Maximum Particle Size, (Inches)	1.5	1.0	0.75	0.50	0.375
VMA, (%) HVEEM Method	11	12	13	14	15
VMA, (%) Marshall Method	12	13	14	15	16

401.04 Bituminous Mixing Plant Requirements and Process.

(A) Plant Operation.

(1) Preparation of Asphalt Cement. Heat the asphalt cement to the specified temperature to avoid local overheating. Provide a continuous supply of the asphalt cement to the mixer at a uniform temperature.

(2) Preparation of Aggregate. Dry and heat the aggregate for the mixture to the required temperature. Do not exceed 320 degrees F. Properly adjust the flames used for drying and heating to avoid damage to the aggregate and soot on the

aggregate. The aggregate, when dried, shall not contain more than 1 percent moisture by weight.

Immediately after heating and drying, screen the aggregates for batch plants into three or more fractions as specified. Convey the aggregates into separate compartments ready for batching and mixing with asphalt cement.

(3) Mixing. Combine the dried aggregates in the mixer in the quantity of each fraction of aggregates required to meet the job-mix formula. Measure or gage and introduce the asphalt cement into the mixer in the quantity specified by the job-mix formula.

After introducing the required quantities of aggregate and asphalt cement into the mixer, mix the materials until a complete and uniform coating of the particles and a thorough distribution of the asphalt cement throughout the aggregate is secured. The Engineer will determine wet mixing time for each plant and for each type of aggregate used.

For hot mix bituminous pavement, produce the mixture at the lowest temperature for a workable mix; however, do not exceed 325 degrees F. Introduce the asphalt cement and aggregate into the mixer within 25 degrees F. of each other's temperature.

(B) Storage of Aggregates. Provide sufficient storage space for each size aggregate. Keep the different aggregate sizes separated until the aggregate is delivered to the system feeding the drier. Maintain the storage yard neatly and orderly. The separate stockpiles shall be readily accessible for sampling.

(C) General Requirements for Mixing Plants. Mixing plants shall be capable of handling the proposed bituminous construction.

(1) Scales. The scale requirements shall apply only where proportioning by weight is used;

(a) Plant Scales. Plant scales shall be accurate to 0.5 percent throughout the range to be weighed by the Contractor. The poises shall be locked in positions to prevent unauthorized change of position. Instead of plant and truck scales, an acceptable automatic printer system may be provided that prints the weights of the material delivered. Use a system with an acceptable automatic batching and mixing control system. Show evidence of such weights by a weight ticket for each load.

Measurement Standards Division of the State Department of Agriculture or its authorized representatives will inspect and seal the scale as often as the Engineer may deem necessary to assure their continued accuracy. Have not less than ten 50 pound weights for testing the scales.

(b) Truck Scales. Weigh the bituminous mixture on acceptable scales furnished by the Contractor or on public scales at no cost to the State. The Measurement Standards Division of the State Department of Agriculture or its authorized representatives shall inspect and seal such scales as often as the Engineer deems necessary.

(2) Equipment for Preparation of Asphalt Cement. The storage tanks for the asphalt cement shall be equipped to heat and hold the material at the required temperature. The tanks shall be heated by steam coils or electricity so no flame is in contact with the tank. The circulating system for the asphalt cement shall assure proper and continuous circulation during the operating period.

Equip storage tanks with provisions for measuring and sampling of material. Calibrate the asphalt storage tanks to an accuracy of 2 percent of the actual amount stored its storage capacity. The storage tank shall be accessible for measuring. Install a sampling outlet including a valve in the bitumen feed lines connecting the plant storage tanks to the bitumen weighing system or spray bar, so samples from the line may be withdrawn slowly during plant operation. Install the sampling outlet between the pump and the return line discharge in such a location that the sampling outlet is readily accessible and free from obstruction. Provide a drainage receptacle for flushing the outlet before sampling.

(3) Feeder for Drier. Provide an accurate mechanical means for uniformly feeding the aggregate into the drier so a uniform production and uniform temperature can be obtained.

(4) Drier. Include driers that continuously agitate the aggregate during the heating and drying process.

(5) Screens. Provide plant screens, capable of screening aggregates to the specified sizes and proportions and having normal capacities greater than the full capacity of the mixer.

(6) Bins. Storage bins shall be divided into at least three compartments to provide separate storage of appropriate fractions of the aggregate. Provide each bin with overflow pipes, of such sizes and at such locations to prevent material from backing up into other compartments or bins. Provide each compartment with an individual outlet gate. The outlet gate shall not leak when closed. The gates shall cut off quickly and completely. The bins shall have means to sample the aggregates.

(7) Bituminous Control Unit. Provide satisfactory means, either by weighing or metering, to obtain the proper quantity of asphalt cement in the mixer within the tolerance specified. Provide means for checking the quantity or rate of flow of asphalt cement into the mixer.

(8) Thermometric Equipment. An armored thermometer of adequate range shall be included in the bituminous feed line near the charging valve at the mixer unit.

Also, the plant shall be equipped with a dial-scale, mercury-actuated thermometer, or an electric pyrometer placed at the discharge chute of the drier to register automatically or show the temperature of the heated aggregate. The heat indicating device shall be accurate to the nearest 10 degrees F. Install the heat indicating device such that it will reflect a fluctuation of 10 degrees F on the aggregate temperature within one minute.

The Engineer may require replacement of thermometers by an acceptable temperature-recording apparatus for better regulation of the aggregate temperature at no cost to the State.

(9) Dust Collector. The plant shall be equipped with a dust collector constructed to waste or return uniformly to the hot elevator the material collected.

(10) Safety Requirements. Provide adequate and safe stairways to the mixer platform and sampling points. Place guarded ladders to other plant units at points where accessibility to plant operations is required. Provide accessibility to the top of truck bodies by a platform or other suitable device to enable the Engineer to obtain sampling and mixture temperature data. Provide a hoist or pulley system to raise scale calibration equipment, sampling equipment and other similar equipment from the ground to the mixer platform and return. Thoroughly guard and protect gears, pulleys, chains, sprockets and other dangerous moving parts. Provide ample and unobstructed space on the mixing platform. Maintain a clear and unobstructed passage in

and around the truck loading area. Keep this area free of drippings from the mixing platform.

(11) Mineral Filler Feed. Feed the filler, when used, to an accuracy of 10 percent of the required weight. Thoroughly dry the filler. Do not feed the filler through the drier system. Feed the filler material directly into the mixer as near the center as possible for batch type operation.

(D) Requirements for Batching Plants.

(1) Weigh Box or Hopper. Include a means for accurately weighing each size of aggregate in a weigh box or hopper suspended on scales and ample in size to hold a full batch without hand raking or running over. The gate shall close tightly so that no material shall leak into the mixer while weighing a batch.

(2) Asphalt Cement Control. The equipment used to measure the asphalt cement shall be accurate to within ± 0.5 percent. The asphalt cement bucket shall be a non-tilting type with a loose sheet metal cover. Introduce the binder uniformly into the mixer along the center of the mixer parallel to the mixer shafts, or by pressure spraying. Heat the discharge valve or valves and spray bar of the asphalt cement bucket adequately. Drain the steam jackets efficiently, when used. The connections shall not interfere with the efficient operation of the bituminous scales. The capacity of the asphalt cement bucket shall be at least 15 percent greater than the weight of asphalt cement required in batches. The plant shall have an adequately heated, quick-acting, non-drip, charging valve located directly over the asphalt cement bucket.

The indicator dial shall have a capacity of at least 15 percent greater than the quantity of asphalt cement used in a batch. The dial shall be in full view of the mixer operator. Discharge the asphalt cement required for one batch in not more than 15 seconds after the flow has started. The size and spacing of the spray bar openings shall provide a uniform application of asphalt cement for the full length of the mixer. Provide the section of the bituminous line between the charging valve and the spray bar with a valve and outlet for checking the meter when a metering device is substituted for an asphalt cement bucket.

(3) Mixer. The batch mixer shall be capable of producing a uniform mixture within the job-mix tolerances. When not enclosed, equip the mixer box with a dust hood to prevent loss of dust. The mixer shall be leak-tight.

The clearance of blades from fixed and moving parts shall not exceed 1 inch unless the maximum diameter of the aggregate in the mix exceeds 1.25 inches, in which case the clearance shall not exceed 1.5 inches.

(4) Control of Mixing Time. The mixer shall have a timing device that shows by a definite audible or visual signal the expiration of the mixing period. The device shall accurately measure the time of mixing to within five seconds.

The dry mixing period is defined as the interval of time between the opening of the weigh box gate and the start of introduction of asphalt cement. The wet mixing period is the interval of time between the start of introduction of asphalt cement and the opening of the mixing gate.

(E) Requirements for Continuous Mixing Plants.

(1) Aggregate Proportioning. The plant shall include means for accurately proportioning each size of aggregate.

The plant shall have a feeder mounted under each compartment bin. Each compartment bin shall have an accurately controlled individual gate to form an orifice for volumetrically measuring the material drawn from each compartment. The feeding orifice shall be rectangular with one dimension adjusted by positive mechanical means provided with a lock.

Each gate shall have indicators to show the respective gate opening in inches.

The fine bin shall have a vibrating unit. Provide a positive system to show the level of material in each bin, and as the level of material in one bin approaches the strike-off capacity of the feed gate, the device shall automatically close down the plant instantly. The Engineer will not permit the plant to operate unless this automatic system is in good working condition.

(2) Weight Calibration of Aggregate Feed. Calibrate gate openings by weighing test samples. Make provisions so that the materials fed out of individual orifices may be bypassed to individual test boxes. Equip the plant to conveniently handle individual test samples weighing not less than 200 pounds. Provide accurate scales of adequate capacities to weigh such test samples.

(3) Synchronization of Aggregate Feed and Asphalt Cement Feed. Provide means to afford positive interlocking control between the flow of aggregate from the bins and the flow of asphalt cement from the meter or other proportioning device satisfactorily. Control this by interlocking mechanical means.

The mechanically driven aggregate feeders shall be connected directly with the drive on the asphalt binder pump. Equip the drive shaft on the feed with a revolution counter reading to 1/100 revolution and with sufficient capacity to register the total number of revolutions in a day's run.

(4) Mixer. Include a continuous mixer of an acceptable type, adequately heated and capable of producing a uniform mixture within the job-mix tolerances.

The mixer shall have a discharge hopper with dump gates that will permit rapid and complete discharge of the mixture. The paddles shall be adjustable for angular position on the shafts and reversible to retard the flow of the mix. The mixer shall have a manufacturer's plate giving the net volumetric contents of the mixer at the several heights inscribed on a permanent gage. Provide charts showing the rate of feed of aggregate per minute for the aggregate being used.

(F) Requirements for Drier-Drum Mixing Plant.

(1) Cold Storage for Plants Utilizing Cold-Feed Control. Drier-drum plants equipped with cold-feed control shall separate the virgin aggregate for Asphalt Concrete Mix No. II into three or more sizes. Separate the virgin aggregate for Asphalt Concrete Mix Nos. III, IV, V and VI into two or more sizes. Request written acceptance from the Engineer when separating the aggregate for Asphalt Concrete Mix No. II into less than three sizes.

After separating the aggregates, store each size separately. Each of the storage, except storage for filler material, shall contribute a minimum of 10 percent to the total weight of the aggregate.

(2) Drying. Feed the aggregates directly to a drier-drum mixer at a uniform rate.

The drier-drum mixer shall have a device that shows the temperature of the material leaving the drier-drum mixer. The temperature-indicating device shall be accurate to the nearest 10

^{O}F and show changes of 10 degrees F. in temperature of the material within one minute.

The drier-drum mixers shall have dust collectors. The dust shall be disposed of or returned to the aggregate.

(3) Proportioning for Continuous Mixing. Introduce the asphalt binder into the mixer at constant pressure through a meter. Install a gage for checking said pressure. The system shall be capable of varying the rate of delivery of binder. During production, the temperature of asphalt binder shall not vary more than 40 degrees F. Heat and insulate the meter and lines. Equip the binder storage with a device for automatic plant cut-off when the level of binder is lowered sufficiently to expose the pump suction line.

When using filler, proportion the filler by weight or volume by a method that uniformly feeds the material within 10 percent of the required amount. Discharge the filler material from the proportioning device directly into the mixer.

(4) Proportioning for Drier-Drum Mixing with Cold-Feed Control. When using cold-feed control with drier-drum mixing, equip the asphalt feeder, the aggregate feeders, the filler material feeder, and the combined aggregate feeder with devices by which the rate of feed can be determined while the plant is in full operation.

Weigh the combined aggregate using a belt scale. The belt scale shall be of such accuracy that, when the plant is operating between 30 percent and 100 percent of belt capacity, the average difference between the shown weight of material delivered and the actual weight delivered shall not exceed 1 percent of the actual weight for three 2-minute runs. For the three individual two-minute runs, the shown weight of material delivered shall not vary from the actual weight delivered by more than 2 percent of the actual weight. Determine the actual weight of material delivered by a vehicle platform scale that has been sealed. Equip the plant so that this accuracy check can be made after each relocation and set-up, but before the first operation and at other times as required by the Engineer.

Interlock the belt scale for the combined aggregate, the proportioning devices for filler material, and the asphalt proportioning meter so that the rates of feed of the aggregates and asphalt shall be adjusted automatically to maintain the bitumen ratio (pounds of asphalt per 100 pounds of dry aggregate including filler if used) according to the approved mix design. Do not operate the plant unless this automatic system is operating.

Equip the asphalt meters and aggregate belt scales used for metering the aggregates and asphalt into the mixer with resettable totalizers, so that the actual asphalt and aggregate introduced into the mixer can be determined.

Equip the bin(s) containing the fine aggregate and filler with a vibrating unit. Before the quantity of material in one bin reaches the strike-off capacity of the feed gate, a device shall automatically close down the plant.

Determine the moisture content of the aggregate at least once during each production day. Adjust the moisture control equipment accordingly.

In the absence of an acceptable aggregate sampling device for the combined aggregate at a point before the aggregate enters the drum drier and while the plant is in full operation, provide other suitable sampling means acceptable to the Engineer.

When using filler, install a suitable, safe sampling device in each feed line or surge tank preceding the proportioning device for the filler.

(5) Drier-Drum Mixing. Mix the aggregate, filler and asphalt binder in a drier-drum mixer. Mixing shall continue for a sufficient time and at a sufficiently high temperature that, at discharge from the mixer, the sizes of aggregates are uniformly distributed through the completed mixture and particles are thoroughly and uniformly coated with asphalt binder.

Discharge the drier-drum mixer into a storage silo or into a surge bin. Provide a means of diverting the flow of asphalt concrete away from the silo or surge bin, when starting and stopping the plant production, to prevent incompletely mixed portions of the mixture from entering the silo.

When using a surge bin:

a. do not hold the mixture beyond one hour,

b. do not segregate the mixture,

c. the mixture shall not be lumpy, and

d. the mixture shall meet temperature and quality requirements of the contract.

The burner used for heating the aggregate in the drier-drum shall achieve complete combustion of the fuel.

(G) Asphalt Concrete Storage. Store the asphalt concrete only in silos. Do not stockpile the asphalt concrete. The minimum quantity of asphalt concrete in storage during mixing shall be 20 tons except for the period immediately following a shutdown of the plant of two hours or more. Provide a means to show that the storage into each silo as required is maintained.

Equip the storage silo to prevent segregation of the completed mixture as the mixture is discharged into the silo.

Do not use asphalt concrete with hardened lumps in the mixture. Do not use the storage facilities that contained the material with the hardened lumps for further storage until the cause of the lumps is corrected.

401.05 Construction Requirements.

(A) Weather Limitations. Do not place the bituminous plant mix:

(1) on wet surfaces, as determined by the Engineer, or

(2) when the air temperature is below 50 degrees F. or

(3) when weather conditions prevent the proper handling or finishing of the bituminous mixtures.

(B) Equipment.

(1) Hauling Equipment. Trucks hauling bituminous mixtures shall have tight, clean, smooth and metal beds that have been thinly coated with a minimum quantity of detergent, paraffin oil, or lime solution to prevent the mixture from adhering to the beds. The use of diesel or petroleum-based liquids, except for paraffin oil, to prevent the mixture from adhering to the beds is prohibited.

Each truck shall have a canvas cover to protect the mixture from the weather. Protect each load from the weather with the canvas extending over the top of the truck bed and securely fastened on all four sides of the truck bed.

Each truck shall raise their beds with tailgate closed before discharging to prevent segregation.

Do not refuel equipment over newly paved surfaces. Refuel equipment over a catch pan or a surface that will prevent the fuel from coming in contact with the asphalt pavement. After the refueling operation is completed, remove the above devices until needed.

(2) Bituminous Pavers. Bituminous pavers shall be:

(a) self-contained, power-propelled units,

(b) provided with an activated screed or strike-off assembly, heated if necessary, and

(c) capable of spreading and finishing courses of bituminous plant mix material in lane widths applicable to the specified typical section and thicknesses shown in the contract.

Equip the paver with a receiving hopper having sufficient capacity for uniform spreading operation. Equip the hopper with a distribution system to place the mixture uniformly in front of the screed.

Prior to each days paving operation, check the screed or strike-off assembly surface with a straight edge to insure straightness. The screed or strike-off assembly shall effectively produce a finished surface of the required evenness and texture without tearing, shoving or gouging the mixture. When the spreading equipment leaves ridges, indentations, or other marks in the surface that cannot be eliminated by rolling or prevented by adjustment in operation, discontinue its use and furnish other acceptable equipment.

Equip the paver with an acceptable electronic screed control device. The electronic device shall include a grade sensor mounted on each side of the paver. Each sensor shall take its grade reference from a 30-foot ski for the first pass. For subsequent passes, the Contractor may substitute one ski with a joint-matching shoe riding on the finished adjacent pavement.

Demonstrate the competence of personnel operating the grade and crown control device according to the contract before placing surface courses. When the automatic control system becomes inoperative during the day's work, the Engineer will permit the Contractor to finish the day's work using manual controls. Do not resume work thereafter until the automatic control system is made operative. The Engineer may waive the use of the

electronic screed control device when paving gores, shoulders, or transitions and miscellaneous reconstruction areas.

When laying mixtures, the paver shall be capable of operating at forward speeds consistent with satisfactory laying of the mixture. Do not change the forward speed of the paver after start of paving operation. If necessary, the Engineer will limit the load of the haul vehicle such that the Contractor will get satisfactory spreading.

(3) Rollers. Rollers shall be the self-propelled, steel-tired tandem pneumatic-tired or vibratory type. Rollers shall be capable of reversing without backlash. The number and weight of rollers shall be sufficient to compact the mixture to the required density while the mixture is still in a workable condition. Do not use equipment that results in excessive crushing of the aggregate. Operate the rollers according to the manufacturer's recommendations.

(a) Steel-Tired Tandem Rollers. Check the steel-wheel rims for wear. When the rolling drum is grooved or pitted, do not use the roller. Excessively worn scrapers and wetting pads shall be replaced.

Steel-tired tandem rollers used for breakdown (initial) or intermediate rolling passes shall have a minimum gross weight of 12 tons. Steel-tired tandem rollers shall provide a minimum of 250 pound weight per linear inch of width on the compaction roller (drive wheel).

Steel-tired tandem rollers used for finish (final) rolling passes shall have a minimum gross weight of eight tons.

(b) Pneumatic-Tired Rollers. Pneumatic tire rollers shall be the oscillating type with smooth (tread) pneumatic tires of equal size and diameter. Inflate and maintain the tires to the designated pressure so that the air pressure will not vary more than five psi from the established pressure. Space the tires so that the gaps between adjacent tires are covered by the following tires.

The pneumatic-tired rollers used for breakdown or intermediate rolling passes shall have a total weight that can be varied to produce an operating weight per tire of not less than 3,000 pounds. The tires shall have a minimum wheel diameter of 20 inches. The tire inflation pressure shall be within 70 psi to 75 psi when cold and 90 psi when hot.

During cold or windy weather condition, equip the rollers with skirt-type devices (mounted around the tires) to maintain the temperature of the tires during rolling operations.

The pneumatic-tired rollers used for kneading a finished asphalt surface shall have a total weight that can be varied to produce an operating weight per tire of not less than 1,500 pounds. The tires shall have a minimum wheel diameter of 15 inches and a 50 psi to 60 psi tire inflation pressure.

(c) Vibratory Rollers. Vibratory rollers shall be steel-tired tandem rollers, having a minimum weight of 7 tons. The vibratory rollers shall have amplitude and frequency controls, speedometer, and be specifically designed to compact the material on which the vibratory roller is used. Operate the vibratory roller according to the manufacturer's recommendations.

(4) Hand Tools. Keep hand tools used in the production, hauling, or placement of asphalt concrete pavement clean and free of contaminants. Liquids, such as diesel or mineral spirits, may be used to clean the hand tools. Do not contaminate the asphalt concrete pavement with cleaning liquids. Clean hand tools over a catch pan with the capacity to hold all the cleaning liquid in the container should it spill. Dry the hand tools before using with the asphaltic material.

(5) Material Transfer Vehicle (MTV).

(a) Usage. Unless otherwise indicated in the contract documents, MTV usage applies to paving projects on all islands except Lanai and Molokai. When placing hot mix asphalt surface course, use MTV to independently deliver mixtures from hauling equipment to paving equipment. MTV usage will not be required for the following:

1. Projects with less than 1,000 tons of hot mix asphalt.

2. Temporary pavements.

3. Bridge deck approaches.

4. Shoulders.

5. Tapers.

6. Turning lanes.

(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 hot mix asphalt from hauling equipment.

(2) MTV storage bin with minimum 15-ton capacity.

(3) Auger mixing system in MTV storage bin, paver hopper insert, or paver hopper to continuously mix hot mix asphalt prior to discharging to conveyor system.

(c) Performance Evaluation. The Engineer will evaluate performance of MTV and mixing equipment by measuring mat temperature profile immediately behind paver screed on first day paving.

Six temperature profile measurements will be taken of mat surface using non-contact thermometers at 50-foot intervals behind paver. Each temperature profile will consist of three surface temperature measurements taken transversely across mat in approximately a straight line from screed while paver is operating. For each profile, temperature will be measured approximately 1 foot from each edge and in middle of mat; and difference between maximum and minimum temperature measurements within each temperature profile shall not exceed 10 degrees F. If any two or more temperature profiles exceed 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.

Once adjustments are made, the Engineer will repeat measurement procedure 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 measurements after measurement procedure is repeated once, equipment replacement will be required before the Engineer conducts any further temperature profile measurements.

The Engineer may perform additional surface temperature profile measurements at any time during

project. If two consecutive temperature profiles fail to comply with specified allowable temperature differential, halt paving operation and adjust MTV or mixing equipment to ensure that HMA placed by paver complies with temperature requirements.

(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.

(C) Preparation of Surface. Before laying the asphalt concrete pavement, prepare the surface according to the contract. For resurfacing work, surface preparation shall include the removal of traffic tapes, and raised pavement markers, prior to application of the tack coat. The removal of thermoplastic line markings and epoxy adhesives are not required. When the prepared surface becomes damaged or unsatisfactory, repair the damaged or unsatisfactory surface at no cost to the State before work proceeds.

Paint the contact surfaces of curbs, gutters, manholes, and other structures with a thin, uniform coating of asphalt paint before placing the bituminous mixture against them.

For resurfacing work, bring irregular surfaces to uniform grade and cross section before paving the existing pavement. Fill and compact the holes, cracks and wheel ruts with Asphalt Concrete Pavement, Mix No. V, before resurfacing. Also, mark the location of existing manholes, valves, and handholes on the roadway so the location after paving can be

determined. Unless otherwise noted, adjust all existing frame and cover to new finish pavement finish grade after finish pavement is completed.

(D) Spreading and Finishing. Lay, spread, and strike off the mixture upon an acceptable surface to the grade and elevation established. Use the bituminous pavers to distribute the mixture either over the entire width or over such partial width as may be practicable.

The longitudinal joint in one layer shall offset that in the layer immediately below by approximately 6 inches; however, the joint in the top layer shall be at the centerline of the pavement when the roadway comprises two lanes of width, or at lane lines when the roadway is more than two lanes in width.

