



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
SOLID WASTE DIVISION  
COUNTY OF MAUI, HAWAII

CONTRACT DOCUMENTS FOR

**FURNISHING, DELIVERY AND INSTALLATION OF  
PHOTOVOLTAIC SYSTEMS  
at HANA LANDFILL and LANAI LANDFILL**

COUNTY JOB NO. 11-12/P-13

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SYSTEMS at HANA LANDFILL AND LANAI LANDFILL  
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## **PART A: BIDDING AND CONTRACT REQUIREMENTS**

## SECTION 00100

### INSTRUCTIONS TO BIDDERS

#### PART 1--GENERAL

##### 1.01 INSPECTION OF SITE

Bidders are required to inspect the site of the work to satisfy themselves by personal examination or by such other means as they may prefer, of the location of the proposed work, and of the actual conditions of and at the site of work.

If, during the course of bidder's examination, a bidder finds facts or conditions which appear to be in conflict with the letter or spirit of the contract documents, bidder may apply to the County, in writing, for additional information and explanation before submitting a bid.

Submission of a bid by the bidder shall constitute acknowledgment that, if awarded the contract, bidder has relied and is relying on their own examination of (1) the site of the work, (2) access to the site, and (3) all other data and matters requisite to the fulfillment of the work and on their own knowledge of existing facilities on and in the vicinity of the site of the work to be constructed under the contract. Contact person for arranging site visits to Hana Landfill and Lanai Landfill is Kolo Pupunu, (808) 270-6153, Kolo.Pupunu@co.maui.hi.us.

The information provided by the County is not intended to be a substitute for, or a supplement to the independent verification by the bidder to the extent such independent investigation of site conditions is deemed necessary or desirable by the bidder. Bidder acknowledges that they have not relied upon County furnished information regarding site conditions in preparing and submitting a bid hereunder.

##### 1.02 EXAMINATION OF CONTRACT DOCUMENTS

Each bidder shall thoroughly examine and be familiar with those contract documents. Submission of a bid shall constitute acknowledgment upon which the County may rely that the bidder has thoroughly examined and is familiar with the contract documents. Bidder shall be responsible for verifying that each specification section listed in the table of contents of the bidding, contract requirements, and technical specifications documents and each drawing shown on the index of the Drawings, has been considered and included as a component of the bid. Failure or neglect of a bidder to examine any of the contract documents shall in no way relieve bidder from any obligation with respect to their bid or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the work.

##### 1.03 INTERPRETATION OF CONTRACT DOCUMENTS

Bidders, prospective subcontractors, manufacturers and suppliers may request interpretation of the contract documents prior to bid opening. Requests shall be directed in writing to:

Elaine Baker  
Solid Waste Division  
Department of Environmental Management  
County of Maui  
2200 Main Street, Suite 225,  
Wailuku, Maui, Hawaii 96793  
E-mail – Elaine.Baker@co.maui.hi.us

Phone: (808) 270-7872  
Fax: (808) 270-7843

Requests to clarify the source of materials, equipment, suppliers, or any other such matter which does not modify, change, increase, or decrease the scope of work requires no action by the County other than a response to the bidder requesting the clarification. Requests to clarify possible ambiguous, conflicting or incomplete statements or designs, or any other such clarification which modifies, changes, increases or decreases the scope of work, requires issuance of an addendum by the County for the interpretation to become effective. No addendum will be issued without the design engineer's knowledge.

#### 1.04 BID DOCUMENTS

##### A. BID FORMS:

1. GENERAL: Each bidder shall complete the proposal form provided with the bid items in the Contract Documents.
2. BID PRICES: Bid prices shall include everything necessary for the completion of the work, including but not limited to, providing the materials, equipment, tools, and other facilities, and the management, superintendence, labor and services. Bid prices shall include federal, state and local taxes.

In the event of a difference between a price quoted in text and a price quoted in figures for the same quotation, the text shall be the amount bid. In the event that the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual item amounts shall govern and the correct total shall be deemed to be the amount bid.

3. BIDDER'S SIGNATURE AND AUTHORITY: If the bid is made by an individual, their

name, signature, and post office address must be shown; if made by a firm or partnership, the name and post office address of the firm or partnership, a list of the partners, and the signature of at least one of the general partners must be shown; if made by a corporation, the bid shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation. If the bid is made by a joint venture, the bid shall be signed by a representative of one of the joint venture firms.

4. BID IRREGULARITIES: Each bid and the information requested shall be enclosed in a sealed envelope and labeled as specified in the Invitation To Bid. Bidders are warned against making erasures or alterations of any kind, and bids which contain omissions, erasures, or irregularities of any kind may be rejected.

Bids, prices or modifications to bids or prices shall not be submitted by telephone facsimile transmission, and will not be accepted.

5. MODIFICATION OF BID: Modification of a bid already received will be considered only if the modification is received prior to the time established for bid opening.

Any bidder may modify their bid by written communications at any time, provided such communication is completely received by the Procurement Officer prior to the bid opening time. The telegraphic or written communications should not reveal the bid price; it should, however, state the addition or subtraction or other modification so that the final prices or terms will not be known by the County until the sealed bid is opened.

Bids, comments, or questions regarding the proposal should be addressed to:

Chief Procurement Officer  
Purchasing Division  
Department of Finance  
County of Maui  
Kalana O'Maui Building  
200 South High Street  
Wailuku, Maui, Hawaii 96793  
(808) 270-7830

6. WITHDRAWAL OF BIDS:

PRIOR TO BID OPENING: A bid may be withdrawn at any time prior to the time fixed in the Invitation To Bid for the opening of bids by filing with the Procurement Officer a written request for withdrawal executed by the bidder or their duly authorized representative. The withdrawal of such bid shall not preclude the bidder from filing a new bid.

AFTER BID OPENING: Within five days after the opening of bids, a bidder may withdraw their bid providing they can establish to the County's satisfaction that a mistake was made in preparing the bid. A bidder desiring to withdraw shall give written notice to

the Procurement Officer, specifying, in detail, how the mistake occurred and how the mistake made the bid materially different than it was intended to be. Withdrawal will not be permitted for mistakes resulting from errors in judgment or carelessness in inspecting the site of the work or in reading the contract documents.

#### B. ALTERNATIVE MATERIALS:

In general, manufacturers or suppliers of materials may offer an alternative product to the Contractor and request that alternatives to specified products be considered equal.

A substitution request must be submitted to the Procurement Officer no later than 10 days before the bid opening. Inclusion of such alternatives in the bid is the responsibility of the Contractor. Inclusion should only be considered if the Contractor believes the offered alternative is equal in quality to the specified product. After award of contract, such offers of alternative products will be reviewed and processed as a substitution as provided in the General Conditions.

#### C. BID GUARANTY:

The bid form shall be accompanied by a bid bond provided by a surety company authorized to do business in the State of Hawaii, for payment to the County of Maui, or, alternatively, by a certified or cashier's check, payable to the County of Maui. The bid bond shall be equal to five percent (5%) of the total amount of the bid submitted. The amount payable to the County under the bid bond, or the certified or cashier's check and the amount thereof, as the case may be, shall be forfeited to the County as liquidated damages in case of a failure or neglect of the bidder to furnish, execute, and deliver to the County the required performance bond; evidences of insurance; and to enter into, execute, and deliver to the County the agreement, within ten (10) calendar days after receiving written notice from the County that the award has been made and the agreement is ready for execution. A bid bond in excess of \$40,000 shall only be a surety bond.