The minimum temperature of the bituminous mixture as discharged to the paver shall not be less than 250 degrees F.

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, spread, rake, and lute the mixture by hand tools. For such areas, dump, spread, and screed the mixture to give the required compacted thickness.

When the production of the mixture can be maintained and when practicable, use the pavers in echelon to place the wearing course in adjacent lanes.

When the lanes are required to be opened to public traffic, pave the full travelway or total width of roadway each day. However, at the discretion of the Engineer, the Contractor may construct a transition taper at the longitudinal pavement drop so as not to leave a vertical face. The transition taper shall be along the lane line and formed by a one foot slope shoe attached on the paving machine, that would produce a wedge with a maximum height of three inches down to zero inch. Remove the transition taper before placing adjacent lifts.

The minimum and maximum allowable laying thickness for the various types of mixture are specified in Table 401-II - Limits of Bituminous Binder Content.

(E) Compaction. Immediately after spreading and striking off the bituminous mixture and adjusting surface irregularities, thoroughly and uniformly compact the mixture by rolling.

Initiate the compaction of the mixture when the mix temperature is the highest at which the mixture can be compacted without excessive horizontal movement. The temperature shall not be less than 220 degrees F.

Use pneumatic or steel-tired tandem rollers for initial or breakdown rolling. Do not use pneumatic tire rollers for initial or breakdown rolling on final lifts of a traveled way including auxiliary lanes.

Finish rolling using a tandem roller weighing not less than eight tons. Roll at or above 175 degrees F.

Rolling shall begin at the sides and proceed longitudinally parallel to the road centerline, each trip overlapping half the roller width, gradually progressing to the crown of the road. When using vibratory roller, the overlap shall be less than 6 inches. When paving in echelon or abutting a previously placed lane, roll the longitudinal joint first followed by the regular rolling procedures. On superelevated curves, the rolling shall begin at the low side and progress to the high side by overlapping of longitudinal trips parallel to the centerline.

Correct the displacements occurring as a result of the reversing direction of a roller, or from other causes, at once by the use of rakes and addition of fresh mixture when required. Roll so as not to displace the line and grade of the edges of the bituminous mixture.

To prevent adhesion of the mixture to the rollers, keep the wheels properly moistened with water or water mixed with very small quantities of detergent. The Engineer will not permit excess liquid. Do not use diesel or petroleum-based liquids on the rollers.

Along forms, curbs, headers, walls and other places not accessible to the rollers, thoroughly compact the mixture with hot hand tampers, smoothing irons or with mechanical tampers. On depressed areas, use a trench roller or cleated compression strips under the roller to transmit compression to the depressed areas.

When the mixture becomes loose and broken, mixed with dirt, or is defective, remove, replace, and compact the mixture with fresh hot mixture to conform with the surrounding area. Remove and replace areas showing an excess or deficiency of asphalt cement.

Rollers shall move at a slow but uniform speed with the drive wheels nearest the paver. Continue the rolling to attain the desired density and until the roller marks are eliminated.

(1) Courses Equal to or Greater Than 1.5 Inches Thick. The relative compaction requirement for pavement courses that have a nominal compacted thickness equal to or greater than 1.5 inches shall be not less than 92 percent nor greater than 97 percent based on AASHTO T 209 modified by deletion of supplemental procedure for Mixtures Containing Porous Aggregate.

The type of rollers and their relative position in the compaction sequence shall generally be the Contractor's option.

(2) Courses Less Than 1.5 Inches Thick. Compaction to a specified density for pavement courses that have a nominal compacted thickness of less than 1.5 inches will not be required.

Initiate rolling by a non-vibratory steel-tired tandem roller.

Do intermediate rolling by a pneumatic tired roller. The rolling shall continue until after compacting the entire surface by a minimum of four coverage of the roller. Do additional coverage as necessary to obtain thorough compaction of the mixture.

Finish the rolling using a steel-tired tandem roller. Continue rolling until the entire surface has been compacted by a minimum of three coverage of the roller and the roller marks have been eliminated.

Do not use the vibratory roller.

(3) Special Areas Not Designed For Vehicular Traffic. The relative compaction of areas such as bikeways not shown as part of the roadway and other areas not subjected to vehicular traffic shall be not less than 90 percent based on AASHTO T 209 modified by deletion of supplemental procedure for mixture containing porous aggregate. The type of rollers and their relative position in the compaction sequence shall generally be the Contractor's option. However, the Contractor shall increase the asphalt content by at least 0.5 percent above that used for asphaltic concrete pavements.

(F) Joints. Placing of the bituminous paving shall be as continuous as possible. Rollers shall not pass over the unprotected end of a freshly laid mixture. Form the transverse and longitudinal joints by cutting back on the previous run to expose the full depth of the course. Use a brush coat of asphalt paint on contact surfaces of transverse and longitudinal joints before placing additional mixture against the previously rolled material.

(G) Pavement Samples. Cut samples from the compacted pavement for testing within 48 hours of lay down. The cut pavement samples shall be 12 inches by 12 inches or 4-inch diameter cores, minimum. Take samples of the mixture for the full depth of the course at the location shown by the Engineer. Place and compact the sampled area with new materials to conform with the surrounding area.

Only sample and test leveling course if 1-1/2 inches or greater. No compaction requirements for less than 1-1/2 inches.

(H) Surface Tolerances. The Engineer will test the surface using a ten- foot straightedge at selected locations. The variation of the surface from the testing edge of the straightedge between two contacts with the surface shall not exceed 3/16 inch.

The thickness of the finished pavement shall be within 0.02 foot of the planned thickness at points of the cross section.

When specified by the Engineer, correct irregularities of the pavement exceeding the above limits including removal and replacement at no cost to the State.

(I) Protection of Pavement. In multiple layer construction, the Engineer will not permit construction equipment except those directly connected with paving operations, on intermediate layers without written authorization by the Engineer. An intermediate layer is defined as layers other than the finished surface layer.

The Engineer will not permit traffic on courses of asphalt concrete until the asphalt concrete has cooled and set, except such traffic as may be necessary for construction purpose.

(J) Tack Coat. Apply tack coat to bituminous and concrete surfaces before placing the asphalt concrete pavement. The tack coat shall conform to Section 407 - Bituminous Tack Coat.

401.06 Method of Measurement.

(A) The Engineer will measure asphalt concrete pavement per ton in accordance with the contract documents.

(B) The Engineer will measure leveling course per ton in accordance with the contract documents.

401.07 Basis of 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 the contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Asphalt Concrete Pavement, Mix No. IV	Ton
Asphalt Concrete Pavement, Mix No. V	Ton

END OF SECTION 401

Amend **Section 407 - Bituminous Tack Coat** to read as follows:

SECTION 407 - TACK COAT

407.01 Description. This work includes preparing and treating an existing bituminous or concrete surface with tack coat according to the contract.

407.02 Materials. Materials shall conform to the following:

Emulsified Asphalt (Type SS-1, SS-1h, CSS-1 or CSS-1h)	702.04
Water	712.01

407.03 Construction Requirements.

(A) Weather Limitations. Do not apply tack coat on a wet surface or when weather conditions prevent proper construction.

(B) Equipment. Provide equipment for heating and applying the tack coat. This equipment shall conform to Subsection 405.03(B) - Equipment.

(C) Preparation of Surface. Immediately before applying the tack coat, sweep the surface clean of loose material, dirt, excess dust or other objectionable matter according to Section 310 - Brooming Off. Use a power broom or power blower, supplemented by hand methods, if necessary.

Before applying the tack coat, remove the raised pavement markers by such methods that will cause the least possible damage to the pavement.

(D) Application of Tack Coat. Dilute the emulsified asphalt with water at a rate of one part emulsion to one part of water by volume. Submit the quantity, rate of application, temperature, and areas to be treated for acceptance before applying the tack coat

Place the tack coat only as needed for the surface to cure to the proper condition for placement of such surface course.

The time between the placement of the tack coat and the subsequent paving shall not exceed four hours. In multiple lift construction, the Engineer may waive the application of the tack coat. Placement of the upper lift shall be within 12 hours of the placement of the lower lift.

Apply tack coat at the rate of 0.05 - 0.10 gallon per square yard on an existing surface or intermediate layer in multiple layer construction.

(E) Protection of Tack Coat. Keep traffic except construction equipment directly connected with paving operations off the tack coat. Protect the tack coat from damage until after placing the surface course.

407.04 Method of Measurement. The Engineer will not measure bituminous material for tack coat for payment.

407.05 Basis of Payment. The Engineer will not pay for tack coat separately and will consider the cost for tack coat as included in the contract prices of the various contract items in Section 401 - Asphalt Concrete Pavement. The cost is for the work prescribed in this section and the contract documents.

END OF SECTION 407

Amend **Section 613 - Centerline and Reference Survey Monuments** to read as follows:

"SECTION 613 - CENTERLINE AND REFERENCE SURVEY MONUMENTS

613.01 Description. This section describes constructing, adjusting, and reconstructing centerline and reference survey monuments.

613.02 Materials.

Concrete, Class A	601
Reinforcing Steel	709.01
Adhesives for Pavement Markers	712.41
Structural Steel	713.01

Use brass plug for marking centerline point. Burr or feather plug for anchorage in concrete.

Use 2-inch, gage no. 9 concrete nails for pipe sleeve and plate.

613.03 Construction Requirements.

(A) Initial Installation. Cut holes in completed medians and shoulders. Cut holes to required depth, or to solid rock, whichever is less. Fill hole with concrete. Place the 4 #4 x 20-inch bars as shown on the plans when curing the concrete. Install brass plug in required position after concrete has sufficiently set. After curing concrete at least 7 days, restore edge of pavement surrounding monument to the original condition.

(B) First Pavement Resurfacing Adjustment. Adjust centerline and reference survey monuments before the paving operations.

Cover bottom of plate and sleeve assembly with adhesive and press assembly into place over the existing monument.

Align assembly so that the monument pin is in center of the sleeve. Maintain this alignment and fasten plate to existing concrete by driving concrete nails through predrilled holes. Drive nails until head of each nail is flush with plate. Complete these operations within five minutes of mixing the adhesive.

(C) Second and Third Pavement Resurfacing Adjustments. Adjust centerline and reference survey monuments before paving operations.

Epoxy contact surfaces between sleeves and weld entire circumference. Fill sleeve with newspaper or similar material to prevent existing monument from being affected by tack coat or paving operations. After laying pavement but before compaction, remove pavement material directly above sleeve, and remove newspaper or similar material from sleeve. After compaction of pavement, clean area enclosed by sleeve so pin and concrete are clearly visible.

(D) Reconstruction. Reference existing monument with cross nails after laying and compacting new pavement. Construct new monument.

(E) Reference Survey Data. Provide the following reference survey data to the Engineer for all new monuments by qualified personnel under the direct supervision of a surveyor licensed in the State of Hawaii with experience in construction surveying of the work:

(1) Stationing and offset

(2) Local trig station north-south coordinates.

The Engineer may check the Contractor's survey work. The Engineer will inform the Contractor of the results of these checks. Such checks shall not relieve the Contractor of its responsibility for the accuracy of the layout work.

Furnish personnel, engineering equipment and supplies, transportation, and material necessary to complete the survey work.

613.04 Method of Measurement.

(A) New Centerline and Reference Survey Monument. New centerline and reference survey monuments will be paid on a lump sum basis. Measurement for payment will not apply.

(B) Reconstructing Centerline and Reference Survey Monument. Reconstructing centerline and reference survey monuments will be paid on a lump sum basis. Measurement for payment will not apply.

(C) Adjusting Centerline and Reference Survey Monument. The Engineer will measure adjusting centerline and reference survey monument per each.

613.05 Basis of Payment.

(A) New Centerline and Reference Survey Monument. The Engineer will pay for the accepted new centerline and reference survey monument on a contract lump sum basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

(B) Reconstructing Centerline and Reference Survey Monument. The Engineer will pay for the accepted reconstructing centerline and reference survey monument on a contract lump sum basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

(C) Adjusting Centerline and Reference Survey Monument. The Engineer will pay for the accepted adjusting centerline and reference survey monument 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:

Pay Item	Pay Unit
Centerline and Reference Survey Monuments	Lump Sum
Reconstructing Centerline and Reference Survey Monuments	Lump Sum
Adjusting Centerline and Reference Survey Monuments	Each

The Engineer will pay for:

(1) 80 percent of the contract bid price upon completion of adjusting the centerline and reference survey monument;

(2) 20 percent of the contract bid price upon completion of providing reference survey data to the Engineer for all new monuments."

END OF SECTION 613

Amend **Section 621 - Traffic Control Signs** to read as follows:

"SECTION 621B - TRAFFIC CONTROL REGULATORY, WARNING, AND MISCELLANEOUS SIGNS

621B.01 Description. This section describes providing regulatory, warning, and miscellaneous signs, sign posts, and foundations.

621B.02 Materials.

Signs	712.20
Sign Posts	713.11
Fasteners for Signs	713.12

Retroreflective sheeting shall conform to ASTM D 4956 or as amended in accordance with Subsection 712.20 - Signs.

621B.03 Construction Requirements.

(A) Sign Supports. Provide permanent signs on posts at required locations. Set posts plumb.

(1) Sign Posts. Use flange channel posts or square tube posts (12 or 14 gauge) for:

(a) Regulatory and warning,

(b) Bikeway signs,

(c) School area signs,

(d) Civil Defense signs, or

(e) Conventional motorist services signs.

(B) Splicing of Reflective Sheeting Material. Do not splice legends When using reflecting material as background for signs with sheet aluminum backing. Make reflecting material one-piece whenever sign dimensions are 4 feet by 6 feet or less.

(C) Labeling of Signs. Label back of each sign with legible block print, 1-inch high numbers using black permanent felt-tipped markers and the following information:

(1) Route Number,

(2) Mile Post (same as existing sign), and

(3) Date sign installed.

(D) Refurbishing Sign Panel. Submit shop drawings at least 10 working days before doing refurbishing sign panelwork. Complete each sign panel within one working day.

(E) Removal of Existing Signs. Remove, clean, and store existing regulatory, warning, and miscellaneous signs that will not be used in the Contract. The contract documents will determine which items are for disposal or storage. The disposed signs will become the property of the Contractor.

(F) Relocation of Existing Signs. Remove, clean, and fasten existing regulatory, warning, and miscellaneous signs to be relocated to new posts or supports. Provide new materials such as posts, nuts, bolts, washers, base support, brackets, and necessary hardware to reinstall existing signs. Submit relocated sign locations for acceptance.

621B.04 Method of Measurement. Regulatory, warning, and miscellaneous signs, with or without posts, and with RM-3's as specified in the Sign Replacement, Removal and Installation Schedule, will be paid on a lump sum basis. Measurement for payment will not apply.

621B.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below on a contract lump sum basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for each of the following pay item when included in the proposal schedule:

Pay Item	**Pay Unit**
Regulatory and Warning Signs (10 Square Feet or Less)	Lump Sum
Regulatory and Warning Signs (More than 10 Square Feet)	Lump Sum
_____ Sign	Lump Sum

The Engineer will not pay for removing and delivering of existing signs that will not be incorporated in the completed project; labeling of new signs; removing, salvaging or storing of existing posts; and removing, cleaning, stacking and delivering the existing signs and posts that are not incorporated in the

completed project separately and will consider the cost as included in the prices for the various traffic control, regulatory, warning, and miscellaneous sign contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 621B

Amend **Section 621 - Traffic Control Signs** to read as follows:

"SECTION 621C - MARKERS

621C.01 Description. This section describes furnishing and installing reflector, object, and milepost markers and post.

621C.02 Materials.

Reflector Marker	712.21
Flexible Delineator Post	712.51
Fasteners for Signs	713.12

621C.03 Construction Requirements.

(A) Marker Posts. Set marker posts plumb. Provide marker posts of the following type:

(1) Metal Posts. Zinc-coat metal posts. Provide 1.12 pounds per foot flanged channel posts or 1.5 inch, 12 or 14 gauge square tube posts.

(2) Flexible Posts. Provide flexible post.

(B) Markers

(1) Reflector Marker. Provide reflector marker of the following type:

(a) RM-1, RM-2, and RM-3 reflector markers conforming to the following:

1. Type III or IV retroreflective sheeting markers,

2. Glass sphere reflector markers with 4 - inch by 5 - inch reflector units, or

3. Plastic prismatic reflector markers with 3 inch diameter reflector units.

(b) RM-4 reflector marker conforming to Type III or IV retroreflective sheeting marker.

(c) RM-9 reflector marker conforming to the following:

1. Nine 3-inch round amber plastic prismatic reflectors fastened with blind rivets to yellow Type III or IV retroreflective sheeting marker, or

a. Yellow Type III or IV retroreflective sheeting marker.

(2) Type II Object Marker. Conform reflective sheeting material for Type II object markers to Subsection 712.20(C)(4) - Type III or IV Retroreflective Sheeting.

621C.04 Method of Measurement. Reflector marker, mile post marker, and object marker will be paid on a lump sum basis. Measurement for payment will not apply.

621C.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below on a contract lump sum basis 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 each of the following pay item when included in the proposal schedule:

Pay Item	**Pay Unit**
Reflector Marker _____	Lump Sum
Mile Post Marker with Post (Bi-Directional)	Lump Sum
Mile Post Marker _____	Lump Sum
Type II Object Marker	Lump Sum"

END OF SECTION 621C

Amend **Section 629 - Pavement Markings** to read as follows:

"SECTION 629 - PAVEMENT MARKINGS

629.01 Description. This section describes furnishing, installing, and removing pavement markings.

629.02 Materials. Materials shall conform to the following requirements:

White and Yellow Traffic Paint	708.06
Pavement Markers	712.40
Adhesives for Pavement Markers	712.41
Preformed Pavement Marking Tape	712.53
Reflective Thermoplastic Compound Pavement Markings	712.55

Materials installed shall be new, best of their respective grades and as specified below.

629.03 Construction Requirements.

(A) General. Pavement markings shall conform to the latest edition of the MUTCD.

Apply the pavement markings in accordance with the contract documents. Pavement markings shall be clean cut, uniform, and neat. Correct the pavement markings in accordance with the contract documents and at no increase in contract price and contract time that:

(1) fail the requirements specified or

(2) the traffic damages or

(3) other causes.

Establish control points throughout the project for the layout of pavement markings. Do the layout and the Engineer will accept the layout before installing the work.

Longitudinal pavement markings shall not deviate more than 1 inch from the intended alignment on tangents and curves with radii greater than 5,000 feet. On curves with radii of 5,000 feet or less, the longitudinal pavement markings shall not deviate more than 2 inches from

the intended alignment. Immediately correct misalignments when specified by the Engineer. Remove and reinstall the misaligned portion(s) plus an additional 25 feet segment from each end in accordance with the contract documents.

Before applying the pavement markings, the surface shall be free of moisture and foreign or other material that may adversely affect bonding. Thoroughly blast clean the existing surfaces. Clean, newly placed surfaces need not be blast clean. Clean a prepared surface that becomes contaminated with moisture, dust, or other foreign matter before installing the pavement markings.

The Contractor may place pavement marking tape and pavement markers installed with bituminous adhesive immediately after completion of asphalt concrete pavement or within 14 days hence. Apply other pavement markings between 7 days and 14 days after completion of the pavement.

(B) Temporary Pavement Markings. Install temporary pavement markings by end of work day in accordance with Table 629-I – Temporary Pavement Markings when the following conditions exist:

(1) Permanent pavement markings are not installed after completion of each day's final paving.

(2) Additional guidance through area is required.

(3) Markings for special traffic patterns are warranted..

Install temporary solid 4 inch pavement marking tapes on edges of traveled way for newly paved, scarified, or cold planed surfaces, reconstructed areas, and unmarked areas. Where curbs are present at edges of traveled way, 4-inch pavement marking tapes may be eliminated.

Maintain and replace temporary pavement markings, flexible delineators and barricades.

Remove temporary markings before installing permanent pavement markings.

Cover or temporarily remove signs that conflict with temporary markings.

When pavement markings are not installed by the completion of construction operations for each day, the Engineer will suspend the work

and progress payment in accordance with Subsection 105.01 - Authority of the Engineer.

TABLE 629-I TEMPORARY PAVEMENT MARKING	
TYPE	**PAVEMENT MARKING**
Passing Permitted - Both Sides	Single 4-inch yellow stripe 5 feet in length spaced 20 feet on centers with Type D markers spaced 40 feet on centers and located on the center of the 5 foot length of stripe.
Passing Prohibited - Both Sides	Double solid 4-inch yellows stripe with Type D markers placed 20 feet on centers on one of the 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 the stripe 20 feet on centers on the no-passing side and single 4-inch yellow stripes 5 feet in length spaced 20 feet on centers on the passing side
Lane Lines - Lane Changing Permitted	Single 4-inch yellow or white stripe 5 feet in length spaced 20 feet on centers with Type C or Type D markers spaced 40 feet on centers
Lane Lines - Lane Changing Prohibited	Double solid 4-inch white stripes with Type C markers placed 20 feet on centers on one of the 4-inch white stripes selected by the Engineer
Crosswalk	Two 4-inch white traverse lines spaced 8 feet on centers or as specified by the Engineer
Stop Line	Single 4-inch white traverse line
Notes: Paint may be used for temporary markings in areas where final paving is not complete.	

(C) Permanent Pavement Markings

(1) Pavement Markers. Pavement Markers shall be:

(a) of uniform composition,

(b) free from surface irregularities and

(c) free from other physical damage or defects that affect appearance and/or performance.

The shape, dimensions, tolerances, types, uses, and layout shall be in accordance with the contract documents.

Submit samples of the pavement markers and bituminous adhesives and/or epoxy adhesives to the Engineer for testing and acceptance 10 days before usage. Sampling and testing of the pavement markers shall be in accordance with Subsection 712.40.

Use Bituminous Adhesive for Pavement Markers in accordance with Subsection 712.41 to cement markers to the pavement. When accepted by the Engineer, the Contractor may

use Standard Set epoxy adhesive in accordance with Subsection 712.41 at no additional cost to the State.

Heat and dispense the bituminous adhesive from an acceptable equipment that can maintain the required temperature. Placement of markers using bituminous adhesive shall be similar to placement of markers using epoxy adhesive.

When using epoxy adhesive, mix the components by a two-component type automatic mixing and extruding apparatus for use on the project. Automatic mixing equipment shall use positive displacement pumps and shall properly meter the components in the ratio of one to one ± 5 percent by volume. Check the ratio in the presence of the Engineer at the beginning of each day or as ordered.

The Contractor may mix only Standard Set Type adhesive manually and shall not mix more than one quart by volume.

When using two component adhesives, carry out the work quickly and efficiently due to the short pot life of the adhesive. Place the pavement markers within 60 seconds after mixing and extruding the adhesive. The Engineer will not allow further movement of the marker. Use up each mixed batch of adhesive within five minutes completely after the start of mixing. Place the adhesive on the pavement surface or on the bottom of the marker in complete coverage of the area of contact, without voids and with a uniform and adequate thickness to produce a slight excess after pressing the marker in place. Place the marker in position and apply pressure with a slight twisting motion until making firm contact with the pavement. If the Contractor cannot extrude the adhesive from under the marker applying pressure, discard the remaining batch of adhesive. Immediately remove the excess adhesive:

(a) around the edge of the marker,

(b) on the pavement, and

(c) on the exposed surfaces of the markers.

The Contractor may use soft rags moisten with mineral spirits conforming to Federal Specification TT-T-291 or kerosene to remove adhesive from the exposed faces of the markers. Do not use other solvents.

Protect the pavement markers against impact until the adhesive has hardened sufficiently. The Contractor may use the following table as a guide for the determination of sufficient hardening:

Temperature (degrees F)	Standard Set Type (Hours)	Rapid Set Type (Minutes)
100	1-1/2	15
90	2	20
80	3	25
70	4	30
60	5	35
50	7	45
40	No application below 50 degrees F	65
30		85
20		No application below 30 degrees F.
10		

*The temperature is either pavement surfaces or air temperature whichever is lower.

Do not use the hardness of the rim of epoxy around the marker as an indication of the degree of cure.

Immediately reset the pavement markers implanted with improperly mixed adhesives requiring unusually long curing time as specified by the Engineer.

Do not install pavement markers when:

(a) the relative humidity is greater than 80% or

(b) the pavement surface is not dry.

Install the pavement markers in accordance with contract documents and as specified by the Engineer. When using Types A and J pavement markers for delineating 10-foot lane stripes, install them in sets of four with no fractional sets allowed. The Contractor may adjust the lengths of each 10-foot stripe and each 30-foot gap for skip striping ± one foot to present a uniform and balanced arrangement.

Do not install the pavement markers over longitudinal or transverse joints of the pavement surface, pavement marking tape, and thermoplastic extrusion markings.

(2) Traffic Paint. Use a wheeled applicator machine that is manually or machine propelled to apply at a nominal thickness of 0.015 inch or at a rate of 300 linear feet of single 4 inch stripe for one gallon paint. The applicator shall have appropriate shields around the nozzles to permit sharp stripe definition. The applicator shall have a separate nozzle to direct an air stream immediately ahead of paint application for clearing away debris, dust and other foreign matter. Immediately remove misted, dripped and spattered paint on pavements as specified by the Engineer.

The Contractor may manually paint pavement arrows, symbols, words, and curb markings upon acceptance by the Engineer.

Protect freshly painted pavement markings from traffic until the paint is sufficiently dry and will not transfer to tires or other devices. The Contractor may use cones or other acceptable traffic control devices for this purpose.

Repair or correct pavement markings damaged by traffic and paint marks on the pavement caused by traffic crossing wet paint in accordance with Subsection 629.03(D).

(3) Thermoplastic Extrusion Pavement Marking.

(a) Equipment. Apply the material to the pavement by an extrusion method. One side of the shaping die is the pavement and the other three sides are part of the equipment.

The equipment shall provide continuous mixing and agitation of the material. Construct conveying parts of the equipment to prevent accumulation and clogging. Parts of the equipment that come in contact with the material shall easily be accessible and exposable for cleaning and maintenance.

Mixing and conveying parts, including the shaping die, shall maintain the material at the plastic temperature.

The equipment shall assure continuous uniformity in the dimensions of the stripe.

The applicator shall cleanly cut off square stripe ends and apply "skip" lines. The Engineer will not permit the

use of pans, aprons or similar appliances that the die overruns.

Apply beads to the surface of the completed stripe over the entire surface of the stripe and by an automatic bead dispenser attached to the liner.

Equip the bead dispenser with an automatic cutoff control synchronized with the cutoff of the thermoplastic material.

Construct the equipment to provide for varying die widths to produce varying widths of traffic markings.

Provide a special kettle for melting and heating the composition. Equip the kettle with an automatic thermoplastic control device so that the Contractor can do the heating by controlled heat transfer liquid than direct flame.

Equip and arrange the applicator and the kettle in accordance with the Nation Fire Underwriters requirements.

The applicator shall be mobile and maneuverable so that the Contractor can follow straight lines and make normal curves in a true arc.

The applicator shall contain a minimum of 125 pounds of molten material.

(b) Application. Clean off dirt, blaze, paint, tape and grease and ordered by the Engineer.

The Contractor may apply the material in variable widths from 2 inches to 12 inches. Apply the material for the full width of stripe in one application or pass. For example, form an 8 inch stripe with an 8 inch die.

On concrete pavements and pavements containing less than 6% bituminous asphalt, pre-stripe the application area with a binder material, primer or prime seal coat recommended by the manufacturer.

The minimum installed thickness of the line as viewed from a lateral cross section shall be:

(a) not less than 3/32 inch at the edges, and

(b) not less than 1/8 inch in the center.

Take the measurements as an average throughout 36 inch sections of the line. 2,000 pounds of thermoplastic materials supplied in granular or block form will yield approximately 6,600 feet of 4 inch striping with a 90-mil thickness.

The new line, when applied over an old line of compatible material, shall bond itself to the old line so that no splitting or separation takes place during its useful life.

The finished lines shall have well defined edges and be free of waviness.

(4) Preformed Pavement Marking Tape. The Contractor may apply the preformed pavement marking tape manually or with the tape applicators acceptable by the tape manufacturer. Apply the markings in accordance with the tape manufacturer's recommendations and in accordance with the contract documents.

Install either temporary or permanent preformed pavement marking tape in accordance with the contract documents or specified by the Engineer.

Do not apply the preformed pavement marking tape over other markings. Remove the old markings and prepare the surface for tape application in accordance with Subsection 629.03(A).

The minimum temperatures for the applications of preformed pavement marking tape shall be 60 degrees F. for air and 70 degrees F. for roadway surfaces, with both temperatures rising. The maximum temperature shall be 150 degrees F. for surfaces.

Before applying the permanent preformed pavement marking tape, prime the existing roadway surfaces with an acceptable primer as recommended by the tape manufacturer and ordered by the Engineer.

Apply the primer in one thin coat extending at least 1 inch beyond the tape edges. Allow the primer to dry until the primer feels tacky and will not lift or string.

The Contractor may use tapes of different widths to form a specified stripe width. For example, the Contractor may use two 4-inch wide tapes to form an 8-inch wide stripe). The Engineer will make payment for the specified stripe width in accordance with the contract documents.

Use butt splices only and shall not overlap the tape material.

Tamp the markings thoroughly with an acceptable mechanical tampers. Also, slowly drive a truck on the newly applied markings several times.

Areas marked with preformed pavement marking tape shall be ready for traffic immediately after application.

(D) Removal of Existing Pavement Markings. Remove the existing pavement markings in accordance with the contract documents and as specified by the Engineer. Resolve the conflicts between existing and new markings by removing the existing as specified by the Engineer and in accordance with the following:

(1) remove the existing pavement markings before applying the traffic paint, thermoplastic extrusion or preformed pavement marking tape;

(2) remove the existing markings so that the Contractor can make a smooth transition between existing and new markings; and

(3) remove the unnecessary markings before making changes in the traffic pattern.

Use removal methods that will cause the least possible damage to the pavement and its surface. Do not cause impressions of old markings to remain after the removal operations. Repair the damage to the pavement or its surface caused by removal operations including impressions of old markings at no increase in contract price and contract time. Make the reparations as specified and accepted by the Engineer.

The Engineer will not permit eradication of existing markings by painting over them. The Engineer will permit burning off existing paint markings provided the Contractor uses an acceptable method using excess oxygen. Do not burn nor ground off the preformed pavement marking tape. Remove the preformed pavement marking tape and thermoplastic extrusion markings by methods recommended by the manufacturer and acceptable by the Engineer.

The Engineer will permit sandblasting for paint removal. Remove the sand or other material deposited on the pavement due to removal operations as work progresses. The Engineer will not permit accumulation. Immediately remove excess sand or other material deemed hazardous to traffic when specified by the Engineer.

629.04 Method of Measurement. Pavement striping, pavement marker, crosswalk marking, pavement arrow, pavement word, and pavement symbol will be paid on a lump sum basis. Measurement for payment will not apply.

629.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below on a contract lump sum basis, 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 each of the following pay items when included in the proposal schedule:

Pay Item	**Pay Unit**
__-Inch Pavement Striping, ____ (Thermoplastic Extrusion)	Lump Sum
__-Inch Double Pavement Striping, ____ (Thermoplastic Extrusion)	Lump Sum
Type ___ Pavement Markers	Lump Sum

The Engineer will not pay for temporary pavement markings, flexible delineator posts with reflector markers, Type I Barricades, Type II Barricades with marker lights, and temporary signs separately and will consider the cost of these as included in the unit prices for the various pavement marking contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 629

Make the following Section a part of the Standard Specification:

"SECTION 636 – FIELD OFFICE AND PROJECT SITE LABORATORY TRAILER

636.01 Description. This section describes furnishing, placing, maintaining and subsequently removing portable, weatherproof trailer(s) used exclusively by the Project Engineer as a field office and a project site laboratory.

636.02 Materials. Furnish and install new material necessary to complete this work.

636.03 Construction Requirements.

(A) General. The field office trailer and project site laboratory trailer provided shall conform to the contract documents and as directed by the Engineer.

(1) Within 10 days after a contract is awarded, submit catalog cuts, shop drawings, or both for the Engineer's acceptance.

(2) The Engineer will determine the exact location of the trailer in the field. Place the trailer(s) within two weeks after the Engineer determines the location in the field.

(3) The Engineer and its staff will have exclusive use of the trailer(s) and area surrounding the trailer(s) within 30 feet of the outer most edges of the trailer. If there are two or more trailers, the distance shall be 30 feet from a square or rectangle formed by the outer limits of the trailer. The trailer(s) will be separated from any buildings used by the Contractor and not share any utilities. Construct an 8-feet high chain link fence with barbed wire and a double swing gate entrance with each gate having a width of 15 feet. Maintain a clearance of 30 feet minimum from the building, ramp, walkway, and stairs. The Engineer will determine the exact location of the fence. Remove the fencing and restore area after the completion of the project or removal of field office/project laboratory complex.

(4) Comply with all local laws, ordinances, rules, and regulations pertaining to the placing of the trailer(s) and their appurtenances and shall obtain necessary permits and licenses and publish or post notices required. The Contractor shall comply with local laws, ordinances, rules, and regulations pertaining to the placing of the trailer(s) and their appurtenances and its construction even if it is exempt. Unless the exemption is in relation to the obtaining the necessary permits and licenses and

publishing or posting of notices to which the Engineer may allow the exemption.

(5) Furnish and install the required pipes and appurtenances, including a water main, to connect to the closest County Sewer main and water supply system. Connect the pipes according to the plumbing ordinances of the appropriate County and State Department of Health.

(6) Provide a combination surface mounted, weatherproof or raintight meter socket panel designated for single phase 3-wire solid neutral 120/240 volt service with a 4-jaw meter socket

1 – 100 amp. main breaker
1 – 20 amp. breaker 2/pole
6 – 20 amp. breaker single pole

(7) Maintain the trailer(s), surrounding ground of the trailer(s), furnishings, appliances, and other equipment in good order and provide rubbish pickup service twice a week for a period not to exceed 90 calendar days beyond the date of final acceptance of the completed project by the State. Employees of the State of Hawaii or their consultants may use the field office trailer and project site laboratory trailer at no increase in contract price or contract time to the other Contractors.

(8) The trailer(s) and furnishings shall become the property of the Contractor upon completion of the project. Remove the trailer(s) within 7 calendar days from the end of the 90-day period specified above or earlier upon receipt of written notice from the Engineer.

(9) Provide and maintain a separate ADA compliant toilet facility for each trailer (8-feet x 4-feet minimum) which shall include a door and screened window. The toilet facility shall have a flush type toilet and wash basin with running water and all related plumbing fixtures necessary. The room shall have two lights. One light shall be inside the room and one light shall be outside the room. Both lights shall be connected to one switch and shall be able to turn on both lights at the same time. The toilet facility shall be for the exclusive use of the State.

(10) Clean the site of the trailer(s) and leave the site in a clean and presentable condition after removal of the trailer(s). Restore the area such as any grass or pavement to the same or better condition than it originally was.

(11) Furnish and install covered and lighted six-foot wide walkways with non-slip surfaces for the length of the trailer. If two or more trailers are provided, the covered and lighted walkway shall connect all the trailers. All exterior doors shall have a heavy-duty dead bolt lock, which is opened by a key from the outside and a lever or knob from the inside. In addition to the heavy-duty dead bolt lock, all exterior and interior doors shall have a separate ADA compliant heavy-duty cylindrical lever handle entrance lock which shall have an outside deadlocking latch bolt operated by a key and a pushing turn button. Locks for the trailer(s) shall be keyed alike, i.e., one key can open all doors. Provide 10 sets of keys for each trailer.

(12) Provide the trailer(s) with concrete hollow tile foundation and steps, four telephones, potable water, sewage disposal, electrical lighting (fluorescent) with an illumination of not less than 50-foot candles, central air conditioner units of not less than 30,000 BTU rating each, five exterior flood lights on a timer and two fire extinguishers per trailer as specified by the Engineer. The telephones shall be key telephone set type with two separate lines per trailer.

(13) Provide metal security screens over all trailer windows. Security screens shall be galvanized expanded metal sheet, 9 gauge, welded to an angle iron frame welded to the trailer. Security screens shall be galvanized prior to installation. All welded points shall be regalvanized.

(14) Provide a monitored alarm system and fire alarm system that detects smoke and heat for the field office and project site laboratory trailers. If more than one trailer is provided the alarm system shall have one key pad in each trailer to set the alarms and shall be able to set the alarm for all the trailers from each key pad. All perimeter openings and interior space shall be protected Coordinate contact person for alarm with the Engineer prior to installation.

(B) Field Office. The Contractor shall furnish a 12 feet x 56 feet trailer meeting the requirements specified in the contract documents.

Submit to the Engineer a plan or brochure for acceptance of the field office trailer. The Engineer shall determine the layout for the trailer facility including toilet.

(C) Project Site Laboratory. The Contractor shall furnish a 10 feet x 24 feet trailer meeting the requirements specified in the contract documents.

Submit to the Engineer a plan or brochure for acceptance of the project site laboratory trailer. The Engineer shall determine the layout for the trailer facility including toilet.

(D) Field Office Trailer Furnishings. The Contractor shall provide the following items for each of the field office(s):

(1) Two file cabinets, metal with lock 4-drawer legal-size, 18 inch W x 26 inch D x 52 inch H.

(2) One steel double pedestal executive with lock, dimensioned and equipped as follows, or similar:

(a) 60 inches long by 30 inches wide.

(b) Three box drawers on left pedestal and one box drawer and one file drawer on right pedestal.

(3) Two steel double pedestal compact administrative desks with lock, dimensioned and equipped as follows, or similar:

(a) 54 inches by 24 inches wide.

(b) One box drawer and one file drawer at each pedestal.

(4) Three portable work tables, 72 inch L x 30 inch W x 29 inch H.

(5) Three executive swivel chair with arm rests and capable of adjusting the tension and height. The padded areas shall be at least 2-1/2 inches thick. Chairs shall be on five canisters.

(6) One engineering draftsman stool with adjustable seat height up to 6 inches and backrest height up to 3-3/8 inches and a chrome foot ring or similar.

(7) Four stackable chairs steel framed.

(8) One aluminum framed bulletin board 38 inches wide by 36 inches high.

(9) One aluminum framed white porcelain enamel steel board 48 inches wide by 36 inches high with full length marker rail and a dry erase marker.

(10) One aluminum plan rack 25 inches long by 18 inches wide by 48 inches high.

(E) Project Site Laboratory Trailer Furnishings: The Contractor shall provide the following items for the project site laboratory.

(1) Two each steel double pedestal compact administrative desks with lock, dimensioned and equipped as follows, or similar:

(a) 54 inches long by 24 inches wide

(b) One box drawer and one file drawer at each pedestal.

(2) One each portable work table (72 inch L x 30 inch W x 29 inch H)

(3) One each electric stove with oven

(4) One each metal storage cabinet (6 feet H x 3 feet W) 2-door with lock

(5) Two each 4-drawer legal-size locking metal file cabinets (18 inch W x 26 inch D x 52 inch H).

(F) Maintenance of Trailers. The force account work includes the monthly utility charges (but not the initial installation, start up charges for the utilities, or the disconnection of utilities); maintaining the trailer and surrounding ground of the trailers; maintaining the furnishings, appliances, and other equipment in good order, treating the ground under the buildings for termites; providing rubbish pickup service twice a week; providing and maintaining the toilet facility; providing janitorial services for both buildings; relocating the buildings if necessary; and as ordered by the Engineer.

Site restoration shall be at no increase in contract price and contract time.

636.04 Method of Measurement.

(A) The Engineer will measure maintenance of trailers on a force account basis in accordance with Subsection 109.04 – Payment for Additional and Force Account Work and as ordered by the Engineer.

(B) Field office trailer and project site Laboratory trailer will be paid on a lump sum basis. Measurement for payment will not apply.

636.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below 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 each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Maintenance of Trailers	Force Account

An estimated amount for the force account may be allocated in the proposal schedule under 'Maintenance of Trailer', but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than the estimated amount allocated in the proposal schedule.

Field Office Trailer (Not to Exceed $32,000.00)	Lump Sum
Project Site Laboratory Trailer (Not to Exceed $22,000.00)	Lump Sum

The contract lump sum amount for the field office trailer and the project site laboratory trailer also includes the initial utility cost and the disconnection of utilities.

The maximum bids allowable for the field office and project site laboratory are $32,000 and $22,000 respectively. If the proposal submitted by the bidder indicates an amount in excess of the allowable maximum for either or both items, the indicated amount or the amounts shall be reduced to the allowable maximum, as appropriate. The 'Sum of All Items' in the proposal schedule shall be adjusted to reflect any such reduction. For the purposes of comparing bids and determining the contract price to be inserted in the contract awarded to the bidder, if so awarded, the 'Sum of All Items' adjusted according to the foregoing shall be used and the bidder's proposal shall be deemed to have been submitted for the amounts as reduced and adjusted in accordance herewith."

END OF SECTION 636

Amend **Section 645 – Traffic Control Devices** to read as follows:

"SECTION 645 - WORK ZONE TRAFFIC CONTROL

645.01 Description. This section describes the following:

(A) Furnishing, installing, maintaining and subsequently removing work zone traffic control devices, and personnel. Work zone traffic control shall include providing flaggers and police officers.

(B) Keeping roads for public traffic open and in passable condition; providing and maintaining temporary access crossings for trails, businesses, parking lots, garages, residences, farms, parks, and other driveways; taking necessary work precautions for the protection, safety, and convenience of the public; should pedestrian facilities exist, taking necessary measures for safe and accessible passage, with route information and ADAAG compliance, for pedestrians traveling through or near work zone.

(C) Taking safety and precautionary measures, such as illuminating roadway obstructions during hours of darkness, in accordance with Chapter 286; HRS; Title 19, Subtitle 5, Chapters 127, 128, and 129, HAR; and *MUTCD*.

645.02 Materials.

Signs	712.20
Reflector Marker	712.21
Traffic Delineators	712.46
Preformed Pavement Marking Tape	712.53
Sign Posts	713.11
Fasteners for Signs	713.12

Submit 10 sets of FHWA approval letters certifying compliance with NCHRP Report 350 for signs, sign supports, barricades, delineators, cones, vertical panels, and other traffic control devices. Use of signs, sign supports, barricades, delineators, cones, vertical panels, and other traffic control devices that are not certified to be NCHRP Report 350 compliant will not be allowed.

Upon request of the Engineer, furnish self-certified NCHRP Report 350 compliant letter from vendor for each type of Category 1 traffic control device, as defined in NCHRP Report 350, including single-piece traffic cone, single-piece

drum, tubular marker, and delineator.

Traffic control devices, including signs, barricades, warning lights, arrow boards, changeable message signs, cones, delineators, and markers, shall conform to the American Traffic Safety Services Association (ATSSA), *Quality Standards for Work Zone Traffic Control Devices* and *MUTCD*.

Protective devices including barricades, warning signs, lights, and temporary signals shall conform to Title 19, Subtitle 5, Chapters 127, 128, and 129, HAR. Reflectorization for protective devices such as barricades, delineators, and warning signs shall conform to Subsection 712.20 – Signs.

645.03 Construction. Furnish, install, and maintain barricades, signs, cones, delineators, lights, flashing signals, and other traffic control devices

Furnish two police officers for each location that requires work zone traffic control. If Traffic Control Plan (TCP) is included in the contract documents, furnish number of police officers indicated in TCP.

When directing traffic, flaggers, police officers or both shall be in direct communication with each other.

Submit TCP and schedule at least 15 working days before work starts. Submit modifications and deviations from accepted TCP and schedule at least 15 working days before start of work requiring modification or deviation. Illegible TCP will not be accepted.

Include the following in TCP and schedule:

(1) Signs (type, size, designation, and placement).

(2) Traffic movements shown by arrows.

(3) Positions of flaggers and police officers.

(4) Barricades, cones, delineators, and additional traffic control devices and measures necessary for protection of work and public safety; and placement, spacing, distances, and reference points for traffic control devices.

(5) Layout, drawn to scale, of traffic control devices, including information needed to layout TCP.

(6) Brief description of work.

(7) Dates of work.

(8) Times of day affected.

(9) Proposed public information sign.

(10) Proposed news release.

Place sign or device situated farthest upstream from work zone first. Then place others progressively downstream toward work zone.

Extend cones or delineators to point where cones or delineators are visible to approaching traffic.

For signs with messages on both faces, cover inapplicable message before placement.

Keep barricades, construction and warning signs, and other traffic control devices in good condition. Repair, clean, or replace barricades, signs, or other devices as required to maintain effectiveness and appearance. The Engineer alone will decide suitable condition of each barricade, sign, or other traffic control device.

Remove or cover regulatory and warning signs that conflict with TCP. Restore signs upon completion of work or as ordered by the Engineer. Affix object markers to post(s) of covered sign.

Promptly remove or cover construction and warning signs that are not applicable or not in use.

Promptly remove traffic control devices that are no longer needed.

Remove traffic control devices in reverse order of installation, starting closest to work zone and continuing away from work zone.

Maintain abutting owners' existing access until replacement access is usable. Obtain permission from abutting owners, including conditions for closing existing access. Submit copy of agreement with abutting owners before beginning work in the affected area.

When working on existing facility that will be kept open to traffic, provide smooth and even surface for public traffic use. Only work on a portion of roadway at one time, and stage construction from one side to other while routing traffic over opposite side.

During subgrade and paving operations, paved shoulders may be used for public traffic.

Do not store material or equipment where it will interfere with public traffic. Remove equipment and other obstructions out of right-of-way or clear zone to

permit free and safe passage of public traffic during non-working hours or suspension of work. For storage of materials and equipment, see Subsection 105.23 – Storage and Handling of Materials and Equipment.

Notify Fire Department, in writing, at least 24 hours before blocking or closing road access. Keep fire hydrants accessible to Fire Department by not placing material or other obstructions within five feet of fire hydrant or closer than permitted by applicable ordinances, rules, and regulations.

Notify the Engineer and County, including Bus Systems Division, Police Department, Fire Department, Emergency Medical Services, and Department of Health in writing at least five days before start of construction.

(A) Signs. Install signs sufficiently ahead of location where operations may interfere with use of road by traffic and at intermediate points where new work crosses or coincides with existing road.

Place signs in accordance with TCP as accepted by the Engineer

(B) Construction Signs. Erect construction signs at the beginning of project and at the end of project at the location indicated by the Engineer. These signs shall remain for the duration of the highway project. Maintain these signs. Place these signs besides the required traffic control signs called for herein.

The construction signs shall be new and become the property of the Contractor.

(C) Barricades

(1) General. Provide, erect, and maintain necessary barricades suitable for protection of work and safety of the public.

Barricades shall be in good condition. Barricade application and installation shall be in accordance with accepted TCP.

Provide sand bags if required or ordered by the Engineer. Sand bags and installation method shall comply with *MUTCD* and be accepted by the Engineer prior to use. Do not place sand bags on striped barricade rail.

During hours of darkness, install steady burn or flashing lamps on barricades selected by the Engineer. Attach lamps on barricade ends closest to traveled way and visible to oncoming traffic.

Do not install signs on barricades unless signs and barricades have been crash tested as a unit and accepted under NCHRP Report

350.

(2) Retroreflectorization. Retroreflectorize barricade rails and attachment with retroreflective sheeting in accordance with Subsection 712.20(E) - Retroreflective Sheeting Material or Subsection 712.20(D)(3) - Hardened Aluminum-Backed Retroreflective Sheeting.

Retroreflectorize both vertical faces of each barricade rail.

(3) Color. Provide white colored rails, frames, and braces with front and back rail faces having 6-inch-wide alternating orange or red and white stripes sloping downward toward traveled way at angle of 45 degrees from vertical. Use stripe colors in accordance with the following:

(a) Use orange and white stripes for the following conditions:

1. Construction work.

2. Detours.

3. Maintenance work.

(b) Use red and white stripes for the following conditions:

1. On roadways with no outlet, such as dead-ends and cul-de-sacs.

2. Ramps or lanes closed for operational purposes.

3. Permanent or semi-permanent closure or termination of roadway.

(4) Maintenance. Keep barricades in good condition. Repair, repaint, clean, or replace barricades to maintain effectiveness and appearance. Immediately replace missing or damaged barricades, lamps, sandbags, and other accepted weights.