#### D. LIST OF SUBCONTRACTORS:

Pursuant to provisions of Chapter 103, Hawaii Revised Statutes, as amended, each bidder shall have listed, the name, address, and description of the work, of each subcontractor to whom the bidder proposes to sublet portions of the work if the labor portion of the subcontractor's work exceeds 1 percent of the total bid.

The amount of work that each subcontractor does is generally dictated by the scope of work. For the purpose of this paragraph, a subcontractor is defined as one who contracts with the Contractor to provide materials and labor, labor only, or who specially fabricates and installs a portion of the work or improvement according to drawings.

The total work performed by all subcontractors shall not be greater than 50% of the total bid price. Failure to list subcontractors shall render a bid non-responsive and shall be grounds for rejection of the bid.

## 1.05 BIDDER'S CERTIFICATIONS

### A. QUALIFICATIONS OF BIDDER:

Bidder shall certify that they are, at the time of bidding, and shall be, throughout the period of the contract, licensed in accordance with Chapter 444, Hawaii Revised Statutes, as amended, to do the type of work contemplated in the contract documents. Bidder shall further certify that they are skilled and regularly engaged in the general class and type of work called for in the contract documents.

Bidder must be established and doing business in the State of Hawaii for a minimum of (3) years. The bidders and/or subs may have the C-60 or other classification sufficient for those trades necessary to complete the work, provided there is also a C-13.

Bidder must have experience as the prime contractor in completing at least three (3) photovoltaic system projects on similar type of facilities, and shall provide a list of those projects with reference information including name, address, phone number, and contact person of the owner of the project; and also a description of project, including size, scope of work project cost and year of completion.

The bidder also certifies that they are knowledgeable of the unusual and peculiar hazards associated with the general class and type of work required to construct the specified project within the terms given in the contract documents. Bidder shall be competent and skilled in the protective measures necessary for the safe performance of the construction work with respect to such unusual and peculiar hazards. The Bidder's attention is called to Act 52 requirements which require the following certificates:

- 1) A certificate of compliance (DLIR form LIR#27) issued by the Department of Labor and Industrial Relations stating that Contractor complies with Chapters 383, 386, 392, and 393 of the HRS, current within 6 months of issuance date. This certificate is required prior to an award of a contract.
- 2) A certificate of good standing from the business registration division of the Department of Commerce and Consumer Affairs (DCCA), current within 6 months of issuance date. This certificate is required prior to an award of a contract.
- 3) A certificate of compliance for final payment affirming that the contractor has, as applicable, remained in compliance with all laws required by this section (3-122- 112 HAR). This certificate is required prior to final payment of the contract.

### B. ADDENDA:

Addenda may be issued during the bidding period and they shall be incorporated into the Contract Documents.

Each proposal form shall include specific acknowledgment, in the space provided, of receipt of all addenda issued and mailed by the County during the bidding period. Failure to so



acknowledge may result in the bid being rejected as not responsive.

#### 1.06 POSTPONEMENT OF OPENING

The County reserves the right to postpone the date and time for receiving and/or opening of bids at any time prior to the date and time established in the Invitation To Bid. Postponement notices shall be mailed to bidders in the form of addenda. Each bid shall include specific acknowledgment of receipt of all addenda issued during the bid period.

#### 1.07 REJECTION OF BIDS

##### A. IRREGULAR BIDS:

The County reserves the right to reject bids which are incomplete, obscure, or irregular; bids which omit a bid on any one or more items for which bids are required; bids which omit unit prices if unit prices are required; bids in which unit prices are unbalanced in the opinion of the County; bids accompanied by insufficient or irregular bid security; and bids from bidders who have previously failed to perform properly or to complete on time contracts of any nature.

##### B. COLLUSION:

If the County has reason to believe that collusion exists among bidders, the County will reject the bids of the known participants in such collusion and may, at its option, require that all bidders certify under penalty of perjury that no collusion has occurred or exists. The County also, at its option, may reject all bids received.

#### 1.08 RETURN OF BID GUARANTIES

Within fifteen (15) calendar days after the bids are opened, the County will return the bid security to bidders within ten (10) working days following execution of the contract by all parties and after the successful bidder furnishes acceptable performance and payment bonds and certificates of insurance.

#### 1.09 AWARD OF CONTRACT

Within sixty (60) calendar days after the date of opening bids, the County will act either to accept a bid or to reject all bids. Acceptance of a bid will be evidenced by a notice of award of contract in writing, to the bidder whose bid is accepted.

The award will be made on the basis of the proposal submitted by the responsive, responsible bidder submitting the lowest proposal acceptable to the Solid Waste Division.

The County reserves the right to reject all proposals, or any proposal not in compliance with the Contract Documents, and to waive any informalities and irregularities in said proposals.

## 1.10 EXECUTION OF CONTRACT

The contract agreement as provided by the County shall be executed by the successful bidder and returned with the performance bond and evidences of insurance, within ten (10) calendar days after receiving written notice of the award of the contract. After execution by the County, one copy of the agreement shall be returned to the Contractor.

## 1.11 LABOR REQUIREMENTS

### A. WAGE DETERMINATION:

Wages to be paid laborers, equipment operators and electricians on this project shall be no less than the minimum prevailing wage as determined by the Director of Labor and Industrial Relations in accordance with Chapter 9A, Hawaii Revised Statutes, as amended and as contained in the minimum wage rate.

The most current minimum wage rate schedule can be seen on the following website: <http://hawaii.gov/labor/rs/WRS/WRS.htm>. The County does not guarantee that labor can be procured for the rates shown in the Wage Rates. The Wage Rates are minimum below which the Contractor cannot pay. They do not constitute a representation that labor can be procured for the minimum listed.

The Wage Rate is subject to change at any time by the Department of Labor and Industrial Relations.

The successful bidder shall be responsible for submission to the County the certified copies of the payrolls and signed statements of compliance for themselves and all subcontractors.

### B. SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION:

The Contractor shall comply with all state and federal laws and county and local ordinances and regulations which in any manner affect those engaged or employed in the work.

### C. ACT 68, EMPLOYMENT OF STATE RESIDENTS ON CONSTRUCTION CONTRACTS

Bidders are advised of the applicability of Act 68, SB2840, Employment of State Residents on Construction Procurement Contracts, (2010) (“Act 68”). Act 68 requires the awarded contractor to ensure that Hawaii Residents (as defined in the Act) compose not less than eighty percent of the workforce employed to perform the contract. This requirement shall also apply to subcontracts of \$50,000 or more in connection with any construction contract procured under HRS Chapter 103D, but does not apply to procurements made pursuant to HRS §103D-304 (professional services), HRS §103D-305 (small purchases), or if there is a conflict with any federal law as further detailed below under “Conflict with Federal Law.”

#### Definitions for terms used in Act 68 (2010)

“Contract” means contracts for construction under chapter 103D, HRS.

“Contractor” has the same meaning as in section 103D-104, HRS; provided that contractor includes a subcontractor where applicable.

“Construction” has the same meaning as in section 103D-104, HRS.

“Procurement Officer” has the same meaning as in section 103D-104, HRS.

“Resident” means a person who is physically present in the state at the time the person claims to have established the person’s domicile in the state and shows the person’s intent is to make Hawaii the person’s primary residence.

“Shortage trade” means a construction trade in which there is a shortage of Hawaii residents qualified to work in the trade.