Clean and repair barricades before relocating to other locations.

(D) Traffic Delineators. Install traffic delineators in accordance with accepted TCP.

Maintain traffic delineators in good condition. Immediately replace

missing or damaged traffic delineators.

Clean delineator prior to relocating to new location.

(E) Cones. Install traffic cones in accordance with accepted TCP.

Maintain traffic cones. Keep traffic cones clean and in good repair. Immediately replace lost, stolen, or damaged traffic cones.

Clean cones prior to relocating to new location.

(F) Lane Closures. Lane closures will be allowed only from 8:30 a.m. to 3:00 p.m., Monday through Friday. Exceptions to lane closure hours specified require written acceptance by the Engineer. No increase in contract price or contract time will be given for lane closure restrictions specified.

For island of Oahu, no lane closures will be allowed during 24-hour periods as follows:

(1) Day preceding holiday (3:00 p.m. to Midnight), except as otherwise specified.

(2) Holidays (Midnight to Midnight).

(3) Day before and day after Thanksgiving Day (Midnight to Midnight).

(4) Three-week holiday period for Christmas and New Years (Midnight to Midnight).

(5) Three-week "Beat-the-School-Jam" period, to be determined, (Midnight to Midnight) beginning approximately third week of August.

(6) Other dates of events indicated in the contract documents.

No time extension will be given for the above restrictions. The contract time for the project has accounted for any loss of time due to the above restrictions.

Closure of only one lane of traffic will be allowed during lane-closure hours. Keep lanes open to traffic and allow flow at normal posted speed limit during non-lane-closure hours.

If applicable, coordinate lane closures with adjacent project(s) at no increase in contract price or contract time.

Rental fees will be assessed in accordance with Subsection 108.10 – Rental Fees for Unauthorized Lane Closure or Occupancy, for failure to open lanes to traffic during peak hours. Morning and afternoon peak hours shall be from 5:30 a.m. to 8:30 a.m. and 3:00 p.m. to 6:00 p.m., respectively, Monday through Friday.

Before scheduling work, submit requests for detours and lane closures as follows:

(1) Detours - 8 weeks before implementing detours.

(2) Lane closures - 6 weeks before implementing lane closures.

Include the following with detour and lane closure requests:

(1) Explanation of proposed changes to existing traffic pattern.

(2) Installation schedule for informational and traffic control signs.

(3) Publication schedule for legal notices.

(4) Plan showing proposed informational signs.

(5) Plan showing lane changes or detours in accordance with accepted TCP, including details at beginning of multi-lane highway lane changes and detours.

Detours or lane closures will not be allowed before the Engineer accepts detour or lane closure request.

TABLE 645-I - FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT (M.P.H.)	SIGN SPACING (D) (FEET)	TAPER LENGTH (T) (FEET)		LONGI-TUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET)		
		W = 12' OR LESS *	W = GREATER THAN 12' *		TAPER	TANGENT	WORK AREA
20	250	200	W x 17	35	20	20	10
25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
55	1000	700	W x 55	335	55	55	10

* W = width of lane or shoulder

(G) Advisory Signs. Submit advisory sign shop drawings. Construct, install, maintain, and remove two advisory signs as ordered by the Engineer. Place signs at locations designated by the Engineer. Provide signs, minimum 8 feet wide by 4 feet high, with black letters on orange background, and with three 4.00 pounds/foot flanged channel posts for each sign.

Include starting date and hours of construction in sign message. Use letter heights of 8 inches, Series D. The Engineer will review and accept advisory signs' wording before fabrication. Install advisory signs two weeks before start of construction. Remove advisory signs immediately after construction has been completed or as ordered by the Engineer.

(H) Advertisement. Place advertisement in newspaper, as ordered by Engineer, for the following traffic pattern changes or night work:

(1) Detours.

(2) Lane closure.

(3) Permanent road closure.

(4) Permanent new route that changes previous route.

Include the following information:

(1) Map of traffic pattern change limits.

(2) Map showing lane(s) closure and detour pattern.

(3) Notice of starting and ending dates and duration.

(4) Explanation of lane(s) closure or detours in "Notice To Motorist".

Quality of map shall conform to the following requirements:

(1) No freehand printing or penciling.

(2) Highlight important features by darkening, cross-hatching, crossing-out, or coloring important words, as necessary.

(3) Provide maps with minimum size of five columns wide and four columns deep. Lesser width columns may be considered to balance against size of drawing.

(4) Text specifications.

(a) Work being featured - 3/16-inch text.

(b) Major roads and features - 1/8-inch text.

(c) Other roads and features- first letter of sentence upper case.

(d) "NOTICE TO MOTORIST" in upper case.

(e) Message - first letter of sentence upper case.

(5) Line Thickness.

(a) Important feature being advertised - line thicker than rest of map.

(b) Directional arrow - bolder than rest of lines shown on map, when important, to show route traffic should use.

(6) Show reference direction such as "TO HONOLULU" with arrow.

Submit the following:

(1) "Notice to Motorists" before placement in newspaper, six weeks before start of work.

(2) Actual size of notice to be published in newspaper. The Engineer will not allow size reduction of notices once accepted. Submit final, camera-ready "Notice to Motorists" advertisement.

Place advertisement for three consecutive days and within one week before traffic pattern changes, in publication as ordered by the Engineer.

645.04 Measurement.

(A) Traffic control as specified in Subsection 645.03 - Construction will be measured on a contract lump sum basis. Measurement for payment will not apply.

(B) The Engineer will measure additional police officers, additional traffic control devices, and advertisement, if ordered by the Engineer, on a force account basis, in accordance with Subsection 109.06 - Force Account Provisions and Compensation.

645.05 Payment. The Engineer will pay for the accepted traffic control,

additional police officers, additional traffic control devices, and advertisement 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 items when included in the proposal schedule:

Pay Item	**Pay Unit**
Traffic Control	Lump Sum
Additional Police Officers, Additional Traffic Control Devices, And Advertisement	Force Account

An estimated amount for the force account may be allocated in the proposal schedule under "Additional Police Officers, Additional Traffic Control Devices and Advertisement", but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum is more or less than the estimated amount allocated in the proposal schedule.

The Engineer will not pay for request submittals. The Engineer will not consider claims for additional compensation of late submittals or requests by Contractor.

445
446
447
448

NOTES:

1. CW20-1Ad sign required for posted speed limit of 45 m.p.h. or greater.
2. See TABLE 1 for additional dimensions.
3. ONE LANE ROAD (CW20-4) and FLAGGER AHEAD (CW20-7) signs shall be removed or covered when no work is being performed and lane is not closed.
4. The advisory speed (xx) shall be determined by the Engineer.
5. Cones or delineators shall be installed at 25' o.c. max. on tapers

LEGEND

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- POLICE OFFICER/FLAGGER

TWO-LANE HIGHWAY - ONE LANE CLOSED

FIGURE 1 - TRAFFIC CONTROL PLAN

R11/97

190BC-02-06M
645-11a

9/26/05

449
450
451
452

NOTES:

1. CW20-1Ad sign required for posted speed limit of 45 m.p.h. or greater
2. See TABLE 1 for additional dimensions.
3. The advisory speed (xx) shall be determined by the Engineer.

MULTILANE UNDIVIDED HIGHWAY - RIGHT LANE CLOSED

FIGURE 2 - TRAFFIC CONTROL PLAN

R2/97

190BC-02-06M
645-12a

9/26/05

453
454
455
456

190BC-02-06M
645-13a

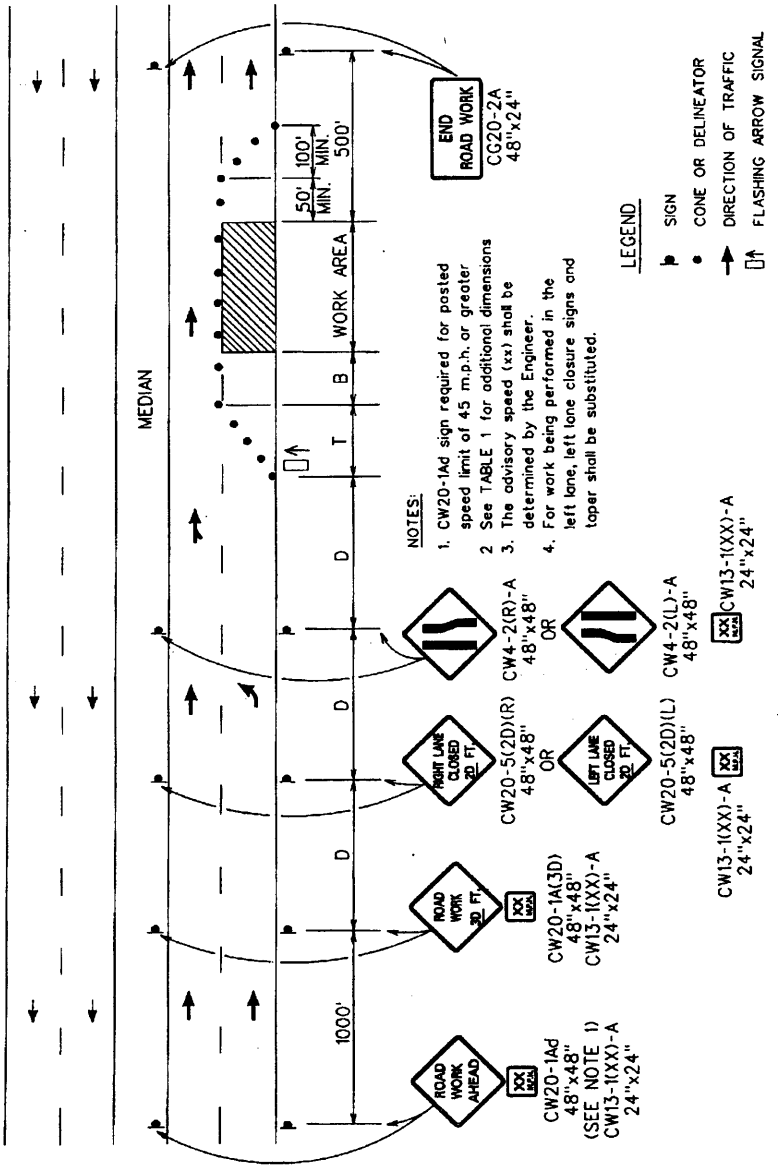
9/26/05

MULTILANE UNDIVIDED HIGHWAY - LEFT LANE CLOSED

FIGURE 3 - TRAFFIC CONTROL PLAN

R10/96

457

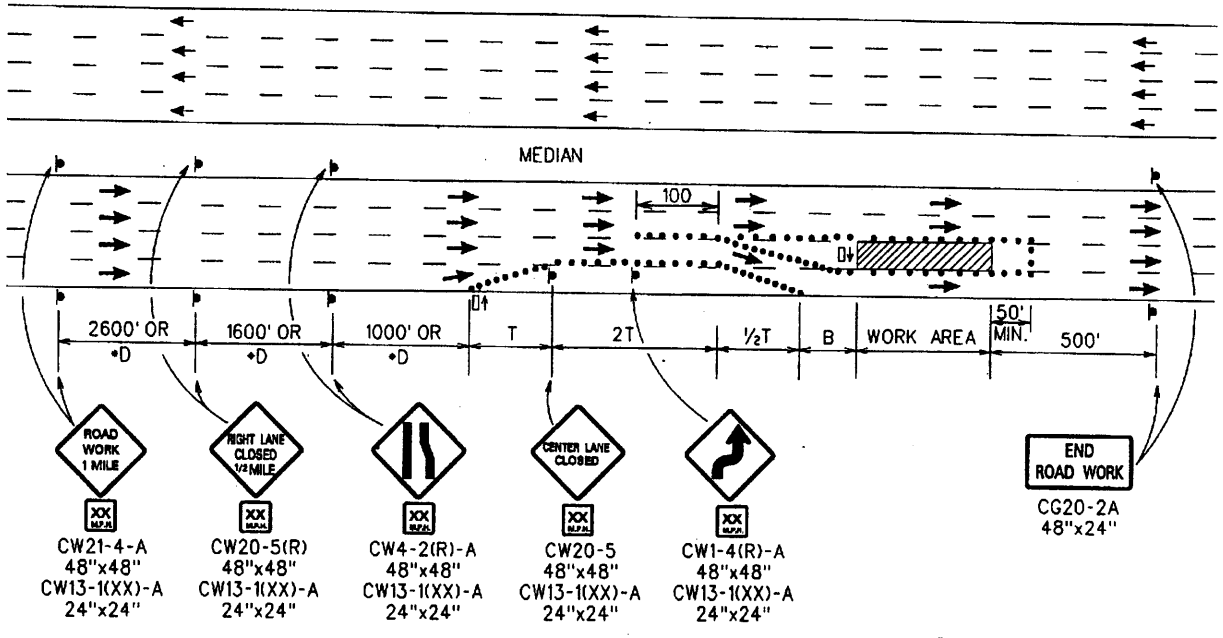


R10/96

MULTILANE DIVIDED HIGHWAY - ONE LANE CLOSED

FIGURE 4 - TRAFFIC CONTROL PLAN

458
459
460



NOTES:

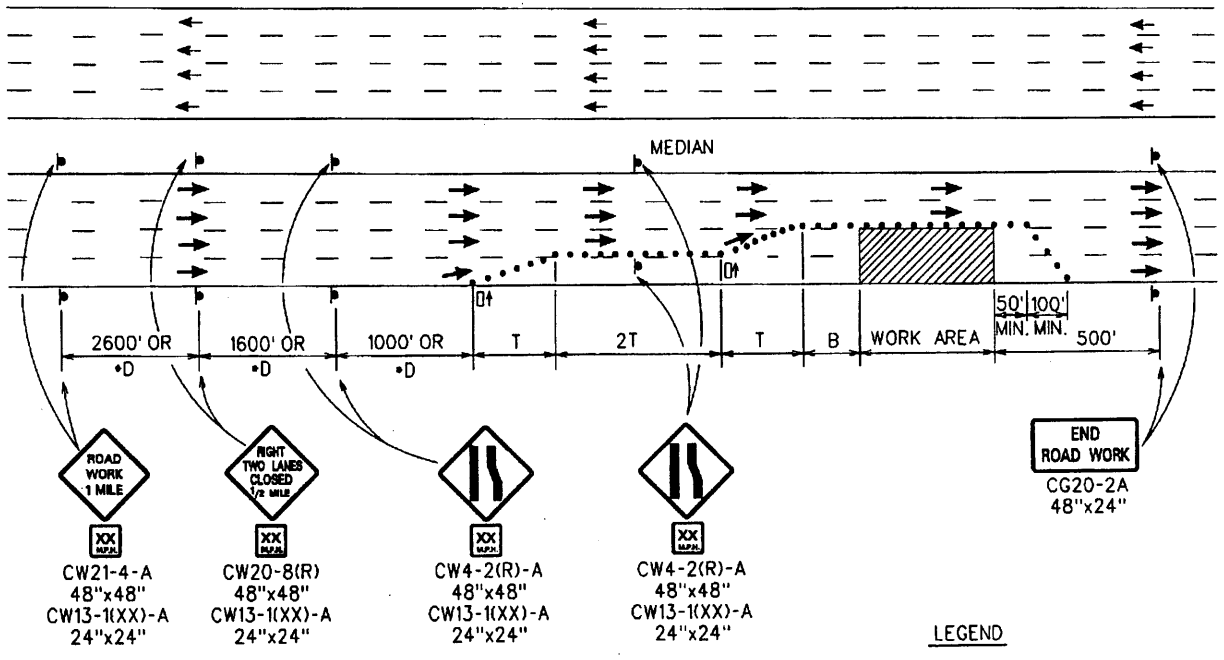
1. For work being performed in the left center lane, use mirror image of above with appropriate left lane closure signs and taper
2. For undivided highways, delete advance warning signs shown posted in median area.
3. The advisory speed (xx) shall be determined by the Engineer.
4. See TABLE 1 for additional dimensions.
*5. For posted speeds of 40 m.p.h. or less, use sign spacings and taper lengths from TABLE 1 and change signs CW21-4-A and CW20-5(R) to CW20-1A(3D) and CW20-5(2D)(R) as shown in Figure 4.

LEGEND

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- FLASHING ARROW SIGNAL

MULTILANE HIGHWAY - CENTER LANE CLOSED

FIGURE 5 - TRAFFIC CONTROL PLAN



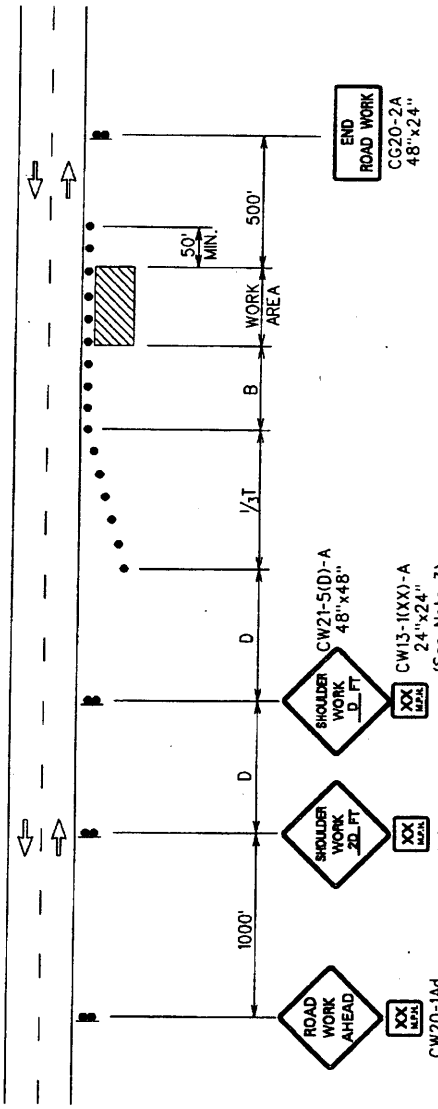
NOTES:

1. For work being performed in the left center lane, use mirror image of above with appropriate left lane closure signs and taper
2. For undivided highways, delete advance warning signs shown posted in median area.
3. The advisory speed (xx) shall be determined by the Engineer.
4. See TABLE 1 for additional dimensions.
•5. For posted speeds of 40 m.p.h. or less, use sign spacings and taper lengths from TABLE 1 and change signs CW21-4-A and CW20-8(R) to CW20-1A(3D) and CW20-8(2D)(R) respectively

MULTILANE HIGHWAY - MULTIPLE LANE CLOSED

FIGURE 6 - TRAFFIC CONTROL PLAN

R10/96



WORKING ON SHOULDER OR ROADSIDE

FIGURE 7 - TRAFFIC CONTROL PLAN

R10/96

467
468

END OF SECTION 645

Amend **Section 648 – Field-Posted Drawings** to read as follows:

"**SECTION 648 – FIELD-POSTED DRAWINGS**

648.01 Description. This section describes the preparation of the field-posted drawings in accordance with the contract documents.

648.02 Materials. Not applicable.

648.03 Construction Requirements. The Engineer will provide two sets of full size contract plans for the Contractor's use in noting all changes to the work. Prepare two sets of drawings. Use red pencil to note the changes. Use a blue pencil to add any additional notes that will be helpful for the State to post the field-posted drawings.

Submit the field-posted drawings including the subcontractor's changes to the Engineer on a monthly basis at the beginning of each month for the Engineer's review. Make any changes that the Engineer recommends.

Submit the final field-posted drawings before or during the pre-final inspection as specified in Subsection 108.14(B) – Pre-Final Inspection

648.04 Method of Measurement. Field-posted drawings will be paid on a lump sum basis. Measurement for payment will not apply.

648.05 Basis of Payment. The Engineer will pay for the accepted field-posted drawings on a lump sum basis. 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:

Pay Item	**Pay Unit**
Field-Posted Drawings	Lump Sum

The Engineer will pay for:

(1) 60% of the contract bid price, prorated on a monthly basis of the original contract time, of satisfactory progress of the field-posted drawings.

(2) 40% of the contract bid price at final acceptance of the field-posted drawings."

END OF SECTION 648

Amend **Section 652 - COLD PLANING OF EXISTING PAVEMENT** to read as follows:

"SECTION 652 - COLD PLANING OF EXISTING PAVEMENT

652.01 Description. This section describes removing specified thickness of existing pavement by cold planing.

652.02 Materials. None specified.

652.03 Construction Requirement.

(A) Equipment. Use self- propelled cold planing machine capable of removing pavement to depth and cross slope indicated in the contract documents, without tearing or gouging underlying surface to remain and without contaminating milled pavement with underlying base course material.

Equip machine with cutting drum capable of producing a uniform surface finish. Enclose cutting drum in shroud to prevent discharge of loosened material into adjacent work areas. As standard equipment, provide dust suppression system, storage tanks with adequate water, and high-pressure spray bar with spray nozzles. Provide machine capable of cutting crown and depth by tilting drum axis and equipped with guidance system that controls transverse slope and longitudinal profile, matches adjacent pavements, and controls dept of cut.

Where cold planing is required to improve existing pavement profile for subsequent resurfacing, set guidance system grade sensor on string line or mobile reference. If mobile reference is used, provide 30-foot-minimum length of mobile reference to provide average elevation variations.

(B) Planed Surface and Removed Material. Cold plane surface to remove pavement and to eliminate high spots and surface irregularities for roadway resurfacing. Remove thickness of existing pavement to depth indicated in the contract documents.

Adjust machine blades to avoid damaging existing items that are to remain, such as underlying pavement structure, monuments, manholes, and pipes. Remove and replace or reconstruct items damaged by planing operations.

For roadways open to traffic, cold plane each day across full width of traffic lane to avoid longitudinal pavement drop-off between passes. At end of each day's production, construct tapered transition along longitudinal and transverse pavement drop-offs. Use maximum slopes of 6:1 for longitudinal and 48:1 for transverse tapered transitions. Limit drop-off depths to maximum of 3 inches. Remove transition material before

resurfacing.Submit the type of materials and construction of the transition taper for acceptance by the Engineer.

Provide for drainage of cold-planed surface and adjacent pavement. Perform this operation on same day as cold planing.

Finish surface shall be suitable for maintaining traffic. Except at crown areas, limit surface deviations to maximum of 3/8 inches, measured along 10-foot straight edge laid longitudinally and transversely.

Clean and sweep surface of planed pavement in accordance with Section 310 - Brooming Off before opening cold-planed area to public traffic. Dispose of cold-planed and removed transition materials in accordance with Subsection 201.03(E) - Removal and Disposal of Material.

Minimize dust escaping from cold planing operation and contain or remove runoff water used for dust control.

Cold plane surface no more than three calendar days prior to placement of resurfacing material. Do not expose cold-planed surface to public traffic for more than three calendar days.

652.04 Method of Measurement. Cold planing will be paid on a lump sum basis. Measurement for payment will not apply.

652.05 Basis of Payment. The Engineer will pay for the accepted cold planing on a contract lump sum basis. 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:

Pay Item	**Pay Unit**
Cold Planing	Lump Sum"

END OF SECTION 652

Amend **Section 699 Mobilization** to read as follows:

"SECTION 699 - MOBILIZATION

699.01 Description. Mobilization includes preparatory work and operations necessary for the:

(1) Movement of personnel, equipment, and supplies to the project site;

(2) Acquisition of falsework materials;

(3) Establishment of offices, buildings and other facilities excluding field office and project site laboratories, necessary for work on the project;

(3) Costs incurred on operations that must be performed before starting work on the various items on the project site; and

(4) Performance and payment bond premiums for contract work excluding force account items, allowances, and extra work amount.

699.02 Material. None specified.

699.03 Applicability. The maximum bid allowed for this item is an amount not to exceed 10% of the sum of all items excluding the bid price of this item, field office, and force account items.

The Engineer will reduce the indicated amount to the allowable maximum if the proposal shows an amount over the allowable maximum. The Engineer will adjust the "Sum Of Contract Items" to reflect such reduction. The Engineer will use the "Sum Of Contract Items" adjusted as if the bidder submitted its proposal in the amounts as reduced and adjusted.