#### Requirements of Contractor

The contractor awarded this contract shall ensure that Hawaii Residents compose not less than eighty per cent of the workforce employed to perform this Contract, calculated as follows:

The eighty per cent requirement shall be determined by dividing the total number of hours worked on a contract by Residents by the total number of hours worked by all employees of the Contractor in the performance of the Contract. Hours worked for any subcontractor of the contractor shall count towards the calculation for purposes of this subsection. The hours worked by employees within shortage trades, as determined by the Department of Labor and Industrial Relations, shall not be included in the calculations for purposes of this subsection.

This requirement shall be applicable during the entire duration of this Contract. A notarized Certification for Employment of State Residents on Construction Procurement Contracts shall be submitted on a monthly basis with your progress payments. If no progress payments are made for any month, the Contractor is still responsible to submit the certification on a monthly basis.

#### Penalties

Failure to comply with this requirement shall be subject to any of the following sanctions:

- (1) Temporary suspension of work on the project until the Contractor or subcontractor complies with Act 68;
- (2) Withholding of payment on the Contract or subcontract, as applicable, until the Contractor or subcontractor complies with Act 68;
- (3) Permanent disqualification of the Contractor or subcontractor from any further work on the project;
- (4) Recovery by the City of any moneys expended on the Contract or subcontract, as applicable; or
- (5) Proceedings for debarment or suspension of the Contractor or subcontractor under

section 103D-702.

Conflict with federal law

Act 68 shall not apply if the application of the Act is in conflict with any federal law, or if application of Act 68 will disqualify the City from receiving federal funds or aid.

1.12 NONDISCRIMINATION IN EMPLOYMENT

The contract for work under this proposal obligates the bidder and any subcontractor not to discriminate in employment practices.

1.13 PREFERENCE FOR AMERICAN PRODUCTS

The Bidder's attention is called to Section 103-24, Hawaii Revised Statutes, concerning preference for American products in the performance of this contract.

1.14 HRS CHAPTER 237 TAX CLEARANCE REQUIREMENT FOR AWARD AND FINAL PAYMENT

Instructions are as follows:

Pursuant to §103D-328, HRS, the successful bidder shall be required to submit a tax clearance certificate issued by the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six (6) months from the most recent approval stamp date on the certificate and must be valid on the date it is received by the purchasing agency.

The tax clearance certificate shall be obtained on the State of Hawaii, DOTAX TAX CLEARANCE APPLICATION Form A-6 (rev. 1998) which is available at the DOTAX and IRS offices in the State of Hawaii or the DOTAX website, and by mail or fax:

DOTAX Website (Forms & Information): <http://www.state.hi.us/tax/tax.html>  
DOTAX Forms by Mail: (808) 587-7572 1-800-222-7572  
DOTAX Forms by Fax: (on Oahu) (808) 587-7572  
(outside Oahu) (808) 678-0522

Completed tax clearance applications may be mailed to one of the district tax offices listed on the application or faxed to one of the following numbers. If mailed, out-of-state Contractors should send their application to DOTAX Oahu District Office.

IRS (808) 541-1976  
DOTAX: Oahu (808) 587-1720 or (808) 587-1488  
Maui (808) 984-8522

Kauai (808) 274-3461  
Hawaii (808) 974-6300

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 purchasing agency.

Contractor is required to submit a tax clearance certificate for final payment on the contract. A tax clearance certificate, not over two months old, with an original green certified copy stamp, must accompany the invoice for final payment on the contract.

#### 1.15 HEALTH AND SAFETY PROGRAMS

The successful bidder must provide prior to execution of the contract a signed certification that a written safety and health plan for the job will be available and implemented by the "Notice to Proceed" date of the project. Health and safety programs shall be in accordance with Section 396-18, HRS (form attached below).

**CERTIFICATION OF COMPLIANCE WITH HRS 396-18, SAFETY AND HEALTH PROGRAMS FOR CONTRACTORS BIDDING ON COUNTY JOBS IN EXCESS OF \$100,000**

PROJECT NAME AND NUMBER \_\_\_\_\_ This is to certify that the undersigned will comply with the requirements of HRS 396-18, as follows:

(A) Pursuant to HRS 396-18, all bids and proposals in excess of \$100,000 shall include a signed certification from the bidder that a written safety and health plan for the job will be available and implemented by the notice to proceed dates of the project. The written safety and health plan shall include:

- (1) A safety and health policy statement reflecting management commitment;
- (2) A description of the safety and health responsibilities of all levels of management and supervisors on the job and a statement of accountability appropriate to each;
- (3) The details of:
  - (a) The mechanism for employee involvement in job hazard analysis;
  - (b) Hazard identification, including periodic inspections and hazard correction and control;
  - (c) Accident and “near-miss” investigations; and
  - (d) Evaluations of employee training programs;
- (4) A plan to encourage employees to report hazards to management as soon as possible and to require management to address these hazards promptly; and
- (5) A certification by a senior corporate or company manager that the plan is true and correct

(B) Failure to submit the required certification may be grounds for disqualification of the bid.

(C) Failure to have available on site or failure to implement the written safety and health plan by the project’s notice to proceed date shall be considered willful noncompliance and be sufficient grounds to disqualify the award and terminate the contract.

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Signature and Title

\_\_\_\_\_  
Date

#### 1.16 SEXUAL HARASSMENT POLICY

The bidders shall inform their construction team members of the State of Hawaii's sexual harassment policy prior to the start of construction. The sexual harassment policy shall conform to Chapter 711-1106, HRS.

#### 1.17 HAWAII ADMINISTRATIVE RULES, TITLE 3

The bidders shall conform to HAR, Chapters 120 to 132 of Subtitle 11 of Title 3, relating to the Hawaii Public Procurement Code.

#### 1.18 UTILITY BILLS

The Bidders shall agree to pay for all utility bills for water, lighting, toilet facility services, and other utilities that are used by them and their construction teams during construction,

**\*\*END OF SECTION\*\***

## SECTION 00581

### MINIMUM WAGE RATES

#### 1.0 DESCRIPTION

The most current minimum wage rate schedule can be seen on the following website: <http://hawaii.gov/labor/rs/WRS/WRS.htm>. The County does not guarantee that labor can be procured for the rates shown in the wage rates. The wage rates are minimum below which the Contractor cannot pay. The wage rates do not constitute a representation that labor can be procured for the minimum listed.

The Contractor shall pay all laborers and electricians engaged in the performance of this Agreement on the job site not less than the latest minimum wage rates, as promulgated by the State Department of Labor and Industrial Relations.

The minimum wages that shall be paid to the various classes of laborers and electricians engaged in the performance of the agreement on the job site shall be periodically increased during the performance of the contract in an amount equal to the increase in the prevailing wages for those kinds of work as periodically determined by the Director of Labor and Industrial Relations. Contractor shall bear the cost of any such increase and shall have no recourse against County for such increase.

The Contractor shall pay all electricians and laborers on the job site not less than once a week, and shall compensate any such electrician or laborer who works on weekends, holidays or in excess of eight (8) hours in one day, at the rate of one and one-half (1½) times his basic hourly rate. Certified copies of all payrolls shall be submitted weekly to the County Representative.

The County may withhold payments from the Contractor as it deems necessary to pay to laborers and electricians employed on the job site the wages required hereunder.

The failure of the Contractor or any subcontractor to pay the required wages shall be cause for termination, in which event the Contractor and its sureties shall be liable for any excess costs to complete the work contracted for hereunder.

**\*\*END OF SECTION\*\***



SECTION 00710

GENERAL CONDITIONS

General conditions can be found on the County website at the following address:  
<http://www.mauicounty.gov/documents/Finance/construction102309.PDF>

**\*\*END OF SECTION\*\***

## **PART B: TECHNICAL SPECIFICATIONS**

## SECTION 01010

### SUMMARY OF WORK

#### 1.0 GENERAL

Acting on behalf of the County of Maui, Hawaii, the Department of Environmental Management has authorized this project entitled "**FURNISHING, DELIVERY, and INSTALLATION OF PHOTOVOLTAIC SYSTEMS AT HANA LANDFILL AND LANAI LANDFILL.**" The work shall be performed in a workmanlike manner, complete and usable as required by the Plans and these Specifications.

#### 2.0 EXISTING SITE

- A. Hana Landfill: The Hana Landfill is located on the North side of Waikoloa Road, approximately 1 mile off of Hana Highway and is where the Landfill Office Building is located. The adjacent area has been cleared. Woods surround the graded areas. Constructed of wood in the late 1990's, the post and pier structure is approximately 250 square feet. The building exterior is covered with T1-11 siding, while the roof is finished with composition shingles. The interior is finished with painted gypsum board. The existing walls and attic space are not insulated. All windows are single glazed. The building does not have any electrical wiring. There is no electrical service in the area. When electrical power is required, it is provided by a 6,600 watt portable gas generator that is stored in a container across the road at the landfill.
- B. Lanai Landfill. The Lanai Landfill is located approximately midway between Lanai City and Lanai Harbor. The Landfill Office Building is an existing modular building approximately 160 square feet in size. To the west of the office is a "U" shaped container storage area comprised of (3) three twenty foot containers. The surrounding area is barren, with rolling hills in the distance. The interior of the office building is finished in wooden paneling. A small electrical panel is mounted on the wall which powers the convenience receptacles and fluorescent luminaires. Cooling is provided by a wall mounted air conditioning unit. There is no electrical service at the landfill. It is across the highway. Presently, electrical power is provided by a 12,000 watt portable gas generator that is stored in a storage container.

#### 3.0 PROJECT OBJECTIVES

Work under this contract includes furnishing all labor, materials, equipment and services required to install off-grid photovoltaic systems and battery bank to service the Hana and Lanai Landfill Office Buildings. Three (3) sets of shop drawings for the battery enclosure (either stainless steel or alternate) are to be submitted by the Contractor for approval.

#### 4.0 PROJECT DESCRIPTION

- A. Hana Landfill: The proposed PV system is rated at 4.5 KW AC (5.8 KW DC), 120/240V, 1-phase, 3-wire with a 48V, 500Ah battery bank. The system is comprised of (24) 240W modules (8 strings of 3 modules), a 4.5 KW off-grid inverter/charger, and (2) 60A charge controllers. At present, there is no electrical wiring in the office. A new electrical panel will be installed, along with (3) convenience receptacles plus one for fridge, (2) 4 foot, 2-lamp wrap-around fluorescent luminaires, and (1) ceiling fan. A new 16 cubic foot refrigerator, solar powered weather station, and laptop computer will also be provided. All equipment provided to be energy star rated/compliant. In addition, self-contained, solar powered L.E.D. floodlights with motion detector/photocell control will be installed on all four sides of the office building. To minimize heat buildup inside the office, heat must be removed from the attic. To accomplish this, a roof mounted solar powered attic fan will be installed along with attic insulation (R-19 minimum).

The modules are to be mounted in a flat orientation on an approximately 20 foot square trellis structure located just east of the existing office building. The trellis structure will consist of concrete footings, steel columns and wood framing. The steel columns and wood framing will be field painted. The modules will be mounted to the structure via Unirac type mounting rails. The structure will provide a covered area which can be utilized as vehicle parking or work/lunch area.

The inverter/charger and charge controller will be located inside the office. One feature of the inverter/charger is that it is capable of being connected to the 6,600 watt portable gas generator to help assist under low solar or battery power conditions. Output of the inverter/charger will be connected directly to the new electrical panel.

The battery bank will be housed in a custom size (72"x30"x48" minimum) stainless steel vented battery cabinet (or approved alternate) located under the roof eave (adjacent to the stair landing). The battery cabinet will be large enough to house (16) Trojan T-105 batteries (2 strings of 8 batteries). Stainless steel cabinets or alternates should be primed and field painted with the paint specifications included with three (3) sets of shop drawings to be submitted by the Contractor for Engineering approval.

A Wireless Vantage Pro Plus with 24-Hour Fan Aspirated Radiation Shield Weather Station to be installed.

A laptop computer is to be provided. Specifications: Dell Latitude 13 with 13.3" screen. Basic configuration should include 4 GB of SDRAM, a 160GB Hard Drive, Intel WiFi, built-in Gobi (enabled for Verizon); 5 year ProSupport-NBD and 5 year Complete Care support services.

See design drawings for the PV system.

- B. Lanai Landfill: The proposed PV system is rated at 6.0 KW AC (8.6 KW DC), 120/240V, 1-phase, 3-wire with a 48V, 750Ah battery bank. The system is comprised of (36) 240W modules (12 strings of 3 modules), a 6.0 KW off-grid inverter/charger, and (3) 60A charge controllers. At present, the existing electrical panel is being powered by a 12 KW portable gas generator via a 8/3 with ground Type "SO" cord and NEMA L14-50P cord cap. There will be no further electrical improvement to the office building with the exception of installation of the PV system equipment. The existing wall mounted air conditioner is to remain. The existing under cabinet refrigerator will be replaced with a new 16 cubic foot refrigerator. Similar to the Hana Landfill office, a solar powered weather station and laptop computer will also be provided. All new equipment to be energy star rated.

The modules are to be mounted in three 2,880 watt arrays, one on the top of each container. The arrays will have a flat orientation and extend out slightly from the edges of the 20 foot containers. The eastern most container will need to be relocated a few feet to provide clearance to mount the third array. The containers will require concrete footings. The modules will be mounted to the container via Unirac type mounting rails.

The inverter/charger and charge controller will be located inside the office. One feature of the inverter/charger is that it is capable of being connected to the 12,000 watt portable gas generator to help assist under low solar or battery power conditions. Output of the inverter/charger will be connected directly to the new electrical panel.

The battery bank will be housed in a custom size (72"x30"x72" minimum) stainless steel vented battery cabinet (or approved alternate) located under the roof eave (adjacent to the stair landing). The battery cabinet will be large enough to house (24) Trojan T-105 batteries (3 strings of 8 batteries). Stainless steel cabinets or alternates should be primed and field painted with the paint specifications included with three (3) sets of shop drawings to be submitted by the Contractor for Engineering approval.

A Wireless Vantage Pro Plus with 24-Hour Fan Aspirated Radiation Shield Weather Station to be installed.

A laptop computer is to be provided. Specifications: Dell Latitude 13 with 13.3" screen. Basic configuration should include 4 GB of SDRAM, a 160GB Hard Drive, Intel WiFi, built-in Gobi (enabled for Verizon); 5 year ProSupport-NBD and 5 year Complete Care support services.

See design drawings for the PV system.

## 5.0 DRAWINGS FOR CONSTRUCTION

Detailed electrical and structural drawings for this project are provided in .pdf format.

## 6.0 FACILITY OPERATION AND SHUTDOWNS

During the execution of this Contract, routine operation of the existing landfill shall remain uninterrupted. The Contractor shall schedule their work to meet the intentions, requirements and sequence specified in specification Section 01014 Work Sequence.