699.04 Method of Measurement. Mobilization will be paid on a lump sum basis. Measurement for payment will not apply.

699.05 Basis of Payment. The Engineer will pay for the accepted mobilization on a contract lump sum basis. 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:

Pay Item	Pay Unit
Mobilization (Not to exceed 10% of the sum of all items excluding the bid price of this item, field office and force account items)	Lump Sum

The Engineer will make partial payments as follows:

(1) Pay 10% of the amount bid for mobilization when earning 1% of the original contract amount.

(2) Pay 50% of the amount bid for mobilization when earning 2.5% of the original contract amount.

(3) Pay 75% of the amount bid for mobilization when earning 5% of the original contract amount.

(4) Pay 100% of the amount bid for mobilization when earning 10% of the original contract amount.

If the Notice to Proceed is not issued by the time specified in Section 108.02 – Notice to Proceed (NTP), at no fault of the Contractor, the Contractor may submit paid invoices for the performance and payment bond premiums to the Engineer for full reimbursement under this item. The Engineer will make payment to the Contractor, even if it is before the Notice to Proceed date.

Payment for the performance and payment bonds shall be considered part of the mobilization paid to date and shall be deducted from the 'partial payments' in this section."

END OF SECTION 699

SECTION 702 - BITUMINOUS MATERIAL

Make the following amendments to said Section:

(I) Amend **702.01** **Asphalt Cement** to read as follows:

"702.01 Asphalt Cement. Performance graded asphalt binder shall conform to AASHTO M 320. "

(Table deleted.)

(II) Amend **702.04** **Emulsified Asphalts** to read as follows:

"702.04 Emulsified Asphalt. Anionic emulsified asphalt shall conform to AASHTO M 140, except that the penetration on residue for Type SS-1 and Type RS-1 shall be 50-120 in lieu of the 100-200 specified.

Cationic emulsified asphalt shall conform to AASHTO M 208, except that the penetration on residue for Type CSS-1 and Type CRS-2 shall be 50-150 in lieu of the 100-250 specified."

END OF SECTION

SECTION 703 - AGGREGATES

Make the following amendments to said Section:

(I) Amend **703.01 Fine Aggregate for Concrete** by revising the second paragraph to read as follows:

"When using a combination of calcareous sand and lava rock crusher screenings, the absolute volume of calcareous sand shall be less than 50% of the absolute volume of the combined fine aggregate. The Contractor may increase the usage of calcareous sand to 70% of the absolute volume of the fine aggregate provided that the fine aggregate meets a minimum insoluble residue of 30% and the processing or manufacturing of calcareous sand removes deleterious coatings and unsound materials. Insoluble residue content shall be determined according to ASTM D 3042 - Insoluble Residues in Carbonate Aggregates."

(II) Amend **703.02 Coarse Aggregate for Portland Cement Concrete** by revising the fourth paragraph to read as follows::

"The coarse aggregate shall not contain deleterious substances over the following limits:

Test	Test Method	Requirement
Clay Lumps and Friable Particles	AASHTO T 112	2.0%
Materials Passing the No. 200 Sieve	AASHTO T 11	1.5%
Coal and Lignite	AASHTO T 113 using liquid of 2.0 specific gravity. Consider only brownish-black or black material as coal or lignite. Do not class coke as coal or lignite	0.5%"

(III) Amend **703.03 Aggregate for Plant Mix Asphalt Concrete Base Course** by revising the grading requirement to read as follows:

Sieve Size	% Passing by Weight
1.25 Inch	100
1 Inch	85 - 100
0.75 Inch	73 - 92
0.5 Inch	60 - 80
0.375 Inch	52 - 72
No. 4	36 - 55
No. 8	25 - 42
No. 16	18 - 33

No. 30	12 - 24
No. 50	7 - 18
No. 100	4 - 12
No. 200	1 - 8

(IV) Add the following:

"703.04 Aggregate for Permeable Base. Furnish the aggregate for permeable base in the fractions specified herein:

(A) Coarse Aggregate. Manufacture the coarse aggregate by crushing and screening hard, tough, durable rock of uniform quality. The coarse aggregate shall be free from soft or disintegrated pieces, clay, dirt, or other deleterious substances.

When manufacturing the coarse aggregate from gravel, use only gravel particles retained on a grizzly or screen having five-inch openings in the manufacturing process.

When tested according to the designated methods, the coarse aggregate shall conform to the requirements as set forth herein.\

Test	Test Method	Requirement
Los Angeles Abrasion	ASTM C 535	40% Maximum
Grading	AASHTO T 27	Refer to Table 703-IIIA

(B) Filler. The filler includes that portion of the material crushed from the coarse aggregate. The filler shall pass a 0.5-screen. When not producing sufficient filler in the manufacture of the coarse aggregate, the deficiency may be supplied by the addition of other suitable materials having the same properties to that of the crushed product.

The filler may also be manufactured separately from the manufacture of the coarse aggregate. Material for separately manufactured filler shall also be of a suitable material having the same properties as that of the filler produced from the manufacture of the coarse aggregate.

When tested according to AASHTO T 27, the filler shall meet the grading requirements shown in Table 703-IIIA.

TABLE 703-IIIA - GRADING REQUIREMENTS		
Screen Size	**Coarse Aggregate (% Passing By Weight)**	**Filler, Size 8 (% Passing By Weight)**
2 inch	100	-
1.5 inch	75 – 100	-

1 inch	15 – 55	-
0.75 inch	0 – 15	-
0.5 inch	--	100
0.375 inch	0 – 5	85 – 100
No. 4	-	10 – 30
No.8	-	0 – 30
No. 16	-	0 – 5

(V) Delete **703.05 Aggregate for Waterbound Macadam Base** in its entirety.

(VI) Amend **703.06 Aggregate for Untreated Base** to read as follows:

"**703.06 Aggregate for Untreated Base.** Aggregate for untreated base includes a crushed product of stone or coral. The aggregate shall be free of vegetable matter and other deleterious substances. The aggregate shall be of such nature that the aggregate can readily be compacted under watering and rolling to form a firm, stable base.

When the mineral aggregate does not contain sufficient natural cementing material, add to and mix a binder material including rock screenings or other accepted cementaceous material uniformly into the aggregate before compaction.

Regulate the crushing so that at least 80% by weight of the material retained on the No. 4 sieve is crushed. A crushed particle is one having at least one mechanically fractured face.

When tested according to the designated methods, the aggregate base in combination with the binder material, if used, shall meet the requirements below.

Test	Test Method	Requirement
Los Angeles Abrasion	AASHTO T 96	40% Maximum
Sand Equivalent	AASHTO T 176	35% Minimum
Plasticity Index	AASHTO T 90	6 Maximum
Grading	AASHTO T 27	Refer to Table 703-IV

TABLE 703-IV - GRADING REQUIREMENTS

Screen Size	% Passing by Weight		
	2.5" Maximum	1.5" Maximum	0.75" Maximum
3 inch	100	-	-
2.5 inch	90 - 100	-	-
2 inch	-	100	-

1.5 inch	65 - 90	90 - 100	-
1 inch	-	-	100
0.75 inch	45 - 70	50 - 90	90 - 100
No.4	25 - 45	25 - 50	35 - 55
No. 200	3 - 9	3 - 9	3 - 9

If the SE is less than 35, a CBR test shall be performed. The material shall be considered adequate provided the material has a minimum CBR of 85 at 0.1 inch penetration, when compacted to 95 percent of its maximum dry density at its optimum moisture content, in accordance with AASHTO T193.

When the portion passing the No. 4 sieve consists entirely of crushed coralline limestone, the SE requirement shall be 20% or more and the grading requirement on the No. 200 sieve shall be 3% to 12% instead of that specified in Table 703-IV. In addition, the material shall have a minimum CBR of 85 at 0.1 inch penetration, when compacted to 95 percent of its maximum dry density at its optimum moisture content, in accordance with AASHTO T193.

Furnish 1.5 inch maximum size aggregate."

(VII) Amend **703.09 Aggregate for Hot Plant Mix Bituminous Pavement** to read as follows:

"**703.09 Aggregate for Hot Plant Mix Bituminous Pavement.** Make mineral aggregate by crushing and screening hard, tough, durable stone of uniform quality. The crushed aggregate shall be free from soft or disintegrated pieces, clay, dirt, or other deleterious substances.

Coarse aggregate shall be that portion of the mineral aggregate retained on a No. 4 sieve. Fine aggregate shall be that portion of the mineral aggregate passing a No 4 sieve.

At least 90% by weight of the material retained on the No. 4 sieve shall consist of crushed particles. At least 70% of the material passing the No. 4 sieve and retained on the No. 8 sieve shall consist of crushed particles. A crushed particle is one having at least one mechanically fractured face.

When tested according to the designated methods, the combined mineral aggregate including blending sand or filler, if any, shall meet the requirements below.

Test	Test Method	Requirement
Sand Equivalent	AASHTO T 176	45% Minimum
Los Angeles Abrasion	AASHTO T 96	30% Maximum
Stripping	AASHTO T 182	Above 95%
K-factor	AASHTO T 270	Kc-2.0 Maximum Km-1.7 Maximum

Flat and elongated pieces (Length to width or width to thickness ratio of 3)	ASTM D 4791 (By Weight)	25% Maximum
Grading	AASHTO T 27	Job-mix formula based on Table 703-V
Soundness	AASHTO T 104 (5 cycles using sodium sulfate)	9% Maximum
Absorption	AASHTO T84 and T85	5% Maximum

The Contractor may use aggregates not meeting the requirements of the stripping test for bituminous pavement provided a chemical additive is use resulting in bituminous film retention above 95%.

TABLE 703-V - GRADING COMPOSITION				
MIX NO.	**II**	**III**	**IV**	**V**
Sieve Sizes	**Combined Aggregate % Passing by Weight**			
1.25 Inch	100	-	-	
1 Inch	85 - 100	100	-	
0.75 Inch	-	90 – 100	100	
0.5 Inch	60 - 85	70 – 90	85 - 100	100
0.375 Inch	-	-	72 - 88	80 - 100
No. 4	36 - 55	40 – 57	48 - 66	55 - 75
No. 8	26 - 41	30 – 47	32 - 48	35 - 52
No. 16	17 - 32	20 – 36	21 - 37	22 - 38
No. 30	12 - 25	16 – 28	15 - 27	14 - 26
No. 50	8 - 18	10 – 22	9 - 21	8 - 20
No. 100	5 - 14	8 – 17	6 - 16	6 - 15
No. 200	1 - 8	4 – 8	4 - 8	4 – 8

(VIII) Amend **703.12 Aggregate for Roadway Construction** by revising the second paragraph to read as follows:

"When tested according to the designated methods, the aggregate shall meet the requirements below:

Test	Test Method	Requirement
Flat and elongated pieces (Length to width to width to thickness ratio of 3)	ASTM D 4791 (By Weight)	25% Maximum
Los Angeles Abrasion	AASHTO T 96	40% Maximum
Stripping	AASHTO T 182	Above 95%
Grading	AASHTO T 27	AASHTO M 43"

(IX) Amend **703.16 Bed Course Material** to read as follows:

"**703.16 Bed Course Material.**

(A) Bed Course Material for Sidewalks and Curbing. Bed course material for sidewalks and curbing includes 1-1/2 inch maximum size untreated base material conforming to Subsection 703.06 - Aggregate for Untreated Base.

(B) Bed Course Material for Pipe. Bed course material for pipe foundation includes 1-1/2 inch maximum size untreated base material conforming to Subsection 703.06 - Aggregate for Untreated Base.

If used as a foundation for pipe culvert and tested according to Hawaii Test Method HDOT TM 4, the material shall have a field resistivity and pH value resulting in a service life of 50 years or more.

If used as a foundation for aluminum pipe and tested according to Hawaii Test Method HDOT TM 4, the material shall have a field resistivity of more than 500 ohm-centimeters and pH value within the range of 5.5 and 9.0

(C) Bed Course Material for Crushed Rock Cradle. Bed course material for crushed rock cradle shall be crushed durable lava rock. The bed course material shall be free from vegetable matter and other deleterious substances. The wear shall not exceed 40 percent at 500 revolutions if tested under AASHTO T 96.

Bed course material shall be coarse aggregate size No. 67 and the percent composition by weight shall fall within the limits shown in Table 1 of AASHTO M 43."

(X) Amend **703.20 Structure Backfill Material** to read as follows:

"703.20 Structure Backfill Material. Structure backfill material shall be free of vegetable matter and other deleterious substance and shall conform to the grading requirements in Table 703-VII.

(A) Structure Backfill Material A. When tested according to AASHTO T 176, the sand equivalent value shall be 20 or greater.

(B) Structure Backfill Material B. When tested according to AASHTO T 176, the sand equivalent value of the backfill material shall be equal to or greater than the surrounding soil.

Structure fill or backfill material placed behind bridge abutments, wingwalls and retaining walls shall be structure backfill material A. The

contract shall show the other areas requiring material with a sand equivalent value of 20 or greater.

TABLE 703-VII - GRADING REQUIREMENTS		
Sieve Size	**% Passing by Weight**	
	Structural Backfill Mat'l A	**Structural Backfill Mat'l B**
3"	100	100
#4	20 - 75	20 – 100
#200	0-15	--

(XI) Amend **703.21 Trench Backfill Material** to read as follows:

"703.21 Trench Backfill Material. Trench backfill material shall be black sand-soil mixture, finely graded coral or sandy materials. The trench backfill material shall pass a one inch square mesh screen or crusher screening S4C that shall pass a 0.5 inch square mesh screen. The material shall be free from deleterious substances. For water system trench backfill, do not use crusher screening S4C in areas where the invert of the pipe is at or lower than the four-foot elevation, USGS Datum, or in swampy area or in area where the ground is continuously wet.

(A) Trench Backfill Material A. When tested according to AASHTO T 176, the sand equivalent value shall be 20 or greater.

(B) Trench Backfill Material B. When tested according to AASHTO T 176, the sand equivalent value of the backfill material shall be equal to or greater than the surrounding soil.

Prepare the sand equivalent test sample according to Hawaii Test Method HDOT TM 5 when the in-situ moisture content of the sample is greater than 40%.

When tested according to Hawaii Test Method HDOT TM 4, the trench backfill material placed against metal pipe shall have a field resistivity and pH value that shall result in a service life of 50 years or more.

When tested according to the Hawaii Test Method HDOT TM 4, the trench backfill material placed against aluminum pipe shall have a field resistivity of more than 500 ohm-centimeters and pH value within the range of 5.5 and 9.0."

END OF SECTION 703

SECTION 712 - MISCELLANEOUS

Make the following amendments to said Section:

(I) Amend **712.40(C) – Reflective Pavement Markers** by revising the first paragraph to read as follows:

"**(C) Reflective Pavement Markers.** The two types of reflective pavement markers are regular size (nominal 4 inches x 4 inches or 3.5 inches x 4 inches) and low profile size (nominal 2.3 inches x 4.7 inches."

(II) Amend **712.40(C)(3)(b)** to read as follows:

"**(b)** Regular marker (4 inches by 4 inches or 3.5 inches x 4 inches) shall support a minimum load of 2,000 pounds as applied in the following manner:

1. The marker shall be centered, base down, over the open end of a vertically positioned hollow metal cylinder.

2. The cylinder shall be 1 -inch high, with an internal diameter of 3-inches and wall thickness of 1/4-inch.

3. The Contractor shall apply a load necessary to break the marker at a speed of 0.2 inch per minute to the top of the marker through a 1-inch diameter solid metal cylinder centered on the top of the marker."

END OF SUBSECTION 712.40

SECTION 712 - MISCELLANEOUS

Make the following amendment to said Section:

(I) Amend **712.55(A) General** by revising the fourth paragraph to read as follows:

"Reflective thermoplastic compound pavement markings shall be alkyd-based. Hydrocarbon based reflective thermoplastic compound pavement markings shall not be used. The compound shall not deteriorate by contact with sodium chloride, calcium chloride, oil content of pavement materials, or from oil droppings from traffic."

END OF SUBSECTION 712.55

SECTION 713 - STRUCTURAL STEEL AND RELATED MATERIALS

Make the following amendment to said Section:

(I) Amend **713.04 High-Strength Bolts** to read as follows:

"**713.04 High-Strength Bolts and Studs.**

(A) Bolts, Studs, Nuts, and Washers. Bolts, nuts, and washers shall conform to AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS Section 6.4.3 Bolts, Nuts, and Washers under the Standard Specification for Structural Bolts, Steel, Heat-Treated, 120/105 KSI Minimum Tensile Strength with a required minimum tensile strength of 120 KSI for diameters 0.5-inch through 1.0-inch and 105 KSI for diameters 1.125-inches through 1.5 inches AASHTO M 164 (ASTM A 325 as modified), Type 1. Anchor bolts shown on the plans in the form of studs with no bolt heads and bolts in the diameters 1.75-inches to 3.0-inches designated as high-strength studs or bolts shall conform to ASTM A 449, Type 1. Hot-dip zinc-coat the bolts, studs, nuts, and washers.

(B) Installation. AASHTO LRFD Bridge Construction Specifications, Section 11.5.6.4 and as modified herein applies when installing high-strength bolts in the field or shop. Install the bolts according to AASHTO LRFD Bridge Construction Specifications - Section 11.5.6.4.7 Direct Tension Indicator Installation Method. Anchor bolts for railing posts base plates may also be installed using the Turn-of-Nut Method and the Calibrated 'Wrench Method."

(II) Amend **713.11(C) Square Tube Posts** to read as follows:

"**(C) Square Tube Posts.** Square tube posts shall conform to ASTM A 446 for Cold-Rolled Carbon Steel Sheet, commercial quality or ASTM A 570-90 for Hot-Rolled Carbon Steel Sheet, structural quality. The tube shall have a hot-dip zinc-coating according to ASTM A 525, Designation D-90.

Make the corner welds by high frequency resistance welding, externally scarfed, and zinc-coated after scarfing. Four sides of the square tube post shall have 7/16-inch diameter holes spaced 1-inch on centers along the entire length of the post. Permissible tolerances are shown in Table 713-IV. Square tube posts shall be crash-worthy and acceptable to FHWA for use in both strong soil (S-1) and weak soil (S-2) as defined in NCHRP Report 230.

Single square tube post used to support signs shall have an accepted device to resist turning after installation. Attach this device to the post and embed this device below finish grade.

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Physical Property	Nominal Outside Size, Inch		
	1.75 Square	2 Square	2.25 Square
U.S. Standard Gage	14		
Wall Thickness - Inch	0.083, +0.002, -0.008		
Minimum Yield Strength - Psi	60,000		
Minimum Weight - Pounds/Foot	1.8	2.1	2.4
Outside Dimension - Inch	±0.010	±0.010	±0.010
Side Squareness - Inch	±0.010	±0.012	±0.014
Twist Permitted - Inch/Foot	0.062/3	0.062/3	0.062/3
Straightness	1/16 Inch in 3 Feet		
Telescoping	Consecutive Size Tubes Shall Telescope Freely For 10 Feet		
Hole Size - Inch	±1/64		
Hole Spacing	±1/8 in 20 Feet		

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Physical Property	Nominal Outside Size, Inch				
	1.5 Square	1.25 Square	2 Square	2.25 Square	2.5 Square
U.S. Standard	12				
Wall Thickness, Inch	0.105, +0.011, -0.008				
Minimum Yield Strength, Psi	40,000				
Minimum Weight, Pounds/Foot	1.7	2.0	2.4	2.7	3.1
Outside Dimension, Inch	±0.008	±0.008	±0.008	±0.010	±0.010
Side Squareness, Inch	±0.008	±0.010	±0.012	±0.014	±0.016
Twist Permitted, Inch/Foot	0.062/3	0.062/3	0.062/3	0.062/3	0.062/3
Straightness	1/16 Inch in 3 Feet				
Telescoping	Consecutive Size Tubes Shall Telescope Freely For 10 Feet				
Hole Size, Inch	±1/64				
Hole Spacing, Inch	±1/8 in 20 Feet				

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Physical Property	Nominal Outside Size, Inch	
	2.187 Square	2.5 Square
U.S. Standard	10	
Wall Thickness, Inch	0.135, +0.011, -0.008	
Minimum Yield Strength, Psi	40,000	
Minimum Weight, Pounds/Foot	3.4	4.0
Outside Dimension, Inch	±0.010	±0.010
Side Squareness, Inch	±0.014	±0.015
Twist Permitted, Inch/Foot	0.062/3	0.075/3
Straightness	1/16 Inch in 3 Feet	
Telescoping	Consecutive Size Tubes Shall Telescope Freely For 10 Feet	
Hole size, Inch	±1/64	
Hole Spacing, Inch	±1/8 In 20 Feet	

(III) Amend **713.12(A)** to read as follows:

"(A) Secure the regulatory signs, warning signs, and route marker assemblies, mounted on pipe posts, in position by using stainless steel washers with neoprene gaskets. Install them between the post and sign and under the bolt head on the sign surface. Bolts, nuts, and other metal washers shall be stainless steel."

(IV) Amend **713.14(A)(1) Tapered Posts And Cross Arms** by revising the sixth paragraph to read as follows:

"Gages shall be of the following thickness:

No. 7 gage	0.1793 inch
No. 3 gage	0.2500 inch
No. 0 gage	0.3125 inch"

END OF SECTION 713

Make the following Section a part of the Standard Specifications:

"SECTION 717 - CULLET AND CULLET-MADE MATERIALS

717.01 Cullet and Cullet-Aggregate Mixtures as Construction Materials. When available, process recycled glass into construction-grade cullet (crushed glass) using methods accepted by the Engineer. Construction-Grade cullet shall have a uniform gradation from fine to coarse. 100% of the material shall pass the 0.375 inch sieve. Blend the processed cullet with the natural aggregates according to Subsections 717.02 - Cullet Materials for Roadway, 717.03 - Cullet Materials for Utility Structures, or 717.04 - Cullet Materials for Drainage Systems.

Cullet content is the percentage at which the Contractor uses the construction-grade cullet with or without the addition of natural aggregates depending on its application(s). The mixture of the materials produced shall be of acceptable gradation as specified for the finished product.

Debris shall not exceed values specified for various applications of the processed cullet. Debris includes plastics, papers, and non-ceramic constituents of the cullet. The contract considers debris as deleterious material. Also, the Engineer will not allow hazardous material in the cullet such as but not limited to, TV or other cathode ray tubes, fluorescent light bulbs, and any toxic or hazardous materials. Test cullet stockpile for toxic or hazardous materials every 90 days and submit the results to the Engineer. .

Cullet shall not be used in concrete.

Compaction shall comply with the minimum levels, as specified for each particular application, to attain the desired engineering properties in the field.

717.02 Cullet Materials for Roadways. Roadway applications include the use of cullet and cullet-aggregate mixtures in base course (untreated or glassphalt concrete base course mix), subbase, and embankments. Use of construction-grade cullet is appropriate depending on cullet percentage. Table 717-I lists the limits of cullet content and debris levels allowed for cullet use in roadway applications.

TABLE 717-I - CULLET IN ROADWAY APPLICATIONS

Roadway Applications	Cullet Content (% By Weight)	Maximum Debris Level (% By Weight Of Cullet)
Base Course	10 to 15	0.2
Subbase	10 to 25	0.2
Embankments	10 to 25	0.3

717.03 Cullet Material for Utility Structures. Utility applications involve the use of cullet for trench bedding and backfill for utility structures. Process the cullet

into construction grade according to Subsection 717.01 - Cullet and Cullet - Aggregate Mixtures as Construction Materials before use in these applications. Table 717-II lists the limits of cullet content and debris level for utility fill applications. The cullet contents listed shall apply to backfill that is not subjected to surcharge loading such as from a roadway. If the trench backfill lies within five feet of a road surface, then use the values given in Table 717-I, as applicable.

TABLE 717-II - CULLET IN UTILITY APPLICATIONS		
Utility Trench Bedding and Backfill Applications	**Maximum Cullet Content (% By Weight**	**Maximum Debris Level (% By Weight Of Cullet**
Sewer Pipes	25	0.3
Electrical Conduits	25	0.3
Fiber Optic Lines	25	0.3

717.04 Cullet Materials for Drainage Systems. Drainage fill applications include retaining walls, foundation drains, drainage blankets, and french drains. For use in these applications, cullet shall be of construction grade according to Subsection 717.01 - Cullet and Cullet-Aggregate Mixtures as Construction Materials. Table 717-III lists the limits of cullet content and debris levels for drainage fill applications. These values assume that the cullet is not subjected to surcharge loading as from a roadway. If the fill is subject to surcharge loads, then use the values set forth in Table 717-I, as applicable.

TABLE 717-III - CULLET IN DRAINAGE APPLICATIONS		
Drainage Fill Applications	**Maximum Cullet Content (% By Weight)**	**Maximum Debris Level (% By Weight Of Cullet)**
Retaining Walls	25	0.2
Foundation Drainage	25	0.2
Drainage Blankets	25	0.2
French Drains	25	0.2

END OF SECTION 717

Requirement of Chapter 104, HRS
Wages and Hours of Employees on Public Works Law

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).

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) and (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 one and one-half times the basic hourly rate plus the cost of fringe benefits for all hours worked. [§§104-1(5), 104-2(c), HRS]

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 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.

- 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]

- Payroll records shall be maintained by the contractor and subcontractors for three years after completion of construction. The records shall contain:
  - the name and home address of each employee
  - the employee's correct classification
  - rate of pay (basic hourly rate + fringe benefits)
  - daily and weekly hours worked
  - weekly straight time and overtime earnings
  - amount and type of deductions
  - actual wages paid
  - date of payment

- Records shall be made available for inspection by the contracting agency, the Department of Labor and Industrial Relations, and any of its authorized representatives, who may also interview employees during working hours on the job. [§104-3(b), HRS]

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 and Trainees

- In order to be paid apprentice or trainee rates, apprentices and trainees must be parties to an agreement either registered with or recognized as a USDOL nationally approved apprenticeship program by the Department of Labor and Industrial Relations, Workforce Development Division. [§12-22-6(1), HAR]

- The number of apprentices or trainees on any public work in relation to the number of journey workers in the same craft classification as the apprentices or trainees employed by the same employer on the same public work may not exceed the ratio allowed under the apprenticeship or trainee standards registered with or recognized by the Department of Labor and Industrial Relations. A registered or recognized apprentice receiving the journey worker rate will not be considered a journey worker for the purpose of meeting the ratio requirement. [§12-22-6(2), 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:

▪ First Violation:	Equal to 10% of back wages found due or $25 per offense, whichever is greater.
▪ Second Violation	Equal to amount of back wages found due or $100 per each offense, whichever is greater.
▪ Third Violation	Equal to two times the amount of back wages found due or $200 for each offense, 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 two years of **the second notification of violation.**

- 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]

- 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 as provided in Section 104-22(b),HRS. [§104-3(c)]

- 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 $1,000 per project, and $100 per day thereafter, for interference or delay. [§104-22(b)]

- 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)]

For additional information, visit the department's website at http://dlir.state.hi.us/ or contact any of the following DLIR offices:

Oahu (Wage Standards Division) 586-8777
Maui 243-5322
Hilo 974-6464
West Hawaii 322-4808
Kauai 274-3351

Classification	Current			2006			2007			2008			Remarks See Pg 7-8
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
ASBESTOS WORKER (Note: 2 increases in 2006)	**9/4/05**			**2/26/06**			**2/25/07**						
	$49.94	$31.65	$18.29	$50.64	$31.95	$18.69	$51.84	$32.55	$19.29	-	-	-	1
				9/3/06									
	-	-	-	$51.24	$32.25	$18.99	-	-	-	-	-	-	1
* **ASPHALT PAVING GROUP:**	**2/20/06**												
Asphalt Raker	$46.17	$31.59	$14.58	-	-	-	-	-	-	-	-	-	2
Asphalt Spreader Operator	$47.45	$32.87	$14.58	-	-	-	-	-	-	-	-	-	2
Laborer, Hand Roller	$45.67	$31.09	$14.58	-	-	-	-	-	-	-	-	-	2
Roller Operator (5 tons and under)	$45.90	$31.32	$14.58	-	-	-	-	-	-	-	-	-	2
Roller Operator (over 5 tons)	$47.13	$32.55	$14.58	-	-	-	-	-	-	-	-	-	2
Screed Person	$46.48	$31.90	$14.58	-	-	-	-	-	-	-	-	-	2
EQUIPMENT OPERATOR:													
Concrete saws and/or Grinder (self-propelled unit on streets, highways, airports and canals)	$47.13	$32.55	$14.58	-	-	-	-	-	-	-	-	-	2
Grader, Soil Stabilizer, Cold Planer	$47.96	$33.38	$14.58	-	-	-	-	-	-	-	-	-	2
Loader (2-1/2 cu. yds. and under)	$47.13	$32.55	$14.58	-	-	-	-	-	-	-	-	-	2
Loader (over 2-1/2 cu. yds. to and including 5 cu. yds.)	$47.45	$32.87	$14.58	-	-	-	-	-	-	-	-	-	2
TRUCK DRIVER:													
Assistant to Engineer	$45.90	$31.32	$14.58	-	-	-	-	-	-	-	-	-	2
Oil Tanker (double)	$47.45	$32.87	$14.58	-	-	-	-	-	-	-	-	-	2
Semi-Trailer, Semi-Dump, Asphalt Distributor, Oil Tanker	$47.13	$32.55	$14.58	-	-	-	-	-	-	-	-	-	2
Slip-in or Pup	$47.45	$32.87	$14.58	-	-	-	-	-	-	-	-	-	2
Single or Rock Cans Tandem Dump Truck (8 cu. yds. & under, water level)	$46.17	$31.59	$14.58	-	-	-	-	-	-	-	-	-	2
Single or Rock Cans Tandem Dump Truck (over 8 cu. yds., water level)	$46.48	$31.90	$14.58	-	-	-	-	-	-	-	-	-	2
Tractor Trailer (hauling equipment)	$47.56	$32.98	$14.58	-	-	-	-	-	-	-	-	-	2
Utility, Flatbed	$45.90	$31.32	$14.58	-	-	-	-	-	-	-	-	-	2
* **BOILERMAKER**	**2/20/06**												
	$47.08	$27.45	$19.63	-	-	-	-	-	-	-	-	-	13
CARPENTER:	**9/19/05**			**9/4/06**									
Carpenter; Patent Scaffold Erector (Over 14 feet); Piledriver; Pneumatic Nailer	$50.25	$32.70	$17.55	$51.55	$33.70	$17.85	-	-	-	-	-	-	3, 13
Millwright	$50.50	$32.95	$17.55	$51.80	$33.95	$17.85	-	-	-	-	-	-	3, 13
Power Saw Operator (2 h.p. & above)	$50.40	$32.85	$17.55	$51.70	$33.85	$17.85	-	-	-	-	-	-	3, 13

Classification	Current			2006			2007			2008			Remarks See Pg 7-8
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
CEMENT FINISHER:	**8/29/05**			**9/4/06**			**9/3/07**						
Cement Finisher; Curb Setter; Precast Panel Setter; Manhole Builder	$46.77	$27.70	$19.07	$47.97	$28.10	$19.87	$49.27	$28.60	$20.67	-	-	-	3
Trowel Machine Operator	$46.92	$27.85	$19.07	$48.12	$28.25	$19.87	$49.42	$28.75	$20.67	-	-	-	3
CHLORINATOR	**9/19/05**												
	$32.21	$27.57	$4.64	-	-	-	-	-	-	-	-	-	
* **DIVER:**	**2/20/06**												
Diver (Aqua Lung)(Scuba)-Up to a depth of 30 feet	$63.76	$44.23	$19.53	-	-	-	-	-	-	-	-	-	13
Diver (Aqua Lung)(Scuba)-Over a depth of 30 feet	$73.13	$53.60	$19.53	-	-	-	-	-	-	-	-	-	13
Stand-by Diver (Aqua Lung)(Scuba)	$54.38	$34.85	$19.53	-	-	-	-	-	-	-	-	-	13
Diver (Other than Aqua Lung)	$73.13	$53.60	$19.53	-	-	-	-	-	-	-	-	-	4, 13
Stand-by Diver (Other than Aqua Lung)	$54.38	$34.85	$19.53	-	-	-	-	-	-	-	-	-	4, 13
Tender (Other than Aqua Lung)	$51.35	$31.82	$19.53	-	-	-	-	-	-	-	-	-	13
DRAPERY INSTALLER	**9/19/05**												
	$15.38	$14.04	$1.34	-	-	-	-	-	-	-	-	-	
DRYWALL INSTALLER	**9/19/05**			**9/4/06**									
	$50.45	$32.95	$17.50	$51.75	$33.95	$17.80	-	-	-	-	-	-	13
* **ELECTRICIAN: (Note: 2 increases per year)**	**9/19/05**			**2/26/06**			**2/25/07**			**2/24/08**			
Cable Splicer (inside/outside)	$57.29	$37.79	$19.50	$58.66	$38.45	$20.21	$61.56	$39.77	$21.79	$64.46	$41.20	$23.26	5
Ground Worker (outside)	$41.59	$25.76	$15.83	$42.69	$26.21	$16.48	$45.02	$27.11	$17.91	$47.33	$28.09	$19.24	5
Heavy Equipment Operator (outside)	$48.34	$30.92	$17.42	$49.54	$31.46	$18.08	$52.12	$32.54	$19.58	$54.68	$33.71	$20.97	5
Line Installer (outside); Wire Installer (inside)	$52.80	$34.35	$18.45	$54.09	$34.95	$19.14	$56.84	$36.15	$20.69	$59.55	$37.45	$22.10	5
Technician (inside/outside)	$54.16	$35.38	$18.78	$55.47	$36.00	$19.47	$58.26	$37.23	$21.03	$61.02	$38.57	$22.45	5
				8/27/06			**8/26/07**			**8/31/08**			
Cable Splicer (inside/outside)	-	-	-	$60.12	$39.11	$21.01	$63.05	$40.43	$22.62	$65.89	$41.91	$23.98	5
Ground Worker (outside)	-	-	-	$43.87	$26.66	$17.21	$46.25	$27.56	$18.69	$48.48	$28.58	$19.90	5
Heavy Equipment Operator (outside)	-	-	-	$50.84	$32.00	$18.84	$53.45	$33.08	$20.37	$55.93	$34.29	$21.64	5
Line Installer (outside); Wire Installer (inside)	-	-	-	$55.48	$35.55	$19.93	$58.24	$36.75	$21.49	$60.90	$38.10	$22.80	5
Technician (inside/outside)	-	-	-	$56.87	$36.62	$20.25	$59.68	$37.85	$21.83	$62.40	$39.24	$23.16	5
* **ELEVATOR CONSTRUCTOR MECHANIC**	**2/20/06**												
	$55.965	$42.70	$13.265	-	-	-	-	-	-	-	-	-	13

Classification	Current			2006			2007			2008			Remarks See Pg 7-8
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
* **EQUIPMENT OPERATOR:**	**2/20/06**												
Group 1	$49.07	$29.54	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 2	$49.18	$29.65	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 3	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 4	$49.62	$30.09	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 5	$49.93	$30.40	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 6	$50.58	$31.05	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 7	$50.90	$31.37	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 8	$51.01	$31.48	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 9	$51.12	$31.59	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 9A	$51.35	$31.82	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 10	$51.41	$31.88	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 10A	$51.56	$32.03	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 11	$51.71	$32.18	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 12	$52.07	$32.54	$19.53	-	-	-	-	-	-	-	-	-	6, 13
Group 12A	$52.43	$32.90	$19.53	-	-	-	-	-	-	-	-	-	6, 13
FENCE ERECTOR (CHAIN-LINK TYPE)	**9/19/05**												
	$14.88	$13.64	$1.24	-	-	-	-	-	-	-	-	-	
* **FLOOR LAYER (CARPET, LINOLEUM & SOFT TILE)**	**2/20/06**												
	$42.20	$24.15	$18.05	-	-	-	-	-	-	-	-	-	
GLAZIER	**9/19/05**												
	$46.35	$25.73	$20.62	-	-	-	-	-	-	-	-	-	7
* **HELICOPTER WORK:**	**2/20/06**												
Airborne Hoist Operator	$52.93	$33.40	$19.53	-	-	-	-	-	-	-	-	-	13
Co-Pilot	$53.07	$33.54	$19.53	-	-	-	-	-	-	-	-	-	13
Pilot	$53.24	$33.71	$19.53	-	-	-	-	-	-	-	-	-	13
IRONWORKER:	**8/30/04**												
Reinforcing, Structural	$51.36	$29.00	$22.36	-	-	-	-	-	-	-	-	-	8
LABORER:	**8/29/05**			**9/4/06**									
Gunite Operator	$38.15	$25.15	$13.00	$38.85	$25.65	$13.20	-	-	-	-	-	-	3, 13
High Scaler (Working Suspended)	$38.15	$25.15	$13.00	$38.85	$25.65	$13.20	-	-	-	-	-	-	13
Laborer I	$37.65	$24.65	$13.00	$38.35	$25.15	$13.20	-	-	-	-	-	-	3, 13
Laborer II	$35.25	$22.25	$13.00	$35.75	$22.55	$13.20	-	-	-	-	-	-	3, 13
Light Clean-up (Janitorial) Laborer	$25.10	$16.25	$8.85	$25.60	$16.55	$9.05	-	-	-	-	-	-	3, 13
Powder Blaster	$38.65	$25.65	$13.00	$39.35	$26.15	$13.20	-	-	-	-	-	-	3, 13
Window Washer (Outside) (On bosun's chair, cable-suspended scaffold or work platform)	$37.15	$24.15	$13.00	$37.85	$24.65	$13.20	-	-	-	-	-	-	13

Classification	Current Prevailing Wage Total	Current Basic Hourly Rate	Current Fringe Hourly Rate	2006 Prevailing Wage Total	2006 Basic Hourly Rate	2006 Fringe Hourly Rate	2007 Prevailing Wage Total	2007 Basic Hourly Rate	2007 Fringe Hourly Rate	2008 Prevailing Wage Total	2008 Basic Hourly Rate	2008 Fringe Hourly Rate	Remarks See Pg 7-8
* **LANDSCAPER:**	**2/20/06**			**10/2/06**			**10/1/07**			**10/6/08**			
Landscape & Irrigation Laborer A	$25.18	$18.86	$6.32	$26.13	$19.36	$6.77	$27.08	$19.86	$7.22	$28.08	$20.36	$7.72	13
Landscape & Irrigation Laborer B	$25.68	$19.36	$6.32	$26.63	$19.86	$6.77	$27.58	$20.36	$7.22	$28.58	$20.86	$7.72	13
Landscape & Irrigation Maintenance Laborer	$21.88	$15.56	$6.32	$22.78	$16.01	$6.77	$23.68	$16.46	$7.22	$24.63	$16.91	$7.72	13
LATHER	**9/19/05**			**9/4/06**									
	$50.45	$32.95	$17.50	$51.75	$33.95	$17.80	-	-	-	-	-	-	13
MASON; Bricklayer;	**8/29/05**			**9/4/06**			**9/3/07**						
Cement Blocklayer; Stone Mason; Precast Sill Setter	$46.82	$27.75	$19.07	$48.02	$28.15	$19.87	$49.32	$28.65	$20.67	-	-	-	3
Pointer-Caulker-Weatherproofer	$47.07	$28.00	$19.07	$48.27	$28.40	$19.87	$49.57	$28.90	$20.67	-	-	-	3
* **PAINTER:**	**2/20/06**						**1/1/07**						
Painter	$49.65	$27.05	$22.60	-	-	-	$49.90	$27.05	$22.85	-	-	-	9, 13
Spray Painter; Sandblaster or Waterblaster	$50.15	$27.55	$22.60	-	-	-	$50.40	$27.55	$22.85	-	-	-	9, 13
PLASTERER	**8/29/05**			**9/4/06**			**9/3/07**						
	$47.61	$28.54	$19.07	$48.81	$28.94	$19.87	$50.11	$29.44	$20.67	-	-	-	3
PLUMBER: (Note: 2 increases in 2007)	**1/1/06**			**7/2/06**			**1/7/07**						
Plumber; Pipefitter; Refrigeration Fitter; Heating & Air Conditioning Fitter; Sprinkler Fitter; Steamfitter	$50.50	$32.05	$18.45	$51.20	$32.40	$18.80	$51.90	$32.75	$19.15	-	-	-	10
							7/1/07						
Plumber; Pipefitter; Refrigeration Fitter; Heating & Air Conditioning Fitter; Sprinkler Fitter; Steamfitter	-	-	-	-	-	-	$52.60	$33.10	$19.50	-	-	-	10
* **ROOFER: (Note: 2 increases in 2006)**	**2/20/06**			**4/30/06**			**4/29/07**						
Shingle, Tile, Built-up Roofing	$43.41	$29.85	$13.56	$43.66	$30.10	$13.56	$44.86	$31.10	$13.76	-	-	-	13
Coal Tar Pitch	$73.26	$59.70	$13.56	$73.76	$60.20	$13.56	$75.96	$62.20	$13.76	-	-	-	13
				10/29/06									
Shingle, Tile, Built-up Roofing	-	-	-	$44.36	$30.60	$13.76	-	-	-	-	-	-	13
Coal Tar Pitch	-	-	-	$74.96	$61.20	$13.76	-	-	-	-	-	-	13
SANDBLASTER OR WATERBLASTER:													
Use wages of craft to which sand or water blasting is incidental.													
* **SHEETMETAL WORKER (Note: 2 increases in 2006 & 2007)**	**8/28/05**			**2/26/06**			**2/25/07**			**3/2/08**			
	$49.36	$32.37	$16.99	$50.03	$32.37	$17.66	$51.57	$32.87	$18.70	$53.53	$33.67	$19.86	11
				8/27/06			**9/2/07**						
	-	-	-	$50.70	$32.87	$17.83	$52.50	$33.67	$18.83	-	-	-	11

Classification	Current			2006			2007			2008			Remarks See Pg 7-8
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
* **TAPER**	**1/1/06**						**1/1/07**			**1/1/08**			
	$49.80	$35.00	$14.80	-	-	-	$51.05	$35.00	$16.05	$52.30	$36.00	$16.30	
TERMITE TREATER	**9/19/05**												
	$9.50	$8.50	$1.00	-	-	-	-	-	-	-	-	-	
TERRAZZO:	**8/29/05**			**9/4/06**			**9/3/07**						
Terrazzo Setter	$47.07	$28.00	$19.07	$48.27	$28.40	$19.87	$49.57	$28.90	$20.67	-	-	-	3
Terrazzo Base Grinder	$45.26	$26.19	$19.07	$46.46	$26.59	$19.87	$47.76	$27.09	$20.67	-	-	-	3
Certified Terrazzo Floor Grinder and Tender	$43.71	$24.64	$19.07	$44.91	$25.04	$19.87	$46.21	$25.54	$20.67	-	-	-	3
Terrazzo Floor Grinder	$42.21	$23.14	$19.07	$43.41	$23.54	$19.87	$44.71	$24.04	$20.67	-	-	-	3
TILE SETTER:	**8/29/05**			**9/4/06**			**9/3/07**						
Ceramic Hard Tile; Marble Setter	$47.07	$28.00	$19.07	$48.27	$28.40	$19.87	$49.57	$28.90	$20.67	-	-	-	3
Certified Ceramic Tile & Marble Helper	$43.71	$24.64	$19.07	$44.91	$25.04	$19.87	$46.21	$25.54	$20.67	-	-	-	3
TRUCK DRIVER:	**9/19/05**												
Concrete Mixer	$30.34	$23.51	$6.83	-	-	-	-	-	-	-	-	-	
Concrete Mixer/Booster	$35.49	$27.73	$7.76	-	-	-	-	-	-	-	-	-	
	2/20/06												
* Dump Truck, 8 cu. yds. & under (water level); Water Truck (up to & including 2,000 gallons)	$49.62	$30.09	$19.53	-	-	-	-	-	-	-	-	-	13
* Flatbed, Utility, etc.	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	13
* End Dump, Unlicensed (Euclid, Mack, Caterpillar, or similar); Tractor Trailer (hauling equipment)	$51.01	$31.48	$19.53	-	-	-	-	-	-	-	-	-	13
* Semi-Trailer, Rock Cans, or Semi-Dump	$50.58	$31.05	$19.53	-	-	-	-	-	-	-	-	-	13
* Slip-in or Pup	$50.90	$31.37	$19.53	-	-	-	-	-	-	-	-	-	13
* Tandem Dump Truck, over 8 cu. yds. (water level); Water Truck (over 2,000 gallons)	$49.93	$30.40	$19.53	-	-	-	-	-	-	-	-	-	13
UNDERGROUND LABORER:	**8/29/05**			**9/4/06**									
Worker in a raise, shaft, or tunnel.													
Group 1	$38.25	$25.25	$13.00	$38.95	$25.75	$13.20	-	-	-	-	-	-	13
Group 2	$39.75	$26.75	$13.00	$40.45	$27.25	$13.20	-	-	-	-	-	-	13
Group 3	$40.25	$27.25	$13.00	$40.95	$27.75	$13.20	-	-	-	-	-	-	13
Group 4	$41.25	$28.25	$13.00	$41.95	$28.75	$13.20	-	-	-	-	-	-	13
Group 5	$41.50	$28.50	$13.00	$42.20	$29.00	$13.20	-	-	-	-	-	-	13
Group 6	$41.60	$28.60	$13.00	$42.30	$29.10	$13.20	-	-	-	-	-	-	13
Group 7	$41.85	$28.85	$13.00	$42.55	$29.35	$13.20	-	-	-	-	-	-	13
Group 8	$42.30	$29.30	$13.00	$43.00	$29.80	$13.20	-	-	-	-	-	-	13

Classification	Current			2006			2007			2008			Remarks See Pg 7-8
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
* **WATER FRONT CONSTRUCTION (DREDGING):**	**2/20/06**												
CLAMSHELL OR DIPPER DREDGES:													
Clamshell or Dipper Operator	$52.07	$32.54	$19.53	-	-	-	-	-	-	-	-	-	12, 13
Mechanic; Welder; Watch Engineer	$51.41	$31.88	$19.53	-	-	-	-	-	-	-	-	-	13
Deckmate; Bargemate	$51.01	$31.48	$19.53	-	-	-	-	-	-	-	-	-	13
Fire Person; Oiler; Deckhand; Barge Worker	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	13
HYDRAULIC SUCTION DREDGES:													
Lever Operator	$51.71	$32.18	$19.53	-	-	-	-	-	-	-	-	-	13
Mechanic; Welder	$51.56	$32.03	$19.53	-	-	-	-	-	-	-	-	-	13
Watch Engineer (steam or electric)	$51.41	$31.88	$19.53	-	-	-	-	-	-	-	-	-	13
Dozer Operator	$51.35	$31.82	$19.53	-	-	-	-	-	-	-	-	-	13
Deckmate	$51.01	$31.48	$19.53	-	-	-	-	-	-	-	-	-	13
Winch Operator (stern winch on dredge)	$50.90	$31.37	$19.53	-	-	-	-	-	-	-	-	-	13
Fire Person; Oiler; Deckhand (can operate anchor scow under direction of deckmate); Levee Operator	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	13
DERRICKS:													
Operator: Derrick, Piledriver, Crane	$52.07	$32.54	$19.53	-	-	-	-	-	-	-	-	-	13
Deckmate; Saurman Type Dragline (up to & including 5 yds.)	$51.01	$31.48	$19.53	-	-	-	-	-	-	-	-	-	13
Saurman Type Dragline (over 5 cu. yds.)	$51.41	$31.88	$19.53	-	-	-	-	-	-	-	-	-	13
Fire Person; Oiler; Deckhand	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	13
BOAT OPERATORS:													
Master Boat Operator	$51.71	$32.18	$19.53	-	-	-	-	-	-	-	-	-	13
Boat Operator	$51.56	$32.03	$19.53	-	-	-	-	-	-	-	-	-	13
Boat Deckhand	$49.35	$29.82	$19.53	-	-	-	-	-	-	-	-	-	13
WELDER:													
Use wages of craft to which welding is incidental.													
WATER WELL DRILLER:	**9/19/05**												
Water Well Driller	$25.88	$23.00	$2.88	-	-	-	-	-	-	-	-	-	
Water Well Driller Helper	$20.40	$17.00	$3.40	-	-	-	-	-	-	-	-	-	

Comments: Overtime must be paid at one and one-half times the basic hourly rate plus the hourly cost of required fringe benefits.