## 7.0 SPECIAL CONDITIONS

Work hours on this project are from 7:00 a.m. to 4:00 p.m. Monday through Friday except for Saturdays, Sundays, and County holidays. Landfill operation hours for both Hana and Lanai are from 8:00 a.m. to 2:30 p.m. Tuesday through Saturday (Sunday and Monday are closed). Contractor should have his own lock which is interlocked with the landfill lock at the entrance gate. If the Contractor decides to work on Saturdays, Sunday or County Holidays, the Contractor will be held responsible for all subsequent Solid Waste Division costs. Any work outside of these work hours shall be scheduled one (1) week in advance and approved by the County Representative.

It shall be responsibility of the Contractor to coordinate all work to be performed under this contract. This coordination shall encompass all work to be performed by the Contractor, his subcontractors, and any public utilities which may be involved.

The Contractor shall provide access to the site as may be required by the County and users of the landfill. The Contractor also shall provide access to the work for representatives of local, state, and federal agencies as may be required for inspection of the progress of the work, the methods of construction, and for any other aspect of the work or the Contractor's operation under the jurisdiction of the respective agency.

## 8.0 TIME OF COMPLETION

Performance of the work to be done under the Contract shall be commenced within thirty (30) calendar days after receipt of written notice to proceed from the County which will be issued once the building permit is obtained. Time of completion will be one hundred eighty (180) calendar days and liquidated damages of two hundred dollars (\$200.00) will be charged to the Contractor for every calendar day the completion of the work under the contract is delayed.

Such amounts shall be a reimbursement to the County for damages which the County will have sustained by reason of such delayed completion. Damages so liquidated are understood to include the additional cost to the County for interference with landfilling operations, engineering supervision, observation of construction, interest charges and overhead.

## 9.0 STAGING AND STOCKPILING AREAS

Space is available for a staging area near the offices at both landfills. The Contractor shall coordinate with the County Representative and Landfill staff to locate an appropriate staging area. The Contractor is responsible for keeping these areas in appropriate condition.

**\*\*END OF SECTION\*\***

## SECTION 01011

### TECHNICAL SPECIFICATIONS

#### 1.0 GENERAL

Articles, materials, operations or methods mentioned in these Contract Documents, or indicated on the Drawings as being required for the project, shall be provided by the Contractor, and he shall provide each item mentioned or indicated, perform according to the conditions stated in each operation prescribed, and provide, therefore, all necessary labor, equipment, and incidentals necessary to make a complete and operable installation.

No attempt has been made in these Contract Documents to segregate work covered by any trade or subcontract under one specification. Such segregation and establishment of subcontract limits will be solely a matter of specific agreement between the Contractor and his subcontractors. The Contractor and subcontractor in each case is cautioned that work included in any subcontract may be divided between several general specifications, and that each general specification or subheading of the Contract Documents may include work covered by two or more subcontracts or work in excess of any one subcontract.

#### 2.0 STANDARD SPECIFICATIONS

“The Standard Specifications for Public Works Construction, dated 1986, and the Standard Details for Public Works Construction, dated 1984, published by the Departments of Public Works, County of Kauai, City and County of Honolulu, County of Maui, County of Hawaii, of the State of Hawaii, herein referred to as the “Standard Specifications” and “Standard Details,” respectively, and the Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, dated 2005, published by the Department of Transportation, Highways Division, State of Hawaii, are hereby made a part of these Contract Documents.”

**\*\*END OF SECTION\*\***



## SECTION 01012

### SITE CONDITIONS

#### 1.0 RELATIONSHIP WITH EXISTING FACILITIES

The County of Maui's personnel will be responsible for maintaining and operating the existing Hana and Lanai Landfill facilities throughout the execution of this Contract. The Contractor therefore, shall at all times, take particular care to avoid needless confusion, clutter and debris at the site of the work. At no time shall the Contractor's personnel, agents, equipment or material prevent the rapid access by the County staff to the existing facilities. If it is necessary in the course of maintaining the facilities, for the County to request the Contractor to move his equipment, materials, or any material included in the work, he shall do so promptly and place the said equipment or material in an area which does not interfere with the performance of necessary maintenance.

#### 2.0 SITE INVESTIGATION AND REPRESENTATION

##### A. GENERAL

The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this Contract.

The Contractor further acknowledges that he is satisfied as to the character, quality, and quantity of surface and subsurface materials to be encountered from inspecting the site and from evaluating information derived exploratory work that may have been done by the County or included these Contract Documents. The Hana work is in native ground, rocky with soil under a grass surface. Lanai work: A few inches of left over concrete has been spread and set up under the containers without reinforcement. Under these "slabs" is cover soil of red dirt and refuse. Any failure by the Contractor to acquaint himself with all the available information will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work. The Contractor shall make his own deductions and conclusions as to the nature of the materials to be excavated, difficulties which may arise from subsurface conditions, and of doing any other work affected by the subsurface conditions, and shall accept full responsibility therefore.

##### B. JOINT SURVEY TO ESTABLISH AUTHENTICITY OF POSSIBLE DAMAGE

After the Contractor is awarded and before starting the work, the Contractor shall make a

thorough examination of all existing offices, dozers, solid disposal trucks, containers, structures, and other improvements in the vicinity of the work, as applicable, which might be damaged by his operations.

Examination of existing structures and other improvements in the vicinity of the work shall be made jointly by authorized representatives of the Contractor and the County. The scope of the examination shall include cracks in structures, settlement, leakage, and similar conditions.

Records of all observations shall be prepared by the Contractor and every copy of every document shall be signed by the authorized representative of the County and the Contractor. Photographs, as requested by the County, shall be made by the Contractor. One signed copy of every document and photograph will be kept on file in the office of the County Representative.

The above records and photographs are intended for use as indisputable evidence in ascertaining the extent of any damage which may occur as a result of the Contractor's operations and are for the protection of the adjacent property owners, the Contractor, and the County, and will be a means of determining whether and to what extent damage, resulting from the Contractor's operations, occurred during the Contract work.

### 3.0 WASTE DISPOSAL

Excess, nonconforming, or waste materials shall be disposed of within an authorized area in the existing landfill. All costs for hauling, moving, storing, handling, processing, and otherwise disposing of excess, nonconforming, or waste materials, shall be included in the contract item prices, and no additional compensation will be allowed.

### 4.0 INFORMATION ON SITE CONDITIONS

Subsoil investigations are not available for this project.

### 5.0 DIFFERING SUBSURFACE CONDITIONS

In the event subsurface or latent physical conditions are found materially different from those indicated in these documents, the Contractor shall promptly and before such conditions are disturbed, except in the event of an emergency, notify the County Representative in writing of such changed conditions. Upon encountering an unknown obstruction, however, the Contractor, at no change in contract price, shall remove any element which can be removed by powered hand spade or by one-cubic-yard capacity power shovel without drilling or blasting. If refuse is encountered, the Contractor shall follow the general precautions described in Section 01060, SAFETY AND HEALTH.

The County Representative will promptly and thoroughly investigate such conditions, and following this investigation, the Contractor shall proceed with the work, unless otherwise instructed by the County Representative. If the County Representative finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for

performing the work, the County Representative will recommend to the County the amount of adjustment in cost and time he considers reasonable. The County will make the final decision on all change orders to the Contract regarding any adjustment in cost or time for completion. Any claim of the Contractor for adjustment hereunder shall not be allowed unless he has given the required written notice.