*** Indicates a wage, fringe benefit, remark, or title change from the previous bulletin.**

REMARKS

1. Asbestos Worker: Six percent per hour shall be added to the hourly wage for hazardous pay while working from a boatswain chair, staging or free standing scaffolding erected from the ground up or mezzanine floor subject to a free fall and skyclimber suspended from a permanent structure and when working above 40 feet.

2. Asphalt Paving: $.75 per hour shall be added to the hourly wage while working to scale the quarry face.

3. Carpenter, Cement Finisher, Laborer (excluding High Scaler, Window Washer), Mason, Plasterer, Terrazzo, Tile Setter: $.50 per hour shall be added to the regular straight-time rate for height pay for each hour while working from a bosun's chair and/or from a cable-suspended scaffold or work platform which is free swinging (not attached to building) for each hour worked on said rig.

4. Diver:
   A. On any dive exceeding 50 feet, the diver shall in addition be paid the following amount of "depth money":

50 feet to 100 feet	$1.50 per foot in excess of 50 feet
100 feet to 150 feet	$100.00 plus $2.00 per foot in excess of 100 feet
150 feet to 200 feet	$200.00 plus $3.00 per foot in excess of 150 feet

   B. When it is necessary for a Diver to enter any pipe, tunnel or other enclosure, the said Diver shall in addition to the hourly rate, receive a premium in accordance with the following schedule for distance traveled from the entrance of the pipe, tunnel or other enclosure:
      1) When able to stand erect, but in which there is no vertical ascent:

5 feet to 50 feet	$5.00 per day
50 feet to 100 feet	$7.50 per day
100 feet to 150 feet	$12.50 per day
Greater than 150 feet	The premium shall be increased an additional $7.50 for each succeeding 50 feet.

      2) When unable to stand erect and in which there is no vertical ascent:

5 feet to 50 feet	$5.00 per day
50 feet to 100 feet	$7.50 per day
100 feet to 150 feet	$12.50 per day
150 feet to 200 feet	$36.75 per day
200 feet to 300 feet	$1.00 per foot
300 feet to 450 feet	$1.50 per foot
450 feet to 600 feet	$2.50 per foot

5. Electrician:
   A. One and one-half times the straight-time rate while working in a tunnel under construction; under water with aqualung equipment; in a completed tunnel which has only one entrance or exit providing access to safety and where no other personnel are working; or in an underground structure having no access to safety or where no other personnel are working.
   B. Double the straight-time rate shall be paid for the following types of hazardous work:
      1) While working from trusses, stacks, towers, tanks, bosun's chairs, swinging or rolling scaffolds, supporting structures, and open platforms, over 70 feet from the ground where the employee is subject to a free fall; provided, however, that when work is performed on stacks, towers or permanent platforms where the employees are on a firm footing within an enclosure, a hazardous condition does not exist regardless of height;
      2) While working outside of a railing or enclosure, or temporary platforms extending outside of a building, or from scaffolding or ladder within an enclosure where an employee's footing is within one foot of the top of such railing, and the employee is subject to a free fall of over 70 feet;
      3) Working on buildings while leaning over the railing or edge of the building, and is subject to a free fall of 70 feet; or
      4) Two hours minimum hazardous pay per day shall be paid while climbing to a stack, tower or permanent platform which exceeds 70 feet from the ground but where the employee is on a firm footing within an enclosure.
   C. Five percent per hour shall be added to the hourly wage for height pay while working above 9,000 feet elevation.

REMARKS

6. Equipment Operator:
   A. Operators and Assistants to Engineer (climbing a boom) of cranes (under 50 tons) with booms of eighty feet or more (including jib) or of cranes (under 50 tons) with leads of one hundred feet or more, shall receive additional premium according to the following schedule:

	Per Hour
Booms of 80 feet up to, 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

   Operators and Assistants to Engineer (climbing a boom) of cranes (50 tons and over) with booms of 180 feet or more (including jib) shall receive additional premium according to the following schedule:

	Per Hour
Booms of 180 feet up to and including 250 feet	$1.25
Booms over 250 feet	$1.75

   Note: The boom shall be measured from the center of the heel pin to the center of the boom or jib point sheave.
   B. $1.25 per hour shall be added to the hourly wage while operating a rig suspended by ropes or cables or to perform work on a Yo-Yo Cat.
   C. In a raise or shaft, a premium of $.40 per hour will be paid in addition to the regular straight time wage.
   A raise is defined to be an underground excavation (lined or unlined) whose length exceeds its width and the inclination of the grade from the excavation is greater than 20 degrees from the horizontal.
   A shaft is defined to be an excavation (lined or unlined) made from the surface of the earth, generally vertical in nature, but may decline up to 75 degrees from the vertical, and whose depth is greater than 15 feet and its largest horizontal dimension. Includes an underground silo.
   D. In a tunnel, a premium of $.30 per hour will be paid in addition to the regular straight time wages.
   A tunnel is defined to be an underground excavation (lined or unlined) whose length exceeds its width and the inclination of the grade from the excavation is no greater than 20 degrees from the horizontal.

7. Glazier: $.50 per hour shall be added to the hourly wage for height pay for exterior glazing work performed from a scaffold or rigging 25 feet or more above the ground level.

8. Ironworker: $.50 per hour shall be added to the hourly wage while working in tunnels or coffer dams. $1.00 per hour shall be added to the hourly wage while working under or covered with water (submerged), or on the summits of Mauna Kea, Mauna Loa or Haleakala.

9. Painter: $.50 per hour shall be added to the hourly wage for painting on surfaces over 40 feet in height while using staging or scaffolding.

10. Plumber: One and one-half times the straight-time rate for height pay while working from OSHA approved trusses, stacks, towers, tanks, bosun's chair, swinging or rolling scaffolding, supporting structures or on open platforms where the employee is subject to a direct fall of 40 feet or more. Provided, however, that when said work is performed where the employee is on a firm footing within an enclosure, a hazardous condition does not exist regardless of height. $1.00 per hour shall be added to the straight-time rate while working with flame cutting or any type of welding equipment on any galvanized material or product for at least an hour.

11. Sheetmetal Worker:
   For overtime purposes: ((Basic hourly rate less $2.82) multiplied by 1.5) + $2.82 + Fringe total.
   Effective 9/2/07: ((Basic hourly rate less $2.87) multiplied by 1.5) + $2.87 + Fringe total.

12. Clamshell or Dipper Operator: $.50 per hour shall be added to the straight-time rate while working with boom (including jib) over 130 feet.

13. Possible wage/fringe option increases:
   Boilermaker: Effective 10/1/06 - $2.25; 10/1/07 - $2.25; 10/1/08 - $2.75
   Carpenter, Drywall Installer and Lather: Effective WRS 463 - $0.65
   Diver, Equipment Operator, Helicopter Work, Truck Driver and Water Front Construction: Effective WRS 463 - $1.40
   Elevator Constructor Mechanic: Effective 1/1/07 - $3.00
   Laborer and Underground Laborer: Effective WRS 463 - $0.30
   Light Clean-up (Janitorial) Laborer: Effective WRS 463 - $0.10
   Landscaper: Effective 10/1/07 - $0.10; 10/6/08 - $0.10
   Painter: Effective WRS 463 - $0.50; 1/1/07 - $0.25; 7/1/07 - $0.75
   Roofer: Effective 10/29/06 - $0.07

State of Hawaii
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
Princess Ruth Ke`elikolani Building
830 Punchbowl Street
Honolulu, Hawaii 96813

February 20, 2006

BULLETIN NO. 462

This schedule of wage rates contained herein is recognized by the Director of Labor and Industrial Relations to be prevailing on public construction work for the purposes of Chapter 104, Hawaii Revised Statutes. The schedule of wage rates determines the applicable wage determination for each classification and does not impose any staffing requirements for any classification. The schedule of wage rates is applicable only to those laborers and mechanics employed at the site of work.

As required by law, future wage rates for laborers and mechanics are incorporated into this bulletin based on available information and are subject to change. For addenda or additional wage rate schedules, please consult the Internet at http://hawaii.gov/labor/rs.

The Apprentice Schedule is available on the Internet or upon request from the Research and Statistics Office. Pursuant to Section 12-22-6 (1), Hawaii Administrative Rules, the Apprentice Schedule is applicable only to apprentices who are parties to apprenticeship agreements registered with or recognized by the Department of Labor and Industrial Relations.

Questions on the schedule should be referred to the Research and Statistics Office at (808) 586-9017.

The next regular schedule will be issued on or about September 15, 2006.

NELSON B. BEFITEL
Director

State of Hawaii
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
Research and Statistics Office
Princess Ruth Ke`elikolani Building
830 Punchbowl Street
Honolulu, Hawaii 96813

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:	MAMALAHOA HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE PUU WAAWAA RANCH TO PUUANAHULU DISTRICT OF NORTH KONA ISLAND OF HAWAII
PROJECT NO.:	190BC-02-06M
COMPLETION TIME:	SEVENTY (70) Working days from the date indicated in the Notice to Proceed from the Department.

DESIGN PROJECT MANAGER:

NAME	ROBERT TAIRA
ADDRESS	DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION 50 Makaala St., Hilo, HI 96720
PHONE NO.	(808) 933-8866
FAX NO.	(808) 933-8869

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.

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 103D-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. 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, Bridge, and Public Works Construction, 1994, the Notice to Bidders, the Special Provisions, the Technical Provisions, the Proposal, the Contract and Bond Forms, and the Project Plans.

The undersigned further agrees that if this proposal is accepted and the contract awarded, the bidder shall, prior to payment of the final estimate, execute the attached Certification of Compliance for Final Payment form (SPO Form-22).

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.)

__X__ 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 6/7/06 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 Joint Contractor or Subcontractor and the nature of work to be done by each. It is understood that failure to comply with the aforementioned requirements may be cause for rejection of the bid submitted.

Name of Subcontractor	Nature and Scope of Work
1. Apply-a-line, Inc	Striping
2. GP Roadway Solutions	Signage
3.	
4.	
5.	
6.	
7.	
8.	
9.	

Name of Joint Contractor	Nature and Scope of Work
1. NONE	
2.	
3.	

("None" or if left blank indicates no Subcontractor or Joint Contractor; if more space is needed, attach additional sheets.)

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.

GRACE PACIFIC CORPORATION
Bidder

By _____
Authorized Signature RANDALL I. MATSUMOTO

MANAGER OF ESTIMATING
Title

P. O. Box 78
Business Address

Honolulu, HI 96810

(808) 845-3991
Business Telephone

June 15, 2006
Date

KEVIN YAMABAYASHI (808) 842-3233
Contact Person and Phone Number
(If different from above.)
FOR CONTRACT PICK UP CALL LANI FUKUNAGA AT (808) 842-3235.

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.

PREFERENCES

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

2. It is further understood by the bidder that if the bidder elects to furnish qualified Hawaii Products, and is awarded the contract, then fails to use such products or meet the requirements of such preference, the bidder shall be subject to the statutory penalties, provided in Section 103D-1002, HRS, and such other remedies as may be available to the State.

HAWAII PRODUCTS PREFERENCE

It is understood that certain Hawaii products as described in the schedule below are acceptable for use in this project and that, pursuant to Sections 103D-1002, HRS, which provides preference for Hawaii Products, the bidder proposing to use such Hawaii products must fill in the schedule below.

However, where there are a number of qualifying classes of Hawaii products of a given description, the bidder must indicate on the schedule which class will be furnished by circling the class of the particular Hawaii product that will be used. Otherwise, preference will be given based on the class with the lower percentage.

If the bidder proposes to use Hawaii Products, the bidder must so designate in said schedule by entering the cost of such product in the appropriate space provided. Failure on the part of the bidder to designate the use of Hawaii products will automatically void any preference for that product.

SCHEDULE OF ACCEPTABLE HAWAII PRODUCT AND DESIGNATION OF HAWAII PRODUCTS TO BE USED

ACCEPTABLE HAWAII PRODUCTS			HAWAII PRODUCTS TO BE USED		
Description	**Class**	**MANUFACTURER VENDOR**	**Cost (FOB Jobsite, Unloaded Including Applicable General Excise & Use Taxes) (a)**	**% (b)**	**Credit (a) x (b)**
Agricultural Gypsum	III	Kauai Nursery and Landscaping, Inc	$	10%	$
Aluminum and Galvanized Pipes	I	Hawaii Concrete Products, Inc.	$	3%	$
Asphalt Concrete Mixes	III	Black Plumeria LLC	$	10%	$
	III	Grace Pacific Corporation	$ 849,500	10%	$ 84,950
	III	Jas. W. Glover, Ltd.	$	10%	$
	III	Niu Construction, Inc.	$	10%	$
	III	Yamada & Sons, Inc. dba YS Rock & Con-Agg of Hawaii	$	10%	$
Aggregate, Rock, Sand	III	Ameron International Corp., dba Ameron Hawaii	$	10%	$
	II	BOMAT, Ltd. dba Bonded Materials Company	$	5%	$
	III	Grace Pacific Corporation	$	10%	$
	III	Hawaiian Cement	$	10%	$
	III	Jas. W.Glover, Ltd	$	10%	$
	III	Kiyosaki Tractor Works Inc.	$	10%	$
	III	Sanford's Service Center, Inc.	$	10%	$
	III	SPHERE LLC dba Pacific Aggregate	$	10%	$

	III	Tileco, Inc.	$ _____	10%	$_____
	III	West Hawaii Concrete	$ _____	10%	$_____
	III	Yamada & Sons, Inc. dba YS Rock & Con-Agg of Hawaii	$ _____	10%	$_____
Burnt Bagasse	III	Kauai Nursery and Landscaping,Inc	$ _____	10%	$_____
Catch Basins	III	Aloha Precast, Inc	$ _____	10%	$_____
	III	Hawaii Precast, Inc	$ _____	10%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
	III	Walker Industries, Ltd.	$ _____	10%	$_____
Cement and Cementitious Waterproofing/ Coating	II	BOMAT, Ltd. dba Bonded Materials Company	$ _____	5%	$_____
	I	Hawaiian Cement	$ _____	3%	$_____
Ceramic Tile Grouts and Adhesives	II	BOMAT, Ltd. dba Bonded Materials Company	$ _____	5%	$_____
Compost	III	Hawaiian Earth Products, Ltd.	$ _____	10%	$_____
	III	Kauai Nursery and Landscaping, Inc.	$ _____	10%	$_____
Concrete Admixtures, Curing Compounds, Hardeners, Fortifiers, Bonding Adhesives, Form Release Agents, and Grout	II	BOMAT, Ltd. dba Bonded Materials Company	$ _____	5%	$_____
	II	Glover Honsador LLC	$ _____	5%	$_____
	II	Walker-Moody Pavement Products and Equipment dba Sealmaster Hawaii	$ _____	5%	$_____
Concrete Masonry Units	III	Hale Kauai Ltd	$ _____	10%	$_____
	III	Jas. W.Glover, Ltd	$ _____	10%	$_____
	III	Maui Blocks, Inc.	$ _____	10%	$_____
	III	Tileco, Inc.	$ _____	10%	$_____
	III	West Hawaii Concrete	$ _____	10%	$_____
	III	Yamada & Sons, Inc. dba YS Rock & Con-Agg of Hawaii	$ _____	10%	$_____

Concrete Pipe	III	Ameron International Corp., dba Ameron Hawaii	$ _____	10%	$_____
	III	Hawaii Concrete Products, Inc.	$ _____	10%	$_____
Concrete Median Traffic Barriers for Traffic Control	III	Hawaii Precast, Inc.	$ _____	10%	$_____
Concrete Repair and Underlayment Products	II	BOMAT, Ltd. dba Bonded Materials Company	$ _____	5%	$_____
Culverts	III	Ameron International Corp., dba Ameron Hawaii	$ _____	10%	$_____
	III	Rocky Mountain Prestress	$ _____	10%	$_____
	III	Walker Industries, Ltd (Box Culverts)	$ _____	10%	$_____
	II	Walker Industries, Ltd (Con/Span Arch Culverts)	$ _____	5%	$_____
Drain Inlet	II	Hawaii Precast, Inc.	$ _____	5%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
Drywell Cover	II	Hawaii Precast, Inc.	$ _____	5%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
Drywell Ring for Site Drainage or Cesspool	III	Hawaii Precast, Inc.	$ _____	10%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
Handholes	II	Hawaii Precast, Inc.	$ _____	5%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
Hot Dip Galvanizing	II	Macsteel Service Centers USA	$ _____	5%	$_____
Insulation	III	INTECH Incorporated	$ _____	10%	$_____
Manholes	III	Aloha Precast, Inc.	$ _____	10%	$_____
	III	Ameron International Corp., dba Ameron Hawaii	$ _____	10%	$_____
	III	Hawaii Concrete Products, Inc.	$ _____	10%	$_____

	III	Hawaii Precast, Inc. (Drain, HELCO, Sewer)	$ _____	10%	$_____
	II	Hawaii Precast, Inc. (Verizon)	$ _____	5%	$_____
	III	Kauai Precast, LLC	$ _____	10%	$_____
	III	Walker Industries, Ltd.	$ _____	10%	$_____
Mulch	III	Hawaiian Earth Products, Ltd.	$ _____	10%	$_____
	III	INTECH Incorporated	$ _____	10%	$_____
Pole Anchor Slugs for Overhead Line Utilities	III	Hawaii Precast, Inc.	$ _____	10%	$_____
Precast Concrete Products	III	Aloha Precast, Inc.	$ _____	10%	$_____
	III	Ameron International Corp., dba Ameron Hawaii	$ _____	10%	$_____
	III	Grace Pacific Precast, Inc.	$ _____	10%	$_____
	III	Hawaii Concrete Products, Inc.	$ _____	10%	$_____
	III	Hawaii Precast, Inc.	$ _____	10%	$_____
	III	Island Ready-Mix Concrete, Inc.	$ _____	10%	$_____
	III	Kauai Precast, LLC	$ _____	10%	$_____
	III	Maui Blocks, Inc.	$ _____	10%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
	III	Rocky Mountain Prestress	$ _____	10%	$_____
	III	Walker Industries, Ltd.	$ _____	10%	$_____
Precast and Prestressed Concrete Products	III	Rocky Mountain Prestress	$ _____	10%	$_____
Preformed Metal Roofing & Flashing	I	HPM Building Supply	$ _____	3%	$_____
	I	Macsteel Service Centers USA	$ _____	3%	$_____
Ready Mix Concrete	II	BOMAT, Ltd. dba Bonded Materials Company	$ _____	5%	$_____
	III	Glover Honsador LLC	$ _____	10%	$_____

	III	Hale Kauai Ltd.	$ _____	10%	$_____
	III	Hawaiian Cement	$ _____	10%	$_____
	III	Jas. W.Glover, Ltd	$ _____	10%	$_____
	III	West Hawaii Concrete	$ _____	10%	$_____
	III	Yamada & Sons, Inc. dba YS Rock & Con-Agg of Hawaii	$ _____	10%	$_____
Rigid Vinyl Windows and Doors	I	Coastal Windows Inc.	$ _____	3%	$_____
Segmental Retaining Wall Units	III	Tileco, Inc.	$ _____	10%	$_____
Signs	II	Safety Systems Hawaii, Inc.	$ _____	5%	$_____
	II	SUN Industries Inc.	$ _____	5%	$_____
Soil Blends	III	Hawaiian Earth Products, Ltd.	$ _____	10%	$_____
	III	West Hawaii Concrete	$ _____	10%	$_____
Soil Conditioners	III	Hawaiian Earth Products, Ltd.	$ _____	10%	$_____
Topsoil	III	West Hawaii Concrete	$ _____	10%	$_____
Utility Boxes	III	Aloha Precast, Inc.	$ _____	10%	$_____
	III	Ameron International Corp., dba Ameron Hawaii	$ _____	10%	$_____
	III	Hawaii Precast, Inc.	$ _____	10%	$_____
	III	Kauai Precast, LLC	$ _____	10%	$_____
	III	RJA General Contracting	$ _____	10%	$_____
Utility Vaults (Telephone & Electrical)	III	Walker Industries, Ltd.	$ _____	10%	$_____
Wood Furniture, Cabinetry & Millwork	III	Martin & MacArthur Enterprises, Ltd.	$ _____	10%	$_____
			TOTAL		$ 84,950

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

It is further understood by the bidder that if the bidder elects to furnish qualified Hawaii Products, and is awarded the contract, then fails to use such products or meet the requirements of such preference, the bidder shall be subject to the statutory penalties, provided in Section 103D-1002, Hawaii Revised Statute, and such other remedies as may be available to the State.

RECYCLED PRODUCT PREFERENCE

Recycled product preference shall not apply to this proposal.

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$35,150
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$20,000.00
401.0400	Asphalt Concrete Pavement, Mix No. IV	7100	Ton	$153	$1,086,300
401.0500	Asphalt Concrete Pavement, Mix No. V	1600	Ton	$238	$380,800
613.0110	Adjusting Centerline and Reference Survey Monuments	23	Each	$189	$4,347
621B.0110	Regulatory and Warning Signs (10 Square Feet or Less)	L.S.	L.S.	L.S.	$20,400
621B.0120	Regulatory and Warning Signs (More than 10 Square Feet)	L.S.	L.S.	L.S.	$22,150
621B.6110	Route Marker Sign	L.S.	L.S.	L.S.	$856
621C.0120	Reflector Marker (RM-2) with White Flexible Post	L.S.	L.S.	L.S.	$556
621C.0130	Reflector Marker (RM-3) with Yellow Flexible Post	L.S.	L.S.	L.S.	$9,880
621C.0230	Reflector Marker (RM-3) (Bi-Dir) with Yellow Flexible Post	L.S.	L.S.	L.S.	$2920
621C.7610	Mile Post Marker with Post (Bi-Directional)	L.S.	L.S.	L.S.	$1870
629.1011	4-inch Pavement Striping, Yellow (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$10,350
629.1013	4-inch Pavement Striping, White (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$79,050
629.1018	4-inch Double Pavement Striping, Yellow (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$41,500

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.2030	Type C Pavement Markers	L.S.	L.S.	L.S.	$6,470
629.2040	Type D Pavement Markers	L.S.	L.S.	L.S.	$6,470
629.2070	Type H Pavement Markers	L.S.	L.S.	L.S.	$ 829
629.2080	Type J Pavement Markers	L.S.	L.S.	L.S.	$4,230
636.0100	Field Office Trailer (Not to exceed $32,000.00)	L.S.	L.S.	L.S.	$32,000
645.0100	Traffic Control	L.S.	L.S.	L.S.	$51,600
645.0200	Additional Police Officers, Additional Control Devices, and Advertisement	F.A.	F.A.	F.A.	$40,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$ 100
652.0100	Cold Planing	L.S.	L.S.	L.S.	$6,300
699.0100	Mobilization (Not to Exceed 10 Percent of the Sum of All Items Excluding the Bid Price of this Item, Field Office, and Force Account Items)	L.S.	L.S.	L.S.	$177,000
Sum of All Items					$2,041,128.00

Note: Bidders must complete all unit prices and amounts.
Failure to do so may be grounds for rejection of bid.

PROPOSAL SCHEDULE

The bidder is directed to Subsection 108.01 - Subletting of Contract.

The bidder's attention is directed to Sections 636 - Field Office and Project Site Laboratory, and 699 - Mobilization for the limitation of the amount bidders are allowed to bid.

If the bid price for any proposal item having a maximum allowable bid indicated therefore in any of the contract documents is in excess of such a maximum amount, the bid price for such proposal item shall be adjusted to reflect the limitation thereon. The comparison of bids to determine the successful bidder and the amount of contract to be awarded shall be determined after such adjustments are made, and such adjustments shall be binding upon the bidder.

The bidder is directed to Subsections 106.12 - Recycling of Waste Glass and 106.13 - Ordering of Certain Material.

Tesoro Refining and Marketing Company
Asphalt Marketing
P. O. Box 700
10200 West March Point Road
Anacortes, WA 98221

MAY 26, 2006

Grace Pacific Corporation
Attn: Mr. Jay Obrey
P. O. Box 78
Honolulu, HI 96810

Dear Mr. Obrey,

Effective June 1, 2006, our posted price for PG 64-16 asphalt will increase to $300.00 per ton FOB Kapolei refinery.

Sincerely,

Richard Mills
Commercial Marketing Sales Manager, Asphalt
Tesoro Refining and Marketing Company
As agent for Tesoro Hawaii Corporation
(253) 896-8811

Tesoro

TRINITY
HIGHWAY SAFETY PRODUCTS
950 WEST 400 SOUTH
P. O. BOX 99
CENTERVILLE, UT 84014
☎(801) 292-4461 Fax: (801) 292-2145

May 10, 2006

GP Roadway Solutions
c/o David Takiguchi
660 Mapunapuna St.
Honolulu, Hawaii 96819

Re: Galvanized steel price index

Dear David;

We have attempted to compile a price index for standard 12ga galvanized metal beam guardrail with steel posts, King Blocks, and all the necessary hardware as well as the most commonly used bridge rail/bike rail. The bridge rail used as our model is from the Kahiko Street to Pail Highway Project. You can compare your current material needed to what was supplied on that project.

Both product items are priced per the pound of finished product.

- 12 ga galvanized 12'6" guardrail w/steel post and King Block @ $.65 lb.
- Galvanized bridge rail (bike rail) to include anchors, hardware, beam and tube steel @ $1.75 lb.
- All prices are quoted truckload quantities to the freight forwarder, LA dock.

Sincerely,

Mike Hooley
Trinity Highway Safety

SUPPLEMENT TO PROPOSAL SCHEDULE

The Department recognizes that certain items of material to be incorporated into the project and/or consumed in the prosecution of the project are temporarily in short supply and beyond the control and without the fault of the Contractor. The effect of such shortages has, among other things, resulted in periodic fluctuations in the posted prices of such short supply materials, thereby making the proposal difficult for the Contractor to bid with confidence.

The only materials considered to be in short supply are asphalt cement, portland cement, reinforcing steel, structural steel and galvanized steel.

Each bidder shall submit with the proposal a written statement from the supplier of each short supply material indicating the supplier's current posted price, effective date of that price and the location of the material at that posted price (by island).

If the price of such short supply material is increased or decreased by more than 5% by the supplier prior to the completion of that contract item requiring the short supply material, the Contractor shall submit to the Department a written statement from the supplier indicating the effective date and changed price the Contractor will thereafter be charged for such short supply material. The Contractor shall also obtain whenever possible, quotations for furnishing the material from other available local suppliers. The quotations shall be obtained sufficiently in advance of the need for the material to allow review by the Department so as not to delay the work. The Contractor's request to the Department for adjusted compensation due to such changed prices will be computed only with prices in effect at the time of delivery. Only the lowest quotation obtained will be accepted by the Department. Transportation, handling, loading, processing and other similar costs will not be subject to adjusted compensation.

No adjustment to the unit bid prices will be made when the increase or decrease in the price of the short material is less than 5% of the original posted price.

If the adjustment to the unit bid price is decreased in the price of the short supply material by more than 5% of the original posted price, the State will be credited.

When an adjustment in price is made in accordance with this section, the adjustment will be allowed only so long as the purchase price remains more or less than 5% of the original posted price.

If an increase in the price of any short supply material exceeds or is scheduled to exceed 35% of the original posted price, the Contractor must notify the State within five working days before using the short supply material. Upon receipt of such notification from the Contractor, the State will direct the Contractor

to either (1) authorize work to proceed as usual with the assurance that the indicated incremental price increase above the 35% will be compensable, (2) issue such change orders as the State may deem necessary to reduce further requirements of the short supply material which is to be paid at the increased price, or (3) if the material is considered to have priced itself beyond reason or beyond what the State can pay, the State may order cessation of further use of such short supply material on the project. Such notification by the Contractor will be required at each instance of incremental price increase above the 35% limit. If the Contractor fails to notify the State of any such incremental price increase within five working days before using the short supply material and continues to utilize the short supply material on the project, the State will not be responsible for payment for the incremental cost increase of which the State was not forewarned.

Computation for the adjusted compensation will be as follows:

(A) Portland Cement

If X = Adjustment per cubic yard of concrete,

P = Portland cement content of the approved mix design expressed in hundredweight per cubic yard of concrete,

Q = Increase or decrease in the price of portland cement in dollars per hundredweight,

Then X = QP

Example: Posted price of portland cement increases from $1.40 to $1.70 per cwt. and the hundredweight (cwt) of concrete is 5.6 cwt per c.y., then the adjustment shall be:

$1.70 - $1.40 = $0.30
($1.40)(5%) = $0.07
$0.30 - $0.07 = $0.23
X = ($0.23)(5.6) = $1.29 per c.y. of concrete

(B) Asphalt Cement

If X = adjustment per ton of mix,

P = asphalt cement content, expressed in percent of dry weight of the aggregates, as determined and accepted by the Department for each of the design plant mixes,

Q = increase or decrease in the price of asphalt cement, in dollars per ton,

Then $X = \frac{Q(P)}{100+P}$

Example: Posted price of asphalt cement increases from $70 to $80 per ton and the asphalt content of the A.C. mix was accepted at 6.0%, then the adjustment shall be:

$$\$80.00 - \$70.00 = \$10.00$$
$$(\$70.00)(5\%) = \$3.50$$
$$\$10.00 - \$3.50 = \$6.50$$
$$X = \$6.50 \left(\frac{6}{100+6}\right) = \$0.37 \text{ per ton A.C. mix}$$

(C) Reinforcing Steel

If X = Adjustment for reinforcing steel,

P = Weight of reinforcing steel, expressed in hundredweight

Q = Increase or decrease in the price of reinforcing steel in dollars per hundred weight,

Then X = QP

Example: Posted price of grade 40 reinforcing steel increases from $14.00 to $15.00 per cwt and the weight of the grade 40 reinforcing steel is 80,000 pounds, then the adjustment shall be:

$15.00 - $14.00 = $1.00
($14.00)(5%) = $0.70
$1.00 - $0.70 = $0.30
X = ($0.30)(800) = $240 for grade 40 reinforcing steel

The Contractor shall submit to the Department original receipted bills covering the short supply material used on the project as soon as practicable after shipments are completed. The bills shall be accompanied by a tabulation on which the bills are listed in chronological order showing for each bill the quantity, the date shipped from the supplier's terminal and the price per unit at the place indicated in the posted price (reflecting any deduction for quantity shipments). These bills shall be subject to audit verification.

The Department reserves the right to alter the quantities of material to be furnished in accordance with the provisions of Subsection 104.02.

The Department also reserves the right, during construction, to decrease or increase the scope of work, because of limitations of funds, with no adjustment in unit prices other than that specified hereinabove.

STATEMENT OF ATTESTATION FOR INTERNET POSTING

I, Patricia A Shin, Contracts Assistant
(Name) (Title)

of the Department of Transportation, do attest that in
(Agency)

(Check appropriate statement)

☒ Chapter 103D, HRS
compliance with Section 3-122-16, Hawaii Administrative Rules, the attached procurement notice was posted to the State & County Procurement Notice System (PNS) Website, [http://www4.hawaii.gov/bidapps/]

☐ Chapter 103F, HRS
compliance with Procurement Circular No. 2003-04, dated May 9, 2003, the attached procurement notice was posted to the State & County Procurement Notice System (PNS) Website, [http://www4.hawaii.gov/bidapps/]

on 5/18/06.
(Date(s))

Patricia A. Shin 5/18/06
(Signature) (Date)

Attached: Procurement notice
190BC-07-06m

SPO Form-20 (04/11/05)

NOTICE TO BIDDERS
(Chapter 103D, HRS)

SEALED BIDS for Mamalahoa Highway, Pavement Preventive Maintenance, Puu Waawaa Ranch to Puuanahulu, Project No. 190BC-02-06M, District of North Kona, Island of Hawaii, will be received at the Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813, or at the Office of the District Engineer - Hawaii, 50 Makaala Street, Hilo, Hawaii 96720, until 2:00 P.M., June 15, 2006, at which time and place(s) they will be publicly opened and read.

The project consists of leveling and resurfacing the existing pavement; cold planning transitions; and replacing and installing signs, pavement striping, and reflector markers.

Plans and specifications may be examined and borrowed at the appropriate offices. Borrowed plans and specifications shall be returned in good condition within 30 calendar days after the bid opening date.

A pre-bid conference is set for 9:00 A.M., May 30, 2006, at the Highways Division, Hawaii District Office, 50 Makaala Street, Hilo, Hawaii 96720. All prospective bidders or their representatives (employees) are encouraged to attend, but attendance is not mandatory.

Persons needing special accommodations at the pre-bid conference due to a disability may contact Robert Taira, Project Manager, by phone at (808) 933-8866 or by facsimile at (808) 933-8866.

To be eligible to bid, bidders must possess a valid State of Hawaii General Engineering Contractor's "A" license.

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of Section 11-205.5, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

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 will affirmatively ensure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the grounds of race, color, national origin and sex (as directed by 23 CFR Part 200).

In accordance with Section 3-124-4, Hawaii Administrative Rules, the Hawaii Products Preference is applicable to this project. The Hawaii Product List may be examined at the State Procurement Office, Kalanimoku Building, 1151 Punchbowl Street, Honolulu, Hawaii 96813.

Each proposal shall be on a form furnished by said Department.

Estimated construction cost is between $1.5 and $2 million.

For additional information on this project, contact Mr. Robert Taira at (808) 933-8866, 50 Makaala St., Hilo, HI 96720.

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

RODNEY K. HARAGA
Director of Transportation

Internet Posting: May 18, 2006

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HONOLULU, HAWAII

FORMS

Contents:

CONTRACT

THIS AGREEMENT, made this 20th day of September, 2006, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE", and GRACE PACIFIC CORPORATION whose business/post office address is P. O. Box 78, Honolulu, Hawaii 96810 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 "MAMALAHOA HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, PUU WAAWAA RANCH TO PUUANAHULU, HAWAII, PROJECT NO. 190BC-02-06M", or such a part thereof as shall be required by the STATE, the total amount of which labor, material 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 TWO MILLION FORTY ONE THOUSAND ONE HUNDRED TWENTY EIGHT AND NO/100 DOLLARS ($2,041,128.00) as follows:

SUM OF ALL ITEMS.....$2,041,128.00

which sum shall be provided from State funds, all in accordance with the Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 1994, or such other standard specifications as may be provided for specifically herein, the special provisions, the amendments to special provisions, if any, all of which are hereinafter referred to as "specifications", the notice to bidders, the instruction to bidders, the proposal and plans for Project No(s) 190BC-02-06M, and any

supplements thereto, on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, additions and deductions thereto or therefrom, are attached hereto and/or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to complete such construction within SEVENTY (70) working days from the date indicated in the notice to proceed from the STATE subject, however, to such extensions as may be provided for in writing 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 TWO MILLION FORTY ONE THOUSAND ONE HUNDRED TWENTY EIGHT AND NO/100 DOLLARS ($2,041,128.00) 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. In any event, extras shall not exceed ONE HUNDRED TWO THOUSAND FIFTY SIX AND 40/100 DOLLARS ($102,056.40) in lawful money and shall be provided from State funds.

The CONTRACTOR further agrees to execute the attached "Certification of Compliance for Final Payment" form prior to payment of the final estimate by the STATE.

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

By _____
Its Director of Transportation

GRACE PACIFIC CORPORATION

By _____
Its Darrell Goo
Vice President, Operations

CONTRACT CERTIFICATION

I hereby certify that there is an appropriation balance in the account(s) named below for this Contract No. 55211 with GRACE PACIFIC CORPORATION

APPROPRIATION	(*)	AMOUNT
631 S 06 026 D Hawaii Highways		2,143,184.40

* Federal funds, as received. Sec. 103D-309, H.R.S.

Dated October 5, 2006

Deputy Comptroller
State of Hawaii

State of Hawaii)
)ss
City and County of Honolulu)

On this 20th day of September, 2006, before me appeared Darrell Goo to me personally known, who, being by me duly sworn, did say that he is the Vice President of Operations of Grace Pacific Corporation and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed on behalf of said corporation by the authority of its Board of Directors, and the said Darrell Goo acknowledged said instruments to be the free act and deed of said corporation.

Shirley E. Simao
Notary Public, State of Hawaii
First Judicial Circuit

My Commission Expires: November 10, 2006

I, Robert M. Creps, Secretary of Grace Pacific Corporation, do hereby certify that the following are full, true and correct copies of resolutions duly adopted by the Board of Directors of the Corporation at meetings duly called and held on August 24, 2001 and October 25, 2002 respectively, and that said resolutions have not been modified, amended or rescinded and continue in full force and effect:

> "RESOLVED, that the Corporation's Chief Executive Officer, President, Secretary, Treasurer, or any Vice President should be and each is hereby authorized to sign, seal, execute and deliver on behalf of the Corporation all contracts, leases, agreements, releases, deeds, and other instruments which any one of them deem necessary or convenient in conducting the Corporation's orderly and usual business."
>
> "RESOLVED, that Randall Matsumoto, as Manager of Estimating for Grace Pacific Corporation, shall be, and is hereby, authorized and empowered to sign, seal execute and deliver on behalf of the Corporation all contracts, agreements, releases, and other instruments which he deems necessary or convenient in conducting the orderly and usual business of Grace Pacific Corporation's asphalt paving contracting operations."

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of Grace Pacific Corporation this 6th day of June, 2006.

Secretary
Grace Pacific Corporation

Robert F. Wilkinson
President and Chief Executive Officer
4224 Waialae Ave, Suite 5, #418
Honolulu, Hawaii 96818

Darrell S. Goo
Vice President, Paving Operations
77 Kakaina Street
Kailua, Hawaii 96734

Robert M. Creps
Senior Vice President, Secretary, Treasurer
1414 Mokulua Drive
Kailua, Hawaii 96734

Robert P. Singlehurst
Vice President, Quarry Operations
758 Mokapu Blvd
Kailua, Hawaii 96734

William A. Paik
Vice President, Business Development
3940 Harding Avenue
Honolulu, Hawaii 96816

Randall Matsumoto
Manager of Estimating
2916 Pahoehoe Place
Honolulu, Hawaii 96817

CR

SURETY PERFORMANCE BOND

KNOW ALL BY THESE PRESENTS:

That GRACE PACIFIC CORPORATION as Contractor, hereinafter called Principal, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND 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 of Hawaii, its successors and assigns, hereinafter called Obligee, in the amount of TWO MILLION ONE HUNDRED FORTY THREE THOUSAND ONE HUNDRED EIGHTY FOUR AND 40/100 DOLLARS ($2,143,184.40), 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 entered into a Contract with Obligee dated September 20, 2006 for "MAMALAHOA HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, PUU WAAWAA RANCH TO PUUANAHULU, HAWAII, PROJECT NO. 190BC-02-06M", 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 Obligee 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 Obligee in satisfaction of the surety's performance obligation on this bond.

Signed this 20th day of September, 2006

GRACE PACIFIC CORPORATION (Seal)

Name of Principal

* Darrell Goo

Signature

Darrell Goo

Vice President, Operations

Title

FIDELITY AND DEPOSIT COMPANY OF MARYLAND (Seal)

Name of Surety

* Kathy Ann McElrath

Signature

Kathy Ann McElrath

Attorney-in-Fact

Title

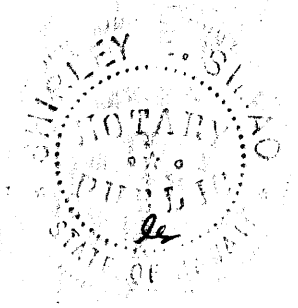
*ALL SIGNATURES MUST BE ACKNOWLEDGED BY A NOTARY PUBLIC

State of Hawaii)
)ss
City and County of Honolulu)

On this 20th day of September, 2006, before me appeared Darrell Goo to me personally known, who, being by me duly sworn, did say that he is the Vice President of Operations of Grace Pacific Corporation and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed on behalf of said corporation by the authority of its Board of Directors, and the said Darrell Goo acknowledged said instruments to be the free act and deed of said corporation.

Shirley E. Simao
Notary Public, State of Hawaii
First Judicial Circuit

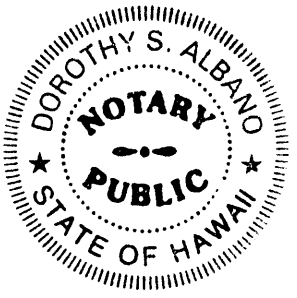
My Commission Expires: November 10, 2006



SURETY ACKNOWLEDGEMENT

State of Hawaii)
) ss
City and County of Honolulu)

On this **25th** day of **September**, **2006**, before me personally appeared **Kathy Ann McElrath**, to me personally known, who, being by me duly sworn, did say that **she** is the attorney-in-fact of **Fidelity and Deposit Company of Maryland**, duly appointed under a power of attorney which is now in full force and effect; and that said instrument was executed in the name and behalf of said corporation by said **Kathy Ann McElrath**as its attorney-in-fact, and **she** acknowledged said instrument to be the free act and deed of said corporation.



I.s.

Dorothy S. Albano
Notary Public, State of Hawaii
My commission expires: 10/28/2009

SURETY LABOR AND MATERIAL PAYMENT BOND

KNOW ALL BY THESE PRESENTS:

That GRACE PACIFIC CORPORATION as Contractor, hereinafter called Principal, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND 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 of Hawaii, its successors and assigns, hereinafter called Obligee, in the amount of TWO MILLION ONE HUNDRED FORTY THREE THOUSAND ONE HUNDRED EIGHTY FOUR AND 40/100 Dollars ($2,143,184.40), 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 entered into a Contract with Obligee dated September 20, 2006 for "MAMALAHOA HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, PUU WAAWAA RANCH TO PUUANAHULU, HAWAII, PROJECT NO. 190BC-02-06M" 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 20th day of September, 2006.

GRACE PACIFIC CORPORATION
(Seal)

Name of Principal

* Darrell Goo

Signature

Darrell Goo
Vice President, Operations

Title

FIDELITY AND DEPOSIT COMPANY OF MARYLAND
(Seal)

Name of Surety

* Kathy Ann McElrath

Signature

Kathy Ann McElrath
Attorney-in-Fact

Title

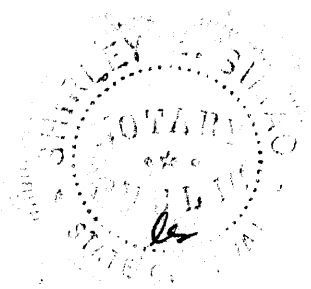
*ALL SIGNATURES MUST BE ACKNOWLEDGED BY A NOTARY PUBLIC

State of Hawaii)
)ss
City and County of Honolulu)

On this 20th day of September, 2006, before me appeared Darrell Goo to me personally known, who, being by me duly sworn, did say that he is the Vice President of Operations of Grace Pacific Corporation and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed on behalf of said corporation by the authority of its Board of Directors, and the said Darrell Goo acknowledged said instruments to be the free act and deed of said corporation.

Shirley E. Simao
Notary Public, State of Hawaii
First Judicial Circuit

My Commission Expires: November 10, 2006

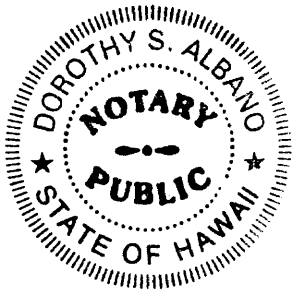


SURETY ACKNOWLEDGEMENT

State of Hawaii)
) ss
City and County of Honolulu)

On this **25th** day of **September**, **2006**, before me personally appeared **Kathy Ann McElrath**, to me personally known, who, being by me duly sworn, did say that **she** is the attorney-in-fact of **Fidelity and Deposit Company of Maryland**, duly appointed under a power of attorney which is now in full force and effect; and that said instrument was executed in the name and behalf of said corporation by said **Kathy Ann McElrath**as its attorney-in-fact, and **she** acknowledged said instrument to be the free act and deed of said corporation.

l.s.



Dorothy S. Albano
Notary Public, State of Hawaii
My commission expires: 10/28/2009

Power of Attorney
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by WILLIAM J. MILLS, Vice President, and GERALD F. HALEY, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint **John N. BUSTARD, Harvey C. KING, Paul R. BOTTS, Wesley I. UEMOTO, Maria Morales MINKEL, Kim K.L. BARRACO and Kathy Ann MCELRATH, all of Honolulu, Hawaii, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of John N. BUSTARD, Harvey C. KING, Paul R. BOTTS, Wesley I. UEMOTO, Maria Morales MINKEL, Kim K.L. BARRACO, dated March 30, 2006.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 30th day of August, A.D. 2006.

ATTEST: **FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

FIDELITY AND DEPOSIT COMPANY INCORPORATED 1890 OF MARYLAND

By:

Gerald F. Haley *Assistant Secretary* *William J. Mills* *Vice President*

State of Maryland }
City of Baltimore } ss:

On this 30th day of August, A.D. 2006, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came WILLIAM J. MILLS, Vice President, and GERALD F. HALEY, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself deposeth and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

DENNIS R. HAYDEN HARFORD COUNTY MARYLAND NOTARY PUBLIC

Dennis R. Hayden *Notary Public*
My Commission Expires: February 1, 2009

EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertaking, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

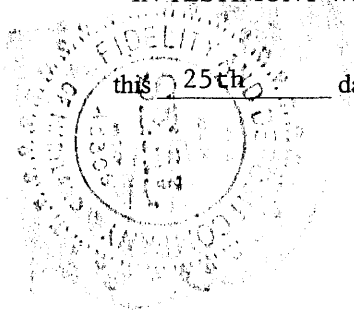
CERTIFICATE

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company,



this 25th day of September, 2006.

Gregg E. Murray

Assistant Secretary

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 20th day of September, 2006.

Grace Pacific Corporation
Name of Corporation, Partnership, or Individual

Darrell Goo, VP Operations
Signature and Title of Signer

Subscribed and sworn before me
this 20th day of September, 2006.

Notary Public, First Judicial
Circuit, State of Hawaii
My Commission Expires: November 10, 2006

2005 Contractor Responsibility

*Company Name	Grace Pacific Corporation
DBA/Trade Name	
Business Phone Number	845-3991
Business Fax Number	842-3206
Email Address	dgoo@gracepacificcorp.com

Document	Approval Date	Comments
DCCA Certificate of Good Standing	06/07/2006	
TAX Clearance	06/26/2006	
DLIR Clearance	06/08/2006	

The Contracts Office hereby certifies that the vendor shown above is in compliance with 103D-310; HRS until the Expiration Date shown below; and that the documents are on file in the DOT Contracts Office.

Compliance effective until 12/08/2006

Created by: Jamie Ho/ADMIN/HIDOT on 01/07/2005 08:05 AM
Last Updated by: Philip W Russell/ADMIN/HIDOT on 07/05/2006 03:53 PM

CERTIFICATION OF COMPLIANCE FOR FINAL PAYMENT
(Reference §3-122-112, HAR

Reference: _____ _____
(Contract Number) (IFB/RFP Number)

_____affirms it is in
(Company Name)
compliance with all laws, as applicable, governing doing business in the State of Hawaii to include the following:

1. Chapter 383, HRS, Hawaii Employment Security Law – Unemployment Insurance;
2. Chapter 386, HRS, Worker's Compensation Law;
3. Chapter 392, HRS, Temporary Disability Insurance;
4. Chapter 393, HRS, Prepaid Health Care Act; and

maintains a "Certificate of Good Standing" from the Department of Commerce and Consumer Affairs, Business Registration Division.

Moreover, _____
(Company Name)
acknowledges that making a false statement shall cause its suspension and may cause its debarment from future awards of contracts.

Signature: _____

Print Name: _____

Title: _____

Date: _____