#### 6.0 LANDFILL TRAFFIC AT ENTRANCE

The Contractor shall so conduct his operations at the Landfill entrance area as to offer the least possible obstruction and inconvenience to landfill operators and their routine operation, and he shall have under construction no greater amount of work than he can prosecute properly.

Local residents and Landfill staff shall be given advance notice that the access road will be closed to vehicular traffic whenever necessary for the normal prosecution of the work. Such notices shall be given by the Contractor either orally or by circular notice at least 24 hours prior to closing the access road.

#### 7.0 PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC

It shall be the Contractor's responsibility to save harmless any and all persons or other which might be endangered as a result of the proposed construction. The exact method of protection to the public is at the option of the Contractor, subject to approval of the County Representative, and shall be provided at no cost to the County.

#### 8.0 OBSTRUCTIONS

This item shall refer to obstructions which may be removed and do not require replacement. Obstructions to the construction such as but not limited to trees, tree roots, stumps, planters, rock walls, and debris of all types shall be removed by the Contractor at his own expense without additional compensation from the Owner unless otherwise specified or indicated. The obstructions shall be demolished, removed, and disposed of at an authorized area within the existing landfill. The Contractor shall verify obstructions to be removed with the County Representative prior to removing them. The County Representative will, if requested by the Contractor, make revisions to avoid major obstructions if such changes can be made without adversely affecting the intended functioning of the facility. The Contractor shall pay all costs resulting from such changes, unless otherwise agreed to as extra work in conformance with the General Conditions.

**\*\*END OF SECTION\*\***

## SECTION 01014

### WORK SEQUENCE

#### 1.0 CONTINUITY OF EXISTING LANDFILL OPERATION

##### A. GENERAL:

The County's landfill operation staff will be operating the existing Hana and Lanai Sanitary Landfills during construction of the **PHOTOVOLTAIC SYSTEMS AT HANA LANDFILL AND LANAI LANDFILL**. The Contractor will not be allowed to work in the active area of the site, where dump trucks are unloading refuse and this routine operation shall not be interrupted. The Contractor shall coordinate the work to avoid any interference with normal operation of landfill. The Contractor must maintain access for the County's landfill operation staff and public to these areas of the landfill through the existing entrance.

#### 2.0 SEQUENCE AND CONSTRUCTION SCHEDULE

The following is one work sequence alternative for the project. Refer to plans for detailed construction procedure of each phase.

- 1) Schedule the work with the County Representative.
- 2) Obtain electrical permit. Electrical permit will not be issued until Building Permit is approved. The County has submitted the Building Permit applications for both Hana and Lanai Landfill projects.
- 3) Set up safety work zone.
- 4) Layout project.
- 5) Locate staging areas.
- 6) Provide all temporary facilities including electrical service if required, water, temporary lighting, and sanitary facilities.
- 7) Construct structural systems.
- 8) Construct photovoltaic systems and electrical as required.
- 9) Construct battery systems.
- 10) Commission system.

**\*\*END OF SECTION\*\***

## SECTION 01015

### CONTRACTOR'S USE OF PREMISES

The County's operating personnel will be responsible for operating the existing Hana and Lanai Landfills throughout the execution of this contract. If it is necessary in the course of operating the landfill, for the Contractor to move his equipment, materials, or any material included in the work, he shall do so promptly and place that equipment or material in an area which does not interfere with the landfill operation.

The existing landfill will remain in operation throughout the execution of this contract. The Contractor shall schedule and conduct his work to minimize necessary interference with normal landfill operations and maintenance.

**\*\*END OF SECTION\*\***

## SECTION 01020

### PERMITS

#### 1.0 GENERAL

The Contractor must apply for and obtain the electrical permits for this project. The Contractor shall comply with conditions of all permits issued by utility companies and regulatory agencies in connection with all work under the contract and post as required.

#### 2.0 COST OF PERMITS

Contractor shall pay all charges imposed by utility companies, public agencies, or regulatory agencies, resulting from all permits other than filing fees for permits already obtained by the County. Contractor shall be responsible for conducting all tests and furnishing all materials, equipment, and labor necessary for compliance with the electrical permit. The County has submitted the Building Permit applications for both Hana and Lanai Landfill projects.

The required permits may include, but not be limited to, the following:

- 1) Building Permit
- 2) Electrical Permit

No separable or additional payment will be made for permits, but shall be considered incidental to the work and shall be included in various unit or lump sum bid items.

**\*\*END OF SECTION\*\***

## SECTION 01060

### SAFETY AND HEALTH

#### 1.0 GENERAL

The project involves potential exposure to solid waste. The Contractor shall be experienced and qualified to anticipate and meet the safety and health requirements of this project.

Solvents, gasoline, and other hazardous materials spill on the landfill area are hazardous to open flame, sparks, or unventilated occupancy. The Contractor shall take measures to assure his personnel observe proper safety precautions when working in these areas.

The Contractor shall do all work necessary for safety and be solely and completely responsible for conditions on the jobsites, including safety of persons and property during the Contract period.

The County Representative's review of the Contractor's performance does not include a review or approval of the adequacy of the Contractor's safety supervisor, the safety program or any safety measures taken in, on, or near the job site.

Provide for the protection of employees and others from fire, explosion, or asphyxiation caused by any gases encountered during construction and landfill leachate emitted from, and present within, the existing solid waste landfill.

#### 2.0 SAFETY AND HEALTH REGULATIONS

Safety provision shall conform to the Federal and State Departments of Labor Occupational Safety and Health Act (OHSA), and all other applicable Federal, State, County, and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified elsewhere in these Contract Documents. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations or relieve him of the penalties set forth therein.

The Contractor shall comply with all relevant provision of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act, as set forth in Title 29, C.F.R. Copies of these regulations may be obtained from Labor Building, 14<sup>th</sup> and Construction Avenue NW, Washington, D.C. 20013. Such compliance shall include, but not be specifically limited to, any and all protective devices, guards, restrains, locks, latches, switches, and other safety provisions that may be required or necessitated by state and federal safety regulations. The Contractor shall determine the specific requirements for safety provisions and shall cause inspections and reports by the appropriate safety authorities to be conducted to insure compliance with the intent of the regulations.

### 3.0 SAFE ACCESS TO THE WORK

The Contractor shall at all times provide proper facilities for safe access to the work by the County and his authorized representatives, and by all authorized government officials.

The Contractor shall inform employees and subcontractors and their employees of the potential danger in working on and near landfills.

### 4.0 CONSTRUCTION SAFETY AND HEALTH PLAN

Assign an individual serving as a Site Safety and Health Officer at the job site at all times during work who is responsible and authorized to supervise and enforce compliance with the site safety and health plan. In addition to the other items that shall be addressed, the site safety and health plan shall list the appropriate procedures to be followed in the event that hazardous wastes are encountered.

Preparation of the written site safety and health plan is the Contractor's responsibility, and no statement made in these provisions relieves the Contractor of responsibility for information included and implementation of the site safety and health plan. The Contractor's written site safety and health plan should include, but not be limited to:

- ☐ A list of chemical and physical hazards (such as methane exposure and electrical shock), allowable OSHA exposure levels, threshold limit values, other regulatory exposure levels, and the emergency response should an exposure or injury occurs.
- ☐ An emergency evacuation plan for immediate removal to a hospital or a doctor's care any person who may be injured on the job site including an evacuation plan routes to medical treatment, and emergency telephone numbers including hospital, ambulance, fire, sheriff/police, poison control, the County Representative, and others as deemed necessary.
- ☐ A list of safety and monitoring equipment at the job site and locations where equipment is stored or expected to be maintained.
- ☐ Monitoring equipment action levels, frequency of testing, and recommended responses. ☐ Procedures for entering confined spaces.
- ☐ Procedures to be followed if hazardous waste is encountered. Inform all workers and the public visiting the site of the potential for the presence of methane and other landfill gases emanating from the natural decomposition of refuse buried at or near the job site and the importance of safety precautions to ensure the safety of workers and the public.

### 5.0 WARNING

The Contractor is advised that portions of the work for **FURNISHING, DELIVERY, and INSTALLATION OF THE HANA and LANAI LANDFILL PHOTOVOLTAIC SYSTEMS AND BATTERIES** will be performed over and possibly in buried wastes and refuse. These buried materials decompose in the landfill, generating landfill gas typically composed of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), occasionally hydrogen sulfide (H<sub>2</sub>S), and



other gases dependent on the composition of the buried materials. These gases may migrate laterally away from the landfill, or vent through the landfill surface.

Some of the hazards associated with construction in landfill areas include, but are not limited to:

- ☐ Fires which may start spontaneously from exposed or decomposing refuse.
- ☐ Fires or explosions which may occur from the presence of methane gas.
- ☐ Landfill gases which may cause an oxygen deficiency in trenches, borings, manholes, catch basins, and other structures.
- ☐ Landfill gases that may cause acute toxic effects (e.g., H<sub>2</sub>S).
- ☐ Possible caving of trenches and excavations when working over or in refuse fills.
- ☐ Biological pathogens or other vectors.

The Contractor is entirely responsible for the health and safety of Contractor's personnel on the job site.

## 6.0 CONTRACTOR SAFETY EQUIPMENT

As part of the safety program, maintain at the job site safety equipment applicable to the work as prescribed by the governing safety authorities and all articles necessary for giving first aid to the injured.

Train all personnel in use of the appropriate safety equipment that would be utilized during the course of their work. It is the responsibility of the Site Safety and Health Officer to ascertain that all safety equipment is being used when appropriate.

## 7.0 ACCIDENT REPORTS

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the County Representative. In addition, the Contractor must promptly report in writing to the County Representative all accidents in connection with work, giving full details, names, and statements of witnesses.

If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the County Representative, giving full details of the claim.

## 8.0 TRAFFIC SAFETY AND ACCESS TO PROPERTY

Comply with all rules and regulations of the City, State, and County authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by express permission of the County. Conduct the work so as to assure the least possible obstruction to traffic both within and outside of the project site. Protect all obstructions within traveled roadways by installing approved signs, barricades, and lights where necessary for

the safety of the public. The convenience of the general public and residents adjacent to the project, and the protection of persons and property are of prime importance and shall be provided for in an adequate and satisfactory manner.

## 9.0 FIRE PREVENTION AND PROTECTION

The Contractor shall execute all work in a fire-safe manner. He shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable Federal, local, and State fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations, (NFPA No. 241) shall be followed.

## 10.0 PROTECTION OF PUBLIC PROPERTY

The Contractor shall employ such means and methods as necessary to adequately protect public property and property of the owner against damage. In the event of damage to such property, the Contractor shall, at his own expense, immediately restore the property to a condition equal to its original condition and to the satisfaction of the County Representative and the owner of said property.

**\*\*END OF SECTION\*\***

## SECTION 01200

### PROJECT MEETINGS

#### 1.0 PRECONSTRUCTION CONFERENCE

The County Representative will schedule and conduct one preconstruction conference prior to the commencement of any work at the site, to which all interested agencies including the Contractor and other County's staff will be invited to discuss their interests and requirements relating to the project. All subcontractor representatives shall attend. The purposes of the preconstruction conference will be:

- ☐ To review the initial construction schedule.
- ☐ To establish a working understanding among the various parties associated or affected by the work.
- ☐ To establish and review procedures for progress payment, notifications, approval, submittals, etc.
- ☐ To establish normal working hours for the work.
- ☐ To review safety standards and traffic control.
- ☐ To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction meeting the following:

- ☐ A list of proposed subcontractors.
- ☐ A preliminary schedule of submittals.
- ☐ A construction schedule.

#### 2.0 CONSTRUCTION PERIOD MEETINGS

Construction period meetings will be conducted at weekly intervals or at some other frequency if approved by the Contractor and the County Representative. These meetings shall be attended by the County Representative and the Contractor's Project Manager and any others that are invited by these people.

The purpose of these meetings shall be to determine the status of the work; to resolve conflicts; and, in general, to coordinate and facilitate expeditious prosecution of the work. The agenda of these project meetings will include reports on construction progress, payment requests, latest construction schedule update, the status of submittal reviews, the status of information requests, and any general business. The meetings will be conducted by the County Representative. The County Representative shall keep minutes of the proceedings. The minutes shall be typed and distributed to all attendees within 48 hours of each meeting.

The progress of the work and the construction schedule shall be reviewed at the progress meetings to verify:

- ☐ Actual start and finish dates of completed activities since the last progress meeting.
- ☐ Durations and progress of all activities not completed.
- ☐ Reason, time and cost data for change order work that is to be incorporated into the construction schedule.
- ☐ Payment due to the Contractor.
- ☐ Reason and duration of required revisions.

The Contractor shall submit a current construction schedule at the progress meeting in a Gant chart format. The construction schedule shall be in sufficient detail that the progress of the work can be evaluated accurately.

**\*\*END OF SECTION\*\***

## SECTION 01310

### CONSTRUCTION SCHEDULE

#### 1.0 SCOPE

This section specifies reports and schedules for planning and monitoring the progress of the work.

#### 2.0 DESCRIPTION

The Contractor shall provide a graphic construction schedule indicating the various subdivisions of the work and the dates of commencing and finishing each. The schedule will take into account the time of completion as specified in Section 01010 and the work sequence described in Section 01014.

**\*\*END OF SECTION\*\***

## SECTION 01500

### CONTRACTOR'S UTILITIES

#### 1.0 WATER

The Contractor shall pay for and shall construct all facilities necessary to furnish water for his use during construction. Water used for human consumption shall be kept free from contamination and shall conform to the requirements of the State and local authorities for potable water. The Contractor shall pay for all water used for the Contractor's operation prior to final acceptance.

#### 2.0 TEMPORARY LIGHTING

The Contractor shall provide temporary lighting in all work areas sufficient to maintain a lighting level during working hours not less than the lighting level required by OSHA standards.

#### 3.0 SANITARY FACILITIES

The Contractor shall provide suitable chemical toilets or water closets at appropriate locations within the site of the work. At the end of the job such toilets shall be removed completely.

**\*\*END OF SECTION\*\***

## SECTION 01560

### ENVIRONMENTAL CONTROLS

#### 1.0 GENERAL

Environmental pollution control shall consist of the protection of the environment from pollution during and as a result of construction operations under the Contract. The control of environmental pollution requires the consideration of air, water, and land, and involves dust, solid waste management, as well as other pollutants. It is the responsibility of the Contractor to investigate and comply with all applicable federal, state, and county laws and regulations concerning environmental pollution control and abatement.

#### 2.0 PROTECTION OF LAND RESOURCES

Land resources within the project area and outside the limits of permanent work performed under the Contract shall be preserved in their present condition or be restored to a natural condition that will not detract from the appearance of the surrounding area. Except in areas marked on the Drawings to be cleared, the Contractor shall not deface, injure or destroy trees or shrubs nor remove or cut them without approval by the County. Any tree or other landscape features scarred by the Contractor's equipment or operation shall be restored as nearly as possible to its original condition at the Contractor's expense.

#### 3.0 SITE MAINTENANCE

The Contractor shall keep the work site clean and free from rubbish and debris. Materials and equipment shall be removed from the site when they are no longer necessary. Upon completion of the work and before final acceptance, the work site shall be cleared of equipment, unused materials, and rubbish to present a clean and neat appearance.

#### 4.0 WORK HOURS

- C. GENERAL: Regular work hours shall be 7:00 AM to 4:00 PM, Monday to Friday, except County holidays. For work to be done outside regular hours, the Contractor shall submit written requests no later than the previous working day. Contractor shall pay for any overtime inspection for work occurring outside of regular hours.
- D. EQUIPMENT AND MATERIAL DELIVERIES: The Contractor shall notify all subcontractors, suppliers, and others that deliveries shall only be permitted during daylight hours between 7:00 AM to 4:00 PM, Monday through Friday. Special arrangements shall be made by the Contractor with County Representative for deliveries on Saturdays.

#### 5.0 WATER POLLUTION CONTROL

The Contractor shall not pollute water resources, including streams and drainage systems, with fuel, oils, bituminous materials, calcium chloride, acids, construction wastes, wash water or other harmful materials. Surface drainage from cuts and fills, whether or not completed, and from borrow and waste disposal areas, shall, if turbidity-producing materials are present, be held in suitable sedimentation ponds. Disposal of any material, garbage, oil, grease, chemicals, trash and other similar materials in areas adjacent to streams or drainage systems shall be subject to the review by the County Representative.

## 6.0 AIR POLLUTION CONTROL

The Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate the regulations of any legally constituted authority. He shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water shall be minimal.

Sprinkling must be repeated at such intervals as to keep all pavements and disturbed areas at least damp enough to prevent dust nuisance at all times, and the Contractor shall have suitable and sufficient equipment on the job to accomplish this work.

## 7.0 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps to prevent any interference of disturbance to fish and wildlife.

## 8.0 PROTECTION OF PROPERTY

The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in other manner acceptable to the County.

Contractor shall be responsible for all damage to structures, utilities, streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or personnel to or from the work or any part of the site thereof, whether by him or his subcontractors. Contractor shall make satisfactory and acceptable arrangements with the owner of, or agency or authority having jurisdiction over, the damaged property concerning its repair or replacement of payment of costs in connection with the damage.

**\*\*END OF SECTION\*\***



## SECTION 01580

### PROJECT IDENTIFICATION SIGNS

The Contractor, as an incidental part of the contract, shall erect a sign identifying the project in accordance with Section 56 of the Standard Specifications and at the location as directed by the County Representative.

- (a) Workmanship: All workmanship shall be of the first class and best known for the various trades required for the various trades required for the installation of the sign.
- (b) Material: Sign panel shall be of new 3/4 -inch-thick waterproof fir plywood, 4 feet in height and 8 feet long.
- (c) Posts: Shall be 4 inch by 4 inch and shall be of new Douglas fir, dry, undamaged, well-seasoned and free from defects which may impair its strength and durability. Nails: Shall be galvanized.
- (d) Painting: Sign panel and posts shall be painted with one (1) prime coat and two (2) finish coats of exterior enamel paint.
- (e) Lettering: Shall be of sufficient size to be readily readable from 50 feet and in block type lettering; the use of stencils will not be permitted.
- (f) Contractor: Shall check with the color of the sign and the information necessary to be displayed on the project sign.
- (g) Responsibility: The Contractor shall assume all responsibilities in maintaining the sign in good, legible condition and free from any damage during the entire construction period, and shall make good all such repair at no cost to the County.

**\*\*END OF SECTION\*\***

## SECTION 01705

### PROJECT CLOSEOUT

#### 1.0 GENERAL

It is the intent of these Contract Documents that the Contractor shall deliver a complete and usable facility capable of performing its intended functions and ready for use.

#### 2.0 CLEAN UP AND WASTE DISPOSAL

Clean up and waste disposal shall conform to the requirements specified in Section 01710, Cleaning.

#### 3.0 PROJECT RECORD DOCUMENT

The Contractor shall have three copies of the As-Built Drawings in good order and marked to record all changes made during construction available to the County. These documents shall be delivered to the County Representative upon completion and prior to acceptance of the work. Marking of the drawings shall be kept current and be done at the time the material is installed. These drawings shall be presented monthly to the County Representative to review.

#### 4.0 TOUCH-UP AND REPAIR

The Contractor shall touch-up or repair finished surfaces on structures that have been damaged prior to final acceptance. Surfaces on which such touch-up or repair cannot be successfully accomplished shall be completely refinished or, in the case of hardware and similar small items, the item shall be replaced.

#### 5.0 TESTING AND COMMISSIONING

The Contractor shall test and commission the systems to verify they are in proper working order. Systems and Batteries shall be complete in every detail and ready for use.

#### 6.0 WARRANTY

The Contractor and Contractor's sureties shall be responsible for the work for a period of one (1) year following final acceptance to be free from defects in workmanship and materials. Product warranties, as applicable, beyond the one (1) year Contractor warranty shall be secured in the name of the County of Maui and furnished to the County prior to final payment request. (Section 6.41 of General Conditions)

**\*\*END OF SECTION\*\***

## SECTION 01710

### CLEANING

#### 1.0 GENERAL

This section covers the work necessary for cleaning during construction and final cleaning on completion of the work.

At all times maintain areas covered by the contract and public properties free from accumulations of waste, debris, and rubbish caused by construction operations.

Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn rubbish and waste materials on the project site. Do not dispose of wastes into streams or waterways. The Contractor shall dispose of surplus materials, waste products and debris within the landfill at locations to be directed by the County Representative, except selected material which may be required for embankment, backfill, or grading.

Disposal operations shall not create unsightly or unsanitary nuisances.

The Contractor shall maintain the disposal site in a condition of good appearance and safety during the construction period.

#### 2.0 CLEANING DURING CONSTRUCTION

During execution of work, dispose of waste materials, debris, and rubbish to assure that work areas are maintained free from accumulations of waste materials and rubbish. Wet down dry materials and rubbish to prevent blowing dust.

Provide approved containers for collection and disposal of waste materials, debris, and rubbish.

Broom clean paved surfaces; rake clean other surfaces of grounds. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet surfaces.

Grubbed materials, demolished cement-treated base, and other construction wastes will be removed and stockpiled temporarily and will be dispatched to disposal sites at the end of each day.

#### 3.0 SITE CLEANING

Surfaces of the grounds shall be raked clean. The County will not authorize final payment until the Contractor has removed all rubble and debris from the street and adjoining work areas, including all temporary storage and parking areas used by the Contractor.

All temporary utility drops, fencing, and water supply outlets shall be removed.

All site access and project identification signs, barricades, tools, rubbish collection receptacles and other such items shall be removed by the Contractor.

All remaining earthen stockpiles of excess excavated material shall be removed and disposed of at an authorized area within the landfill.

#### 4.0 FINAL CLEANING

Upon completion of the work, and prior to final acceptance, the Contractor shall remove from the vicinity of the work all plant, surplus material, temporary structures, and equipment belonging to him or used under his direction during construction.

The County will assume responsibility for cleaning as of the date of beneficial occupancy of the project or portions thereof.

**\*\*END OF SECTION\*\***